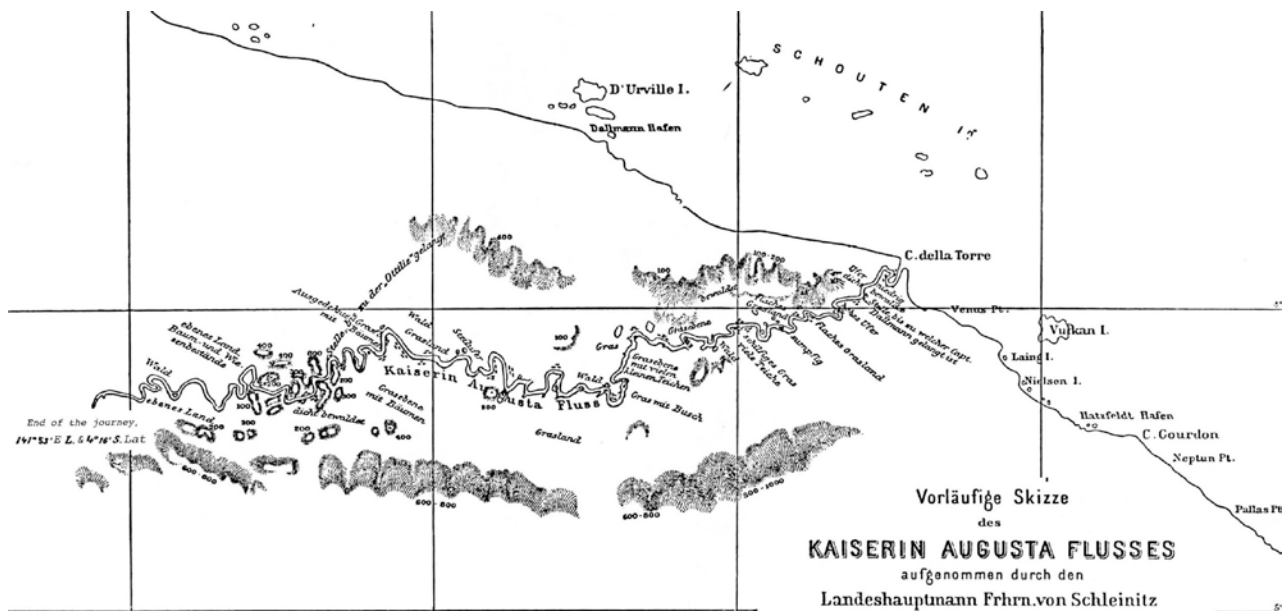


THE EMPRESS AUGUSTA / SEPIK RIVER

BY

DR OTTO RECHE



Translated by John Dennison

Edited by John Dennison and Glenn R. Summerhayes

University of Otago Working Papers in Anthropology · No. 3

Published by

Department of Anthropology & Archaeology · University of Otago
2015

SERIES EDITORS:

**Glenn R. Summerhayes
Richard Walter
Les O'Neil**

**Department of Anthropology & Archaeology
University of Otago
Dunedin
New Zealand**

ISBN-13 978-0-9922626-2-4

HAMBURG SCIENTIFIC INSTITUTE

**RESULTS
OF THE
EXPEDITION TO THE SOUTH SEAS
1908 – 1910**

EDITED BY

PROF. G. THILENIUS

DIRECTOR OF THE HAMBURG MUSEUM OF ETHNOLOGY

**II. ETHNOGRAPHY: A. MELANESIA
VOLUME 1**

OTTO RECHE

**THE EMPRESS AUGUSTA /
SEPIK RIVER**

HAMBURG

L. FRIEDERICHSEN & CO.

(Dr L. and R. Friederichsen)

1913

HAMBURGISCHE WISSENSCHAFTLICHE STIFTUNG

**ERGEBNISSE
DER
SÜDSEE-EXPEDITION
1908-1910**

HERAUSGEGEBEN VON
PROF. G. THILENIUS
DIREKTOR DES MUSEUMS FÜR VÖLKERKUNDE IN HAMBURG

II. ETHNOGRAPHIE: A. MELANESIEN
BAND 1

OTTO RECHE

DER KAISERIN-AUGUSTA-FLUSS

HAMBURG
L. FRIEDERICHSEN & Co.

(Dr L. u. R. Friederichsen)

1913

THE EMPRESS AUGUSTA / SEPIK RIVER

BY

DR OTTO RECHE

HEAD OF DEPARTMENT AT THE HAMBURG MUSEUM OF ETHNOLOGY

WITH 475 TEXT FIGURES,
88 PLATES AND 1 MAP

HAMBURG
L. FRIEDERICHSEN & CO.
(Dr L. and R. Friederichsen)
1913

DER
KAISERIN-AUGUSTA-FLUSS

VON
DR. OTTO RECHE
ABTEILUNGSVORSTEHER AM HAMBURGISCHEN MUSEUM FÜR VÖLKERKUNDE

MIT 475 ABBILDUNGEN IM TEXT,
88 LICHTDRUCKTAFELN UND 1 KARTE



HAMBURG
L. FRIEDERICHSEN & CO.
(Dr. L. u. R. Friederichsen)
1913

FOREWORD

The 'Empress Augusta River' is the third volume from the Hamburg Südsee Expedition that John Dennison has translated. The two previous volumes, Nevermann's *St Matthias Group* (University of Otago Studies in Prehistoric Anthropology No. 22), and his *Admiralty Islands* (University of Otago Working Papers in Anthropology No.1) came out in 2010 and 2013 respectively. These volumes have allowed many within Papua New Guinea to read the stories recorded by the Germans at the beginning of the twentieth century. As noted in previous forewords, Summerhayes found a thirst for the knowledge of the regions past wherever he went in PNG. The Mussau and Manus volumes have been very well received by the people of New Ireland and Manus. We are both proud that we can make such a contribution, particularly John, who spends years in translating these great works. This volume is important for many reasons, not the least of which are personal.

The Chief Archaeologist of Papua New Guinea, Mr Herman Mandui, was a proud Sepik. He had worked with Summerhayes since the early 1990s, first as a student, later as a colleague, and then as one of the leaders of cultural heritage of the nation state Papua New Guinea. At all times, he was a close friend and mentor. In 2014 he joined both Summerhayes and Dennison in bringing copies of the translations to New Ireland Province. When Herman found out that we had selected the Sepik as the next translation, he was excited, and thankful for John Dennison's work, which he knew would take at least two years or more to complete. Herman Mandui was a very, very proud Sepik. His father was from Parom Village, west of Wewak. Unfortunately, Herman passed away at a far-too-young age of 45, from complications arising from tuberculosis (TB).

We dedicate this book to Herman, who strove to bring his people's past to life. We are both very proud to have known Herman. He had influenced us, and many of our colleagues and our students. He will be sorely missed.

Glenn R. Summerhayes and John Dennison



Summerhayes, Dennison and Mandui



Mandui in the Field



Herman Mandui teaching archaeology to the next generation

Translator's Preface

This detailed study of the Sepik River continues a series, and follows:

Admiralty Islands, translation of Nevermann H. (1934): Admiraltäts-Inseln: Ergebnisse der Südsee-Expedition, II. A.3. (Ed. John Dennison, Glenn R. Summerhayes. University of Otago Working Papers in Anthropology, N° 1.) Seattle, Amazon. 382 p. (2013) [978-1492739388]

St Matthias Group, translation of Nevermann H. (1933): St. Matthias-Gruppe: Ergebnisse der Südsee-Expedition, II. A.2. (Ed. John Dennison, Glenn R. Summerhayes, Lisa Matisoo-Smith. University of Otago Studies in Prehistoric Anthropology, N° 22.) Seattle, Amazon. 230 p. (2011) [978-1460976388]

St Matthias Group, translation of Nevermann H. (1933): St. Matthias-Gruppe: Ergebnisse der Südsee-Expedition, II. A.2. (Ed. John Dennison, Glenn R. Summerhayes, Lisa Matisoo-Smith. University of Otago Studies in Prehistoric Anthropology, N° 22.) Dunedin, Department of Anthropology, University of Otago. 209 p. (2010) [ISSN 0110-3709]

Thirty Years in the South Seas. Land and People, Customs and Traditions in the Bismarck Archipelago and on the German Solomon Islands, translation of Parkinson, R. (1907): Dreißig Jahre in der Südsee. Land und Leute, Sitten und Gebräuche im Bismarckarchipel und auf den deutschen Salomoninseln. Bathurst NSW, Crawford House Publishing (1999) xxxviii + 378 p. [ISBN 1-86333-167-0]

Translation of this 488-page volume started, initially, in July 1999 and, apart from some minor health interruptions, a publisher disruption, and my retirement from teaching, has finally come to fruition. As I have written previously, at the end of a long day's teaching gross anatomy, carrying out physical anthropological research, or conducting a skeletal forensic investigation, it is quite relaxing to translate the findings from research undertaken well over a hundred years ago, published 102 years ago, and to make this available to modern scholars.

Technology has advanced a long way since I completed the Parkinson translation sixteen years ago — *Adobe Acrobat Pro* version of this current, typeset translation will be transmitted electronically, directly to the publisher, rather than via two 1.3 MB diskettes on that long-ago occasion.

Once again, I owe so much to my wife, Ann, who proofread my draft for spelling and phrasing, and then very patiently discussed my draft with me, often far into the night. I am grateful to the staff of the Hocken Library of the University of Otago, the repository of our irreplaceable historical works, who had no problem with providing two photocopies of this entire work, so that the translation could be undertaken. And I am grateful to Professor Glenn Summerhayes, Department of Anthropology and Archaeology, University of Otago who, when an earlier avenue of publication became no longer viable, opened up another avenue.

We are a team, who have worked together to make this volume by Otto Reche and his team available to you. I wish you well in your research.

K.J. Dennison
Dunedin, September 2015

Contents

	Page
Introduction	1
General Section	
I. History	
Voyages of discovery	5
Voyage of the <i>Peiho</i>	12
II. Geography	
Name of the river	19
Geology of the region	19
Description of the river	20
Comments on the map	33
The climate of the region	33
Flora	34
Fauna	36
III. Settlement	37
IV. The Natives	
Anthropology	41
Psychological	48
Medical	52
V. The Language	54
Specialist Section	
I. Material Culture	
Clothing and Ornammentation	
a) Clothing	55
b) Ornammentation	70
c) Decorative scarification	99
d) Body painting	101
e) Deformation	103
Houses and Dwellings	
a) The coastal type	105
b) House type II	120
c) House type III	127
Village location	161
Household items and utensils	
a) Sleeping equipment	162
b) Mosquito whisks	166
c) Seating	167
d) Ladders	171
e) Hanging hooks	172
f) Dishes	179
a) Bowls made from leaf sheaths	179
b) Wooden dishes	180
c) Oil containers made from gourds.	188
d) Clay vessels	188
e) Ladles	211
g) Cooking utensils	211
h) Eating utensils	213
i) Baskets and bags	216

Working tools	226
Technology	232
Foodstuffs and semi-luxury foods	
a) Foodstuffs	243
b) Acquisition of food.	245
c) Stimulants	255
Domestic animals	274
Navigation	276
Trade and communication	286
War and weapons	
a) Warfare	290
b) War decoration	291
c) Weapons	296
II. Intellectual Culture	
Family and society	
a) Social levels	347
b) The position of women	348
c) Usages and customs	349
Religion	
a) Humanism.	355
b) Amulets	393
c) Symbolic figures	397
Totemism.	400
Music and dancing	
a) General	401
b) Dance masks	402
a) Skull masks	402
b) Wooden masks	403
c) Plaited masks	411
d) Animal figures.	415
c) Dance decoration	418
d) Dance implements	426
e) Musical instruments	432
a) Blowing instruments	432
b) Drums	437
c) String instruments	452
f) Singing	452
Toys	454
Visual art	457
a) General	457
b) Motifs used	458
c) Influence of the raw material	464
d) Style provinces	465
Comparative Section	
I. Cultural regions	468
II. Ethnographic situation	
Connections with other regions	474
Cultural sphere	477
Postscript	479

Bibliography	481
Map	489

List of Plates

	Page
Plate I	13
1. Canal at Sīngrīn. 2. Peiho on the river	
Plate II	27
1. Casuarinas near the river mouth. 2. Sago thicket not far from the river mouth. 3. Virgin forest on the left bank above Sīngrīn. 4. High forest of the middle reaches	
Plate III	40
1. Above Mālu, view downstream. 2. The village of Mālu on the slopes of the Hunstein Range. 3. Reeds and wild sugar cane in the middle reaches. 4. The village of Āmnīm	
Plate IV	43
1. Man from Kōpār. 2. Men from Kāmbrīnūm	
Plate V	45
1. Men from Muǎngēm. 2. Men from Kāmbrīngī	
Plate VI	47
1. Men from Kāmbrīngī. 2. Women from the 252 km-village. 3. People from Mālu. 4. Mālu women	
Plate VII	57
Tapa aprons H.E. 4105, 4041, 4042, Lü.6975	
Plate VIII	65
Women's kilts St.Ha. 61556, 61724, 61607	
Plate IX	69
Hoods H.S.9163, St.Ha.61635, H.S. 9086, 6645, 6646, 9210	
Plate X	72
Hoods after Schmelz, H.E.2352, Lü.6988c; skin cap H.S.9359; headbands H.S.9063, St.Bä.6667, St.Ha.61633; head finery H.S.9144	
Plate XI	75
1. Mālu men. 2. Mālu men	
Plate XII	77
Headband St.Ha.61552; 2. Hair ornament H.S.6653; 3. Men from Kāmbrīngī	
Plate XIII	97
Hair ornament St.I.C.6339; ear ornament after Schlaginhausen; woman's chest ornament H.S.6680; arm bands St.Ha.61679, St.I.C.6343, H.S.9264, St.He.60626	
Plate XIV	106
1. Dwelling in the village of Kōpār. 2. House in the village of Kōpār	
Plate XV	109
1. House in Kėrkėr. 2. Interior of a dwelling in Īmbāntōn	

Plate XVI	.....	111
	1. Frame for household implements in a house in Kōpǎr.	
	2. Lean-to inside a house in the village of Kĕrkĕr	
Plate XVII	.....	114
	Painted pieces of bark H.S.4567, 1833, 1834, St.Ha.61727, and after Schlaginhaufen	
Plate XVIII	.....	117
	Painted pieces of bark H.S. 1830, 6556, 1828, and after Schlaginhaufen	
Plate XIX	.....	119
	Carved boards H.S. 1823a, 1826a, 1825, 6577	
Plate XX	.....	121
	Filigree-carved boards H.Th.11,88:37, H.S. 1822a, 1826	
Plate XXI	.....	124
	1. An Ĭmbǎntōn house. 2. Ceremonial house in Āngōrōm, in front of it a framework with sago stores	
Plate XXII	.....	125
	1. and 2. Ceremonial house in Kǎmbrīnŭm, 3. and 4. Mŭǎngĕm houses	
Plate XXIII	.....	128
	1. Ceremonial house in Ĭmbǎntōn. 2. Ceremonial house in Mŭǎngĕm	
Plate XXIV	.....	129
	1. Platform with a corpse, Āngōrōm. 2. Frame with sago stores, Mŭǎngĕm	
Plate XXV	.....	131
	1. A dwelling in 252 km-village. 2. Dwellings in 252 km-village	
Plate XXVI	.....	132
	1. Kǎmbrīngī dwelling house. 2. Kǎmbrīngī dwelling.	
	3. Mǎlu dwelling. 4. Dwelling house in 343 km-village	
Plate XXVII	.....	135
	Dwelling houses in 252 km-village. 2. Kǎmbrīngī dwellings	
Plate XXVIII	.....	136
	1. Small house, Mǎndǎnǎm. 2. Ceremonial house, 252 km-village	
Plate XXIX	.....	139
	1. Gable of a ceremonial house. 2. Ceremonial house in 293 km-village	
Plate XXX	.....	140
	1. Kǎmbrīngī ceremonial house. 2. Ceremonial house under construction in 375 km-village	
Plate XXXI	.....	141
	1. and 2. Ceremonial house in 375 km-village	
Plate XXXII	.....	143
	Gable masks H.S. 9368a, 9368, and H.Th.11,88:36	
Plate XXXIII	.....	144
	1. House pole, 375 km-village. 2. Old house pole, Mǎndǎnǎm	
Plate XXXIV	.....	146
	Tower decoration	

Plate XXXV	.....	151
	1. Dwelling house under construction in 293 km-village.	
	2. Ceremonial house in 252 km-village	
Plate XXXVI	.....	153
	1. Ceremonial house in Mǎlu. 2. Stone with a facial image, 293 km-village. 3. Carved fence palings of a ceremonial house	
Plate XXXVII	.....	156
	Carved posts St.Ha. 61619, 61621, 61721	
Plate XXXVIII	.....	157
	1. House in Mǎndānām with a grave beneath it. 2. Skulls in the ceremonial house in 375 km-village	
Plate XXXIX	.....	160
	1. Reception house in 293 km-village. 2. Tree house in 252 km-village. 3. Canoes from the village of Mǎjūm	
Plate XL	.....	170
	Large chair out of a ceremonial house in 293 km village; neck rest L.Me.7038; hanging hooks L.Me.9162, St.Ha. 61533, 61671, 61620, and H.Th.11,88:38)	
Plate XLI	.....	178
	Hanging hooks St.Ha.61715, H.S. 6659, 6660; larder H.S.8981; betel mortars L.Me. 7069, 9135; clay vessels H.S.9242, 4505	
Plate XLII	.....	181
	Clay bowls H.S. 6638, 4503, 9137, 6575, 9157, 9232, Schlaginhaufen; eating dish H.S.1793	
Plate XLIII	.....	201
	Clay bowl H.S.9180	
Plate XLIV	.....	206
	Hair pin H.S.9049; clay bowl H.S.6552; club H.S.1890	
Plate XLV	.....	209
	Pots H.S. 9156, 6613, 6614, 6615, and after Schlaginhaufen	
Plate XLVI	.....	217
	Pot H.S.6612; taro crusher St.Ha.61586; basket H.S.4563; bags H.S. 4553, 9190, 6749, 9170, 9253, 6732	
Plate XLVII	.....	219
	Bags H.3043:05, H.E.4043, H.S.1804, 9112	
Plate XLVIII	.....	221
	Net bags H.S. 9110, 8994, 9115, 9266	
Plate XLIX	.....	224
	Bags H.Th.11,88:45, L.Me.4860, H.S.6705	
Plate L	.....	225
	Bags H.S.9365, St.Ha.61632, Lü.6987e	
Plate LI	.....	250
	Outer surface of fireplace H.S.6623; fragments of a clay bowl; fish traps H.S.6573, 6572, 9303, 9304	
Plate LII	.....	253
	Fish landing net H.S.9255; fishing spear H.S. 1763, 9022, 9080; decorative addition St.Ha.61655; sleeping bag H.S.9373	

Plate LIII	.....	254
	1. Apparatus for washing sago. 2. Large nets at a dwelling house in Mālu	
Plate LIV	.....	275
	1. Opened sago stem. 2. Fish trap site. 3. Canoes from 252 km-village. 4. Canoes from 375 km-village)	
Plate LV	.....	277
	Canoe prows H.Th.11,88:41, H.S. 6578, 9047, 9044	
Plate LVI	.....	288
	1. Bridge in 252 km-village. 2 and 3. Canoe battle shields H.S.6563 and L.Me.7270	
Plate LVII	.....	294
	Canoe battle shields H.S. 9064, 9254, St.Ha.61726; masks St.Ha.60601 and L.Me.8955	
Plate LVIII	.....	297
	Shields F.N.S. 6272, 6271, L.Me. 7868, 8769, St.Ha.61615	
Plate LIX	.....	300
	Shields H.Do.11,32:6, H.S. 8988, 6567	
Plate LX	.....	303
	Shields H.S. 9027, 4560, St.Ha. 61618, 61617, H.Th.11,88:46	
Plate LXI	.....	306
	H.S. 9224, 4524, 9362	
Plate LXII	.....	317
	Launched spears H.S. 6746, 6743, 6741, 6747, 1766, 1817; lances H.S. 1774, 1773, 6716, 9193	
Plate LXIII	.....	329
	Lances H.S. 9330, 9326, 1769, 1814, 6568, 1776, 9195, 6674, 9175	
Plate LXIV	.....	340
	Arrows H.S. 1780, 1782, 1785, 1786, 1787, 1788, 1789, 1790	
Plate LXV	.....	351
	Bull-roarer H.S.6596; pouch with teeth H.S.9225/1; skull H.S.A.777	
Plate LXVI	.....	360
	Skulls H.S.A.778, H.S. 4561, 9227	
Plate LXVII	.....	362
	Skulls H.S.9226, St.Kr.61165	
Plate LXVIII	.....	366
	Skulls St.Kr.61166, H.S.4507	
Plate LXIX	.....	368
	Skulls H.S.A.845, H.Do.11,32:5	
Plate LXX	.....	374
	Memorial images St.Ha. 61592, 61626, 61693, 61690, L.Me. 8968, 9142, 8966, 9159, 9137, 9215	
Plate LXXI	.....	379
	Memorial images St.Ha. 61639, 61600, L. Me. 8962, 8822, 518, 7278, 9147, 9139	

Plate LXXII	.....	381
	Memorial images L.Me.9163, St.Ha. 61627, 61610, 61622, 61623, H.Th.11,88:40	
Plate LXXIII	.....	383
	Skull H.S.A.748; clay pig's head; skull from the Admiralty Islands	
Plate LXXIV	.....	390
	Skull H.S.4516	
Plate LXXV	.....	394
	Wooden figures H.Do.11,32:8, L.Me.8979, 9132, H.S. 9009, 6527a	
Plate LXXVI	.....	398
	Amulet mask L.Me.9653; snake H.S.6658; cult figure St.Ha.61611; crocodile figure St.Ha.61653	
Plate LXXVII	.....	404
	Carving, after von Luschan; wooden masks L.Me.9202, H.S. 1823, 6029, 9251, St.Ha. 61707, 61604, 61602	
Plate LXXVIII	.....	407
	Masks St.He.60611, H.S. 6726, 6544, 6629, L.Me. 9106, 7275	
Plate LXXIX	.....	413
	Plaited masks H.S. 6628, 6627, 9370, 9384, St.Ha.61631	
Plate LXXX	.....	416
	Plaited masks H.S.9371, F.N.S.6235; mask costumes H.S. 6648, St.Ha.61612	
Plate LXXXI	.....	417
	Plaited crocodile figure H.S.6649; plaited bird figure H.S.7132; memorial figure H.Do.11,32:7	
Plate LXXXII	.....	419
	Dance hip ornaments H.S. 9372, 6655, 9367	
Plate LXXXIII	.....	422
	Dance hip decoration H.S.6654, St.Ha. 61728; dance hat, after Schlaginhausen; headdress, after von Luschan; fish figure with H.S.6722	
Plate LXXXIV	.....	424
	Hair ornament H.S.6652; decorative plates H.S. 6719, 9228; dance baton H.S.6555, St.Ha.61603; dance rattles St.Ha.61634, L.Me.9020; carving H.S.9054	
Plate LXXXV	.....	429
	Dance spears H.S. 6582, 6595, 6588, 6591, 6593, 6590, St.Ha.61748	
Plate LXXXVI	.....	449
	Slit drums H.S.9001, St.Ha.61787; drum handle L.Me.8965; slit drum H.S.8998; handle of the drum illustrated on Plate LXXXVII,2	
Plate LXXXVII	.....	451
	Slit drum H.S.9065; slit drum from Măndărnă	
Plate LXXXVIII	.....	453
	1. Horn H.S.9230. 2. slit drum H.S.9087 with handle	

Seldom has the discovery of a new ethnographical province brought such astonishment to the experts as that of the Empress Augusta River: in the midst of more primitive surroundings there exists a culture of a height and richness of form such as one would never have expected; and, what is even more surprising, is that twenty-five years ago two major expeditions had gone up the river and had seen nothing in an ethnographical connection so to speak. In their efforts to press as far upstream as possible they had steamed past the wonderful cultural centres, and were not able to report anything to which their attention had been directed, back to Europe.

And so the ethnographical discovery of the Empress Augusta River was reserved for our century. It was not until 1908 and 1909 that the spell that had lain for so long over the secret river was broken. 1908 to some extent brought the harbinger: two smaller journeys undertaken for economic reasons. One of them penetrated halfway up the river, and for the first time allowed an albeit fleeting glance into the region by an ethnologist. Then, in 1909, came the first major attempt, the expedition of the *Hamburgische Wissenschaftliche Stiftung*, the first and, until now, the only one to explore the river for purely ethnological and anthropological reasons, devoting their whole time and effort to these scientific purposes.

The outcome of the brief reports was that the river, isolated for so long, suddenly developed an astonishing magnetism. Almost every expedition that spent time in the protectorate explored the river, and in the period following our journeys, to the best of my knowledge, for various reasons no fewer than a dozen steamers have travelled up the river.

Due to time constraint we must restrict ourselves essentially to the peripherals, the study of material culture, while not neglecting wherever possible to focus ourselves on the way of life and the physical and intellectual characteristics of the inhabitants. What was of special interest was the geographical environment in which such a high culture had been able to evolve. Numerous photographs complement our written record. Unfortunately, in all our tasks we had to labour against a great difficulty: there was no interpreter who could master even fragments of the language indigenous to the middle reaches of the river. Understanding with the natives was therefore often extremely difficult, and almost universally we were regarded, at the very least, with mistrust. The people, who for the most part had never [2] seen a white person, at least not close up, were unable, with the best will in the world, to understand exactly what we wanted of them.

What we now know of the indigenous cultures on the Empress Augusta River, notwithstanding the many voyages of recent years and the publications that have appeared, is only the outer surface, a fraction of the material culture. We still know virtually nothing about the intellectual makeup; there too I can only express the odd opinion based on our observations. However, everything seems to indicate that further major surprises are imminent right here; that here we will find the key to so many conundrums of the South Seas, for here we have before us the sole higher culture that kind Fate has preserved in its original virgin state right up to our days, preserved from European influence. Yet it will require long, arduous work to uplift this treasure because the New Guinea person does not easily allow foreigners, especially white people, to peer inside him, and so many more years will go by before science has completely penetrated the innermost being of this culture.

In spite of all this, if I undertake to write a type of 'monograph' on the Empress

Augusta River, even at this stage when our knowledge is so incomplete, I want it to assist the further exploration of this river by making available the rich material gathered from it so far, and the wealth of scattered, often-elusive data. Only with an accurate knowledge of what has already been achieved, will further work be successfully accomplished. Of the numerous items — indeed over the last three years such an infinite amount has been shipped out of the territory — there are probably no more individual good pieces out there, and so many of the pieces collected will engender new ideas and give rise to new questions.

I regarded it as my mission to bring together everything possible that was available to me. For this purpose I went first to the literature. I found so many interesting and significant articles scattered far and wide, often in very inaccessible places. Unfortunately I was unable to take stock of all the collections established so far, because not all museums allowed me access to their material. However, as far as I know, those collections did not include anything that could significantly alter the picture unfolded here.

The collections that I have studied include the following:

1) Collection of the *Hamburgische Wissenschaftliche Stiftung*. Assembled by the participants in the voyage of the *Peiho*, Professor Dr Fülleborn, Dr Müller, F.E. Hellwig and myself; I have concentrated particularly on only about a hundred items, since the anthropological task devolved mainly upon me. Overall the collection contains about 900 items. The collection of photographs taken during the journey was assembled by Prof. Fülleborn. [3]

2) Collections of the *Hamburgische Museum für Völkerkunde*:

a) The old collection contains a number of interesting items from the estuarine region.

b) Thiel collection: this was obtained on the river in recent years and was donated to the Hamburg Museum by Consul Thiel.

c) Dominik collection: donated to the Hamburg Museum by Lieutenant Dominik. The specimens were collected in November 1910 by Captain Wittstock, commander of the steamer *Delphin*.

Items from these four collections are designated in the text by the following abbreviations placed in front of the numbers: H.S. (= collection No. 1); H. (with E. or . . . : 05 = collection No. 2a); H.Th. (= collection No. 2b); and H.Do. (= collection No. 2c).

3) The collections of the Linden Museum in Stuttgart contain the following items from the Empress Augusta River:

a) Haug collection, assembled in 1909 by Captain Haug during the voyage of the *Siar*. Next to the collection of the *Hamburgische Wissenschaftliche Stiftung* this is the most significant, and comprises around 500 items, among which are the most extraordinary and interesting specimens. Unfortunately the labels of the items and their provenances are not always reliable, as it appears that the collector has written a portion of the labels from memory, after returning home, (the collection is designated in the text by St.Ha.).

b) Bässler collection: it contains a number of good, old pieces from around the river mouth. The donor has purchased them from various collectors, probably mostly South Seas captains; the provenances are not always completely reliable. (Designated in the text as St.Bä.).

c) The Krockenberger, Hefele, and Hornung collections (St.Kr., St.He., and St.Hor. in the text) comprise a total of about fifty pieces; these were collected between 1909 and 1911.

4) The Augusta River items in the Grassi Museum, Leipzig, were acquired as smaller collections from various travellers and sea captains (for example Leidecker, Knoth, Schmidt) and not always provided with totally accurate information on the part of the collector. (Designated as L.Me. in the text).

5) The *Völkermuseum zu Frankfurt am Main* has only a few specimens from the Empress Augusta River itself, but these are all the more interesting as comparative material for that very reason: (Fr. in the text).

6) The *Museum zu Lübeck* placed Augusta River items at my disposal. There were around thirty pieces, which had been donated to the museum in 1912 by Mr Emanuel Lindenberg of Herbertshöhe; they do not appear to have been collected by Mr Lindenberg himself, but to have been acquired from other sources. (Lü in the text).

In total therefore, about 1500 specimens were available for use in the study. [4]

I am impelled at this point to express my most grateful thanks to the museum heads and directors, Prof. G. Thilenius (Hamburg), Prof. A. Krämer (Stuttgart), Hofrat Dr B. Hagen (Frankfurt), Prof. K. Weule (Leipzig) and Dr Karutz (Lübeck) and their officials for most graciously permitting me to publish the material.

I was not given access to the collections of the *Museum für Völkerkunde* in Berlin nor those of the *Städtisches Museum* in Bremen. From Berlin I received only sketches of two items collected in 1887. I am obliged to Dr Ankermann for these.

The illustrations in my work were prepared by the lady illustrators of the *Hamburgisches Museum*: M. Studt, E. Mansfeld, and J. Schultze.

I need to provide a fairly extensive explanation of our linguistic notes. The possibility of relatively smooth comprehension — by the aid of pidgin English, naturally — existed only in the region around the river mouth. The names of villages, and local names for objects are, therefore, fairly reliable. However, the further upriver the more uncertain are the results, and so many misinterpretations will have crept into oral designations originating from the middle reaches of the river. Indeed we always drafted our reports independently of one another, in order to be as safe as possible, but all too often there was no opportunity of testing our results on the spot and comparing them. I therefore restricted myself to reproducing the word forms in the manner that one of us received them, and refrained from any criticism. I have added the name of the collector after each word, (Füll. = Fülleborn; Hell. = Hellwig; Müll. = Müller; Re. = Reche; and Off. = ship's officer). The only thing altered from the original is the manner of writing, which I have made uniform.

For designating sounds I used the following signs:

Vowels:

a, e, i, o, u without signs, are of medium quality,

ā, ē, ī, ō, ū are open,

ḁ, ḕ, ḥ, ḡ, ṁ are closed.

The unpronounced vowel in a diphthong is designated by a little hook printed below it, for example ou̘; thus the designation of a diphthong by a tie placed over the vowels is superfluous.

No observations were made as to whether various pitches are differentiated.

The length of a vowel is indicated by a short horizontal line placed above it; its brevity by a little hook: thus ā and ḁ. We did not investigate whether vowels are pronounced closed or not.

[5] I have put the **consonants** used into a small table for greater clarity, with each voiced consonant immediately following the unvoiced one. I dare not try to distinguish whether we heard all the consonants correctly. Possibly the voiceless lenis does also occur beside k; only Hellwig believes that he has heard it. Wherever he gives this, I have written it as g. In the odd word there is a long-drawn-out 'r'; I have indicated it by a horizontal line above it, r̄.

	plosives		fricatives		liquids	nasals	
velar	k	g	χ	γ	ř	ň	
palatal	k̟	g̟	ç	y		ň	
cerebral						n	
alveolar	t	d	s	z	l	r	n
sibilant			š	ž			
dental			ʃ	ʒ			
denti-labial			f	v			
bilabial	p	b		w		m	

Affricated sounds are expressed by juxtaposing their components, for example:

ts dz tš dž.

Aspirate sounds are expressed by an aspirate mark placed after the consonant, for example k'.

An accent is shown as a diagonal line placed over the vowel, for example á.

Indigenous terms for objects are highlighted by italics.

For abbreviations we use: L = length; Br = breadth; H = height; D = diameter; W = width.

A list of references is given at the end of the work; within the text this is reduced to the author's name, year of publication, and page number. [6]

General

History

Voyages of Discovery

1545. The first European who saw the north coast of Kaiser Wilhelmsland was, as far as we know, the Spaniard Yñigo Ortiz de Retes. In 1545, the warship *San Juan* was despatched from Tidore under his command, to investigate whether or not the wind conditions for the voyage to New Spain were better on a more southerly course. On this voyage, Ortiz de Retes sighted the coast of an extensive land, and named it “Nueva Guinea”. According to Wichmann (1909, vol.1, p.26), on 9 August 1545 he arrived in the vicinity of the island of Bām (Lesson) without observing anything of the mouth of the Empress Augusta River. On de Herrera’s (1601) chart, which can be based only on Ortiz de Retes’ account, no river is indicated in that location either. The rivers shown, bearing the names “Rio de las Virgines”, “Rio de San Augustino”, and “Rio de San Pedro y San Pablo” lie much further westward; for example, according to Wichmann the “Rio de San Augustino” is identical to the Bièr River, emptying somewhat east of Mamberano.

1616. The first definite news that a large river must empty in the vicinity of the present Broken Water Bay was given by the Dutch world circumnavigators Le Maire and Schouten. On 7 July 1616, they found that on the mainland side of “Vulcanus” Island (the volcanic island of Hansa or Manám, which they had discovered) the sea was cloudy over a wide area, and covered with drifting tree trunks and branches (Finsch, 1888a, p.296; and Wichmann, 1909, vol.1, p.67). They concluded that a large river mouth had to be very close at hand. In spite of the associated dangers — any reefs and shallows would certainly not be seen in the cloudy water — and compelled by a lack of food and fresh water they took their vessel, the *Eendracht*, into the treacherous water, anchored off a settlement, and traded with the natives without going ashore. However, they do not appear to have seen the river mouth itself; otherwise they would certainly have mentioned it in their report (cf. Burney, 1803, p.426). [8]

Of the seafarers who sailed along the north coast of New Guinea in the following century, none, including Tasman (1643) and d’Urville (1826–1829), approached the coast in the vicinity of the waters stained by the river mud, and so it came about that two and a half centuries went by before the river mouths already hinted at by the Dutch, were actually found.

1885. It was O. Finsch (1888a, p.297) who in 1885 aboard the *Samoa*, under Captain Dallmann’s command, discovered the mouth of the Empress Augusta River. Two years later, in 1887, the then-governor, Baron von Schleinitz, found the mouth of the second, smaller stream also, the Ramu, to which he gave the name “Ottilienfluß” (*Nachrichten über Kaiser-Wilhelmsland*, 1887, pp.54–55). In 1885, Finsch penetrated right into the mouth of the river in only a boat, and expressed the opinion then that the stream must be navigable to larger vessels as well.

1886. In the very next year, the Empress Augusta River was visited twice. In April, Captain Dallmann (*Nachrichten über Kaiser-Wilhelmsland*, 1886, p.67) of the *Samoa* travelled several nautical miles upstream in the launch — it seems, as far as the village of Sīngrín — and in the very same year, (between 29 July and 10 August), Baron von Schleinitz penetrated

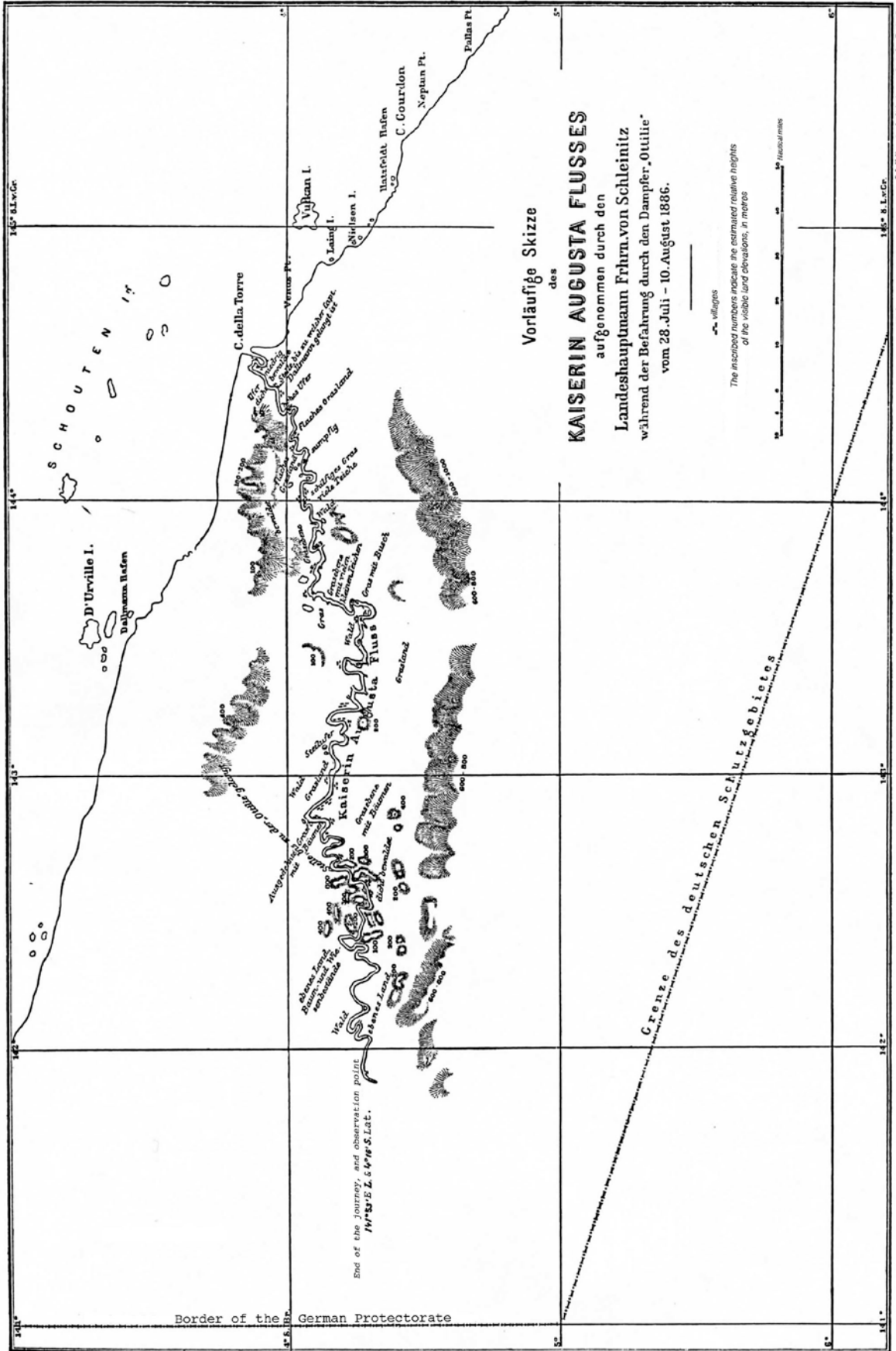


Fig. 1. Rough sketch of the Empress Augusta River

C. L. Eder, Prof. für Math. u. Geogr. in Braunschweig

an exceptionally long way upriver in the *Ottilie*. Besides Dr Knappe, Hunstein and the members of the scientific expedition, Dr Schrader and Dr Hollrung were also on board; Captain Rasch commanded the steamer. In the steamer he almost reached the point where the river passes through the Hunstein Range. On 1 August, the *Ottilie* ran aground in a lake-like enlargement. The next day they continued on, in the launch, and reached their furthest point on 4 August, a position given as 4°16'S., 141°50'E., about 150 nautical miles in a straight line from the mouth. Fig.1 shows von Schleinitz's sketch map.

1887. In this year an expedition, mounted by the New Guinea Company for the purpose of geographical and economic reconnaissance of the protectorate, travelled upstream. It consisted of Dr Schrader, Dr Hollrung, Dr Schneider and Herr Hunstein. Two members of the Rhineland Mission, Herren Thomas and Eich, (*Nachrichten über Kaiser-Wilhelmsland*, 1887, pp.152 and 190), had included themselves as well. At 9 a.m. on 28 June, the *Samoa* reached the river mouth. For eight days, with very good water conditions, they travelled about 380 miles upriver; i.e. the *Samoa* went about 80 miles further than von Schleinitz had in the launch the previous year. The furthest point reached, on 6 July, was 141°50'E., 4°13'S., by Schrader's reckoning. The journey upstream was able to be made almost entirely at full steam, and encountered fewer difficulties than the *Ottilie* had. On 8 July, they reached a spot about 142°7'E., 4°18'S., "where the outliers of a long, steep-sided mountain chain about 300 metres high ran out to the river". On a hill roughly 25 m high they set up [10] camp; the native village nearby was called Tzenáb. While the expedition members remained here, the steamer departed on 10 July, and reached the river mouth on 13 July.

On 20 August, on the governor's orders, the expedition left camp and reembarked on the *Samoa*, "to undertake the exploration of the mountain region further downstream at the terminal point of the *Ottilie*'s journey in 1886" (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.23). After landing at various places, they finally decided on a spot for a camp, on the right bank of the river, about two miles north of the large village of Málu, 142°56'E., 4°11'S. On 22 August, they occupied the new site, and on 24 August the *Samoa* left the expedition, to return to Finschhafen. After those remaining four Europeans, twelve Malays and four Melanesians, had set up camp, Schrader and Hollrung visited the village of Málu for the first time, on 13 September. Contacts with the natives were initially very cordial, but they soon deteriorated as a result of thefts, and the situation finally developed into open hostility. In the end, contact was broken off completely. Although they spent two and a half months in camp here, the results did not apparently live up to expectations; indeed, the area around the camp, "was explored up to five miles distance in all directions", but "the difficulty of the terrain and the hostile attitude of the natives hindered more extensive excursions". They accordingly restricted themselves mainly to botanical and climatic investigations. On 7 November 1887, the expedition left the Málu campsite and returned to Finschhafen aboard the *Ottilie*.

After this geographically quite successful expedition, the Empress Augusta River slipped positively into oblivion, even though everyone who had been there had indicated that it was the most accessible route for opening up the broad plains of the interior. For twenty years nobody visited it, and Lauterbach, (*Nachrichten über Kaiser-Wilhelmsland*, 1891, p.31) who had had that intention, was forced to give up his plans "since no opportunity presented itself of getting to the river in question".

In **1901** or **1902**, a trading station was set up by the New Guinea Company in the village of Wātám on the estuary lagoon, and managed by a Chinese man. A small station had existed for several years right at the mouth of the river (in the village of Kōpǎr I = Kérkér) but was then abandoned, whereas the one in Wātám is still in operation. The Chinese men stationed here also purchased ethnological items (I am grateful to Administrator E. Heine,

Friedrich-Wilhelmshafen, for this and some of the following accounts), which were mostly passed-on to the captains of visiting ships, and thus in some cases reached museums.

In November **1904**, Pöch visited Wātām and gathered important notes on the natives of the river mouth region (1908, pp.169–173). [11]

In August **1908**, a stretch of the river was traversed again, for the first time in a long while. On the steamer *Siar* (Captain Voogt), Herr Heine, Administrator of the New Guinea Company, visited the lower reaches as far as the village of “Pagem” (Mũǎngěm). All the villages along this stretch were visited. Dorsey, from Chicago, also took part in the tour. We were able to follow his tracks quite precisely on our excursions: wherever he had been, it was almost impossible to trade anything from the natives at relatively normal prices. In his efforts to get as many items as possible out of our colony, he must have paid absolutely exorbitant prices, which was confirmed for us in Friedrich-Wilhelmshafen as well. The fact that he had thus severely damaged trading and recruiting activities for the German firms does not seem to have troubled him greatly.

From 20 November to 26 November of the same year, under orders of the administration, the steamship *Langeoog* (North German Lloyd) travelled 335 km upriver, (about 155 km in a straight line from the mouth), with the district commissioner Dr Full and the ethnologist Dr Friederici on board. They reached a point 143°11'E., 4°6'S., according to Captain Roscher's reckoning. Full (1909, p.739) and Friederici (1909, pp.331–336) recorded this journey in two short articles. Unfortunately, the ethnological outcome of the journey suffered from a lack of skilled interpreters: “for two and a half days of the three-and-a-half-day journey we were completely unable to make ourselves understood by the natives. Also, not a single place-name could be determined with any accuracy upstream of the spot the steamship *Siar* had reached in July” (*ibid.* p.332. The journey had taken place in August. Comprehension therefore was only successful as far as the village of Mũǎngěm. The upstream journey took three days and three hours, the descent only two days.

1909 brought first of all a short journey by the *Siar*, which went as far as Sīnǎgrín in January; and then there was the voyage by the South Seas Expedition of the *Hamburgische Wissenschaftliche Stiftung* on the steamship *Peiho* which was briefly recorded in the preliminary reports of the expedition (for example, *Globus* 97(6), 1910) and then rather more extensively by myself (Reche, 1910). We travelled the river between 23 May and 5 June, and reached a spot, somewhat further upstream from the point reached by the *Ottilie* in 1886, where the river pierced the Hunstein Range, near the village of Málu. The course covered was 436 km, from subsequent precise measurement of our sketch maps (not 416 km, as recorded in *Globus* 97(18)). Up until now, all expeditions had geographical and economic interests as their main intent, and ethnologists, (Dorsey and Friederici), had been included as passengers on only two of them, but naturally their studies had to take second place to the main purpose of the expedition. These studies do not seem to correspond with their accounts, i.e. the number of artifacts gathered may [12] have been quite extensive, certainly in Dorsey's case. We, on the other hand, had total freedom of movement and were therefore able to devote ourselves exclusively to ethnological and anthropological tasks, and, even though we had only two weeks for our journey, we had the opportunity of making contact with numerous natives every day, since, without exception, we visited every major village that we came across, and occasionally those that lay further away.

That same year, the river was navigated on two further occasions, firstly in the period between 30 July and 6 August by the New Guinea Company's steamship *Siar* (Captain Haug) which, according to the participants' accounts, travelled only 187 nautical miles (= 346 km) upriver, ran aground, and had to turn back. On board were Herr Heine, Dr Schlechter, Dr

Schlaginhaufen, Dr Scholz, Dr Hoffmann, and Prof. Neuhauss. Each of these men was collecting, so in spite of the short duration of only eight days, and although they did not go ashore until the village of Pagem (Mụ̣ǎngĕm), they gathered a great quantity of ethnological material, which is now to be found in the museums of Stuttgart, Dresden, and Berlin. Part of the collection had been published immediately: the material that went to Dresden, by Schlaginhaufen (1910, a, b, and c), and several amazing pieces from the Berlin collection by von Luschan (1910) and Neuhauss (1911). Both Schlaginhaufen and Neuhauss recorded the progress of the journey fairly extensively, and marked the course on maps, yet it is hard to determine how far the journey actually covered. Schlaginhaufen used our sketch maps (Reche, 1910) for plotting while, surprisingly, Neuhauss was satisfied with the older ones based on 1887 reports, even though he was aware of our work. It is therefore astonishing that the accounts of both authors on the number of nautical miles covered, 187, (= 346 km) agree precisely, whereas the markings on the map show quite significant divergence: the position given by Schlaginhaufen as the end of the journey lies about 70 km further upstream, approximately at 395 km according to our calculations. It is also surprising that Neuhauss, who published his work a year later than Schlaginhaufen, did not dispute his results, and did not once mention his work. Initially I believed that it was obvious that Schlaginhaufen was wrong, since his map markings corresponded with the geographical locations given by Captain Haug, and the number of nautical miles covered as given by himself. Yet he appears to be correct: the *Siar* had gone further upriver, as the participants believed. If we compare the reports of the journey, they match as far as the village of “Radja” situated at 293 km on our maps; this spot was reached on the evening of 2 August; however they are not clear on the distance covered during the following day. Clarification is given in the “spirit houses” depicted in Figures 22, 23, and 145 by Neuhauss (1911). [13] By chance we had come across the same buildings earlier, in May, and, through our carefully catalogued photographs, it could now be established that the houses depicted were in the large village of Kõbméja, located at 375 km on our map, and therefore 40 km further upriver than the endpoint of Neuhauss’s journey. Kõbméja is thus identical with Schlaginhaufen’s “terminus village”, reached on the afternoon of 3 August. The most remarkable are the geographical locations given by Captain Haug; they bear absolutely no resemblance to those on the current maps. Even the geographical position of the village reached on the evening of 2 August deviates significantly from the maps, where it lies considerably further westwards than 143°42’E. (Haug’s reckoning), and the terminus village actually reached (Kõbméja) lies about 40 km further upstream than the “endpoint” of 4°14’S., 143°18’E. determined by Haug; according to the map, about 4°6’S., 143°12’E. Either all geographical determinations up to now — likewise the position of Málu for example — are false, or Haug is wrong. The latter seems the more likely, since the result he gave of the course covered, (187 nautical miles), does not appear to be correct either, and since further errors are found in his statements (for example his photographs of the “hostile village”, his comments on it, and so on).

The voyage of the *Siar* was undertaken for the purpose of worker recruitment, and so for the first few days people avoided going ashore for ethnological activities, but made all kinds of purchases from the canoes that came alongside. Conversation with the natives was successful until reaching a village above Mụ̣ǎngĕm whose name was given to Schlaginhaufen as Kamburumdóu (= Kāmbrínũm?). “At the same time this was the last place for which a name could be obtained. From here on, understanding with the natives and unfortunately recruitment also, ceased” (*loc. cit.* p.6). However, on the return journey we obtained the name “Kambrini” (identical with Kāmbrínġi on our map?). Strangely enough, in spite of this

difficulty in communication with the natives, Neuhauss (and Haug, as well, in the catalogue of his collection) gives names for villages lying a lot further upriver. There are the names Simar, Pamguli (or Pamugli), Matemba, and Radja; neither author mentions who gave him these names. On the interpreter situation Neuhauss says only that the language-knowledge of the sole interpreter available had not been very extensive, “soon a second interpreter had to be brought in and, finally, four-fold interpreting was essential . . .” (1911, vol.1, p.58). Are these place-names very reliable?

In November 1909 (18th – 22nd), under orders of the Governor, Dr Hahl, a warship, S.M.S. *Cormoran* [14] travelled about 183 nautical miles upriver after the start of the rainy season, and this was briefly reported by one of the participants, (Pfarrius, 1910). This excursion proved that, with favourable water conditions, the river was navigable for quite a distance upriver, even for larger steamships — the cruiser was 1600 tonnes displacement, the *Peiho* 760 tonnes — which had already come to light from our depth measurements.

The year **1910** brought the most successful voyages in the geographical area up until now. The German-Dutch border expedition that penetrated southwards from the north coast in the region of the 141st meridian — the provisional border up to now — did not get too far inland because of major difficulties, and therefore decided to attempt to follow the Empress Augusta River up to the border. It was assumed that the river came from the Dutch region. The Dutch group initially undertook the task of exploring the navigable water and direction of the upper reaches, in a preliminary expedition. Between 2 July and 3 August they travelled the river, under the leadership of Ensign F.L. Rambonnet, commander of the gunboat *Edi* (*Globus*, 1910, No.24, pp.376–377). A small steamship *Pionier*, a steam-sloop, and several praus manned by natives from Dutch New Guinea were available to them. The cruiser [*sic.*] *Edi* remained anchored off the river mouth. The party travelled upriver for six days without incident or encountering difficulties or suffering any protracted delays. On 8 August, the problems began. They came to a place where the river divided into several branches; one was so shallow that the steamship finally ran aground; this point was plotted as 141°51'E., 4°20'S. The sloop and the praus continued on; they always overnighted ashore in a bivouac. On 16 July they crossed the border. The following day, the water became too shallow for the steam-sloop; it was left behind, and they continued in the praus. On 19 July they began the return journey. While they had several small skirmishes with the natives on the journey upriver, the descent went off peaceably; they were even able to trade with the natives in various places. A sketch map was made of the river course (*Tidjschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap* 1911, Map no.7).

In August of the same year, the *Siar* under command of Captain Stoermer made a journey (according to information from Herr Heine) that was supposed to have gone far more than 200 nautical miles upstream; nothing has been published on this journey.

In October, the New Guinea Company steamship *Madang* (Captain Jensen) travelled about 120 nautical miles upstream, probably solely in the interests of the firm.

As the preliminary expedition in July and August of that year had indicated that it was possible to travel upriver right to the border without too much difficulty, [15] the combined German-Dutch border expedition travelled upriver in the same year. Leadership on the German side was provided by Prof. L. Schultze, and on the Dutch side by Captain J. Luymes. The other participants were the Dutchmen Sachse, Gjellerup, Dalhuisen, and Hubrecht, and the Germans Kopp, Stollé, and Voelz. The steamships *Edi*, *Java*, and *Pelikan*, and the steamboats *Pionier* and *Grenzjager* were at their disposal. The journey lasted from 10 September until 26 November, in all. On 13 September, they reached the village “that is designated in the *Kolonialatlas* as Tschessbandai” (Schultze, 1911, p.124). Here the low water

level prevented the steamships from going further. The administration's steamship *Pelikan* stayed here for a time while *Edi* and *Java* turned back to the river mouth. Now, the two steamboats *Pionier* and *Grenzjager* came into action, having earlier been under tow. Since the *Pionier* had had to turn round on 19 September (at 142°E.) because of the low water level, the crowded boats, when not manned by oarsmen, were towed forward by the small *Grenzjager*. In spite of assistance from a small launch, the journey proceeded only slowly from here on. On 3 October, they reached a point at 141°12'E., 4°4'18"E., where they decided to set up a base camp. After the group had gone part-way up a small side stream on the left, for topographical recording, they continued further up the main river. "On 20 October we passed the point where the river enters the highlands, a narrow, rocky gate where the river has carved a path over a one and a half metre high ledge" (Schultze, 1911, p.125). The journey continued in the shallow canoes of the Dyaks until finally, on 30 October, when the rapids were too large, and foaming within a narrow bed of the river, they started their return journey. The furthestmost point, reached on this day, was 4°49'S. and about 141°15'E., that is, once again on German territory. The total distance covered on the river was no less than 960 km. The descent went smoothly and without any major delays. On 23 November, they arrived at the village of Tschessbandai, where the German steamship *Delphin* and the Dutch *Java* — they had relieved the *Pelikan* in the meantime — took the expedition on board. On 26 November they reached the river mouth.

In 1911 the river was explored only twice to the best of my knowledge, and, on both occasions, only the vicinity of the mouth or the lower reaches. In October, the *Madang* of the New Guinea Company, under Captain Voogdt, went 70 nautical miles upstream, according to Herr Heine's account and, in November, S.M.S. *Planet* surveyed the river mouth. On this occasion, the *Planet* would also have gone several miles upriver.

1912. During the course of the year the *Madang* (Captain Voogdt) in January [16] — I am grateful to Herr Heine for this information — travelled some 120 nautical miles upriver as far as the village of "Kambrini" (= the Kāmbrīngī of our map?). Finally, at the end of February a geographical expedition, led by the junior mining assessor Dr Stollé, travelled up to Málu aboard the *Komet* (*Deutsches Kolonialblatt*, 1912, p.547).

The sketch map (Fig. 2) shows the termini of the major voyages on the Augusta River.

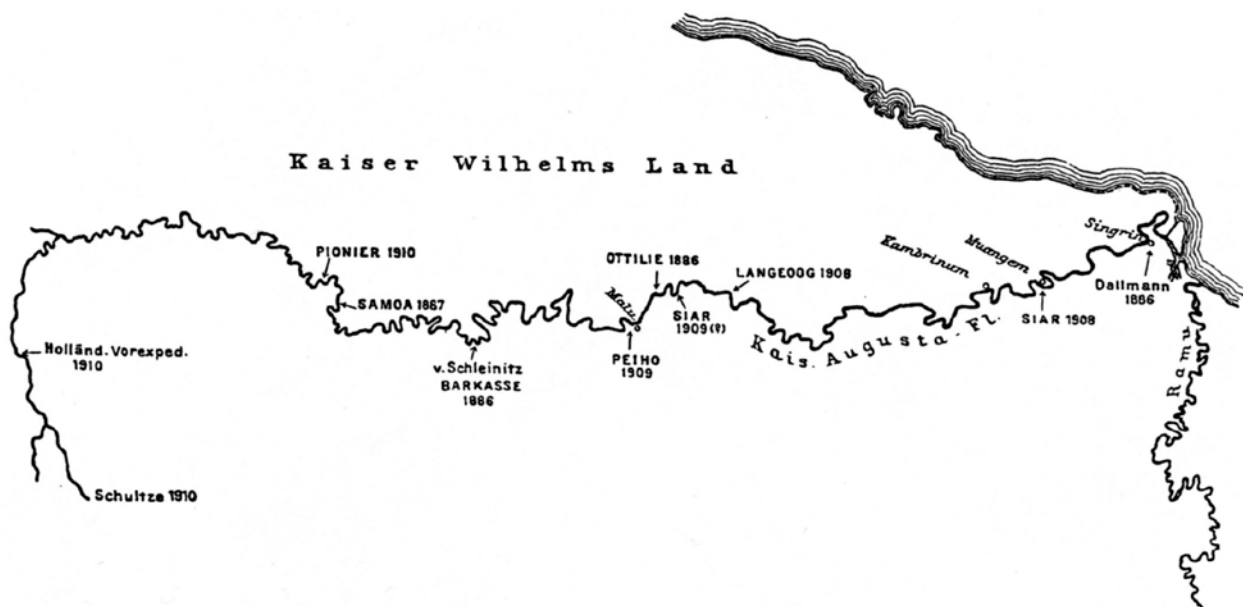


Fig. 2. Farthest points of the major journeys

Voyage of the *Peiho*

I am including here the most important dates and events of our journey. Under the leadership of Prof. Fülleborn (Captain Vahsel had command of the ship), as well as the crew, Dr Dunker, Dr Reche, Dr Müller and Herr Hellwig took part in the trip; our photographer and artist, Herr Vogel, had remained behind in Friedrich-Wilhelmshafen.

Departing from Potsdamhafen, the *Peiho* arrived off the river mouth at roughly 5 p.m. on 22 May 1909. In spite of the greatest caution, our entrance was initially a failure in the opaque cloudy water, and we ran aground after a short time. We then anchored for the night, about two kilometres off the mouth, in the current itself. On that very first night, even before sunset, myriads of mosquitoes arrived, a veritable plague that we had to endure in the most extraordinary way throughout the entire journey.

The following day, after we had travelled a little way upriver, we visited a somewhat out-of-the-way village named Kōpǎr, which we reached by means of almost bottomless swamp paths. The main purpose of the visit was to recruit an interpreter who had been recommended to us. Sadly, the endeavour failed, because the man did not live there, [17] and so, that afternoon, we sent the launch, under command of the second officer, Mr Schirlitz, to Wātām at the mouth of the lagoon to borrow a few interpreters from the resident Chinese trader. Fortunately this was successful; among them was a man named Mágun, whom Pöch had already used as interpreter in 1904, which, unfortunately, I found out only later.

The village of Kōpǎr had offered so much that was new and exciting that next day we travelled further upriver with heightened expectations. Soon, on the right bank we found a place where a path and a fairly narrow, yet deep, canal led inland, side by side. Since the latter was too narrow for our vessel, we used the path, and, after about three quarters of an hour of hard wading through evil-smelling mud, we reached the village of Sīngrín. The few men who remained in the village, (all the other inhabitants had fled from us), were able to tell us that the interpreter we sought lived in a neighbouring village. At our request, he was summoned by signal trumpet. He appeared, but nothing could persuade him to accompany us. The ethnological results were as pleasing as they had been the day before. Fülleborn and I made the return journey in a dugout canoe (Plate I.1). In the afternoon of the same day, a short visit was made to a village somewhat further upstream; it was called Mbīm.

At sunrise the *Peiho* continued on, but soon had to anchor once more, for, rather suddenly, a dense bank of mist covered the river. Then, travelling on, we reached a lake-like broadening, with the village of Īmbǎntōn on the right bank. We were not received totally amiably; the people already had numerous iron knives and axes, and were prepared to sell us only a little. A mechanical breakdown forced us to stay overnight offshore from the village.

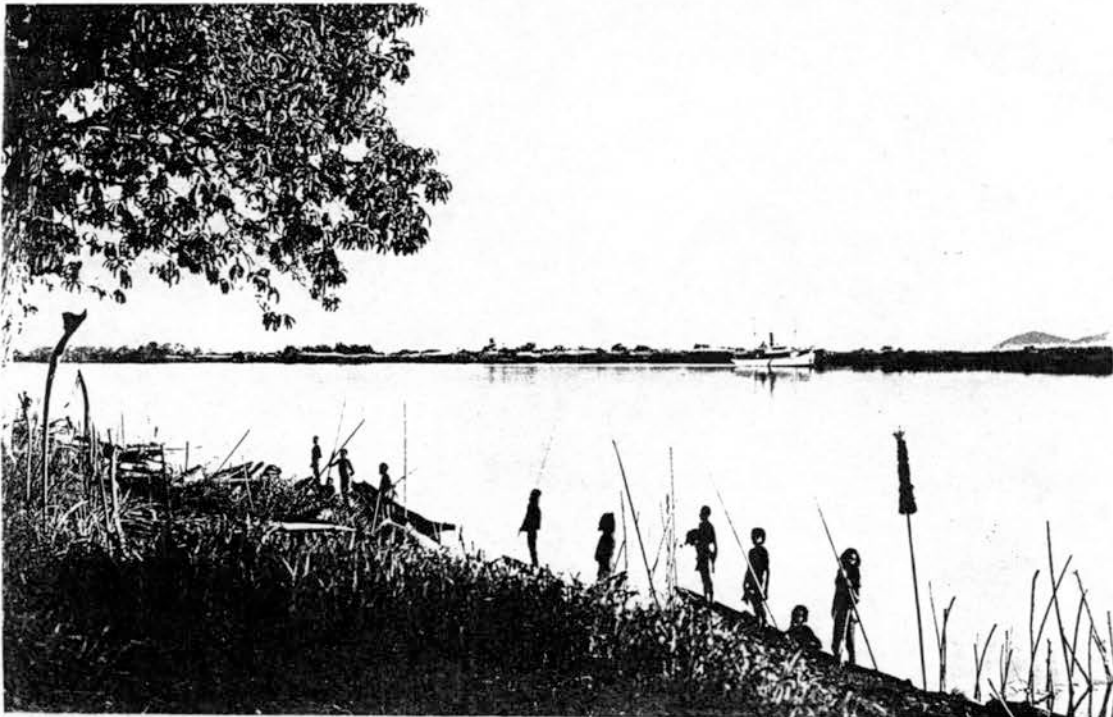
We moved on the following day, after the morning mist had lifted. Soon we reached the village of Āngǒróm (Wolem) where there was also not much to obtain, and in the afternoon we reached Muǎngēm on the left bank. People here, already richly endowed with iron, demanded exorbitant prices for even small broken items. Not far from where we anchored we found a grassy field ablaze, its tongues of flame illuminating far into the night.

Shortly after setting out again (27 May), we suddenly found ourselves surrounded by numerous dugouts, which came out of a canal-like watercourse disappearing off into the grassy field. Then, when the *Peiho* anchored off the very next village, which was not far from this 'surprise barrier', we were immediately invited with joyful cries to buy all manner of things. Our attempt to enter the canal failed, sadly, because our vessel was too broad, and the natives [18] could not be persuaded by any inducements to take us to their village in their



1. Canal near Siñgrín (pp. 17 and 34)

Fulleborn phot.



2. »Peiho« off 252 km village, (p. 36)

Fulleborn phot.

own canoes. Indeed, they calmly let us climb into their canoes, while they remained standing on the bank with their paddles in their hands, not moving a muscle. Since there was no possibility of reaching the village on foot, we had to forego the visit. We travelled further, and about 2 p.m. we reached two extensive villages almost merging into each other; their names were given as Kămbrînŭm and Lămbrîngî (also Bînŭm). Here surprisingly we found, among the other things offered for sale from the surrounding canoes, skulls — an indication that whites had already been here and obtained them. In no other place did it occur to the natives to offer them to us among all the items freely presented, and it always required hard trading before the people actually understood that I had the greatest desire to obtain skulls. Those coming after us would have it much easier. When we entered the village we were greeted with great excitement, lively beating of the big slit drums, loud howls and the droning tone of the wooden signal trumpets. Only the men had remained on site. In spite of everything, the people were quite affable, extremely lively, and with a tendency to all kinds of pranks. They did not appear to have any particular shyness or fear of us. Our interpreters were able, surprisingly, to make themselves better understood here than on both previous days: a fact that they seemed to notice only after a long while and also only after we had strenuously invited them to try.

We broke camp immediately after sunrise (28 May), but at 7 a.m. we had to anchor again because thick mist had set in. Continuing on, we reached a larger village, Măndănăm, towards noon, having passed a village named Ămnîm (see Plate III.4) from which canoes had also come out with trading articles. We were welcomed ashore with the same noise as the day before; the din was terrible. Here, for the first time, the women and children came into view, although only at a respectful distance. The people did not appear to have come into contact with whites, they were astonished over everything, and had no idea of the value of different European trade articles. Looking glasses evoked particular pleasure; after one had handled such a wondrous thing and viewed his image in it with astonishment, there was no restraining them, they all wanted to have one. They were virtually uninterested in ironware; we first had to show them how to use axes and even the great knives. This lack of knowledge of iron astounded us, for the villages further downstream, whose inhabitants wanted to have nothing, but nothing, other than iron, were only about forty kilometres away in a straight line. Those people also appear not to have traded a single piece of the iron in their possession further along, which leads to the conclusion that their knowledge of the metal is of only recent date. Photographing and even anthropological measuring was [19] relatively easy in Măndănăm; only skulls were very difficult to obtain; the people probably feared that I wanted to use them for some evil sorcery.

The following day (29 May), we passed by a large village early on, to gain some time and to get as far upriver as possible. About 1 p.m., we reached a major village on the left bank in a small wood (at 252 km). We could not learn its name because our interpreters totally gave up. We were greeted with loud shrieks, and were soon surrounded by numerous dugouts in which, remarkably, there were many women and children. Several minutes passed and then the people clambered on board and made themselves at home. Everything interested them in the liveliest manner, and whatever pleased them and was able to be uplifted, they simply took and made it disappear with great alacrity into the dugouts. We had our hands full trying to get their 'souvenirs' back from the people in an amicable way. Their behaviour was actually regarded neither by them nor by us as 'stealing', and so the harmony remained undisturbed. Then a lively trade soon began ashore; however, we constantly had to be on our guard, because we were surrounded everywhere by the most highly-skilled,

nimble fingers. The people seemed already to be very familiar with iron. The village was divided into two halves by a small tributary river; the people looked upon crossing the bridges over the watercourse very reluctantly, apparently because a ceremonial house was located in the second part of the village. The mosquito plague was particularly bad here.

Actually, we had intended to turn round here because of limited time, but since continuation of the journey promised important results, we continued onwards on the 30th, Whitsunday. Before we left we again visited the village, in the very early morning before 6 a.m. This time, since the natives were becoming more emboldened, it came very close to conflict, but a live shot into a coconut did the trick. We were then able to resume trading, and our parting was in the greatest harmony.

About 10 a.m. we set out. Towards noon we came to a place where the river made a very sharp loop. We were aground for a while but soon found deep navigable water again and reached a large village that lay on the left bank, whose name could not be established (at 293 km). We immediately went ashore and were, contrary to expectations, received in a very friendly way; the people seemed to know whites already and to have had good experiences with them. They demanded knives in a frenzied way; these were designated by the word *kama*. Yet, in spite of all friendliness, the people were not at all agreeable to our wandering round their village and attempting to glance into individual houses. We therefore began trading, the people's trust grew rapidly, and a short time later women and children came into view and took a lively part in the business. In the end, we succeeded in obtaining articles from out of the ceremonial house itself without great difficulty. [20] However, anthropological measurements and recording of types were totally excluded; some influential man had probably expressed an opinion, and so nobody dared make acquaintance with the mysterious shiny instruments. A little downstream lay a wonderful large ceremonial house, completely set apart in park-like surroundings. We dared to go inside and inspect the interior, which was not very extensive.

Continued on at sunrise (31 May). The riverbank scenery now changed slowly: reeds, wild sugarcane, and the long hard grass disappeared, and short, softer grass took its place. The dense bush, which had so often come right to the bank in recent days, blocking distant views, gradually reduced to small copses; tall forests still formed the background on both banks. In the afternoon, having passed several villages, we anchored again, right between two major settlements that lay directly opposite each other, one on the right bank, the other on the left. The latter lies somewhat below the spot where the older maps show a village called "Tschessbandi". We could not determine whether they were one and the same, because here again the interpreters refused completely. Hellwig ascertained — the natives pointed to the villages with their finger — the names *Kobmá* and *Kobmýě* (*Kobmýă*) but he remained doubtful which village was which: the word-form with which the second was indicated was "*Kobmýă yái*". Hellwig got the impression that this *yái* meant 'there'. The villages were very heavily populated. Barely had the *Peiho* come to rest than we were surrounded by almost a hundred dugouts manned by loudly-shrieking, wildly-gesticulating men, women, and children. The portholes had to be closed immediately, for here too the new arrivals began to rob straight away. We were received ashore without any shyness, and were led without further ado even into the ceremonial house, where we of course dared to stop only in the lower space, between the poles. At first the women stayed a distance apart, but as the trading got under way they hurriedly came nearer and were quite trusting. The ceremonial house was a splendid structure that elicited our undivided wonder; unfortunately we only got right inside it when it was already dark, so that we could not recognize much inside. Throughout the evening, and right into the night, numerous canoes swarmed around

us, their inhabitants prying after booty. Finally, to get rid of the people and to have some peace, at least during the night, the captain fired off two rockets. At first those right up against the ship hastily paddled off a little distance, but when they found no damage, they calmly came back again, and the second rocket evoked only unrestrained amusement — we heard happy laughter. Steam pipes, sirens and ship's bells, that had so many times before sent natives into panic and terror, were unsuccessful. Only when the captain posted crew armed with buckets full of water along [21] the rail, greeting any attempt to climb on board with a shower, did the canoes turn slowly back to shore.

They were back even earlier the next morning. Even before sunrise we were again hard pressed. When several natives, who had come too close when the deck was being washed, received squirts, the voices were raised considerably, and suddenly several throwing spears whizzed onto the deck, from where our Chinese hurled them into the river. Then the house boys awakened us, "The Kanakas want to fight!" The captain posted people with buckets of water once more. Just in case it came to conflict, our blacks were issued with their rifles and several cartridges, naturally with the admonition that they should shoot only on an express order. The situation gradually deteriorated, and the natives became further emboldened; they probably considered that we were unarmed. The simplest way out, to sail on, was unfortunately not an option since a thick, early morning mist restricted vision. Suddenly two large war canoes came out from shore, adorned on the bows with battle decorations, and several throwing spears whizzed onto the deck. As we did not react, still more canoes approached, and weapons appeared in those close to the ship. Then spears flew in a dense swarm, most, fortunately too far, over the ship and into the water. A warning shot at the war canoes, that landed in the water between them, was unsuccessful because the report was virtually lost in the din. Increasing numbers put spears into their slings and we were fired on from all sides. Now there was no restraining our blacks: whoever could put a cartridge into the breech let loose blindly. At such moments bloodlust is awakened in even the most amiable house boy. Only after several of the attackers had been hit — fortunately our South Seas blacks are not very good shots — the canoes retreated. As quickly as possible, given the complexity of the steamship and the shooting lust of our people, I called a halt to the firing, to avoid unnecessary bloodshed. After the count-up, it transpired that only thirty cartridges had been spent. About nine o'clock the mist finally lifted, and we were able to continue our journey. Then, after we had passed another village, whose inhabitants came out to us in their canoes quite happily, the *Peiho* halted for a short period while the Chinese who had died of heart failure the previous day was interred in an isolated spot ashore (the site is indicated with a † on our sketch map).

About 4 p.m. we anchored off the village of Málu. Here the river pierces the Hunstein Range. Málu lies right against the steep mountain slope; opposite on the flat left bank lies the smaller settlement of Ananai. We were received in Málu in a friendly but very reserved manner. Immediately on entering the place it struck us that the people, while they spoke insistently to us — sadly the words were incomprehensible, since the interpreters totally gave up — were repeatedly [22] making the same gesture: they pressed their hands together and laid them against their cheek, at the same time displaying quite clear expressions of displeasure. We finally interpreted this to be so, that the people were recalling that a long time before, men with white skin had appeared, set up a camp in the neighbourhood of their village and that armed conflict had developed very soon after, (the 1887 expedition). They wanted to make clear to us that it would be quite unacceptable to them if we too stayed here for a long time, slept here (making the gesture of sleep), and set up camp here. An experiment verified the accuracy of this interpretation, for when we attempted to make clear

to them that we were returning to our ship for the night and would sleep there, they immediately became very friendly, brought everything that we wanted, for trading, and were extremely happy when at nightfall we actually climbed into our boat and returned on board. The village made a very much poorer impression than those we had visited in recent days, although basically the houses and implements were the same. The next morning (2 June) as we had evidently proven our harmlessness by sleeping on board, we were received ashore immediately with great friendliness, and soon lively trading swung into action. Here, too, I was successful in obtaining skulls that were brought to me after brief negotiation, once they had understood what I wanted. Women and children too, who stayed out of sight the day before, were now present, and appeared very trusting and cheerful. We returned on board about 9 a.m. It was then decided to turn round; the river was increasingly becoming a torrent, the riverbed narrowing, and the depth was slowly becoming more shallow. Given the deep draught of the *Peiho*, the captain did not consider it advisable to travel any further. At full steam and with the raging current, we went racing downstream; for the crew it was certainly no easy task to keep in navigable water, given the many loops with sharp bends, and the winding of the river. From every village that we passed, canoes came out to trade, even from the villages adjacent to our antagonists of the previous day. The latter apparently did not seem to be too popular with their neighbours. As we passed the village of our enemies there was not a soul in sight; but on closer approach we noticed that the people were hidden behind bushes and house poles, watching the steamer. About 3 p.m. we anchored off the next village (at 343 km), which we had passed by on the journey upstream. In spite of the fact that the village where we fought the previous day was only twenty kilometres distant in a straight line, we were made very welcome, an indication that people were at least not friendly with our enemies. Yet they had heard of our fight the previous day, because they pointed at our rifles and gave us to understand that they were frightened of them. However, in spite of this the women and children had remained in the village, and took part in the trade without any diffidence. Sadly, the place was not wealthy; it must have been burnt down a short time before, perhaps attacked: [23] charred posts of burnt houses could be seen everywhere, and such houses as were standing were all temporary, replacement buildings.

At daybreak (3 June), the journey downstream continued. About 9 a.m. we passed a village in the bush, rather distant from the bank, one we had not noticed on the journey upstream. A whole number of canoes came out of a canal, and endeavoured to approach, with lively yells from the crews. Since the people had a lot to sell, we stopped, and soon a lively trade developed, in which several skulls were offered to me from the dugouts. The news that the white man bought these had therefore evidently spread rapidly. As Müller was later told by the interpreter, the village ought to be Pāmǔngrī(?)

Then we went on and about two o'clock we reached an exceptionally large village, probably the biggest on the river, one that we had left out on our journey upriver. Kāmbrǐngī (and Āmbǔngrī) were given as names. Fülleborn, Müller and Reche went ashore, where the people received us very amiably although somewhat shyly. Women and children remained present, but stayed rather in the background. We were then conducted into a little house with a low platform, which appeared to serve as a reception house, whose decoration held a lively interest especially for me, namely ten skulls strung on a liana. Ten minutes later they no longer hung there. As we saw afterwards, each part of the village had a similar reception house decorated with skulls. Soon trading was in full swing, as the people had a great craving for knives, especially the long jungle knives. In spite of their knowledge of iron they still seemed never to have had a white in their village, for we were regarded with the greatest of

interest: they touched us; marvelled at our skin shade which was “true-blue” in spite of vigorous wiping over; showed us to the women, who marvelled especially over our curly blonde hair. In the end we felt like a ‘people show’ in a European zoo. Finally we walked together round the entire village, where everything was very willingly shown to us. The wonderfully-constructed huge dwelling houses greatly impressed us, far surpassing anything we had seen thus far. It was astonishing that, in this village, body size varied greatly. Here I saw many small people who were only about 1.45–1.50 m tall, yet scarcely differing in type from the fully-grown people. After we returned on board, the *Peiho* continued further downstream, to evade the possibly-infected flies. In spite of this, just as every other evening, we were attacked by such swarms that we very quickly sought cover under our nets.

The following day (4 June), we travelled downriver until evening without stopping; we had already visited the villages on this stretch during our journey upriver, and time was pressing. In the evening we already felt the cool offshore wind, [24] a longed-for invigoration after the sticky hot days on the river.

First thing in the morning, Müller visited again the village of Kōpǎr, the home of one of our interpreters; he hoped to bring back something about ceremonies and worship, but was frustrated by the interpreter’s passive resistance. The latter was obviously happy to be back again in his peaceful village. Meanwhile, Fülleborn and I visited the tiny village of Kěrkěr right at the river mouth. It made a very poor impression, and there was not very much available. The natives maintained that some time earlier a *kiap*, that is, probably, a captain, had been there and taken away a portion of their possession without paying, a story that one not-infrequently hears from the natives. Whether there is any truth in it, is another story. When we went to get back into our boat we had a very unwelcome surprise: the influence of the tides extended very markedly right up to this point. Ebb tide had arrived, and our boat, which we had left floating on the water, was now lying helplessly on the hard, so deeply sunken in the sand that only with the help of the natives and after a lot of effort — of course it was our heaviest boat — did it float once more. After Müller too had returned on board, the *Peiho* sailed out of the river and dropped anchor in Breaker Bay. Hellwig and Müller again went ashore, to deliver the interpreters back to the Chinese in Wātām, and to make a few purchases. While it was still night we weighed anchor and, after calling in at several stations on the way, we returned to Friedrich-Wilhelmshafen on 11 June. [25]

Geography

Name of the River

The effort to reintroduce the old local names for villages, rivers, mountains, etc. in our colonies, instead of the more or less fitting and, in places quite tasteless, European designations is, in itself varyingly accurate. One ought not to go so far as to want to install European “native names” where, in reality, there were none. Yet remarkably, this error has frequently been perpetrated already. In particular, on the maps of our South Seas colonies there are a whole number of such misunderstood place names. For example, the principal island of the Admiralty group is frequently designated either as “Tauai” or as “Manus”, whereas in reality it has no local name, and Tauai and Manus are the names of villages on the south coast, which the person being questioned was probably referring to. Similarly, to give a second example, the St Matthias island group is not “Mussau” as one frequently reads; it too has no name, and Mussau is a smaller island lying further south. Even in Melanesia, large islands, mountain peaks and big rivers have no indigenous names; every major geographical concept simply exceeds the comprehension capacity of the native who for the most part does not undertake extensive journeys, has connections only with the immediate neighbourhood, and knows nothing about the existence of distant locations. And so what he bestows names on are mostly only villages, smaller islands and, at the most, landscape — individual particularly-remarkable mountains, small streams and, in the case of larger rivers, only the part known to him. Everywhere else, European names have to intrude. Therefore, if one wanted to introduce an indigenous name for a river such as the Empress Augusta River, this would be totally wrong, because the river as such does not have a name. Each village or each district names only the stretch familiar to it. For the coastward part of the lower stretch alone no fewer than three or four names have been established so far: Full (1909, p.739 *et seq.*) reports that the river is called “Sipik” or “Abschima”, while Friederici (1909, p.332) who was in the same party, announces that the natives of the river mouth region call it “Azimar”, those who [26] live several kilometres upstream call it “Kokuan”, and so it goes on — in particular the fragmentation of language is quite extraordinary in New Guinea — a new name for the river is found every thirty or forty kilometres. Now, which of the twenty or thirty names that are probably found therefore along the over-thousand-kilometre-long river is the correct one? Which shall, or must, replace the European one? Logically there remains nothing else for it but to retain the latter, to leave the most beautiful, greatest, and most important river in our colony, with the name “Empress Augusta River”.

Geology of the Region

As has become increasingly clear from the voyages of exploration in recent years, the central massif, the backbone of New Guinea — formed from a gigantic chain stretching from north-west to south-east — is girt in the north-east by an extended gutter, often widening into a plain. This gutter is bordered on the seaward side by fairly high mountains. In spite of

all its unity this gutter shows clear dismemberment: roughly in the middle of the eastern and the western halves it is slightly arched up into a valley watershed. Drainage is correspondingly effected by four river systems, each one of a pair to some extent sharing a watershed. Two rivers flow in a north-westerly direction and two in a south-easterly, in such a way that all four are roughly aligned, and so the mouths of the two middle rivers are situated close together. These four rivers are the Mamberano, which empties in Dutch New Guinea near Cape d'Urville; the Empress Augusta River (the largest river in the German part of the island); the Ramu, ("Ranu" on the most recent maps = *Ottilienfluß*); and the Markham, emptying into the Huon Gulf. Only at one spot does the massif penetrate further into the plain, and, even here, only with insignificant peaks, in the region between the two middle rivers, the Empress Augusta and the Ramu. When you travel up the Empress Augusta River, at first you see merely an endless flat plain; only in crystal-clear conditions can you see the coastal fringing mountains in the north. It is only as you go further upriver that the plain is interrupted by occasional small elevations; later you also see isolated hills and low mountains, and, in totally clear weather, a portion of the central massif, the Bismarck Range with its imposing peaks, soars up far to the south.

The central chains appear to belong mainly to the Archaic Formation, formed from the same feldspar as the keel of groups of hills pushed to the north-east, as far as the middle reaches of the Empress Augusta River. The Hunstein Range belongs to the same formation but, as I was able to establish, here there occurs, at least, a type of schist; [27] there was a large outcrop right on the river bank. According to von Schleinitz (1886, p.126) the Hunstein Range consists of "gneiss, mica schist, and quartz". In Málu, the village against the mountainside, we also obtained several pieces of quartz and crystallized quartz. Schrader (1887, p.191) reports that the loamy knoll on which the camp had been established at Zenáp consisted of "weathered argillite". Unfortunately, up until now that was the only information on the geology of this region in the middle reaches of the river.

By far the greatest part of the plain of the middle and lower reaches seems to be of very young, alluvial origin. In the region of the river mouth — up to about 15 km from the coast, or around 45 km upriver — the soil consists of swampy, dark, often foul-smelling ooze, in which one may occasionally sink over the knees even at low water: evidently soil won back from the sea only very recently. Further upriver, the bank gradually becomes firmer and higher; everywhere that you go ashore here you find heavy alluvial soil, evidently from flood-deposited layers of clay and loam. The material in these layers is so fine-grained that you search in vain for even small pebbles; it must have been carried here from a great distance, originating only in the distant mountains.

Description of the River

The course of the river. The mighty river meanders across the broad plain in numerous bends and loops. Like every other river of this type the Empress Augusta River shows a strong tendency to alter its course, so that the water constantly erodes the bluff face of the winding course and deposits silt on the opposite bank; the windings become ever sharper, and more closely packed. Then, if there is a massive flood, various tongues of land between the bends cease to maintain their position, the markedly-twisting lines disappear, and the river once again adopts a straight line in these places. During our journey we were able to observe several interesting examples of these changes of course, these constant cycles between loop formation and loop destruction. For example, near the village of Țimbăntön,

about 83 km from the mouth, we found a broadening, like a lake, that contained a series of flat, grass-covered islands. The sketch map prepared by Baron von Schleinitz in 1886 (Fig.1, p.9) still shows two short loops close together; these have therefore been levelled since that time. A little above the village of Muǎngĕm (124 km) there is a slight broadening on von Schleinitz's map, containing two small islands. At this very spot we found the river particularly narrow, but on the right bank closely adherent to it, was a broad lagoon. At a spot about 290 km upriver, above the spot that we reached on 29 May, at a [28] village on a small tributary, there was a broad loop in 1886. We found it so sharp and so protracted that its extremities were already touching; here the tongue of land, only a few metres wide, was even breached, its tip was cut off and had formed an elongated oval island. At the site of the breach there was a strong current that was almost visibly widening its bed. Of course the deep, navigable channel was still in the old bed. Further upriver we found there were still a few loops with sharp bends, as they had been at Schleinitz's time.

Volume of water. The river level is highly variable. Floods seem to occur quite frequently, and the land is often extensively submerged. Indeed, the major part of the plain is as flat as a table and does not lie much above the normal water level; thus the area inundated must be quite considerable. Hence huge lagoons and swamps are found everywhere, on both sides of the river, evidently the remains of flooding. You cannot get an accurate idea of their extent because of the dense stands of reeds.

Floods seem to occur quite irregularly. Let us take a look at the accounts by the various visitors to the river. At the beginning of April 1886, Captain Dallmann (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.67) found flooding at the river mouth; he saw coconut palms and houses deep in the water. In July and August of the same year, the Samoa expedition encountered extraordinarily shallow water levels (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.124). On the other hand, in July the following year a rainy period had set in; there were heavy downpours especially at night. Of course these observations were made at Málu, the camp at the Hunstein Range; during the same period, the water level in the lower reaches does not seem to have remained high, since Schrader (*Nachrichten über Kaiser-Wilhelmsland*, 1887, p.190) reports that "the present water level lies barely 0.5 m above that of the previous year". He further reports that on trees he found flood marks that were four metres higher than the present water level. At the camp at Málu, the transition to a dry spell was taking place, and a drop in river level was first observed in August. Then, from 28 August until 24 September, the river rose considerably, only to fall again from 24 September until 21 October. In August 1908 it appears that the *Siar* found a fairly normal river level (Full, 1909, p.741). Two participants on the *Langeoog's* journey (20–25 November 1908) reported very differently on the water situation. While Friederici writes: "Evidently we had almost maximum water level. Five months earlier the river appears to have been about 2 m lower, and the current speed less" (1909, p.333). Full says (1909, p.740), "From the vegetation boundaries on the bank, the alignments of the canoe landings in the villages, and the native gardens right on the shoreline, it can be concluded with certainty that the water level observed was not significantly above [29] normal." Unfortunately Friederici does not record from which signs he concluded "almost maximum water level."

During our journey on the *Peiho* (23 May–5 June, 1909) we got the impression that the river level was fairly normal — neither especially high, nor exceptionally low. In the same year (30 July–6 August), the *Siar*, as Schlaginhaufen mentions (1910a, p.8), found a fairly low water level, but in November (18–22) of the same year S.M.S. *Cormoran* found a flood already beginning: "Several heavy downpours seem to have occurred" (Pfarrius, 1910a, p.387). In 1910 both the Dutch preliminary expedition (2 July–3 August) and the German-Dutch border

expedition (10 September–26 November) had to contend with fairly low water levels; only about the middle of November did the north-west monsoon set in with heavy rain, and repeatedly caused a sudden rise in water level. Then the return journey took place “in full spate — our old campsites on the banks on the inside of the bends were all under water.” (Schultze, 1911, p.126).

In summary, these observations demonstrate that in the catchment of the Empress Augusta River no strongly-pronounced wet and dry season can be differentiated, that the water level can be very different at all times of the year. The area watered by the river is indeed extraordinarily large, and probably shows wide variation in rainfall: one part of the region sends a great volume of water downstream probably in autumn, while the other part does the same in spring. Moreover, since it is mostly water from the high mountain ranges that is the source of the Empress Augusta River, there would be no lack of rainfall, right throughout the year, for all mountains of New Guinea with heights over a thousand metres soar into a zone of frequent build-up of clouds, with a consequent extraordinarily damp climate at this altitude. Even on Saddle Mountain, which is only 970 m high, great dampness predominates; the trees are heavily covered with moss and lichens, and, according to accounts of the Neudettelsau missionaries (Krieger, 1899, p.22) there are, on average, only ten hot days, but 170 overcast and 115 cloudy days per year. Occasionally, there are heavy downpours in these mountain regions even during the otherwise dry periods of the year. Nevertheless, it seems as though the Empress Augusta River normally receives the greatest amount of rain during the first half of the year, and that the water level is significantly higher far more often during the period from the end of November until the beginning of April, than from July to October.

The height of the flood waves varies greatly, according to the irregular proportions of rainfall. Thus von Danckelmann (Krieger, *Neu-Guinea*, 1899, p.26) reports that the New Guinea Company’s scientific expedition observed a rise of about three metres at their camp at Málu during the first ten days of July. From 28 August until 24 September, the river rose at least 4.35 metres, then fell 2.50 metres fairly steadily until 21 October, and finally [30] rose again 66 cm by the end of the observations on 5 November. Occasionally the flood levels seem to reach much more significant heights. It is recorded that during a trip upriver at the end of July 1886 the flood markings on trees indicated that some time earlier the river level must have been 6–7 metres higher. Moreover the flood effects would be strongly noticeable only in the upper and middle reaches of the river, because the countless lagoons and swamps in the middle reaches would have a compensatory effect on the water level in the lower reaches. The fact that in the lower reaches the natives plant their gardens right up to the water’s edge also indicates that really heavy flooding does not occur very often.

These floodings have probably been mainly responsible for building up the broad alluvial plain, for the water is indeed especially rich in sediment. At normal times the river itself has much too fast a current to allow it to deposit material, except on the concave sides of the curves; on the other hand, the force of its water volume is so great that it has carved a bed of astonishing depth into the plain. And so the quite remarkable cloudiness flows into the sea during normal water levels: in the upper part of its course the water is stained an intense yellowish-brown (Schultze, 1911, p.125). The seawater takes on a greenish yellow-brown tinge, out to a distance of about twenty nautical miles. The bar off the mouth, formed by river silt, is quite broad.

Current speed. Naturally this varies, depending on water level, but even at low water it is quite fast for a river that flows through such an extensive alluvial plain. In April 1886 Dallmann estimated it — during flood — as about 3.5 knots in the river mouth (*Nachrichten*

für und über Kaiser-Wilhelmsland, 1886, p.67), while Full, in November 1908 at approximately normal water level, estimated an average of 3.7 knots (1909, p.740). During our journey in May and June 1909 at roughly normal water level, we found an average of about three knots and never less than two knots, and Pfarrius (*loc. cit.*) records that, at the time of the *Cormoran* voyage, the current speed was four knots at the mouth, and 1.5 – 4 knots further upstream: slight flooding had set in. These are average values, the actual current speed varies a lot depending on the breadth of the river bed. At narrow spots and on convex sides we found speeds of five and even six knots. The river must tear away parts of the bank quite often, even at normal water levels, since every day we encountered islands of chunks of bank, densely covered with grass and scrub and held together by a network of roots, floating downstream. Schleinitz, Full, Pfarrius and Schlaginhaufen also mention this kind of floating island that seems to occur at all times of the year. [31]

River depth. This river is exceptionally deep — below the Hunstein Range — even at low water level. Journeys of recent years have shown that at relatively favourable water levels even quite large ocean-going steamers can penetrate far upstream (the *Peiho* was 756 tonnes and the *Cormoran* 1600 tonnes draught) without major difficulty. There is also a good, broad channel through the bar offshore, with a minimum depth of seven metres; it also gave depths of thirteen, seventeen, eighteen and nineteen metres.

On our journey, we took soundings on average every 500 metres going upstream, and found a broad channel with an average depth of 18 metres in the lower reaches, about 15 metres in the middle section of our journey, and about 12 metres in the final stretch. Only near the Hunstein Range were the depths relatively shallow; there we even found a spot only five metres deep. If we follow the river, using the chart of the Dutch expedition (*Tidschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap*. 1911, Chart no.7), beyond the furthestmost point reached by the *Peiho*, then even just beyond the village of Málu we find quite shallow spots; these are recorded as 2¼, 2½, 3 metres etc. on the chart, and, furthermore, there are stones indicated in the riverbed. Thus, we would not have been able to travel very much further upstream in our steamer. Further upstream the depths gradually decrease, and in the mountainous region, above the spot reached by the *Pionier*, the river has an average depth of only about two metres, and at the end of our journey about 1 – 1½ metres.

Width. The river's width is also impressive. According to the estimations by our ship's officers, it is 1.5 – 2 km at the mouth (Full and Pfarrius determined similar values also); at the central part of our route it was 0.5 – 1 kilometre, and only in the vicinity of the Hunstein Range did it get narrower. There, we encountered widths of mostly 200 – 500 metres, but there were also spots where it was about only 100 metres wide. Near the village of Îmbăntön, in the lower reaches, there was an enlargement like a lake; here the river was approximately 3 km wide. Above Málu, first in the plain, the width hardly diminishes, as the Dutch chart shows, and is still 150 – 200 metres; only in the mountainous region does it become gradually narrower. The stretch of river in the Dutch territory still has a width of 50 – 80 metres.

Shipping channel. In relation to the width of the entire river, the navigable channel is also quite significant. Of course entry can entail a few difficulties, for the pass through the bar lies rather more southerly than one would expect, that is, not directly in front of the middle of the river mouth. Once into the river, one can steam fairly close to the bank without taking soundings, requiring only the vigilance to keep more in the convex parts of the river. We encountered the first difficulty at the lake-like enlargement where, because of the weaker current, one could not tell at a glance between which of the islands in the lake [32] one

should pass. As the chart shows, we first kept close to the eastern, then to the western bank, thereby making a wide arc round the village of Īmbăntön. Between the channel and the village the water is extraordinarily shallow and, during our visit, navigable only by boat. Further upstream the channel was again wide and deep. Only close below the village of Kămbrînŭm did we find a more shallow spot where, on the concave side of a sharp loop, a large sandbank had been deposited. Near the most sharply bent loop that we encountered — it lies above the village that we visited on 29 May — the water had broken through the narrow peninsula, and there was such a strong current that we immediately felt that we were in the channel. We stuck fast on a sandbank; the breach had occurred evidently only a short time before, and the channel that was indeed quite deep — on average about 16 metres — still followed its old course. Above the village reached on 30 May, we found a narrow tributary that cut off a loop and was probably fairly shallow when the river was lower. At the spot indicated in large figures on our chart, the river had shortened a loop, but evidently a long time previously, since the 8 – 10 metres deep channel was passing through the new arm while the cut-off section appeared to be silting up. We passed the spot where the *Ottilie* had run aground in 1886 without any difficulty, finding depths of 7.5 – 14 metres. Difficulties for big-ship navigation begin at the gorge through the Hunstein Range; there are stones in the riverbed, and depths are irregular and occasionally quite shallow. Of course in 1887, during favourable water conditions, the *Samoa* was able to pass this spot unhindered, but alterations have probably occurred in the riverbed since then. Therefore, if conditions do not change significantly, navigation by ocean-going ships will normally end at the Hunstein Range. With small steamers and launches one can travel several hundred kilometres further upriver; in the actual upper reaches a fairly considerable stretch is still navigable by boat, but in the end it becomes so turbulent, and rapids and tree jams are so common that further voyaging is out of the question (Schulze, 1911, p.126).

Finally, it must be mentioned that there is usually a clearly noticeable backwash, immediately below a loop and on its concave side, which the natives are very skillful at using to get upstream.

Tributaries. As with the Ramu, there are no major tributaries anywhere in the lower reaches of the Empress Augusta River; also there is no significant mountain anywhere in the immediate or distant vicinity that could send its drainage here. We did determine several smaller tributaries but, even with these, we were almost always in doubt about whether they were actual tributaries [33] or merely drainage channels for lagoons and swamps further inland, especially since these watercourses mostly had only very small outflows. Moreover, such thoughts had already come to the scientific expedition of the New Guinea Company in 1887; they accordingly sampled the water temperature of several of these tributaries, establishing that most of them surprisingly carried warm water, which meant that they were only drainage channels. What we found at these types of small waterways — we would of course probably have overlooked many smaller watercourses in the unseen land beneath the densely-overgrown banks — is indicated on the chart. I would especially like to mention only one of them; a tributary about fifteen metres wide opened near the 252 km village in such a way that the village lay on both sides of the mouth; it had a current and probably originated in the nearby Hunstein Range. The part of the river beyond this mountain chain has a whole series of tributaries, in some cases quite large ones, mostly streaming from the central ranges not far away. Hollrung writes about them: (*Nachrichten über Kaiser Wilhelmsland*, 1888, p.191 *et seq.*): “The tributaries of the Empress Augusta River come from the mountainous south, the plain north of the river is unable to support formation of a tributary.” As the journey by the German-Dutch border expedition revealed, this is not completely correct, for

in the region of the upper reaches there are several tributaries along the left bank, admittedly beyond the furthest point reached in 1887. Hollrung continues: "Of the four tributaries that were found during the second journey up the Empress Augusta River, the first and the second are the strongest: with a depth of 9 – 13 feet they have only a relatively small width; the bed is recognizable by many windings, just like the main river. The third tributary, emptying somewhat east of the Zenáp camp, and perhaps therefore suited, because it is so short, to be called the Zenáp River, contains rather less water and a less powerful current than either of the others. Its course turns, as could be seen from the Lagerberg near the Zenáp camp, in great snake-like bends through a plain spreading out in a southerly direction on the far side of the Zenáp mountains, towards a mountain peak visible in the far distance. Finally, the last of the four tributaries, which empties where the *Samoa* had to turn round during the second navigation of the Empress Augusta River, resembles the first and second tributaries." Somewhat below the mouth of this river, between it and the village of Mangi, two more tributaries, one of them bearing the name "Frieda", are marked on Chart 393 of the Imperial Naval Office. Schulze (1911) mentions a small left-hand tributary coming from the Dutch territory and emptying not far from the border, and then a second left-hand tributary uniting with the main river in the mountain region, "which inserted a crystal-clear band of cool blue water between the rocky left bank and the muddy flow of the lukewarm Sepik, at its mouth". [34]

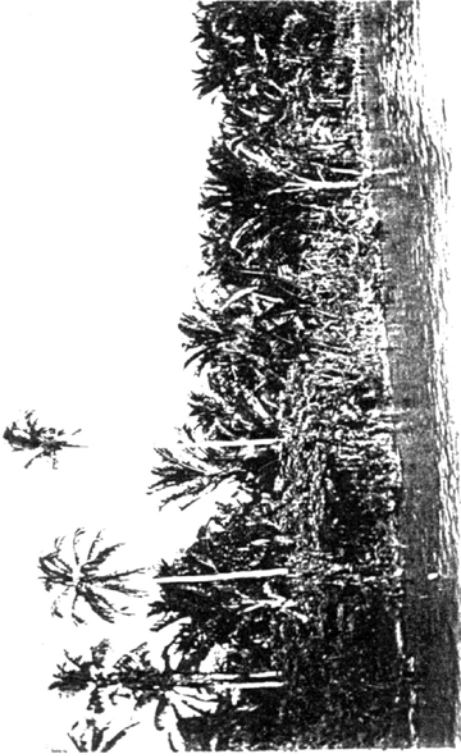
Canals. We found a remarkable kind of waterway as far as about 400 km from the mouth, that is, along almost the entire stretch that we travelled. These were regular 1½ – 4 metre wide canals that ran from the river deep inland. They mostly had no current at all or just a very small current; only one of them, leading to the village of Sīngrín visited by Fülleborn and me in a dugout canoe, showed a current sufficiently strong for the canal to give the impression almost of a small tributary stream (Plate I.1). Here, perhaps, we have discovered the long sought-for connection of the river with the great lagoon lying to the south; the natives assured several travellers (for example Pöch, 1908, p.171) that one did exist. The watercourse that we found attained the greater width of 6–7 metres right by the village. Yet all the other canals have definitely another history as to their origin; they are always waterways of almost constant width, wide enough for two or three canoes to pass one another. The banks are mostly high, and have steep sides that are carefully weeded. One becomes absolutely convinced that these are artificial structures. Of course, the natives always deny that they have built these canals, they were always there, and they restrict themselves merely to keeping the canals and their banks clean. However, it is well known that, as with the inhabitants of New Guinea, historical memory extends scarcely beyond the grandparents: if these canals had been constructed only five generations earlier, today hardly a native would know anything about it. I can explain the presence of these remarkable waterways only as naturally pre-existing connecting arteries between the river and the lagoons being gradually formed into the present canals by the ancestors of the present population. Certainly they had no far-reaching ideas or plans; it was simply the necessity of making such a saturated area accessible by any means possible; and, to produce one of these canals, it was in most cases sufficient to cut away the bank a little here and there. In this way, there arose gradually, over the course of generations, a widely-branching canal system that probably made the major part of the area habitable for the first time. In any case, an observation that we made strongly supports my contention that the canals were laid out by the natives or were constructed by them: in the broad reed bed interspersed with the water lilies covering the lake-like enlargement in front of the village of Īmbăntön, the natives had carved several sharply-delineated canals that most surprisingly resembled the others, had

the same width, and so on. These canals could not have been in existence for a long time, since this entire lake surface had existed only a few years, and had not been there in 1887. Here, therefore, we have an indication that the present natives had laid out canals, and thus the probability that the water streets cutting through the land have been artificially constructed becomes almost a certainty. Without these canals it might almost be impossible for villages [35] to be established far from the river, in the middle of the swamp, for there appear to be hardly any firm paths in the entire area. Thus, one or more narrow canals suffice to make a connection with the river and with neighbouring villages. We also observed larger canals near Sîngrîn, and also near Mbîm, Îmbăntön, Măiûm, and near the villages at 375 km; large numbers of smaller ones were everywhere.

River mouth lagoon. The big lagoon mentioned above, lying north of the mouth, which ought to be connected with the river, has not yet had detailed exploration. Only the outlet has been relatively investigated, by Baron von Schleinitz (*Nachrichten über Kaiser-Wilhelmsland*, (1887, pp.55–56). The mouth is about 300 metres wide and quite shallow; the remnants of a bar lie offshore: “The bank built up off the opening makes it not unlikely that a river had once opened here, perhaps a branch of the Empress Augusta River.” The seawater off the mouth was only slightly cloudy. “The opening bends east and west 200–300 m. from the sea, and leads into a saltwater lagoon at least ½–1 nautical mile wide and 2–3 fathoms deep, which we followed for about three nautical miles without being able to see the far end. The banks on its south side are completely covered by mangroves and the other banks partially so, which implies brackish swamp.” In November 1908, Friederici (1909, pp.331–336) visited the lagoon, which, according to him, the natives call “Avok”, and made several canoe trips on it. He writes about the connection of the lagoon with the Empress Augusta River: “In the lower reaches the Mazub also branches off, the connection between the great salt- and brackish-water lagoon and the river” (*loc. cit.* p.333). Until now no traveller has been able to establish beyond doubt where this tributary arm of the Empress Augusta River separates from the main river. I consider it highly likely, as already mentioned, that the wide canal with a strong current near the village of Sîngrîn is identical with this Mazub and, if not the most important, this canal is nevertheless one of the most significant tributaries of the lagoon.

Features of the bank landscape. Approaching the Empress Augusta River from the sea, it is not so easy to recognize the mouth from a distance, in spite of its width, because the river bends just before the mouth, its wooded left bank thereby covering the indentation in the horizon. In addition to this, at the mouth there are great stands of casuarinas (Plate II.1), decidedly encroaching upon the shape of the land. As one comes closer, the mouth is recognizable as a slight indentation, like a corridor. In the area around the mouth the banks consist of extensive sago swamps (Plate II.2). Then, above the village of Sîngrîn comes tall dense virgin forest (Plate II.3) that is especially beautiful on the left bank; it extends as far as the lake-like enlargement. On both sides of the river further upstream one sees almost entirely plains of high grass and wild sugarcane, occasionally interrupted by small groups of trees and copses, that seem to extend right to the foot of the distant high mountains. [36] Here and there, for example opposite the village of Wolem, the plain is slightly undulating. Here too in the middle reaches, broad lagoons and swamps, densely overgrown with reeds, extend on the other side of the somewhat raised riverbank. From just beyond the 252 km village a rather high twin-peaked hill may be seen emerging from the right bank (Plate I.2), growing ever larger and taking on a stronger dark blue hue. After a while one might think that further upstream the river will pass closely by the hill; but, in the end, it remains ten to twenty kilometres away. Further on, tall dense forest emerges from the grassy plains (Plate

Reche, Empress Augusta River, Plate II



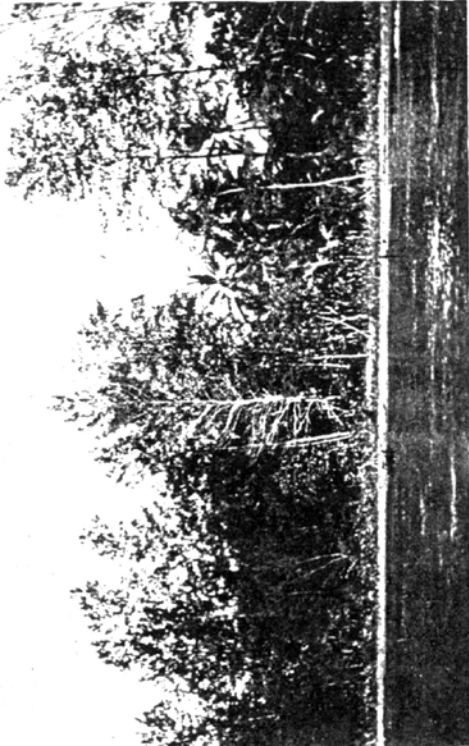
Fulleborn phot.

2. Sago thicket not far from the mouth (p.35)



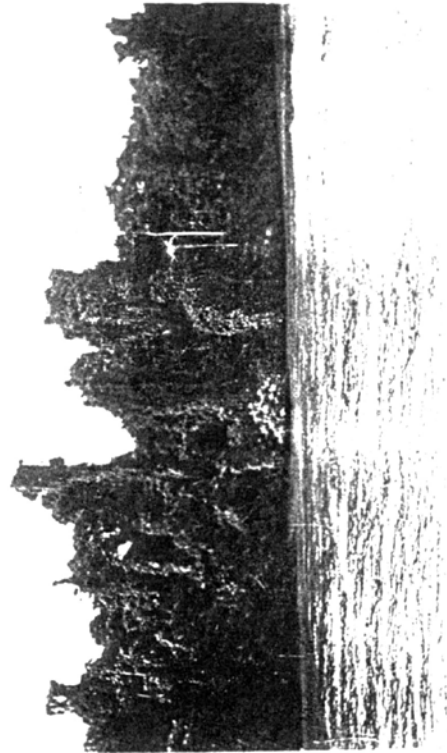
Fulleborn phot.

4. High forest in the middle reaches (p.36)



Fulleborn phot.

1. Casuarinas near the river mouth (p.35)



Fulleborn phot.

3. Virgin forest on the left bank above Singrin. (pp. 35 and 45)

II.4), and finally even the character of the grassland changes: the wild sugarcane and the high, hard grasses disappear, and, in their place, a short soft grass becomes steadily more common, so that the plain gradually takes on the appearance of a European meadowland. Small clumps of trees distributed round about often give the landscape a rather park-like appearance. Finally, the low chain of the Hunstein Range emerges, and is rather quickly reached. With steep, thickly-wooded escarpments it comes hard up to the right bank of the river (Plate III.1), leaving just enough space between bank and slope for the few houses of the village of Málu. On the other hand, the left bank opposite is completely flat; the valley broken up by the mountains is therefore much broader than the riverbed, so that it probably guarantees free access even during the highest floods. Hollrung (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.24) writes about the topographical situation of this area: "By and large the chain of hills right beside the river at the village of Málu runs in a north-east to east-north-east direction, whereas the mountain chain touching the river on the left bank somewhat above the village of Málu takes a north-westerly line and further on a north-north-westerly line. As well as the strong structure, one may also observe in the hills on the right bank narrow ridges, sharply-angled slopes, and many small water courses that seem to burst out of the numerous indentations of the hill. The mountains on the left bank appear to be less strongly dismembered; at their foot facing the plain they have gently rising slopes, and flatten out towards the north-west, whereas the mountains on the right bank climb to greater heights further on. The streams arising from gaps in the mountains do not empty into the main river as pronounced tributaries, but on the other hand several lagoons open into the Empress Augusta River. Indeed these sometimes show a current at their outlet, but on the other hand also preserve their lagoon nature by the yellow-brown shade of the water. Such lagoon formations occur north and south of the village of Málu as well as on both sides of the mountain on the left bank of the river." The neighbouring hills and mountains are almost completely covered with high forest; only in a few places are grassy flats to be seen. Above the gorge through the Hunstein Range an extensive grassy plain with a few groups of trees is to be found once more. [37] This is very swampy, just as in the lower reaches (Schultze, 1910, p.125) and has frequent lagoons (*Nachrichten über Kaiser-Wilhelmsland*, 1887, p.191). With the beginning of the true upper reaches, where it enters the mountainous region, the steepening banks gradually come closer together until, finally, the water foams between narrow rocky cliffs.

The source of the river. The Empress Augusta River does not have its source in the north-west, as has been believed until now but, as the experience of the Dutch-German border expedition has shown, in the south-east of the border region, probably in the Victor Emmanuel Mountains, the same part of the central massif as where the Fly River, which flows southwards into the British region, arises. The Digul, the largest river in the southern part of Dutch New Guinea, also seems to have its source in this mountain region.

The villages. Right in the delta of the Empress Augusta River there are a great number of villages. Not far from the sea, on the left bank, and hidden from the sea by tall casuarinas, there is a small settlement called *Kěrkěr*. Obliquely opposite, on the right bank (according to the assertion of the most recent Imperial Marine chart; it has eluded us) is a second small village, *Komanis*. Several kilometres further south is the large village of *Wātám*, which is not right on the sea coast, but on the lagoon. Pöch (1908, p.140) who stayed several days in *Wātám* in November 1904 gives the village names of *Garpok* and *Gramptrok* on his map of the stretch of coast from the lagoon outlet to the mouth of the Ramu; on the southernmost part of the lagoon there is also a village, named *Wangan*. Friederici (1909, p.333) got to know the villages of *Derpuap* and *Mobu* (or *Mabu*) on the lagoon. Full describes

Terpuap, *Mendam*, and *Karau* as coastal villages, sadly without indicating where they are located. In the catalogue of the Haug Collection in Stuttgart, the villages of *Karau*, *Medam* and *Muerik* are designated as being situated at the river mouth; the two former are identical to those named by Full.

Travelling upriver one passes the following series of villages:

Kōpǎr, at the end of the first loop, although not right on the bank but about one kilometre distant in a sago swamp: a fairly extensive village.

Sīngrín (Fülleborn, Reche), located on the right bank 46 km from the mouth; like *Kōpǎr* it is concealed to the side in sago foliage and accessible only by a frightful swampy path or by a canal. It may be 1–1½ km away from the bank; of course, we took about ¾ hour to overcome the very difficult path.

Bago, unnoticed by us, is shown on Chart No.393 of the Imperial Admiralty (1911) on the left bank, opposite *Sīngrín*.

Mabu, also indicated on Chart No. 393, on the left bank about six kilometres further upstream, also appears to be somewhat off to the side. [38]

Mbīm (Müller, = Bin, Bien, ship's officer), 60 km upstream, lies behind a few bushes on the bank.

Ráutšín (Müller) seems to be the name of a local village in the interior. The village name was given to Müller in *Mbīm* as the place where a large pounding drum is made.

Mangot (Chart No. 393, Haug, = Mangut, Schlaginhaufen) lies at about 66 km; we did not visit it.

Īmbāntōn (Fülleborn, Müller) (= Imbando, ship's officer; Jobando, Schlaginhaufen; Sobando, Haug) is located at the lake-like enlargement, about 83 km upriver, on the fairly high, firm right bank; a large village consisting of several house complexes. Since Hellwig was given the name *Nǎngit* for the part of the village where he was working, it is likely that every section of the village has a separate name; the natives also gave the impression that the settlement was made up of three interconnected villages. A site called *Sinór* (or *Síngǎrǎ*?) must lie nearby; it is probably the third section of the village, (or identical with *Sīngrín*?)

Āngöróm (Fülleborn, Müller, Reche) or *Wolem* (ship's officer.) (= Olem, Schlaginhaufen) is located at 112 km on the right bank on the concave side of a sharp loop; a large village of about a dozen houses built on solid ground. Here, too, we are probably dealing with two specially-named sections of a village.

Muǎngēm (Fülleborn, Müller, Reche) (= Mǎngem, Hellwig; Magem and Pagem, Schlaginhaufen; Pagem, ship's officer and Chart No.393) at 124 km. The correct name is evidently the first; the others are probably in part abbreviated and in part misheard forms. (With regard to village names, I have to say that where possible we inquired about them separately, in order to obtain a wider variation). The settlement, consisting of one or two dozen scattered houses, lies on solid ground on the left bank of the river.

"*Keoando*" (Full, 1909, p.739) appears to be a village, or a section of a village, nearby.

Májūm (Hellwig) seems to be the name of a village on the left bank, located inland, at the end of a long canal emptying into the main river at about 160 km; we came into contact only with the occupants of a number of canoes coming out of this canal.

161 km village, name unknown, on the left bank; was just coming into existence: several house frames were already built and small gardens laid out. It gave the impression that a daughter settlement of the village of *Májūm* was being set up.

Kāmbрінūm (Fülleborn, Hellwig, Reche) (= Kambrin, Neuhauss; Kambringi or Gambrium, Haug; Kamburumdou, Schlaginhaufen?) 166 km, right beside the water on the left

bank; very populous settlement; the village is split into several housing complexes, it has a total of perhaps two dozen houses. A section of the village appears to be called *Bínŭm*.

Lămbríngī (ship's officer) 168 km, can hardly be separated from the preceding village; it is perhaps only a subsection of it. [39]

Āmním, (ship's officer) 172 km, is situated on the right bank and consists of about two dozen houses.

Măndănăm (ship's officer) 194 km, on the left bank; probably somewhat larger than the preceding one.

213 km village, consisting of only a few deserted houses, on the left bank, not visited by us.

217 km village ("Simar" Haug), apparently quite a small village on the right bank, not visited.

Kămbríngī (ship's officer) (= *Ambŭngri*, Fülleborn, Müller; *Kambrini*, Schlaginhaufen; *Panguli*, Haug?) 230 km is probably the largest and most heavily populated village along the entire river below the Hunstein Range; we estimated the number of inhabitants at over a thousand. It is situated on the right bank and fills almost the entire concave side of a long loop of the river; it is divided into a number of clearly-defined sections.

252 km village ("Matemba" Haug), a village, consisting of about fifty buildings, whose name we could not determine. It lies on the left bank, on both sides of a small tributary running in here, and extends quite far along the river.

According to Haug there should be a village designated "hostile village" about 20 miles above 'Matemba'. Strange to say, he gives the geographical coordinates as 4°12'S., 143°42'E., which is impossible, because the point of this latitude and longitude is about 100 km further downstream — the "abandoned village" on our chart. (The geographical locations that Haug reports in his Catalogue, and which were then transcribed in the publications of the scientific participants of the journey, do not all seem to agree). In one of Haug's photographs, allegedly of this village, alongside the caption "hostile village" is the clarifying statement: "whose inhabitants attacked the *Peiho*", which similarly does not correspond, since the village whose inhabitants attacked us lies much further upstream. Furthermore, the photograph is most certainly of a village near the coast, because the houses are all of the typical coastal type.

293 km village, name unknown, on the left bank, probably identical with the village of "Radja" (Haug and Neuhauss). At least Neuhauss shows a village of this name at this point on his map (1911).

298 km village, name unknown. The village lies a little inland from the left bank, and is thus easily overlooked. We did not visit it, but the canoes that suddenly surrounded us at 9 a.m. on 3 June during our journey downstream probably came from this village. Müller was given to understand that *Pămŭngri* was the name of this village; (this is possibly an error on Müller's part: it is written in his diary, "As we found out in the afternoon, the village should be called *Pămŭngri*." It is not improbable that the natives misunderstood the question and had given the name of the village that we had already reached, whose name on shore was "Ambŭngri" or "Kămbríngri", a very similar-sounding word). [40]

309 km village, name unknown, a small village on the left bank. It is perhaps only the rear part of the larger village on the other side of the river loop.

315 km village (*Kararau*, according to the German Admiralty chart), larger, and on the left bank. Right on the shore are several fishermen's huts, the village itself lies somewhat inland.

338 km village, name unknown, on the left bank. Appears large and densely populated.

From the distances given by Haug, probably identical with “Jaunda”.

343 km village, name unknown, also on the left bank. When we visited on 2 June, the inhabitants were in the process of rebuilding it. The charred remains of houses everywhere showed that the village must have been burnt only a short time earlier.

373 km village, name possibly *Kobmá* (Hellwig), extending a long way along the right bank; a large, densely-populated place.

375 km village, name possibly *Kobméya* (Hellwig), diagonally opposite on the left bank. At least equally populous, with surprisingly fine buildings. We were attacked by the inhabitants of these two villages. Further canals led inland, with probably still more settlements lining them.

379 km village, name unknown, situated on the right bank; an insignificant place.

386 km village, name unknown, on the right bank; a rather large place. Very extensive gardens line the bank.

We were unable to discover anything about the village of *Tschessbandi*, which is designated at 389 km on the left bank, on Chart No.393 of the German Admiralty (=Tschessbandei on the map of the New Guinea Company scientific expedition, 1887). We saw only a few gardens right on the bank, extending somewhat further downstream.

We found just as little of the villages of *Jambonai* (about 403 km) and *Awatib* (about 408 km); they could hardly be right on the bank, but perhaps they lay further away, in the “light scrub” that we noticed there.

There were several fishermen’s huts on the right bank at 425 km. Perhaps they belonged to a village, named *Wawíttau*, that would be in the vicinity, according to Hellwig.

Málu or *Malute* (Fülleborn) (= Malu, on the map of the New Guinea Company’s scientific expedition), 435 km, fairly big village hemmed in between the river and the mountain slope (Hunstein Range), with a large population, that we admittedly estimated as not more than a thousand individuals, as had the 1887 expedition, which had set up camp in the neighbourhood. Perhaps the population had been decimated by some event since then. According to the 1887 determinations the village was at 142°56’E., 4°11’S.

Anănai (German Admiralty Chart No.393), 436 km, lies diagonally opposite [41] *Málu* on the flat, left bank. It consisted of only a few houses. Our *Peiho* expedition had come as far as here.

Further upriver — based on information from the 1887 expedition — indicated on Chart 393 are:

Mekhan, several kilometres above *Anănai*, in the region of the Hunstein Range.

Tsenáb, much further upstream, at 142°7’E., 4°18’S., according to the 1887 determinations.

Mangi, several kilometres upstream from *Tsenáb*.

The sketch map of the 1910 Dutch preliminary expedition (*Tidjschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap* 1911, Map No.7) showed a large number of villages in the upper reaches, but gave no individual names; comprehension of the natives was totally ruled out here.

For the sake of completeness, I am including in Fig.3 on page 42 a somewhat reduced copy of the provisional map by Prof. L. Schultze (prepared by M. Moisel and published in the *Mitteilungen der Gesellschaft für Erdkunde*, in Leipzig, 1911).

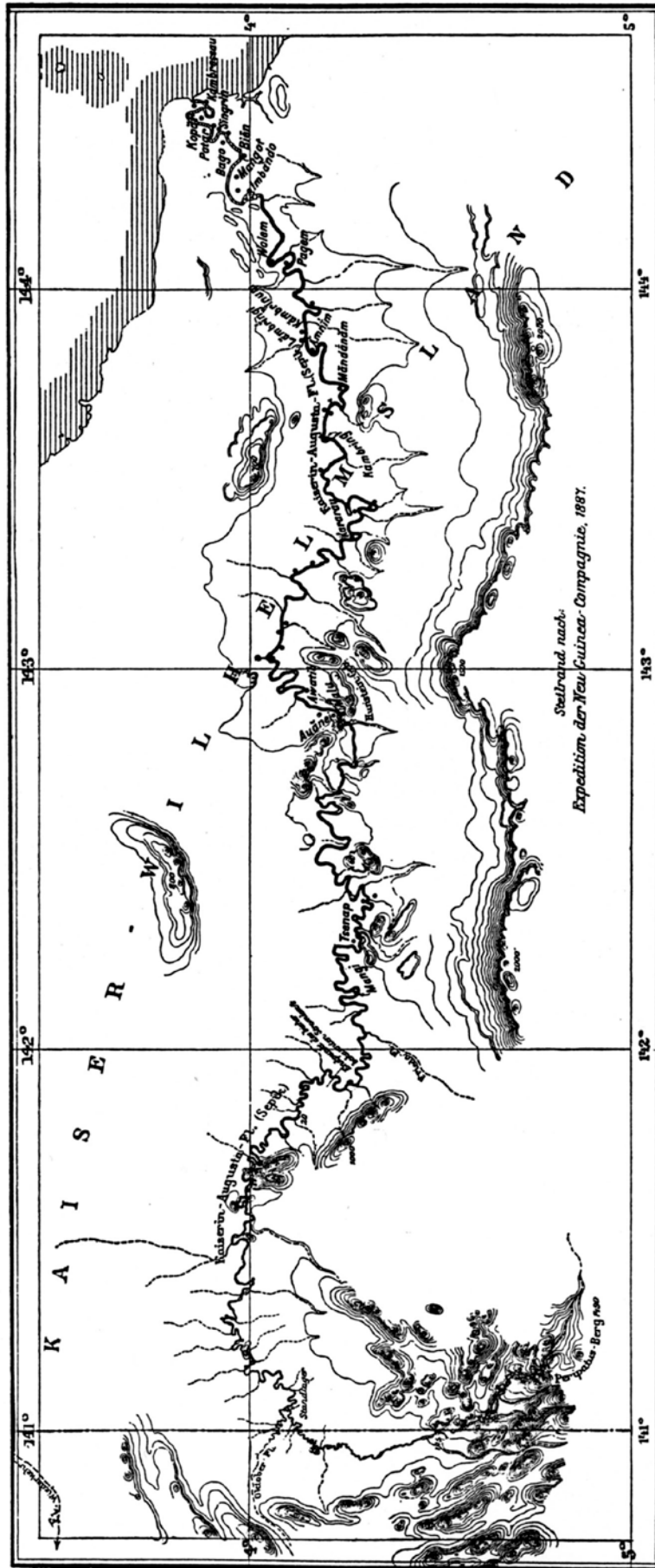


Fig. 3. Draft map of the Empress Augusta River. According to the record of Prof. L. Schultze, prepared by M. Moisel, drawn by G. Krause & H. Wehmann. Reproduced from the *Mitteilungen der Gesellschaft für Erdkunde*, Leipzig, 1911

Comments on the Map

The chart appended to the end of this volume was prepared by the officers of the *Peiho*. Naturally, no promise is made of absolute accuracy. In particular, geographical place determinations and precise measurements are missing; it was based only on soundings and consideration of the route covered. It was prepared on the voyage upstream and improved during the downstream run. The soundings are quite precise: soundings were taken on average every 500 metres. Around 860 soundings were taken in total during the journey. It differs in content from the map that I had already published in *Globus* (Reche, 1910, p.285) principally in that the village names have been improved, and the numbers of inhabitants as well as the respective distances from the river mouth have been added. Names derived from other maps or other authors have been reproduced in brackets and italics. At each of our anchorages the date of our stay has been noted; the site of our armed conflict with the natives is indicated by two crossed swords.

The Climate of the Region

“New Guinea belongs to those tropical regions where a sharply-pronounced dry period does not occur as a rule, but where every month is more or less rainy. The so-called ‘dry spell’ has merely the characteristic of a certain reduction in frequency and intensity of rainfall. Generally, the period of the predominance of the south-east tradewind is the less-rainy [43] and more pleasant time of the year. Mostly there are few clouds in the sky; the heat is alleviated by the constant air movement, which is not oppressive since the wind is only moderately strong. With the arrival of the north-west monsoon in November and occasionally starting in January, the true rainy season begins, and lasts until May. During this time rain falls abundantly almost everywhere, but in varying quantities according to the location” (Krieger, p.23). This account is probably also valid by and large for the Empress Augusta River, only one probably never feels the pleasant breeze of the south-east trade wind during the dry season because the high ranges in its path block the effect. Sadly, during our stay in May and June we hardly felt a breath of wind. The consequence is that during the dry spell it can be oppressively hot on the river; because of the many bodies of water the atmosphere is occasionally very humid. Since the ranges to the south-east influence the trade wind to release its moisture, it seems to rain only rarely in the plain of the lower reaches during the dry period. During our fourteen-day journey we had a blazing blue sky day after day, and only on one occasion was there a brief intensive downpour. But, as we have already seen further above in the discussion on flood conditions, dry, and rainy periods are significantly delayed in many years on the Empress Augusta River. For example, while we experienced a pronounced dry spell in May and June, the 1887 expedition encountered a rainy season in July; a lot of rain fell, especially at night, with frequent thunderstorms. Encamped at Málu the expedition found (Krieger, 1899, p.27):

in July	in August	
19	11	days with rain
13	13	days with thunder storms
7	7	days with only sheet lightning

“Air movement was generally very slight. Mostly, a calm prevailed, morning and evening; during the day, there was an extremely weak SW–NW wind, very rarely a north-east wind.”

Thus, there are no pronounced rainy, and dry seasons on the Empress Augusta River, although the heaviest rainfall normally appears to be during the first half of the year, roughly from the end of November until the beginning of April.

Very few observations of temperature have been made on the Empress Augusta River until now, and even fewer have been published. Observations by the 1887 expedition have been printed by Krieger (1899, p.27) in an extensive table, only a portion of which is reproduced here. Air temperature [44] was:

	7 a.m	2 p.m.	9 p.m.	mean
September	24.3°	30.0°	25.2°	26.2°
October	23.9°	30.1°	25.2°	27.1°

In *Nachrichten über Kaiser-Wilhelmsland*, (1888, p.24) is the comment: “In the Málu camp we observed on average

at 7 a.m.: an air temperature of 25°,

at 2 p.m.: an air temperature of 31°,

at 9 p.m.: an air temperature of 26°,

a soil temperature of 26.5°, and a water temperature of 27° – 28°.”

The meteorological observations made during our expedition were published in conjunction with the notes that we had gathered from other areas we had visited.

We want to mention further here that early morning mist is a very frequent occurrence on the river; the first expeditions, of 1886 and 1887 have already commented on them. “Several mornings we had to drop anchor again for one to two hours on account of thick fog...” *Nachrichten für und über Kaiser-Wilhelmsland*, (1886, p.124); this was in July 1886, and the report on June and July of the following year says: “On this journey too mist was frequently observed during the morning...” *Nachrichten über Kaiser-Wilhelmsland*, (1887, p.191). Over our fourteen days, on five of them we found the river covered with thick fog for about an hour shortly after sunrise; once it appeared, exceptionally, at around 8 a.m., only to lift half an hour later. Schlaginhaufen (1910a, p.7) encountered the early-morning mist also in August 1909.

Flora

We did not have a botanist on board. A great deal is already known about the flora of the Empress Augusta River, since Hollrung, the botanist of the New Guinea Company’s scientific expedition, had studied it intensively in 1887.

The plant world is expressed “by tropical lushness, and is divided most emphatically into three vegetation types: forest, grasslands, and sago thicket. For sheer quantity the grassland occupies first place, then follows forest, while stands of sago cover the spatially smallest portion of the ground” *Nachrichten über Kaiser-Wilhelmsland*, (1888, p.26).

In the sago swamps in the river mouth region (see Plate II.2), besides countless old and young sago palms (*Metroxylon*) we saw also nipa- (*Nypa fruticans*) and betel palms (*Areca* spp.). In the vicinity of the coast there were also large stands of [45] beach casuarinas

(*Casuarina equisetifolia*), (see Plate II.1). Hollrung (*loc. cit.* p.28) also mentions *Ficus elastica*, a species of *Nauclea*, *Hibiscus abelmoschus* etc.

The extensive grassy plains appear mainly to be covered with broad-leaved and hard-leaved grasses; the *Flora von Kaiser-Wilhelms-Land* (supplement to *Nachrichten über Kaiser-Wilhelmsland*, 1889) presents a large number (about twenty) of grass species. Right on the bank are often found huge stands of extraordinarily high sugar cane (*Saccharum spontaneum*), of which you only get some idea of its height when a man's stature is compared with it. Plate III.3 shows one of our men on a bank overgrown by sugar cane — he is virtually lost among the cane stalks, which can be 4–5 times the height of a man, reaching more than eight metres in length. At such a spot, penetration into the hinterland beyond the river is virtually impossible: you have to fight every step of the way through the trunk-like cane stalks.

In the mountains (that is, in the Hunstein Range and the associated foothills), the forest is unlike that on the plain, which Hollrung attributes mainly to the different level of soil moisture. The damp riverbank flats are occupied mainly by monocotyledons, whereas on the drier mountain slopes there are especially dicotyledons. "This feature alone confers a typical tropical flavour to the riverbank forest and gives the mountain forest a character reminiscent of the forests of Germany." "In the riverbank forest there reigns mostly an unbroken darkness, the air is damp, numerous species of vine passing from tree to tree (see Plate II,3) hinder progress, the shallow topsoil is very poor, and the undergrowth appears not very abundant because it lacks both light and air, if an old, rotten forest giant does not occasionally create both by toppling over. The mountain forest offers a different, more-friendly appearance; its less-luxuriant, rampant stands give greater space to the undergrowth and achieve the absence of vines and parasites. Overall the forest shows a great wealth of slender straight stems, often of quite significant thickness and mighty height" (*loc. cit.*, p.26). In the riverbank forest the abundance of palms is noteworthy; *Areca* and *Ptychosperma* are especially common. Pandanus species are also numerous... "several of which achieve astonishing height with a correspondingly large root clump." The pockets of forest in the vicinity of the riverbank show an especially great abundance of species.

Of the freshwater plants, a *Nymphaeaceae* particularly stood out, covering the shallow area of the lake-like enlargement near ĪmbăntŃn so densely that first of all we had to cut a path with the boat. It had red flowers. Hollrung found *Nymphaea lotus* and *Nelumbo nucifera* around Mălu.

Of the uncultivated nut plants, Hollrung mentions above all several species with tissue fibres: *Urena lobata*, *Nelumbium speciosum*, *Pandanus odoratissimus*, [46] *Kleinhovia hospita* and *Hibiscus tiliaceus* (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.29), all species that occur fairly rarely. Two species of the genuine rubber plant *Garcinia morella* were found by the 1886 expedition (*Nachrichten über Kaiser-Wilhelmsland*, 1887, p.128).

Greater detail on the quite extensive and interesting flora of the Empress Augusta River is found in Hollrung, *Die Flora von Kaiser-Wilhelms-Land*, supplement to the *Nachrichten über Kaiser-Wilhelmsland und den Bismarck-Archipel*, 1889; there are also many important details in a summary report by Hollrung on the work of the New Guinea Company's scientific expedition (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.183).

Fauna

Dr Duncker participated as the zoologist in the expedition, collecting specimens for the Hamburg Museum of Natural History. The marine and freshwater fauna particularly captured his interest, but the material has not yet been analyzed. I am therefore limiting myself to reporting briefly firstly on the observations which were presented by other expeditions, and secondly on those which we non-zoologists made incidentally, naturally being mainly interested in animals that were in any way connected with ethnography.

Especially characteristic of the fauna throughout New Guinea is the extraordinary paucity of real mammals. On the Empress Augusta River we saw only large flying foxes; we could not determine the species, or more particularly whether there were several species, since the zoologist was unsuccessful in shooting them. However, we found flying fox skins among the natives' possessions, distinguishable by the very long snout. According to the identification by the *Naturhistorisches Museum* in Hamburg, this was a genuine *Pteropus*.

Gadgets in the houses to protect foodstuffs from rats, indicated the presence of these animals, but we could not say which species, since we did not view a specimen.

Among the woodworking tools H.S. 9261 and 9262 (see Fig. 207) the incisors of a large rodent are inset as blades; in one specimen there are even two hemi-mandibles. That the teeth are from a real rodent and not from some marsupial, is demonstrated by their having an orange-shaded or yellow enamel coat. We are dealing probably with two species of the genus *Hydromys*, if it is not the *Mallomys*, which, to my knowledge, originates only in British New Guinea. Matschie (Krieger, 1899, p.76) says of *Mallomys rothschildi*: "It is as big as a rabbit, with a long naked neck; its coat consists of a long-haired, thick, black, grey-shimmering pelt, from [47] which very long bristles arise; the ears are concealed beneath the hair. With the exception of the thumb which has a short nail, the toes have large curved claws." From the size, the lower jaw and teeth fixed into the tools could have come from this animal. It is interesting that Neuhauss found similar tools with inset teeth in eastern Kaiser-Wilhelmsland. "According to the natives there is a marsupial in the Kai lands that gnaws trees like a beaver. The Papuans fix the incisor teeth of these animals to short, wooden staves and use these implements...for woodworking. The teeth are shaped differently from the incisor teeth of possums. Sadly, so far we have been unsuccessful in obtaining an animal of this type" (1911, vol.1, p.487). Unfortunately, the teeth are not clearly recognizable in Neuhauss' figures, but as far as one can gather from the description, it seems that these incisor teeth originating from the land of the Kai are those of a real rodent and not those of a marsupial. Therefore, perhaps here we have the first signs of a hitherto unknown large rodent from Kaiser-Wilhelmsland.

We were not able to see any living marsupials at all. However, in the natives' possession we found numerous white, yellow-white, yellow-red and brown pelts that probably all came from species of coussous (*Phalanger maculatus* and others?)

The number of bird species appears to be very large. In the vicinity of the mouth we saw rhinoceros birds, further upriver all kinds of water birds, including ducks and herons. Pfarrius (1910) mentions numerous white herons; Hollrung (1888, p.30) cassowaries and bush hens; Pösch (1905) two species of frigate bird. Among the ethnological material that we collected may be mentioned: *Plotus rufus* Daudin, *Paradisea apoda*, cassowary (evidently *Casuaris uniappendiculatus* Blyth), *Hypotaenidia philippinensis* L., *Fanysiptera galatea* Gray, *Rhyticeros plicatus* Först. and *Goura* (crown pigeon). These creatures were identified in the Natural History Museum in Hamburg. Cassowaries seem to be quite common on the Augusta River, as their feathers are very often seen among the natives, providing decoration for

spears, paddles, masks and the like.

Of the reptiles, like other travellers we saw the crocodile (*Crocodilus porosus*) fairly often; if it were rare, then it would hardly be used so often for ornamentation, as is the case on the Augusta River. We found a quite extraordinarily large skull lying under a house in the village of Kōpǎr; because of its size it had obviously been collected by the natives as a curiosity. The crocodile is found surprisingly far upriver; as Hollrung records (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.196), several specimens were shot even at the Zenáp base, that is, far above the Hunstein Range. Lizards are relatively common; we noticed [48] a large, pale green one also found in the Bismarck Archipelago, a brown one up to about 25 cm long, and a small blue-tailed species. The monitor is also to be found; hand drums are covered most often with monitor skin. Snakes seem to be not uncommon. Admittedly we did not see a single living specimen, but, among the items of jewellery, snake vertebrae were seen on several occasions. Snake is also not uncommon in decoration; Hollrung records (*loc. cit.*, p.196), that at the Málu base camp 3–5 m long snakes were seen. Turtles must be around too, because they are prized in jewellery; we saw none.

Of the amphibians, we saw only frogs, which are not found abundantly elsewhere in New Guinea; they made themselves more frequently noticeable by their evening concert.

The abundance of fish is very significant, whereby “Fish form a principal part of animal protein food for . . . the natives of the Empress Augusta River” (Hollrung, *loc. cit.*, p.196). Most visitors mention the great abundance of eels in particular.

What struck us among the lower animals was a very numerous species of crab that was quite delicious when cooked. The unbelievable numbers of mosquitoes made themselves extraordinarily unwelcome. During our entire journey on the river we had actually not a moment’s respite from them; they swarmed over us day and night. Even our blacks suffered to such an extent from their bites that we had to dress them in thick European clothes for protection. In the middle reaches of the river, we encountered a large species of mosquito that flew during the day as well, and pierced through even our khaki clothes and thick canvas shoes. It was remarkable that none of the usual insect repellants gave protection against these tormentors — oil of cloves and even iodoform ointment were ineffectual. On several occasions before sundown huge swarms of tiny flies attacked us, covering everything and crawling into every crevice. Schlaginhaufen too (1910a, p.7) mentions a similar event: “. . . we passed through a large swarm of yellow-coloured ephemeral flies, which billowed to and fro over the river”. [49]

Settlement

Village location. In the river mouth region there are only two small villages located right on the river bank, Kērkēr and Mbīm; all the others are off to the side, concealed deep in the sago thicket. This would probably explain why Dallmann (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.68), who on the first visit did not go beyond the river mouth swamp region, regarded the river as thinly populated. The reason for these concealed locations is probably simply that the somewhat higher, drier ground necessary for establishing a village is further inland, whereas the area around the bank is completely swampy. Furthermore, these drier sites do not, for the most part, seem to be very extensive, and so the houses of a village are often quite spread out.

As soon as the grass-covered plains with their high, firm banks begin, the villages are found right to the edge of the water, for example Īmbǎntōn, which is, of course, separated

from the actual river by the lake-like enlargement. Then both the next villages, Ǻngǒrǒm and MuǺngǐm, are built right on the bank, and so too, further up, are KǺmbrínũm, LǺmbrĩngĩ, Ǻmnĩm, MǺndǺnǺm, KǺmbrĩngĩ, the settlements at 252, 293, 343, 373, 375, and 379 kilometres, and finally MǺlu and AnǺnai. It was observed that the villages are very often situated on the concave sides of the bends, where the current is least strong, and where even during flooding soil erosion is virtually impossible. Only MǺlu lies on a pronounced convexity; here the mountain slope offers the necessary protection.

In the middle reaches, a large number of villages are inland; but they are undoubtedly connected with the river by lagoons or canals. However, this concealed location probably has an advantage: those settlements that are accessible only by canal are relatively impregnable; each one of the narrow watercourses can be controlled without any effort. Furthermore, these villages lie close to the forest that provides almost all the raw materials for constructing their dwellings, and are, in the end, also better protected against the force of flooding than the riverbank villages. It is almost certain that there are also villages a long way from the river, since the village of MǺĩũm (160 km) for example was invisible from the river, and in the area of the 373, 375 and 379 km settlements [50] we found canals leading far inland, obviously to villages which, even from the high navigation bridge of the *Peiho*, could not be seen.

The villages right beside the river itself are recognizable mostly from a great distance: where a small copse could be seen in the middle of the grass, coming up to the river, one could be certain that it harboured a settlement (Plate III, 4); these little forests have for the most part been developed by the efforts of humans, consisting, as they do, almost entirely of breadfruit trees, coconut and betel palms, and ornamental plants.

Part of the village of MǺlu has a totally different location; it extends along the steep slope of the Hunstein Range. The houses appear almost glued to the mountain, and are connected only by steep narrow paths (Plate III.2).

Most of the villages on the grassy plains of the middle reaches seem to consist of several sections with special names. This probably explains why we were given several names for many villages, and why other travellers were given yet other names. At ǺmbǺntǒn Hellwig was told directly that the settlement consisted of three interconnected villages, one of which appeared to be called NǺngĩt. Similarly, Ǻngǒrǒm and Wǒlǐm are probably part of one village, and KǺmbrínũm, LǺmbrĩngĩ, and Bĩnũm form a large combined settlement. Likewise, in the villages upstream as far as the Hunstein Range, individual sections can be recognized. An open square (with a small reception house) belongs to each one, and probably an unique ceremonial house as well; at least we found several such buildings in each of the larger villages.

Number of villages. The number of villages along our course was very significant. If all the settlements known so far are lumped together, there are no fewer than thirty-five. Thus, on average in every twelve-kilometre stretch of the river there is a settlement, although in reality, i.e. in a straight line, the villages are on average only about eight kilometres apart. Therefore the settlements are extraordinarily close together, especially by New Guinea standards, an indication that nature must have provided a particularly favourable area for settlement here.

Size of the villages. Size is quite variable; naturally I can only judge from the villages that we have visited personally, there being only unsatisfactory accounts of the others. The settlements situated in the region of the river mouth are relatively small; ground suitable for village sites in this area is probably somewhat scarce as it is, for the most part, swampy. For

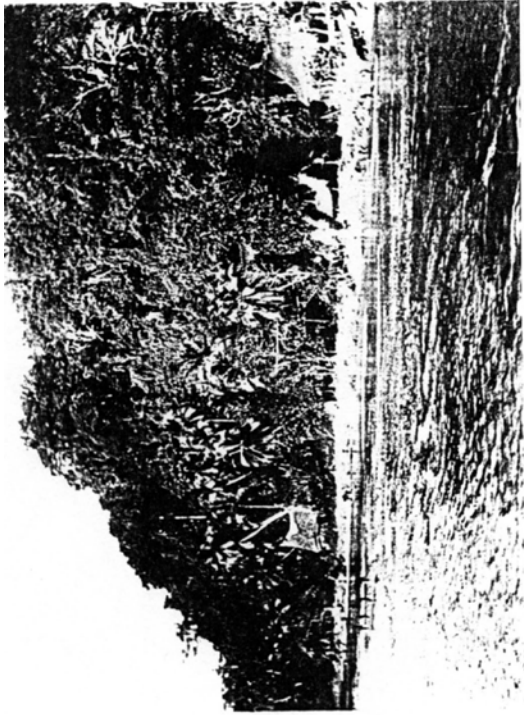
example, the village of Kōpǎr consists only of about a dozen houses, Sīngrín has perhaps the same number, Mbīm somewhat fewer, while Kěrkér consists of only four, quite small, squalid huts. If one takes the house space into consideration, then for each of the first three, one could estimate about eighty occupants. Some of the villages in the middle reaches are significantly more populous; indeed many attain a [51] size that is only very seldom found in Kaiser-Wilhelms-Land. Likewise, the village of Ĭmbǎntōn, immediately above the region of the river mouth, is already relatively significant: together with its two barely-separable neighbouring villages it has twenty dwelling houses. Also, the villages of Āngōróm and Muǎngēm further upriver each consist of about a dozen buildings; the three last-named combined therefore contain — in Muǎngēm alone we saw about a hundred men — approximately 700–800 inhabitants. Kǎmbrínũm and Lǎmbríngī together have about 30, while Āmním and Mǎndánǎm each have about 20–25 houses. Therefore, one can estimate about 400 inhabitants in each village. Further upriver lies the largest village that we visited, Kǎmbríngī, probably the most populous place on the entire river. It consists of around sixty buildings, and by our estimation has at least a thousand inhabitants. Also the village at 252 km, situated at the mouth of a small tributary and having approximately fifty houses, would have not many fewer inhabitants, and similarly the villages at 373 and 375 km. Here, swarming round our steamer, we counted no fewer than 130 canoes, in which, besides a number of women, there might have been 500 men, coming, naturally, from both villages. Finally, Mǎlu today has decidedly fewer inhabitants than in 1887; at that time there was an estimate of about a thousand people, including about 250 to 300 men; whereas today we estimated a maximum of 500.

All in all — these are, naturally, only rough estimates — along the stretch of river that we visited, and allowing for about only 200 inhabitants on average in each of the villages we did not visit, there live at least 10,000 people. Here therefore we have an extraordinarily dense settlement area.

Those villages situated further away from the river would hardly be so densely populated nor so close together as the villages on the bank; the further from the river, the lower the population density.

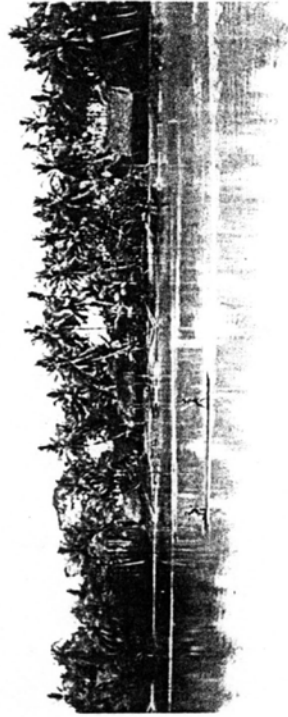
From the comparison of population numbers and the number of houses, it appears that each of the buildings must be occupied by a relatively large number of people, and the fact that there are several fireplaces in each of the houses leads to the conclusion that several families share each house. The 1887 expedition also gained the conviction “that each house sheltered several families” (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.32).

Settlement of the upper river. According to the reports of the 1887 expedition and the current publications of the 1910 border expedition, the upper part of the river, or at least the plain, is densely populated. In the actual mountain region it seems that population density drops off very rapidly. [52]



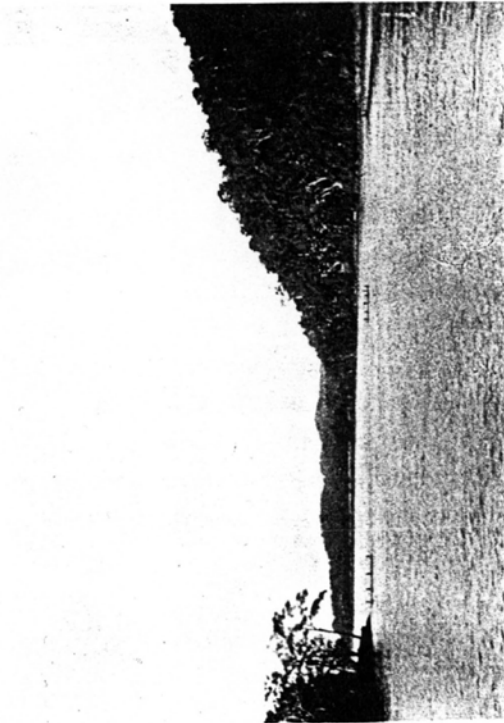
Fülliborn phot.

2. The village of Málu on the slopes of the Hunstein Range (p.50)



Fülliborn phot.

4. Village of Ámmfím (pp. 39 and 50)



Fülliborn phot.

1. Above Málu, view downstream (p.36)



Fülliborn phot.

3. Reeds and wild sugarcane in the middle reaches; a European is standing on the river bank (p.45)

The Natives

Anthropology

The extensive study of the skulls that I collected on the Augusta River and the measurements taken on living subjects were carried out in conjunction with the analysis of all the anthropological material brought back by the expedition. Therefore, I must restrict myself initially to giving only a brief survey of the anthropological situation of the region.

The natives of the river mouth area (Plate IV.1) are relatively tall; people 170 cm tall are not uncommon, and their average height may be over 165 cm. Women are probably considerably shorter; unfortunately I did not get to see any. The men are well-proportioned, although their legs are relatively weak. Their skull is long, with a face that is high and relatively narrow; their nose is prominent, with a somewhat sunken base, in most cases a slightly convex bridge, and a broad heavy tip. Their mouth is medium-sized with rather narrow lips. Their forehead is often receding, an impression even more strongly accentuated by the high hairstyle growing obliquely upwards and backwards. Their eyes are straight; I did not see any indication of an epicanthic fold, but I suspect that it does occur occasionally, because on the island of Băm (Lesson) off the river mouth, I encountered it surprisingly often. The iris colour is a deep dark brown. According to my notes, their skin shade lies between Nos. 25 and 29 of von Lutschan's skin colour chart, and mostly 26–28, that is, a warm brown. The hair on their head is black and spirally frizzy.

Pöch (1908, p.172) writes about the inhabitants of Wătăm: "The Watám are probably taller on average than the Monúmbo, and tend much more towards dolichocephaly". Pöch also took several head measurements and obtained the result: "of nineteen adult Monúmbo men measured, fourteen had an index greater than 80, while only five were below 80; of ten similar Watám men not one was greater than 80"; in four individuals the index was even below 74. In two Wătăm people I found a length–breadth index of 74.1 and 77.7, and in one man from Kōpăr only 72.4.

Further upriver the anthropological type changes, even in the short distance to the village of Ĭmbăntōn. Here their stature is shorter, and in the men is [53] on average about 155 cm, with heavy bone structure. Head and face are broader — the bizygomatic distance is great; prognathism is fairly significant, their mouth very large with surprisingly thick lips, their nose less prominent than that of the people at the river mouth, and the sides of their nose are broad and heavy. Their entire face looks somewhat rough and primitive. At first glance their whole appearance is reminiscent of the Baining of the Gazelle Peninsula (New Britain), which has struck other travellers as well. Friederici (1909, p.334) writes "They are dark, like the Baining, approximately 32–33 on von Luschan's chart; the women are often somewhat paler", and: "In their features too they seem in many ways somewhat rough and Baining-like". In actual fact, their skin shade is surprisingly darker than that of the coastal people.

From the village of Ăngorôm onwards, the physiognomy changes yet again (Plate V,1). Their height is possibly even somewhat shorter than at Ĭmbăntōn (155 cm), since we saw relatively more people under 150 cm tall, than over 160 cm.

Their skin colour is similar to that of the inhabitants of Ĭmbăntōn, except that their face is often surprisingly paler. They have long and narrow heads, with faces mostly broad and low with prominent cheek bones. Their nose stands out, with its tip often extended from

the face while the base of the nose is deep-set under a jutting forehead; the bridge of the nose is remarkably flat until just above the tip, so that their nose often shows a rather markedly concave profile. The lower jaw shows strong prognathism. This people's type is actually even more similar to that of the Baining than those people discussed just previously: in the illustration, the second and fourth men from the left are particularly characteristic representatives of the type. As well as this type, there is a second, much more finely-featured type with a relatively narrow face and a rather narrower and more prominent nose whose base is only very slightly recessed; it is often quite strongly reminiscent of what we designate as 'finer Jewish-type'.

In Kāmbrínŭm, Mǎndánǎm and the neighbouring villages, both of these types are found side by side, but here too the finer Jewish-type is very much more rarely seen than the coarse type; I saw it in only a few young men. A fairly large portion of the population represented a mixed type, but with a distinct dominance of the primitive type (Plate IV.2).

From the 252 km village on, the heavy type with the broad face and flat-bridged, deep-set concave nose, that dominated thus far, now steadily recedes and the 'Jewish' type gains the upper hand. However, pure representatives of both portions of the population are seen relatively rarely; the majority show a mixture of features (Plate V.2) but with the 'Jewish' type having the greater impact. Skin colour is on average paler than further downstream, and the stature (with the exception of one village) is rather more considerable; at least, really short people were seen more rarely. Body build is not particularly well-proportioned, since the legs [54] are generally too short and slender in relation to the arms and torso; the 1887 expedition has already commented on this: Hollrung's report (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.30) discusses the natives of this region: "The latter are in general of medium build with a powerful upper body and weak legs, a fact that is adequately explained by their life on the river." The nutritional status of the people was mostly remarkably good (Plate VI.1) although there were no truly solid individuals.

The women (Plate VI.2) are smaller and, in places, somewhat paler. Often they have relatively pleasing features, yet one also sees faces of frightful ugliness among them.

The population described here lives right up to the Hunstein Range; in several villages, such as 343 km village, the more primitive type again becomes more numerous, but in most places members of the more refined type are predominant. Not infrequently, remarkably intelligent faces are found — these can often look quite sly as well.

In the village of Kāmbrínġī a third, stronger, element appears to be mixed into the population. It struck us immediately here that the stature varied quite disproportionately: there were a large number of adults who, while not deviating in other ways, were only 145 to 150 cm tall, but, on the other hand, there were people who measured 160 and 165 cm. In this village in particular, I also obtained skulls that were remarkable for their abnormally small size. Therefore, there must have been an admixture with a very small people (see below).

In the village of Mǎlu at the foot of the Hunstein Range the more refined 'Jewish' type recedes again, and the coarser dark-skinned type is seen remarkably more often. Many of the inhabitants have broad, prognathic faces, and noses with flat bridges and deeply-inset bases, with prominent tips projecting a long way from the face (Plate VI.3). Their face is frequently paler, especially the nose. Again, the women have relatively more attractive features (Plate VI.4), at least the younger ones; indeed throughout New Guinea the older ones are frightfully ugly.

In the upper Augusta River, in the village of Zenáb (Tsenáb) there are allegedly very big people (Krieger, 1899, p.143); we have no further details about them.

Reche, Empress Augusta River, Plate IV



Fulleborn phot.

1. Man from Kōpār. (p.52)



Fulleborn phot.

2. Men from Kāmbrñüm. (p. 53)

Preliminary investigation of the skull material that I recovered (around 100 specimens) has already yielded several interesting results. I have to say at the outset that a portion, perhaps the majority, of the skulls were from people from enemy tribes that in part probably dwelt further into the interior. Therefore examination of the skulls does not yield totally unbiased information about the anthropological situation on the river itself. It is conceivable that one or other of the types found occurs only in the hinterland. Unfortunately, on account of the poor interpreter situation, it was possible in only a few cases to establish beyond doubt whether a skull had come from a member of a village or from a slain enemy.

[55] Among the skulls collected along the river, five quite well characterized types may be differentiated. I will briefly present their most significant features.

Type I. Meso- to brachycephalic broad skull whose maximum breadth occurs in the region of the strongly-pronounced parietal boss. The length-breadth index ranges from 78.2 to 83.8 with an average of 80.5. The skulls are relatively low. The 'minimum breadth' of the frontal bone is small, while on the other hand the 'maximum breadth' of the frontal bone is absolutely-, and, in comparison with its 'minimum breadth', very, large. Also, since the nasion-bregma distance is short, the impression of the frontal bone is that it is short and in the upper part very broad; its curvature is small. The base of the nose is flat, not inset; the nasal bones are relatively prominent and fairly strongly inclined towards each other. The orbits are mostly high, in several cases almost as high as wide. The face is broad, the cheek bones are extremely massive and project strongly. Prognathism both nasal and alveolar is marked. Skull capacity is mostly very small, only a few skulls have greater volume; it is mostly in the region of 1150 cc, ranging between 980 and 1360 cc. Thus, according to Ranke, the majority of skulls are nanocephalic with only a few emetrocephalic; by Sergi's classification they are mostly elattocephalic, but in part physiologically microcephalic.

Type II. Mesocephalic broad skull whose parietal bosses are not especially strongly pronounced. The length-breadth index ranges from 75.5 to 79 with a mean of 76.4. Skull curvature is fairly small. The most striking feature is the large frontal breadth, also in the region of 'minimum breadth'. The frontal bone is thereby fairly short and slopes backwards. The base of the nose and the nasal bones are flat, the latter only slightly inclined towards each other. The orbits are mostly high and round. The face is broad; the cheek bones project rather widely. Prognathism is relatively insignificant. Cranial capacity is mostly very small, ranging between 1030 and 1320 cc, with an average of 1136 cc. Therefore, with one exception, the skulls are likewise nanocephalic or physiologically microcephalic.

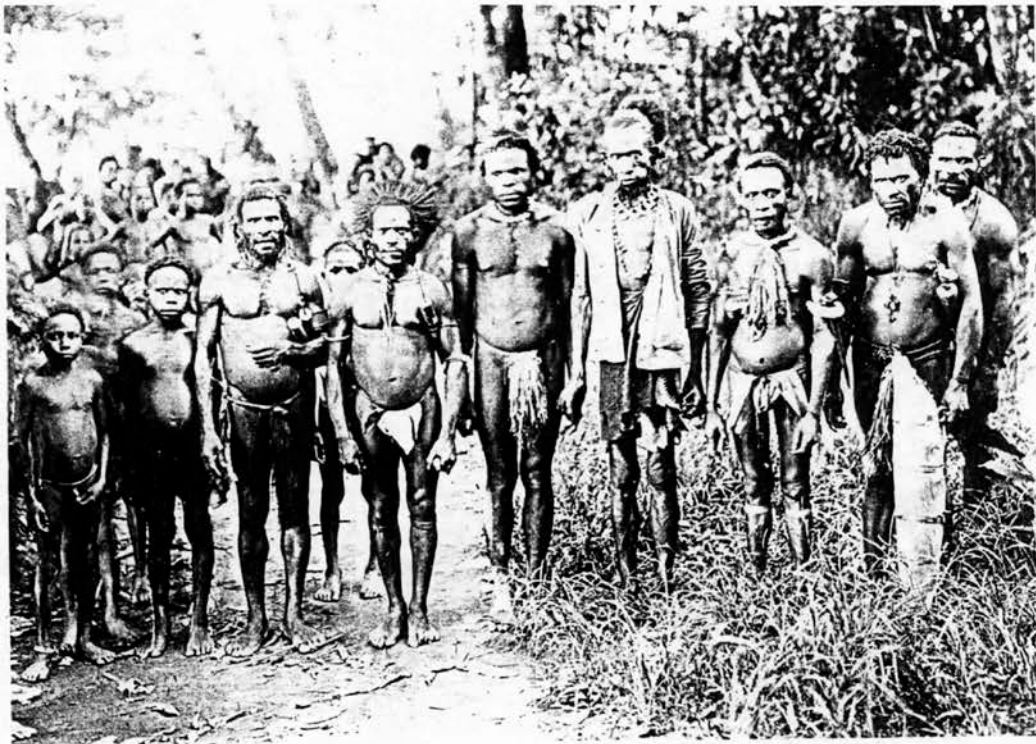
Type III. Narrow dolichocephalic skulls with high curvature; the parietal bosses are very slightly developed. The length-breadth index ranges from 69.6 to 73.9, with an average of 71.7. The frontal bone is long, narrow and well curved. The base of the nose is somewhat inset; the nasal bones rather flat. The orbits are mostly low and broad. The face is rectangular and relatively narrow; the cheek bones are gracile and lie back somewhat. Prognathism is almost purely alveolar and fairly small. Cranial capacity is somewhat greater than in the two previous types, reaching quite impressive values in several individuals. It ranges from 1100 to 1410 cc, with an average of 1211 cc. According to Ranke's classification the skulls are partly nanocephalic and partly emetrocephalic; according to Sergi they are mostly elattocephalic with a few even physiologically microcephalic, while others are oligo- and even metriccephalic. Thus, with regard to cranial capacity, this type shows a wide range of variation.

Reche, Empress Augusta River, Plate V



1. Men from M'angem. (p. 53)

Fulleborn phot.



2. Men from Kämbrŋgi. (p. 53)

Fulleborn phot.

Type IV. Quite similar to Type III discussed above; they are narrow, dolichocephalic skulls whose length-breadth index ranges between 66.8 and 76.9 with a mean value of 70.6. The parietal bosses are rather prominent but lie surprisingly posteriorly. The base of the nose and the nasal bones are very flat. This type differs especially from the previous type in the broad development of the face and the form of the cheek bones, which project very widely and massively. The whole face gives a very flat impression. Prognathism, especially alveolar prognathism, is significant. Cranial capacity is mostly large, 1300 cc on average, and, in my material, the limits were 1130 and 1440 cc. The skulls are therefore nano- to emetrocephalic, and mostly oligocephalic.

Type V. Narrow dolichocephalic but at the same time short crania with fairly steeply-falling occiputs. They are well curved, especially in the frontal region. Parietal bosses are not well developed. The length-breadth index averages about 72. The base of the nose is somewhat imbedded; the nasal bones are relatively prominent and quite markedly curved towards each other. Face is short and broad with cheek bones projecting fairly widely. Prognathism is quite significant, particularly the alveolar portion. Cranial capacity small. Only a few specimens represent this type.

Types I and III are by far the most common; they correspond with the two types that Seligmann (1909) presents for British New Guinea (Papua): my broad Type I corresponds with his "Papuan", and my Type III matches his "Papuan-Melanesian". It is therefore interesting that the Bismarck Archipelago tribes (for example Baining, Sulka etc.) that speak Papuan languages, also, according to my material from there, present a skull type that is extraordinarily reminiscent of my Type I (Seligmann's "Papuan type"). The noticeable "Baining similarity" already mentioned above in the living, can therefore also be discerned in the skulls.

Since Type II is probably only a variant of Type I (perhaps caused by an admixture with one of the other types), and Type IV is close to Type III, we are dealing in total with probably two or three population types, as differentiated by the crania, on the Augusta River. The great diminutiveness and the small cranial capacity, especially in Types I and II is surprising, and leads to the certain conclusion that the owner's build must also have been very small.

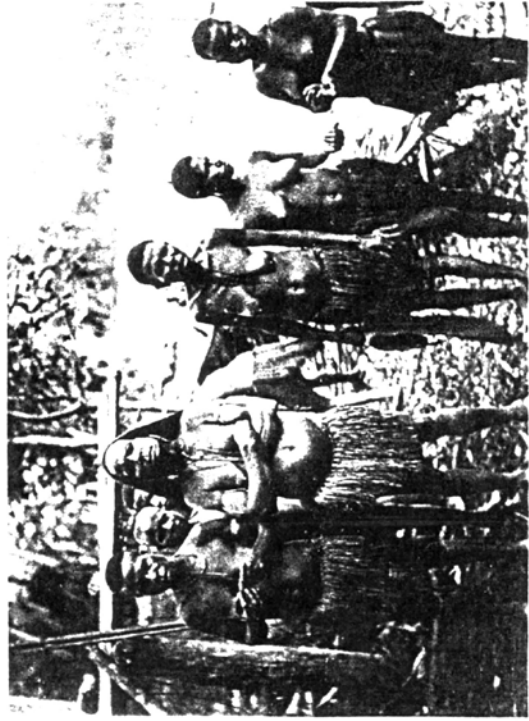
When one combines the results of the investigation on the living and the skeletal material, one gets the impression that one or two others have been layered on to a dark-skinned, broad-skulled, coarsely-built, small-boned — perhaps an earlier amalgam of several types — pygmy-like race (skull types I and II). The former are designated by paler skin shade, long narrow crania, narrow prominent faces, more slender build and greater [57] height (skull types III and IV). The admixture did not remain as a mechanical mingling, but has led to extensive blending, so that the present population can principally be regarded as a cross-product, yet one in which frequent throw-backs to the original components can relatively clearly be recognized. The interlopers appear to have settled mainly in the river-mouth area and the middle reaches (perhaps at different periods of time), whereas in the section between, and in the Hunstein Range, the original population was able to preserve itself in a relatively pure form.

Reche, Empress Augusta River, Plate VI



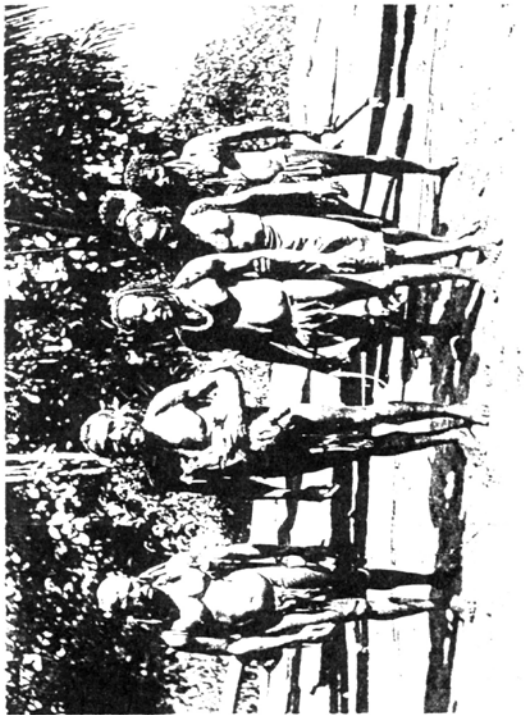
Falkeberg phot.

2. Women from the 252 km village (p. 54)



Falkeberg phot.

4. Women from Málú (p. 54)



Falkeberg phot.

1. Men from Kiambríngi (p.54)



Falkeberg phot.

3. People from Málú (p. 54)

Psychological

During our journey we were able to observe that the natives living further upriver showed a different, more lively temperament to those of the river mouth area. The latter, including our interpreters, bore a remarkable, actually stoic, calm. On the other hand, from Kāmbrínūm village onwards we were constantly met with overwhelming delight. Our steamer would scarcely be in sight of a village when, every time, a great cry would go up, the large slit drums would be sounded, the wooden horns blown, and soon we would be surrounded by numerous canoes in which wildly yelling and gesticulating men would be standing. Then, when we entered the village, the uproar became even greater: everyone talking to us in the most lively way, and every new item brought out of the trading chest unleashing new storms of surprise and delight. At first one actually got the impression that the natives living in the middle reaches were of a more lively temperament and more quick-witted than those of the river mouth area, but when one reads that for example Dallmann (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.68) the first white man to travel upriver, was greeted in an extremely lively manner also by the inhabitants of the sago swamp — “very noisy in their expressions about the new arrivals, and trusting within a short time” — one comes to the conclusion that the major part of the gaiety can be traced back to the astonishment and the excitement about the appearance of the white person, still unknown in many villages. On the other hand, the European was no longer a novelty to the inhabitants of the river mouth: they no longer became especially excited about it, but had grown suspicious of the white man. Whereas even women and children showed little shyness during Dallmann’s time, only a few men received us in the villages each time; all the women and children and, indeed, most of the men, had sought shelter in the bush. The people here must have already had bad experiences with the whites, and perhaps there is some truth in the story by the Kėrkėr people that some time ago a *kiap* (captain?) had taken some of their possessions by force, because the open distrust shown recently by the people must in any case be based on some conflict. The further upriver we went, the less [58] shy were the people. At Īmbántōn, Āngōrōm and Mũǎngēm, although the women and children had left the village on our arrival, all the men had stayed. They had evidently done such good business with both 1908 expeditions that they did not want to let this one get away. In Kāmbrínūm, they were quite trusting; in Mǎndánām women and children remained in view, although at a distance; and in all the villages above this point women and children came out in the canoes to meet us, quite ingenuously, and also displayed little shyness on land. Only at the village of Mǎlu, at the foot of the Hunstein Range, were we received once more with distrust. As the people indicated to us, they were frightened that we might stop here overnight and possibly set up camp; they obviously remembered that the 1887 expedition had established a camp in the vicinity, and that this had soon led to hostilities. Only when we told the natives that we would stay on board overnight and would soon travel on again, did they become amiable and launch into trading. However, in spite of the pervading distrust, the women had remained in the village, and approached quite trustingly. In Mǎlu they did not approach us as noisily and full of spirit as further downstream; here, there had already been close contact with the Europeans.

In many villages, the people’s tendency to thieve made itself uncomfortably obvious. Anything that they fancied, they took without further ado. Dallmann (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.68) had already complained that the inhabitants of the river mouth region were pilferers, and the 1887 expedition had had the same experience

with the inhabitants of Málu: the initially tolerable relations with the natives “soon became troubled. . . due to the intrusiveness of the natives and the associated acts of theft, so that it soon came to open hostility. .” (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.23). At both these places, the river mouth region and Málu, the people, obviously chastened by experience, made not one attempt at theft from us. All the more did we have to suffer the people’s tendency to thief in several villages in the middle reaches. What was remarkable was that the inhabitants of these villages, quite close together, behaved very differently in this regard. For example, while the people in Kämbríngī were very amiable towards us and made not the slightest attempt at theft, only 20 km away in the 252 km village we could barely save ourselves from the light fingers. As soon as the people came alongside in their canoes they simply seized everything that they fancied out of the portholes; for example, they stole all the family photos of one of our men, off the walls. On shore you had always to be alert and even watch your pockets; in spite of this Mr Hellwig had a notebook removed from his pocket with great skill. Only after several hours of negotiation, and earnest entreaties to the old men, and the offer of a reward, was he able [59] to recover the book, which had absolutely no value to the people. Trade here was made extraordinarily difficult by the people’s impudence and kleptomania. To bring the people to their senses to some extent, there was often nothing else for it but to pack up all our trade goods and remove them from their covetous eyes. In spite of all our calmness on several occasions it could almost have come to conflict. At the very next village, 293 km, we were again received in remarkable friendly fashion; there was not a trace of timidity, but they made no attempt at theft. At the 343 km village, the place that must have been burned down a short time previously, the people were of such charming demureness, that we marvelled at it time and again; here they evidently did not blame us for their misfortune. Only thirty kilometres further upriver lay both major villages where finally, on account of the natives’ totally unbridled impudence and attempts at theft, we came into conflict. The people appeared to regard it as their right to appropriate everything that they liked, and were extremely indignant when, in all friendliness, we wanted to reclaim our property, instantly putting their throwing spears into the wooden launchers, ready to throw.

We interpreted the so-widely-varying behaviour of the individual villages as being that only those natives who had already had dealings with Europeans behaved diffidently, because they already knew that the white man was armed and would not defencelessly allow everything to be taken. The others probably regarded our rifles only as clubs, and were therefore of the opinion that taking was much easier than trading. We often had the impression that, with our chests full of beautiful things, we were regarded only as welcome booty: the gestures, and the whole demeanour of our hosts was often all too clear for us to be mistaken about their intentions.

We often found that the people traded quite happily with us from their canoes, but were nothing short of delighted when we came ashore and even entered their village. Thus they prevented us from visiting the village of Májūm; they simply refused to take us in their canoes along the canal leading to the village. In Īmbántōn they categorically forbade us to enter one part of the village and when we wanted to enter the part of the 252 km village that lay on the other side of the small tributary, they began, without further ado, to break up the bridge in front of us. On top of that, when we occasionally attempted to glance inside the houses, they were even less happy; in 252 km-village it might almost have come to conflict as the situation had indeed already become rather tense as a result of theft. In another village where we were getting along very well with the people, they simply pulled Müller by the legs back down the steps, when he wanted to glance into a ceremonial house.

Where they appear more unassuming, the natives, at least in the middle reaches of the stretch we visited, give the impression of harmless, joyful [60] people. Not only men, but women and children too, readily made jokes, and without much effort one could unleash storms of mirth. In Țimbăntoan one of us when climbing into the boat slipped on a slippery trunk in the water and fell in; the natives burst out laughing.

The reaction of people who had never before seen white people was often very interesting. In many cases they did not know about iron, nor how to set about anything with axes or knives, and even when we introduced the custom only a few were interested in buying. Our skin shade and hair colour often evoked great astonishment. When one of us took off a boot and sock, there was general amazement that white skin appeared there too and, before he realized, they had pulled off the other boot to see whether the other foot was just as pale. Now and again somebody would pass their hand over our skin and be visibly astonished that the white colour did not disappear, they had therefore regarded us as painted. In Kămbriŋgî an old man led us to his dwelling, called his family out and asked us to remove our hats: a cry of astonishment, and with our permission they scrutinized and felt our blonde locks over and over again. We can thank our matches for some very comic scenes. Once I was sitting beside my trading chest, surrounded by thirty natives, and I displayed its contents, to initiate trade. I opened a matchbox and with a quick strike lit a match; the entire circle immediately fled, full of terror, and came back, cautiously, only when the match had gone out. When I took out a second match, an old man held my hand firmly, and begged me fearfully not to repeat the act of magic. And so each time the crowd pressed round me too closely and the people became too lively, grasping the matchbox was enough to conjure up the greatest diffidence. When I was packing everything up at the end, an old fellow with a cunning expression sidled up to me, slyly glancing round, and very quietly begged me for such a magic charm, the matchbox. The idea had probably surfaced in his brain, that he could use this magic to his advantage. He was terrified, but forced himself to ask me to perform the trick once more, then paid a conch shell and disappeared with his treasure. Hellwig had a similar experience in Măndăna: panic-stricken people falling over one another when the match flared. Remarkably, the people of 293 km-village behaved completely differently. Here the blazing match did not cause the least panic, on the contrary they watched the event very calmly and with great interest; several even attempted to imitate the experiment, but to their surprise the matches did not light but broke instead.

The behaviour of the natives on such occasions must depend very much on the prevailing mood; the same event can have [61] a very different effect on people of the same cultural level. For example, while Pfarrius (1910) records "The siren had the effect of a clap of thunder on a transformation of the scene; several fell over, everybody disappeared in the shortest time", in the evening of 31 May, we tried in vain to send the people of the 373 km village ashore in their canoes by sirens, steam whistles and ship's bell, to spare us, at least during the night, from their kleptomania. Even rockets and a red flare had only a brief success: although the canoes nearest the ship hastily paddled a distance off in an initial fear, when they experienced no disastrous effect, they acknowledged our fireworks with joyful laughter. Here they evidently regarded themselves as so superior and us as so weak that nothing would easily frighten them. Only when the captain posted crew along the rail with buckets of water did they consider it advisable to withdraw, albeit slowly, back to shore. That we had totally failed to impress them was shown the following day when, before sunrise, they again swarmed round us, attempting to steal, and finally attacking us. On the other hand, off Măngem the steam whistle had a similar effect to that which Pfarrius described: when we gave the departure signal to our zoologists, over a hundred natives who stood watching

us on the shore immediately rushed in headlong flight, running into and around one another, into the bush: such an unexpectedly comical sight that everybody on board burst out laughing.

The great intellectual alertness, especially in the people of the middle reaches, was surprising; they showed the greatest interest in anything that was foreign to them. In his diary Hellwig recounts about the people of 293 km village: "Writing in a notebook was of the greatest interest to them. My *pince-nez* wandered over the noses of women and children; the women especially inspected my clothing, buttons, pockets, and hat, and felt my arms and legs as well". In contrast to a lot of other Kanakas, the people very quickly grasped the purpose of the looking glass, not only the normal hand mirror, but they very soon also recognized their own image on the shining reverse side of our large metal labels. Their joy was great, and mirrors became such a sought-after article that our stock was very quickly exhausted.

The people mostly had an unlimited mistrust of our photographic equipment; so many a fierce-looking warrior began to tremble as soon as he saw himself confronted by this sinister box. Frequently, they would only stand still if our interpreters stood among them, or if their attention was distracted by anything that aroused their curiosity. Remarkably, the people of Málu were the sole exception; here several women also stood in front of the apparatus with a pertness and candour as if this were a daily occurrence (see Plate VI.4).

It was also noticeable how differently the people behaved towards the anthropometric [62] instruments. In several villages, with the best intentions, not a single measurement was obtained, while in others we were allowed to take all our measurements without anyone showing a trace of fear; it all depended on how the first subject behaved: whether he showed courage or fear. In Mändánām Fülleborn was successful even in taking blood samples from a whole series of natives, to test for filariasis.

Gratitude is extremely rarely found among the inhabitants of New Guinea; all the more astonished were we to encounter this virtue in an inhabitant of Kāmbríngī village. The man was wearing his arm in a sling, and when Fülleborn replaced this with a European bandage the patient was so overjoyed that, voluntarily, he immediately took two large bundles of tobacco and laid it at the feet of the doctor as a payment.

The Dutch preliminary expedition of 1910 (*Globus* 1910, vol.98, pp.376-377) records all kinds of interesting things about the behaviour of the natives of the upper reaches. In one village the natives hid "behind trees while the sloop went past and evidently protected themselves against an anticipated halt". The expedition had to stay overnight in the vicinity of this village: "the following morning there appeared a steadily increasing crowd, who performed a droning war dance on the sandbank where we were bivouacked. A couple of warning shots caused the warlike blacks to take to their heels. On another day we reached a village whose inhabitants likewise adopted an expectant armed pose, but in the evening, after some vacillation, laid down their bows and arrows and came into the bivouac where trading then ensued". In another village the men observed the foreigners passing by, while forming a sort of battle line, whereas the women and children took all their personal possessions in great haste to safety; finally the men ran to the foreigners "and besieged them with questions which the latter could neither understand nor answer." Further upriver the expedition was frequently shot at with arrows; "during a stop on a sandbank a minor skirmish even developed, in which the whites had to fire off a salvo." "On another occasion the population was decidedly friendly and showed their great pleasure at the arrival of the foreigners." The travellers experienced a quite remarkable spectacle when, on the return journey, they came into contact with the village where the minor skirmish had occurred: "a group of natives armed with bows and arrows approached the travellers with slow, pall-

bearer steps and laid down their weapons in front of them. There was no further sign of hostility; women and children appeared as well. Trade was conducted with yesterday's enemies and the contact was on the best of terms. One black pointed to the rifles and showed through gestures that they were frightened of them."

As with the 1887 expedition and as with us, the German-Dutch [63] border expedition had to experience that, due to the great intrusiveness and the self-assurance of the natives, it is very difficult in the long run to come out peacefully with them. Schultze (1911, p.126) writes: "The natives of the upper reaches. . . could not be counted on for food or support. Even in the immediate vicinity of the base camp the initially-good relations gave way to open hostility." The basis for these ever-recurring conflicts lies, aside from the already-mentioned characteristics of the natives, in the impossibility of a verbal understanding with the people of the middle and upper reaches. And so the floodgates of all kinds of misunderstandings are opened: without suspecting, and without the natives being able to make it clear, the white man, even with the best will in the world, will all too often give offense against the people's religious and moral feelings in the grossest possible way. A future expedition, which should make it their intention to penetrate right into the rich culture and the spiritual life of the inhabitants of the Empress Augusta River will therefore, if they want to avoid failure, proceed systematically; and must begin with the basic exploration of the culture of the river mouth region. Only when this is understood and the local language is learnt, will one, gradually penetrating upriver, be able to aim for success in the middle and upper reaches as well. However, if one embarks upon the task from the other end, and begins with a total lack of knowledge, then in the most favourable cases one will bring home several more specimens of the material culture and . . . a series of false or half-understood accounts.

Medical

Health status. The population generally seems surprisingly healthy, strong and well-nourished. The ubiquitous "ringworm", so common elsewhere in the South Seas, here occurs remarkable rarely. In particular, we have not seen elephantiasis, and tuberculosis or leprosy seem to be equally rare; sexual diseases are likewise unknown, since up till now intensive contact with Europeans has been lacking. Whether malaria occurs is currently not yet established: the mosquitoes examined by Fülleborn during the journey showed no filaria; investigation of the blood smears and the many thousands of mosquitoes that we caught remains outstanding. In the village of Kāmbrīngī Fülleborn observed a man with a defective, corroded nose; it appeared to be necrosed. Surprisingly often we saw remarkable skin thickenings, often reaching the size of a plum, situated either in the patellar or the trochanteric regions; what it is will be revealed only by close examination of the samples that we brought back.

Native healing skills. Although the people appear to be quite warlike, only in one village, Kāmbrīngī, did we see several wounded. One man here had a head wound that he had evidently received in battle. The surrounds of the [64] wound were shaven and the wound itself covered with green leaves. Another had his arm in an unique splint that was held in place by a plaited band hung around the neck. Remarkably, no wound could be found on the arm, nor was a fracture established, so that we could not really ascertain why the man actually had his arm in the binding; but he was rather plaintive about it and indicated to us that he was in pain.

The binding **H.S.1871**, Kāmbrīngī: (we removed this from the man and Fülleborn replaced it with an appropriate European one) consisted of twelve staves, on average 14 cm long, of a soft, pulp-like wood laid side by side (Fig.4) that — there is a transverse hole bored just short of each end — are strung on two straw ropes. They are arranged in such a way that the smooth side is inward and the curved side outwards: a very practical arrangement since while the splint gives great stability, only slight pressure is exerted on the arm. To secure it, there are firstly the ends of the straw rope and also a double-stranded plaited narrow band, 90 cm long, wrapped several times around the splint. As a bandage to hold the arm firmly in a transverse position there is a broad girdle, also plaited from cord, which is spliced into the narrower one; this support bandage is 193 cm long. The technique is the same for both cords; it is shown in Fig.232.

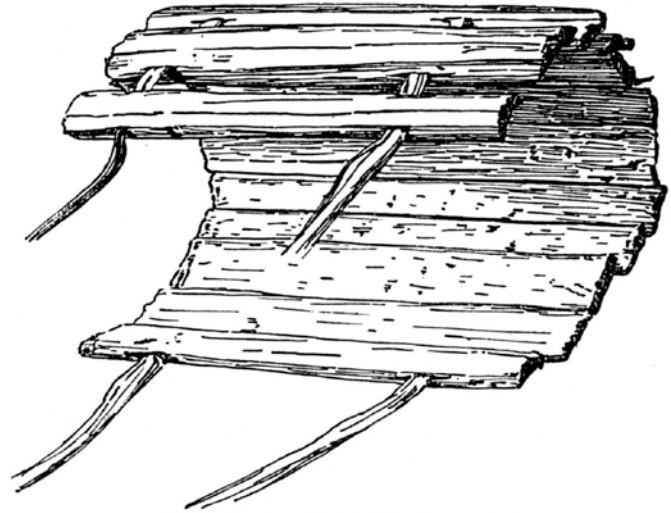


Fig. 4. Binding H.S. 1871. ½ actual size

Possibly the bark of the *Massoi* is also used for medicinal purposes, forcibly driving out all perspiration. Nothing could be discovered about this; the only thing known so far, as reported by Hollrung (1888, p.447), is that it is used as an aphrodisiac. [65]

Language

The linguistic material that we brought back has been studied by Dr A. Byhan; as far as he has been able to determine at the moment, the languages include several Melanesian elements but also foreign portions as well, that have not yet been classified.

How many language zones we actually came into contact with, has not yet been established because of the scarcity of recognizable material from the middle reaches. During the journey we had the impression that we were dealing with three languages, one of which was spoken in the river mouth region, roughly as far as Mbīm. The second appeared to extend approximately from Īmbăntŏn to Măndănăm, for here our interpreters, even if only after several attempts, could make themselves tolerably understood. The third language zone appears to extend as far as the endpoint of our journey, perhaps even beyond Málu; here our interpreters were almost totally helpless.

Besides ourselves, up until now only Pöch and Friederici have gathered rather broad linguistic notes, although both of these were only from the river mouth lagoon. The latter has published (1912, pp. 268–269) several indigenous terms for canoe parts, and Pöch (1908, pp.

172–173) has presented around sixty nouns, several pronouns, numerals, adjectives, adverbs, conjunctions, and verbs from the Wătăm language, as well as various sample sentences and grammatical rules.

Specialist Section

Material Culture

Clothing and Ornamentation

Clothing

For both men and women, clothing is restricted to the most essential; children of both sexes often go totally naked until sexual maturity.

Men's clothing

Along the stretch of river that we travelled, men's clothing showed quite a marked variation, in spite of its primitive character. In the estuary villages we found the same garb as on the nearby coast. Around the waist they wear a long girdle, plaited in simple twill-style, and wound four or five times round the body. It is put on at the time of the ceremonies of attaining manhood, and becomes so tightly-fitting on a fully-grown man that it pulls the waist in strongly. For example, one man about 30 years old had a waist measurement of 67.5 cm while in another man of the same age I found a measurement of only 61 cm! A narrow waist seems to be highly regarded. The girdle is worn round the body in such a way that the upper winding always half-overlaps the lower one, like a roofing tile. Pöch (1908, p.171) writes, in Wātām, instead of this there is also the tightly-encasing stiff bark girdle, common too among the Monumbo of Potsdamhafen; we do not recollect having seen it. Besides this, they quite often wear a broad strip of bark wrapped several times round the waist over the tied girdle; the wide end is then drawn forward between the legs, so that the genitals are covered, and then pulled forward under the girdle, with the remainder hanging down in front like a wide apron (see Plate IV.1). These aprons are occasionally decorated. Finsch (1888a, p.293 and Plate XXIV,4) records [68] that among the natives at "Venus Point" he found "body cords of shells (*Nassa*) characteristically woven onto strips of bast fibre", and, "strings of small shells (*Nassa*) and dogs' teeth wound round forehead, neck and hips."

At Venus Point he also saw a very richly decorated man's apron, which he describes as follows: "A 3.6 metre long, naturally-coloured piece of tapa, 22 cm wide above and 11 cm wide below, richly decorated with embroidery, *Nassa* snails and human hair. A 49 cm wide hem of fine twine is knotted onto the broad end, and in the middle there is a transverse strip of split rattan dyed red, flanked on each side by a cord and a row of *Nassa* shells. The lower edge of the hem ends in nine arches adorned with *Nassa*, with a similar number of 48 cm long strips fastened on, and with oval discs at the ends. Everything is richly decorated with shells (*Nassa*), human hair, round black kernels, and pieces of cockatoo feather." (*Nachrichten über Kaiser-Wilhelmsland*, 1888b, p.86). In his account the richly decorated hem hangs down in front like an apron. Unfortunately Finsch does not illustrate this somewhat intricate specimen, and the picture in *Samoafahrten* (p.292) to which he alludes is not very clear either.

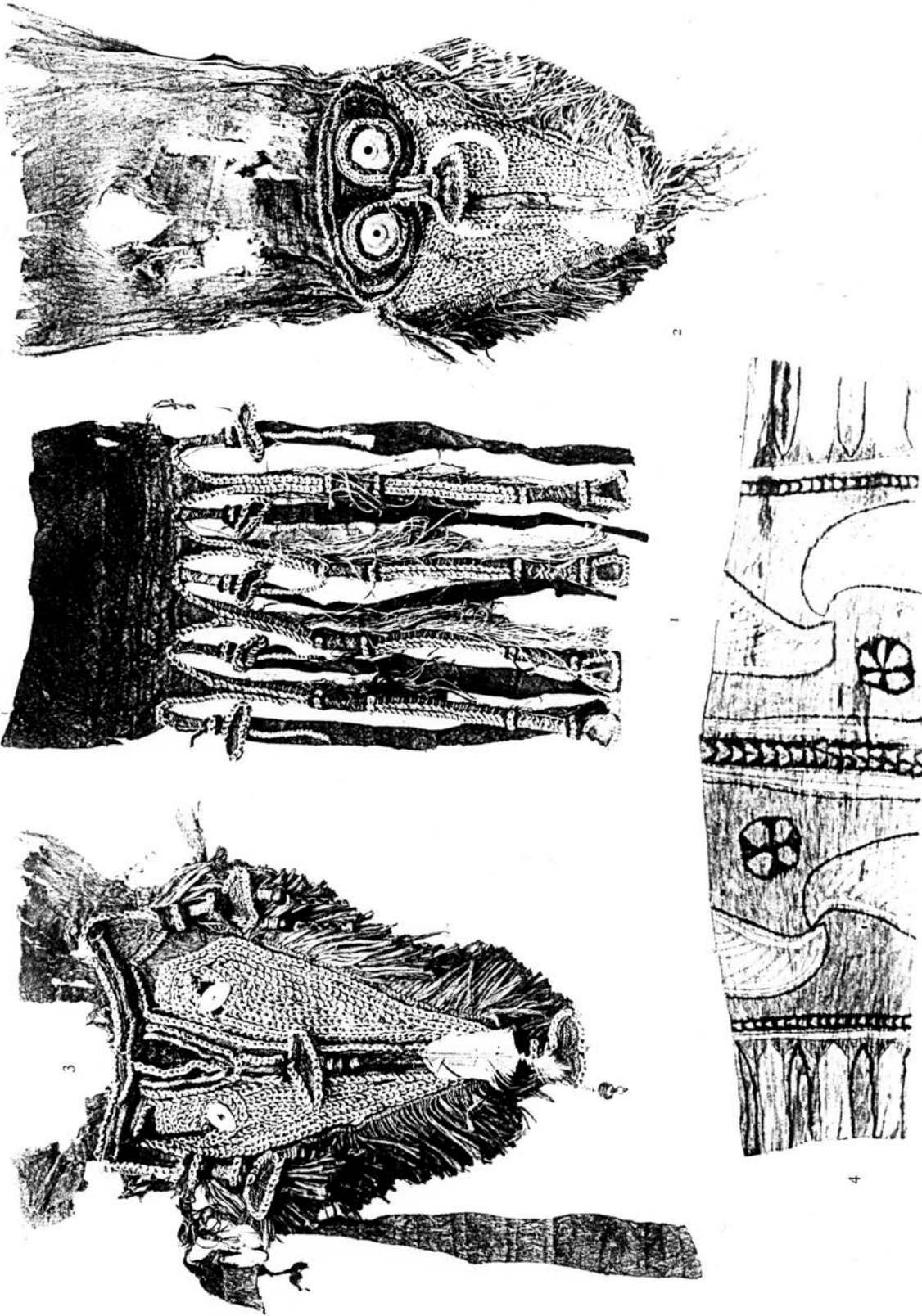
The Hamburg Museum holds very similar specimens among its older items; Klink collected these on the Ramu, and all appear to have come from the estuary region. They are probably costume items that were worn only on special occasions, such as dance festivals.

H.E.4105. Ramu, **tapa apron**, Plate VII.1 (width approximately 31 cm, total length up to 58 cm) consisting of a broad strip of bark material dyed red, and split below into nine narrow strips (just like the one described by Finsch). These narrow strips are decorated in two different ways, and, in actual fact, the 1st, 3rd, 5th, 7th and 9th strips of one side and the 2nd, 4th, 6th and 8th of the other side are identically decorated. The odd-numbered strips are tied off from the main piece by a narrow tube above, plaited from rattan and dyed red, then follow several *Nassa* shells framed in human hair, and finally a transverse oval disc plaited in the style of the anklet H.S.9102 (see Fig. 229) out of twisted, two-ply cords and bordered with a row of *Nassa* shells. A short chain consisting of a string of *Coix* seeds is fastened to it. The end of the strip of tapa is undecorated and hangs down well below the plaited disc. The even-numbered strips are encased, roughly mid-length, in a tube plaited from rattan dyed red, bordered by *Nassa* snails; the hem is sewn with rows of *Nassa* snails. Since the strips are widely spread above, the *Nassa* cords are interwoven through adjacent pairs. A further plaited rattan tube is attached to the end of each strip. Below it the strips of tapa are expanded into a triangular surface with *Nassa* decorating its borders. Thick, greyish-white bunches of bast fibre are knotted along the reverse side of the strip of tapa.

H.E.4041, "Marangis", **tapa apron**, Plate VII, 2 (maximum width 25cm, length about 62 cm); consists of two parts, an upper undecorated and somewhat ragged, and a lower richly ornamented. The upper part probably served only to clamp the item onto the belt, while the lower hung down in front as a decorative apron. A face is represented on the broad surface of the lower part. The eyes consist of round pieces of attached coconut shell bored through the middle to represent pupils. The hole is surrounded by a partially-finished border: the iris. The eyeball shows two

concentric coloured rings, one red, the other yellow-ochre. It is bordered outwards in rows by a cord of human hair, a chain of *Nassa* snails, a plaited rattan band, and a second cord of human hair. The entire upper face with the two eyes is framed in a similar manner. The nose is developed from the plaited bands and *Nassa* chains that surround the eyes; it is not very prominent but projects far enough out from the face for a perforated septum to be formed. This is adorned with two boar's tusks. Below this, a rather prominent disc is fixed onto the nose. It is plaited from cord (applying the same technique as in the anklet H.S.9102, see Fig. 229), and is edged with *Nassa* snails. Small chains hang down from the side and lower margin of each eye, and from the right side of the disc fastened beneath the nose. These chains are put together from *Nassa* strings and small plaited [69] rings; a white feather is attached to the end of the small chain from the nose. The entire surface of the apron below the eyes is densely covered with rows of *Nassa* snails sewn on. The edge is plaited round with cord to which thick bunches of bast fibre are attached.

H.E.4042, "Marangis", **tapa apron** (width about 21 cm, maximum length about 33 cm), similar to the previous one; Plate VII.3. The upper portion, for pushing under the belt, is markedly defective. The surface of the lower portion again represents a face and, with the exception of a clear middle strip, is densely covered with rows of *Nassa* snails sewn on; the border is adorned with bunches of bast fibre knotted on. The eyes consist of two oval pieces of mother-of-pearl shell sewn on, with a *Nassa* shell sewn onto the pierced centre point. Across the forehead is drawn a strip plaited from cord (similar technique to the anklet H.S.9102, see Fig. 229) adorned with cords of human hair and plaited strips, and edged with *Nassa* shells, that is attached to the apron only by its two ends. Three tags hang down from it, one at each end and one in the middle. The lateral tags carry tassels decorated with human hair, *Nassa* and plaited rattan, and end in a triangular disc from which hang three small *Nassa* chains, each adorned with a large round black fruit kernel. The central tag consists of a double layer, the lower one probably meant to represent the tongue and the upper the nose; both are adorned on the edge with a row of *Nassa*. The nose tag resembles the nose of the former apron; here too a perforated septum is seen, although it does not carry any ornament if you do not want to consider the plaited disc sitting below as one — (imitation of the mother-of-pearl shell ornament?). Again, a little ornamented chain bearing a white feather at the end hangs from this disc. The tongue tag lies in the central strips not inlaid with *Nassa* shells, and extends to above the lowermost end of the face; it is adorned with a pendant, richly decorated with *Nassa*, human hair, plaited rings, and two *Conus* discs, ending in a plaited disc. Beside the right eye hangs a long narrow strip of tapa, with three cowry shells fastened by cords to its point of origin.



1. Tapa apron H. E. 4105, 20% actual size (p.68) 2. Tapa apron H. E. 4041, 20% actual size (p.68)
 3. Tapa apron H. E. 4042, 20% actual size (p.69) 4. Tapa strip Lii. 6975, 20% actual size (p.69)

We saw bark material belts only in the vicinity of the coast, in the estuarine swamp

region. Yet bark material is found further upriver also, even apparently produced there. We were unable to find out what it is used for; we obtained only rough, undyed specimens whose later use could not be discerned, and we never saw the material in use.

H.S.9324, Málu, a piece of raw **bark material**, almost oblong in shape (length 43 cm, maximum breadth 18 cm); the thickness of the quite firm material is about 1 mm.

H.S.1868, Málu, a rectangular piece of **bark material** (length 34 cm, maximum breadth 23 cm), undyed, pale grey-brown in colour; thickness somewhat less.

H.S.1869, Málu, a tubular totally-unprocessed piece of **bark material** about 13 cm long.

In the Lübeck Museum there is a strip of tapa, **Lü.6975**, Plate VII.4, after whose provenance label, "Empress Augusta River", I would like to add a question mark. The very decoration does not correspond with types familiar thus far from the river. The piece has a length of 77 cm and a maximum breadth of 22 cm; it is wider in the middle, gradually narrowing towards the ends. According to the donor of the collection, it is a loincloth. The piece is of new material and has evidently not yet been worn at all. The material, a fairly thick stiff tapa, has been dyed pale yellow, with red and grey designs that are still undeciphered. If the piece has really been collected from the Augusta River, it must have come from the estuary area.



Fig. 5. Men's apron. H. S. 9222,
 $\frac{1}{4}$ actual size

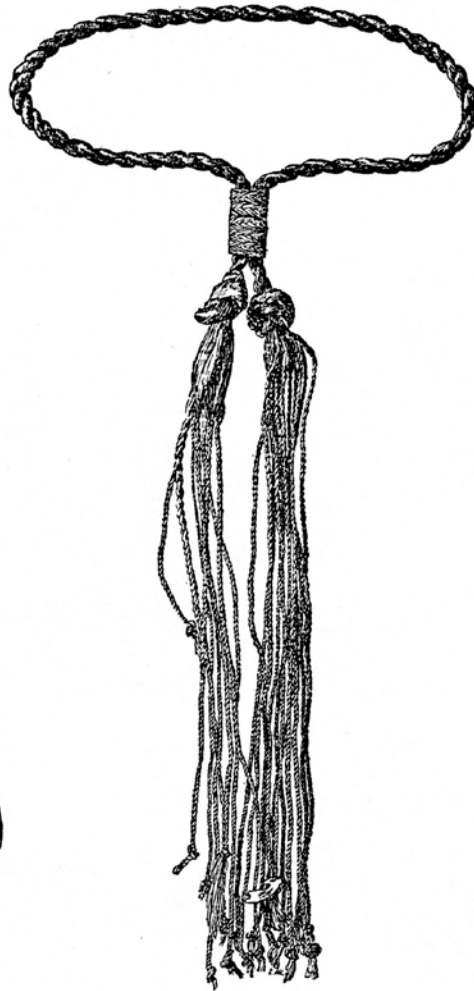


Fig. 6. Men's belt
H. S. 9038, $\frac{1}{4}$ actual size



Fig. 7. Men's belt
H. S. 9067, $\frac{1}{4}$ actual size

Just above the estuarine swamps, for example in the village of Īmbāntõn, the clothing changes: of course each adult still wears the belt of bark, but the encasing belt is already quite rare, and from the village of Āngõrõm (Wolem) onwards we did not see it any more. At this point the bark material disappeared as well. Mostly, a simple girdle of plant material surrounded the body, sitting so loosely that the slack anterior part hung down. A bundle of leaves, a bunch of grass, [70] a banana leaf or an animal skin is fastened on in front, barely covering the genitalia (see Plate V.1). In Āngõrõm and Mụ́ǎngĕm (surprisingly, we encountered this custom only in these two villages), they stick a small plaited bunch upright into the belt where it crosses over behind. Often instead of this they fasten one or more cords behind, hanging down between the upper thighs. Further upriver the rear part always remains uncovered. The skins used as a drape came from cuscus or flying foxes; in the latter case, the whole pelt was always used, including the wing membrane and the skin of the head. [71]

H.S.9222, Mụ́ǎngĕm, **apron of flying fox pelt** (Fig. 5). The neck of the animal is pushed through the upper part of a split, perforated *Conus* shell. In wearing it, the so-decorated neck sticks out obliquely from the man's body and would most probably have simulated the penis. Both this and the following skin came from a *Pteropus*. I am grateful to the gentlemen of the Natural History Museum in Hamburg for this and the following identifications of zoological items.

H.S.9221, Mụ́ǎngĕm, **apron of flying fox pelt**; five perforated cockles are distributed over the neck.

Often they wear only a thick twisted two-ply cord with the ends knotted, and below the knot a great number of thin twisted strands unravel, hanging down like tassels over the genitals. We obtained several varieties of this type of belt:

H.S.9038, Mụ́ǎngĕm, **belt** (*āwǎrĩn*, Hellwig) Fig. 6. In this one both ends carry a knot and tassels; they are united in front by a simple plaited disc, sitting above the knot, enabling the belt to be tightened or loosened. The individual tassels all have a further separate knot at the lower end. (Generic name of the tassels: *mímũn*, Hellwig)

H.S.9057, Kǎmbrĩnũm, **belt**, (*ǎwǎrĩ*, Hellwig); here the cord is twice as long, but it is doubled over; its ends are looped into a knot from which hangs raw bast fibre that has not been twisted into cord. The belt is tied by pushing the knot through the loop of the other end.

H.S.9067, Kǎmbrĩnũm, **belt** (*õwǎrĩn*, Hellwig) Fig. 7) consists of seven thin two-ply cords lightly twisted around one another. One end is wrapped with narrow strips of rattan; below these are two knots to which are fastened 16–17 long thin hanging cords with an average ten knots and ending in bunches of fibre. The whole thing has been immersed in greasy russet dye. At the other end of the belt there is a loop wrapped in thin rattan.

H.S.9070, Kǎmbrĩnũm, **belt** (*õwǎrĩn*, Hellwig) Fig. 8, similar to the preceding one although differing particularly in that each of the ten component cords is looped into a knot roughly a centimetre apart.

H.S.6711, Mǎlu, **belt**, also belongs here; it consists of a large number of thin twisted cords joined into a knot at the end. A perforated *Conus* shell is attached above the knot, while below it hang several tassels wrapped in thin cord.

H.S.9059, Kǎmbrĩnũm, **belt** (*āõwǎrĩn*, Hellwig), similar in form and style to the preceding one, but consists of thick cords and does not have *Conus* shells. (Besides the word *āõwǎrĩn*, Hellwig was also given the name *drũgõn*).

As well as these simple belts there are also plaited belts, produced partly from cords and partly from thin strips of rattan.

H.S.9068, Kǎmbrĩnũm, **belt** (*õwǎrĩn*, Hellwig), Fig. 9, consists of a wide (about 2 cm) supple band plaited out of cord (the plaiting technique is reproduced in Fig. 218), one end terminating in a loop made of thin strands and wrapped with cord, while the other forms a knot with short tassels hanging from it. To put it on, the knot is pushed through the loop.

H.S.9069, Kǎmbrĩnũm, **belt** (*õwǎrĩn*, Hellwig), is very similar to the previous one, but plaited by a different technique (see Fig. 221); it has an ample width of 4 cm and it too is secured by knot and loop. We also saw specimens with a width of 5 cm or more.

H.S.9283, Mălu, **belt**, Fig. 10, plaited using a technique that is duplicated in the net pouches described further on (see Fig. 226); the manufacturing material is thin two-ply cord. The belt consists of a band about 3.5 cm wide with a bunch of thin cords knotted on in front and another behind.

Belts H.S.9288/1 (see Fig. 226) and **H.S.9285**, also from Mălu, are the same as the one above in form, technique and material.

H.S.9284, Mălu, **belt**; consists of three narrow plaited bands; whose technique is reminiscent of that of the [72] belt just described (see Fig. 228); according to Hellwig's information it serves as a mourning costume for men. Each of the narrow bands is thoroughly rubbed with dark-brown dye material (or russet dye become dirty?) and shows a tendency to clump together on the inside, giving a leathery look to the smooth band.

At one point the three bands are joined to two others by the thin bast fibres of the latter fastening onto the thick string wrapping. The belt does not open. Its width is approximately 70 cm. Of the belts plaited from thin strips of rattan, the ones most reminiscent in form to those so far described are the following:

H.S.9229, 293 km-village, **belt**, fairly stiffly plaited in reversible 6-ply twill-style [73] (see Fig.213); both sides end in a loop that is connected with the other end by a cord. The band about 3 cm wide is plaited in such a way that it forms a wavy line in cross-section.

H.S.9218, 293 km-village, **belt**, produced by the same technique as the previous one, which it resembles also in shape except that it is wider (up to 5.5 cm wide). Likewise, both ends form a loop. The belt is dyed red on the outside.

H.S.9105, Măndănă, **belt**, (*mărîn*, Hellwig), Fig. 11; plaited in irregular, varying numbers of strands in twill cloth-style out of thin strips of rattan; it is processed in one piece, forming an unbroken band, which thus cannot be opened. The band width is about 5 cm, and the inner circumference (waist breadth) 68 cm.

H.S.9153, Ămnm, **belt**, Fig. 12, is very similar to the preceding one in shape, material and technique (see Fig. 214); it has an average width of 6 cm, and an inner circumference of 65 cm. The plaiting is very stiff, like the preceding one.

H.S.9213, 293 km-village, **belt** (*yibmangrôu*, Hellwig), a band only 1.5 cm wide, plaited in 4-ply, reversible twill-style. The length (width of waist) is 65 cm. The belt has simple ornamentation that is distinguished by the type of plaiting differing somewhat in two places on the outside: here the first, third, fifth, seventh and so on strips of rattan always skip a whole number of others, so that a type of 8-ply to 10-ply twill-plaiting arises.

H.S.9214, 293 km-village, **belt** (*yibmangrôu*, Hellwig), plaited in the same manner as the previous one, except that the ornamentation is missing; its width is 2 cm, waist breadth 68 cm.

These plaited belts, not trimmed with tassels, are provided in front mostly with a grass or leaf arrangement, often carefully knotted onto the belt, to cover the genitals. Occasionally they wear only a banana leaf tucked in, in front, like a bag. More rarely we saw a detachable hanging tassel; such items are:

H.S.9288/2, Mălu, **hanging tassel**, Fig. 13; it consists of a bundle of thin twisted cords whose upper ends are stuck into a little basket plaited from rattan. Above, this basket runs out into a long snout-like structure whose tip arches downwards, secured with a loop of rattan in such a way that it forms an eye through which the belt cord is pulled.

H.S.9338, 343 km-village, **hanging tassel**, similar to the preceding one, except that the little basket that unites the cords above is missing; instead all the cords are knotted into a main cord wound up in a spiral, combining all the individual cords into a thick bunch. Unravelling is prevented by the upper part being wrapped in thin cords, and a simple loop allows fastening to the belt.



Fig. 8. Men's belt. H.S. 9070, $\frac{1}{4}$ actual size

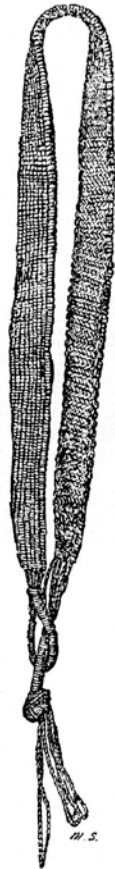


Fig. 9. Men's belt. H. S. 9068, $\frac{1}{4}$ actual size

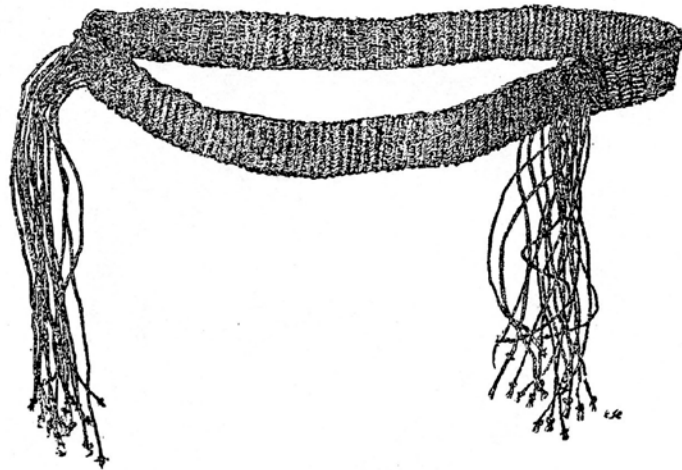


Fig. 10. Men's belt. H. S. 9283, $\frac{1}{4}$ actual size

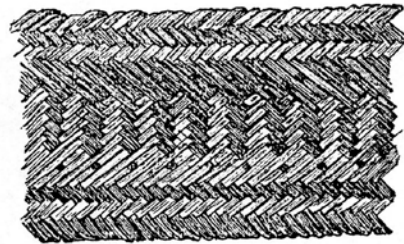


Fig. 11. Men's belt. H. S. 9105, $\frac{1}{2}$ actual size

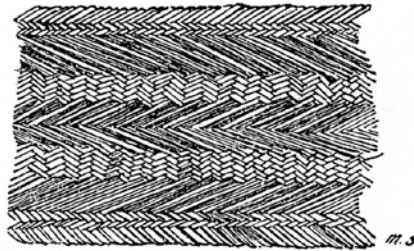


Fig. 12. Men's belt. H. S. 9153, $\frac{1}{2}$ actual size



Fig. 13. Tassel hanging. H. S. 9288/2, $\frac{1}{4}$ actual size

At the 252 km village another quite remarkable item of clothing begins to appear more frequently, many men preferring it to the belts just described. Incidentally, we saw isolated examples of this type of article from MăndănaŃm onwards, and in ĪmbăntŃn we bought one that had probably been purloined. These are aprons in which the hanging of grass or bast fibre is arranged in a unique manner. The upper part of the bunch is bent round, forming a horizontal roll, firmly plaited in place by strips of rattan; the upper end of the bunch, pulled down somewhat by the bending, stands directly forwards, at right angles, and is transformed into a long, thin, stiff, cone by tight plaiting with rattan (see Fig. 243). The lower, unplaited part of the bunch hangs down freely about 20–30 cm and is always dyed dark brown or black. The whole thing is obviously intended to represent the male penis and

genital hair (incidentally, the actual genital hair is always shaved off) and is, [74] understandably, worn in front, concealing the genitalia: an unique 'covering'. (Preuss (1898b, p.146) describes "curious narrow rear aprons, made from bast fibre, with an obliquely projecting outgrowth, said to represent a tail, according to Kärnbach". Preuss has misunderstood a tomboyish remark: this apron is worn in front, not at the back). The sharp anterior cone is commonly of considerable length, obviously quite intentionally: 21 cm in one of our examples (H.S.9185)!

H.S.6625, 252 km-village, **man's apron**, Fig. 14, of a relatively simple form. For fastening to the belt there is a rattan eyelet attached above to the transverse roll. The stiff, projecting prominence ends in a small knob-like plaited wheel.

H.S.9139, 252 km village, **H.S.9168**, 252 km-village, and **H.S.6624**, 252 km village, match H.S.6625 completely, in form and material.

H.S.9185, 252 km village, **man's apron**, the same as the previous one in form, material and technique; the great length of the stiff process (21 cm) is astonishing. The bunch of grass is wrapped round with a bundle of cords in rows.

H.S.1855, Îmbăntôn, and **St.Ha.61636**, "Jaunde" differ only in that the tiny plaited wheel is missing from the front of the projecting process; a 5 cm wide bunch of fibres projects in its place.

The men's aprons **H.S.9167**, 252 km village, **H.S.9186**, 252 km village, and **H.S.9128** (*mînnîm*, Hellwig) Măndănă, are distinguished by the free-hanging bunch of grass being draped in rows of cords, just as in H.S.9185.

H.S.6626, 252 km-village, and the specimen described by Schlaginhaufen (1910b, p.33, Fig. X), another projecting form; in these the horizontal transverse roll runs over a side-piece plaited from strips of rattan, which replaces the rattan loops used for attachment to the belt.

St.Ha.61609, "Simar", men's apron, has the same side-piece, but once again the plaited wheel is missing from the front of the process; on the transverse roll on the



Fig. 14. Men's apron
H. S. 6625, 1/4 actual size

left is a piece of flying fox skin.

In **St.Ha.61630**, "hostile village", Fig. 15, a layer of lime has been put on the markedly broader transverse roll, a section of the oval side-piece, and the entire cone that stands out in front.

St.Ha.61608, "Simar", man's apron, similar to St.Ha.61609; the cone, with a long bunch of grass hanging in front, is very long. The transverse roll is painted red, and decorated on both sides with a piece of skin.



Fig. 15. Men's apron
St. Ha. 61630, 1/4 actual size

The natives' fantasy has been busy even further with this type of apron, in an original way; there are examples in which the maker, forsaking the original intention, the stylization of a penis, attached the cone as a protruding human tongue. And so the entire upper flat surface has become the representation of a face, often produced in a most meticulous manner, with all its features. [75]

H.S.1854, 252 km village, **man's apron**, Fig. 16. The oval ring above evidently represents the hairline, while the smooth transverse bulge below it is the surface of the face. From it project, just as in the many masks from this region, two plaited eyes on long stalks resembling a bobbin, each ending in a circular disc in front. The aperture of the hollow interior of the stalk is intended to represent the (pupil or) iris. The nose consists of a broad plaited band with the lower end arched backwards and upwards, simulating a perforated nasal septum; through the hole passes a plaited semilunar nose stick, curving upwards and fastened to the base by both ends. The original penis cone that has been transformed into a tongue, remarkably bearing a vertical oval thickening in front, projects from a wide-open mouth, a frequently-recurring motif in the designs from this region.

The further upriver one goes, the more men's clothing disappears; already the aprons described above can hardly be regarded as clothing. Even in Măndănăm and Kămbrîngi all the boys and some of the adult males go about completely naked; a few acknowledge clothing by a hip cord, dispensing with the drape. In the last villages that we visited, particularly Málu, it was actually the rule that the adult men too went round totally unclothed (Plate VI.3); the few belts that we obtained there were brought out of the houses, and appeared to be almost the entire equipment. Also in Málu, we found several almost-fully-grown girls completely naked.

As far as can be gathered from the accounts of the 1887 expedition, the men of the villages above Málu, to beyond Tsenáb usually wear no clothes. Unfortunately the reports of the German-Dutch border expedition say absolutely nothing about the clothing of the tribes living in the actual upper reaches.

In the village at approximately 343 km upstream, which we visited on 2 June on our return journey, we found several men wearing a costume that we did not expect to see here and which we did not encounter anywhere else on the river. Only a few went about totally naked; mostly they wore a girdle with pendant bunches. One man had stuck a piece of a woman's apron into the hip cord in front, instead. However several men had their penis wrapped in a green leaf; it was not a real penis case: they had used a fresh green leaf instead. This gave an almost provisional impression, and a casual observer might have thought that they had hastily covered their nakedness out of respect for us.

It is interesting that Hollrung had observed the same penis covering on the upper Augusta River in 1887 (1888a, p.452). He writes, "They went about naked only on the upper Augusta River. Yet here the beginnings [76] of artificial clothing could be perceived. Occasionally, I could never establish under what conditions, the natives wrap their penis in a green leaf or put a tubular case over it, sometimes consisting of a bamboo tube and at other times a plaited tube 30-40 cm long. They then tend to bend the tube plus contents upwards, and stick them under the cord that they wear round their waist."

Thus there are also actual penis covers as well, although only above the Hunstein Range apparently. Neither we nor other expeditions came across them in the lower and middle reaches. Of course this does not preclude their coming to light in individual villages on closer investigation, for example in the 343 km-village or nearby, that is, the area just below the Hunstein Range. It would be a rewarding task for future expeditions to investigate the extent of penis covers on the Augusta River, the customs associated with them and their significance.

Up to now only the Berlin Museum holds this kind of penis cover, and then only six specimens, already mentioned by Preuss (1898b, p.152); they were obtained in 1888 by the New Guinea Company, probably during the 1887 expedition, and were perhaps collected by Hollrung himself. By way of origin they are unfortunately designated only by "Empress Augusta



Fig. 16. Men's apron
H. S. 1854, 1/4 actual size



Fig. 17.
Penis cover
VI. 10541, e.
1/4 actual size



Fig. 18.
Penis cover
10541, f,
1/4 actual size

River”, but one may assume that they came from the upper middle reaches, the area above the Hunstein Range. They all have “remarkably small openings” (Preuss *loc. cit.* p.152).

Five of the **penis covers**, No. **VI 10541 a–e**, Fig. 17, are made from bamboo, with a length of 19, 14, 14, 19, and 20 cm. The lower half is undecorated, but in all of them the upper half has simple pokerwork; in No. 10541e, the uppermost portion is covered with bark as well.

No. **10541 f**, Fig. 18 consists of a gourd shell, whose chord measures 13 cm long, and also carries a simple pokerwork design.

Women's clothing

Women's clothing is very much more uniform than that of the men, showing none of the multiplicity of forms. Aprons are worn everywhere, hardly differing from those on the nearby coast. In the region of the mouth of the Empress Augusta River and the Ramu, they consist mostly of a suspended grass curtain about 30 cm wide passing round fairly regularly and tied over the hips on one side.

St.Ha.61556, “Muerik”, **woman's apron**, Plate VIII. 1, of russet-dyed grass and pale yellow bast fibre, arranged in two tiered layers — a longer inner one and a shorter outer layer. The hanging is tied to a strong cord which has a loop at one end [77] and several loose strands at the other end; to secure it the latter are pulled through the loop and knotted. The hanging is longer behind and leaves the hips relatively free on both sides. The width at the waist is about 70 cm.

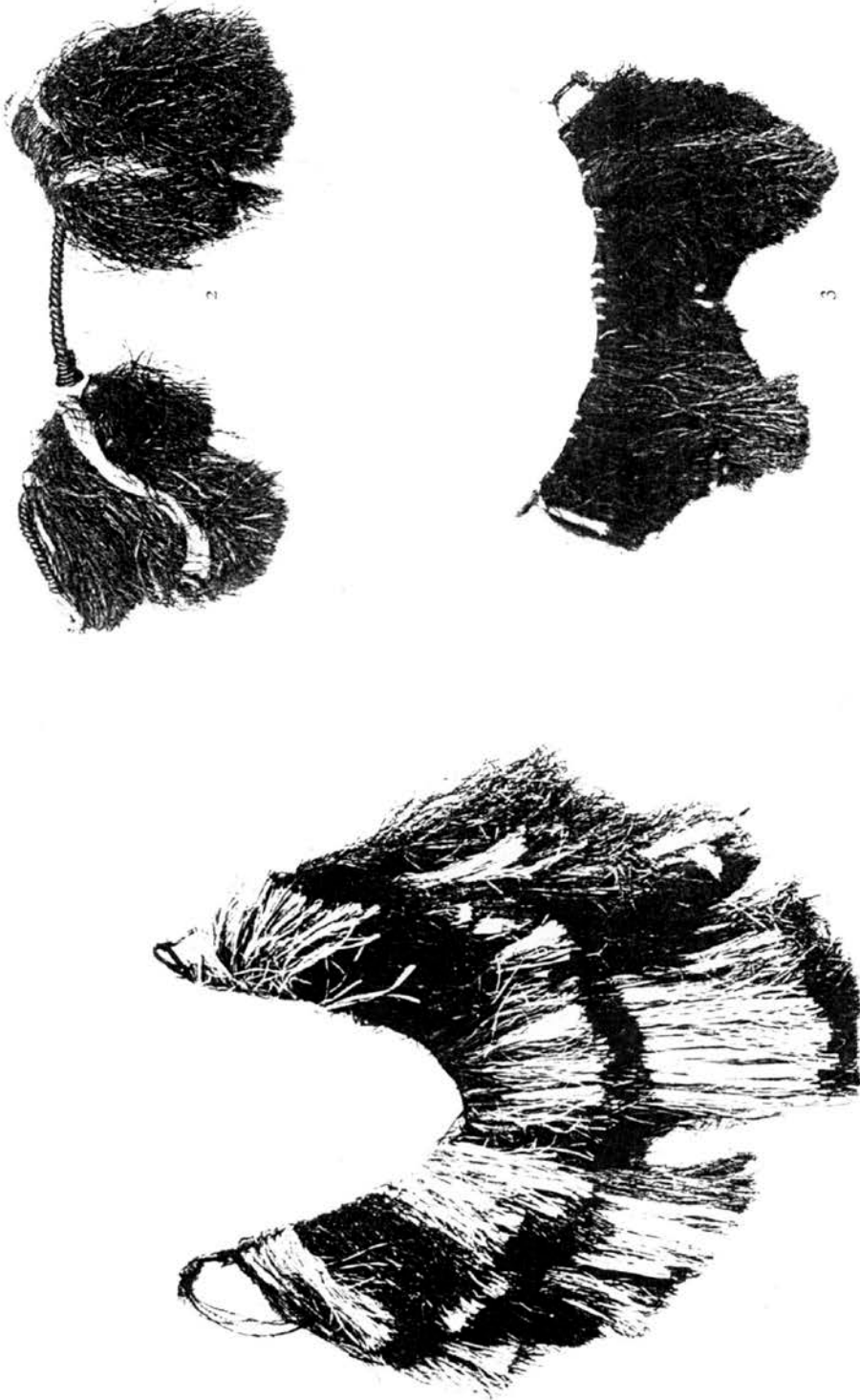
Finsch (1888a, p.293) mentions, “very attractive women's aprons dyed red, yellow and black in the familiar manner, but very elegantly decorated with shells and *Conus* rings” from Venus Point.

In the region just above the actual coastal zone no women came within view, nor were we able to obtain any aprons. At Kămbrínũm we saw women for the first time, though only at a respectable distance; from here there came:

H.S.9078, **woman's apron**; the form differs from that described for the area near the mouth insofar as here the hips remain almost completely free. To some extent the article consists of two aprons, with the shorter hanging down in front and the longer behind. It is put together from alternating natural-coloured bunches of red and black grass intermingled with a few pale-grey bunches of bast fibre. These are all knotted onto a thick double-cord running round the waist. Both front and rear sections, starting from the short sides overlying the hips, lengthen, in ledges, very rapidly towards the middle. While the six-centimetre section over the hips has nothing hanging from it, the front apron attains a maximum length of about 35 cm in the middle and the rear apron about 45 cm. The middle section is reinforced in front and behind by an additional short third cord, bearing a yellow tuft. This apron too is secured at the side, in fact over the right hip where the long excess end of the front part of the cord is pulled through a loop formed from the back part. The waist measurement is about 82 cm. The apron, which is quite thick and bushy, therefore probably belonged to an older woman, because here, just as almost throughout New Guinea, the aprons appear to increase in thickness and in length with the age of the woman.

We had a better view of the female sex in Măndănăm; admittedly women and girls were very shy here too, and kept pretty well in the background, but we were able to ascertain that the aprons consisted of front and back sections here too, and in places kept quite a lot of the hip free; in younger girls they covered even the private parts only partially.

Reche, Empress Augusta River, Plate VIII



1. Woman's apron St.Ha.61556, 1/5 actual size. 2. Woman's apron St.Ha.61724, 1/5 actual size.
3. Woman's apron St.Ha.61607, 1/5 actual size

From the village of “Simar” (217 km village) only a few kilometres above Măndănăm, the *Siar* expedition obtained several aprons, of the following types:

St.Ha.61724, woman’s apron, Plate VIII, 2, with a waist measurement of only 50 cm, evidently intended for a young girl. A thick bunch of grass about 17 cm long and dyed red, interspersed with yellow blades of grass and white bast fibre, is fastened on the front, with another fastened on the rear section, of a thick, twisted red-dyed cord which forms a loop at one end while the other end runs into a string for pulling through the loop. In this apron the hips are completely free, since a minimum 12 cm on both sides has no drape of grass.

St.Ha.61607, “Simar”, **woman’s apron**, Plate VIII, 3, with a waist measurement of about 61 cm — worn presumably by an older girl. Here, the bunches of grass are dyed alternately red, dark-brown, and yellow, intermingled with grey-white bast fibres. The front apron is only about 26 cm long, while the rear one is 30 cm long. The hips are not totally bare although their grass covering is only 14 cm long.

St.Ha. 61608 and **61609**, “Simar”, are two **women’s aprons** made from grass. One has a rattan ring around the waist; this ring has a skin trimming on both sides.

St.Ha.61725, “Simar”, **woman’s apron** with a waist measurement of 75 cm. It is considerably longer and thicker than the previous ones; the front section attains a length of 40 cm and the back section 50 cm. Furthermore, the piece covering the hips has quite a significant drape reaching 20 cm, so that the hips are fairly well covered. And so in this region too, the aprons of the older women are thicker and longer than those of the younger women. The drape consists of yellow- and [78] red-dyed, and natural dark-grey grass intermingled with white strips of bast fibre.

In **St.Ha.61606**, “Simar”, **woman’s apron**, the red-dyed bunches of grass are almost the same length right round, so that even the hips are covered.

From the village of Kămbriŋgi onward, the women were totally unafraid and mingled with the men thronging round us, without any shyness. Their aprons were exactly the same as those just described (Plate VI.2).

H.S.9165, 252 km village, **woman’s apron**. The article was relatively simple, consisting only of yellow-brown and red-dyed grass. The hips were bare for a short distance: the cord had no drape for a length of 3 cm. The waist measurement was 65 cm; the length of the front apron was 40 cm and that of the rear apron 45 cm; towards the sides the drape became only slightly shorter.

In 252 km village even ten-year-old girls wore a fairly thick apron, and older women even appeared to have bound several aprons over the top of one another. The aprons seldom had any special decoration; once we saw two *Conus* shells attached in front.

In the very next villages upstream, for example 293 km-village, the aprons were again more scanty, narrower and thinner, and even among older women there were specimens that gave only scant concealment.

H.S.6710, 343 km village, **woman’s apron** that probably belonged to a small girl, since the waist was very small, only about 46 cm. It was admittedly fairly bushy, but very short in front and behind, 12 and 15 cm respectively. The hips were almost completely uncovered. It consisted of russet-dyed bunches of grass intermingled with white strands of bast fibre. Over the waistband on the left side there hung a second, minute apron with a waist measurement of only 36 cm, unnoticed by the collector. It cannot be established at this stage whether the second apron was intended to reinforce the larger apron or whether it was intended for a very small girl and was only sold together with the larger apron by mistake. The article was not mentioned in the original catalogue. Since the little apron is not attached to the larger one but only hangs over the cord of the latter, I regard the second assumption as the more likely. The article is made exactly the same as the big apron, and bears a short wide red- and yellow-dyed bunch of grass in front and a long narrow one behind.

We found the most scanty aprons in Mălu, where even elderly women had their hips completely bare (see Plate VI.4). In this village Hellwig even saw several almost fully-grown girls who were completely naked.

There still remains to mention a most remarkable item of clothing, that we saw worn only by women: woven mats like hoods. They seemed to occur only rarely in the lower

reaches, and when Neuhauss (1911, vol. I, Fig.104, p.203) obtained a similar article between the villages of Īmbăntön and Ăngörôm, evidently from a canoe, this was probably an appropriated specimen. We saw and purchased the first of this sort of hood in the village of Măndănă, indeed the first spot in which we were able to see the women to some extent close-up.

These hoods always consisted of a mat on average 1.60 m long and only about 30 cm wide, with the long sides brought together and sewn together with simple stitches along the edges behind. Two types can be differentiated, [79] by their mode of preparation. In fact the weaving technique is the same in both cases (4-ply reversible twill-style), but in one kind the pattern is woven-in using variously-dyed fibres, while in the other it is turned into a type of relief decoration by implanted rows of little knots, with the intervals between the rows of knots painted in colour. The former, smoothly-woven type appears to be the more common, only rarely did we see a hood with relief decoration. It was only from the smooth type that we were able to establish that it was produced on the river itself, because we obtained a specimen still in the process of manufacture.

H.S.9163, 252 km village, **woman's hood**. It is first prepared to a length of about 51 cm and consists of pale-yellow-, red-, and black-dyed bast fibre. On a red background the pattern displays an alternating black- and white-dyed middle stripe accompanied by a pure white line 1.5 cm distant on both sides. The zigzag decoration of the lateral surfaces is formed by black and white lines. A white line runs along the side edges (Plate IX, 1). The same decoration recurs with slight variation in most of the cowls of the smooth-woven type, at least in all of the Hamburg Museum specimens, and also the specimen illustrated by Schlaginhaufen (1910b, Plate 3, Fig.29).

The completed hoods carry a loop of twisted cord on the rear, upper peak, evidently for hanging up. The bast fibre ends hanging over at the end of the weaving are trimmed evenly, knotted at the ends, and form a hanging fringe.

H.S.6647, 252 km village, **woman's hood** (maximum length, excluding fringe, 76 cm, width 30-37 cm); it has almost exactly the same decoration as the cowls already described except that the central longitudinal stripe is broader, and consists of black and white lines running through one another in a zigzag.

St.Ha.61635, "Jaunda", **woman's hood** (maximum length, excluding fringe, 67 cm, width up to 32 cm); Plate IX,2; this specimen is similar to the preceding one, except that in the lateral fields there are two zigzag lines that frequently intersect each other.

Lü.6988a, "Empress Augusta River", **woman's hood** (maximum length 66 cm, maximum width 29 cm). The broad middle strip has black and white zigzag lines running transversely, brought about by a black and a white strip of material being woven-in. Each lateral field has a broad white zigzag line interwoven with black, on a red background. A hanging loop is attached above, on the back corner.

Lü.6988b, "Empress Augusta River", **woman's hood** (maximum length 73 cm, maximum width 33 cm) woven from red, white, and grey bast fibre. A wide central longitudinal strip is bordered by two narrow red ones. On the lateral surfaces there are barely recognizable red and grey zigzag lines on a white background.

H.S.1851, 252 km village, **woman's hood** (maximum length 60 cm, width 32-33 cm); here both the lines accompanying the central longitudinal strip are missing (as is the case in the specimen illustrated by Schlaginhaufen (*loc. cit.*))

H.S.9086, Măndănă, **woman's hood** (maximum length 71 cm, width 25-32 cm), Plate IX, 3, is the most richly decorated specimen that I know, indeed the only cowl that comes from a village further upriver. Here the central strip, not accompanied by lateral lines, has two each black and white zigzag lines crossing each other and is also bounded by a somewhat thickened edge on the far side. In addition, the lateral zigzag lines and the white borders of the mat have a border of that type. The fringes of this cowl are particularly long.

The smooth cowl No. 686/108, illustrated by Schmeltz (1905, p.215), that was collected by Schellong in the "upper reaches", (thus probably in the area between Mălu and Tsenáb), has a different decoration: a type of diamond pattern is created by plaiting in russet strips of leaf.

In the smoothly-woven hoods the pattern is continuous, that is, the same on the inside as on the outside. In the hoods of the second kind this is not the [80] case: here little knots

and paint are applied only to the outside, while the inside remains completely undecorated. These little knots are made from the weaving material itself, not added on (further detail on the manufacturing technique of the little knots is given in the chapter “Technique”, Fig.242). These little tongues form long parallel rows; the fields between them are painted out in colour. The patterns on the hoods are quite varied; but in most cases they are variations of the same motif: the figure of a lizard (or crocodile?). In many cases the animal is clearly recognizable, and in other cases heavily stylized so that virtually a type of geometric decoration is achieved. On the other hand there are also patterns that cannot be interpreted without great difficulty, but probably do not correspond with the lizard.

H.S.9233, 293 km village, **woman’s hood**, (maximum length 69 cm, width 28-32 cm). In this specimen the lizard figure is the most clearly recognizable. Four rows of tags form the outline of the animal’s body on each side and continue backwards as the hind legs. The thinner, shorter front legs are each formed only by a double-line of small knots. The head arises from the uniting of the lateral lines. On the back of the animal is a transverse four-sided surface formed by little knots from which a simple row of knots runs backwards as far as the tail. The tail is formed from two right angles relatively on end, with their angles touching. Red, yellow and white lines run between the rows of little knots. At the back the hood is sewn together very much more carefully than the smooth specimens. Oddly, there is no suspension loop.

H.S.6645, 252 km-village, **woman’s hood**, (maximum length 86 cm, width 28-31 cm), Plate IX.4 shows to some degree an extension of the pattern just described: a lizard seems to be represented here too. Three rows of little knots form the outer border of the body; they are also used again here in the formation of the head and hind legs. The front legs are significantly broader: the left leg is assembled from four rows of little knots while the right one is made from six, evidently with the intention only of filling in the bare surface, an endeavour that seems to dominate the entire decoration of the mat. Thus the ends of the back legs are connected by a wide zigzag band which by and large has nothing at all to do with the animal figure, and the right angle decorating the chest fills almost the entire surface between the outlines round the body; similarly surface-covering is a grossly enlarged tail right angle, extending right to the lower zigzag edge. To fill in the bare triangular surface between the hind legs and the body, three lines are attached on both sides, from the outside edge, and the space on both sides of the head is filled by a small right angle. Between the rows of little knots the weaving is dyed red and yellow, while the actual background remains white. At the lower end the mat has tassels plaited like pigtails with knots at the end; and there is a sturdy suspension loop above.

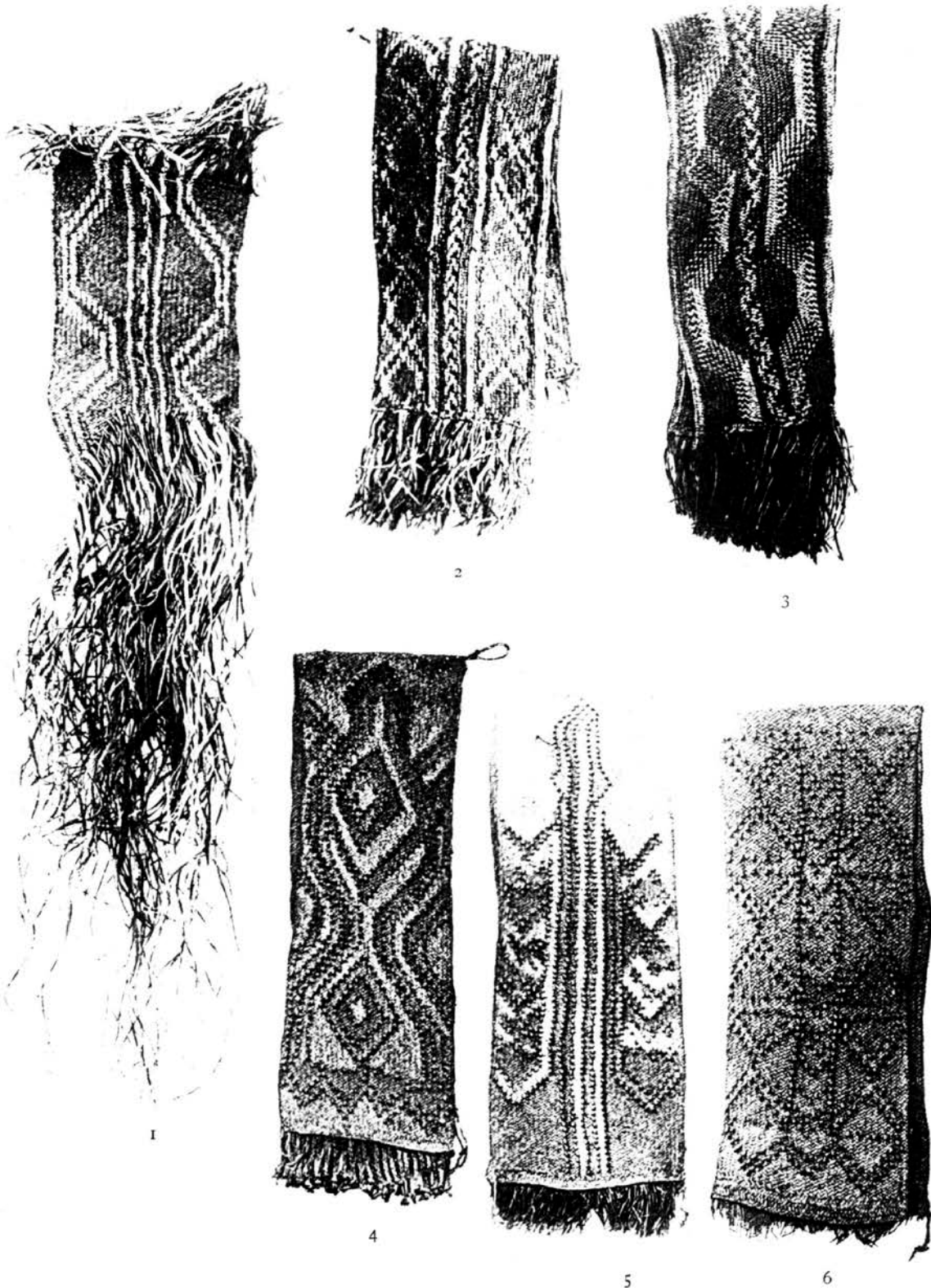
H.S.6646, 252 km-village, **woman’s hood**, (maximum length 78 cm, width 28-32 cm), Plate IX, 5; here too a lizard-like figure is represented, but in a totally different manner: nine rows running lengthwise form the body, five of them in front form the head, five behind the surprisingly broad tail, and two each the angularly-curved hind legs. The forelimbs attached in front have the same shape as the former; the interval between the front and back legs is filled on both sides by two repetitions of the leg shape and several irregularly-standing groups of little knots. The eyes are indicated by slight indentations in the body outline. The surfaces between the rows of little knots are irregularly filled with yellow, red and white dye. The cord for hanging it up is fastened to the middle of the upper edge. A stylized repetition of the lizard ornamentation is evidently the pattern on the cowl illustrated by Schlaginhaufen (1910b, Plate 3, Fig.30, and p.63 Figure R).

H.S.9210, 293 km village, **woman’s hood** (*yāuri*, Hellwig) (maximum length 76 cm, width 33 cm), Plate IX.6. The decoration has become almost a ‘geometric’ pattern. In the middle, along the entire mat runs a broad band, bordered on each side by a row of little knots, and filled with parallel hook figures opening upwards: probably the remnants of the lizard body. The surfaces to the right and left are divided by narrow cross-bands into three right angles each, each filled in with an upright- and an inverted ‘bone ornament’. The whole thing is closed off below by a zigzag band, the same as H.S.6645. This hood still shows traces of red and white dyeing. The hanging loop attached in the middle is a rattan loop. [81]

H.S.9198, 293 km village, **woman’s hood**, (maximum length 79 cm, width 34 cm). While the two outer sides have been decorated exactly the same in all the specimens described up until now, here this is not the case. Admittedly the character of the decoration is the same, a rectangle standing on end, covering almost the entire surface, but the arrangement of this rectangle is somewhat different. A zigzag band occurs on both sides, above the fringe.

A hood collected by Schellong in the ‘upper’ Augusta River (Plate X.1) and illustrated by Schmeltz (1905, p.215) shows a completely different pattern; here the lines put together by little knots form a concentric diamond-shaped pattern that “stands out even more clearly because of the grey or red painting of the surface bordered by the rows of loops.”

Reche, Empress Augusta River, Plate IX



1. Woman's hood H.S.9163, 1/10 actual size 2. Woman's hood St.Ha.61635, 1/10 actual size
 3. Woman's hood H.S.9086, 1/10 actual size 4. Woman's hood H.S..6645, 1/10 actual size
 5. Woman's hood H.S.6646, 1/10 actual size 6. Woman's hood H.S.9210, 1/10 actual size

H.E.2352, “Empress Augusta River”, **woman’s hood**, (maximum length 72 cm, width 31 cm), Plate X.2. The pattern is possibly an extension of the lizard decoration. The middle is taken up by concentric rectangles; small rectangles occur right above and below. A row of little knots running in a zigzag forms the lateral border of the right angle in the middle, probably the remnant of the original outline of the body. The lateral surfaces are filled out by rows of knots running horizontally, and a double row closes the pattern off below. The surfaces between the rows are again painted, in red and white. A specimen illustrated by von Luschan (1910, p.115) is exactly the same, although the rows of little knots attached to the lateral fields are directed obliquely downwards.

Lü.6988c, “Empress Augusta River”, **woman’s hood**, (maximum length 68 cm, maximum width 30 cm), Plate X, 3. The pattern is organized in three broad bands lying over one another, each separated by a row of little knots. In each band there are two pairs of inverted right angles boxed inside one another, made from rows of knots and painted partly red and partly white; the painting of the surrounding surface, in the same colours, is just as irregular.

Lü.6988d, “Empress Augusta River”, **woman’s hood**, (maximum length 85 cm, maximum width 31 cm); the same decoration is found on both sides. A large number of simple rows of little knots form broadly serrated zigzag lines running transversely across the hood, with the intervals between painted alternately red and white. The hood is sewn together surprisingly carefully behind, with the stitches close together.

Furthermore, if one were to compare the smoothly-woven hoods H.S.6647, 1851, 9086 etc. with those of the second type: H.S. 6645, 9233 etc., one would immediately notice the similarity of the pattern: the woven-in decoration of the former is evidently none other than a markedly-stylized lizard or crocodile figure. On closer examination one almost gets the impression that the smoothly-woven mats are only imitations of those inlaid with little knots.

Sadly, nothing certain can be found out about the purpose of the hoods. They do not appear to be “rain mats” as most authors believe, because, first of all they are worn exclusively by women and not once by a man, and secondly we saw a number of women wearing them all the time, even though rain fell only once during our entire time on the river, and the rest of the time the blazing sky arched over us day after day; and finally a technical argument weighs against their use as rain mats: the fastener of the reverse side is, as we have already seen above, so poor that rain would get in. Schmeltz (1905, p.214) is of the opinion that these hoods from the Augusta River serve as little purpose as rain capes as the very similar ones from southern Dutch New Guinea; he believes that they are part of widows’ dress, which I also consider as most likely. It surprised us that these hoods were always worn only by older women, who could quite well be widows; we never saw a young woman with this type of hood; a check of our photographs confirmed this observation.

[82] Also, these hoods were worn like real capuchins (see Plate VI, 3 and 4): of the head only the face is bare, while the side parts conceal back and shoulders. A photograph from Parkinson (*Nachrichten über Kaiser-Wilhelmsland*, 1892, p.1, and Zöller, 1891, p.160) accurately depicts the style of wearing it.

Ornamentation

Head decoration. A head decoration widespread in New Guinea is a cap made from skin; these are also very common on the Empress Augusta River and, as everywhere else, are worn only by men. They are nothing other than regular wigs; they are seen only on older men, who want to conceal their rather thinning hair beneath them. Baldheadedness is certainly not an uncommon occurrence in New Guinea.

On the Empress Augusta River these caps consist mostly of a simple, undecorated piece of skin that is laid over the head and secured with a band.

H.S.6663, 6664, 9239, 9240, 373 km-village, and **H.S.9348, 9357, and 9358**, 343 km-village, seven skin caps, are strips of skin, 23-25 cm long and an average 8 cm wide, with a cord at each end for tying. The pieces of skin

are yellowish-white, brownish, or russet in colour and probably without exception come from the “cuscus” or marsupial tree-bear (phalanger).

H.S.9286, Málu, **skin cap**, consists of a 25 cm long and up to 4cm wide strip of cuscus skin, to the rear of which the lower bill of a *Rhyticeros plicatus* Först. (according to the Natural History Museum, Hamburg) is suspended.

H.S.9359, 343 km-village, **skin cap**, Plate X.4, is significantly larger than those previously discussed, covering almost the entire head apart from the face, like a bonnet; it is made from pale grey fur.

H.S.9082, Lāmbrīngī **skin cap** (*uréna, vīnām*, Hellwig) is even more extensive. The piece of skin, with a width of only 22 cm, indeed does not extend so far behind, but has such a significant length (40 cm) that, laid on the head, it completely covers the ears on both sides. The tie cords here are not attached to both ends, but about 10 cm above, and so the ends of the piece of skin hang down freely.

H.S.9187, 252 km-village, **skin cap**, looks like a bonnet slashed at the back. The whole length is 45 cm, the maximum width measured from front to back is 23 cm. A further small piece of skin, that comes to lie on the neck behind, is attached to the single tie cord. The skin is reddish-brown, a rarity.

St.He.60652, “Empress Augusta River”, **skin cap**, designated as “spear decoration” by the collector. However, nothing distinguishes it from the caps H.S.6663, 6664, 9239 etc., and it also has a tying cord at both ends.

The narrower strips of skin, like headbands, are also decorated with several feathers and are worn by younger people. Finsch (*Nachrichten über Kaiser-Wilhelmsland*, 1888b, p.92) mentions a skin cap that he observed on a man from Venus Point; it was made “from the skin of a cuscus marsupial (*Phalangista*)”.

Instead of the skin of the cuscus, they frequently use that of the cassowary, whose unique black or dark-brown feathers could fake human hair very much more easily than could the quite different pelt of the cuscus.

H.S.9076, Kāmbrīnūm, **strip of cassowary skin**, *gēgērī* or *gēgrīnō*, Hellwig), measuring about 30 cm from one side to the other, and about 20 cm from front to back. The feathers are a relatively pale brown shade. Cords are attached to both sides for tying. A man in Plate V.2 is wearing such a cap.

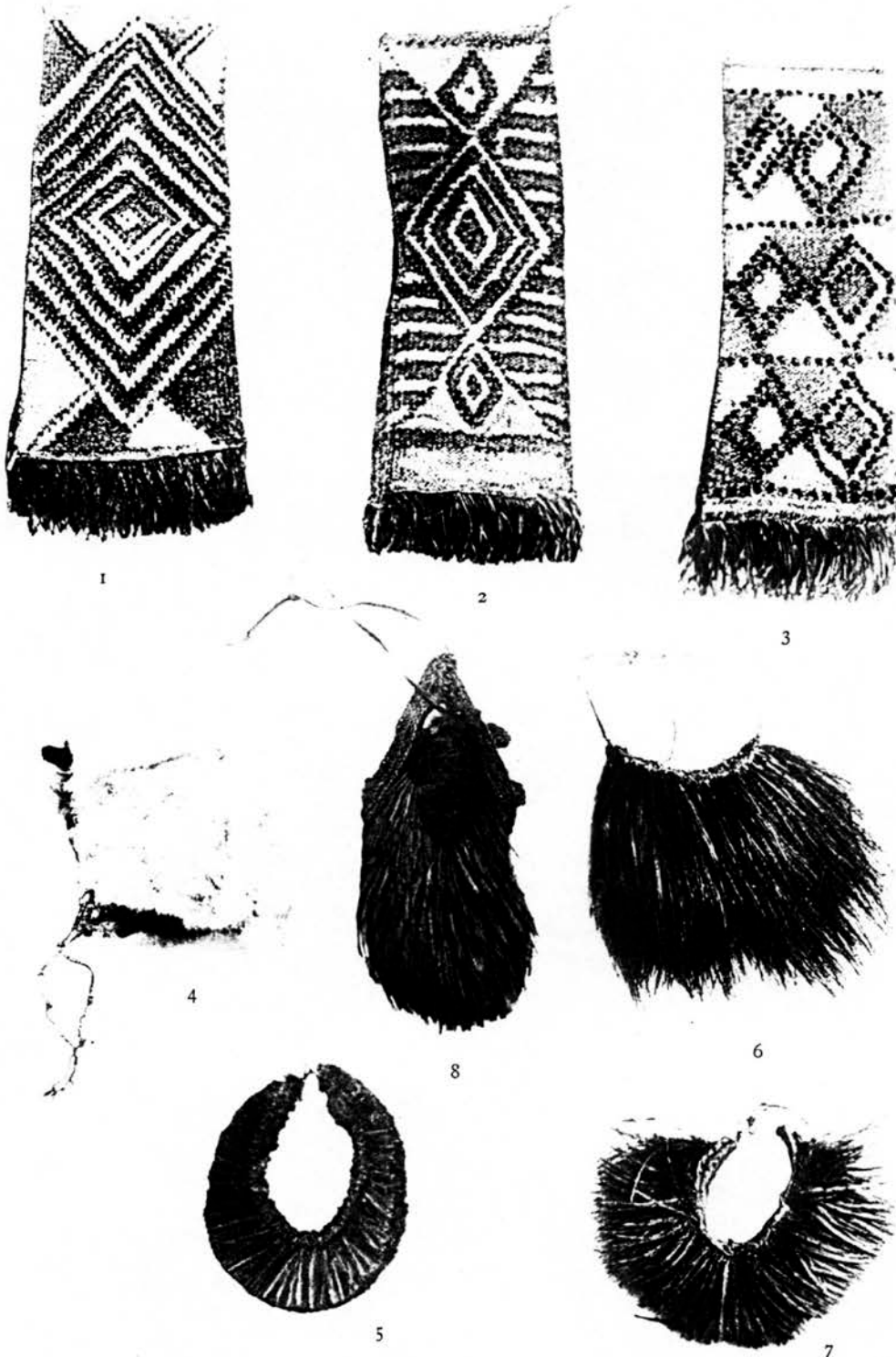
H.S.9297, Málu, **strip of cassowary skin**, differs from the previous specimen only in the feathers being almost black. [83]

H.S.9097, Lāmbrīngī, a **cap žilá**, Hellwig) that consists of a skin trimmed with shiny velvety black feathers, demonstrates that occasionally other material is used in making caps; according to the Natural History Museum in Hamburg, the specimen was made from *Plotus rufus* Daudin, a darter.

The narrower strips of skin represent a promotion of cassowary skin caps to regular items of adornment, decorated with especially-long, upstanding feathers, and are also worn like a diadem by young people.

H.S.9085, Māndānām, **feather headdress**. A rectangular piece of cassowary skin measuring 16 cm from side to side and 11 cm from front to back, ending laterally in front in two oblong triangular tags of skin onto which the cord ties are knotted. The part behind these tags has two woven eyelets, probably for a second cord still to be attached. The feathers are pressed backwards from just above the base by a bast fibre band attached along the length of the front edge, so that they stand up abruptly in a forward-opening arch. This bast fibre band ends at the sides in several narrow hanging bands transversely bent alternately front and backwards along their entire length, so that it forms a lengthwise zigzag.

H.S. 9051 and **9063**, Kāmbrīnūm **head bands** made from a piece of cassowary skin trimmed with feathers (*kāgīnō* or *gāgrīnō* Hellwig, words that perhaps designate the actual cassowary or the cassowary feather); the piece of skin is very narrow in both of them; their lengths are 24 cm and 26 cm. The feathers are sewn together at their base with cords; they are firmly supported above so that they stand up like the hair in a stiff brush. A tie cord is attached to each of the two ends of the frame thus created. In H.S.9063 (Plate X.5) the feathers are approximately 4.5 cm long in the middle; they become gradually shorter towards the sides, (as in the other specimen, H.S.9051 where however the feathers are more firmly supported and are only about 3.5 cm tall in the middle). In H.S.9051 the frame supporting the feathers is smeared with a black, sticky mass, which gives the whole thing even greater support.



1. Woman's hood, after Schmelz, ca. 1/10 actual size. 2. Woman's hood H.E.2352, 1/10 actual size.
 3. Woman's hood Lü.6988c, 1/10 actual size. 4. Skin cap H.S.9359, 1/5 actual size.
 5. Head band H.S.9063, 1/5 actual size. 6. Head band St.Bä.6667, 1/5 actual size.
 7. Head band St.Ha.61633, 1/5 actual size. 8. Head finery H.S.9114, 1/4 actual size

H.S.9055, Kămbrînŭm, **headband** (*găgrînŏ*, Hellwig) is similar to the previous specimens. The cord plaiting, very thickly smeared with the sticky mass, forms an even firmer framework; even the feathers themselves are glued together in places. In the middle, the upper part is decorated with several bunches of cuscus skin. The frame length is 25 cm.

St.Bă.6667, “Empress Augusta River”, **headband** (Plate X.6); here the cassowary feathers are left at their natural length.

St.Ha.61633, “Jaunda”, headband, Plate X.7, described remarkably as an “arm ornament” by the collector. The specimen has the cassowary feathers at their natural length.

We saw these headbands only in the middle reaches; the fact that Finsch observed one at Venus Point indicates that they were also worn in the river mouth region. Finsch describes a “head finery of rolls of shaved cassowary feathers, just like those from the south coast.” (1888a, p.293).

H.S.9114, Măndănăm, headdress (*găgrînŏ*, Hellwig). Plate X,8 depicts a form that we have not seen anywhere else. A piece of cassowary skin with strongly posteriorly-directed feathers is trimmed on its sharply tapering end on both sides with a broad plaited band which, extending forwards over the piece of skin, forms a head-like projection; two short flat plaited cones are attached laterally on both sides. A little piece of cuscus skin 10 cm long and up to 4 cm wide is fastened onto the front of the cassowary skin, and in front of this is a bast fibre loop, probably for fastening.

Schlaginhaufen (1910b, p.32; Fig. Q, p.62) describes a quite complex headband. It originates from the “terminus” village of the author — probably our 373 km village. It consists of a piece of cassowary skin with supported feathers; it is attached to a plaited band by “cords and a sticky black mass.” “The plaited band is pulled out into lobes above and below in three places: the middle, the left and the right, and each of these lobes is surrounded by a plaited arch. . . In five places the feathers are each covered by a strip of cuscus skin, thereby presenting to the eye an alternating series of black cassowary feathers and pale-brown strips of skin. At either end of the band a long [84] bird feather is inserted for decoration. In turn, one shaft is adorned with a little plaited band transforming into a plaited cog. The headband is tied round the head by cords attached to each end.”

Hairstyle. These wig-like head coverings lead us to hairstyles. These vary greatly along the stretches of river that we visited.

In the swamp region of the river mouth, the young men let their hair grow as long as possible, and squeeze it through a funnel-shaped plaited tube that narrows upwards (Plate IV.1).

H.S.6736, Kōpár, hair basket (*kaút*, Müller) Fig.19 (height 17 cm, lower diameter 9.5 cm, upper diameter 4 cm). The framework consists of vertical bamboo canes interwoven horizontally with rattan (for the technique see Figs. 237, 238 and 239). Over the reinforced rim of the lower edge is an interwoven zigzag pattern. The basket is enveloped in the middle by a twill-style plaited ring dyed red and trimmed in front with rows of small *Nassa* snails. *Nassa* snails also form two figures extending almost to the upper end, whose significance could not be ascertained. The upper end of the basket is trimmed with a wide strip of cuscus skin.

H.E.2503, “Empress Augusta River”, **hair basket** (height 19 cm), similar to the preceding one; decorated with *Nassa* snails and a strip of cuscus skin above. The upper and lower ends of the basket are connected by a decorative chain made from bast fibre weave and adorned with *Nassa* snails and feathers.

H.1023:05, “Empress Augusta River”, **hair basket** (height 19.5 cm); the sole decoration is provided by a ring of cuscus skin attached to the upper end. The original hair of the former owner is still in the basket.

Finsch (1888b, *Nachrichten über Kaiser-Wilhelmsland*, pp.90-91) obtained several similar hair baskets in the vicinity of the mouth of the Empress Augusta River; they were most prevalent from Venus Point to the Kaprivi River. It has been known for a long time that they occur along the entire neighbouring coast and on the offshore islands. Moreover, they show a multiplicity of forms and trimmings. Mostly the man’s actual hair soars upward in a thick bunch; quite often too, foreign hair is substituted in the tube, to give the impression of a quite luxuriant growth of hair; the piece of cuscus skin frequently attached would evidently

also replace actual hair. Often dog's teeth, fruit kernels, little chains and feathers are also attached to the baskets as decoration. Older men who no longer have sufficient hair to give the basket the necessary firm attachment, totally ignore this hair style and wear their hair fairly short.



Fig. 19. Hair basket, H.S. 6736,
½ actual size

As widespread as these hair baskets are along the coast, the more rapidly they become rare as you travel upriver. Even in the village of Mbīm they are no longer worn by all the young men, and in Īmbāntōn (Nǎngīt) we found only a few.

[85] From Āngōrōm (Wolem) on, they disappeared completely, as did the belts round the waist. Here the young men keep their hair mostly quite short, and cut it frequently, while the older ones, in full manhood, let it grow long. It hangs from their head in long thin spirally-twisted locks, smeared with fat and black earth mineral, reminiscent of the curls of a French poodle (see Plate VI.1). In the middle reaches the hairstyles of the older people are more varied. Many wear their frontal hair short and have the long, hanging locks only at the back; in others the hair is tied back by a thin string so that the front of the head is free. Often the hair styles were also quite fantastic: in 373 km-village we saw a man who on his otherwise fairly short hair had left five long bunches of hair, heavily matted and

standing up like jagged points across his head. A bigger boy from the same village was shaved almost completely bald, and had left only two bunches of hair, the size of the palm of his hand, over his ears, and decorated them with leaves and a few flowers.

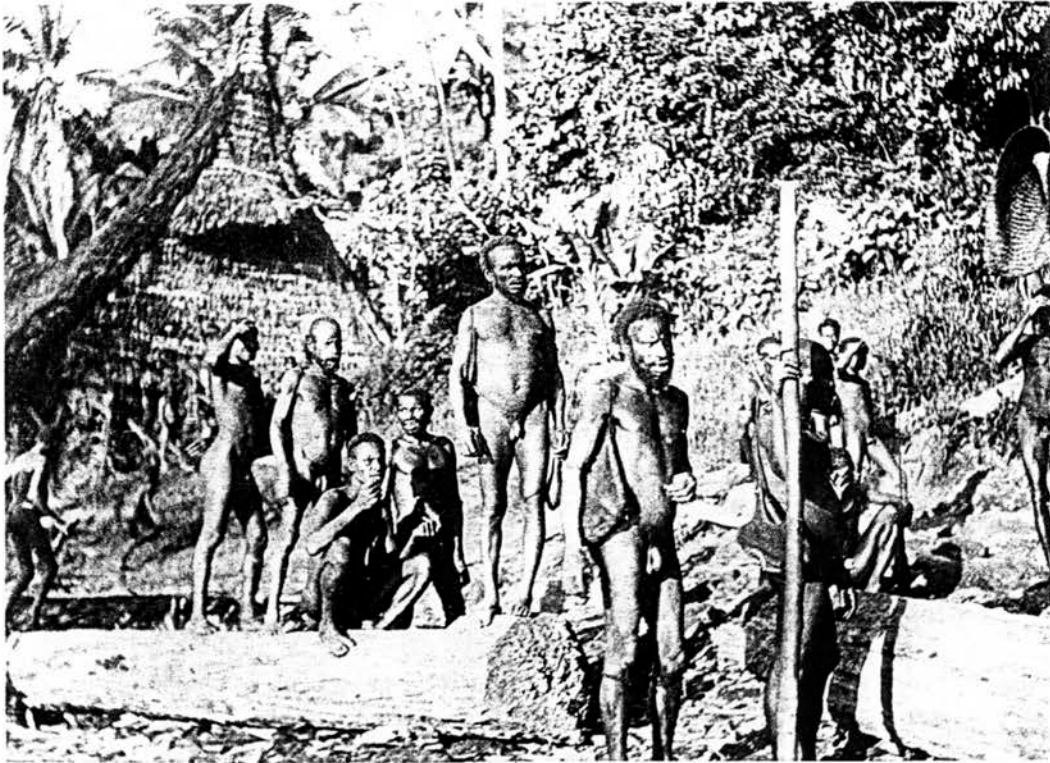
In the upper part of this stretch of the river the hairstyles of young men, women and children were almost identical. They wore their hair mid-length; the women occasionally had their short locks glued with coloured earth into small tassels (see Plate VI, 2). Often the hair was shaved right round so that only a type of hair-cap remained, and frequently completely shaved so that only one lock of hair remained in the middle of the skull, something that we saw very often in women and children. This hairstyle had already surprised the 1887 expedition: "They (the women) very often shave their hair, always leaving a small spherical bob on the crown". (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31).

The younger men seem mostly to shave their beard off while the older men retain it; we often saw quite dignified, thick full beards. We never observed special decoration of their beards, but Finsch mentions a beard ornament from Venus Point — boar's tusks split lengthwise and ground thin — fastened to the end of the goatee beard (1888b, *Nachrichten über Kaiser-Wilhelmsland*, p.93); he also found decorated beards in the neighbourhood and at the Caprivi River.

The men always shaved off their pubic hair (Plate XI, 1 and 2. Whether the women did this as well, could not be established, although I think it probable.

Apart from the wigs and feather crowns discussed above, there are still many kinds of hair ornament, that in places have a somewhat provisional character. They were often satisfied with sticking only a couple of flowers or rooster feathers in their hair, a custom observed particularly in the middle reaches of the river. Very rarely one also saw the golden yellow feathers of the bird of paradise in their hair.

Reche, Empress Augusta River, Plate XI



1. Men from Málú. (see p.85)

Filleborn phot.



2. Men from Málú (see p.104)

Filleborn phot.

Headbands. Among the more complex decorative items, unique headbands must be mentioned foremost. These are fairly widespread on the neighbouring coasts, the offshore islands, and in the vicinity of the mouth of the Augusta River [86] and at the moment nothing can be said with any certainty about their actual origin. They consist of two bands about 5 cm wide that are pushed together in front at an acute angle. They are placed over the forehead, and their ends are knotted at the back. The bands themselves are either made from bark or plaited from twisted cords.

H.S.6733, Wātām, **headband** (length 69 cm, maximum width 6 cm), Fig. 20, consists of bark cloth, and is hemmed along the edge with strings of *Nassa* snails. A wavy line of the same species of snail strung together is drawn lengthwise along the framed surface.

H.S.9379, Wātām, **headband** (total length 52 cm, length of the decorated part 23 cm, maximum width 5 cm) is plaited from cord (for the technique see Fig. 229) and thickly trimmed on the front surface with strings of *Nassa* snails.

H.E.2359, Wātām, (length 71 cm, length of the decorated part 29 cm, maximum width 4 cm) **headband**, is made from the same material, by the same technique and decorated the same way as the specimen just described.

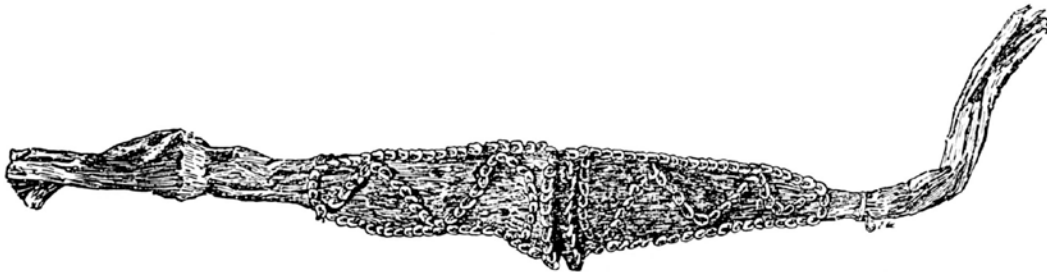


Fig. 20. Headband, H.S. 6733, ¼ actual size

H.3069:05, Wātām, (maximum length 83 cm, length of the decorated part 27 cm, maximum width 8 cm) and **St.Ha.61552**, Medam (length of the decorated part 32 cm, maximum width 5 cm) Plate XII, 1, two **headbands**, are similar to the preceding ones except that the perpendicular central border, where both halves of the head band come together, is trimmed with a row of forward-projecting dog teeth. St.Ha.61552 is surprisingly designated by the collector as an “arm band”. He had evidently not seen the item in use, and during that voyage by the *Siar* in the river mouth region, they had not gone ashore.

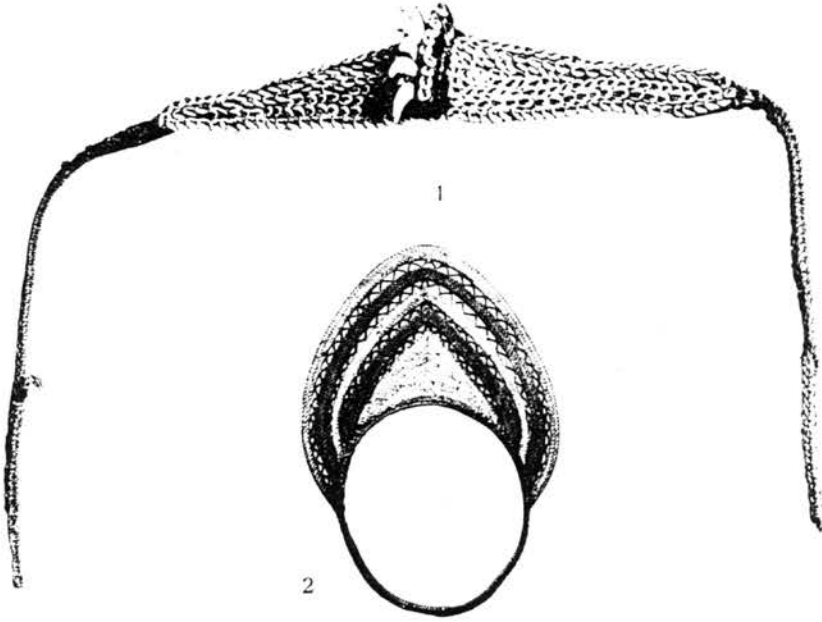
H.E.2360, “Empress Augusta River”, **headband** (total length 78 cm, length of the decorated part 31 cm, maximum width 4 cm) also has a dog tooth trimming, but is made from bark. The edges of the strip are trimmed with *Nassa* snails and its surface is decorated with a zigzag band of the same species of snail. The base of the dog teeth is surrounded by two matted strings made from human hair dyed red.

H.E.2357, “Empress Augusta River”, **head-band** (total length 67 cm, length of the decorated part 30.5 cm, maximum width 5.5 cm) a very carefully made item, plaited from cords. The whole front surface is densely plaited with *Nassa* snails. No dog teeth trim the middle border but instead two rings cut from *Conus* shell; their location is surrounded by a carefully-plaited russet oval trim. On both sides a plaited band about one centimetre wide is added to the ornamental part, ending in a knot-like enlargement and serving to fasten the headband.

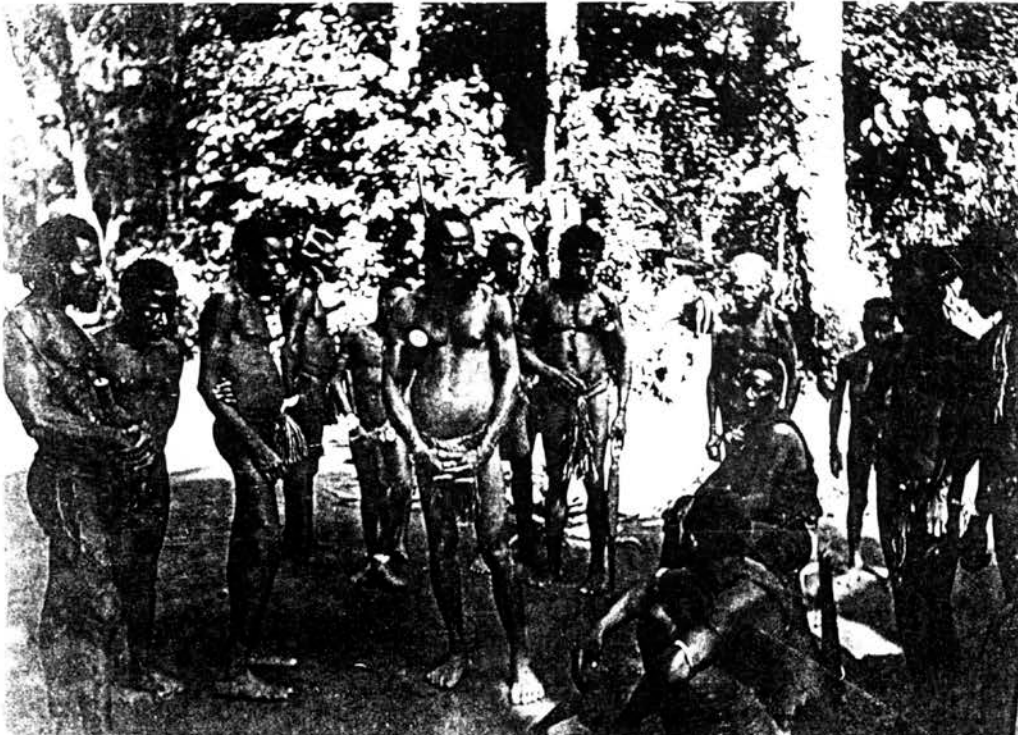
Finsch (1888b, *Nachrichten über Kaiser Wilhelmsland*, p.97) mentions a number of head bands from Venus Point, that are similar in places to those obtained by us: No.434 is a specimen produced from “three very finely webbed cords”, 46 cm long and about 2 cm wide, whose edge is trimmed with *Nassa* and whose front surface is decorated with dog teeth; a *Conus* ring is fastened on each side; “the lower side of the clasp looks like a spout and carries a pendant of fine weave with *Nassa* and a fine little chain with a black fruit attached.” No.436 is similar, but consists of “fine woven grass dyed red, and decorated with *Nassa* and two *Conus* rings.”

The other specimens described by Finsch differ from those described so far. No.432, Venus Point, consists of 26 drilled dog teeth “that are on a cord of very finely woven bast fibre fibre, and are bordered on the upper edge by a row of *Nassa*.” No.556, Venus Point, (depicted on Plate XIV Figs. 11 and 12), consists solely of 76 dog teeth (canines) threaded on a thin cord and decorated with a row of *Nassa*. According to Finsch this type of band “is used [87] also as a belt.” No.433, Venus Point, (depicted by Finsch on Plate XIV Fig.10), is a cord about 50 cm long “of a double-row of *Nassa* woven onto bast fibre similar to linden tree (and probably Hibiscus).”

Reche, Empress Augusta River, Plate XII



1. Headband St. Ha. 61552, $\frac{1}{4}$ actual size. 2. Hair ornament H.S. 6653, $\frac{1}{5}$ actual size.



3. Men from Kämbringī

Folleborn phot.

Further upriver, above the river mouth swamps, these types of headband seem to occur at most only as dispersed specimens; in any case we did not see a single example here. Instead there were remarkable, almost diadem-like forms:

H.S.6608, Măndănă, **headband**, Fig.21. In this specimen the base is formed by a plaited band (see Fig.229 for the technique), whose length is 35 cm and maximum width 2 cm; a cord tie is attached to each end. A larger tag is plaited onto the middle of the band with four smaller ones to the sides. Above the central tag and those at either end the band has a bulgy plaited thickening. The entire plaited article is thickly rubbed over with a black sticky mass. The front side of the band and the tags are densely trimmed with *Nassa* shells sewn on in rows. A cowry shell is fastened to the base of each of the four small tags. A cowry shell is fastened on both sides of the thick bulge over the central tag, so that the bulge gives the impression of a head with two eyes, with the nose being formed by the tag. Mention must still be made of two woven-in eyelets situated on the reverse side of the upper edge of the band above the two inner lateral tags, evidently for pulling a cord through, for tying.

H.S.9101, Măndănă, **headband**, (*bôrüm*, Hellwig) (length 33 cm, maximum width 2.5 cm) and **H.S.6607**, Măndănă (length 27 cm, maximum width 2.5 cm) are similar to the previous specimen, but smaller and less richly embellished.

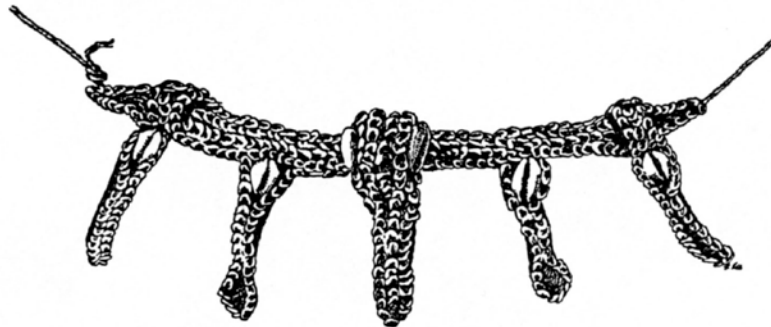


Fig. 21. Headband H. S. 6608, $\frac{1}{4}$ actual size

These items of adornment do not seem to be common since, surprisingly, they are not mentioned by any of the other visitors to the river. We saw them in only two villages, Măndănă and KămbriŃgi, neighbouring locations. They were worn above the forehead (thus they are not head bands in the true sense) and indeed mostly with the tags to the back, on the border between the close-cropped front and the back of the head with its long fringes of hair. Men who do not have this kind of hairstyle also wear the ornament reversed, more on the top of the head with the tags towards the front (Plate XII.3).

H.S.6653, 293 km village, **hair ornament** (diameter 14 x 15 cm), Plate XII, 2; this decorative item is made from plaiting, and differs markedly from the specimens described so far. A perforated worked disc is fastened to an oval plaited framework that consists of an arched triangle with four plaited strings attached; the two parallel triangle sides steadily 'round' [88] the angle. Triangle and bands are linked by narrow woven steps running in a zigzag. The triangle and the middle parallel band are white, while the other bands are dyed red. Schlaginhaufen (1910b, p.33) depicts a very similar, though somewhat simpler item, but regards it as a chest ornament. Since his specimen lacks the firmly-plaited frame, substituted only by loose bands tied on to secure it, this kind of purpose might, in itself, be entirely possible. However, no head could push through the firm narrow framework of our specimen; we accordingly came to the conclusion that this decorative item would be worn *on* the head. It would seem that the back of the head is pushed through the framework so that the plaited disc soars obliquely forwards and upwards, like a diadem, turning the painted front surface to its full extent towards the beholder. Parkinson's (*Nachrichten über Kaiser-Wilhelmsland*, 1892, p.1) photographs also support this opinion: there the man in the middle is wearing a head ornament extraordinarily reminiscent of our specimen (details are not recognizable in the photograph); it is fastened to the head in the manner that I thought, rising obliquely forwards and upwards. Finally also, a decorated skull that we obtained, H.S.4516 (see Plate LXXIV) wears a similar diadem, attached in the same way.

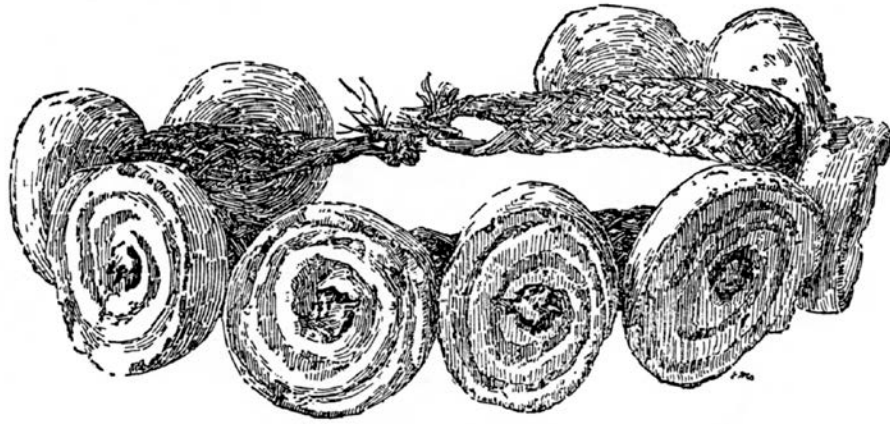


Fig. 22. Headband H. Th. 1188:05, $\frac{1}{2}$ actual size

H.Th.1188:35, (“collected in the afternoon of 4 August 1909”) 293 km village(?), **headband**, Fig.22, is an extremely interesting specimen; decorative objects made from pith-like soft wood, painted white and resembling the upper part of *Conus* shells in shape, are sewn onto a plaited band 50 cm long and up to 3 cm wide. Since genuine snail shells are obviously very expensive so far upriver, the people have acquired the ability to produce a not-unskilful imitation. Each of these pieces of wood is drilled through in two places and is fastened to the band by a string pulled through the holes. Using the same cord a tiny vertebra of a snake is fastened to the centre of each of the wooden items, to prevent the cord slipping through. Schlaginhaufen (1910b, Plate 4, Fig.40) illustrates an almost identical item. He, incidentally, collected it and the one just discussed from the Thiel collection. The same author (1910a, p.7) also mentions a band trimmed with red fruit, which the natives (evidently inhabitants of 292 km-village) wore in their hair.

Combs. Hair combs serving as adornment have quite a considerable variety of form. Finsch (1888a *Atlas*, Plate XVII, Fig.2) has already described a decorative comb from the river mouth area, which he obtained at Cape de la Torre (somewhat north of the mouth).

It has four teeth, consisting of thin staves of wood, connected by plaiting, dyed red. The upper part is decorated with *Nassa* snails and cords of human hair and, as a pendant, it carries “six little chains decoratively woven out of plant fibres, with cowries and round black fruit kernels, and with split feathers at the end”. Another comb comes from the Hammacher River somewhat [89] further north-west along the coast: it “consists of four wooden staves bound with string, wrapped round at the handle end with finely-split rattan dyed red. A knob of a round black nut is fastened to this weaving, and it is edged with a row of *Nassa* snails, and a finely plaited little chain is attached (*loc. cit.* p.94).

H.E.3689, “Mouth of the Ramu” **hair comb**, Fig.23; it is carved from a knee-shaped piece of bamboo and has six teeth. The side branch at the upper end is richly decorated and seems intended to imitate a tall, hair funnel. Perhaps the former owner no longer had sufficient hair to be able to support a hair basket. This upper end is enveloped in a dense weave of plant fibres that, halfway up, and then at the upper end, forms two small eyelets each. Several rows of *Nassa* snails are sewn on. A rattan stave is pushed into the bamboo tube at the top, and numerous white rooster feathers are attached to the stick by wrapping cords; they always use only feathers split lengthwise; non-split ones are too stiff and would not bend in the wind.

H.E.2346, Wātám, **hair comb**, Fig.24. Consists of ten palmwood staves bound together by bast fibre at various points. The plaited bands are mostly narrow; only the lowermost, which has to be particularly firm to maintain the teeth in the correct position, has a greater width (3 cm). A few white feathers are located above, at the end.

[90] Moreover, these types of decorative comb are not found particularly often in the river mouth region, as Finsch (*loc. cit.* p.94) has already mentioned. Here the general custom of



Fig. 23. Hair comb H. E. 3689, $\frac{1}{2}$ actual size

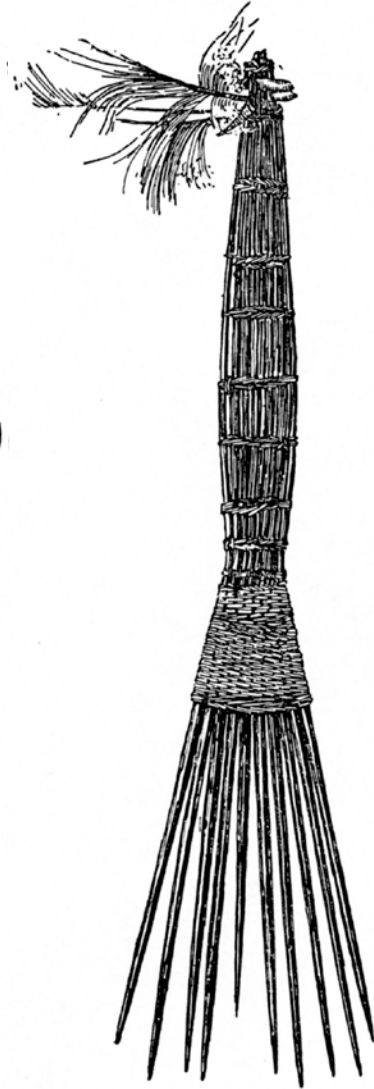


Fig. 24. Hair comb
H. E. 2346, $\frac{1}{2}$ actual size

pushing the hair into a hair basket affords little opportunity of attaching hair combs. Furthermore, against the richly decorated baskets it would stand out too little to have much value.

In the villages immediately above the river mouth swamps combs seem to be equally rare; in this area we were unable to see even one, and it appears that the other expeditions did not bring back any from here. Then, in the middle reaches, they again became more common. Their occurrence seemed to begin at approximately 252 km-village; at least the one illustrated by Schlaginhaufen (1910b, p.31) came from this village. It consists of four wooden staves,

held together by flattened weaving and diverging downwards; the upper end is decorated with white feathers. A cross stave of unclear purpose is fastened on behind. However, the combs seem to become actually common only in the vicinity of the Hunstein Range, because our entire collection came from a single village, Málu, where we saw numerous men with these combs.

H.S.6686, Málu, **hair comb**, Fig.25 (length 22 cm), is the most similar to the one mentioned above (from 252 km-village). Four palm wood staves of unequal length diverge downwards, secured above by plaiting 10 cm long.

H.S.9276, Málu, **hair comb**, differs from the previous by a spout-like plaited ring situated above, decorated by a little piece of russet cuscus skin, two yellow-white rooster feathers, and several short black cassowary feathers.

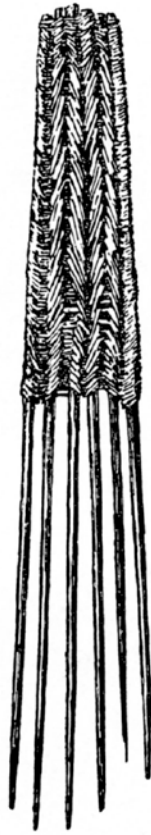


Fig. 25. Hair comb
H. S. 6686, 1/2 actual size

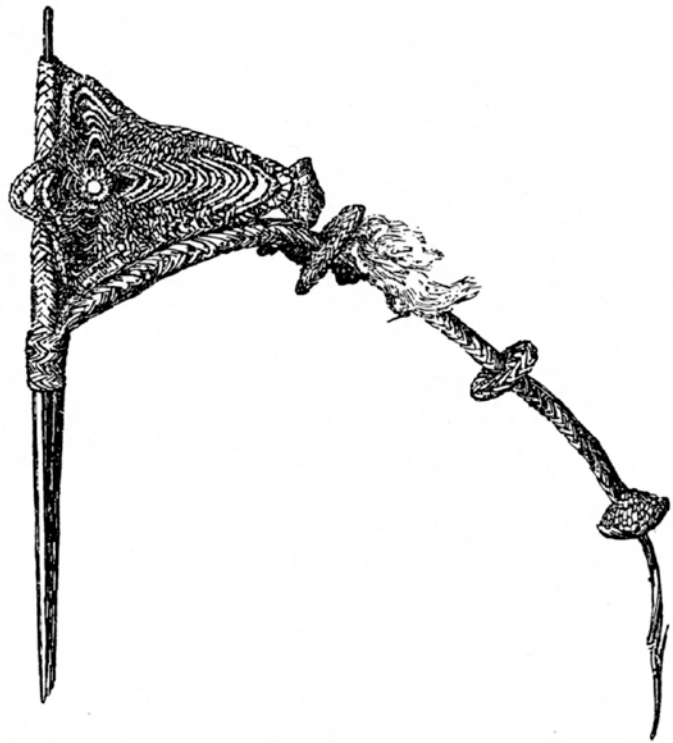


Fig. 26. Hair comb H. S. 9310, 1/2 actual size

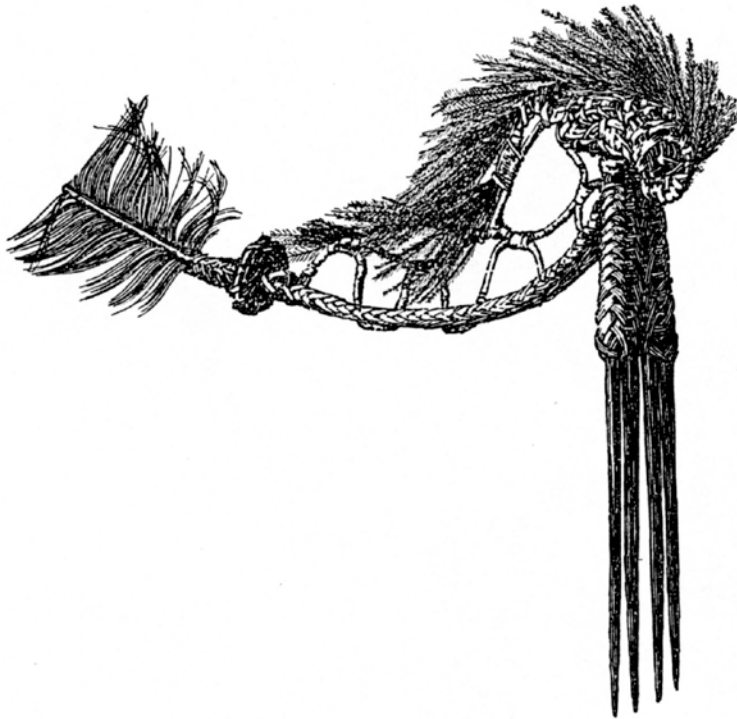


Fig. 27. Hair comb H. S. 6685, 1/2 actual size



Fig. 28. Hair comb H. S. 6684, 1/2 actual size

The following specimens are largely constructed the same, consisting of three to five little wooden staves held together above by broad plaiting. A fantastic, plaited appendage is fastened onto the upper end in all of them.

H.S.9277, Máu, hair comb (length 20 cm); in this one the appendage that is fastened to the front side and soars forwards transversely, consists of two rattan sticks plaited over, arching at right angles to the comb surface, and carrying a plaited ring at the tip.

H.S.6683, Máu, hair comb (length 15 cm) with three teeth. The decorative process is assembled from three plaited-over rattan sticks, 17 cm long and bears a short thick bunch of cassowary feathers on the tip; it is attached to the upper end of the comb and bends initially downwards then upwards, so that the end is directed obliquely forward and upwards. For securing this curvature, the part climbing up and outward is bound by a thin cord.

H.S.6687, Máu, hair comb (length 20 cm); here the process, consisting of three plaited round rattan sticks, begins in the middle of the upper half of the comb, then running upwards in a strongly-curved arch. It is there reattached to the comb, and finally bends obliquely forwards in a shallow arc. The tip is broken off, but probably originally also had a small plaited wheel.

H.S.4542, Máu, hair comb (length 21 cm). In this five-toothed specimen the process is considerably more complex. To the wrapped upper part of the comb a remarkably wide structure is fastened which, resting on a four-sided base, appears to represent a stylized pig's head in the most painstaking plaiting; the anteriorly-directed snout is easily recognizable, bearing a small plaited wheel at the tip, as are the round eyes sitting laterally on the base. A cross-bar fastened on behind gives the necessary firmness to the face.

H.S.9310, Máu, hair comb (length 18.5 cm), is very similar to the preceding one (Fig.26); the plaited pig head is found here too but a long process of three wrapped rattan sticks is added, climbing up along the lower side of the pig's snout [92] then bending forwards and away; it has a total length of 24 cm, carries three oval plaited wheels with a piece of yellow-brown skin in front of the first one.

H.S.4543, Máu, hair comb (length 24 cm) with four teeth. On the uppermost end sits a plaited wheel, and close below a decorative process consisting of three wrapped sticks directed obliquely forwards and outwards. On both sides of it are attached two small, thin rattan circles, arranged one behind the other and containing semicircles.

H.S.6682, Máu, hair comb (length 15.5 cm), with four teeth. Here the obliquely forward and downward-directed process consists of two wrapped sticks that carry a plaited wheel in front, and to which an arched stick wrapped with bast fibre is added on each side. Between the middle part and the arched sticks there is an oval ring on each side, containing a smaller circular ring; the whole thing is probably intended to represent a face.

H.S.6689, Máu, hair comb (length 20 cm) with five teeth. This is very similar to the preceding one, except that here the process sits on the lower end of the plaited-round part of the comb; it too appears to represent a face. A small piece of yellow-brown skin is fastened on the end, and a quill feather is inserted above the stick forming the framework.

H.S.6688, Máu, hair comb (length 17 cm) with four teeth. The decorative process beginning almost in the middle of the wrapped part of the comb runs firstly upwards then sharply arches downwards, and finally turns horizontally forwards. The same facial representation as in H.S.6689 is in this one attached twice, one behind the other; its end is adorned with a bowl-shaped scooped-out plaited wheel.

H.S.6685, Máu, hair comb (length 16 cm) with four teeth, Fig.27, is the most complex specimen. The decorative process situated just below the tip first runs obliquely downwards, then horizontally forwards, and finally climbing, with its end somewhat upward. Two centimetres before the tip a plaited wheel is attached, and on the tip itself a short broad black feather is fastened. Along the upper side of the decorative process, from its base to the plaited wheel, runs a narrow band consisting of two wrapped strips of rattan, in the shape of a wavy line. The highest points of this band are knotted together by a second slightly-wavy band. A broad plaited strip begins at the most anterior arc of the strongly wavy band and, connected by cross staves to the narrow band, runs to above the tip of the comb, which is provided with a thick plaited roll. This broad strip is decorated with obliquely interwoven brown cassowary feathers. The whole decorative process is evidently intended to represent the head of a bird, probably a cassowary.

H.S.6684, Máu, hair comb (length 21 cm) with four teeth, Fig.28; an oval plaited band is fastened on at the upper end. The decorative process begins in the middle of the wrapped part of the comb, climbs firstly somewhat upwards, but then bends outwards; at this knee sits an oval plaited wheel, just before the end, with three more each three centimetres apart. At both sides two spirals of rattan, facing each other, lean against the decorative process, possibly an extension of the face decoration. The decorative process is held in shape and in place by a wrapped stick, from the base and reaching the last wheel. The end two plaited wheels are adorned with cassowary feathers in such a way that the obliquely-inserted feathers of one wheel simulate a twist to the left while those of the other simulate a twist to the right.

These combs are worn in somewhat varying ways in the hair, but always in such a way that the decorative process is shown to best effect. Thus combs like H.S.4542 or H.S.6685 are fastened upright in the hair, while others, like for example H.S.6688 or H.S.6689, are fastened in a horizontal direction front to back.

As well as these everyday combs there are numerous others that seem to be used exclusively in dances and ceremonies; these are described in conjunction with other ceremonial objects.

Hairpins. Besides the decorative combs, hairpins with only one tooth are also highly favoured.

H.S.9164, 252 km village, **hairpin**; consists of a thick bunch of golden yellow bird-of-paradise feathers that is fastened to a halved keratinous spine by a wrapped cord; this “spine” is nothing other than a stroke feather, split lengthwise, of a cassowary (presumably *Casuarius uniappendiculatus* Blyth). [93] The upper edge of the wrapping is decorated with a small piece of white cuscus skin.

H.S.9049, Kămbrínũm, **hairpin**, Plate XLIV; the entire quite carefully prepared skin of a *Fanysiptera galatea* Gray (*viñ*, Hellwig) is skewered on a stick.

H.S.9050, Kămbrínũm, **hairpin**, Fig.29; here the wooden stick is adorned with the skin of a *Hypotaenidia philippensis* L. (*gũrãñõ*, Hellwig).

From the river mouth area come several *Cymbium* shells decorated with turtle shell lining which, furnished with a wooden needle, serve as hair decoration.

H.E.4109, “20 mile-island”, **hair ornament**. This item, obtained from the lower reaches of the Ramu, is fastened to a wooden needle 11.5 cm long. Needle, *Cymbium* shell and turtle shell lining are held together by means of a cord; the shell is bored through the centre for this purpose. The knot holding the turtle shell disc firm is strengthened by four strung *Nassa* snails.

St.Nr.1, C.6339, “Empress Augusta River”, **hair ornament**, Plate XIII.1 is almost totally identical with the previous item, even in decoration.

H.E.2514, “New Guinea”, hair ornament; *Cymbium* shell and turtle shell disc are fastened to a needle in the same way as both previously-described specimens. The turtle shell lining appears to represent a lizard in the middle. The attachment cord has two *Nassa* snails, a yellow feather and a small finely-plaited chain assembled from four small rings, on the knot in front. The needle is not made of wood but from bone.

Such decorative items are also used to adorn carry bags; carry bag L.Me.4860 (see Plate XLVI) bears a *Cymbium* shell decorated with turtle shell lining.

Ear decoration. Ear ornaments are not especially abundant. In the river mouth area where apart from ear lobes the outer ear is pierced on the rim and occasionally in the middle as well, the men (we did not see any women) mostly put only bunches of bast fibre in the holes; more rarely they also tied on small strings of *Nassa* (see Plate IV.1).

Further up, in the villages of Ăngõrõm, Mũăngẽm, Kămbrínũm, Lămbrĩngĩ, Ămnĩm, and Măndănăm, the men’s ear decoration was just the same; here too besides the ear lobe mostly the outer ear was also pierced. Only simple thin cords of quite varied length were drawn through these holes.

However, in this area there were also small decorative discs made from coconut shell, on short cords tied through the holes in the outer ear.



Fig.29. Hair pin. H. S. 9050, 1/4 actual size

H.S.8997, Nǎngīt, **ear ornament**, a bunch of grey-black twisted cords each knotted at the end.

H.S.6610 and **6611**, Mǎndǎnǎm, **ornamental ear discs** of coconut shell, oval little discs 4 x 4.7 cm and 4.1 x 4.8 cm (Fig.30). Both are decorated on the convex surface with a rather deeply-engraved relief pattern and also with marginal indentations. The decoration is not immediately clear. Each little disc is bored through the centre; the fastening string is pulled through here and simultaneously holds firmly a double-bored *Nassa* snail that reinforces the knot. [94]

H.S.6609, Mǎndǎnǎm, **ornamental ear disc**, Fig.31, consists of a round disc of coconut shell with a carved, spirally-wound process made from the same piece attached. The relief decoration of the disc shows several concentric irregular circles, whose centre is pierced and decorated with a *Nassa*; the pattern on the spiral consists of several irregular indentations. The rim of the disc is also flanged.

H.S.9129, Mǎndǎnǎm, (*bǎrǔm*, Hellwig), Fig.32, (diameter 3 x 3.3 cm) a pair of similar discs, but made from spirally-wound plaiting; the centre here too is decorated with *Nassa*.



Fig. 30.
Ear ornament
H. S. 6611, 1/2 actual size

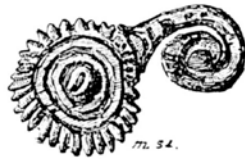


Fig. 31. Ear ornament
H. S. 6609, 1/2 actual size



Fig. 32. Ornamental ear discs
H. S. 9129, 1/2 actual size

This type of ornamental ear disc is probably in part also the “little painted boards” described by Schlaginhaufen (1910b, p.29). Fig.R (Plate XIII, 2) shows two almost-circular little wooden discs; “with regard to the manufacture of the individual discs I mention that it is not only a case of specimens decorated merely by painting, but that the circular part inside the zigzag band is also raised in relief”. These little wooden boards are painted mostly black, white and red. It appears that they all come from a village above Kǎmbrǐngi.

In this region, somewhat beyond Kǎmbrǐngi, ear decoration is much more abundant than further downstream. The simple pendants consisting of long cords, worn particularly by women, occur here as well:

H.S.9316, b and c, Mǎlu, **ear ornament**, consisting of 6 fibres, 4–24 cm long (Fig.33); each fibre has, at the top, in the middle, and at the lower end, several knots one above the other. All the fibres are joined at the top by a cord, which fastens the ornament to the ear.

A short cord strung with several *Nassa* snails in the ear lobes is seen fairly often, or a longer one carrying a cowry snail beneath as an ornament (for example in 252 km village).

In Mǎlu, the village furthest upstream of those that we visited, we quite commonly found mother-of-pearl ear ornaments.

H.S.9333, Mǎlu, **ear ornament** of mother-of-pearl shell: two discs 6.5 cm long and up to 1.5 cm wide; they are slightly curved on the long axis, shaped liked a willow-leaf, and have a rather wide circular hole through the middle. Presumably the fastening fibres are drawn through this hole.

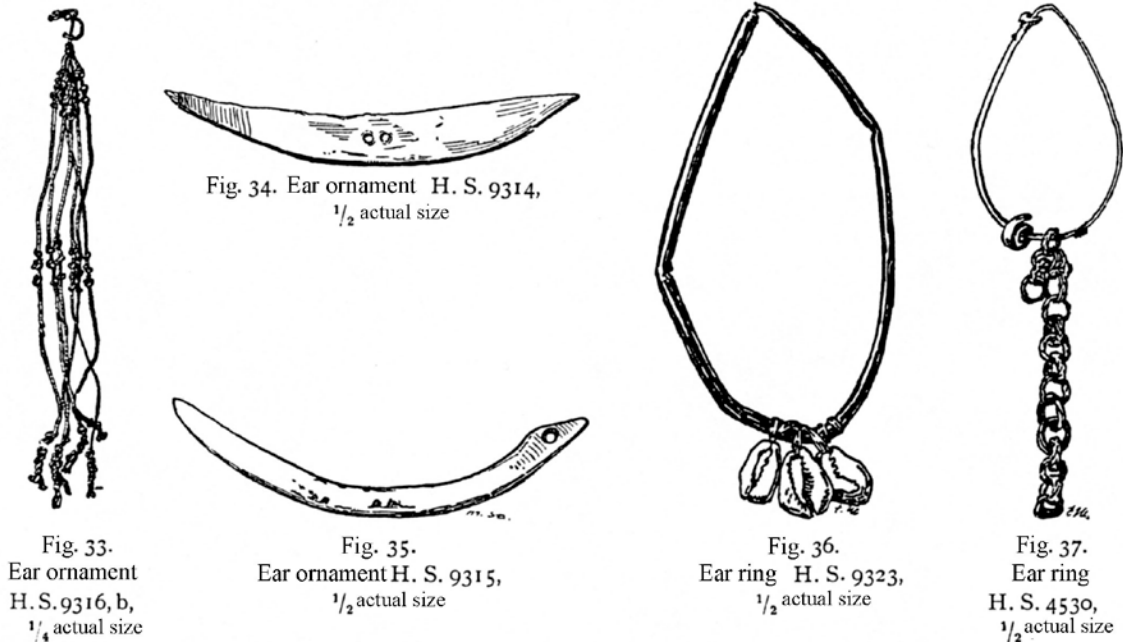
H.S.9314, Mǎlu, **ear ornament** of mother-of-pearl shell, Fig.34, two similar specimens differing from the preceding ones only in their greater length (length 11 cm, maximum width 1.8 cm). Each of the two rods of mother-of-pearl shell has two holes bored close together for fastening the cord.

H.S.9315, Mǎlu, **ear ornament** Fig.35, (length 11 cm), is a crescent-shaped narrow mother-of-pearl shell specimen; the hole for the cord tie is close to one end.

Women of the upper and middle reaches of the river mostly wear only thick bunches of fibres or twisted cords in the holes through their outer ear or ear lobes [95] (almost the same ornament as most of the men), except that in their case these bunches are on average

thicker and hang down further. Often the whole rim of the ear is densely packed with cords. Occasionally small snails and shells are fastened to these bunches, and more infrequently large shell fish like:

H.S.9349, 343 km-village; shellfish *Arca (Anomalocardia) granosa* serving as ear ornamentation. This is a species that is worn also as a chest ornament, or decoration on the men's belts.



In Málu we found pendants worn in the ear lobes very common, consisting only of a cassowary feather quill bent into a circle. The bent-back tip was pushed into the basal part of the feather shaft.

H.S.9258, Málu, **earring**, with no decoration.

H.S.9323, Málu, **earring**, Fig.36; similar to the preceding one, but decorated with three cowry shells fastened on by bast fibre.

H.S.4530, Málu, **earring**, Fig.37; here there is no quill feather used in forming a ring but instead a long bone, the finger of a flying fox. Two small chains are attached as decoration, one consisting of three and the other of fourteen small plaited rings; a spirally-wrapped piece of rattan forms a further decoration.

These earrings occur somewhat further downstream as well: we saw a woman in 252 km-village wearing a pair of ear rings of cassowary feather quills with pendant *Conus* rings. Often the women wore two or more of these rings in each ear. It is remarkable that the people almost always decorated both ears in exactly the same way, showing a clear preference for symmetry in their artistic sense as well. It must also be mentioned, (although we saw it only in men), that the ear was decorated occasionally [96] by flowers pushed into the holes (observed at 375 km-village). Finsch (*Nachrichten über Kaiser-Wilhelmsland*, 1888b, p.100) mentions "Ear rings of a bent cassowary pinion" from the Hammacher River.

Nose ornaments. Along the entire stretch of the river that we visited, men and women bored the nasal septum, yet in spite of this, nasal ornaments were rather rarely seen. The women were contented mostly with a small narrow ring about 3 cm in diameter reaching down even to the upper lip. It was often made from a quill feather, like the earrings. This was true in the middle section of the river, as we did not see any women in the lower

river. In the river mouth area the men mostly wore no nasal ornament at all, or simply pulled a short cord through the septum. I do not dismiss the possibility that they had put aside the decoration because they did not want to sell it to us. There was a nasal ornament specimen from Cape de la Torre, the river mouth area therefore, that Finsch (1888b, Plate XX, Fig.5) illustrated; similar pieces seem to come from the entire neighbouring coast. It is a type of double hook, fashioned from mother-of-pearl. The hook ends, turned towards each other, are rounded, and both are pierced; the lower side of the hook is decorated with oblique indentations. These items are worn in such a way that the closed hoop sticks through the septum with both hooks pointing downwards or obliquely forwards. Not infrequently several of these hooks are worn one on top of another, even two to five of them as Finsch reports. The same author also mentions three further very similar examples from Venus Point (*loc. cit.* Plate XV, Fig.2), the Hammacher River and from Tagai. The masks and wooden figures from this area show mostly a bunch of bast fibres pulled through the septum, a decoration also evidently worn by living people as well. Also, in the villages of the upper part of the river mouth area, from Īmbǎntǒn to Kǎmbrínŭm we did not see one single remarkable decorative piece for the nose.

Nose ornaments were not especially common in the uppermost section of the river either, yet we were able to obtain a few good pieces from there.

H.S.9104, Mǎndǎnǎm, **nasal ornament**, (*žěmbírǎn*, Hell.) Fig.38 (length 4.8 cm) of mother-of-pearl shell; the specimen is extraordinarily similar to the specimens mentioned above by Finsch (from the coast!). It is also a double hook whose ends are, however, tapered and not drilled through; perhaps it is an imitation of specimens seen among the tribes further towards the coast.



Fig. 38
Nasal ornament
H.S. 9104, ½ actual size

H.S.9126, Mǎndǎnǎm, **nasal ornament**, (*žěmbírǎn*, Hell.) Fig.39 (length 8.5 cm) of



Fig. 39. Nasal ornament
H. S. 9126, ½ actual size

mother-of-pearl shell; it differs from the previous specimen by having an oval piece attached to the side of the hook. The hook part is decorated by three engraved parallel lines and the oval section has an engraved spiral. The piece is thus an asymmetrical double hook.

H.S.4525, 373 km-village, **nasal ornament**, Fig.40 (length 6.4 cm) of mother-of-pearl shell. A round surface is attached to the hooks by one side, [97] furnished with an engraved spiral line and a hole drilled through the centre; the border of this surface is heavily indented. The specimen is to some extent only one

half of a nasal ornament, since they always wear two mirror-image similar specimens, one from the right nostril the other from the left, with the end carrying the short hook hung onto the septum.

H.S.6712, 343 km-village, **nasal ornament**, (length 7.3 and 6.9 cm) of mother-of-pearl shell, Fig.41, is a complete specimen: both parts are present. Here the large spiral is no more than stylized, but transformed into a hook-like structure. Only two lines engraved along the margin recall the original form; the edge is also indented.

H.S.9341, 343 km village, **nasal ornament**, (length 5.9 and 6.5 cm) of mother-of-pearl shell; in both examples of the ornament the large spirals are rather more clearly recognizable. Also, the specimens resemble the previous ones, having the same engraved lines and the indentation of the border.

H.S.9313, Mǎlu, **nasal ornament**, consisting of two short mother-of-pearl shell hooks that seem as though they are part of a broken ornamental specimen of the type discussed above. Each is drilled through at the thick end and fastened to a short horizontal piece with rattan. Thus, from worthless broken pieces an ornament has been created, that is very similar to the genuine, evidently very valuable one, especially when it is worn through the nose. The outer edges of the hook are again decorated with several indentations.

H.S.9347, 343 km-village, **nasal ornament**, Fig.42; a hook-like structure is fastened with rattan to each end of a tube that lies horizontally when worn. However, it is not made from mother-of-pearl but from the cochlear section of a *Trochus* snail (total length 5.5 cm). We are therefore dealing here with a cheaper surrogate of the mother-of-pearl specimen; mother-of-pearl shell imported from the coast would be quite high in price here in the upper river. The head of the chest ornament H.S.6750 is wearing an almost identical ornament through the nasal septum.



Fig. 40. Nasal ornament
H.S. 4525, ½ actual size



Fig. 41. Nasal ornament
H.S. 6712, ½ actual size

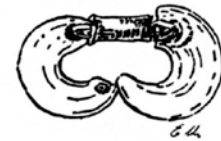


Fig. 42. Nasal ornament
H.S. 9347, ½ actual size

These hooks from the middle reaches are worn the same way as those from the river mouth area. It is interesting that the large faces on the gables of the ceremonial or spirit houses are decorated with the same ornaments in gigantic dimensions (Plate XXIX.1). These faces always wear a long stick through the septum. This type of nasal stick is also found among the men of this region. Even in Măndănăm we saw a native who had stuck a piece of wood about 15 cm long through his septum.

H.S.4526 and **4527**, Mălu, **nasal spine?** two sharpened bird bones (length 6.4 cm and 11 cm) which, according to the natives' accounts (on being questioned about their use, the seller stuck them in his nose) appear to be worn through the septum. Since quite similar pieces probably also serve as working tools (see Fig.209) I have inserted a question mark after their designation as nasal spines.

H.S.4528 and **4529**, Mălu, **nasal spine?** two small (length 9 cm and 10 cm) sharpened dagger-like bones. With regard to their use, the same goes as for the discussion above. Possibly both versions are correct; it might then be a case of ritual tools for drilling through the nasal septum. This possibility is backed up by these "tools" being carefully stored in little boxes, but against this is the relative abundance of the items: in Mălu we obtained no fewer than about a dozen specimens.

In the river mouth area, and only there, they tend to bore holes through the sides of the nose as well, and insert all kinds of ornament through them. Mostly this [98] 'ornamentation' — we saw no other — consists of a simple small thin stick directed obliquely upwards and sideways. Finsch (*Nachrichten über Kaiser-Wilhelmsland*, 1888b, p.99) mentions that he saw coastal people who had stuck "a thin little stick, a feather, a green leaf or a plant stem" through the side of the nose. We always saw only one hole bored through each side of the nose, the fact that in various "god-figures" there are several holes, leads to the conclusion that the living people too would not always be satisfied with just one hole.

Neck decoration. The neck ornaments of the Empress Augusta River show a richness of form. We were able to obtain only a few examples from the river mouth area: either the people no longer had so many or they did not wish to sell their property and kept them hidden. Perhaps expensive items are worn only during festivities.

Finsch was able to obtain several specimens near Venus Point. One (1888a, Plate XXI, Fig.4) is a plaited ring adorned with a row of *Cowry* shells and bearing eight star-shaped upright dog's canine teeth on the outer rim. Several cowry hang on a string. A second specimen consists of a *Tridacna* ring 20 mm wide 5 cm in diameter, "which is attached to a coarsely plaited band (of plant fibre, like straw); the latter is bordered by *Nassa*." A necklace from the Hammacher River consists of a long, twisted string with odd *Nassa* shells plaited on (*loc. cit.*, p.102).

H.3010:05, Wātām, endless neck chain (length 162 cm), Fig.43; it consists of several cords with another cord spirally wrapped around them. A pair of *Nassa* shells are attached every 4 cm on average. One of our interpreters from Wātām wore a neck chain exactly the same; its entire length hung down over his chest. The same man also had a necklace on which were fastened a large number of rings ground from *Trochus* shell.



Fig. 43. Necklace, H. 3010:05, ½ actual size

Mention must be made of a neck chain that we saw once in the river mouth region, but were unable to obtain. This was a triple-stranded shell necklace from which a large *Cymbium* shell hung down in front.

In the villages of Ӏmbăntön, Ăngöröm, and Muăngem, above the actual river mouth region, we saw a lot more necklaces, but these consisted mostly only of a twisted or plaited string; on the other hand there were also more complex pieces. For example we obtained an absolutely marvellous specimen in Năngit (Ӏmbăntön).



Fig. 44. Chest ornament
H. S. 8985, 1/4 actual size



Fig. 45. Neck band
H. S. 9025, 1/2 actual size

H.S.8985, Năngit, **chest ornament** (*bărănū* or *bărăngū*, Hellwig) a human face about 13 cm high and 10.5 cm wide plaited from cord (plant fibre); Fig.44. The entire front surface is thickly covered with *Nassa* shells; the eyes are represented by the sewn-on upper sections of *Conus* shells with a small *Nassa* shell in the centre representing the iris. The nose stands out and displays two large nostrils and a pierced septum. Above each eye a little string is fastened, on which first of all several *Nassa* shells are strung, and finally a large white glass bead, and from the end hangs a little chain consisting of 24 and 26 small plaited rings. The facial contour is framed by a halo of five plaited sharp points that are similarly decorated with *Nassa* shells and several cowry shells; the sharp points possibly represent the beard. The lower middle sharp point, which is especially long, carries the most decoration: three large cowry shells are fastened one above the other, and a tassel hangs from the lower end. It consists of a string of *Nassa* and a large blue glass bead, ending in a long chain of twelve plaited rings. The entire face is plaited like a mask, presenting a [99] concave surface posteriorly. On the reverse side a 3 cm wide plaited band runs from one side to the other, evidently preventing the curvature of the face from flattening out. On the base of the central sharp point sit two vertical plaited frames; we could not discover anything about their purpose. This decorative ornament is worn over the chest, secured by two plaited bands up to 3 cm wide decorated with two rows of cowry shells. This is laid round the neck and fastened by knots and eyelets. This specimen seems to fall outside the circle of decorative ornaments found in this

area, and would probably have been imported from a village further upriver. This type of piece occurs more commonly in the middle reaches of the river, as we shall see.

H.S.8986 and 8987, Nǎngīt, neck ornament of two longitudinally-split boar's tusks (*bo Hellwig*) tied together. The teeth show no spectacularly sharp curvature, and when combined they do not so much as form a complete circle. Each one has two drilled holes close together at the upper end, through which are pulled the strips of rattan that hold the two together.

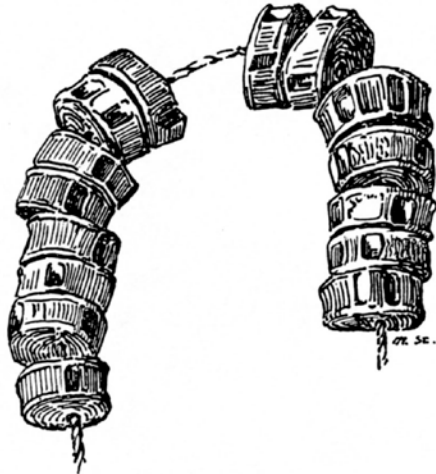


Fig. 46. Necklace H. S. 9006, $\frac{1}{3}$ actual size

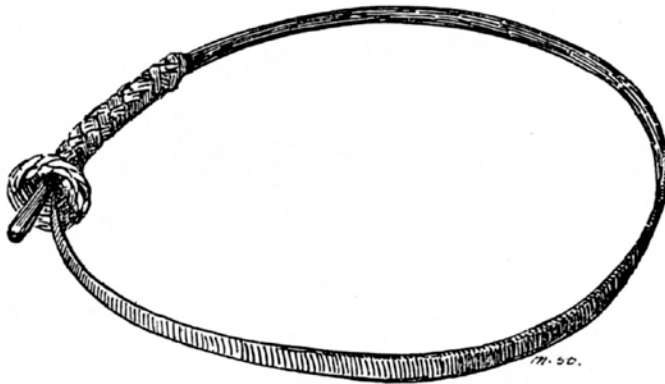


Fig. 47. Neck ring H. S. 9075, $\frac{1}{2}$ actual size



Fig. 50. Neck ring H. S. 9162, $\frac{1}{4}$ actual size

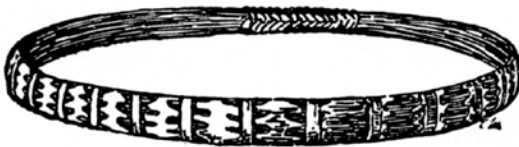


Fig. 48. Neck ring. H. S. 6694, $\frac{1}{2}$ actual size



Fig. 49. Decoration of the neck ring H. S. 9203, $\frac{1}{2}$ actual size

H.S.9025, Mǔǎngĕm, neckband, (*ārūmbrūk*, Hellwig) Fig.45; plaited from plant fibres. Fourteen parallel cords are wrapped round by a fifteenth (see Fig.220 for the technique). One end forms a wide loop through which the knot on the other end is pulled. Neck width is 43 cm. [100]

L.Me.9006, "Pagem" (=Mǔǎngĕm) necklace, Fig.46, assembled from shark vertebrae with an average diameter of 5 cm and a thickness of 1 cm; they are heavily polished.

Also in these villages we saw neck chains of strings of cowry shells (like H.S.9109) and double-stranded necklaces of *Nassa* snails.

In the villages of the middle reaches, neck ornaments become even more varied.

H.S.9075, Kāmbrīnūm, **neck ring** (*žíměně*, Hellwig), Fig.47, made from rattan. One end is wrapped in thin rattan, forming a tube, which ends in a plaited wheel. The neck ring is closed by pushing the other, tapered, end into this tube. The neck diameter of the ring is approximately 47 cm and its width is 0.8 cm.

H.S.9077, Kāmbrīnūm, **neck ring** (*žíměně*, Hellwig), [101] very similar to the preceding. The strip of rattan of which it consists, however, wider (1.5 cm), and the tube for securing it is thickly smeared with dried dark-brown dye. Neck diameter is about 47 cm.

H.S.6694, Málu, **neck ring** made from rattan, Fig.48 (neck diameter 40.5 cm, width up to 1.2 cm). It differs from the preceding ones because a jagged decoration is burned onto the outer surface. It is closed the same as the previous example.

H.S.9203, 293 km-village, **neck ring** made of rattan, Fig.49, (neck diameter 49 cm, width up to 1.3 cm); decoration burnt onto the outer surface here too.

H.S.9162, 252 km-village, **neck ring** made of rattan, Fig.50, (neck diameter 56 cm, width up to 2 cm); the outer surface is undecorated. The closing piece is in front; on the plaited funnel is attached a plaited almost-square pouch-like piece, with two pairs of split boar's tusks and a tuft of five tails decorated with feathers fastened on its reverse side, while on its anterior surface two small imitation pig teeth are attached. These are made from shell and held firm by a plaited bow.

H.S.9302, Málu, chest ornament, consisting of four, split boar's tusks. The half-teeth are arranged in pairs in such a way that their tips are upright; all of them are perforated just before the tip. The neck cord passes through this hole in both the central teeth; through the outer teeth passes a thin cord fastening them to the inner teeth, which have a corresponding small hole on the outer edge. The thick ends of the teeth each have 1–2 holes and are tied together by two strong plaited rattan bows. A piece of European material dyed dark blue is wrapped round this bow. The appearance of European material in Málu seems very surprising, because of the great distance of this village from the sea, (in the other villages of the middle reaches we did not see a single piece); however, the explanation is probably very simple: the little piece of material comes from the year 1887, from the New Guinea Company expedition that was camped for a while near Málu. This completely dirty, dyed remnant had therefore become a rarity and was now worn as an ornament by its lucky owner.

H.S.9109, Mändānām, **necklace** (*gāramār*, Hellwig) Fig.51; it consists of upright cowry shells fastened side by side. The shells, with the centre broken out, are fastened between two cords in such a way that each cord surrounds an end of the shell with a simple knot. The length of the chain is about 70 cm.

H.S.9217, 293 km-village (length 46 cm); **H.S.9107**, Mändānām (length 74 cm), (Fig.52); **H.S.9108**, Mändānām (length 74 cm; generic designation of the latter two: *gāramār*, Hellwig); and **H.S.9201**, 293 km-village (length 75 cm), four **necklaces**; they too consist of cowry shells except that these are strung lengthwise one after the other; only the reverse side of the shells is broken out. None of these chains has a special fastening device; they are simply knotted.



Fig. 51. Necklace H. S. 9109, 1/2 actual size

H.S.9252, a and b, 375 km village, two **necklaces**; like the preceding ones, consisting of cowry shells strung one behind the other. They differ from the preceding ones in that they are very much shorter (length about 45 cm), the cowry shells are fastened individually to a thick cord steeped in ochre and dirt, and finally, in that a special closing device is attached. It consists of knots and eyes, as in almost all belts.

This type of necklace was quite common throughout the middle reaches; we saw several examples in Kāmbrīnūm as well.

H.S.9083, Mändānām (*urěná*, Hellwig) and **H.S.9084**, Mändānām (*dūgōgī*, Hell.), two neck ornaments; they consist of five or six strips of cuscus skin? up to 50 cm long, worn over the throat, bound together at one end — possibly a type of hunting trophy. It is remarkable that Hellwig was given two different names for this item. Perhaps one of the terms was the name of the slain animal.

H.S.9154, Mändānām, **necklace**, (length 32 cm) a string of biconcave, dark brown circular discs, supposedly imitating shark vertebrae; they consist of plant material, apparently the shell of a nut. Moreover, each of the discs has a shallow circular outside rim, evidently to accentuate the resemblance to vertebrae.

H.S.9125, Mändānām, **necklace**, (*wagombiži*, Hellwig) Fig.53, a string of fish vertebrae; the vertebral processes are almost completely removed. They are remarkably closed in front, and here two small bones hang on a short cord, metacarpals of a pygmy-sized individual.

H.S.6603, Mändānām, chest ornament (*dāmbōnyā*, Müller) Fig.54, intended to imitate the shape of an animal head (a dog?); it appeared to be very valuable to the owner, since he sold it very unwillingly, and for an exceptionally high price, and only after several older people had spoken persuasively to the owner, a very young man. [102] The ornament resembled H.S.8985 described above. The nucleus of it remarkably was the complete skull, including

mandible, of a small mammal, although without disturbing the cover it could not be ascertained which one; it was completely and very thickly woven over with cords, so that the presence of the skull could only be established with difficulty. Then the entire upper surface was thickly covered with *Nassa* snails. A dog tooth, (canine) ringed with *Nassa* shells, was attached to the forehead. Two cowry shells were attached along the line between the frontal bone and the tip of the nose. The eyes — one was missing — consisted of oval discs of mother-of-pearl with a small darkly-stained depression in the middle, indicating the iris or pupil. A dog canine tooth projected forwards out of the mouth on each side. The whole head was surrounded by a wreath of plaited lappets edged with *Nassa*. The three uppermost were each adorned with a piece of cuscus skin and a cowry shell. The lowermost lappet ended in an oblong plaited band extending into a little chain of plaited rings; on the reverse side of the lappet was attached a long hanging tail of bird feathers. From the ears and the two central side lappets hung long chains of plaited rings each of whose ends was adorned with a piece of cuscus skin. The ornament was worn around the neck on a simple plaited string.

H.S.1864, 252 km village, **chest ornament** similar to H.S.8985, only much more simple. It is a mask-like human face plaited out of plant fibre cord with a prominent hollow forehead, two small cowry shells as eyes, and a fairly prominent nose with a very extensive septum. This face too is surrounded with (7) plaited lappets totally devoid of decoration. There is no *Nassa* decoration at all. On the upper part of the reverse side is a remarkable vertical cleat. It appears that a small stick as thick as a finger is occasionally pushed through this. The ornament is worn on two bands, each 2 cm wide, one ending in a loop, the other in a knot. This is in no way an unfinished article; it is dyed red [103] and shows a sort of patina of age and worn-off patches on exposed parts; thus it has been worn for a long time. Facial dimensions are: height 8.5 cm, width 6 cm.

H.S.6750, Pāmūngri, chest ornament, is similar to the preceding one. But here the face (height 7.5 cm and width 5 cm) is completely flat. The prominent nose has broad, particularly well-flared wings; two imitation boar's tusks made from *Trochus* shell are fastened through the septum. The eyes are represented by two small cowry shells. The face is surrounded by five plaited tassels that are undecorated. The specimen is worn round the neck on two plaited bands that are joined at the back by knot and eye. The flat reverse side has two upright plaited cleats through which can be pushed a small stick as thick as a little finger. Thus, in all three mask-like decorative pieces we have this type of eye on the reverse side; therefore either these decorative items serve some other purpose, perhaps as a dance or a war decoration whereby they can be worn another way by means of the eye, or else the eyes are the means of attachment of further pendants — possibly for dances. Without exception we saw these ornaments worn only by men.

St.Ha.61666, “so-called hostile village”, **chest ornament**, similar to those just described, representing a face. It is plaited from cord; the nose is hollow, with an enlarged septum. The eyes are formed from two small cowry shells and the ears by small handles. Three tags hang below, and there is a thickly-wrapped bunch of bast fibre behind, on a short cord.

St.Ha.61667, “so-called hostile village”, **chest ornament**, is even simpler than both the former. The plaited face is totally without decoration; even the eyes are missing. It is evidently an old, half-destroyed specimen.

H.S.9197, 293 km-village (length of the decorated portion, 43 cm), Fig.55 and **H.S.9212**, 293 km-village [104] (length of the decorated portion, 47 cm), two **neckbands** of the type depicted by Finsch (1888b, Plate XIV, Fig.10) from Venus Point. Therefore these neckbands are found along the entire river as far as the Hunstein Range. They consist of two long parallel bast fibre cords, that are plaited round and inset with two rows of *Nassa* (*Nassa* [*Arcutaria*] *globosa*); at each end the bast fibre hangs down unravelled about 25 cm.

H.S.9196, 293 km-village, **neckband** (length of the decorated portion 50 cm); differs from the previous one only by the superfluous ends of the bast fibre being twisted into double-stranded strings.

H.S.6643 and **6644**, 252 km-village, according to the collector (Müller) **necklaces**, that have a width of only 28 and 30 cm and therefore can be worn only by children. They each consist of a band plaited from thin cord, onto which are knotted small polished *Conus* shell discs of varying thickness (Fig.56).

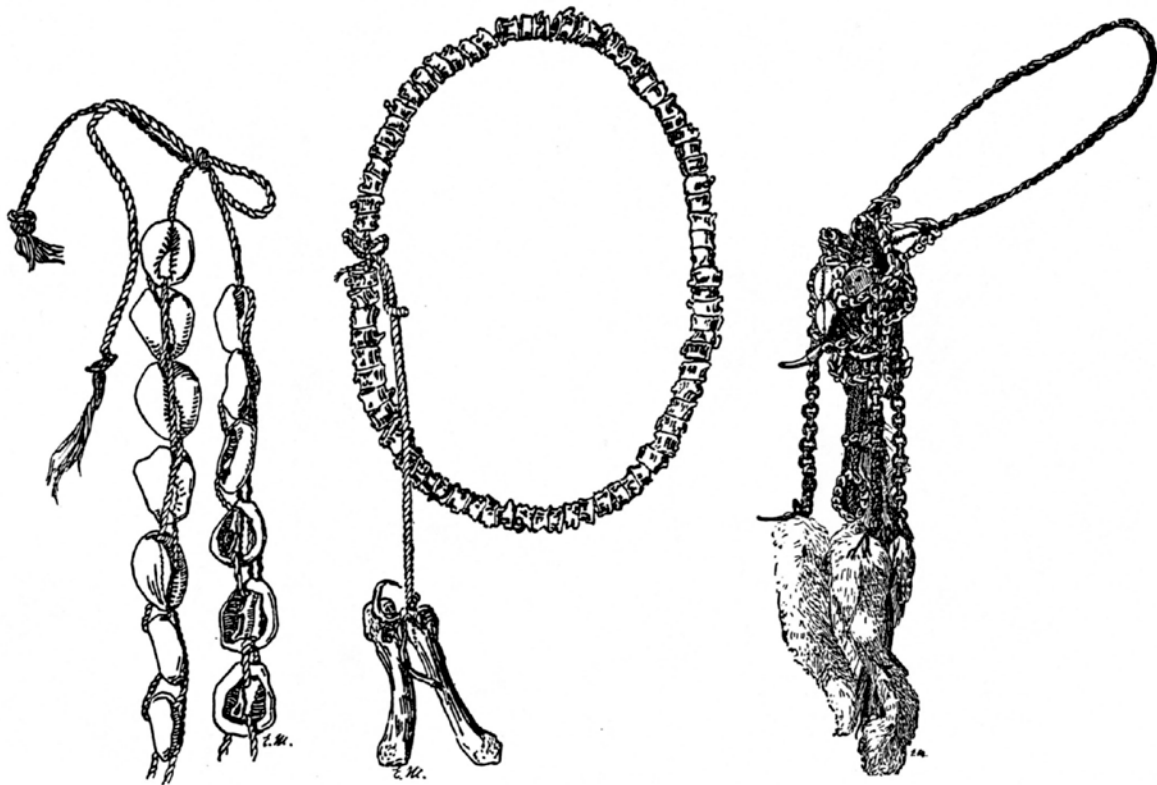


Fig. 52. Necklace
H. S. 9217, $\frac{1}{2}$ actual size

Fig. 53. Necklace H. S. 9125,
 $\frac{1}{2}$ actual size

Fig. 54. Chest ornament
H. S. 6603, $\frac{1}{4}$ actual size

H.S.9202, 293 km-village, **chest ornament** Fig.57, made from a flat (up to 7 cm thick) *Tridacna* ring, about 12 cm in diameter, which is worn on a thick twisted cord. The centrally-bored hole is a surprisingly regular circle that is probably drilled in a similar manner as the arm rings produced at Berlinhafen (Cf. Parkinson, 1894. p.89). Possibly the whole piece came from the coast, just as it was; Finsch mentions a similar specimen from Venus Point, also made from *Tridacna* and worn likewise as a neck ornament, (*Nachrichten über Kaiser-Wilhelmsland*, 1888b, p.102; see also above, in the discussion on customary ornaments of the coast).

H.S.9340, Málu, **chest ornament** made of mother-of-pearl shell, Fig.58; this item extraordinarily resembles the nasal ornament made from mother-of-pearl shell described above. Actually, it seems to be just such a one, but a broken specimen that someone — mother-of-pearl obviously being very expensive up here in the mountains — has reused in this manner. In both specimens the thin hook ends have broken off but been reattached to the broad part by binding. Correspondence with the nose ornament is shown also in all the details: the engraved spiral is present, and also the indenting of the outer rim. The ornament is worn on two strings spirally wrapped with cords, which are tied behind with knots and eyes.

H.S.9316, Málu, **neck ornament** of nine double-stranded thin cords; they are knotted in front over the throat with their ends hanging freely.

This type of simple piece, and also quite common cords, are not infrequently seen worn as neck ornamentation.

A men's neck ornament that we saw occasionally throughout the middle reaches, but particularly often in Málu, appeared to be very valuable, and we were never able to obtain one. It consists of a large semilunar disc of mother-of-pearl shell; in Plate XI.2 a man is wearing such an ornament.

In the middle reaches the women also wear quite a lot of jewellery, often almost more than the men. Chains made from *Coix lacrima* seem to be favourite, but occasionally they are content with simple, long cords on which usually several cowry shells are fastened.

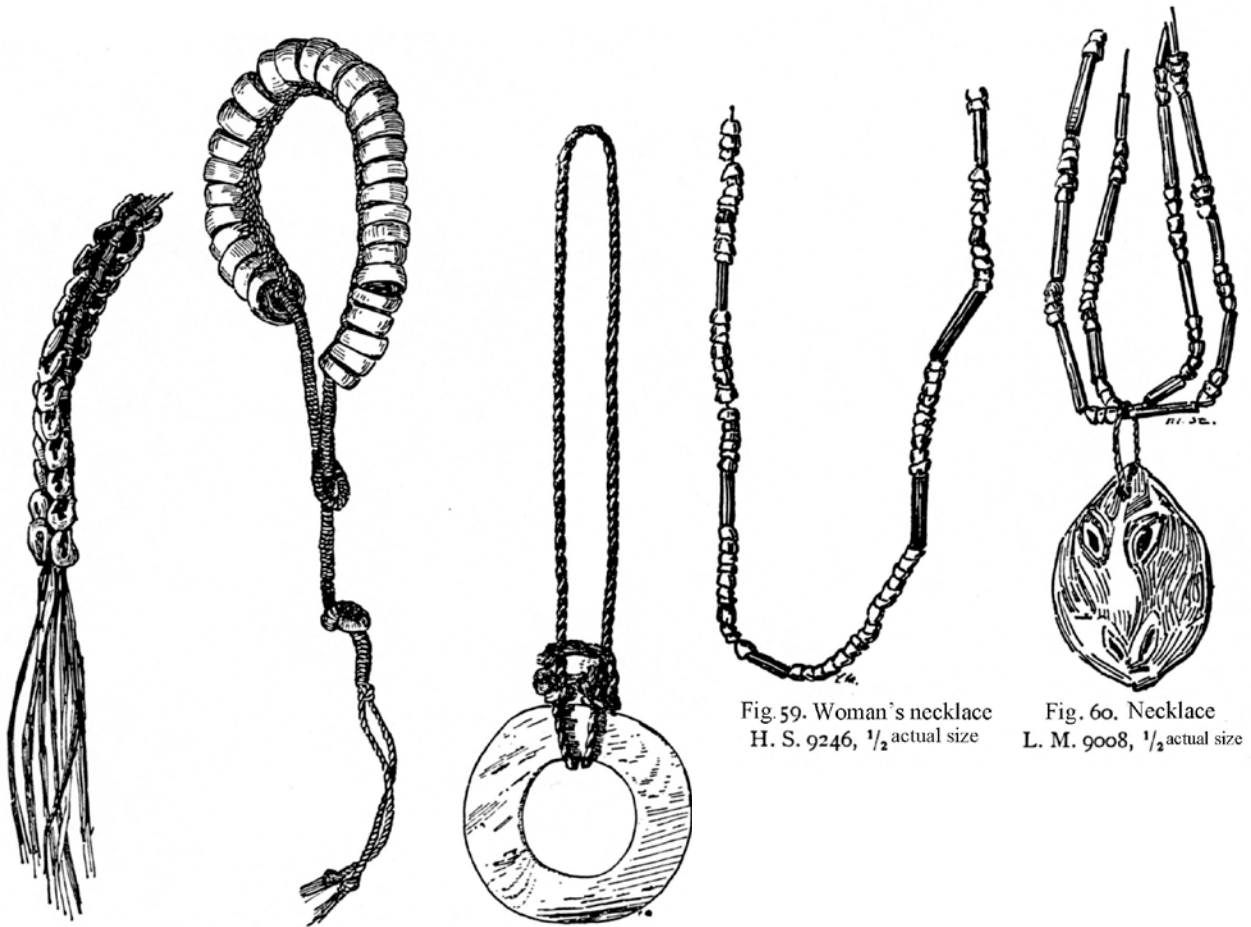


Fig. 55. Neck band H. S. 9197, $\frac{1}{2}$ actual size
 Fig. 56. Necklace H. S. 6644, $\frac{1}{2}$ actual size
 Fig. 57. Chest orname H. S. 9202, $\frac{1}{4}$ actual s

Fig. 59. Woman's necklace
 H. S. 9246, $\frac{1}{2}$ actual size

Fig. 60. Necklace
 L. M. 9008, $\frac{1}{2}$ actual size

H.S.9244, 375 km village, triple **necklace** for women, of strung *Coix* seeds.

H.S.9245 375 km-village, **woman's necklace** (length 230 cm) of *Coix* seeds; looped several times round the neck. In two places a 1.5 cm long thin brown wooden tube is threaded on, between the seeds.

H.S.9246, 375 km village, (length 188 cm), Fig.59; **H.S.9345**, 343 km village, (length 180 cm); and **H.S.9346**, 343 km village, (length 251 cm), three **women's necklaces** in which several *Coix* seeds alternate with a little brown wooden tube on the string; these chains too are looped several times round the neck.

H.S.6681, Málu, **woman's necklace**, a double strand consisting of *Coix* seeds and wooden tube with both ends knotted behind; the knot is covered by a small paper bag made of tree bast fibre.

H.S.6662, 375 km village, four-stranded **woman's necklace** of *Coix* seeds; the four individual chains are almost the same length, and are knotted together at the back. Two of them each carry a *Trochus* disc on their lower end, which comes to lie over the chest in front.

H.S.9293, Málu, **woman's chest ornament**. From a neck cord (neck diameter 36 cm) consisting of two double-stranded cords around which a third one is spirally wound, thirteen cords of almost equal length (up to 37 cm) bearing *Coix* seeds, hang closely together in front. The neck cord is closed by means of knot and eyelet.

H.S.6680, Málu, **woman's chest ornament**, similar [105] to the preceding one but more richly presented (Plate XIII.3). To the neck cord (neck diameter 36 cm) 20 thin pairs of cords are knotted in front an average 0.5 cm apart; one cord of each pair is decorated with closely-packed *Coix* seeds while the other hangs without any decoration. The *Coix* chains are about 47 cm apart; two of them carry a cowry at the end, while a third has a pig's tooth (not a boar's tusk).

H.S.4541, Málu, **woman's chest ornament**, similar to the preceding. The neck cord (neck diameter 36 cm) is covered with a thick layer of brown ochre and dirt. Eleven strings (about 29 cm long) strung with *Coix* seeds, and two small chains made from plaited little rings hang closely together in front.

H.S.9294, Málu, **woman's chest ornament**; nineteen cords (up to 42 cm) decorated with *Coix* as well as two small chains of plaited rings hang from the neck cord. Two of the cords each carry the shoulder blade of an animal,

while a third has the lower beak of a parrot attached to the lower end; these objects clatter and strike one another with movement.

H.S.9312, Málu, woman's chest ornament. The neck cord has a diameter of 34 cm; from it 26 *Coix* chains up to 32 cm long hang closely together in front. Several intermediate pieces made from little wooden tubes stand out among them. Two of the cords each end in a short chain of plaited rings that is decorated with cuscus skin, while a third cord bears a piece of mother-of-pearl shell 2.4 cm long and 1 cm wide.

L.Me.9008, "Empress Augusta River", a double-stranded necklace, Fig.60, also appears to come from this region. Alternating *Coix* seeds and wooden tubes are strung on the cords. A flat hard fruit hangs down in front showing a carved face in relief.

Often the women also wear cowry necklaces of the type like H.S.9109 and 9217, but large *Conus* snails appear to be particular favourites, with many women having as many as six specimens hanging on their chest. Plate VI, 2 shows several women from 252 km village wearing such jewellery; children were often seen with this ornament as well. Great discs of *Trochus* were also popular. We could not obtain examples of either of these types of ornament.

Arm- and leg ornaments. Arm- and leg bands were worn a lot; they were mostly very simple and consisted only of several strips of rattan plaited together.

In the river mouth area very richly decorated armbands were frequently seen.

H.S.6735, Wátám, armband (*kiděngíib*, Müller) (diameter 24.5 cm, breadth 4.5–5.5 cm) Fig.61; plaited in six-ply reversible twill-style out of narrow strips of rattan. Crosswise over the whole width of one side, at two sites 4 cm apart, a pair of wide rattan bands [106] are looped around the armband; they are plaited round with fibre and probably serve mainly as stiffening. The edges of the armband, apart from the stiffened places, are decorated by *Nassa* sewn on.

H.E.2344, Wátám, armband (diameter 20.5 cm, width 3 cm) plaited from dark brown root fibres in a somewhat irregular twill-style and decorated with a wavy line of *Nassa* running along the band.

St.Ha.61679, Sīngrín, arm cuff (height 12 cm), Plate XIII, 4 plaited in the same technique as most of the hair baskets (for example, H.E.2503). The edge of one end has a pattern of triangles plaited in.

St.Nr.I.C.6343, "Empress Augusta River", armband, Plate XIII, 5 probably also comes from the river mouth area. It consists of two broad bands plaited from cords, and held together by a narrower band. The edges are decorated by *Nassa* and *Conus* discs sewn onto them.

Finsch (1888b) mentions the following pieces from the river mouth area: No.395, armband, "narrow band of red straw weave, with a beautiful large ring of polished *Tridacna* loosely woven in. Venus Point". No.416, "arm band ornament consisting of an 84 cm long round strip of white and golden brown marsupial skin (cuscus) secured by plant fibres; finely plaited over at the base and decorated with human hair and *Nassa*. Venus Point". Thus, from Venus Point there should also be armbands of "artistically-engraved curved turtle shell that we became familiar with in Astrolabe", (1888a, p.293).



Fig. 61. Armband.
H.S. 6735, ¼ actual size

In the villages above the river mouth swamps, from Īmbántõn to Kāmbrínũm and beyond, there is an astonishing number of arm- and leg bands; the latter being worn just below the knee. Mostly they are very simple bands plaited, twill-style, without decoration.

H.S.9011a, Nǎngit, armband (*ĩngóri*, Hellwig) (diameter 20.5 cm, width 2 cm), plaited from lianas in four-ply reversible twill-style; material surprisingly brittle.

H.S.9225/4, Īmbántõn, armband (diameter 24 cm, width up to 4.5 cm), damaged but mended in places; plaited in reversible six-ply twill-style from fairly wide strips of rattan; it shows remnants of red staining. This armband was contained together with a skeleton in bag H.S.9225, evidently as grave goods; it had probably belonged to the deceased.

H.S.9039, Mǔǎngẽm, armband (*igõngóri*, Hellwig) (diameter 24 cm, width 3 cm), plaited using the same technique as the preceding one. It has not been completely finished; several ends are not tucked in.

Armbands like this are found both at the river mouth and on the adjacent coast; we also obtained a specimen on the volcanic Hansa Island (H.S.6787), and this too was unfinished. Therefore they appeared to be manufactured at the very place where they were found.

H.S.9042, Mụąngĕm and **H.S.9032**, Mụąngĕm, two armbands (*igõngõri* or *yugongõrĕ*, Hellwig) Fig.62 (diameter 23.5 and 21.5 cm, width 2 cm) and 3.5 cm) plaited from narrow strips of rattan in different-strand twill-style.

H.S.9040, Mụąngĕm, armband (*igõngõri*, Hellwig) (diameter 22 cm, width 3 cm), plaited in six-ply reversible twill-technique. Along both edges the plaiting pattern runs parallel, while in the middle section it runs at right angles to the long axis of the armband.

In the same village I saw an armband that was plaited by the same technique, but inlaid with numerous small discs ground from *Trochus*.

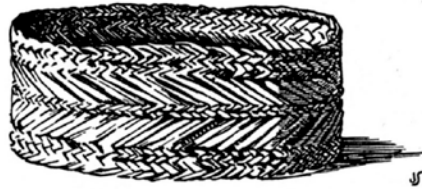


Fig. 62. Armband. H. S. 9032, 1/2 actual size

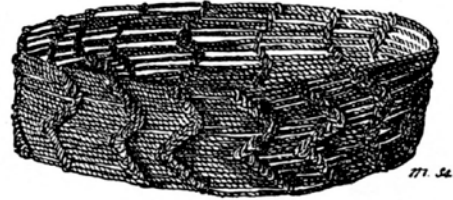


Fig. 63. Armband. H. S. 9011, 1/2 actual size

H.S.9041, Mụąngĕm, **armband** (*aqwārĭn*, Hellwig; cf. the generic designation with belts H.S.9038, 9057, 9067 etc.) plaited from cord (diameter 26 cm, width 4.5 cm). Thirty parallel double-stranded cords are wrapped round by another in the shape of a zigzag decoration; [107] this “tucking cord” encloses each of the individual “chain cords” in a knot (see Fig.235).

H.S.9074, Kāmbrĭnũm, **armband** (*ouwārĭn*, Hellwig), Fig.235, (diameter 24.5 cm, width 8 cm), plaited from cord, of the same type.

H.S.9011, Nāngĭt, **armband** (diameter 24.5 cm, width 3 cm), Fig.63, produced from cord in the same way as the preceding one; however the interwoven zigzag band has one “half-zag” more.

In the middle reaches arm and leg bands are significantly more varied in material, technique and decoration. Nevertheless, the simple plaited rings are also found here quite frequently.

H.S.9335, 1–6, 343 km village, six very simple **armbands** (diameter 18-22 cm, width 0.4-1.0 cm), plaited from lianas in four-ply – six-ply double-sided twill-style; for women and children.

H.S.9335, 7 and 8, 343 km village; **H.S.9207**, 293 km village, three **armbands** (generic name for the latter, *tāmbõy*, Hellwig) plaited using the same technique, but from coarse liana material (diameter 18.5 – 30 cm, width 1.4 – 2.2 cm); worn by women, only H.S.9335/7 adorned a man’s arm.

St.Ha. 61 703, 61 704 and **61 705**, *Simar*, three **armbands** of the same type, plaited using the same technique.

H.S.9338, 343 km village, is a closed band produced in the same weaving style, but only 0.8 cm wide and 70.5 cm long, that Hellwig found used as an **armband** wrapped three times round the upper arm of a boy; these bands were also worn elsewhere as belts.

H.S.9215, 9216, 293 km village; and **H.S.9337/1**, 343 km-village, three **armbands** plaited from narrow strips of rattan using the same technique as the preceding ones; they are thinly rubbed with reddish-brown ochre.

H.S.9278, Mǎlu, (diameter 29 cm, width 4 cm) and **H.S.9337/2**, 343 km village, (diameter 23.5 cm, width 3.5 cm), two **armbands** plaited using the same technique but from coarser rattan. H.S.9278 is rubbed on the outside with yellow dye.

H.S.6692, Mǎlu, **armband**, like a gauntlet and very wide (diameter 23 cm, width 8.5 cm); plaited from strips of rattan in six-ply double-sided twill-style; undyed.

H.S.9209, 9219, 9220, 293 km village, three **armbands**, also worn as **leg bands** (*tāmbõy* Hellwig), diameter 27. 5-31 cm, width 2-3.5 cm Fig.64; plaited from various strong strips of liana sometimes in six-ply and sometimes in eight-ply twill-style. All three, at least H.S.9209, are, either deliberately or in wearing, somewhat compressed from the top down, so that they seem to consist of three to four parallel bulging rings: the vertical cross-section would show a wavy line.

H.S.9337/3, 343 km village, **arm ring**, (diameter 20 cm, width 2.5-3 cm) plaited from very thin strips of rattan. The edge parts are in six-ply twill-style; the middle section: from

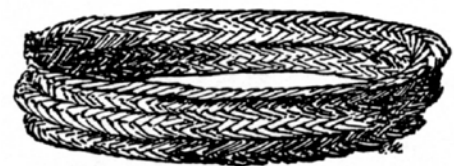


Fig. 64. Armband. H. S. 9220, 1/2 actual size

approximately half of the circumference to ten strips of the opposite side, pronounced plaited strips, so that a decoration results reminiscent of “herring bone” pattern. This **armband** forms to some extent a transition to the following:

H.S.9337/4, 343 km village, **armband** (diameter 23.5 cm, width 2.5 cm), plaited from narrow strips of rattan. Both edge parts, each about 0.7 cm wide, are processed in four-ply twill-style, while on the other hand the central part shows a rather complicated prominence of several woven strips (cf. H.S.9042 from Muǎngĕm; thus this type of armband is found in almost the entire stretch of the river that we visited).

H.S.6693, Mǎlu, **armband** (diameter 23.5 cm, width 5.5 cm) plaited from rattan, at the edges in four-ply and in the middle in six-ply twill-style, in such a way that the created pattern is at right angles to the long axis of the arm band. Two split boar’s tusks are placed round the middle and tied on with plaiting.

H.S.9206 and **9208**, 293 km village, bands woven from rattan and rubbed with red dye, and used both as **arm-** and **leg bands** (*tǎmbōy*, Hellwig) (diameter 33 and 32 cm, width up to 4 cm); intended for men. Plaiting style is the usual twill-form except that in the middle part a narrow decorative strip is formed since, in plaiting, six strips are always left out.

H.S.9289, Mǎlu, **arm ring** (diameter 23.5 cm, width up to 7 cm) plaited in a very irregular way from rattan, in totally-different ply twill-style. It is loosely wrapped on the outside by a second band of thick strong liana in four-ply double-sided twill-style.

H.S.4531, Mǎlu, **armband** (diameter 24 cm, width up to [108] 5 cm), made from thin strips of rattan; the edges show four-ply double-sided twill-style while the entire middle section is plaited in alternating six- and ten-ply technique in such a way that the ensuing pattern appears to be directed from the top down.

H.S.9265, Mǎlu, cuff-like **armband** (diameter 25.5 cm, width up to 11.5 cm), plaited from rattan mostly in six-ply, but in several places nine- and ten-ply; along the upper and lower edges a strip about one centimetre wide is woven over with cord.

H.S.9275, Mǎlu, cuff-like **armband** (diameter 24 cm, width up to 9.5 cm), similar to the preceding one produced from thin strips of rattan in a very irregular twill-form. Like H.S.6693 it is surrounded by two half boar’s tusks whose ends are joined by strips of rattan.

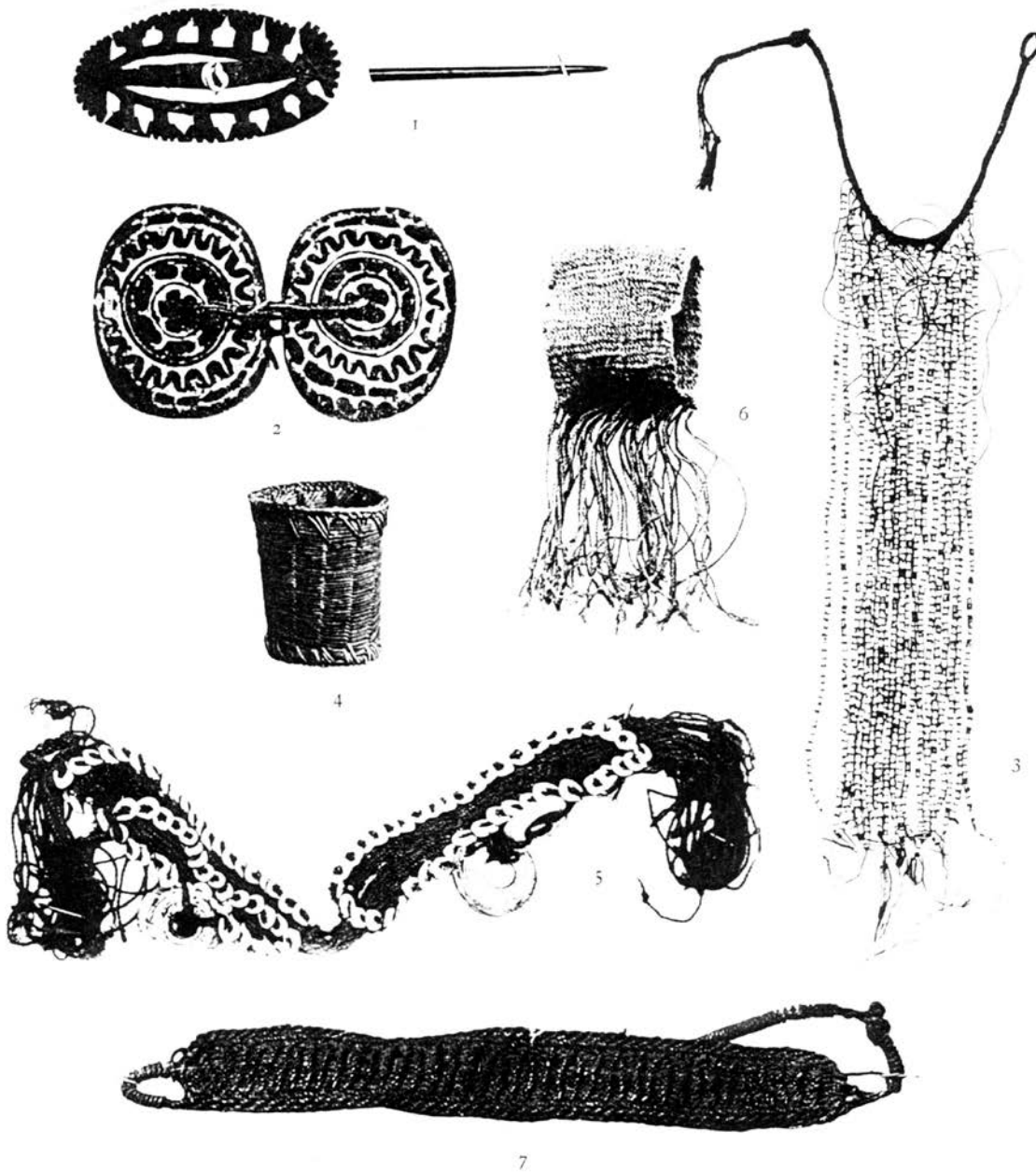
H.S.6691, Mǎlu, **armband** (diameter approximately 24 cm, width up to 4 cm), plaited from cord in a net-like manner (see Fig.226).

H.S.9260, Malu, **armband** (diameter approximately 23 cm, width up to 7.5 cm), plaited from cord in the same way; dyed an intense yellow.

H.S.9264, Mǎlu, **armband** (diameter approximately 24 cm, width up to 9 cm), Plate XIII.6, plaited from cord just like the preceding ones and dyed yellow. At one spot 27 double cords are knotted together in such a way that the insertion points are vertically above one another; each of these strings, that are up to 18 cm long, have a simple knot at the end.

St.He.60626, Mǎlu, **armband** (length of the wide part 21 cm, total length 36 cm, width 3 cm) Plate XIII.7; plaited from greyish-brown cords, equipped to open and close; at one end there is an eye, and at the other a spiral tightly-wrapped rope that ends in a knot.

H.S.9102, Mǎndǎnǎm, **leg band** (*bōřǐm*, Hellwig), Fig.65, (diameter 26 cm, width 2 cm) plaited from cord; see Fig.229 for the technique. Attached to the actual ring there are four jagged points up to 7 cm long, made from the same material and plaited using the same technique. The leg band is worn below the knee in such a way that the serrations point downward.



1. Hair ornament St. I.C. 6339, $\frac{1}{2}$ actual size. 2. Disc earrings, after Schlaginhaufen
 3. Women's chest ornament H.S. 6680, $\frac{1}{5}$ actual size. 4. Gauntlet St. Ha. 61679, $\frac{1}{5}$ actual size
 5. Armband St. I.C. 6343, $\frac{1}{2}$ actual size 6. Armband H.S. 9264, $\frac{1}{5}$ actual size 7. Armband St. He. 60626, $\frac{1}{2}$ actual size

H.S.6714 and **H.S.6715**, 343 km village, a pair of **leg bands** (diameter 28 cm, width 2.5 cm) plaited from cord in the same way as those preceding. The four jagged points are somewhat shorter. Both the edges of the actual band and the jagged points are decorated with a row of *Nassa*; the middle of each jagged point is adorned with a cowry shell.

H.S.9336, 343 km village, **arm ring**, (diameter 17 cm, width 2 cm) made from a dark brown wood shaving about 1 mm thick; the ring is closed by a simple wrapping of strips of rattan.

H.S.9188, 252 km village, **arm ring**, (diameter 24 cm, width up to 4.5 cm), Fig.66; carved from a piece of wood with two jagged points, one of which rises from the surface transversely backwards, while the front one presents an elongation of the edge by originating from it. The specimen gives an impression of great age, also displaying various splits and springs. Forward along the jagged point it has even burst through, the site being repaired with strips of rattan. The outer surface has an engraved decoration consisting of deep grooves: concentric circles and ovals accompanied by adjacent parallel curved lines; the edges are bordered by straight lines, the lower one also by a frieze of small malleable rectangles.

H.S.6690, Mălu, **armband** (diameter about 23 cm), Fig.67; made from a strongly curved boar's tusk, the missing part of the circle is filled by a side-piece consisting of two parallel strips of rattan spirally wrapped by a third strip.

H.S.9317, Mălu, **arm ring** (diameter about 26 cm), of two half boar's tusks whose thick ends are bound together by bast fibre. The specimen is possibly not yet finished, since it cannot be closed because the points are not connected and only one has a hole bored through for the tie.

H.S.9344, 343 km-village, **arm ring**, (diameter about 23 cm) consisting of two half boar's tusks like the preceding ones, the thick ends bound together by bast fibre. The point of connection has a securing cylindrical spike of light wood about 3 cm in diameter stuck through it, decorated with a little piece of yellowish-white cuscus skin. The points of both tusks are bored through, and so the armband is closed by a cord pulled through these holes.

H.S.9146, 252 km-village, **arm ring**, (diameter 27 cm), Fig.68; made from the winding of a mother-of-pearl shell, ground into shape, obviously intended to represent a boar's tusk. Both ends lie obliquely over one another, connected by plain bast fibre wrapping. The arm ring is broken opposite this wrapping; the oblique break is repaired by both ends being held together by two one-centimetre-wide plaited rings (four-ply twill-style) of rattan strips.

An armband that we saw only once, (in Kămbrîngî: worn by the third man from the right in Plate V.2), was quite tasteful. It consisted of thinly-ground *Trochus* discs strung onto a cord.

The more valuable arm bands were always worn by men, while the women were mostly satisfied with simple, plaited (probably personally-made in many cases) [109] specimens; many also had only a cord with several tassels attached, wrapped round the arm. Around the wrist both men and women frequently wore a simple string knotted together, often also plaited bands. In Kămbrîngî one man had a band adorned with *Trochus* discs around his wrist.

In the arm band, between it and the skin, they happily insert a couple of fragrant leaves or several flowers; we also saw rooster feathers, little pieces of skin and long animal tails used for this purpose. They often also store a bone dagger or eating spoon here.



Fig. 65. Armband. H. S. 9102, $\frac{1}{2}$ actual size



Fig. 66. Armband. H. S. 9188, $\frac{1}{2}$ actual size

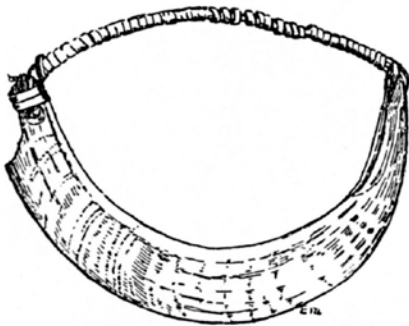


Fig. 67. Armband. H. S. 6690, $\frac{1}{2}$ actual size



Fig. 68. Armband. H. S. 9146, $\frac{1}{2}$ actual size

Decorative scarification

Genuine tattooing is totally absent, to the best of our current knowledge. In its place there are countless decorative scars, particularly in the middle reaches of the river.

In the river mouth region, very simple scars were seen occasionally on men; women never came into view. The scars were either semicircles surrounding the nipples or around the buttocks, or more half-moon-shaped bulges that decorate the upper arm, mostly just below the shoulders, often several one above the other, [110] (see Plate IV.1). In that district they do not appear to set great value on this form of decoration.

Among the people further upriver, the inhabitants of the villages from ĪmbăntŃn to Muăngēm, decorative scars were also not common, and I do not recall having seen other forms than those of the river mouth region. From the village of Kămrĭnŭm onwards, it surprised me that decorative scars became more common; they mostly consisted of numerous irregular short straight or curved lines distributed over the body.

Only from the village of Kămrĭnŭm on did the decorative scars play a significant and surprising role; here mostly they were extraordinarily carefully and artistically produced, and showed a considerable richness of forms. The artistic drive for action that is so characteristic of these people has created quite high achievements in this area as well. We found particularly fine decorative scars in 252 km village. Here there was scarcely a male individual who was not adorned in this manner. The scars always demonstrated an

astonishing surety in their delineation, the thickness of the scar pattern always precisely matching the desired effect. There must be professional artists in this region, for without long practice and experience — especially in wound management — this type of completed picture would not be attained. Unfortunately nothing could be learned about production technique, for in this very village our difficulties of comprehension began. The following illustrations are reproductions of my drawing done on the spot. Unfortunately the scars were not photographed, due to the shyness of the natives.

Fig.69 shows us the simplest pattern: two oblique spirals rise above the navel, their free ends flowing into each other above; below the navel a curved line closes in the decoration.

The succession of concentric ovals in the next pattern is more complicated (Fig.70). It was sited on the outer surface of a right arm, just below the shoulder, and was set out in extremely narrow scar lines.

In preference, the upper arm is used for decorative scarring, and very often a motif is found that reverts otherwise almost universally to the works of art of these people, namely the stylized human face. It is clearly recognizable in Fig.71; it was worn anteriorly on the outer surface of the left upper arm. Two spirals form eyes and nose, while an elongated oval below forms the mouth. The actual outline of the face, showing a shallow indentation above between the eyes, remarkably runs downward above the mouth. Yet further outside there is a second line beginning at eye level and, constantly diverging from the inner line, also surrounding the mouth. The interval between is filled with curved lines.

The decorative scar from the outer surface of a left upper arm, reproduced in Fig.72, is just the same; here the nose is drawn somewhat differently, the indentation in the outline on the forehead is missing as is the outer line, so that the mouth appears detached. A herring-bone pattern is situated at the level of the right eye and runs from there, accompanied on both sides by rows of small dots in an upwardly-convex arch as far as the shoulder blade; a double hook forms the end point, probably a reversed eye decoration as is found over the navel in Fig.69.

In only a few instances is the facial representation so crudely presented as in Fig.73: here the scar lines are very irregular, in some places thin and in others thick bulges, and the entire face is crooked. Here too there is a herring-bone pattern out to the shoulder blade, but accompanied only on one side by a series of small dots.

A decoration that deviates markedly from those already discussed [111] is shown in Fig.74; it adorns a right upper arm. Here we have a line of longitudinal loops, with the interval between filled by three concentric pairs of circles and several adjacent curved lines. The herring-bone pattern extending to the shoulder blade is varied by small lateral lines.

Occasionally a decoration was made also in the chest region; Fig.71 shows a pattern that surrounded a man's left nipple (the right nipple was unadorned).

All the decorative scars described so far came from just one village, 252 km village; unfortunately I was unable to sketch all those that came into view.

In 293 km village, visited on the 30th, the decorative scars showed the same rich development; again, mostly faces were represented here.

Fig.75 is reminiscent of Fig.71; but here the eyes are clearly characterized and remarkably connected by a stripe running along beneath the nose, filled-in by curved lines; the mouth sits isolated below.

The face in Fig.76 is relatively rudimentary; [112] here outlines and eyes are present but the mouth and nose are totally absent, if the two comma-shaped forms on the left and right are not intended as rough remains of the wings of the nose.

In another decorative scar, in Kāmbrīngī, eyes and nose are formed by two exceptional inwardly-curving spirals. The whole thing is enclosed by a line somewhat depressed over the forehead and inlaid with small dots. To the left, on the shoulder blade — the decoration is located on the right upper arm — a series of W-like lines boxed inside one another runs below, to the right.

Around the nipples in these villages there is often found simple slightly curved or half-moon shaped lines.



Fig. 69.
Decorative scars

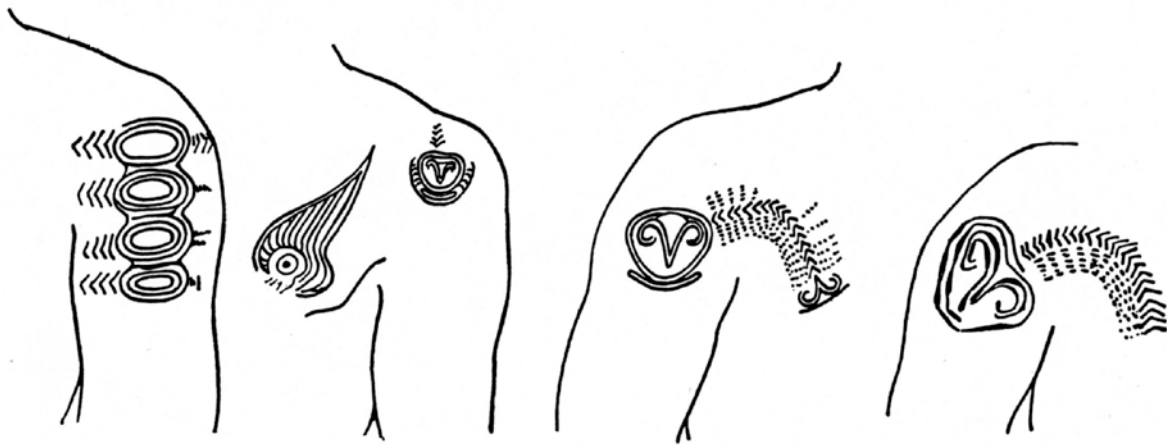


Fig. 70. Decorative scars

Fig. 71. Decorative scars

Fig. 72. Decorative scars

Fig. 73. Decorative scars



Fig. 74. Decorative scars

Fig. 75. Decorative scars

Fig. 76. Decorative scars

We were able to establish by 375 km village that the decorative scars were more scarce and less artistic. The highly-developed scar tattooing is therefore restricted to only a relatively small region of the river; but perhaps it also occurs outward from the river, in the adjacent interior. From 375 km-village onwards I saw only simple herring-bone patterns, irregular heaps of dots, and isolated curved lines.

I saw no remarkable decorative scars on the women; nor did the women depicted in our photographs show any.

Body painting

In the river mouth area, they did not appear to paint either body or face, except on festive occasions; in any case we did not see any painting there. It occurs very much more frequently in the middle reaches. The first expedition, which went upstream in 1886, mentions this; Schrader writes, "We often saw bright painting, particularly of the upper body, with red clay or extremely black dye; likewise in almost every village we saw one or two people, mainly women, who had painted their body a dirty white colour (ash or dirty lime). We could not obtain any definite idea on the significance of this custom" (*Nachrichten für und*

über Kaiser-Wilhelmsland, 1886, p.127). Hollrung writes of the inhabitants of Málu and the neighbouring villages (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31), “On the other hand, they take great delight in painting their faces and other parts of the body in bright colours. They use charcoal, red (*djūi*), white (*mēimbanch*) and yellow clay.” Several visitors who have gone somewhat further upstream in recent years also mentioned this custom. Schlaginhaufen (1910a, p.71) for example writes, “Many men were painted completely black...” and “face painting varies. Often the nose is smeared with pale grey clay while the rest of the face is painted black; red paint is found also”. Friederici (1909, p.334) records, “Many were painted pitch black from top to toe, the face brightly coloured”. One cannot agree with his attempted explanation: “an indication, I believe, that they want to be black people, that the blackness of their skin is their pride and ambition, not the brown shade of the coastal tribes”, because numerous others paint themselves yellow, greyish-white, and red. Furthermore the people do not even have such a surprisingly [113] dark skin shade; with the exception of a small region just above the river mouth swamp, (and even there we saw quite a small degree of painting), and another region at the Hunstein Range, they are probably just as brown as the coastal tribes. We found an especially high level of body painting in the stretch of the river between 293 km-village and Málu. It was mostly quite primitive, but still done in a wide range of colours. Many people, especially women, had painted their entire body grey with ash or coloured mud; others — only men, according to my notes — had painted themselves deep black, yellow or red; in other people, only the face, arms or legs bore one of these colours. More rarely, several colours were used on one individual. Thus in 373 km village I saw a man who had painted his face black, but with a yellow ring around the eye on both sides. A man from the same village had painted the entire length of his legs khaki so that it looked as though he were wearing yellow stockings. Here too we saw women who had painted only their forehead, and others only their arms or legs, with whitish-yellow clay. On one man in 343 km village the whole trunk and face were black, while the nose was a bright shiny red. Occasionally the boys too had their share of colour; in that same village one had decorated his forehead with round red spots.

The natives from the upper reaches as well, beyond the furthest point that we reached, knew about body painting. The 1887 expedition recorded, “They have faces painted with yellow ochre and grey ash, often their shoulders are cylindrically smeared” (*Nachrichten für und über Kaiser-Wilhelmsland*, 1887, p.191).

As for the dyestuffs, they sold us some only unwillingly, although they possessed great quantities of it; we found these colours the more often in leaf boxes and net purses. We obtained the following samples, for whose analysis I am deeply grateful to Dr R. Herzenberg who processed our geological material.

H.S.9037, Muǎngēm, **coloured earth** (*andí* or *kěkěrándi*, Hellwig), “yellowish-brown clay, very sandy, ferruginous”.

H.S.9350, 343 km-village, **coloured earth**, “mottled plastic clay, white to red. Free of foreign mineral inclusions, somewhat ferruginous”.

H.S.9248, 375 km-village, **coloured earth**, “red plastic clay. Free of foreign inclusions, markedly ferruginous”.

H.S.9281, Málu, **coloured earth**, “greenish plastic clay. The colour arises from green hornblende-asbestos fibres, otherwise no foreign components”.

Deformation

Tying-in of the waist. It was mentioned previously, during the discussion on clothing, that in the river mouth region the men tend to tie their waists in tightly. This is done by means of a plaited belt looped several times around the body; it is put on at the time of the manhood ceremonies. In one man of about thirty years old I found a waist measurement of 67.5 cm, in another only 61 cm! Furthermore, the [114] skin directly beneath the belt displays a unique flabby, shrivelled appearance because of the constant pressure.

Ear deformation. Along the entire course of the river that we visited, they pierced their ear lobes, without intentionally enlarging the hole as is seen so often in western New Britain for example. Furthermore, there are also small holes made in the auricle, sometimes only on the margin and sometimes in the middle as well. These are never particularly enlarged.

Deformation of the nose. Both men and women pierce the nasal septum, apparently without exception. This hole is not over-exaggerated either: it is only large enough for a stick of somewhat more than the thickness of a pencil to pass through. In the river mouth area there is also the custom of boring one or two small holes through both wings of the nose, obliquely from above, only large enough for a twig the thickness of a match to be inserted.

Cranial deformation. In the river mouth area I obtained three skulls that astonishingly show a distinct deformation. It can be just as little a case of an accidental change of shape as a result of any kind of unintentional mechanical influence, as the consequence of a pathological event; the alteration of the totally-normally developed healthy cranium is so great that it must certainly be a case of intentionally-produced deformation. Unfortunately the only information that can be gleaned from the natives is that the skulls came from slain (and one can probably add "eaten" because in all three crania the posterior margin of the foramen magnum has been deliberately fractured) "bush kanakas". Therefore if these were not shipwrecked people, driven here from a great distance by wind and current, to meet their deaths (and the fact that one of the skulls was obtained from the village of ĪmbăntŃn, well beyond the actual river mouth area, would not corroborate that theory), one must assume that somewhere inland from the river bank, in the interior, there is a tribe who deform their heads. On the actual riverbank I did not come across a single case of deformation, and the change of shape is so pronounced that it could hardly be unnoticed by any of the visitors to the river. It must moreover be mentioned that all three deformed crania have a frontal bone decorated with notches; this also corresponds with "bush kanakas".

H.S.A.748, Sĳngŕĳn, Plate LXXIII.1; pressure has acted from behind, at right angles to the long axis of the skull, and has particularly strongly flattened the area around Lambda. The Glabella-Lambda interval has therefore been reduced to the small length of 141 mm, equally so the "maximum cranial length". The parietal bosses appear to be pushed somewhat laterally by the pressure; "maximum cranial breadth" is correspondingly relatively great, reaching 135 mm; and thus the very surprisingly high length-breadth index of 95.7 is brought about. The ratio of minimum frontal breadth to maximum cranial breadth is 65.9. No formation of wormian bones has occurred in any of the damaged sutures.

H.S.A.749, Sĳngŕĳn; in this specimen there is only slight flattening, restricted almost exclusively to the right side; thus pressure on the cranium has been exerted posteriorly, from the right side. Thus the cranium presents as plagiocephalic. The "maximum [115] cranial length" is 164 mm, maximum breadth 140 mm, length-breadth index 85.4, and the ratio of minimum frontal breadth to maximum cranial breadth is 66.4. The sutures do not show any anomalies.

H.S.A.754, ĪmbăntŃn; here the flattening is once again very great, almost as marked as in H.S.A.748. The fact that the length-breadth index is less strongly influenced, is because the pressure similarly acts obliquely from behind, from the left side, so that the entire posterior region has become markedly asymmetrical. In spite of this, the sutures are normal. The parietal bosses are rather strongly arched, especially on the right side. "Maximum cranial length" is

163 mm, maximum breadth 141 mm, length–breadth index 86.5, “length index” (cf. Reche 1911a. p.76 *et seq.*) 45.8, and the ratio of minimum frontal breadth to maximum cranial breadth is 65.9.

Circumcision. Apparently, circumcision is not carried out anywhere on the Empress Augusta River; at any rate we did not encounter it up as far as Málú, and Hollrung, who had gone upstream beyond Tsenáb, expressly mentions that there is no circumcision as far as that point (1888b, p.231). The idea that it occurs in the actual upper reaches is therefore as good as dismissed. [116]

Houses and Dwellings

In the houses that we visited along the river we were able to differentiate three quite distinctive building styles. These were nevertheless related, and were only variations of the same basic pattern. All three types have a rectangular ground plan, and all three rest on very high poles, a practical feature which is obviously necessary, owing to the occasional floods.

The coastal type

The exterior of the houses

One type of house is indigenous to the sago swamps of the river mouth region and the nearby coast (Plate XIV.1). The house floor rests on strong poles an average of two metres (and up to three metres) above the ground; on top of this, with only low sidewalls, is a high gable roof covered with sago palm leaves. Its ridge beam has a slightly convex curve, and its front and rear gables project almost horizontally, mostly roofing over a triangular platform. The front and rear walls of the house are often open, or only partially closed by a sort of hanging fringe (Plate XIV.2); but they often show a more firm closure: a wall of thin poles laid horizontally one above the other. The side walls are often assembled in the same way from poles, or they are made from simply-plaited coconut palm leaf mats. They have several rectangular window-like openings. The flooring consists of strips of betel palm bark and never seems very strong to the European who walks into the house, wearing boots; with each step one is frightened of falling through. Actually, it is not very firm, especially since the strips of bark are never packed tightly together; often the gaps are several centimetres wide.

The square fireplaces covered with sand are somewhat recessed into the floor.

The different house types are often not so easily distinguishable superficially; even upon entering, it was not always clear whether one was faced with a dwelling- or a ceremonial house. In the more prosperous villages, not in the swamp but on the sea coast, it seems to be, or to have been, indeed otherwise, because Herr von Schleinitz (*Nachrichten für und über Kaiser-Wilhelmsland*, 1887, p.56) mentions that the houses of a village east of the river mouth [117] (Wātām?) had heavily-carved posts and “bast fibre walls tastefully painted with patterns”. What he had seen appears to all intents and purposes to have been ceremonial or spirit houses.

In the village of Kërkër, which otherwise made quite a poor impression with only poorly-constructed houses, we saw a small building that to some extent consisted of only half a house (Plate XV.1). A lean-to roof, a half-gable roof, stood on a low platform, so that the house was considerably higher on one side than the other. While both side walls were closed-in by the usual palm frond mats, the front and rear walls were left almost completely open, apart from a narrow strip of open-weave sago palm fronds running along the roof edge above, giving at least some protection from driving rain. A border of sago palm bark formed the lower edge of this strip. The border was decorated with indentations and bright paint; behind it hung fringes and leaf fronds.



1. Köpár dwelling (page 116)

Fulleborn phot.



2. Köpár house (page 116)

Fulleborn phot.

H.S.4567, Kěrkěr, **bark frieze**, Plate XVII.1 (length 123.5 cm and 37 cm, maximum width 18 cm and 14 cm), two pieces fastened together. The frieze consists more or less of three parts: a broad band, a row of jagged teeth, and a narrow band connecting the jagged teeth together; this is all cut from a single piece. The painting consists of red areas and ochre and white lines on a dark-brown background. On the longer piece the broad band shows a type of spiral decoration, although in places the spirals have become closed-in ovals. On the shorter piece there are yellow-ochre or red areas shaped like tear drops, each bordered by two white lines and appearing to hang from lines feathered on both sides. Small holes on the outer edge of the broad band served to attach the edge to the roof. The triangular peaks on the larger piece show mainly rather naturalistic representations of faces; while on the shorter piece there are only the faint remains of transverse curved lines. The narrow band connecting the jagged teeth has a red line in the middle; it has white edges. The reverse side of the frieze is unprocessed and has a rough outer surface.

Schlaginhaufen (1910b, Plate I, Figs. 4 and 9) has illustrated two specimens, evidently from Sīngrín (judging from the purchase date), that were exactly identical, without being able to give any information on what they were used for, since he had obtained them from a canoe and had not gone ashore there. These pieces have the same shape as our specimen, but are painted differently. On one of them, Fig.4, the designs are, “produced in only red and white on a dark background”. The specimen is 121 cm long; the holes for fastening are noticeably absent. The second specimen, (Fig.9) is also, “a long narrow piece with triangular notches. Here too the designs are produced only in red and white”; length 119 cm. On the first specimen there is a red oval enclosed in black and white lines at the base of each jagged peak; from the oval several irregular white lines cross onto the broad band. The design on the second specimen is similar to that of our specimen, except that there are oval areas instead of faces.

The purpose of the small house illustrated on Plate XV.1 was not easy to ascertain. Since we were taken there immediately on arrival, this might indicate that it was a reception house for strangers; perhaps it doubles as a place where people can spend a couple of hours chatting. It is strange that we did not find any house built the same in any of the other villages.

We could not find out whether there were maternity houses, as in Potsdamhafen.
[118]

Construction

House construction in the river mouth area, Fig.77, (construction of this, like the other house-types, must have been taken almost exclusively from the photographs of new buildings prepared by Fülleborn), resembles the type that H. Frobenius designated as “Barla style”. That is, the gable roof does not rest directly on the side walls but on two cross-beams serving as a roof frame; the side walls therefore, not being weight-bearing, are always made from thin light material and serve only to close off the interior of the house and give protection from the inclemency of the weather. In the coastal houses both roof surfaces always run parallel with the cross beams. The main distinction from the ‘Barla style’ is that a ridge pole is present, resting on two or three ridge supports; one of these ridge supports passes through the platform out front, somewhat obliquely, and supports the end of the ridge pole. Then the roof spars rest on the side beams and ridge pole; they cross over at the top and are secured even more firmly by a long batten laid over the point of intersection. Long thin horizontal sticks are tied horizontally onto the roof spars, and thus a rather thick lattice-work is developed, onto which they attach the roof material, consisting of layers of sago palm leaves. Sago palm sheaths are fastened, hollow-side downwards, with roof needles along the ridgeline right at the top; their purpose is to prevent rain from getting in at this rather exposed site. Every part of these houses is joined exclusively by ties; wood bands or nails are unknown.

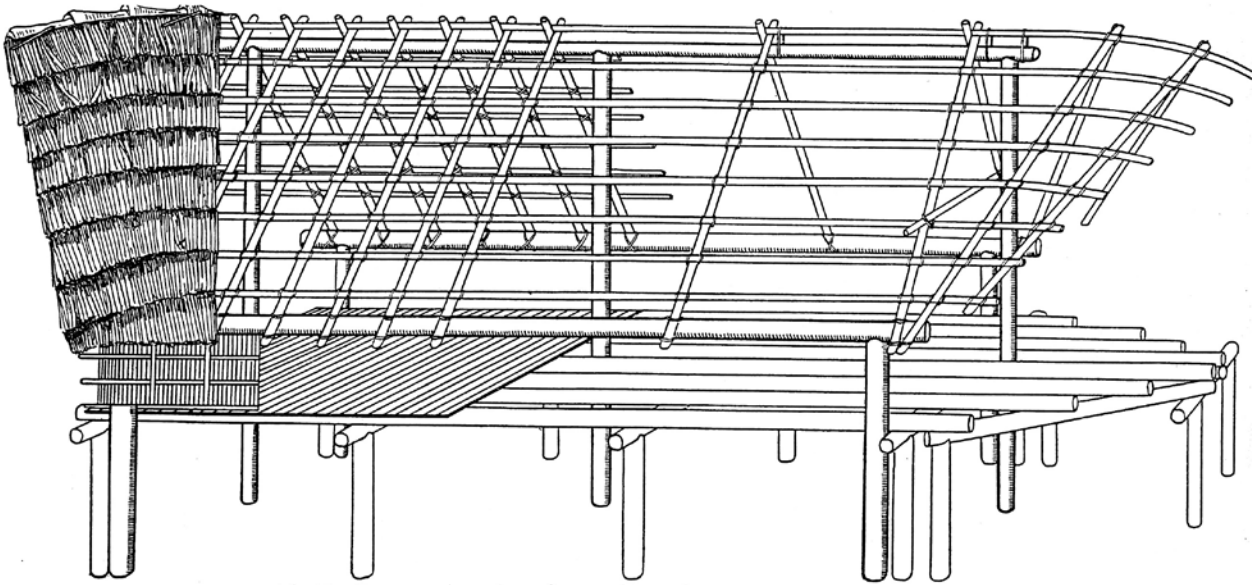


Fig.77. Construction plan of coastal-type houses

[119] The podium, the floor of the house, is a completely separate structure; it shows no organic connection of any kind with the roof construction, and it rests on several poles. It almost gives the impression that originally the podium did not belong with the roof at all and, only later — as an adaptation to the often-flooded land — was built in to the house. This assumption is given credence possibly by the fact that further eastwards on the coast, for example at Potsdamhafen, there are houses whose roof construction is the same, but whose floor is identical with the earth: they do not have a podium. In the middle of those houses there is only a raised area, serving just for storage (Vormann, 1909, p. 665).

The triangular platform in front is an integral part of the podium in the houses of the river mouth swamp area; the podium simply projects out under the roof at this end.

It is built in such a way that the cross-beams of the lowermost layer, resting directly on the support posts, run at right angles to the long axis of the house. Lengthwise beams are then fastened on to them, also contributing to the construction of the triangular platform, and onto them, as the third and final layer, the floor, consisting of betel palm bark.

The interior of the houses

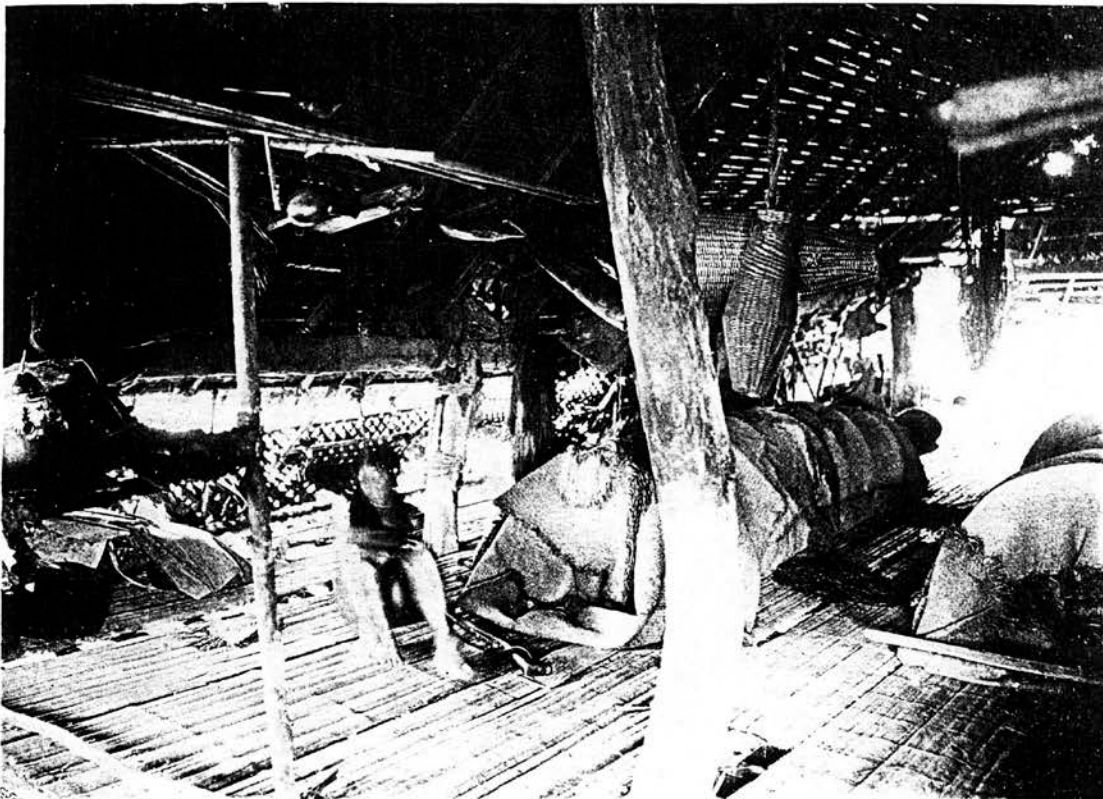
The interior of the dwelling houses consists mainly of a single large room that serves simultaneously for living, cooking and sleeping. Several fireplaces sunk between the floorboards lead to the conclusion that each of the normally quite large dwellings houses several different families; we never noticed any demarkations of house areas for each family.

As soon as you enter the house you know that the space is intended for sleeping: several long, bulky, cylindrical objects lie on the floor — plaited mosquito-proof sleeping bags into which the whole family crawls at night time, to be protected from the blood-suckers at least while they are sleeping (see Plates XV.2 and XVI.2). 'Neck supports', made from wood and rattan, serve as pillows. While asleep they rest their necks on these, not their heads, (see the chapter 'Household items').



1. House in Kerkër (p. 117)

Fulleborn phot



2. Interior of an Imbântön dwelling (p. 131)

Fulleborn phot.

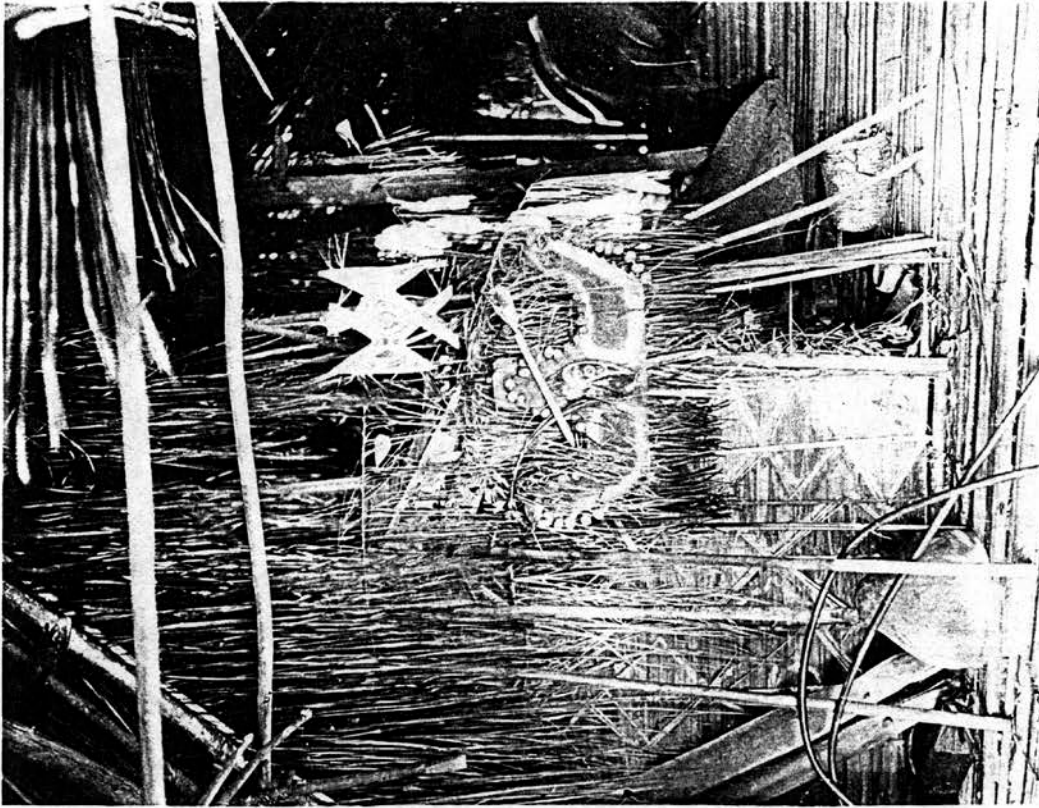
Smaller domestic utensils and food items either hang on hooks from the ceiling or preferably are placed on frames several levels high constructed from sticks, and often set up over the fireplaces. Plate XVI.1 shows such a frame erected over a fireplace: numerous pots, bowls and baskets hang from it while nets and spears lean against it. In the foreground on the right hangs a hook arrangement carved from a multi-branched thin stem; its shaft is pushed through a disc, to prevent [120] rats approaching. In the river mouth area, they also build characteristic boxes for food storage, reminiscent of a dog kennel in shape (see Plate XLI.4), similarly rat-proof and hanging from the ceiling. In the roof itself, on the stronger beams and between the spars, they hide many small tools, mostly things that they do not want others to find.

Occasionally human figures, also carved out of wood, are seen in the dwelling houses; these are otherwise mainly to be found in the spirit houses. Possibly somebody wants this or that deceased person, who had been particularly useful, to be alongside them in time of need.

The interior of the ceremonial- or spirit houses is distinguishable from dwelling houses particularly by their always having a small compartment, separated off by mats and long fibrous hangings. 'Ancestral figures', masks, skulls, and bamboo flutes are stored inside (Plate XVI.2). In the village of Kōpǎr the compartment was in a corner of the ceremonial house. In front of it stood five dead figures carved out of wood, and in front of those lay six human skulls (five with a carved frontal bone, and one smooth). In the compartment itself, the 'holy of holies', stood a long four-sided stick, which was pushed up through the roof. Its mid-section formed a death figure wearing as its head an actual skull that had been moulded over with clay (H.S.6537). Several wooden masks hung outside the compartment. The house also contained several smooth undecorated bamboo flutes that had been carefully wrapped and were sold unwillingly. In a second house in the same village was a similar compartment, also containing figures, masks, and skulls. A third house had been set up somewhat apart; it was of recent construction. The main room, occupying almost the entire length of the house, contained nothing but two wooden masks hanging from a long beam and several beautifully decorated shallow cone-shaped earthenware bowls. Beyond, coconut mats partitioned off a small room, with a narrow entrance through one side. Entering this room was strongly frowned upon by the natives. On the floor of the compartment was a heap of very fresh tubular flutes, as yet unpainted, and decorated with small wooden masks, also unpainted; there was also a large bundle of canes that would evidently be made into flutes. Finally, several beautifully-painted flutes hung there; these however were split and unusable. Several wooden figures were arranged on the wall. Throughout the interior the mat wall was covered with painted pieces of bark. Pöch (1908, p.171) found something similar in the ceremonial house in Wātām, "In the house interior I found a compartment made from beautifully-painted pieces of bark, and in the 'holy of holies' stood small carved figures and carved skulls".

In one house in the village of Mbīm Müller saw another room separated off, and containing a human skull, a pig's skull, half a coconut shell, and a [121] second coconut shell filled with fresh water, betel nuts, and leaves. The house had yet another compartment; in this one, lying partly on the floor and partly on supports built from sticks (similar to the frame found in dwelling houses), were several large wooden masks and a very beautifully carved wooden crocodile (*uōrāmī*, Müll.), which, as soon as Müller touched it, was slipped out of the house and hidden. Finally, in this house there was a natural-colour slit drum, exceptionally not painted red.

The presence of sleeping bags reveals that the ceremonial houses of this region were also used for sleeping, and were therefore probably young men's houses. Beside the compartment shown on Plate XVI.2, a sleeping bag may be seen further back.



Filleborn phot.

2. Lean-to in a ceremonial house in Kérkér village (p. 120)



Filleborn phot.

1. Framework for household goods in a Kópár house (p. 119)

We brought back several examples of the above-mentioned painted pieces of bark, which serve as cladding of the compartments and on which dead people are possibly depicted (*bǎrǎm* = spirit, soul?)

H.S.1833, Sīngrīn, **painted piece of bark** (*bǎrǎm*, Fülleborn), Plate XVII.2 (length 120 cm, maximum width 42 cm). The painting shows facial representations, three pointing up and three down, done in black, white, yellow-ochre and red. At the top right, on the upper and the side edges there are two holes each. A bunch of bast fibre is pulled through one of them. A specimen illustrated by Schlaginhaufen (1910b, Plate I, Fig. 5) is very similar.

H.S.1834, Sīngrīn, **painted piece of bark** (*bǎrǎm*, Fülleborn), Plate XVII.3 (length 122 cm, maximum width 41 cm). Seven stylized faces are produced in very much the same manner: three looking downward and four looking up. Only the lower half remains of the uppermost face. The representation like an eye found between the two central faces in the preceding specimen, has become a vertical oblong oval area here; a red line bordered on both sides by a white zigzag is drawn lengthwise through the middle. Black and white are the main colours used; less often they use red, while yellow-ochre is used in only a few places. On both long sides holes are drilled, quite far from the edge mostly; thin rattan cords are pulled through these in places.

St.Ha.61727, allegedly from 'Radja', a label certainly based on a lapse of memory; items of this kind have been seen both by us and by Schlaginhaufen (who made the journey accompanied by Haug) exclusively in the river mouth region; **painted piece of bark**, Plate XVII.4 (length 88 cm, maximum width 46 cm). Two complete faces are produced and one rudimentary one where only the eyes are recognizable; all three are vertical. A zigzag decoration forms the upper border. Black, white, red, and yellow-ochre are used. Small holes are drilled through both side edges.

St.Ha.61729, allegedly from 'Radja' (see above), **painted piece of bark**, (length 104 cm, maximum width 38 cm), similar to the preceding piece. The design consists of three vertical faces, the lowermost of which is incomplete. Painting is done mainly in black and white; red and ochre are used in only a few places.

H.S.1831, Sīngrīn, **painted piece of bark** (*bǎrǎm*, Fülleborn), (length 123 cm, maximum width 43 cm). The eyes of a rudimentary face are recognizable right at the top. Beneath are three large ovals consisting of numerous concentric yellow, white, black, and red lines that probably also represent the remains of a face — two eyes and a nose. The bark piece is damaged on the lower left. Again there are many small holes on the long sides. Red, white and black are used particularly as colours, while ochre is used very sparingly.

A specimen illustrated by Schlaginhaufen (*loc. cit.* Plate I, Fig.6) shows five upright faces, consisting of eyes and noses, one above the other; a row of red dots on a white background forms the lower margin. Another specimen illustrated by the same author (Plate I, Fig.1) shows two representations of faces: one upright, the other upside down; they are separated by four representations reminiscent of eyes. The painting was done in black, white, red and yellow.

A third specimen, (Schlaginhaufen *loc. cit.* Plate I, Fig.2) from the 'river mouth area', Plate XVII.5 shows, above, a clearly recognizable face whose nose has evolved into a peculiar four-pointed star [122] bordered by red and black lines and black zigzags. There appear to be the remains of a second face below, and above the lower edge are another two eyes. Three of these 'eyes' are reminiscent of the 'sausage-shaped' images that appear on many betel lime boxes. A fourth example (*loc. cit.* Plate I, Fig.3) shows in the upper half a very large, somewhat differently-produced representation of a face, whose eyes lie in remarkably-bulged corners. The nose consists of several concentric ovals. The face is bordered below by a painted chain of white rings on a black background, thought to be hung in a semi-curve, evidently a representation of the chains of *Conus* rings beloved in the river mouth region. The mouth of the face, a black sickle-shaped line on a white ground lies, surprisingly, below the chain. In the lower part of the bark specimen there are two figures like eyes, accompanied by variously-coloured curved lines.

H.S.6556, Kōpār, **painted piece of bark** (*mbǎrǎm*, Müller) Plate XVIII.2, (length 162 cm, maximum width 39 cm). The upper part shows a face differing from the other representations, with a greatly widened forehead, very small eyes and a narrow nose with quite wide side walls. Below is a chain of white, black-rimmed rings on a white background; above the ends of the chain, just below the eyes of the face, are two large ovals resembling eyes, accompanied by curved white lines. In the lower half of the bark specimen there are then found two large representations of eyes, and between them and rather deeper, two four-pointed black-, white-, and red-rimmed stars one above the other, probably arising from the nose. The areas to the sides are decorated with a zigzag pattern. The painting is in red, white, and black; ochre is used only occasionally. The side edges of the piece of bark show numerous bored holes.

A specimen illustrated by Schlaginhaufen (*loc. cit.*, Plate I, Fig.7) (Plate XVII.6) shows, in its upper part, a face very similar to the previous example; here too it has a chain of white rings beneath. Below it is the figure of a four-legged salamander-like creature with a broad head and large eyes, short forelegs and long hind limbs where even the toes are produced with great clarity. It is not impossible that this animal figure has evolved from a face representation: the head from the eyes, the body from the nose and a small almost triangular area below the end of the body, from the mouth. On each side of the animal body is an eye-like (or an allusion to cheek bone?) representation, and between its hind legs a very clearly recognizable small face. On each side of the piece of bark, in the lower

corners, are oval areas filled in with vertical zigzags and wavy lines, reminiscent of representations of the mouth.

H.S.1830, Sīngrīn, **painted piece of bark** (*mbǎrám*, Fülleborn) Plate XVIII.1, (length 124 cm, maximum width 37 cm). It is divided into two sections by a wide band decorated with a meandering pattern. In the upper section are two large oval representations of eyes, with a nose formed from a very small oval; a similar oval is applied above, to the forehead. In the lower section is an inverted face consisting of two large eyes and a nose completely transformed into an acute-angled triangle. Red, white, and black, and occasionally ochre are used for painting.

H.S.1828, Sīngrīn, **painted piece of bark** (length 124 cm, maximum width 38 cm), Plate XVIII.3. The middle section shows the representation of a face in which is interwoven the shape of a four-footed animal, similar to the specimen illustrated by Schlaginhaufen (see Plate XVII.6) discussed above. The bridge of the nose seems to have become the body of the animal, and the walls of the nose the hind legs, while the eyes are enveloped by the forelegs. The small points on the walls of the nose are possibly representations of the small perforations often found there in the living (see the section on Deformation, p.114). The animal has a small oval head pointing upwards. Above the face, a broad band filled with a zigzag pattern, runs right across the entire piece of bark. In the uppermost part there are two facial representations, both showing two eyes and a nose consisting of three lobes. The painting of the lowermost section is unrecognizable.

H.S.1832, Sīngrīn, **painted piece of bark** (length 120 cm, maximum width 42 cm). A rather weathered old specimen whose decoration is no longer clearly recognizable throughout. It is divided into an upper and a lower section by a broad, meandering band (just as in H.S.1830). In each there is a pair of eyes in an hour-glass shaped design. The painting is mainly in red and white against a natural background; several areas are also painted in ochre, while, extremely rarely, black is also used. The specimen has several holes drilled in the edges.

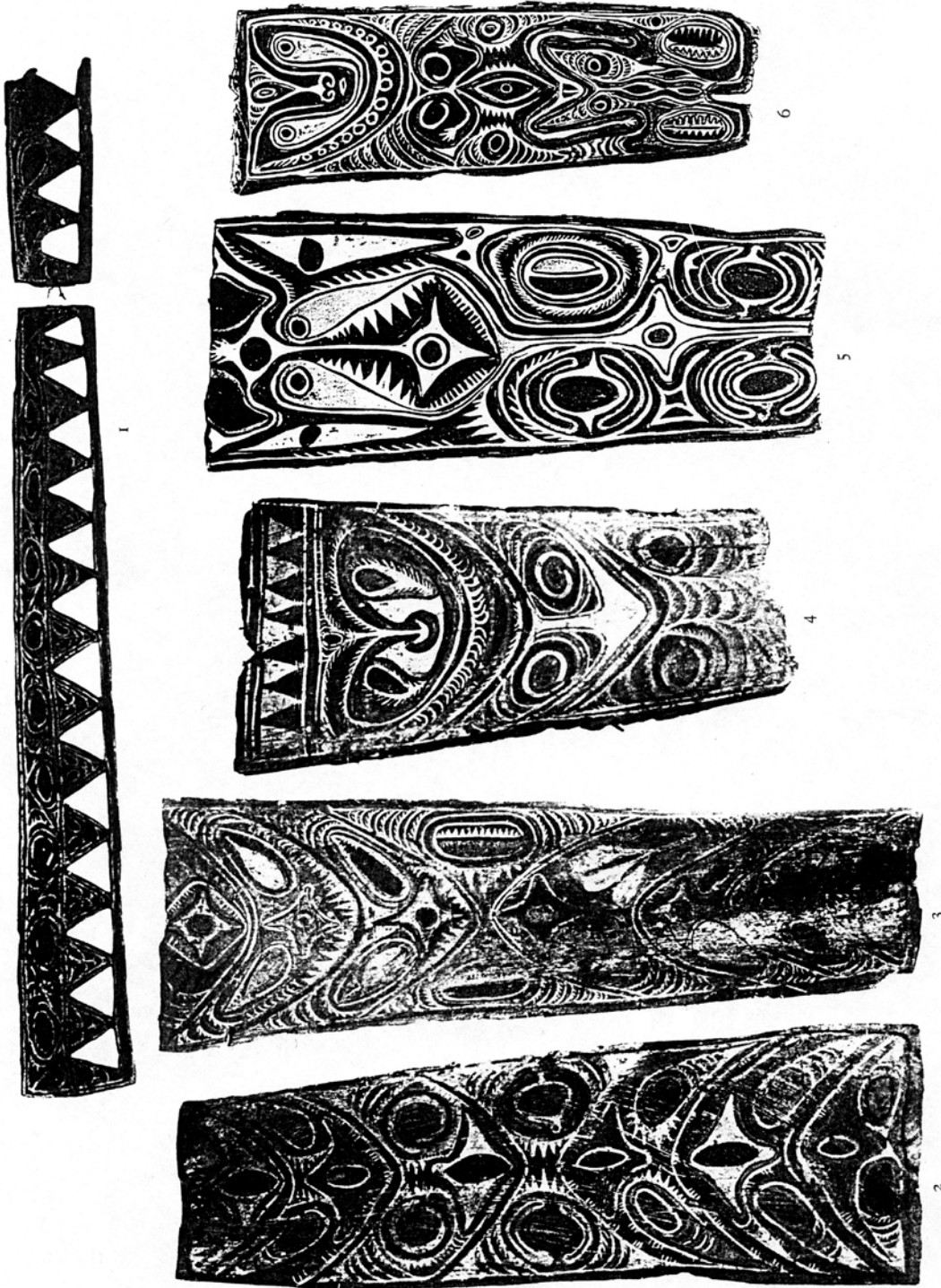
H.S.1829, Sīngrīn, **painted piece of bark** (length 120 cm, maximum width 43 cm). A rather weathered piece. It shows upper and lower sections, both with almost identical images. Decoration has become almost symmetrical. In each of the four right-angled corners sits an eye-like design; in the middle is a pair of eyes inside a rectangle standing on its corner, while above and below this is a four-pointed representation of a nose. But perhaps [123] the decoration is to be regarded in such a way that in each right angle only two faces have merged; the 'pair of eyes' in the middle would then be the blended walls of the nose of both faces. Red, white, and black and a surprising amount of ochre is used as paint.

H.S.1827, Sīngrīn, **painted piece of bark** (length 120 cm, maximum width 49 cm); this specimen is divided into a larger upper and a smaller lower section by two transverse bands. The upper of these bands is filled on the left with white- and on the right with red sickle-shaped lines, while the lower band is filled with a meandering red pattern on a white background. The designs in these sections have possibly also arisen from merged faces. The specimen has a large number of holes drilled through the edges.

The piece of bark illustrated by Schlaginhaufen (*loc. cit.*, Plate I, Fig.8), (Plate XVIII.4), is described by him as follows: "The designs are produced in red, white, and yellow lines on a dark background. Two drilled holes can be seen at the site where they serve for pulling bast through, to repair a split. Length 117." The decoration seems in both the upper and lower parts to consist of two face representations merging, similar to that in the bark specimen described earlier.

According to the information that Fülleborn obtained from our Kōpǎr interpreter, the following carved boards would have served also to clad the walls of the houses, and they would probably have been set up both in ceremonial houses and in dwelling houses, where children would be free to see them. They are all artistically carved in filigree work. They can be divided into two groups: the specimens of one type clearly represent human figures with very three-dimensional prominently-projecting heads; the others are boards with a completely flat, heavily-stylized, carved head recognizable at the upper end, and a very narrow nose projecting a long way, rising over its surroundings like a razor-sharp crest.

The first type is probably none other than a modification of 'ancestral figures'; Fülleborn also obtained the information that the human figures represented on the board were "kǎdībōñ", a word that we were given for almost all 'ancestral figures'.



1. Bark flashing H. S. 4567, $\frac{1}{10}$ actual size
 2. Painted piece of bark H.S. 1833, $\frac{1}{10}$ actual size
 3. Painted piece of bark H.S. 1834, $\frac{1}{10}$ actual size
 4. Painted piece of bark St.Ha. 61727, about $\frac{1}{10}$ actual size
 5. Painted piece of bark, after Schlaginhaulfen (Plate I, 2)
 6. Painted piece of bark, after Schlaginhaulfen (Plate I, 7)

H.S.1823a, Sīnḡrīn, **carved board** (*kōnūm(b)*), Fülleborn, “Kōpár interpreter’s information”), Plate XIX.1 (length 187 cm, maximum width 18.5 cm). The figure of a man carved out of a board in filigree work is clearly recognizable, with long plump feet directed sharply downwards, long thin legs, long pendulous penis, broad hips, narrow lithe trunk and short arms with hands on hips. Remarkably high above the trunk — the neck carved out of the middle of the board is very long — is the head, projecting a long way from the surface in an almost-natural three-dimensional manner, and quite naturalistically reproduced. The forehead is rather pronounced, the eyes are indentations where *Cowry* shells were once inlaid; the nose is prominent and carefully fashioned, with a perforated septum. The mouth is a half-moon indentation surrounded by a wall, the lips. The ears, narrow handle-like perforated prominences, are higher than the eyes. On the top of the head is a three-dimensional, three-pointed area: probably hair; remarkably, the locally-worn hair basket is not represented. Cheeks and forehead are decorated with indistinct, weathered red and white lines. A bundle of lines runs from the eyes on either side to the chin and the forehead has concentric circles and ovals. Above the head is a fully three-dimensional four-footed animal which — judging from the shape of the rather long head with pointed nose and hanging tongue — is meant to represent a dog. The figure is vertical with the head looking down. The areas of the board beside this animal figure show filigree forms, perhaps also intended to be animals. The front surface of the board is painted with thin red and white lines on a dark brown background. The board already seems to be very old. A crack runs from the upper edge right into the man’s head. The natives have repaired the upper end with a simple rattan binding. The reverse side of the board is slightly charred.

H.S.1824, Sīnḡrīn **carved board** (*kōnūm(b)*), Fülleborn), similar to the previous one (length 181 cm, maximum width 29 cm). A male figure is again represented and has [124] inwardly-curved knees and short feet turned inwards. The penis hangs down a long way; the arms are short, the hands unrecognizable and merged into the hips. The head on a long neck is again carved very three-dimensionally but stylized; it is reminiscent of the *murup* mask-type. It has a projecting forehead with deeply-inset small slits below for eyes. The nose is very prominent, beautifully-profiled, with well-formed sides whose margins project laterally in a sharp ridge that transforms upwards into the contour of the lower forehead. Nasal septum and walls are perforated; the mouth is hinted at by a small shallow oval. The ears, small, perforated mounds, are located on the sides of the head, higher than the eyes. Above the head, extending down from the uppermost end of the board, is a vertical fully-three-dimensional animal figure representing a rhinoceros hornbill. The big curved bill, adorned with large transverse mounds on the upper surface, is open with the tongue visible. The eyes are on the upper side of the head. Trunk and wings are short and narrow while the tail is very broad. Along the back runs a transversely-perforated strip. The legs are not represented or, more precisely, are merged into a wide plinth. On the man’s trunk is the figure of a rhinoceros hornbill, produced in almost the same way, but upside down with the head looking upwards. The part of the board on either side of the upper bird shows the profile of an animal with four legs, a long head and a very long tail, most probably intended to be a crocodile. The entire board, including the bird figures, is painted on the front surface with red and white lines on a dark background. The human face is also painted red. The reverse side of the board is smooth and charred.

H.S.1826a Sīnḡrīn, **carved board** *kōnūm(b)*, Fülleborn), Plate XIX.2 (length 181 cm, maximum width 24 cm). The human figure represented here has feet turned inwards, long legs, very short penis, broad hips and a narrow trunk. The arms, barely recognizable as such, blend into the trunk in the middle. The hands — their upper ends are only recognizable for a small section — pass without interruption into the hips. The fully-three-dimensionally carved head projects far out of the board surface; it is produced naturalistically and is reminiscent of the head of H.S.1823a, except that the face is somewhat flatter. The hair consists of a number of parallel strips of which the central one is perforated. Above the head again sits the form of a rhinoceros hornbill whose beak is relatively short. In addition, two recognizable crocodile figures are carved out of the board on the right and left, although only one is separated from the main piece by means of a split while the other is bordered by a shallow indentation. Also, a three-dimensional animal is applied to the body of the human figure, with its head turned upwards. It rests on two narrow pedestals replacing fore- and hind limbs, has a rather long tail, a long pointed head with a slightly open mouth and lolling tongue, and rather prominent pointed ears: thus apparently intended to represent a dog. On each side of the shoulder blades and hips of the animal is a round, somewhat prominent, area adorned with an inset circular line. Midway along the back is an oval elevation; two others, almost circular, sit on the sides of the body. The entire board, as well as the animal bodies, is painted with numerous white and several red lines on a dark brown background. The area below the chin of the human figure appears to have been white and probably represented a half-moon, mother-of-pearl, chest ornament. Again the board’s reverse side is charred.

Two pieces described by Schlaginhaufen (*loc. cit.* pp.22–23) are very similar. In one (25087, from Sīnḡrīn) the naturalistically-made head resembles that of H.S.1823 (see above); a thin wooden stick is pushed through the perforated nasal septum. Instead of the bird figure over the head, there is a carved crocodile head, whose snout lies on the human forehead. A second three-dimensionally carved animal on the trunk has its head turned upwards; it “evidently represents a mammal, probably a *Perameles* [bandicoot] perhaps a pig”. After comparison with the Hamburg specimens, I would rather regard the animal as a dog. “Both animal figures show transverse perforations in the median dorsal strip . . . Below the human head is a large, white, semilunar area. It may represent a neck ornament”

(cf. the neck ornament of H.S.1826a). The painting is in white, yellow and red lines on a dark background. The penis of the human figure is so long that it fuses with the feet. — The other piece, also from Sîngrîn, is only the lower half of a carved board; it shows a man's figure with a long pointed penis; on the front of the body sits a three-dimensional carved bird figure. The representation of the human feet is remarkable: "the four toes are positioned transversely, on both sides, turned outwards. However they do not go beyond the lateral borders of the leg. On the other hand the heels of both sides project inwards. To some extent the outline of the foot is added to the leg without any organic connection." [125]

H.S.1825, Sîngrîn, **carved board**, Plate XIX.3, (length 197 cm, maximum width 16 cm) differs from the pieces described so far in that besides the human head and an animal figure, part of the board itself is carved three-dimensionally. While all the other figures stand with their feet directly on the ground, this specimen has a small plinth; the feet are short, turned downwards, and each has five toes. The legs are very long and slender; the position of the lower leg is indicated by a slight bowing of the lateral border. The penis has developed into a long process extending as far as the plinth, whose front is adorned with three-dimensional cones, pointing obliquely downwards on the upper half and obliquely upwards in the lower half, probably representing an extension of the penis shape. The five-fingered hands are supported on the hips. Above the shoulders is a rather prominent enlargement, stepped to the sides and enclosed above by an arch-shaped chain of circular plates: perhaps the representation of a decorated chest pouch. Above this, a short piece of the thin neck is visible, then comes a semilunar plate — again, probably a mother-of-pearl ornament — and only then, sitting on a further piece of neck, the head of the human figure. Although it projects far out of the board surface it has a flat face, with a narrow not very prominent nose whose septum is perforated. Mouth and eyes are formed by small oval elevations with a central split. Above, on the head, is a representation of a hair basket, a cone-shaped structure decorated with a horizontal chain of three-dimensional projecting oval surfaces, above which a low crest lies in the midline. The part of the flat board above the head is remarkably asymmetrical; it is halved by a split running virtually along the midline. The side on the viewer's left shows a somewhat primitive profile of a motif found associated with many items from this region: two animal heads, probably crocodile, lying on a boss; in contrast, on the right side there is an indistinct bird figure in which only the head, especially the beak, is well defined. Each half of the upper end of the board has a drilled hole, through which apparently a band was pulled in order to close the split. On the human figure's chest sits a fully three-dimensional carved bird with a fairly short, straight, pointed beak, small wings, long neck, and three perforated pegs on the back. The entire board clearly shows the remnants of painting: red, white and ochre-coloured lines and circles.

H.S.6577, Îmbăntôn, **carved board**, (*môrăpăp*, Müller), Plate XIX.4, probably belongs here although it represents a secret object that was carefully concealed, and under no circumstances could be seen by women; it probably therefore has another purpose. It is a rectangular board that bears a very three-dimensional prominent human head on the upper part as its sole carving. Everything else is replaced by painting: the figure's arms and legs by broad white lines, the trunk by a black area, and the chest by two white circles. On both sides of the head and beneath the chin there are white lines on which are rows of white circles, while above the head are irregular red and white-bordered circular areas. The lower part of the board and the face have a red background while the upper part has a black one. The figure seems intended to represent a woman. The head is produced quite true to nature: it shows a less-prominent forehead; a long, straight, less-prominent nose with narrow walls and a widely perforated septum; and a deep, curved mouth slit without raised margins, painted in red and bordered in black. The eyes — they are evidently intended to be fully or half-closed — have a narrow, deeply-indented, red-painted lid slit which forms an oval black area to the lower edge, concealing two almost horizontal lines of small white dots: probably the eyelashes. The whole thing lies in a sagittal, diamond-shaped, white-painted field. White lines surround the mouth, joining into one at the sides; they then run upwards, bordering the facial contour seen from the front, gradually curving round over forehead and nose and extending right to the tip of the nose. Two white lines hang as it were from each side of the perforated septum; they are thickened at the ends, possibly intended to represent a nasal ornament. The contours of the angle of the mouth are continued on each side by an arch-shaped red line. Above the forehead — probably as a head ornament — are white and ochre-coloured lines and a series of dots on a black background, crossing one another at right angles. The board's reverse side is flat, well-smoothed with an axe, and reveals the natural colour of the wood. The piece gives the impression of not being as old as the others.

H.S.1836, Sîngrîn, **wooden human head**, (*kăndînböni*, Fülleborn) (length 36 cm), produced in the village of Sîngrîn itself, according to the interpreter. Most likely the head comes from one of the very similarly carved boards described above; and has been cut free. On the reverse side the cut surface can still be seen. It shows almost the same form as board H.S.1822a; the similar shape of the hair basket is particularly surprising. The ears are very large; they are situated obliquely above the eyes and are widely perforated. The face is [126] painted with red, white, and ochre-coloured lines on a dark-brown background.

H.Th.11,88:38, a piece that does indeed show a certain resemblance to those so far described, but probably has served exclusively as a hook for hanging (see Plate XL.6), does not belong among these boards.

Reche, Empress Augusta River, Plate XVIII



1. Painted piece of bark H.S. 1830, $\frac{1}{10}$ actual size
 3. Painted piece of bark H.S. 1828, $\frac{1}{10}$ actual size

2. Painted piece of bark H.S. 6556, $\frac{1}{10}$ actual size
 4. Painted piece of bark, after Schlaginhaufen (Plate I, 8)

The following carved boards belong to the second type, and are therefore flat pieces, carved in the most artistic filigree style.

H.Th.11,88:37, “Empress Augusta River”, **carved board**, Plate XX.1 (length 156 cm, maximum width 35 cm). The piece is somewhat damaged on the left side at the lower end, so that there, instead of the surfaces between the objects being cut out, a totally complicated filigree pattern has arisen. The upper part of the board represents a human face that is, however, completely flat, with the components reproduced in surface relief and by various colours. The nose is the only exception: it rises up to 8 cm above the surrounding surface as an extremely sharp narrow comb, and continues up beyond the forehead at almost the same height. The length of the nose itself is not very great, but it has a clearly juxtaposed process pointing downwards and extending as a long narrow stirrup, whose tip again merges with the board; this process is then clearly characterized as a bird’s head by carving and painting (Fig.78). It has rather pronounced, red-painted, black-rimmed eyes and a long powerful beak with the tip curved downwards; obviously a rhinoceros hornbill. Also, the part of the median facial comb soaring above the forehead ends in a small upwardly-directed bird’s head with a short beak; at its base is a wide transverse perforation that has evidently served for threading a fastening cord. The eyes of the face are almond-shaped, smooth black elevations, surrounded by a sunken red- and a raised black line; a black, hook-shaped, white-rimmed elevation stretches down from their sides. The mouth is a red-painted mouth slit; on each side of it is a circular area with several narrow black lines attached. The ears are somewhat lower than the eyes, projecting only a little to the sides, and they are perforated. In the middle of the board two *Buceros* heads are represented: one pointing downwards, the other upwards. The large bills with the transverse bulge at their base, the eyes, and the nasal orifices are clearly recognizable. Between the heads is a four-pointed star with an oval, red, raised area in its centre. Similar though much less distinct heads seem to sit on both sides of the human nose. Below, the board is completed by a horizontal band about 9 cm wide showing a type of spiral decoration in black, white and red. Two pointed cones arise from this band on the undamaged side. The remainder of the representations on the board, apparently consisting of a complex whorl of leaf tendrils, can barely be described individually; I have to refer to them on the illustration. The entire anterior surface of the board is colorfully painted, in such a way that the raised areas are red, their borders black and the indentations white. The reverse side is produced in the same shallow three-dimensional manner and shows, especially clearly on the left side, very much better preserved painting than on the anterior surface, an indication that this side was better protected against the effects of the weather, and had probably leant against a wall. The reverse side of the human face is completely flat and shows groups of concentric red and white circular lines.



Fig. 78
Profile
of the
top of
H.Th.
II,88:37

H.S.9021, Ängöröm, **carved board**, (length 186.5 cm, maximum width 32 cm). The piece is damaged; the lower border strip is missing. It is extraordinarily similar to the preceding one (the label found in Hellwig’s catalogue — he was the buyer — “probably a dance shield” might therefore be based on an error); the style of carving is the same, as are the objects depicted. The human face at the upper end is again very flat, with the nose projecting out of it as a sharp ridge. The bridge of the nose is somewhat sunken, while the tip is adorned with a unique thickening from which develops a long peg extending downwards: this again represents a *Buceros* head produced with all its peculiarities. The upper end of the median comb extending over the forehead shows at the most the remains of a head and has no transverse perforation. The face’s mouth and eyes are formed by flat oval raised areas. To the side of the mouth are two three-dimensional narrow spiral bands, probably representing a nasal ornament. In the middle of the board, again, there are two [127] rhinoceros hornbill heads facing each other, with particularly large eyes; between them is a four-pointed star. Again, everything else is a complex whorl of tendrils. It remains to be mentioned that the board, below the nasal process of the bird’s head, has a vertical trim decorated on both sides by a row of flat knobs. The reverse side of the board shows the same representations but somewhat more roughly produced. Only indistinct remnants of painting can be seen.

H.S.1822a, Sīnġrīn, **carved board**, (*konum(b)*, Fülleborn), Plate XX.2 (length 154.5 cm, maximum width 27.5 cm). This piece too is defective — about a fifth of the length is missing below. The specimen differs from those so far described solely by the better preservation of the painting, so that many of those objects produced in shallow three-dimensional representations on the other boards are indicated here only in paint form. The nose projecting from the flat human face is lower, not forming such a prominent spine as in the pieces described so far; the bird beak forming its continuation is relatively longer; the part of the board below it again shows, although only on one side, the row of knobs. The upper end of the facial crest is extended into an indistinct head whose base shows no transverse perforation. The ears, indicated only by red and white paint and by two small holes each, sit high up on the sides of the head. The middle of the board again shows the two *Buceros* heads, but the “four-pointed star” is split into two short lateral pegs and a vertical spindle-shaped structure bordered in white, with red and white transverse lines on a black background. In painting, the raised areas are kept white with a black border, while the indentations are red; occasionally there are still red and white transverse lines. Moreover, closer examination of many of the “leaf tendrils”

Reche, Empress Augusta River, Plate XIX



1. Carved board H.S. 1823a, $\frac{1}{10}$ actual size
 3. Carved board H.S. 1825, $\frac{1}{10}$ actual size

2. Carved board H.S. 1826a, $\frac{1}{10}$ actual size
 4. Carved board H.S. 6577, $\frac{1}{10}$ actual size

reveals painting reminiscent of the *Buceros* head decoration. It does not therefore seem impossible for a part of this tendril decoration to have evolved from *Buceros* heads. The reverse side of the board shows only indistinct remnants of paint.

H.S.9020, Āngǒróm, **carved board**, (length 148 cm, maximum width 28 cm). This piece is very similar to those so far described, but it is heavily damaged: roughly the bottom quarter is missing and the human face above; also, one of the two *Buceros* heads is broken out of the centre.

The pieces illustrated and described by Schlaginhaufen (1910b, pp. 20 and 21) differ only a little from those presented so far. The first (No.25019) — coming from a village relatively far upriver with an unknown name — shows a human face produced somewhat differently. The nose, again rising three-dimensionally from the surface as a single entity, exceptionally has no process pointing downwards. The two opposed figures rather below the middle of the board form an ‘S’ as, “two fish with curved bodies”; however, here too it appears to be a case of stylized *Buceros* heads. The piece is not painted. The second specimen (No.25079), from Sīngrín, differs particularly in the nose of the human figure not being so prominent: “in the upper part it is grooved transversely, after the style of the *Buceros* beak, and continues upward in an image that apparently represents the nose of a second heavily stylized face.” Here again the nose has a long beak-like process that does not however appear to have been depicted as a *Buceros* head. Both rhinoceros hornbills facing each other in the centre of the board are completely intact: neck, legs and an indication of wings are recognizable. “Two small rhinoceros hornbills are also depicted in the lower half, close to the edge.” Their heads are turned upwards with their very long beaks opposed and almost touching. The indentations are red, and the raised areas are painted with white lines. — The third piece (No.25080), from Sīngrín, tapers at both ends. “The somewhat weathered upper end has a recognizable animal head holding an animal downwards in its similarly downward-directed beak. The border of this end section of the board is formed on each side by an animal looking upwards, perhaps rhinoceros hornbills again. The middle section of the board is lengthwise traversed lengthwise by a 110 cm long snake. Its sharply separate head looks upwards.” In the decoration at the sides Schlaginhaufen believes that he recognizes a further four animals which however, “permit no more certain definition”. The markedly damaged painting again shows “red colour in the hollows and white lines in the raised areas”.

H.S.1826, Sīngrín, **carved board**, (*konum(b)*, Fülleborn), Plate XX.3 (length 129.5 cm, maximum width 18 cm). The lower part has broken off. It is reminiscent, in the painting, of the specimens previously described, especially H.S.1822a (see above), but differs from all the others in that there is no face depicted at the upper end, but instead the figure of a bird with its head pointed downwards. This bird figure is produced in only a shallow three-dimensional manner; the beak is very long, straight and tapering, thus the bird does not seem to have been a *Buceros*. The wings are somewhat curved with their ends almost touching. The tail is short and round. The curved [128] legs in the corner are appended to the sides; the animal is clinging by its toes to the two lateral filigree-carved tapering cones of the board. I do not find it inconceivable that the bird figure is connected with the face with the bird beak, that one representation has evolved out of the other. All of the rest of the board again shows complex filigree work, in which regard I must refer to the illustration. The painting is done in black, white, ochre and red.

House Type II

The exterior of the houses

Just above the river mouth swamps, at the beginning of the grassy plain, a new style of house appears, differing straight away from the coastal zone type in external appearance. We saw it for the first time in Īmbántǒn, (Plate XXI.1) alongside several coastal houses. It is thus characteristic of the villages of Āngǒróm, Muǎngĕm, Mǎiũm (new buildings), Kǎmbrínũm, Lǎmbríngi, and Āmním. This style of house also has a rectangular ground layout, and here too we have a high ridge roof with only low side walls. However, the ridge of this roof is somewhat depressed, slightly concave, and a lean-to roof is attached to the gable sides, covering over a four-sided platform that is here absorbed into the interior of the house. The poles on which these houses rest are again very strong and reach two to three metres in length; they never seem to be carved or painted, not even on the ceremonial houses. In these buildings, the front and rear walls are always closed-in, as indeed are the side walls beneath the lean-to roof, with loosely-woven sago palm mats and, above these, with a more solid leaf

Reche, Empress Augusta River, Plate XX

1. Carved board H.Th. II,88:37, $\frac{1}{10}$ actual size2. Carved board H.S. 1822a, $\frac{1}{10}$ actual size3. Carved board H.S. 1826, $\frac{1}{10}$ actual size

plaiting reinforced by sticks. In less well-constructed houses, these upper parts also appear to be left open. In the middle of front and rear walls are openings that serve as doorways. The floor again consists of betel palm bark with the inlaid fireplaces covered with sand.

The ceremonial houses of this region are, by and large, constructed in the same way (Plate XXI.2 and XXII.1); they differ from the dwelling houses in their much greater size, their more careful presentation, the more strongly ridged roof, and the gable soaring boldly to a great height (Plate XXII.2). These tower-like structures are particularly imposing in profile, (Plate XXIII.1). The fronts are often enclosed with carefully-plaited rows of mats and, as a special decoration, one occasionally sees long chains consisting of plaited rings hanging from the gable towers (Plate XXIII.2). A small human figure carved out of wood was fastened on each gable peak of a ceremonial house under construction (see Plate XXII.2), rising obliquely upwards and forwards (Fig.79).

Moreover the ceremonial houses are often very large; we saw one in Muǎngĕm that was 30 paces long (about 22 m), 12 paces (about 9 m) wide, and at least 11–12 metres high. The dwelling houses had smaller dimensions.

[129] Besides dwelling and ceremonial houses there was also a series of small buildings that served other purposes. Thus, apparently in every village, there were several huts consisting only of a slanting lean-to roof, often quite primitively constructed, with a low platform of about chair-height attached (Plate XXII.3); the walls were not enclosed. They appeared to be reception houses for strangers visiting the village, besides which, they probably served as places for relaxing and chatting, where people could spend several idle hours protected from the sun.

Among the smaller structures, in the village of ǎngǒrǒm, (Wolem) we first encountered a roofed platform about 1.5 m above the ground (Plate XXIV.1) on which the corpse of a woman lay in a sago-washing bowl to decompose; it was covered with leaves.

In ǎngǒrǒm and Muǎngĕm we noticed a very similar platform (Plate XXI.2 and XXIV.2); long sago-washing bowls covered with leaves stood on these too; closer examination established that these were containers for storing prepared sago. These platforms were not covered, but each had a ridge-piece and crossbeam.

Individual houses in these villages showed a somewhat differing exterior. In Muǎngĕm for example we saw a building somewhat reminiscent of the coastal type (Plate XXII.4). It had a large and — differing from the coastal form — rectangular platform that was protected by the jutting end of the roof; in front stood an isolated ridge support. The interior of the house was separated from the platform by a wall with a door in it. A lean-to roof was totally absent.

Construction

The construction of these houses (Fig.80) is somewhat different from that of Type I. The roof, which again does not rest on the side walls but on special cross beams, shows to some degree a somewhat purer 'Barla style', since the ridge-pieces and the roof supports have decidedly regressed in the construction, and in most cases in fact appeared to be totally absent; where they were present, they supported only the middle part of the roof, evidently to prevent too deep a depression of the ridge. I am of the opinion that they did not belong to

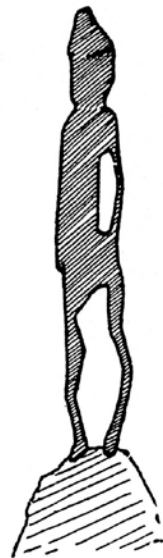


Fig. 79
Gable ornament
of the cere-
monial house
illustrated on
Plate XXII, 1 & 2

the original construction of this type of house but were borrowed from the neighbours. The roof surfaces are again parallel with the lateral cross beams serving as roof frames and, especially in the ceremonial houses, are inclined against each other at a very sharp angle. The roof spars, which lie on the roof frames and cross each other over the ridge, form the basic skeleton of the roof; a ridge slat always seems to lie where the spars cross, [130]

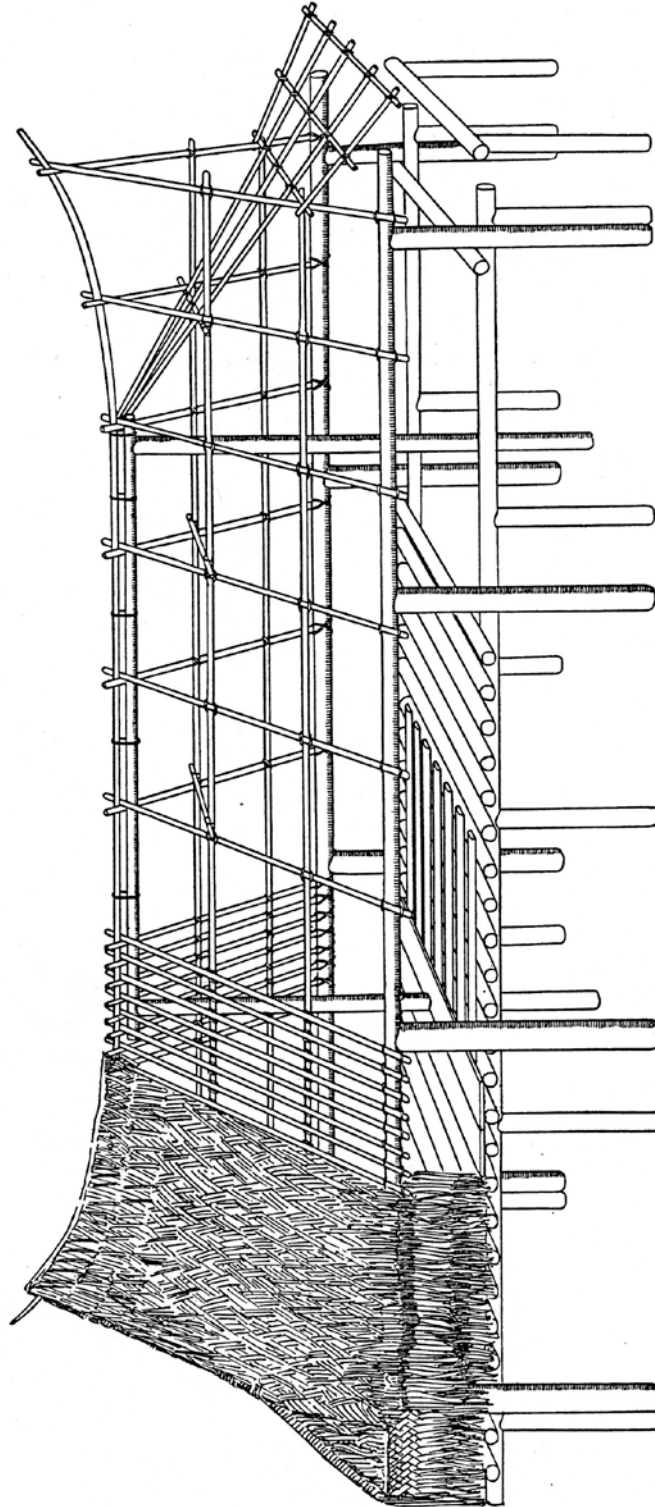


Fig. 80. Construction scheme of Type II houses



1. An Imbãntõn house (p. 128)

Fülleborn phot.



2. Ceremonial house in Angõrõm; in front a platform with sago supplies (pp. 128 and 245)

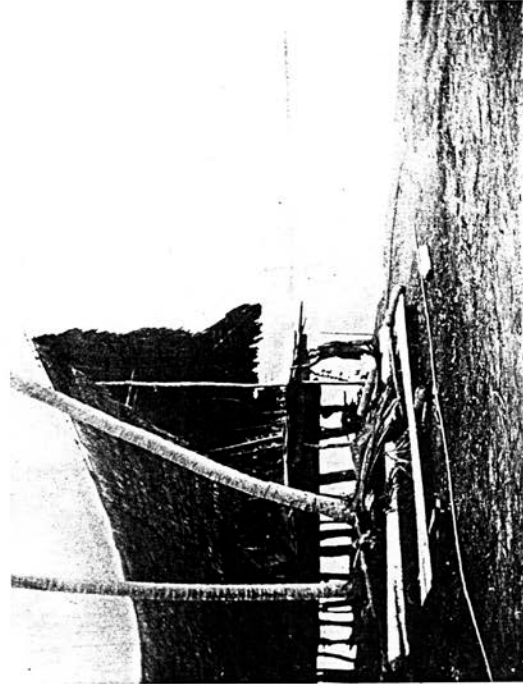
Fülleborn phot.

Reche, Empress Augusta River, Plate XXII



2. Same house from in front, Kámbrínúm (p. 128)

Fülleborn phot.



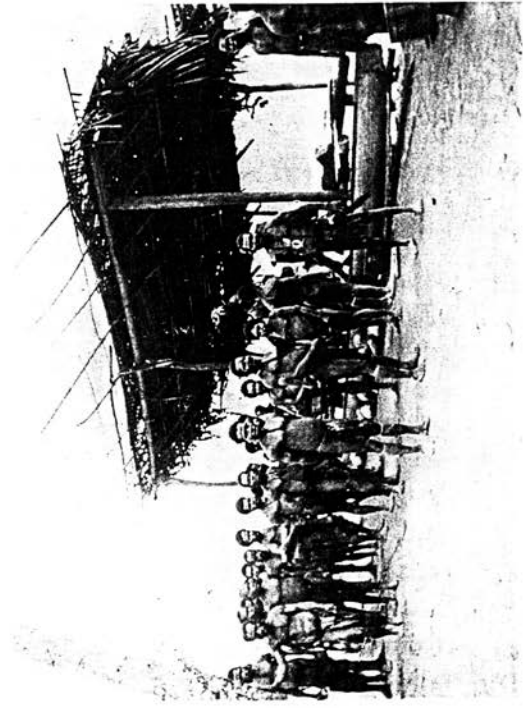
4. Different type of house, Múángém (p. 129)

Fülleborn phot.



1. Ceremonial house, Kámbrínúm (p. 128)

Fülleborn phot.



3. Reception house, Múángém (p. 129)

Fülleborn phot.

[131] projecting lengthwise above the ridge-pieces in front and behind, with its free end curving upwards. To prevent the roof surfaces sliding apart, they often use cross-binding consisting of sticks attached horizontally, possibly an indication that the ridge-piece supporting the middle was originally missing (see above). Thin longitudinal beams lie on the roof spars with quite considerable distances between, and sticks are bound close together onto these, parallel with the roof spars. The sticks in turn carry the roofing of sago palm leaves plaited onto long stems, overlying one another like roofing tiles. In other words, it is quite a complex and solid construction that must defy the elements for many years.

All parts are fastened one to another solely by binding, just as in the river mouth region.

The main bearers of the lean-to roof at front and rear are several long sticks fastened far inside to the house ridge and, diverging towards the sides and reinforced by cross binding, they slope downwards. These lean-to roofs are covered in the same way as the main roof. Furthermore, in house type II the podium, the floor, is a reasonably self-supporting structure without any organic connection with the roof structure. Lengthwise beams (not cross-beams as in Type I) rest as the deepest layer on their own poles which are close to the roof bearers only in some places; cross sticks lie over these, then more lengthwise sticks, then uppermost, as a fourth layer, the floor covering of betel palm bark. The platform projects only slightly, and is not joined on, but is intrinsically combined with the rest of the house floor.

The house interiors

The interior of the houses is similar to that of the coastal type; in the dwelling houses it consists of a single undivided space, while in the ceremonial houses there are also small enclosures that contain all kinds of religious equipment.

Plate XV.2 shows the interior of a dwelling house. In the centre and on the right are two large cylindrical plaited tubes: mosquito-proof sleeping bags. In the foreground on the left stands a scaffold put together from poles, on which pots, mats and bowls are stored; on the topmost poles are several spears. Gourd containers, nets, and fish traps hang from the platform, in some places on wooden hooks. On the left, beside the middle sleeping bag, sits one of our houseboys who, plagued by mosquitoes, did not succeed in sitting completely still while the photograph was being taken.

In the ceremonial houses that we were able to enter we did not find any sleeping bags; thus we deduced that they did not seem to sleep here, from which fact one can perhaps conclude that we are not dealing here with 'young men's houses' in the true sense of the word.

The enclosures found in the ceremonial houses contained masks and [132] flutes but no skulls, as well as whole bundles of dance spears and wide flat packets (*mórápăp*, Müll.), one of which Müller obtained (H.S.6577, see p.125 above). In the packets were carved boards, similar to those of the river mouth region. They were handed over very grudgingly, and Müller dared not open the packet in front of the villagers.

House type III

The exterior of the houses

In the villages of Āmním and Mǎndǎnǎm the third house style begins, and is then found in all the villages further upstream as far as Mǎlu. It possibly extends even further, as far as the plains above the Hunstein Range; at least the German-Dutch border expedition (*Globus* 1910, p.377) reports that here the houses had “two floors, the upper serving as a dwelling while the lower served as a store room”. Krieger’s (1899, p.152) statement that the houses in Zenáp “have a tower-like gable peak that soars 3–4 metres above the roof” is based on a misunderstanding of Schrader’s report on the houses of the middle reaches below the Hunstein Range. Furthermore, house type III has a tendency to vary quite considerably in external appearance; this is quite natural, given its widespread nature.

It always has a rectangular layout, just like the other two types, and a giant gable roof that again rests on its own supports, independent of those of the podium.

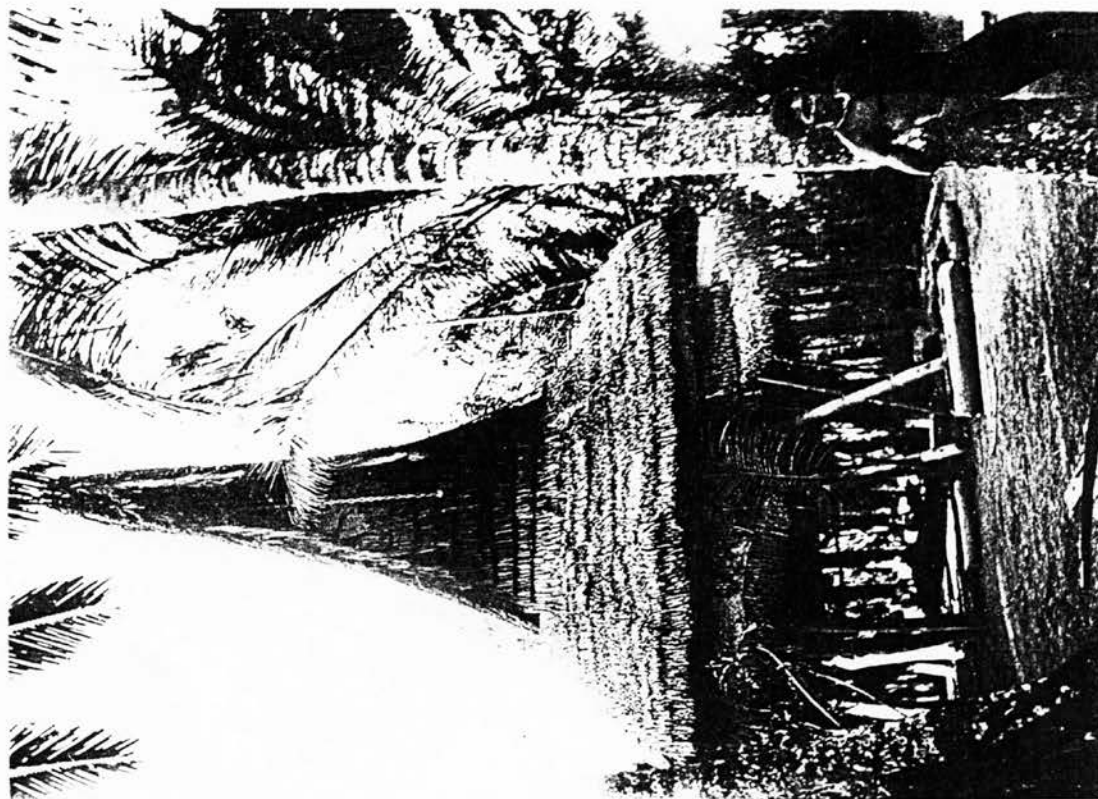
From the houses further downstream, Type III houses differ in their mostly very considerable size. The poles on which the floor rests have a height of 3–4 metres, while in the ceremonial houses it can even be 5–6 metres.

While in both the other styles dwelling and ceremonial houses differ only slightly on the outside, in actual fact merely in size, here the difference is so considerable and astonishing that at a glance one is probably never left in any doubt as to which type of house is before him.

In the dwelling houses the roof ridge is often slightly depressed but more often completely straight. In the villages further downstream, Āmním, Mǎndǎnǎm, and so on, both forms are found indiscriminately side by side. Further upstream, on the other hand, in the actual main region of cultivation, the form with the straight roof ridge becomes solely dominant; often even here the ends of the ridge are slightly depressed.

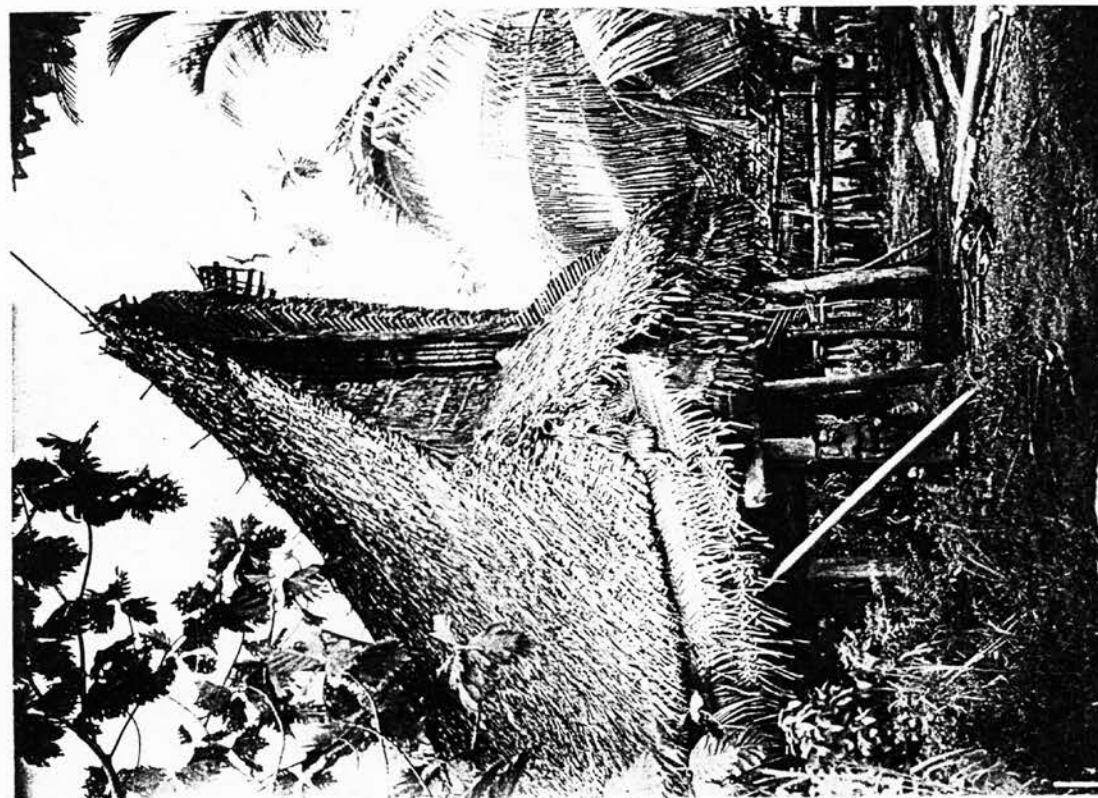
Plate XXV.1 shows the simplest variant of the dwelling house. All four walls, including the front and rear walls, stand exactly vertical, while in Type II they are oblique. All sides are completely enclosed; in front and rear there are rectangular doorways, framed abruptly by sticks, and on the side walls, there are similar, although lower, openings serving as windows (see Plate XXV.2). In front of [133] the door there is either a platform, or a simply-constructed ladder leading up to it. In larger houses, this becomes a set of stairs (see Plate XXVII.2) ending about 2 m above the ground; here they lean a short portable ladder; in our case they evidently did not wish us to enter the houses: they had removed the ladders almost everywhere. The stairway is mostly provided with landings and has its own roof, a small verandah. In only one instance (Plate XXVI.3), we found a third door in a house, with a special stairway; elsewhere two doors sufficed, even for the largest buildings, one in front and one at the rear.

Walls and roof are covered with sago palm leaves overlapping one another like roofing tiles. In the more carefully constructed houses the walls, particularly the front wall, are very artistically fashioned; well-plaited mats are cut to shape so well that the entire wall appears to be covered with zigzag or wavy lines. Just above the verandah roof of the entrance there is often, especially in the more wealthy villages of the middle section of the river, the upper part of a plaited face. Usually there are only two large round eyes cut right through the wall and a nose often bejewelled; here the mouth is represented by the house door, which to



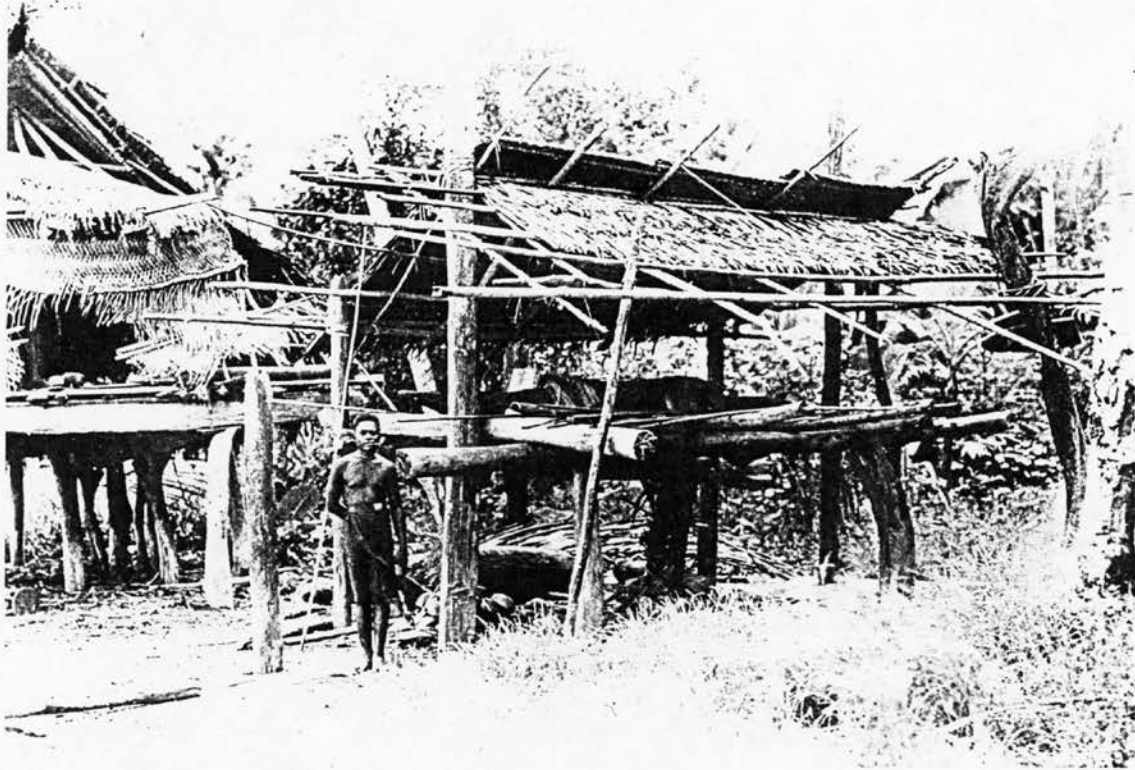
Fellhorn phot.

2. Ceremonial house, Muàngm, (p. 128)



Fellhorn phot.

1. Ceremonial house, Ĭbántôn 2(p. 128)



1. Platform with a corpse, village of Ängöröm, (p. 129)

Fulleborn phot.



2. Frame with sago stores, Muängem (pp. 129 and 245)

Fulleborn phot.

some extent engulfs those entering. Plate XXVI.1 shows one of these face representations above the door of a house: the big oval eyes and the nose adorned with two hooks are clearly recognizable over the little porch roof. These face representations are indeed probably minor features of the dwelling houses, and have been adopted from the ceremonial houses where they play a major role, as we shall see below.

The house roof projects only slightly beyond the walls, before and behind and also at the sides. The gable ends above show either no decoration at all, as for example on Plate XXVI.1, or a small peculiar verandah, semicircular in cross-section (see Plate XXVI, 1 and 2). Below this cap-roof, one house (Plate XXVI.3) displays a further very original decoration: three fish traps that, from a distance, looked almost like bells.

On the corners of the front wall there are often chains of plaited rings, (see Plate XXVI.2) about a metre long, hanging freely.

The poles of the dwelling houses appear never to be carved or painted, whereas those of the ceremonial houses are almost always richly decorated.

The fairly spacious platforms occasionally attached to the house and mentioned above, never seem to be roofed over. It was only in 252 km village, where a tributary flowed in, that we saw this type of add-on in great numbers. Perhaps this tributary — it seemed to flow from the Hunstein Range — occasionally put the village under water; thus probably the need would have arisen of having large areas in front of the houses protected from rising waters. One of these platforms is visible on Plate XXV.1. Plate XXVII.1 shows that there are also some of much greater [134] dimensions; on the front of the house to the right in the background there is a platform that is almost as long as the building itself. The house beside it, surprisingly, has no front structure at all.

If the platforms are very small, they occasionally still have a roof. In two cases, in 252- and 375 km villages, we saw attached in front small podia that were roofed over, and drawn into the interior (see on the left on Plate XXV.2). Here it seems to be a secondary enlargement, since the interior space is by no means extensive; it has simply been built on. This would account for the remarkable shape of the extension to the house in 375 km village: there it occupied only half of the gable wall with the actual door of the house visible beside it, so that the house had two doors in front, one of them a direct exit while the other led out through the porch.

To make the roof ridge as rain-proof as possible, several layers of palm frond mats are laid over with sago palm leaf sheaths on top. These reinforcements of the roof are held firmly either by inserted wooden roofing nails or ridge turrets each consisting of a pair of heavy cudgels, particularly clearly recognizable in the house on the left on Plate XXV.2.

We saw variations of all kinds of remarkable roof decoration. Often clay pots were attached to the gable peaks. In dwelling and ceremonial houses, along the ridge, frequently spiked onto upright roofing nails, we saw pieces of sago palm sheath layered one above the other (see Plate XXV.2).

Beneath the dwelling houses, between the poles, there were mostly low frames that served for the storage of all manner of household utensils; fishing equipment is seen piled up on them particularly often.

Dwelling houses often have quite huge dimensions. We saw some whose floor was three to four metres above the ground, and not infrequently the entire building attained a height of 12–15 m (see for example Plate XXVI.1); the length and breadth correspond to this: in 252 km village one dwelling that we entered had a length of 30 paces (= about 22 m) and a breadth of 13 paces (almost 10 m). We saw quite astonishingly large, beautiful dwelling houses in the wealthy village of Kāmbrīngi; especially as we walked along the village street

Reche, Empress Augusta River, Plate XXV



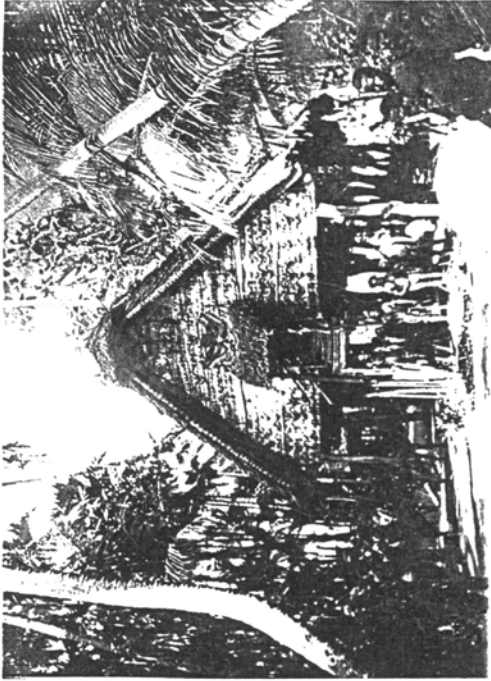
1. Dwelling house, 252 km village (p. 132)

Folleborn phot.



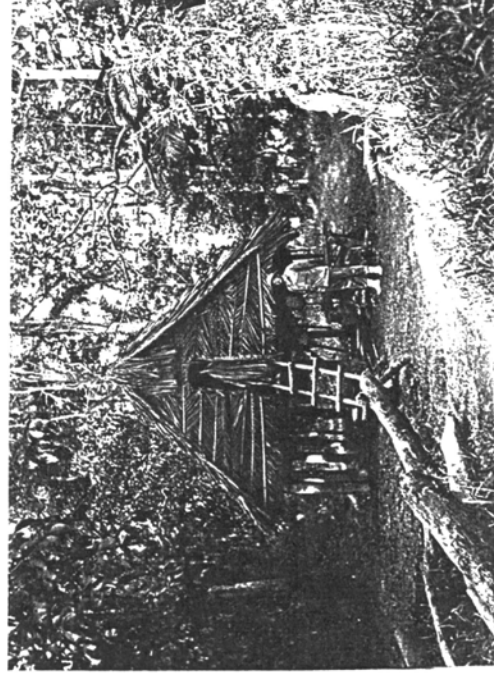
2. Dwelling houses, 252 km village (pp. 132 and 134)

Folleborn phot.



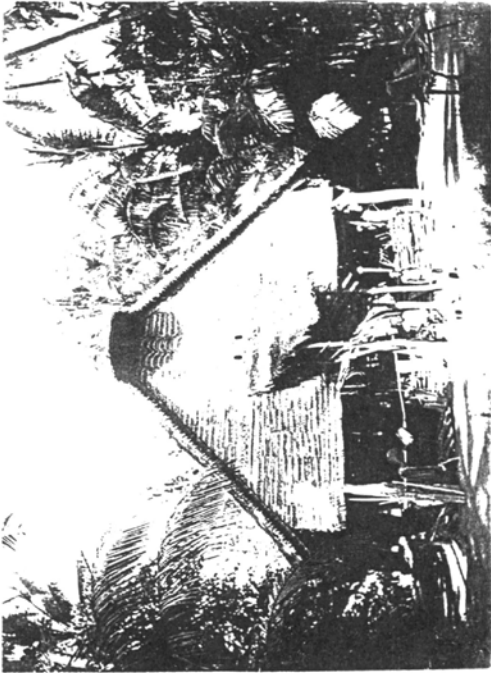
Fällsbens platt.

2. Dwelling house, Kämbringi (p. 133)



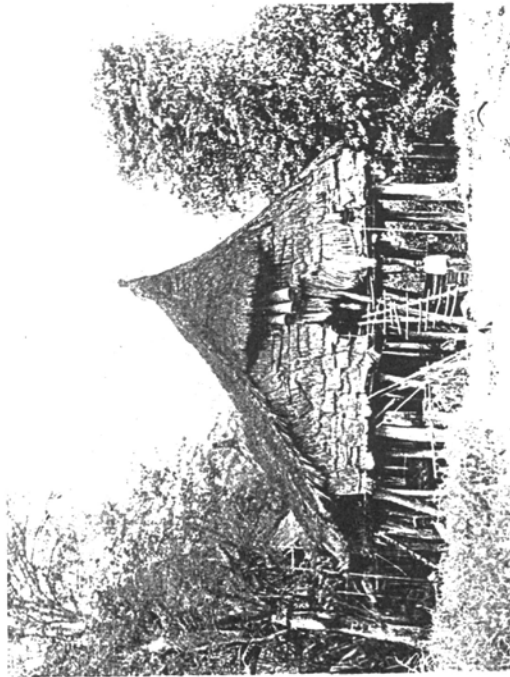
Fällsbens platt.

4. Dwelling house, 3-43 km village (p. 134)



Fällsbens platt.

1. Dwelling house, Kämbringi (p. 133)



Fällsbens platt.

3. Dwelling house, Mälu (p. 133)

(Plate XXVII.2) the size of the houses became imposing; in the illustration, the men visible beneath the houses give a good scale of measurement. We actually found small miserable houses in a village not too far from Kămbriŋgi, the village at 343 km (Plate XXVI.4). However, this was an exception; this village too had had big houses, but evidently not too long before our arrival they had all fallen victim to a fire: all around soared charred mighty house poles. The villagers had erected the small houses only as temporary shelter; soon large dwelling houses were again under construction.

A little cottage discovered in the village of Măndănăm (Plate XXVIII.1) on the other hand gave [135] nothing less than an impression of being temporary; it was in fact very carefully constructed. It must serve very special purposes, because the space below, between the poles, was hidden from our gaze by densely-packed branches and palm leaves, and the people could not be persuaded to allow us to look inside.

Just as the dwelling houses of this region are imposing due to their size and artistic presentation, the ceremonial houses are the most magnificent and wonderful of all the buildings that we saw during our visit to the South Seas, possibly the most beautiful buildings to be seen anywhere in New Guinea (see Plates XXIX, XXX, XXXI, and XXXV.2).

On tall, mostly richly carved and painted poles rests the floor, and above it the upright walls, carefully assembled from fitted mats. Over the whole a mighty gable roof is placed, with a strongly depressed ridge, and gable towers soaring to great heights. There is almost always a hat-shaped porch attached to the gable in front (as we have already seen in many dwelling houses) and below this a complete face, often of considerable size. Plate XXIX.1 shows a facial representation of this type, from 293 km-village. The upper part of the face is painted onto a fairly smooth background, probably of tree bark: round eyes with distinct pupils, a zigzag iris on the perimeter, the corners of the eye ending in short, curved lobes arched over by several parallel curved lines, evidently intended to represent eyebrows. Between the eyes runs a narrow bridge of the nose, widening below to the wings of the nostrils; the tip of this plaited nose stands out so far from the surface of the face that a perforated septum is developed, adorned with a long nasal spine and two hook-shaped ornaments (like those produced from mother-of-pearl that men wear). Below the nose is a broad slit running right through the entire gable wall: the wide-open mouth of the face; its rims are adorned with zigzags into which sharp spines are inserted: representing teeth. From the mouth a long narrow red-painted board protrudes a long way, as the tongue.

The motif of the challenging tongue poked out is quite often found in the ornamentation of this region; perhaps it has a similar significance to that in New Zealand, and is an insult, a threat to the uninvited, since the entire face with its bared teeth has something menacing about it. From the lower jaw hang three tags plaited from leaves, perhaps intended to represent a beard, finally uniting with the dark-coloured strip, which, steadily tapering, reaches to the door. Below the face, somewhat to the sides, are four small windows, each with its own small eave and showing an unique decoration: human skulls fixed onto an upright peg fastened inside, and probably indicating that the purpose of the house is a cult site of worship of the dead, or ancestral worship. [136] The other peculiarities of the gable wall are also very clearly recognizable in the illustration: the extremely careful assembly of zigzag-shaped cut palm leaves overlaying one another like roofing tiles, the tasteful plaited edges of the roof decorated in alternating red and white colours, the door, and the carved poles. In observing such gables one gets the impression that the natives want to see these houses regarded as human beings or, perhaps more accurately, as spirits (of the dead): the face with the high hat-shaped gable tower above is too astonishingly reminiscent of a dancer representing a spirit, wearing a high, pointed dance hat on his head. This was

perhaps better expressed in other houses, in the buildings illustrated on Plate XXX.1 where the face is even bigger, dominating the whole gable even more, and where the gable tower is placed on the face just like a hat.

Since this is a case of ceremonial houses, and since there are also bullroarers on the Empress Augusta River, there is the temptation to bridge yet another gap: to the *balum* structures of the Finschhafen region. There, albeit always only for a short time and for a definite purpose, (at circumcision ceremonies), huts are constructed (admittedly only in a very much more primitive way) that also have a face in front, with a wide-open mouth. They represent the *balum* spirit that devours the boys receiving initiation to manhood amid the howl of the bullroarer; the boy must therefore — this concept is found over a wide area — die as such, before he rises again as a fully-fledged man; the boys are actually pulled through the throat of the monster, being swallowed by it.

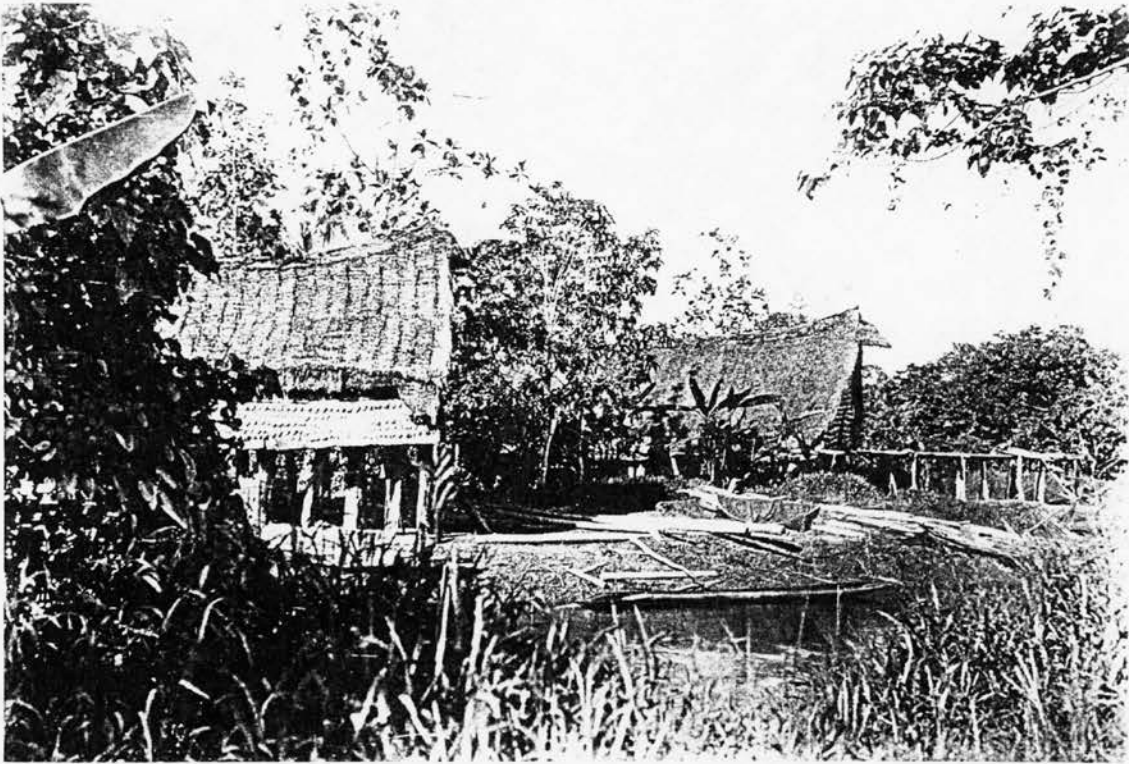
Moreover, the representation of the face on the gables varies a lot, as does the arrangement of the entire ceremonial house; no two of these buildings are alike, the rich fantasy of the natives is always able to find new and interesting variations on the same theme. Plate XXIX.2 shows the ceremonial house from 293 km village, whose gable is illustrated on Plate XXIX.1 in full size; the extraordinarily tall and slender gable towers are remarkable. Plate XXXI.1 again shows the largest of this type of building that we saw; it is situated in 375 km village. Here the face sits beneath a small hat-roof with a second smaller one above the first on a rectangular, flat plate; the mouth added rather too deeply is again extremely broad, wide open, and fitted with sharp teeth. A fairly symmetrical hanging consisting of leaves, bordering the lower jaw, evidently represents the beard. Further below, just above the door is yet another small porch roof, and below it a second, heavily stylized facial representation painted on a plate; from its lower border hangs a long palm frond, probably the tongue; it lies on a porch roof that shelters the door; a rare form of door location, for elsewhere, as we shall see, the door is usually constructed differently. On each side [137] of the porch there are three little windows, destined for receiving skulls.

The rear wall of this house showed a facial representation as well (Plate XXXI.2); here the upper part was made by plaiting: large round eyes and a narrow nose that extended far out in front like a stirrup. The mouth was formed by a wide split right through the plaiting of the wall. The lower third of the wall was separated off by long, narrow eaves above which were four small windows adorned with skulls. Below it are two very much larger holes of the same construction but oval in shape. We could not discover anything about their purpose; they were far too large for holding skulls. Here, there was no visible doorway in the rear wall of the house; the stairs led to an entrance through the floor.

Instead of plaited faces we found them also carved out of wood, attached to the gables.

H.S.9368a, Pāmúŋgrī? **gable mask**, Plate XXXII.1 (height 135 cm, maximum width 77 cm). The face has remained very smooth. Also, the rather long narrow nose projects only a little beyond the face. The wings of the nose withdraw downwards as sharp, narrow contours and transpose upwards gradually into the sunken cheek area, to merge imperceptibly into the actual facial contours at the sides. There is a large oblong hole below the nose on each side: the nasal aperture; the septum is regarded as perforated. The eyes consist of two concentric thick circular ramparts, its centre is bored through and represents the pupil. The rampart forming the actual facial contour projects above the nose while forming an angle somewhat downwards; running parallel with it and covering the entire forehead, are similar ramparts, the innermost of which continues towards the sides and downwards as a rampart with oblique indentations, looking like the representation of a rope but very probably, after comparison with several of the other specimens, it represents the remnants of the missing mouth. On the upper end of the forehead is an oval rampart enclosing a wide bored hole that probably served to take the securing rope. The ears are each indicated by a small double-holed protrusion of the lateral contour. Around the eyes and on the cheeks are vestiges of white lines. The reverse side of the gable mask is lightly charred over the entire surface; its upper part is somewhat concave. The piece is weathered, giving the impression of great age. It is made from the fairly heavy wood of a broadleaf tree; the grain runs vertically.

Reche, Empress Augusta River, Plate XXVII



1. Dwelling houses, 252 km village (p. 134)

Fulleborn phot.



2. Dwelling houses, Kāmbrīngī (p. 134)

Fulleborn phot.



1. Small house, Mändänäm (p. 134)

Fulleborn phot.



2. Ceremonial house, 252 km village (p. 139)

Fulleborn phot.

H.S.9368a, Pāmúṅgrī? **gable mask**, Plate XXXII.1 (height 135 cm, maximum width 77 cm). The face has remained very smooth. Also, the rather long narrow nose projects only a little beyond the face. The wings of the nose withdraw downwards as sharp, narrow contours and transpose upwards gradually into the sunken cheek area, to merge imperceptibly into the actual facial contours at the sides. There is a large oblong hole below the nose on each side: the nasal aperture; the septum is regarded as perforated. The eyes consist of two concentric thick circular ramparts, its centre is bored through and represents the pupil. The rampart forming the actual facial contour projects above the nose while forming an angle somewhat downwards; running parallel with it and covering the entire forehead, are similar ramparts, the innermost of which continues towards the sides and downwards as a rampart with oblique indentations, looking like the representation of a rope but very probably, after comparison with several of the other specimens, it represents the remnants of the missing mouth. On the upper end of the forehead is an oval rampart enclosing a wide bored hole that probably served to take the securing rope. The ears are each indicated by a small double-holed protrusion of the lateral contour. Around the eyes and on the cheek surfaces are the remains of white lines. The reverse side of the gable mask is lightly charred over the entire surface; its upper part is somewhat concave. The piece is weathered and gives the impression of great age. It is made from the fairly heavy wood of a broadleaf tree; the grain runs vertically.

St.Ha.63214, “Radja”, **gable mask** (height 93 cm, maximum width 68 cm), very similar to the preceding piece, but to all appearances a specimen made only a short time ago. The carving is still somewhat shallow. The ropelike outer edge is missing. The whole face is painted black, white and red in such a way that the principal areas and indentations are white, while the raised areas are black or red. On the upper edge of the forehead is, once again, an oval hole that probably served for taking the fastening cord; its contours are continued by laterally-appended curved lines. Each ear is indicated by three holes adorned with bunches of bast fibre. The mouth is missing, probably once represented by a hole through the gable wall. The reverse side of the gable mask is browned by singeing. Once more, the wood from a broad-leaf tree is relatively heavy.

H.S.6650, 293 km-village, **gable mask**, (height 82 cm, maximum width 72.5 cm), very similar to the previous ones, smooth, somewhat asymmetrical, made from a broadleaf tree that is not so heavy and whose grain runs horizontally. The cheeks are hollow, the bridge of the nose rises only very slightly above its surroundings, the sides of the nose have shrunk to narrow rims around the greatly-enlarged nostrils; the upper of these borders continues obliquely upwards into the outer ring of the eyes, the lower blending with the inner facial contour. In the forehead is the usual bored hole whose edges are accompanied by arch-shaped lines. The eye apertures are each surrounded by two concentric circular ramparts. The principal surfaces are again painted white. The high part of the bridge of the nose is ochre- [138] yellow with black rims while the sides are painted red. Also ochre-coloured and edged with thin dark lines are: the upper contour of the wings of the nose, the outer ring of the eye, and several curved lines on the surface of the cheeks; the nostrils, the rim of the face, the oval hole on the forehead, and several lines on the cheek are painted red with black outlines. The entire reverse side of the mask is painted pale red.

The specimen illustrated by Schlaginhaufen (1910b, p.9) differs somewhat from those described. Here too the facial representation is “kept very flat. Even the nose projects very little.” The sides of the nose, nostrils, eyes and forehead are made in the same way but what distinguishes this piece from the others is the presence of a mouth. “The mouth too is a break-through in the mask. At its margins the teeth, 9 above and 8 below, are indicated as round humps.” The mouth is black-rimmed; a broad black stripe runs from it right to the lower end of the mask. “The painting depends closely” on the bas-relief carving. “It is four-toned, namely black, white, red and yellow.” “It appears as though the entire piece was blackened in the fire before painting. The rear and side surfaces, the latter with a slight swelling representing the ears, are unpainted, and show merely the blackening.” The height of the mask is 67 cm.

H.S.9368, Pāmúṅgrī, (bought from a canoe), **gable mask**, Plate XXXII.2 (height 67.5 cm, width 50 cm), differing fairly markedly from the preceding ones, carved from relatively heavy broad-leafed wood; the grain is vertical. The forehead, lying closely against the facial surface below it, projects just above the eyes into a gentle rounding, and rises to a low midline border. The narrow bridge of the nose is fairly high, the broad wings of the nose seem markedly swollen and have wide nostrils that open obliquely downwards and outwards; the septum is perforated. The eyes consist of two concentric circular ramparts rising steeply from the surface; they do not have a central hole but rather a black painted circular area. Below the nose is an area extending quite a long way down and rising to a low vertical rampart in the middle; it seems to be intended to represent the upper lip; it has a small hole to right and left, probably serving for fastening a decoration. The ears are formed through two slight bulges of the sides of the mask, and are bored through in two places. Unusually, the upper margin of the forehead does not show the usual hole drilled front-to-back, but two very much smaller holes with several rattan strands pulled through them. Behind, the mask is hollowed out like a dish, so that a sharply delineated rounded edge remains around it. At the lower end this rounded rim remarkably stops: its border tapers to a tip that has a breakpoint at the end; both of these cones are evidently the remains of a closed arch with the middle part broken. Since the still intact upper border of the mask and the opposing lower border are adorned with an unbroken row of white-painted humps, there is no doubt that the whole thing is intended to represent an open mouth with teeth; the broken-off part is therefore the middle section of the lower jaw. On each side of the mouth slit, in other words on the outer rim, the row of mounds continues for a while. The front side of

the gable mouth is painted. The rings around the eyes are painted in sequence white, red, white, black, white and ochre from the inside outwards. The background of the face is still red. The bridge of the nose has a narrow ochre-coloured central stripe accompanied on each side by two black lines and one narrow white line; this pattern continues onto the forehead, dividing it into two halves, with each arching over an eye (as eyebrows?), then laterally along the edge of the mouth to descend into a broadening on the upper lip. The curvature of the wings of the nose is white, edged in black; the nostrils are painted red on their rims. The ears, the uppermost parts of the forehead, and the sides of the mask are also painted red. The rear surface has been lightly browned by a fire.

H.Th.11,88:36, “Empress Augusta River”, **gable mask**, Plate XXXII.3 (height 84 cm, width 44 cm) of a deviating type; it is comparable to the piece just described only in its prominent forehead. Moreover, the face is kept very flat; only the nose protrudes to any great extent. The sides of the nose are swollen but, in spite of this, small and dainty; the nostrils are deeply inset; the septum is perforated. The tip of the nose is extended into an unique, long sharp cone bulging over the mouth and almost reaching the chin, and its end merges again with the surface of the mask. At the meeting point the upper part of a small human figure is carved out; the somewhat tilted head, both arms at the sides with elbows slightly bent, and the uppermost part of the trunk are clearly recognizable. The head of the small figure projects far above the surface, has a short broad nose, eyes indicated by black and white rings, and a mouth formed only by a shallow indentation. The eyes of the large mask are somewhat slanted; they are bordered by a ring rampart. The mouth consists of a narrow [139] slit just below the nose. The ears are formed by a low, double-holed strip. The forehead is bordered above by a sharply delineated, somewhat projecting three-pointed surface, probably intended to represent the hair. At its centre is a broad, drilled hole. The entire facial surface (the colour has flaked off the projecting parts of the forehead) shows red and black lines on a white background. The eyes are surrounded by three concentric circular lines at a greater distance. The back of the nose is adorned with several red-, black- and oval-bordered surfaces; the sides of the nose are white on the inside and black outside; from them three parallel black lines on each side run over the cheeks, around the eyes, and unite on the forehead into the angle at the root of the nose. The mouth is hemmed in red; a half-moon shaped area below it and two lateral ovals are also painted red. Around the mouth lies a double-hooked figure formed by black lines, possibly intended to represent a hook-like nasal ornament. The reverse side of the gable mask is smooth, not hollowed out, and shows traces of charring. The grain of the not very heavy wood runs vertically.

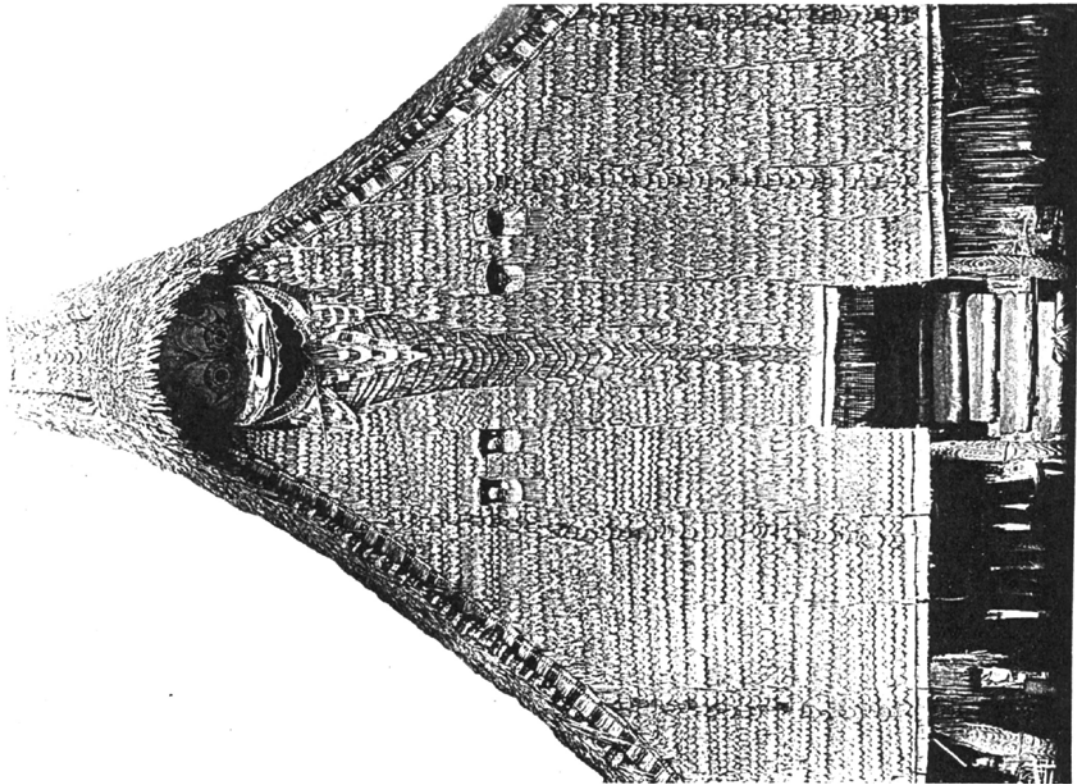
Front and rear walls of the ceremonial houses usually extend quite far below the floors, thereby offering the ground floor space a relative border and also protection against the weather; besides, often on the lower edges of the walls (also the side walls) thick curtains of palm leaves are attached, closing the space off almost completely (see for example Plate XXXI.1).

The doorway is usually — it is easily recognizable on Plates XXX.1 and XXXV.2 — cut rather unsurprisingly into both the front and back walls and closed by a door made from mats, just as in the gable wall. The door can be raised high. In several other ceremonial houses the door opening leads into the house partially from below (Plate XXIX, 1 and 2); a small part of the front wall and also part of the podium are cut out. Either a fixed stair or an easily-removeable light ladder led up to the door opening of the ceremonial houses. The light ladder was usually removed on our account.

Also, most of the ceremonial houses have several window openings in the side walls (Plate XXVIII.2). Since these openings — the side walls being quite low because of the extensive roof — always extend as far as the floor of the upper storey, they are occasionally also used as a door; in one case (see Plate XXVI.3) a window was even converted into a regular door with steps leading up to it. Generally the windows have the purpose of bringing more light into the very spacious but, with such narrow doors, poorly-lit interiors of the houses.

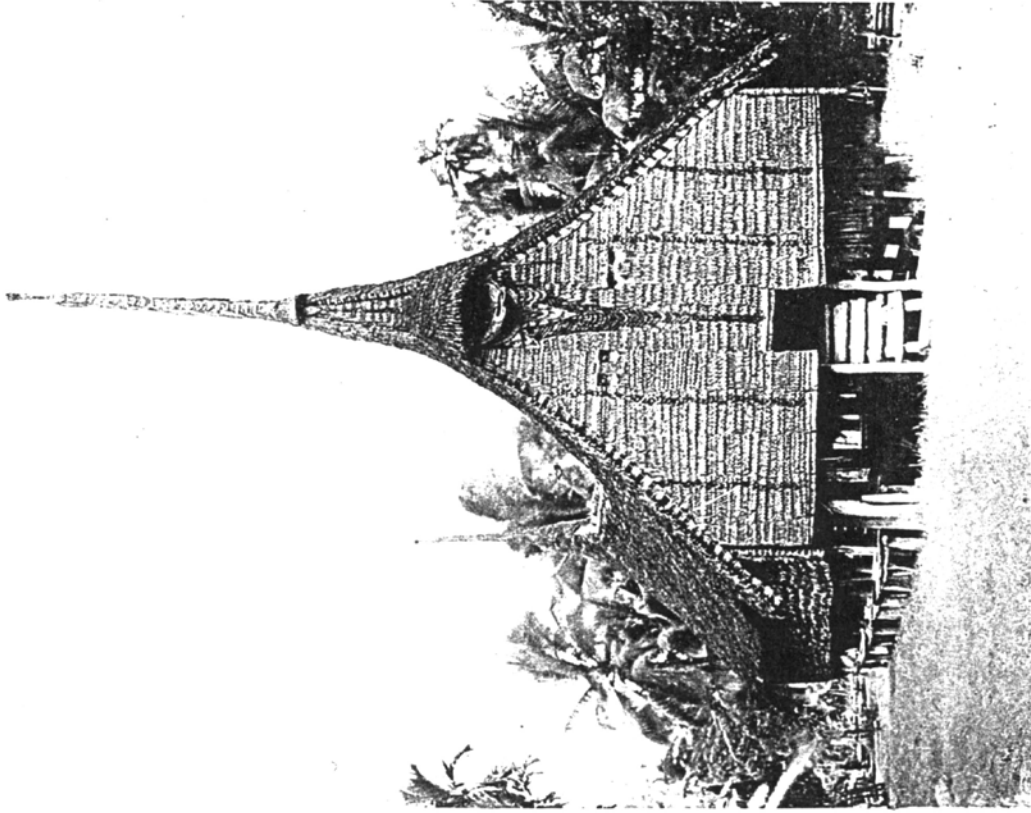
The poles of the ceremonial houses are either painted (for example Plate XXVIII.2) or richly covered with carving depicting mostly humans, lizards (crocodiles?) and birds, but often consisting only of groups of wavy lines, angles, circles, ovals and so on. In the largest house in 375 km village we photographed one of these poles:

Reche, Empress Augusta River, Plate XXIX



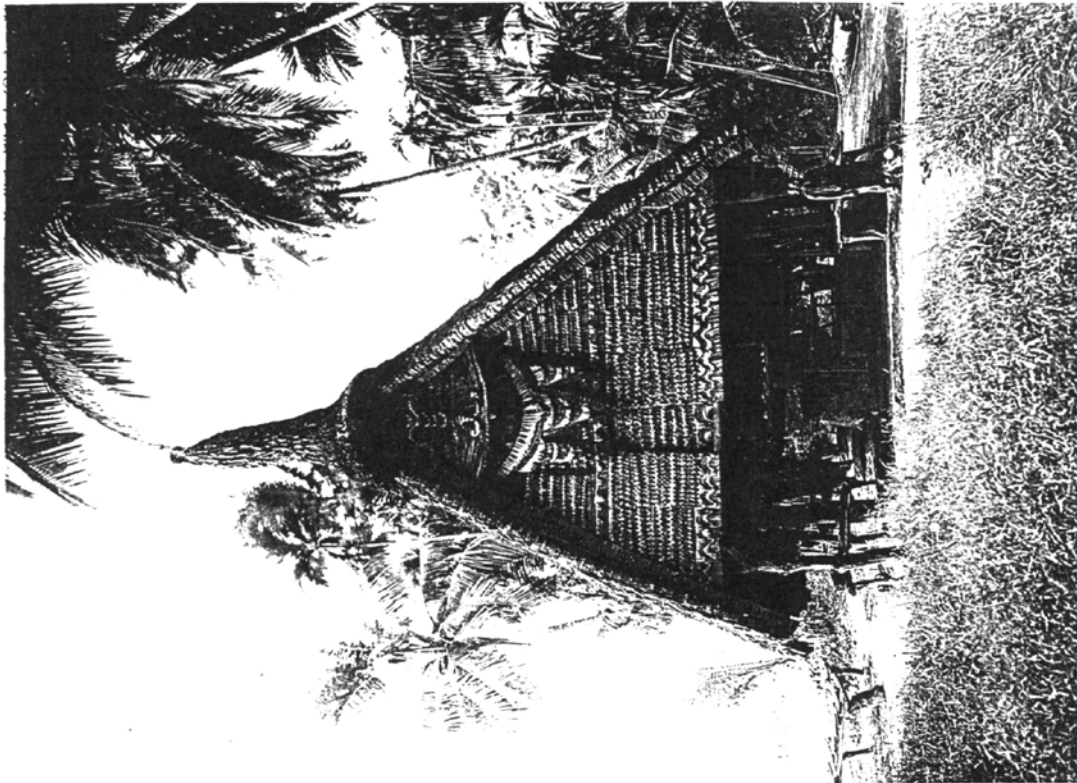
Fulleborn phot.

1. Gable of the nearby ceremonial house (p. 135)



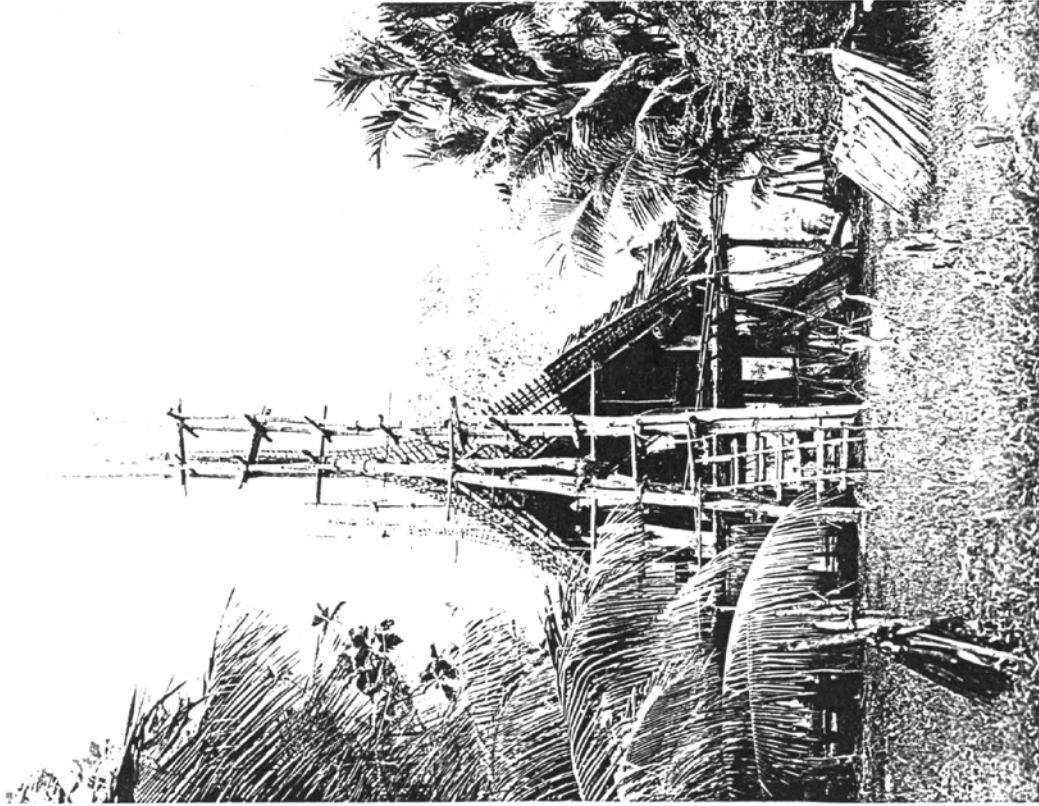
Fulleborn phot.

2. Ceremonial house in 293 km village (p. 136)



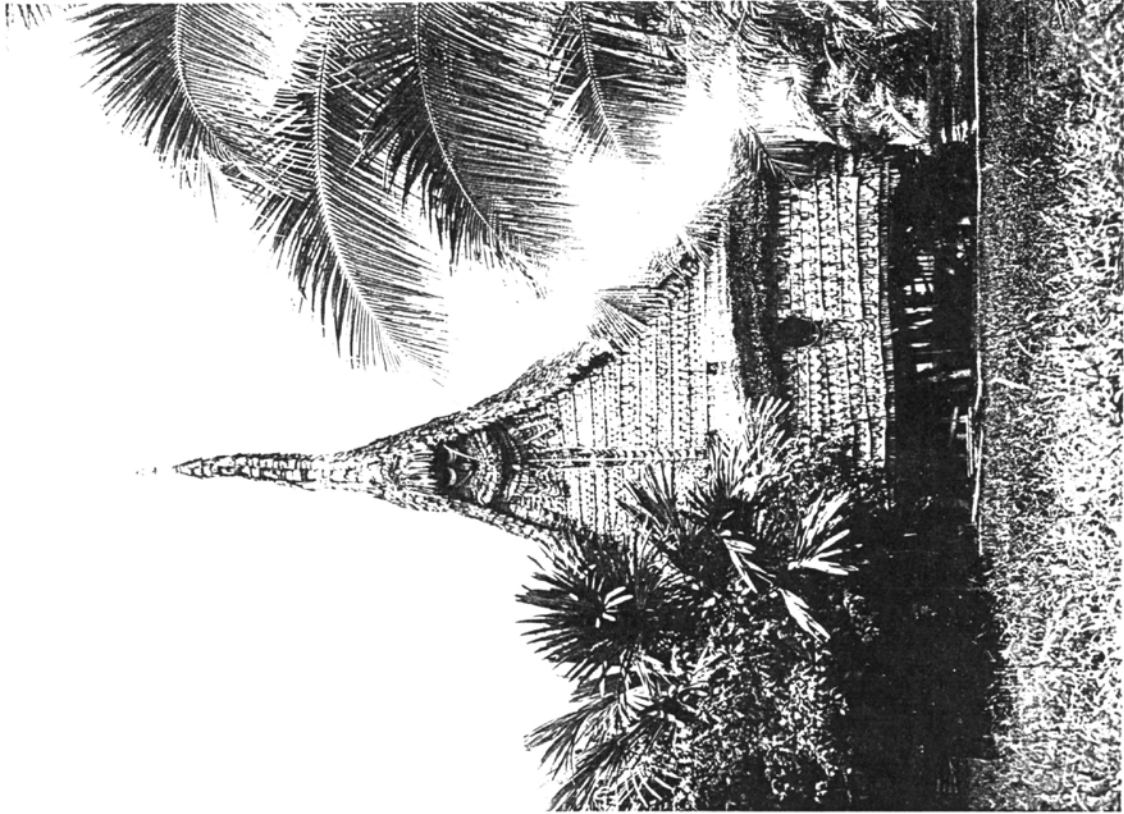
Fülleborn phot.

1. Ceremonial house, Kämbringī (p. 136)



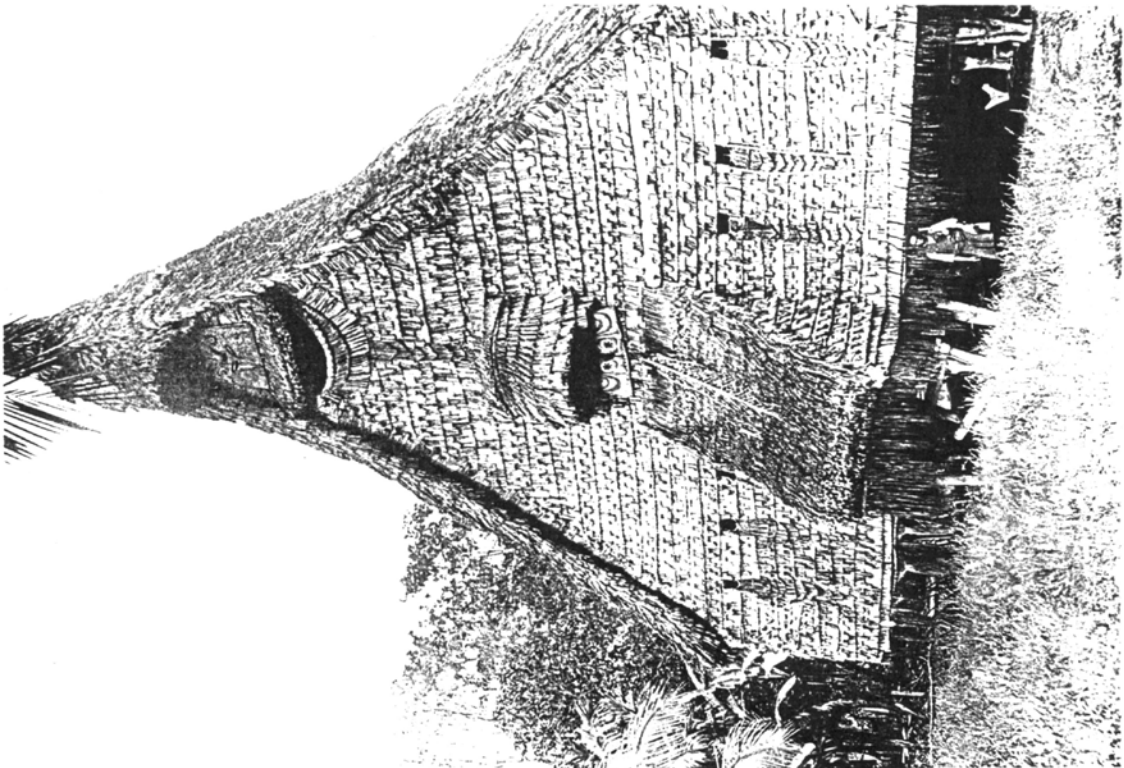
Fülleborn phot.

2. Ceremonial house under construction, 375 km village (p. 146)



Fillichers phot.

2. Ceremonial house, 375 km village. Rear view (p. 136)



Fillichers phot.

1. Ceremonial house, 375 km village. Front view (p. 136)

Plate XXXIII.1. A figure clearly recognizable as a woman was made in relief pattern; she is to a certain extent leaning against the pole with her feet somewhat higher than the floor. Only the face is relatively flat, and is thus reminiscent of many other standing figures in this region. The eyes are surrounded by concentric circles painted red, black, and white; [140] the mouth is formed by a curved double bulge concave upwards; the nose is rather long and prominent. The arms are totally three-dimensional, with the backs free of the pole: the right arm is wearing a plaited armband. The hands lie on each side of the stomach. The hips are exaggeratedly wide. All the rest of the trunk is covered with three-dimensional painted oval areas, and curved and wavy lines.

On a second pole of the same house the figure, appearing to stand on the floor, came more three-dimensionally out of the pole and, with the exception of the back of the head, shoulders, and buttocks, was completely separated from it. Here again, the head was flattened from front to back, the nose was only slightly pronounced; the ears sat very high, and above them on each side was a round, fully three-dimensionally carved bowl painted with a white multi-pointed star on a red background and a roundish knob. A grass hanging was draped round the pole and neck from behind, looking almost like a woman's skirt, and was knotted in front. The upper arms and the very prominent upper thigh were adorned with a carved zigzag decoration. Here too, the right arm wore an armband.

Furthermore, on each of the three outer middle posts of the same house was a totally three-dimensional carved male figure with a fully erect penis that in one specimen ended in a very well-produced fish head. Carved parrot's heads were on the shoulders of these figures. All three had half-moon-shaped hooks beneath their feet.

In Măndănăm we saw an old, well-carved house pole (Plate XXXIII.2), probably the sole remnant of a large ceremonial house. Just above the floor, carved in shallow three-dimensions, was a remarkable figure standing on its head, and clearly recognizable as a woman; further upwards continued a line decoration that ended above in two outwardly diverging spirals, and then a longer cord that was covered only with deeply indented wavy lines close-together. Above it stood a human figure that was probably of the male sex. Several more indented wavy lines formed the upper end.

In the ceremonial house in 375 km village the support beams extending down from the roof ridge and standing on the lower transverse beams showed quite an unique carving on their lower end: a figure that to some extent rode on the cross-beam; its outspread legs hung down on the side of the beam pointing towards the front wall of the house; on the other side was a long cone that sat firmly on the back of the figure and represented an eagle-type bird with its head pointing down. The whole thing formed, to some extent, a triple-pronged gable by which the post stood on the cross-beam, preventing it from sliding sideways.

The same ceremonial house carried an unique decoration on the very top of the soaring gable towers: a large, cowering human figure with its legs drawn up (Plate XXXIV.1); its head simultaneously formed the body of a bird which, with widespread wings and head pointed vertically upwards, seems to be just rising in flight. An almost identical piece was attached to the other gable tower.

A very similar carving is found in the Linden Museum in Stuttgart:

St.Ha.61613, "Jaunda", **tower ornament**, Plate XXXIV.2, designated as "canoe prow" by the collector, who evidently did not recognize it. Again it represents a bird with head pointing vertically upwards and outstretched wings (midline length 90 cm, wing span 122 cm). The under side of the wings is decorated with engraved curved lines. Below the tail [141] of the bird is a carved human face; it shows two prominent humps on the forehead, a long narrow nose with broad wings set apart, and a transverse oval area as a mouth; the small ears, situated somewhat higher than the eyes, are decorated with a bunch of bast, as is the pierced nasal septum. The legs of the bird lie to the side of the face, but extend down only far enough for their ends to be just above the ears; it almost gives the impression that the bird has seized the human head in its talons in order to fly away with it.



1



2

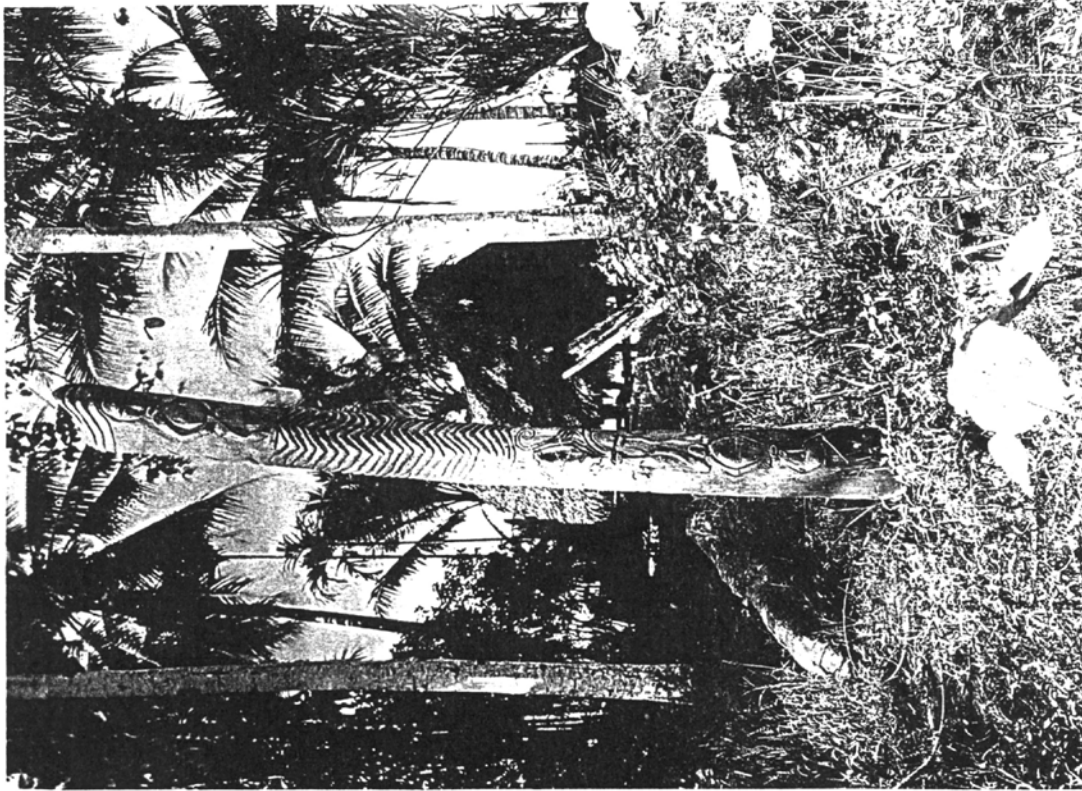


3

1. Gable mask H.S. 9368a, 1/10 actual size

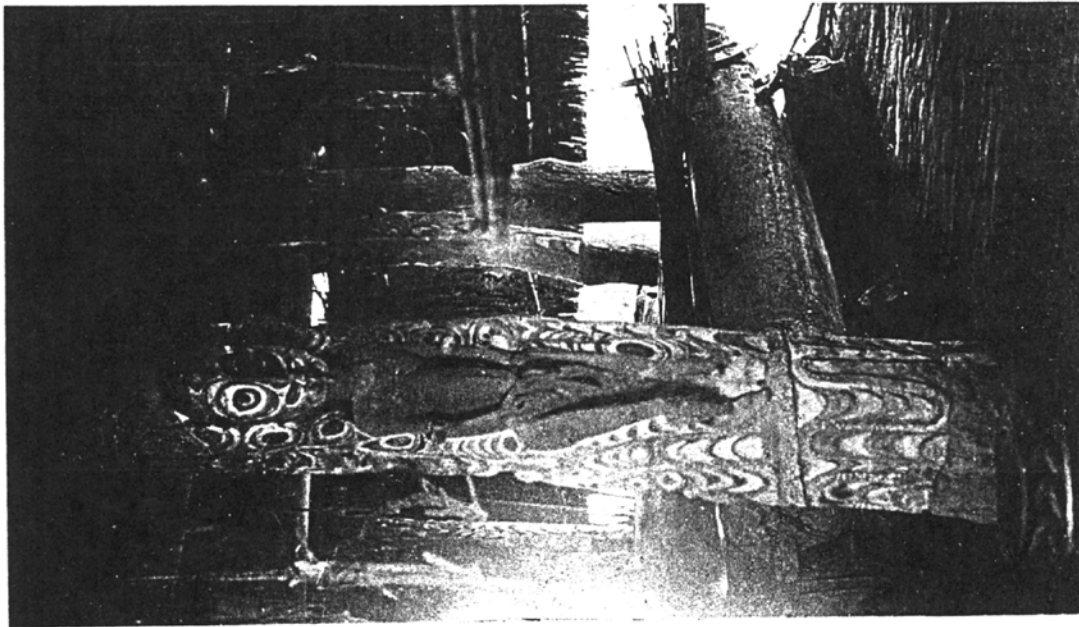
2. Gable mask H.S. 9368, 1/10 actual size

3. Gable mask H.Th. 1188:36, 1/10 actual size



F. H. H. photo.

2. Old house pole, Mändänäm (p. 140)



F. H. H. photo.

1. House pole in 375 km village (p. 139)

Nothing was learned of the significance of these figures. I consider it very likely that we are dealing with a representation of the frigate bird. The frigate bird often plays a major role in the sagas of both Micronesia and Melanesia, and is frequently regarded as the “soul bird”: it is the transformation of the soul of a dead person. Thus in our figures found on the Empress Augusta River we might possibly have a pictorial representation of this form of migration of the soul: the frigate bird grasps the head (that is therefore probably considered the seat of the soul) of the person just dead and soars up with it.

Moreover, in the municipal museum in Bremen, there is a similar gable adornment: a large bird figure which is, however, resting calmly with folded wings and showing no representation of a human head, and thus might have a somewhat different significance.

It has already been mentioned that on the tips of other gable towers — especially common in the village of Kāmbrīngi — there were also pots, or more precisely pot-like tower knobs made from burnt clay. A decoration of this type is shown for example on the houses on Plates XXIX.2, XXX.1, and XXXV.2. The tower knob on the house on Plate XXIX.2 shows a remarkable plinth; it thus seems very similar to a unique style of ‘pot’ that was brought back by several collectors, as well as by our expedition, with nobody being able to give any information on their type of use. They are containers with an extraordinarily three-dimensional facial representation on their ‘base’ and nearby, on the floor of the container, two large round holes made when the pot was produced. All these decorations naturally rendered the ‘pot’ unuseable for any practical purpose. I therefore feel that these containers served as a decoration of the gable towers; the strips of bast fibre pulled through the holes in the bottom probably served the purpose of holding the pot in place, to stop it from falling from its lofty height. We obtained only one example of this sort of container:

H.S.6723, Kāmbrīngi, **tower knob** (?) made of clay, Plate XXXIV.3 and 4 (height including the process 31 cm, maximum diameter of the body of the container 23 cm, diameter of the opening 17 cm). On the side of the container opposite the opening rises a narrow, extraordinarily-prominent, curved, beak-like nose, whose upper edge has five stumpy protuberances; on the base of these protuberances and sometimes between them as well, there are a total of three transverse perforations decorated with short russet-dyed strings knotted inside. Just before the tip of the nose are two round raised areas with a central depression, probably intended to be nostrils. The sides of the nose are developed into narrow, sharp and very prominent borders that transpose into a low rampart bordering the face. An eye is represented on each side of the nose, and consists of two concentric circular [142] ring ramparts; a similar figure is located beneath the nose; probably the mouth opening. To the side of the eyes, outside the bordered face, there is a round perforation on each side. A cord does not seem to have been attached in this opening; if it had, the rims of the holes, which have a narrow irregular rampart of clay pushed aside by the drilling, would have been damaged.

The containers illustrated by Schlaginhaufen (1910b, Plate 2, Figs 14 and 15) and described on pages 38 and 39 are quite similar. One, (from “Kāmbrini”), actually differs from our specimen only in that on each side of the “mouth opening” sits a further small ring rampart, and the large facial representation “is surrounded by a chain of small rings”. A strong bark strip has been pulled through the round holes in the facial wall, perhaps only to enable easier carrying of the container offered for sale. The dimensions of the pot are: height 27 cm, diameter 18 cm. The second specimen (also from “Kāmbrini”) has a diameter of 18 cm. “The pot is almost exactly the same as the preceding one. The nose has broken off. In the remaining part of it the bored holes are missing.” The third specimen is described as: “This pot has a certain similarity with the preceding one but differs in the following aspects: the low crest is sharper and shows four protuberances; below each of the three front protuberances the nose is perforated. The side edges, which transpose into a curved rim, also show three protuberances...” “Both individual rings beneath the face, which were on the two previous pots, are totally absent here. Similarly the circular chain of rings is missing. Height 30, diameter 20 cm.” On this container too a bast fibre loop is pulled through the holes in the floor. The fourth pot “differs from the preceding one only in that both on the two transition points of the lateral borders of the nose into the marginal curvature of the face and at the upper end of the median border there is an oval depression. The single ring is missing at the root of the nose. The nose has broken off. Diameter 20 cm.”

Reche, Empress Augusta River, Plate XXXIV



1



2



3



4



5

1. Tower decoration of the ceremonial house, 375 km village. 2. Tower decoration St.Ha. 61913, 1/10 actual size.
 3. Clay tower knob(?) H.S. 6723 1/5 actual size. 4. Clay tower knob(?) H.S. 6723, 1/5 actual size.
 5. Clay tower knob(?) after von Luschan

I do not believe that these facial representations are echidnas, as Schlaginhaufen thinks; they are much more reminiscent of a bird's face, especially as one of the big pots that we collected bears a clear representation of a bird's head; besides which, as we have seen above, there are bird figures on the gable towers of ceremonial houses in this region.

Similarly, a container illustrated by von Luschan (1911, Fig.11) from a village 155 nautical miles from the river mouth and seen on Plate XXXIV.5 might also have served as a tower knob on a ceremonial house. "This has the form of a human caricature. The eyes are formed in the same way as on the facial urn; but the gigantic nostrils are stylized also in the same way. The tip of the nose runs out into a handle-like image that extends into the mouth." This container too seems to have served no practical purpose. In my opinion the position of the face does not support any practical use: in using it as a container, the latter would be the wrong way round.

The ceremonial houses usually have even greater dimensions than the dwelling houses; the largest that we entered — it was the splendid building already mentioned several times, in 373 km-village (Plate XXXI) — had a length of no less than 48 paces (= about 35 m), a breadth of 15 paces (= about 11 m) and a height, from measurements taken from the photographs, of about 20 m, that is right up to the top of the gable tower. A house in 252 km village that rested on richly-carved poles, 12 per side and 4 central, reached roughly the same height. In the village of Málu the house that we regarded as the ceremonial house was significantly smaller (Plate XXXVI.1), perhaps because of the steeply rising land, which was unsuitable for large buildings.

In Málu the 1887 expedition found a small number of houses that were open right around, while all the rest "right up to the doors serving as openings, [143] were completely closed (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.32). "The open huts, of which there were about eight in Málu, were the place where the large signal drums were stored." In the upper section of the river we always saw the signal drums only in the unenclosed earth floor space to the side of the ceremonial houses; the "open huts" mentioned here were probably these. This is also supported by their playing a major role in the sago harvest festival, as the 1887 expedition further reports.

Construction

All the houses of this region too, without exception, have a rectangular floor plan and a huge saddle roof that rests on its own supports and not on the side walls (Fig. 81). Ridge beams and ridge supports again play an important role: as far as our observations go, they are never absent, and are probably essential because of the size and weight of the often gigantic roofs. In large houses there are mostly more than two ridge supports.

Construction of the roof is particularly painstaking. First the roof spars, crossed above, are laid onto the pair of side rails and the ridge beam. Several staves are bound lengthwise as reinforcement onto the lower inner sides of the roof spars. These staves serve at the same time as supports for shorter staves that are tied on as cross-bindings, to prevent both roof surfaces from sliding apart. This type of cross-binding is used quite often, having evidently proved essential given the size of the roofs. On the roof spars rests a thick latticework (Fig. 82), consisting of horizontal staves fastened by long lianas twisted round one another. Then sago palm leaves, forming the roof, are tied onto this framework in such a way that they lie over one another like roofing tiles. Each of the leaves forms a type of primitive mat: the fronds are folded together and sewn down one side; a stick is pushed through lengthwise from above. Several completed mats are seen stacked up in the foreground on the right of Plate XXX.2.

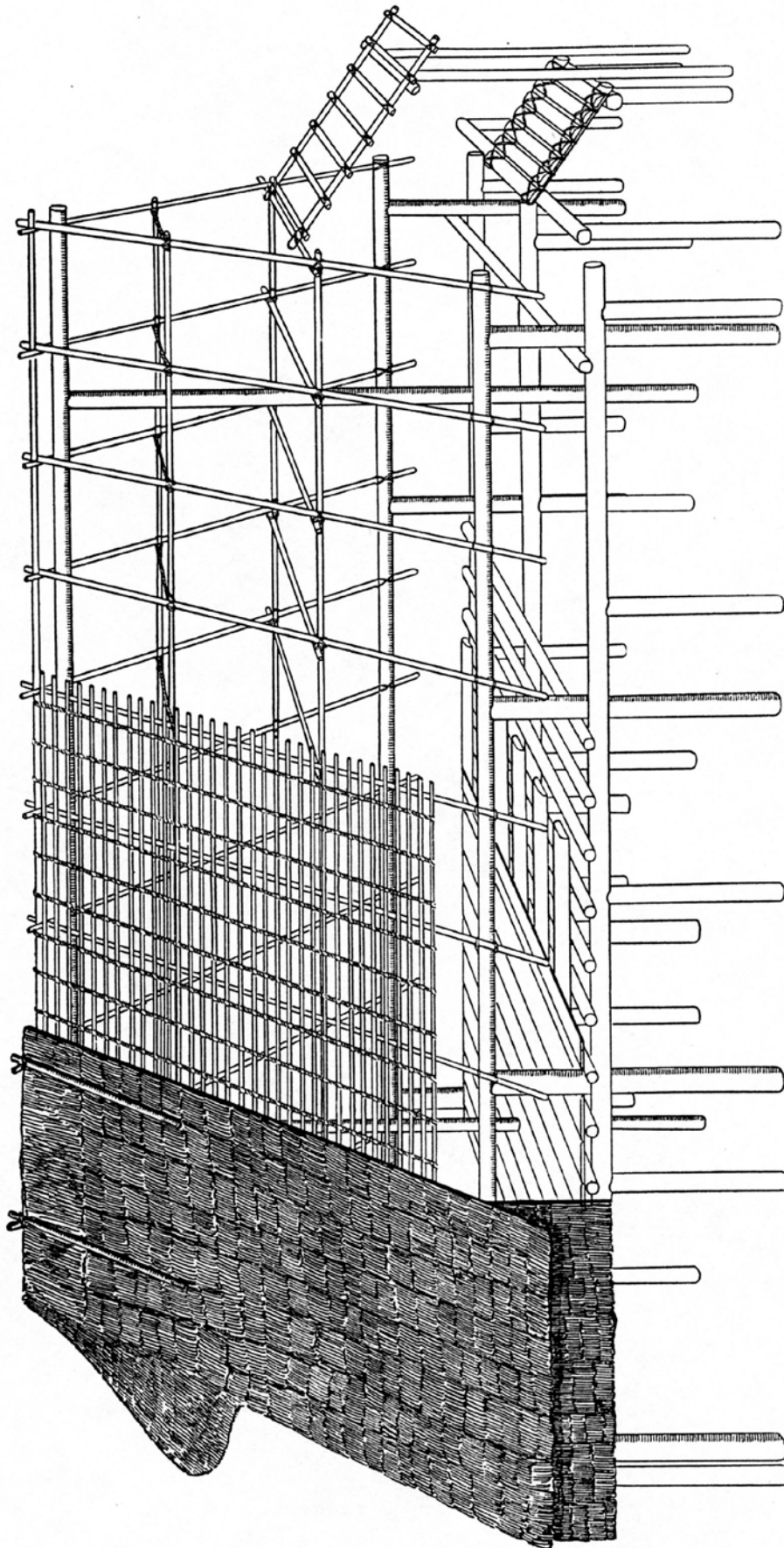


Fig. 81. Construction plan of the Type III house

Again, the podium rests on several poles that are in no way connected with the roof poles; it is to some extent built in between the roof supports. In all the larger houses there are three rows of poles, standing parallel to the long walls, supporting the podium. On each row rests a strong beam running lengthwise; on the three long beams are crossbeams placed fairly close together; on these are further long beams, and only then, as the fourth layer, comes the flooring of betel palm bark.

The framework of the stairs consists of two crossbeams set at different heights and each resting on two poles. The crossbeams carry lengthwise staves pointing obliquely downwards and forwards. The steps, short round battens, are tied onto these longitudinal staves. [145]

The low side walls are either covered with the same sago mats as the roof (see for example Plate XXV.2), or with finer mats, the usual cladding of gable walls (see Plate XXVII.1). The side walls achieve the necessary retention through a wide-meshed framework consisting of a few vertical staves and a lot of horizontal ones (Plate XXXVIII.1) — strong enough to hold the mat cladding but never to support the heavy roof.

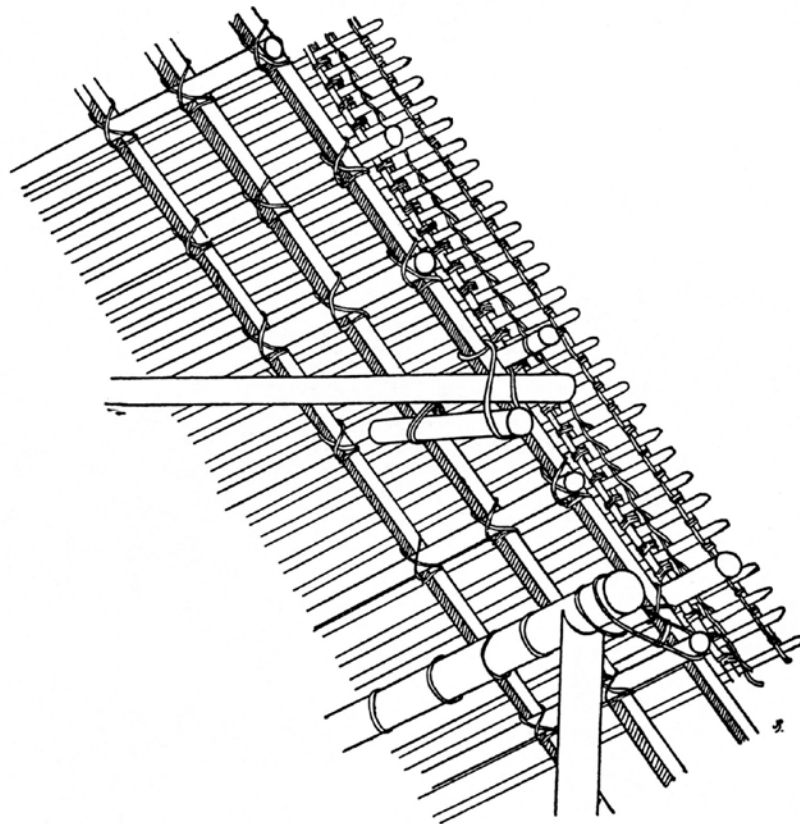


Fig. 82. Roof construction of the ceremonial house Plate XXX.2

The gable walls have a similar framework, at least in smaller buildings. In the large ceremonial houses, the ribs of the front and rear wall appear to be formed mostly by upright staves crammed closely together and tied with horizontal lianas; the mouth opening of the gable face is thereby left hollow. It is bordered below by a curved stave.

On our journey we had the opportunity to examine about 20 to 25 houses under construction, and could therefore make observations on the building techniques. First of all they appeared to erect the platform, the floor of the house, but without putting the

floorboards in at the same time; these are probably laid down only when the roof [146] is finished. They then ram in the poles on which the roof will rest. They put the ridge supports into the ground and check that the poles are of the same height. To do this — I observed the process in Kämbríngi — they bind the tips of the poles destined as roof bearers and ridge supports with lianas, and hang a rope, weighted at each end, over them in a transverse direction; effectively a type of plumb line. This enables them to check whether the ridge beams and side rails lie parallel and horizontally to each another and to check, at the same time, by means of the plumb line, whether both roof surfaces form the same angle from the vertical. The great regularity and symmetry of construction is achieved by this process. When the test is completed, ridge beams and side rails are laid onto the gables formed by the upper ends of the poles, and lashed on. The roof spars are then fastened on and the already-mentioned thick lattice work fastened on top. Plate XXX.2 shows a ceremonial house at this stage of construction. The great towers have already been erected; the long vertical beam forming the main construction point of the tower is, as can clearly be seen, not identical with the ridge support; it is added somewhat in front of this, and it does not extend right to the floor but stands on a transverse horizontal beam at half the roof height. The aim of this construction is probably to save 6–10 metres of beam length; so that one can aim for a tower of considerable height using a beam that is neither too heavy nor too long. Since this beam has to carry virtually only its own weight, it does not need to stand on the solid earth. Also visible in the same illustration is fine lattice work to which the sago palm roofing is fastened. The lower half of the right side of the roof was already covered at the time of our visit (the beginning of June 1909); and so when the 'Siar Expedition' (Schlaginhaufen, Haug *et al.*) photographed the same house in August of that year, the roof was already fully closed right up to the tips of the gable towers. The people appeared to erect their wonderful buildings with great industry in a surprisingly short time; tying on innumerable sago palm leaves is certainly no small task.

Also quite intriguing is the building scaffolding seen erected on Plate XXX.2; the height is remarkable, surpassing the height of the gable tower peaks. Both of the frames are formed mainly by four long trunks rammed into the ground in a rectangular pattern fairly close together, and connected together by short staves; these cross-bands serve simultaneously as rungs of a ladder, enabling convenient climbing of the scaffolding. They are always fastened to the inner side of the vertical trunks. Should the scaffolding need to be raised, the tree trunk used for elongation is bound to the lower one with about two metres overlapping, and

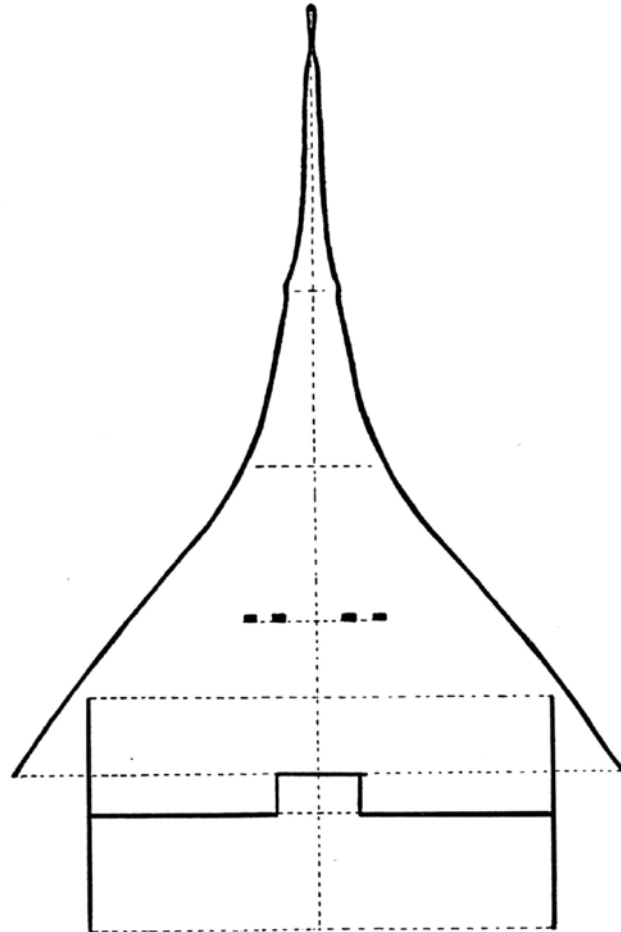
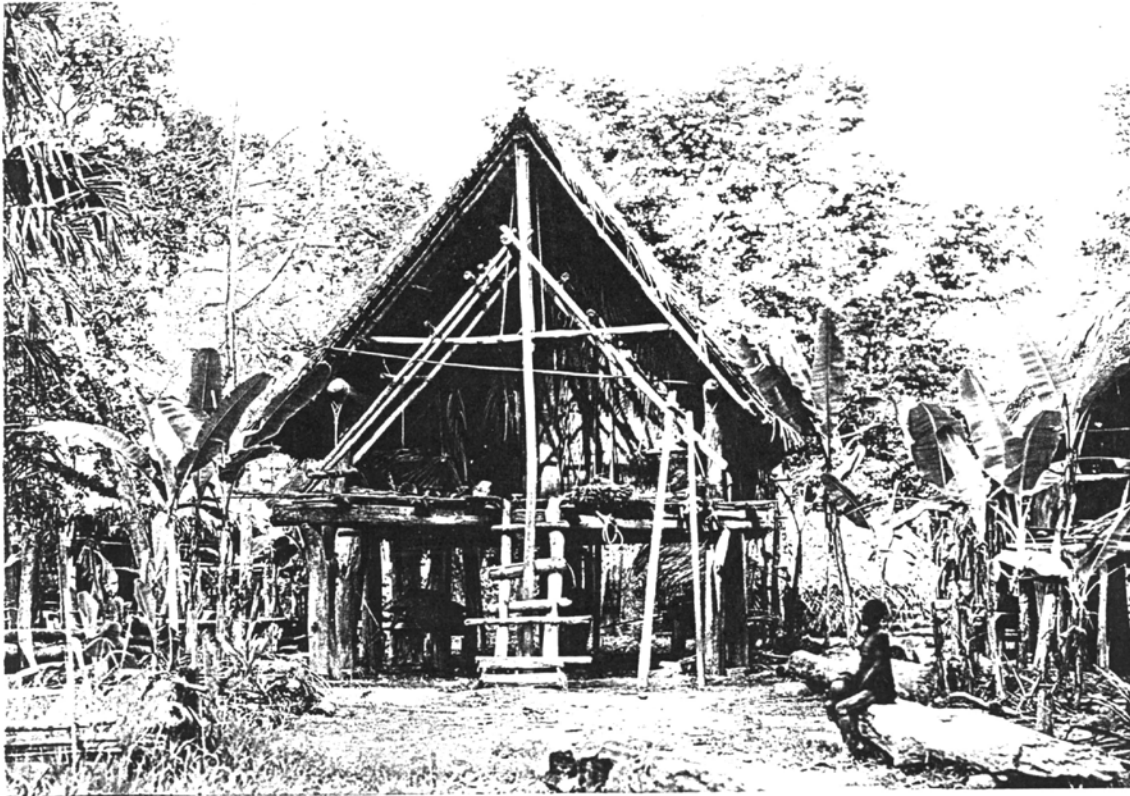


Fig. 83. Proportions of the ceremonial house Plate XXIX.2

Reche, Empress Augusta River, Plate XXXV



1. Dwelling house in the course of construction, 293 km village (p. 147)

Fulleborn. phot.



2. Ceremonial house, 252 km village (p. 148)

Fulleborn. phot.

the foot of the upper trunk stands on a cross beam. According to need [147] a scaffolding like this can also be widened: new trunks are erected at a pre-determined distance, and long staves are laid horizontally over the cross-bindings of the main scaffolding and fastened to the newly-erected trunks. When the *Siar* expedition photographed the scaffolding shown on Plate XXX.2, it had been widened in the manner just described (according to Haug's notes). For climbing the scaffolding they also constructed simple portable ladders consisting of two long parallel staves with rungs tied onto them.

Moreover, these high building scaffoldings seem to be confined to the middle reaches of the river; they probably only evolved as essential where high gable towers needed to be erected. Further downstream, where we also saw numerous houses under construction, we did not find a single scaffolding of this type.

In the area of the third house type they also erect a simpler scaffolding for roofing dwelling houses. When the ridge supports and the side posts for the roof frames are already up, two ladders consisting of long staves with attached rungs are tilted together in such a way that the upper ends are firmly held by the ridge supports and the lower ends (above the floor) by the side poles; numerous bindings secure the scaffolding from slipping (Plate XXXV.1).

Almost without exception the houses of this region show beautifully harmonic proportions. Close examination of the buildings that we photographed yielded the surprising result that length, breadth and height proportions of the houses could be expressed mostly in simple numbers. The dwelling house shown on Plate XXVI.1 for example, is seen to be exactly as high as it is wide when viewed from the front. If the front wall of the ceremonial house on Plate XXIX.2 is designated 'a' (see Fig. 83), then the height of the lower edge of the roof [148] cap equals 'a'; the total height of the gable tower is exactly twice as big, equalling '2a'; the height of the lower edge of the gable wall equals '0.25a'; the height of the upper edge of the door equals '0.33a'; and the height of the four little windows for holding skulls equals '0.67a'. Yet the most remarkable fact is that the smaller upper coping divides the actual gable tower, that is the distance from the lower edge of the larger roof cap to the tip of the tower, is in the golden ratio!

In the ceremonial house on Plate XXXI.2, if I give the half-width of the front wall the value 'a', then the height of the lower edge of the roof cap above the ground equals '2a'; the height of the gable tower (excluding the bird figure) equals '3a'; and the height of the small skull window equals 'a'.

Location of the ceremonial houses

The natives of this region thus appear to have a pronounced sense of harmonic proportions; that their aesthetic sense stands overall on a high plane rare for New Guinea is demonstrated among other things by their skill in setting an impressive artistic stamp on the surroundings of the ceremonial houses. Almost always (and without exception in the large, wealthy villages) the ceremonial house lies somewhat apart from the village, far from the hustle and bustle of daily life, on an open rectangular site covered with lawn, bordered on at least two sides by dense bush and rows of betel- and coconut palms (Plate XXXV.2). Occasionally, the houses are also erected on a raised shoreline, visible from far away: thus strangers can marvel from afar, as their elegant form attains its best expression.

Reche, Empress Augusta River, Plate XXXVI

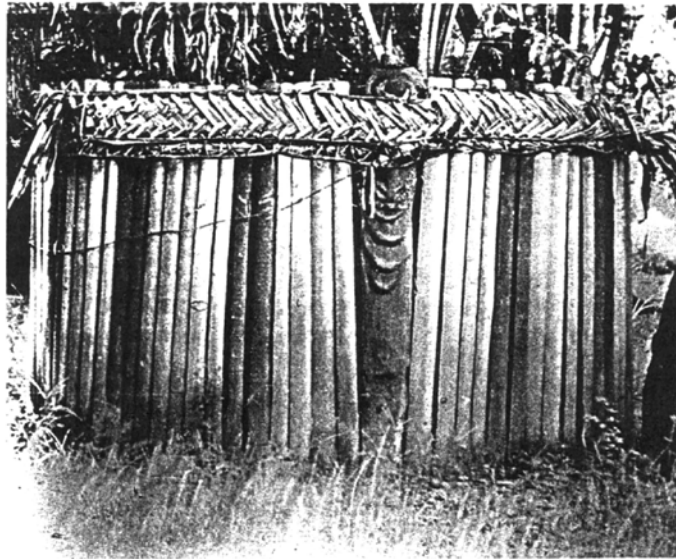


Fulleborn phot.

1. Ceremonial house, Mālu (p. 142)



Fulleborn phot.

2. Stone with a facial representation,
293 km village (p. 150)

Fulleborn phot.

3. Carved fence palings of a ceremonial house (see Plate XXXV.2)
252 km village (p. 148)

Often a splendid decorative shrub with bright red and yellow leaves, occasionally also intermingled with low palms, stood in front of the ceremonial house. It would be carefully tended and enclosed with a thick hedge of poles and bamboo laths. House and surroundings always gave the impression of a religious site; these buildings, these temples are certainly more than the usual assembly- or young men's houses; so many of them lay so sacredly and impressively like a lonely little chapel in the forest.

The enclosed decorative bushes had a circular pattern with a diameter of 2–2.5 m. The fence usually consisted only of simple undecorated sticks or planks pushed into the ground, as for example on Plate XXXV.2, held together at the top by a wide plaited band. In the house depicted, a section of the fence planks was decorated; every pair was painted black, grey and red; on the front side stood a wide, shield-shaped pole with a clearly-recognizable human face carved on the upper part (Plate XXXVI.3). Above and to the right of it, almost covered by bush, hung a human skull. Often the palings used in the fence were more richly carved; the fence in front of the house illustrated on Plate XXIX.2 contained [149] a pole that was completely covered with three-dimensional ovals and curved lines; the upper end was broken off, the pole almost gave the impression that it had originally been a house pole and had found further use here. A wide plank in the same fence showed a flat nose and a wide mouth. We saw similar posts in front of other ceremonial houses.

Also, the carved poles in Stuttgart appeared to come from the same kind of fences, and thus were not actual "house poles", although the collector has added the note in his catalogue, "originating from a spirit house". All these poles, which, moreover, would be too weak to serve as house poles, taper downwards to a point that had quite obviously been pushed into the ground, and the tip appeared to have broken off while being pulled out.

St.Ha.61619, "Radja", carved, painted **post** (Plate XXXVII.1) of palm wood (total length 200 cm); carved on one side; very much hollowed out at the back, decidedly too weak to carry a heavy load. It represents a human figure with a disproportionately large head (head length 68 cm); arms and legs have disappeared. The eyes are round pads somewhat deepened in the middle; they are surrounded by a red and a black three-dimensional ring. The bridge of the nose is very narrow; the nostrils indicated by slight depressions. The mouth is a slightly-curved bulge, concave upwards, with a deep, wide mouth slit. The ears are small and narrow, each with a perforation, and sit on the sides of the head high above the eyes. The cheeks and forehead are covered with white angular lines. Since the neck is formed only by a narrow indentation, the sloping shoulders sit just below the head. An upwardly-concave arch is recognizable on the chest, decorated with white transverse lines and probably intended to represent a necklace. The contours of the body are adorned with a white, shallowly-indented border; the middle part of the body bears two double-winged images like a butterfly, a four-pointed and two hook-shaped figures.

St.Ha.61621, "Jaunda", carved **post** (Plate XXXVII.2) representing a human figure without limbs (total length 159 cm, length from head and neck 58 cm). The head is long and narrow, the features show firm strong lines. The forehead is surprisingly high. Ears are not shown. The somewhat oblique eyes are shaded by narrow brows. The nose is long and relatively narrow, its sides are particularly carefully modelled, fairly wide and soar obliquely upwards. An oblong three-dimensional oval with a deep midline forms the mouth. The chin is clearly separated from the neck, likewise the very narrow shoulders. The contours of the large chest muscles are faintly indicated on the torso; the nipples consist of two small mounds, and the navel is a knob-shaped bump. The post gradually narrows below and ends in a long point. The entire figure shows traces of red and white paint with a few indistinct curved lines. This post too would be unsuitable for carrying a heavy load, and its upper end is completely differently-shaped from a house pole: it has no gabbling or indentation.

St.Ha.61721, "Radja", carved **post** of palm wood, Plate XXXVII.3 (total length 111 cm), rather weathered; represents a human figure without extremities, whose head is disproportionately large. The forehead is damaged, the face very flat: it shows a somewhat different character from the two just described. The nose is long and narrow and painted black; its sides consist of two obliquely juxtaposed ovals. The eyes are round, somewhat raised discs with inset black circles. The mouth is big and half-moon shaped; its slit is formed by a red indentation. On each cheek is a round flat elevation painted red. The entire face shows traces of white paint. The relatively long neck is distinctly separated from the narrow shoulders. The lower contours of the chest musculature are each indicated by a somewhat prominent semicircular black rampart, accompanied by a white and a black stripe. From the vestiges, basic paint of the body seems to have been red.

In 293 km village we found in front of the fenced-in decorative bush something [150] very remarkable for this region: three stones placed upright in the ground. Both the outer, smaller ones were markedly weathered and showed only traces of chiseling. The middle specimen was better preserved, it showed a clearly recognizable representation of a human face (Plate XXXVI.2). The round eyes, each surrounded by a circle, the rather long nose whose sides consisted of short spiral bulges, and the small oval mouth, rose three-dimensionally from the surface: the parts between them were chiselled out. The face was bordered by an only slightly-projecting bulge. The occurrence of these stones is the more remarkable because small stones are never found in the ground of the broad alluvial plain. Therefore, these large blocks hardly originated in the area in which they were found, but more probably came from a great distance, transported here perhaps from the Hunstein Range, a distance of about 80 km in a straight line, and about 140 km by river.

The interior of the houses

We were not once able to enter a dwelling house; although judging from the examples under construction they seemed to consist only of a single room.

In the ceremonial houses they unhesitatingly allowed us usually only into the lower ground-level space between the house poles. This lies below the actual floor of the house and is frequently very high and spacious, due to the long poles; one is always able to stand upright here: the floor of the upper level is mostly 3–4 m above the ground, in one house in 293 km-village the height of this space was even about 6 metres! The space seems to serve as a kind of conference place. Seat-like frames consisting of staves and laths are constructed between the poles on the long sides (see for example Plates XXVIII.2, XXIX.2, and XXX.1) that seem to be used for sitting or lying on. As well as these, there are always numerous chairs and footstools. Usually, giant slit drums are stacked in a double row in the middle of the space. In 375 km-village, beneath the extended roof on each side we found a broad strip of bark, completely decorated in red, white, and black, and cladding a frame of sticks that held decorated skulls on jutting pegs (Plate XXXVIII.2). Schlaginhaufen (1910b, p.28) describes a similar, very much smaller “skull holder”. In his, and also in the one illustrated here, the decoration mainly consists of large, stylized representations of faces, tapering into a broadly-projecting spiral on each side. The edges of the strip of bark are adorned with painted jagged points projecting inwards. A large number of spears was leaning against the skull holder that we saw.

From the ceiling, that is from the floor of the upper storey, [151] several hooks usually hang, and also little frames made of thin sticks, for storing all kinds of small items.

The actual interior of the ceremonial houses, the upper storey, usually seems to be subdivided into various sections by light walls; in 252 km village it was divided crosswise into two equal parts by a palisade wall standing about 1.5 m high, and in the others that we were able to enter we always found one or more enclosures formed by mat walls, which, similarly to the houses further downstream, served for storing dance- and ceremonial equipment.

Reche, Empress Augusta River, Plate XXXVII



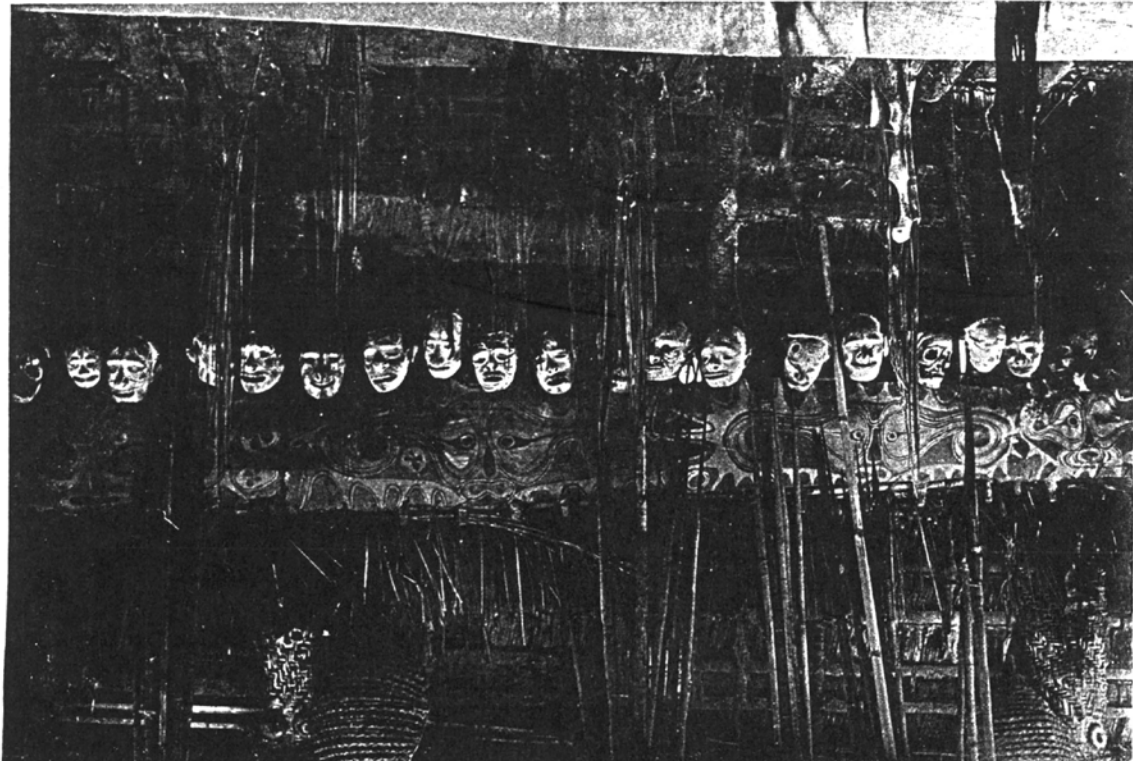
1. Carved post St.Ha. 61619, 1/10 actual size. 2. Carved post St.Ha. 61621, 1/10 actual size.
3. Carved post St.Ha. 61721, 1/10 actual size

Reche, Empress Augusta River, Plate XXXVIII



1. A damaged house in Mändānām; a grave beneath it(?) (p. 353)

Fulleborn phot.



2. Stored skulls in a ceremonial house, 375 km village (p. 150)

Fulleborn phot.

The contents of the ceremonial house in 252 km village consisted of the usual household goods, wonderful facial urns, and large clay fireplaces that were placed obliquely onto a bark ring, with the facial decoration above. In the front space (bordered by the above-mentioned palisade wall), stood a figure carved out of wood, with the face distorted into a column; this was taken in all haste by the natives through a side window to a secure place before Müller could examine it more closely. It was brightly painted, had a sitting surface or a type of pelvis on the rear side at the level of the buttocks and, according to one of our boys, was female. It was probably a large chair, similar to the one that we were able to photograph in 293 km village (see Plate XL.1). In a second ceremonial house in the same village there were (on the upper storey) two dance costumes of the type described below (for example H.S.6648) from which they differed only by having a second face attached to the abdomen; they too were dispatched out the window as quickly as possible when we wanted to examine them more closely. Several bamboo flutes about 1.5 m long hung from hooks in the ceiling. Among other items were several wooden masks and two bird's head masks (of mask types H.S.9371, H.S.9370, and so on) and a beautifully-painted cylinder of tree bark about 1.25 m long and 60–70 cm in diameter, the significance of which we were unable to find out. It could not very easily be pulled over the head because it had a frame of sticks forming a cross within. In the space below, a wide, beautifully-painted bark strip was attached here too, carrying skulls covered in a cement mass; it had a length of over 3 m and a width of about 50 cm.

In a ceremonial house in 293 km village there were several bamboo flutes about 1.5 m long hanging from the ceiling in the interior, and also two gable masks leaning against the wall, three canoe battle masks, plaited masks that carried an eagle above (according to Müller's diary), a large plaited crocodile (H.S.6649, see below), wooden horns, three wonderfully crafted old hand drums whose grips were formed by carved lizards, and finally a partition consisting of mats, whose contents, as far as could be gathered by Müller's fleeting glimpse, seemed to consist of dance hats. On the floor lay [152] three quite ordinary cudgels about the thickness of an arm, wrapped in cut banana leaves; a wedge had been driven into one of them that had split. These cudgels must have had a special significance, because the natives would not allow us to touch them. In a corner were several dance masks and various unfinished dance hats, basket-like plaiting, one of which carried a fish. Seven large sleeping sacks indicated that the ceremonial house was also used as sleeping quarters.

A ceremonial house in 375 km village contained a great number of various-shaped dance hats in the upper room. Several plank beds were attached to the side walls, almost concealed by hanging fibres. As fireplaces were situated beneath these plank beds, this did not seem to be a ceremonial enclosure; there was nothing on the plank beds.

Other types of house

Besides dwelling- and ceremonial houses, there were in this region even smaller buildings, that appeared to serve for receiving strangers and also as a place to chat (Plate XXXIX.1). As soon as we came into a village — this happened especially in Kāmbríngi — we were invariably taken to a house of this sort; they sat down on a low plank bed up against each long wall, just as in the ceremonial houses. The roof was usually simple, and had a horizontal, occasionally-depressed ridge and no tower-like gable, but often the small hat-like verandah roof over the gable wall. Normally there was a somewhat rudimentary facial representation under this; in the reception house reproduced on Plate XXXIX.1 for example,

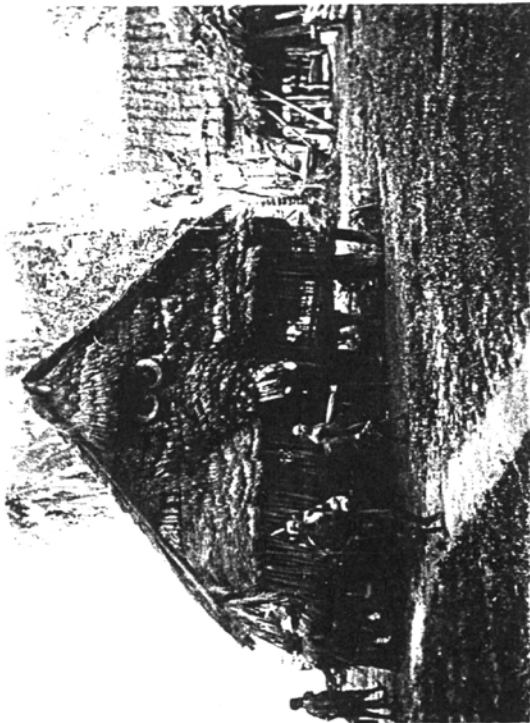
only the hint of a nose is seen, decorated with a large ornament carved out of wood; a small verandah is added below this, protecting the entrance, but represented here only by a hole in the curtain hanging which surrounded the house on all sides. Another building of this type carried a more complete face as the upper termination of the oblique verandah replacing the gable wall; this face was somewhat reminiscent of the plaited 'bird masks' of this region. A portion of the gable masks carved from wood, described above, also appears to have served as decoration for these houses, at least the smaller ones. These would have had much lesser impressive on the giant gables of the huge ceremonial houses.

Often these reception houses also have an upper storey, a type of storage space that served in part for the storage of ceremonial equipment. It was in a house of this type (in 293 km village) for example that we obtained the mask costume H.S.6648; besides this, several flat boards about 40 cm long, probably bullroarers, hung on the wall; otherwise the storage space was totally empty. The entrance led like a trapdoor directly into the storage space from below. In [153] another almost shed-like house in the same village we found a wooden mask being stored.

Frequently human skulls were also hanging in these buildings. In Kāmbríngi for example, in the very first house that we were led into, no fewer than ten specimens were strung on a liana. Furthermore, the skulls in these reception houses were always undecorated; it could not be ascertained whether they had belonged to tribal members or to slain enemies, nor why they were hanging here. If they were from slain enemies, which seemed for various reasons more likely, they were probably brought here in order to be seen immediately by the enemy who entered the village with hostile intent against the inhabitants: they are, at the same time, trophies and warning.

Therefore, these reception houses in many respects show a certain similarity with the ceremonial houses: in external appearance (facial gables and so on) and in nature of use (reception of strangers, storage of ceremonial apparatus and skulls, place of assembly). I feel therefore that some inner connection does exist; that in evolution the 'reception houses' are either forerunners (that were able to survive because of the somewhat changed type of use), or 'offshoots' of the great ceremonial houses.

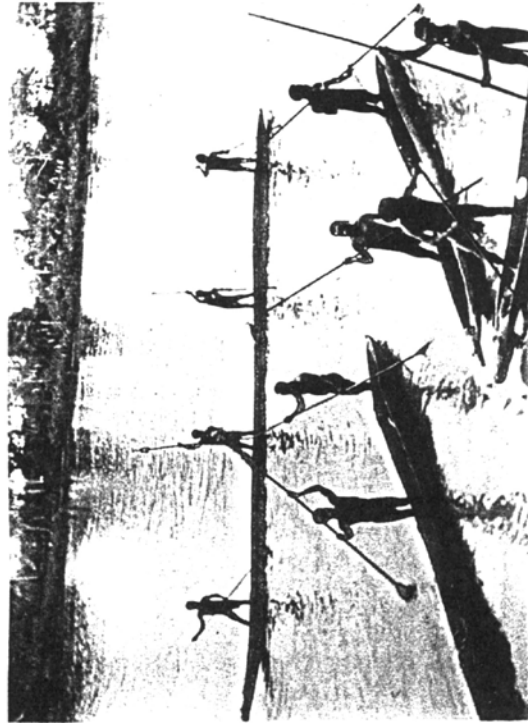
We saw a further style of house in 252 km village, actually a regular, though very small, tree house (Plate XXXIX.2). It was situated at the top of a mighty forest giant on the western exit from the village, about 20 m above the ground; it consisted of only a saddle roof. The little house, which had room for five people at most, obviously could not, unlike most tree houses elsewhere in New Guinea, serve as a fortress for the extraordinarily heavily populated village, but only as a look-out. From that height one would have quite an extensive view across the plain. [154]



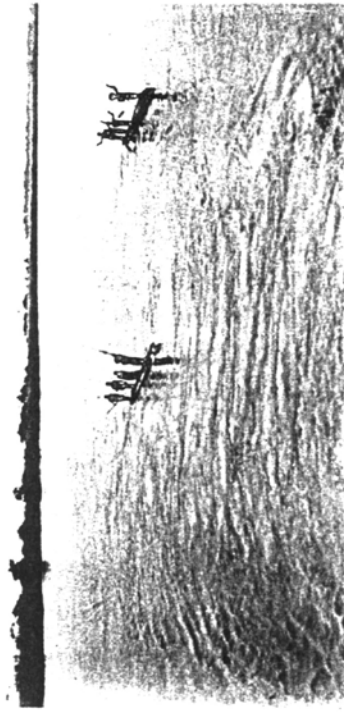
1. Reception house(?), 293 km village (p. 152)



2. Tree house, 252 km village (p. 153)



3. Canoes from the village of Mätüm (p. 281)



4. Canoes from the village of Mätüm (p. 282)

Village location

In the sago swamps of the river mouth region the villages are constructed on the few better-elevated sites. The houses are widely scattered because the land offers a good firm foundation in only a few places, so that the number belonging to one village could not always be determined easily. The ceremonial- (cult-, spirit-) house probably present in each of the larger villages did not appear to be bound to any particular spot. It is otherwise in the villages on the coast: here the houses lie close together and, as Pöch (1908, p.171) reports, the ceremonial house stands in the centre of the village. The location of the dwelling houses and the small, somewhat-raised counsel places also seems to be fairly arbitrary. Pöch (*loc. cit.*) says of the latter: "In front of the houses are characteristic platforms on the ground below, where the men can sit, smoke, and advise one another. Several hollowed-out trunks of sago palms are laid over one another at right angles. Such a dry resting place is essential, especially in the rainy season when the village site is flooded and muddy." Different village sections (with special names) do not appear to exist.

Villages erected on the solid bank in the region above the river mouth swamps are laid out somewhat differently. They consist of several house complexes divided, as it seems, into various sections of the village, which then carry different names. Thus Ǫmbăntön is probably formed from three villages that merge into one another (Ǫmbăntön, Năngit, Siňór?), while Ăngöróm and Wólēm are parts of a larger settlement. Whether a ceremonial house belongs to each individual village in these complexes could not be established with any certainty, but this is certainly the case in the villages further upstream (at least as far as the Hunstein Range) because in every large settlement we found several ceremonial houses. Furthermore, an open space with a small reception house seemed to belong to each section of the village here. The villages show a certain formality in layout. Normally, the main street runs along the riverbank; the majority of the dwellings are built along it, in such a way that their fronts face the river. The most interesting was the site of 252 km village, located at the mouth of a small tributary. Here there were several straight streets, one of which ran along the main riverbank while the others, apparently at right angles, ran parallel with the bank of the small stream; at the far outskirts of the village was a small tree house serving solely as a look out.

[155] In this region the ceremonial houses almost always lie somewhat apart from the village on a rectangular site kept free of shrubbery and covered with lawn; they often stand right on the high riverbank, and are therefore visible from a great distance.

Cleanliness in the villages just above the river mouth swamps is quite poor; in Ǫmbăntön, for example, there was human excrement on the very paths within the village. In the major settlements further upriver people seemed to be a lot tidier. [156]

Household items and utensils

Sleeping equipment

Sleeping bags

An instant surprise on entering a dwelling on the Empress Augusta River, are the amazing large cylindrical objects (see Plate XV.2) that on closer examination turn out to be sleeping bags. The whole family crawls into them for the night — several people in each sack — to protect themselves from the plagues of mosquitoes that, even for the locals, are unbearable at night. We came across these bags in every village from the river mouth right up to the Hunstein range; they would also be found on the lower and middle sections of the Ramu.

H.S. 9373, Wātām, sleeping bag, Plate LII.6 (length 332 cm, width at the clip-shut entrance 64 cm, width at the other end 126 cm) a long, flat collapsible tube, sealed at the wide end, is closely plaited; the surplus ends of material form a dense fringe. The narrow end is open: here they crawl into the bag — the opening is only just large enough for a person to slide through, while the tight fit prevents mosquitoes entering at the same time — then they clamp the narrow door closed. The bag retains its basic cylindrical shape by inserted switches and arched sticks; rattan bands, reminiscent of barrel hoops, placed around the outside give it a certain stability. Furthermore, Neuhauss' (1911, vol. 1, p.250) sketch is not completely accurate; his fully-assembled sleeping bag has a circular cross-section whereas in reality the cross-section approximates a semi-circle (cf. Plate XV.2). The bag is plaited in four-ply reversible twill-style so tightly that a mosquito could hardly enter. It is plaited from the broad blades of a type of grass and is assembled in three transversely-laid sections, evidently made individually with the ends then plaited together. The rim of the entrance hole is somewhat reinforced by folding the surplus ends of the material back and interweaving them into the already-completed plaiting.

H.S. 9374, Wātām, sleeping bag (length 360 cm, width at the entrance 79 cm, width at the other end 157 cm), identical in material, form, and technique to the preceding one. Not far from the rim of the entrance hole is a narrow decorative band plaited using the triple-stranded pigtail technique.

Neck supports

Neck rests, that is, small stands on which the neck is laid when asleep, were seen remarkably only in the lower reaches, and, since the few specimens obtained in the middle reaches by the other expeditions also show the coastal style, I do not consider it impossible that the neck support was not local to the middle reaches.

[157] Three main forms or types of construction can be differentiated among the neck supports collected along the river: supports that consist only of a rough piece of trunk whose branches form the legs; those — apparently the most common form — that rest on rattan legs; and thirdly, a one-piece carved, solid, low pedestal-like seat without actual legs.



Fig. 84. Neck support, H.S. 9018, 1/5 actual size

H.S. 9018, Sīñór, neck rest. Fig.84 (length 38 cm, height about 11.5 cm) of extremely primitive shape, consisting of a piece of trunk with four legs; the top of the horizontal portion is polished somewhat; its ends are roughly tapered.

The following specimens are of the second type, consisting of a horizontal piece of wood resting on rattan legs.

H.E. 3383, “Mouth of the Ramu”, **neck rest**, Fig.85 (length 45 cm, height 16 cm). At the places where the rattan legs contact the horizontal piece, they are incised shallowly. Below, they are held together by a loop of rattan round each one. At either end of the horizontal piece, and to some extent lying on it, is a carved human head with a prominent forehead, deeply-inset slanting eyes, and an elongated tip of the nose, gazing upwards and outwards; the mouth is missing. A further, smaller head, probably that of an animal, with three small rings joined to its back, is on the very end. The part of the cross beam between the bamboo feet, intended for the neck, is smooth and slightly rounded. The underneath side is adorned along its entire length with a toothed filigree central strip; the adjacent lateral surfaces show a type of meandering decoration identical with the one that the Monúmbó, according to Schmidt (1903, p.111), designate as “entrails of the cockatoo”. The entire wooden part is painted red.

St.Ha. 61642, “Radja”, **neck rest**, (length 43 cm, height 1.35 cm, width up to 7 cm). Very similar to the preceding one. Both ends of the cross piece are carved into human heads and resemble the mask St.H.61680; thus the eyes are slanting, the nose is relatively small, and the mouth is a small, straight shallow bulge with an incised mouth slit. At each point where the legs fit, the cross piece shows a slight constriction; again the bamboo legs are very shallowly carved beneath at the places where they contact the wooden piece so that the latter partially rests on the indentations in the legs. The middle part intended for the neck has a shallow curve. There is, again, a dentate strip carved in filigree on the underside. The wooden part of the piece has red stripes.

St.Ha. 61641, “Radja”, **neck rest**, (length 37 cm, height 11 cm, width up to 6.5 cm), very similar to the preceding one. The carving is somewhat rougher, especially the heads forming the ends. The forehead juts out so far that there is only a little space left for the nose, which consists only of a small round knob. The eyes are represented by rather larger knobs. On each side, above the eyes, is a small oblong bulge probably intended to represent the ears. The mouth and chin regions lie as triangular elevations above the surface. From the chin a high narrow bulge with two holes runs towards the end of the cross piece, dividing into three arms shortly before its termination; the end itself consists of a knob. Near the filigree-carved toothed strip running along the lower edge two stumpy protuberances repeatedly alternate with an arch-shaped elevation. Straight lines are carved on both sides of the strip, by a 1 cm zigzag line every 2 cm.

The two specimens mentioned by Schlaginhaufen (1910b, p.42) but unfortunately not precisely described are also quite similar to those so far discussed. The one illustrated comes from “Olem”, the other from the middle reaches. Both are of the type that is extensive on the coast, standing on rattan legs and having representations of the upper half of a human figure at the ends of the wooden part, but with the chin turned inwards, at least in the specimen illustrated.

H.S. 9031, Mụáŋgēm, **neck rest** (*kálūgúm* [158] Hell.) Fig.86 (length 31 cm, height 9.5 cm, width up to 8 cm). The transverse part is relatively flat and wide with a constriction before each end for the rattan legs, and with an animal head at each end, probably intended to represent a pig. In one specimen snout and tusks are clearly recognizable, and in the other the tip of the snout is wrapped in strips of rattan. The underside middle strip has no carved decoration.

H.S. 4510, Kāmbrínūm, **neck rest** (*bǎgēñě*, Re.) Fig.87, (length 44.5 cm, width 6 cm); only the wooden part remains, the rattan legs are missing. The middle part is slightly concave and rounded. The indentations intended for the feet are sharply delineated and deep. At both ends are carved crocodile heads that are not completely identical: in one, two long teeth rise high out of the lower jaw (as in the representations of crocodiles on canoe prows and the decoration of lime containers) with their tips touching. On the underside of the neck rest there is only a short remnant of a median strip, with a transverse drill hole. The ends as far as the crocodile heads are filled with three-dimensionally carved human heads whose chins oppose one another; these heads are thus on the underside of the head bench. Schmidt (1903, p.124, Fig.18) illustrates a similar specimen although from Potsdamhafen; here also are two facial representations on the underside. In our specimen there is a simple engraved decoration, consisting of spirals climbing into one another, on the surfaces beside the short median strip. The neck rest is covered with a thick granular patina.

[159] **H. 1019:05**, “Mouth of the Ramu”, **neck rest**, Fig.88a (length 41 cm, height 16.5 cm, width 7 cm). The specimen consists to some extent of two supports standing on each other — a combination of the “monoxyll” and “composite” types. On the rattan legs rests a transverse part consisting of a rather thin angular stave in the middle, on whose underside are two crocodiles with their snouts turned towards each other (Fig.88b). The tails of these crocodiles are extraordinarily long, and form the lateral upwardly-curved elongation of the middle part, with their tips touching the end figures on the head bench above. In the middle of the upper transverse part are two heads turned away from each other, their backs not touching — reminiscent of the “monoxyll” type — supporting the actual flat, wide, somewhat-concave bearing plate. Thus, the head bench resembles the specimen illustrated by von Luschan (Krieger, 1899, p.482, Fig.25) from Krauel Bay. The heads of our specimen show oblique eyes and a very broad nose with a perforated septum, adorned on one head by a bast fibre band pulled through it. As well as the heads, the bearing plate is supported at its ends by four legs, each consisting of a small human figure. The heads of each of these pairs of

figures are connected by a bulge carved completely three-dimensionally running to some extent upwards over the bearing plate, technically serving absolutely no purpose but probably intended to complement the imitation of the rattan legs.

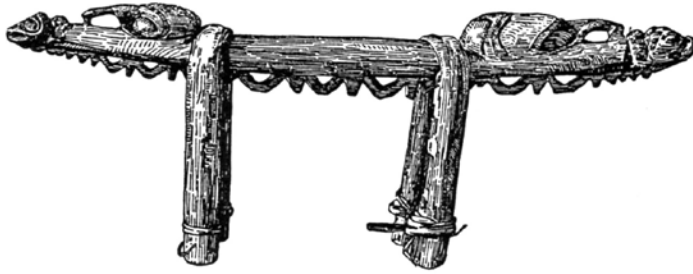


Fig. 85. Neck support, H.E. 3383, 1/5 actual size



Fig. 86. Neck support, H.S. 9031, 1/5 actual size



Fig. 87. Neck support, H.S. 4510, from the side (a) and from below (b), 1/5 actual size



Fig. 88b, Part of the lower 'stirrup' of the neck support H. 1019:05, seen from below, 1/5 actual size

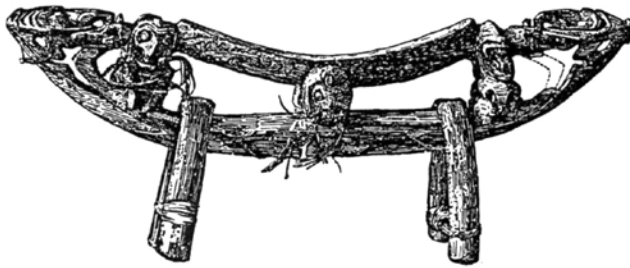


Fig. 88a, Neck support, H. 1019:05, 1/5 actual size



Fig. 89. Neck support, L.Me. 7039, 1/5 actual size

The four little figures are reminiscent in shape and presentation of a type not uncommon among the "figures of worship"; they all have a disproportionately large head and too short extremities, and are clearly recognizable as male in gender. Two figures similar in type but larger, and looking upwards, form the lateral ends of the bearing plate. On the lower curved surface of the plate is a deeply-incised spiral decoration whose hollows are filled with white. All the rest of the surface is painted red.

L.Me. 7038, "Anjam", neck rest, Plate XL.2, (height 15 cm, diameter 12 cm), of the "monoxyl" type. On an almost circular plinth stand four human figures with their backs to one another and holding hands. The side of this plate is decorated with the "entail-ornamentation" as is the plinth. The four figures are probably intended to be wearing a bird mask. A specimen illustrated by von Luschan (Krieger, p.480, Fig.23) is similar, but comes from Bertrand Island.

L.Me. 7039, "Anjam", neck rest, Fig.89, (height about 10.5 cm, diameter 10.5 cm). On a low round plinth two four-legged animal figures sit upright, supporting a plate with their heads and forelegs. Both on the underside of this upper plate and on the plinth are two (thus [160] four in total) stylized human faces, with their noses turned towards each other and almost touching: broken-down bearers, reduced to decoration. The animal figures are decorated at neck and tail by bunches of bast fibre. A specimen illustrated by Schmidt (1903, p.123, Fig.17) is very similar to the specimen described here.

St.Ha. 61545, "Medam", neck rest, Fig.90, (length 36 cm, height 19 cm), roughly carved, quite different in form: it appears to represent two dogs with their backs merged.

St.Ha. 61546, "Medam", neck rest, (length 61 cm, height 15 cm), similar to the preceding one. Again there are two merged animals with crossed legs (each has only one foreleg and one hind leg); a curved beam runs from each

of the heads and merges with the rod-shaped plinth, so that a structure arises that resembles a sled runner and rocks from side to side. One animal head appears to represent that of a dog, the other a rhinoceros hornbill.

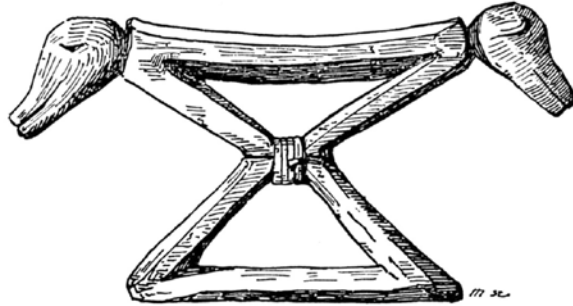


Fig. 90. Neck support, St.Ha. 61645,
1/5 actual size



Fig. 91. Neck support, H.S. 4513,
1/5 actual size

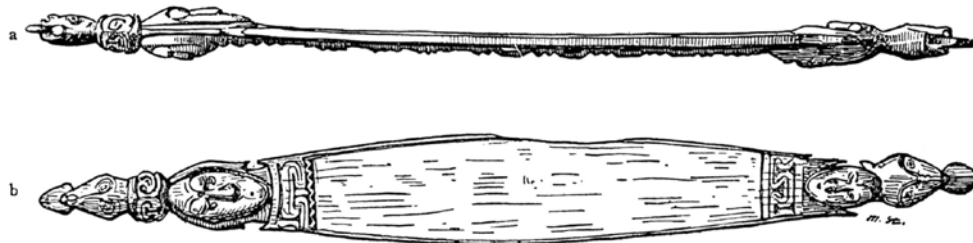


Fig. 92. Neck support(?) H.S. 6549, from the side (a), and from above (b), 1/10 actual size

St.He. 60618, is obviously incorrectly designated as coming from the Empress Augusta River; in its entirety, it undoubtedly belongs to the Finschhafen area.

H.S. 4513, Kāmbrīnūm, neck rest, Fig.91 (length up to 9 cm, height 6.5 cm), also of the “monoxyll” type, yet differing from all those known so far from Kaiser-Wilhelmsland. Unlike the others, this specimen does not consist of two parts: bearing plate and bearers, but is an organic whole, a turtle shell whose back simply serves as a bearing surface. Moreover, this neck support shows quite a big similarity with the small wooden bowls of this area that probably serve as dye pots, since in the latter, for example, the legs are represented by three-dimensional angular structures with thickenings at their ends; here too the interval between the fore- and hind legs is filled in, by a slightly three-dimensional diamond-shaped figure. Head and tail of the turtle are totally rough pegs without any indication of the individual details. On the underside the neck support is hollowed out like a bowl. That this cavity is not used as a bowl is evidenced by the inside surface showing no trace of use and showing every single cut made in its preparation. These cutting marks, found over almost the entire surface of the object, are relatively deep and only up to about 5 mm wide. The cutting instrument must therefore have been relatively narrow with a slightly curved cutting edge; perhaps it was a rodent tooth. Only the upper surface of the turtle shell, serving as a bearer, was polished. The soles of the four feet show traces of wear.

H.S. 6549, Kōpār, Fig.92 (length 122 cm, width up to 15 cm) is perhaps also a neck support (*sāgār*, Mull.) from which the legs are missing. In any case the similarity with head rests H.S. 4510 and H.E. 3383 for example is extraordinarily strong. Of course the great width of the specimen might negate its use as a neck rest: hardly offering a suitable spot for lying the neck on, but the significant length corroborates such a use, especially since Neuhauss (*loc. cit.* p.250) reports, “On the Augusta River I saw supports that catered for four people lying side by side.” Our specimen could also have been hung up instead of resting on feet, which would correspond with the narrowness of the lateral notching. The underside would never have touched the ground during use since this is richly carved, as in most neck rests, and the carving does not show the slightest wear. The specimen is carefully polished on the upper surface, at least in the middle section. Just before the carved end-piece there is a meandering decoration of grooved lines on each side, again resembling the “entrails” pattern. The ends themselves show four three-dimensionally carved human heads, one each on the upper and lower sides with their chins towards each other. Three of them have the same form: roundish prominent forehead, very small three-dimensional ovals deepened in the centre, as eyes; a strong, straight, prominent medium-width nose with a perforated septum; and a small transverse oval as a mouth. The fourth face (Fig.93), on the underside, is a bird-beak mask type with an elongated snout-like nose. To the sides of the



Fig. 93. Face on the
underside of the neck
support H.S. 6549,
1/4 actual size

heads are completely three-dimensionally carved, rather distinct arches. Connecting directly with the head hair on one side is an [161] animal head turned outwards (dog?) which has a long oval object protruding some distance from its open mouth, probably the tongue. At the other end is a very similar animal head, but it is separated from the human heads by a square knob adorned with very deeply-incised lines forming the “entrails” pattern. The lower side of the board (Fig.94) exhibits, as a part of the headrest, a narrow middle strip consisting of a small narrow arch alternating with two zigzags. On one part of the surface on each side of the strip is a deeply-incised pattern consisting of ovals and curved lines with zigzags; the rest of the surface is undecorated. The whole specimen shows traces of red paint.



Fig. 94. Middle section of the underside of neck support
H.S. 6549, 1/10 actual size

Mosquito whisk

During the daytime and in the evening, before they slip into their sleeping bags, they protect themselves from mosquitoes by hitting and whisking with fans and small brooms made solely for this purpose. The brooms particularly were very commonly seen all along the river; these were also used reciprocally for killing flies that landed on their bodies; they were mentioned also by Friederici (1909, p.335) who had seen them in the villages on the lagoons of the river mouth. I disagree that these whisks were used in our area as status symbols as Gräbner (1909, p.747) reports on a specimen from the Ramu mouth; the whisks that we saw were exclusively for use.



Fig. 95. Fly whisk,
H.S. 1867, 0.17 actual size

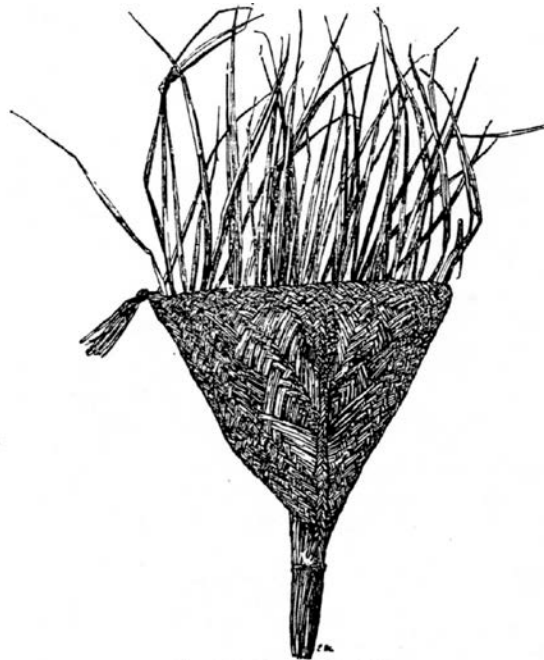


Fig. 96. Fan, H.S. 6571,
0.17 actual size

H.S. 1867, 252 km-village, fly whisk, Fig.95 (length 44 cm) of coconut palm ribs held together above by a broad band plaited from rattan, in 4-ply reversible twill-style.

H.S. 6571, Īmbántõn, fan, (*nāmbūrūn*, Müll.) Fig.96 (length of the plaited part 47 cm, maximum width 41 cm) plaited in varying-stranded twill-style. The ends of the plaited leaves form the handle on one side and the freely standing whisk on the other side. [162]

Seating

A type of household furniture found in very few places elsewhere in Kaiser-Wilhelmsland, is very common on the Empress Augusta River: that is seating equipment, chairs and benches. All share a common feature: they are made from a single piece of wood. Four types can be differentiated.

Type I consists of a flat plate seat with the legs missing. In Type II the seat plate rests on a massive plinth by means of one or several legs; these stools usually have a round cross-section and are made from a trunk section cut horizontally. Type III differs from the preceding only in having a chair back that always seems to be shaped into a figure. Finally, Type IV consists of oblong bench-type forms made from half a trunk section cut lengthwise, and resting on the entire length of the side walls.

We obtained only one example of the first type of seat:

H.S. 1873, Sīngrīn, **sitting board**, (according to the interpreter from Kōpár: *kōnúm*, Füll.), Fig.97 (length 36.5 cm, width 20.5 cm, height up to 3 cm), oblong-oval in shape. The upper surface is slightly curved and carefully polished. Close to the edge runs a narrow decorative strip consisting of deeply-incised lines with notched zigzags. The underside has a narrow ledge running around the outside, to some extent replacing the legs; the sharply differentiated middle part is deepened. The upper surface of the sitting board is painted red.

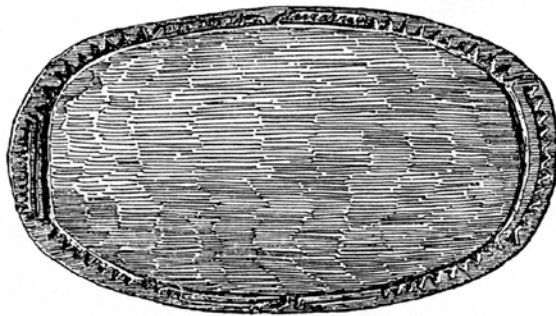


Fig. 97. Sitting board, H.S. 1873,
1/5 actual size



Fig. 98. Stool from a ceremonial house
in 375 km village

The specimen shown in Fig.98 belongs to Type II; here the sitting plate rests on the plinth by means of a column. Unfortunately we were unable to obtain the specimen that stood in the ceremonial house illustrated on Plate XXXI.

In all the other stools of this type there are several weight-bearing columns. Two specimens illustrated and described by Schlaginhaufen, (1910a, Plate I, Fig.2, and 1910b, p.41), that otherwise correspond entirely with the following specimens, also have a central column but in addition “five nearby supports arranged around it and curving outwards.” In all other specimens that I know of, this central column is missing and the “nearby supports” alone have taken over the function of carrying the seat plate. [163]

H.S. 9116, Mändánām, stool (*dérím*, Hell.) Fig.99 (height 29 cm, maximum diameter 34 cm) carved from relatively soft wood with an almost circular base. The seat and pedestal have virtually the same shape; since the central column is missing they are connected only by three knee-shaped supports bending outwards, with the knee surface slightly flattened on the outside.

H.S. 6076, middle Empress Augusta River stool (height 22.5 cm, maximum diameter 21 cm), almost the same as the preceding one, only smaller; here too the seat is supported by three curved knee-shaped legs, one of which is decorated with a red-dyed band of double-knotted twisted bast. The seat is somewhat damaged on one side.

H.S. 9223, Muǎngēm, **stool** (height 23.5 cm, maximum diameter 20.5 cm) very similar to the preceding one. The seat is somewhat damaged on the edges. The annual growth rings are clearly discernible in this specimen; they appear like bulges due to weathering away of the softer parts.

H.S. 4515, Kămbrînŭm, **stool** (height 28 cm, maximum diameter 29 cm) differs from the previous ones only in the legs each being markedly thickened at the upper and lower points of attachment. The seat is heavily damaged round the rim through use. Remnants of red paint are visible on the pedestal.



Fig. 99. Stool, H.S. 9116, 1/5 actual size



Fig. 100. Stool, H.S. 6569, 1/5 actual size



Fig. 101. Stool from a ceremonial house in 375 km village



Fig. 102
Stool, after Schlaginhaufen

St.Ha. 61719, “hostile village”, **stool** (height 26 cm, maximum diameter 28 cm); the seat rests on four side supports, otherwise it does not differ from the previous ones. Likewise, on a stool described by Schlaginhaufen (1910b, p.41) there are four legs.

H.S. 6569, Īmbăntŏn, **stool** (*șērēm*, Müll.), Fig.100 (height 25.5 cm, maximum diameter 20.5 cm); the seat rests on five side supports, which are only slightly curved outwards. On all five there are more or less naturalistic *Buceros* heads carved in relief; on three legs there is only one, while on the other two legs there are two such heads, which merge back-to-back. On the ridge of the beak of several of these is a drawing resembling a human face: the eyes, and the nose with sides and nostrils are clearly recognizable. The stool shows several fresh cut marks, evidently [164] made by an iron instrument, and standing out strongly against the background by its yellow-white colour.

The stool illustrated in Fig.101 (the drawing was made from a somewhat inaccurate photograph; sadly we were unable to obtain a specimen) differs from those so far described insofar as the knee-shaped bend of the legs is not outwards but twisted to some extent half-inwards, so that in shape the legs are boxed into one another and form a row running round the outside. This stool is oval in cross-section. A peg rises from one end, intended to represent an animal head.

An oblong-oval stool illustrated by Schlaginhaufen (*loc. cit.*, p.41, Fig.O) represents a further variation. Here the foot and seat are connected by five supports, all in a row.

We were unable to obtain a single example of the third type of chair; they seem to have some sort of major ceremonial importance. We found them only in the large ceremonial houses of the middle reaches, where they were usually fairly well hidden in the interior of the house. We only had to look as if we wanted to examine them rather more closely, and they would be promptly slipped into the bush. On only one occasion were we at least able to photograph a chair of this type: Plate XL.1 reproduces the specimen found in 293 km-village.

Here we have a chair that is decidedly reminiscent of the stools of the preceding group in its lower part: four legs, bowed slightly outwards, stand on a round plinth. These legs carry the seat, but while the size of the previous stools reached only 36 cm, here the sitting height was approximately 45–50 cm. Two of the legs have a representation of an animal's head at their upper end, perhaps a *Buceros*; both the others are fashioned as the legs of the human figure whose torso forms the chair back. The figure is male and wears a small grass skirt fastened to a hip cord by a thick knot, to cover the genitalia. The feet are big and flat, and blend into the surface of the plinth; the toes are clearly discernible. The legs are slightly bent at the knees and decorated with scratched-in curved lines — remnants of decorative scarification? Of the genital region, only an engraved spiral is clearly seen, probably indicating the scrotum. The hips are at the level of the seat; on the hips lie the rather carefully-produced hands with the fingers represented by indentations. The arms have roughly the correct proportions, slightly bent at the elbows, and wear cord armbands round the wrists; on the backs of the upper arms are several engraved angular lines. The body is relatively slender; the navel is surrounded by an engraved decoration evidently intended as decorative scars, at least strongly reminiscent of the type of scar that I observed on the navel of several men; this is likewise the intention of the lines as decorative scars around the nipple. The figure's head is relatively big. The face is flat, and in form and presentation resembles various "cult figures" of this area. The forehead is rounded and projects somewhat; the eyes consist of inlaid cowry shells; the nose has broad sides, wide nostrils and a perforated septum; the mouth is a transverse oval with a slit, and has thick bulging lips. The entire lower margin of the face is densely packed with twisted cords, representing the beard. The ears are attached at the sides, roughly at eye-level; they consist of rather big hook-like prominences with small strings knotted into their bored holes. Above the mouth on each side begins a chain made from cowry running upwards along the margin of the face, forming an area closed in front by a shell disc. On the head sits a fairly wide thick wavy hairpiece extending down to the neck, consisting of twisted cords with black dye rubbed in; it resembles the Bavarian crested helmet in shape, and the familiar masks from New Ireland. The total height of the chair is approximately 140 cm. It must also be mentioned that both the upper side of the plinth and the lower side of the seat are decorated by an engraved pattern made up of ovals, spirals and the local favourite filler of short curved lines.

Perhaps we should include here the remarkable stand described and illustrated by Schlaginhaufen (1910b, p.42) in which a massive wooden block is borne on the shoulders of two human figures standing on a plinth; [165] but since this block is almost a metre above the ground, the stand would hardly have served as a seat and probably has some other sort of ceremonial significance.

The oblong chairs and benches belonging to the fourth type are distinguished by their surprising lowness. We never saw them in use, and I cannot exclude the possibility that, at least in some places, they were not used as seats; for example, our smaller specimen — a gift from Captain Roscher, who obtained it during his voyage upriver on the *Langeoog* — was designated by the donor as a "head bench"; on the other hand for our larger specimen we were given the same indigenous designation as for the chairs. Schlaginhaufen (1910b, p.41) names all these types of items "bench", but does not mention whether he has actually seen them used as such.

A very similar piece from Berlinhafen was illustrated by Biro (1899, p.62, Fig.16); it is designated as "stool", and served as the support for a slit drum; almost identical items are also used for this purpose in Potsdamhafen (see for example Schmidt 1903, p.77, Fig.1).



1. Large chair out of a ceremonial house in 293 km village. 2. Neck rest L.Me. 7038, 1/3 actual size
 3 & 4. Hanging hook L.Me. 9162, 1/10 actual size. 5. Hanging hook St.Ha. 61533, 1/10 actual size
 6. Hanging hook H.Th. 11,88:38, 1/10 actual size. 7. Hanging hook St.Ha. 61671, 1/10 actual size
 8. Hanging hook St.Ha. 61620, 1/10 actual size

H.S. 6027, “middle Augusta River” (gift from Captain Roscher) **bench** (?), Fig.103 (length 34.5 cm, maximum height 10 cm, maximum width 13 cm), made from half a piece of tree trunk split lengthwise. The piece is so strongly hollowed out from below that only a rather thin seat and both lateral supports remain. The seat is slightly concave above (also heavily abraded at this spot) and has a slightly three-dimensional facial representation on each tapering end. On one side there is what is probably an admittedly rather humanoid animal head turned sideways, with big slanted eyes and a very long mouth slit running along the outer edge, while on the other side a human face is represented, looking upwards, and consisting of small round eyes only a little above the surface, a large thick wide-winged nose and a bulging mouth. The ends of the side supports probably originally represented the legs belonging to the animal head, but are no longer recognizable as such. The side surfaces are decorated with several engraved lines imitating the contours of the legs.

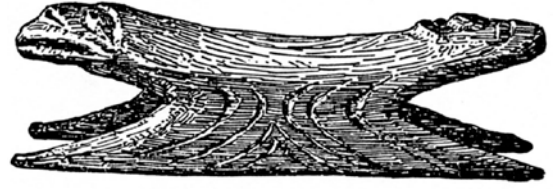


Fig. 103. Bench(?) H.S. 6027, 1/5 actual size

The four specimens described by Schlaginhaufen (loc. cit. p.41), all from “Olem”, are quite similar. In these, however, the animal figure provided with legs is still clearly recognizable. In discussing the piece illustrated in Fig. P he says *inter alia*, “At both ends of the bench the head and front legs of an animal are carved out. The animal head is tapered, and might represent a marsupial. Seat and side surfaces of the bench round transversely into one another, and are distinguished from one another insofar as the former is slightly deepened...” In the second piece illustrated (Fig. Q), “the animal heads of both ends of the bench are wider than in the preceding ones and bear several similarities to a frog.” The specimens mentioned by Schlaginhaufen have usually been blackened in a fire.

H.S. 6570, Īmbântõn, **bench**(?) (*šěřém*, Müll.), Fig.104, (length 147 cm, maximum height 17 cm, maximum width 34 cm), similar in form to the previous one, but very much longer. Each of the tapering ends is decorated with a three-dimensionally carved crocodile head, resembling those attached to canoe prows in form and presentation; the eyes are very prominent bulges, the nostrils are situated on an elevation, there is a big frontal plate behind the eyes, and the teeth are delineated by engraved lines. The seat itself is wide and slightly hollowed out. The side surfaces serving as bench legs are not as vertical as in the smaller specimen but lean rather obliquely outwards; they are adorned with a deeply and widely engraved continuous spiral decoration; the tapering ends show no indication that they are to be regarded as animal legs. Also, the entire hollowed-out inside of this bench is surprisingly heavily and freshly charcoaled, [166] while the outside shows no trace of charcoal; perhaps this appearance can be explained by the fact that when in use the people set these benches over a small smouldering fire to protect themselves from the mosquitoes. Quite commonly in Melanesia they leave small fires burning beneath the beds where they sleep: protection against bugs.



Fig. 104. Bench(?) H.S. 6570, 1/10 actual size

Ladders

Along the entire stretch of the river that we travelled we found peg ladders and, in the river mouth region, step-ladders as well. In the former, the pegs are usually bound onto the cross-beams, but in the river mouth area we also saw ladders in which they were pushed through the cross-beams, perhaps an imitation of the ladders seen at the Wātām station. The step-ladders are particularly reminiscent of those common on the Admiralty Islands; we obtained only one example:

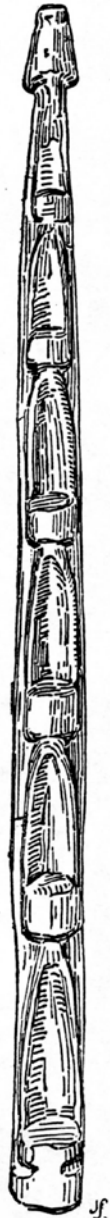


Fig. 105
Step ladder
H.S. 1800,
1/15 actual size

H.S. 1800, Kōpār, step ladder (*ngēb*, Füll.), Fig.105 (length 240 cm), carved from a single piece, forming six steps. Each one consists of a roundish plinth with an upper surface tipped slightly forwards; above each one is a rather shallow hollow extending up to the next step, its rim rising three-dimensionally from the base.

Hanging hooks

To protect foodstuffs from all kinds of vermin, particularly rats, and to store household utensils conveniently, just as almost everywhere else in the South Seas they use hooks made from wood, with a device at the upper end for fastening to the roof and several hook-shaped arms at the lower end for attaching the items to be hung up. These hooks are usually very plain and undecorated; they use any forked stick and cut it into the desired shape and length. We saw this type of primitive form along the entire stretch that we visited: one can be seen on the right on Plate XVI.1, and Plates XV 1 and 2 also show examples of this type of hook. If they are intended to hang foodstuffs, a disc is also attached at the upper end as protection from rats. Often they are not satisfied with the simple form, so decorate these hooks most meticulously, and frequently create the most tasteful, unique artwork. This type of richly-adorned hook seemed to be relatively rare in the river mouth area, at least [167] in comparison with the region of the middle reaches, where they are extraordinarily common.

L.Me. 9162, “Empress Augusta River”, **hanging hook**, Plate XL 3 and 4 (length approximately 62 cm) in all appearance it originates unquestionably from the river mouth area. It has the form of a human death figure with a bird mask tied on in front; the nose (beak) is markedly elongated and merges into the navel. On the plinth on which the figure is standing are attached four hooks curving upwards. The head carries a decorative addition resembling a “crested helmet”.

St.Ha. 61533, “Karau”, **suspended hook**, Plate XL.5 (length 73 cm), representing a female figure that stands on a pedestal surrounded by hooks, like the preceding one. Five hooks of this sort are available, all decorated with shallow relief carving and painting. The head is reminiscent of a type frequently found among the death figures (cf. for example St.Ha. 61592, H.S. 1808); the large nose has a perforated septum decorated with a bunch of bast. The head carries a short process with a hole drilled through its base for the hanging cord.

H.S. 1801, Kōpár, **suspended hook** (*pūin*, Füll.), Fig.106 (length 57 cm), a very old, weather-beaten, damaged piece. The type deviates markedly from the previous ones, and is reminiscent of the forms from further upriver; it is slightly flattened from front to back and has a rather three-dimensional human face on front and reverse sides, with a prominent nose and a perforated nasal septum. The neck is short and the shoulders (only on one side: the other is damaged) bear a process tapering obliquely upwards. Two small damaged faces form the lower end of the hook. On the large head sits a small process with a wide hole bored from front to back with a loop of rattan fastened in it. Both sides of the suspended hook are basically the same except that the surface of one face is remarkably deeper.

H.Th. 1188:38, “Empress Augusta River”, **suspended hook**, Plate XL.6 (length 161 cm); from its form it comes from the lower region and resembles the carved boards like H.S.1825 (see p.125). It represents a human figure where remarkably both halves of the body do not lie in the same plane but form an angle open to the rear. The head is totally three-dimensional. The eyes are slightly-sunken, red-painted ovals. Two slightly three-dimensional hook-shaped forms project on each side from the perforated nasal septum: one curving upwards, the other downwards. The former appears to be intended as a boar’s tusk, the other as a mother-of-pearl nasal ornament. The ears on the side of the head are not pierced. The figure’s body is produced in filigree work. The arms on the narrow shoulders have turned into long snake-like figures that in several windings reach almost to the lower end of the entire hook, and end in slightly three-dimensional, painted snake’s heads. At each point where the arms turn inwards a figure like a fish head is attached on the outside; the outward curvatures are filled above and right below by two bird figures each, probably representing the *Buceros*, and in between by an undecorated oval disc: the remains of the human torso. In the midline of the figure, extending from the neck to the lowermost extremity, runs a narrow prominent ledge representing four *Buceros* heads in filigree work; it ends below in a peg projecting beyond the hook part: a fully three-dimensional bird figure distinguished by a relatively short beak. A hook once sat here on each side, but both have broken off. Below the two middle *Buceros* heads on the ledge two small human faces are represented by red and white paint. The entire surface of the hook shows painting: red and white lines against a dark brown background; the contours are mainly red, as for example those of the arms.



Fig. 106. Hanging hook, H.S. 1801, 1/8 actual size

Two hooks illustrated by Schlaginhaufen (*loc. cit.* p.46) are quite similar to this piece. No.25085, from “Olem” is damaged, since here too both of the actual hooks are broken off. At the upper end is a large stylized face, “whose eyes, connected together by a hole bored transversely, represent the eyelets, and whose nose and chin region are strongly elongated and run back into the board itself in a clasp-like curve.” Also in this piece there is a longitudinal ledge in the middle representing a small animal figure. It is to some extent continued by a “hook representing a stylized human head” directed upwards and forwards. Of the second [168] piece, No.25082, he writes, “The vertical part is a herm. Nose and chin regions taper downwards on the oblong face. The uppermost part of the head section is bored transversely, and apparently represents a small animal head. The vertical board is pierced in four symmetrical spots. Each of the holes is surrounded by a bird’s head decoration from which a pointed cone, be it the lower bill or be it the tongue, projects into the lumen.” Both lateral hooks have broken off, “on the other hand a third hook, which in shape is a three-dimensional fish attached in front and pointing downwards, projects from the general surface. The specimen is painted red, white and black.” In its lines this piece is reminiscent of several hooks of the second group, from further upriver: for example H.S.9366, and H.S.6604 (see pp. 170 and 171).

Among the decorated suspended hooks coming from the middle reaches, three groups can be differentiated by shape. The first has roughly the proportions of the usual “anchor form”: two hooks with a relatively short shank located between them, at the upper end of which is a hole from front to back; it usually carries a representation of a face filling almost the entire surface. The hooks of the second group are significantly more slender; the shank is markedly flattened from front to back like a board, and usually has a size of only about 1 cm; it is regarded as the torso of a figure, without barbs, whose head at the upper end sits on a clearly pronounced neck and is made with especial care. Finally, in the third type the body of a figure is presented with all its features: an accurate human figure stands on a pedestal to which two or more hooks are added. If these hooks were missing one might immediately regard the figure as a ‘cult’ figure.

Thus, whereas in Group I the principal feature of the hooks, the decoration, is rather a chance attribute, in the second group the shank has turned into a quite independent figure; finally in the third group both the shank and the figure produced on it, appear almost as the main feature while on the other hand the hook below the pedestal completely recedes. However, the three groups cannot be sharply separated: there are all kinds of intermediate and transitional forms.

The following pieces belong to the first group:

St.Ha. 61686, “Matembe”, **suspended hook** (length 13 cm). The shank is bored through at the end. A low bulge runs over the entire hook in the midline; to right and left of this a small round elevation lies on the broad surface of the prongs. The piece is very weathered and appears to be quite old.

H.S. 9024, Ängöróm, **suspended hook**, Fig.107 (length 39 cm), anchor-shaped, with two hooks pointing obliquely upwards. The piece is flattened from front to back. The same decoration is on both sides; it is made by deeply incised lines and depicts a highly-stylized face whose eyes consist of short oblique spirals. The forehead is perforated to take the hanging cord.

H.S. 9034, Mũangẽm, **suspended hook**, Fig.108 (length 50 cm), anchor-shaped with two sharp hooks pointing steeply upwards. The upper end of the shank is greatly enlarged and carries on the front surface (the back is completely smooth) a three-dimensionally carved face with eyes consisting of concentric circular bulges, prominent nose and an oval, bulging mouth deepened in the centre; the nasal septum is pierced. A filler decoration of short curves is added to the sides and below the mouth. The forehead is very high and shows a somewhat pronounced medial border and directly above, below a knob-shaped process, there is a hole drilled front to back.

One of the pieces illustrated by Schlaginhaufen (1910b, p.44) is similar. Number 25045 has a completely undecorated shank whose upper end is somewhat separated and has a hole through the middle; [169] “the hook part is convex inferiorly.....and bears the engraved features of a face”.

On several examples we saw a face of this sort added on to the hook part; unfortunately we were unable to obtain these. It is somewhat less clear on the following piece:

H.S. 9249, 375 km-village, **suspended hook**, Fig.109 (length 59 cm) of rather more slender form. At the lower end is a total of three prongs, two lateral and one in the midline; the latter seems to be regarded by the artist as the nose of a face, whose eyes lie as two round flat knobs at the base of both lateral hooks. Strangely, just before the lower end there is a hole from front to back; two larger knobs are on either side of it, possibly representations of eyes

as well. Then the end itself is formed by a small indistinct head reminiscent of the turtle heads on the small wooden bowls. It is also noteworthy that the entire hook part is regarded as a bird; the lateral pegs would then be the outstretched wings, the middle one the tail, the large knobs the eyes and the end part the beak. The similarity with a bird is especially astounding in profile view. The shank of the hook is covered with relief carving probably representing a stylized face; at the upper end is a hole from front to back. The reverse side shows the same decoration, only here the facial representation is more clearly recognizable as such.



Fig. 107. Suspended hook,
H.S. 9024, 1/10 actual size



Fig. 108. Suspended hook,
H.S. 9034, 1/10 actual size



Fig. 109. Suspended hook,
H.S. 9249, 1/10 actual size

St.Ha. 61671, “Simar”, **suspended hook**, Plate XL.7 (length 41 cm) anchor-shaped, only slightly flattened from front to back. The rather long shank forms a slightly three-dimensional head with a remarkably elongated face that shows strong development of the cheek bones; this type is relatively rare but is found in a few masks, for example St.Ha.61707. The bridge of the nose is very long and narrow, its wings are proportionately quite wide; the nostrils are barely indicated. The forehead is jutting; below it and somewhat sunken are the eyes made from mother-of-pearl shell. The mouth is a transverse oval bulge with a red-coloured narrow slit. There are no ears. Above the head is the eyelet through which a strong rattan cord is pulled. The pointed chin is bordered by a sharply-chiselled red-painted gutter; this separation is found also on the reverse side, which is otherwise undecorated. The face is painted in russet and white lines and patches; vestiges of paint are also on the hook part.

Here is included the piece illustrated by Schlaginhaufen (*loc. cit.*, p.44) in Fig.U, a somewhat shorter hook that is only slightly flattened from front to back; “the vertical part is a herm”. On the reverse side of the head runs a transverse eyelet. The hair region is sharply separated. Eyebrow arches and cheek bones project strongly, the nose more gently. The depression between alludes to the eyes. The slightly receding mouth contains an incised mouth slit.” “The artist has skilfully used the representation of the breast in the production of a stylized face, and in the centre of the hook part is a pattern resembling the female genitalia.” A second specimen could be placed in the next group, from its shape, since its shank is fashioned into a short body (Schlaginhaufen, 1910, p.44, Fig.V). “The hook part is bowed outwards. Above the head is the hanging eyelet; the eyes are [170] sunken. Nose and mouth protrude slightly. On the herm, which bulges quite markedly to the sides, are a number of decorations in bas-relief. The colours used in painting are black, white and red.”

H.S. 9250, 375 km-village, **suspended hook**, Fig.110 (length 72 cm), carved from hardwood, is very similar in form to the preceding one, but more primitively produced. The face is very roughly made by chiselling broad depressions while the body shows no features at all. On the head is a rather long peg in which is the hole for the hanging cord. Below, the hook part shows a knobby elevation forming to some extent the elongation of the shank.

H.S. 6659, 375 km-village, **suspended hook**, Plate XLI.2 (length 34.5 cm), similar to the preceding one but very much more carefully made. It is carved and shows almost the same representations on both sides. The head has round eyes surrounded by a circular ridge; the nose is a narrow ledge-like elevation lacking wings of the nose; the nostrils are the more distinct,



Fig. 110. Suspended
hook, H.S.9250,
1/10 actual size



Fig. 111. Suspended
hook, H.Th. 1188:44,
1/8 actual size

they continue (only on one side of the figure) into a long gutter surrounding the eyes from the outside. The mouth is missing. The high forehead, bearing a small top piece, is bored through from front to back; a rattan cord is pulled through the hole. The body is diamond-shaped and shows on both the front and reverse sides a vertical row of knobs running obliquely downwards (vertebral column?). The hook part is regarded as a component of the body; it shows a large distinct vulva on the front side, and on the reverse side — the carving here is very much less distinct and is also damaged — possibly the remnants of a penis. The hook is painted red and white.

H.Th. 1188:44 “Empress Augusta River”, suspended hook (length 58 cm), Fig.111, belongs in this group, but is distinguished from the preceding pieces, apart from the more painstaking presentation, by the profile representations on its edges. The specimen is flattened from front to back. The head forming the upper end shows a somewhat different form: the lower face is to some extent separated from the upper part and slid downwards while the upper face ends in a broad cone pointing obliquely downwards, its tip blended with the slightly-projecting nose. From the tip of the nose a process runs downward with its end rejoining the board; only below this junction does the mouth appear: a transverse elevation with a wide irregular mouth slit. The human body belonging to the head is not represented, the lower part of the hook shank is covered rather with various unrelated carvings. Directly below the mouth are the previously-mentioned profile representations: on each side two birds’ heads facing each other. Two face-like incised figures fill in the lowermost section of the shank. The hook part shows an incised circle on each side: possibly the eyes of a face. The short peg projecting downwards is transformed into an animal head whose teeth — not visible front on — are indicated on the lateral edge by carved parallel zigzag lines. A transverse hole in the head process serves for attachment of the hanging cord.

Here are included typical examples of the second group:

H.S. 9366, Pāmūṅgrī (bought from a canoe), **suspended hook**, Fig.112 (length 148.5 cm) damaged in that both lateral hooks are broken off. The piece is very strongly flattened from front to back, like a board. Above, it has a human face of shallow, trough-like form, in the middle of which, from above the forehead down to the tip of the nose, rises a median sharp-edged crest. The nose is elongated above the tip. On it is attached a stirrup-like peg whose end blends back into the board. It represents the head of a bird with a long massive beak, probably a *Buceros*; the [171] eyes and the border between upper and lower bills are clearly recognizable. Therefore we again have an example of prolongation of the nose forming a bird’s head (cf. for example H.Th.1188:37). The hook resembles this piece in many other respects as well: the eyes are formed in the same way, and lie in a shallow three-dimensional roundish field that is elongated inferiorly like a comma; in both cases the mouth is extended into short spirals thickened at the end. Also, the hairstyle sitting on the head is almost the same; the hole to take the hanging cord is located here. The body (that is, the long shank of the hook) is covered with carving in relief; the representations are produced by incising the contours and the intervals between. Three spiral figures are seen, also influencing the shape of the lateral borders of the shank. These three spirals appear to be nothing other than two pairs of *Buceros* heads facing each other. Thus here again is a similarity with the carved boards of type H.Th.1188:37, where the same decoration is found in the middle section. The reverse side of the hook shows the same pattern as the front side, except that the reverse side of the human face is smooth and carries only a narrow decorative band tapering upwards, decorated with incised triangles.

H.S. 6604, Māndānām, **suspended hook** (*uōngāmār*, Müll.; length 128 cm), board-like, very similar to the preceding one. The longitudinal part shows the same incised decoration except that the *Buceros* heads of the central part are scarcely recognizable as such. The piece ends both above and below in a



Fig. 112. Suspended hook, H.S. 9366, 1/10 actual size

Fig. 114 Reverse of suspended hook, H.S. 6604, 1/10 actual size

face-like representation whose eyes are formed by spirals. The hook part has two long pointed prongs directed steeply upwards. The shank ends above in a fully three-dimensional carved pig's head (Fig.113) that has a transverse hole above for the hanging cord, here consisting of a thin strip of rattan. The reverse side of the longitudinal part is decorated exactly the same as the front surface (Fig.114), but the *Buceros* heads of the central field are even more stylized. On the reverse side of the pig's head a relatively naturalistically produced face is added, with nose and mouth also recognizable. The entire reverse surface also shows remnants of red and white paint.

A piece from "Olem" illustrated by Schlaginhaufen (*loc. cit.* p.45, Fig.Z) is quite similar to the two just described, except that the head representations at the upper end are missing; however the decoration is the same, although the *Buceros* heads are more strongly stylized." [*sic.*] An eyelet is missing. Near the upper end a short section is separated by a lateral indentation on each side, probably serving for attachment of a hanging cord."

St.Ha. 61620, "Matembe" **suspended hook**, Plate XL.8 (length 204 cm) is included here through its form and decoration. According to the collector it came from a "spirit house". At the upper end a shallow trough-like facial representation is added, showing a low but sharp-edged middle ridge. Out of each side of the pierced nasal septum comes a long curved line whose spirally-wound end surrounds the eye made from concentric circles. The head decoration resembles that of H.S.9366 (see above); it is bored through transversely [172] and carries a strong rattan loop. The ears are small and oval, and sit high on the head. The half-moon-shaped mouth shows a drawn-out corner with a small circular area before each end. The shallow relief decoration of the board-like longitudinal part has a recognizable facial representation at both the upper and lower ends; the *Buceros* heads are less distinct. The lower transverse part has two cones pointed steeply upwards. Differing from the pieces described so far, the reverse side shows a large facial representation above but produced in colour rather than three-dimensionally. The board part shows the same shallow relief as the front side. The whole piece is painted on both sides, in dark brown (the elevations), red, white and ochre.

L.Me. 8985, "Empress Augusta River", **suspended hook**, (length 99 cm), similar to the preceding one. The face added to the upper end is of the same type; it is shallow and has a low sharp-bordered crest whose lower end forms the nose. The piece on top of the head is not bored transversely here, but from front to back. The circular eyes, as in H.S. 9366, have comma-like processes pointing downwards; two round shallow knobs are to the sides of the nose. The sides of the nose are narrow, the septum is pierced and adorned with a small cord. The surface of the long part shows patterns produced by incised lines: a stylized face is recognizable above, with a second less distinct one above it, while the spirals above this, from their very position, are probably regarded as eye positions in a face; they evidently have nothing to do with the *Buceros* decoration. The actual hook consists, apart from the cross piece, of two long thin oblique points.

H.S. 4549, Pāmūngrī (bought from a canoe) **suspended hook**, Fig.115 (length 175 cm) resembling the preceding ones. The face at the upper end shows the same flat form and a nose gradually developing from a sharp-edged crest whose broad wings turn into a low bulge on each side which, rising sideways, surrounds the eye with its end (cf. St.Ha.61620, p.171); the nostrils are wide and the septum is pierced. The mouth is a bulge with a central slit; its angles are drawn upwards and end in short spirals. The head-dress is relatively high and has a small hole from front to back. The ears are narrow additions each with two holes. The longitudinal part shows spirals, consisting of narrow bulges without sharp edges, arranged in pairs, which might have evolved from the chest ornament not uncommon in 'cult' figures, or from faces. The similarity to the facial representations on the other hooks is quite strong. The short peg, found in the middle of the hook part at the lowermost end of several hooks, is elongated here and turned into a bird's head: eyes, ear openings, upper and lower bill are clearly recognizable. The lateral prongs of the hook are evidently regarded as the wings, a small rectangular elevation added above is the bird's tail (cf. hooks H.S.9249, and H.Th.1188:38 described above). The reverse side of the hook is totally devoid of decoration.

Finally, two of the specimens described by Schlaginhaufen (*loc. cit.* pp. 44 and 45) belong to this group. No.24984 (village 4° 12' S., 143° 42' E.) differs little from the preceding one. "The vertical part represents a herm and is long in relation to the hook part." Out of the centre of the lower hook part "soars an animal head" which is therefore surrounded by the process often found here. The human head produced at the upper end of the hook again shows the spirals, that we have already seen (for example in St.Ha. 61620), going out from the wings of the nose and surrounding the eyes. The forehead has a hole for the hanging cord. The longitudinal part of the shank is carved on both sides; the decoration resembles that of hooks H.S. 6604 and H.S. 9366, but is so widely stylized that the *Buceros* heads have become vertical ovals, laterally edged by semicircular figures. The other specimen, No.24988 (Fig.116) deviates rather significantly in form and decoration from those discussed so far; "its vertical part is a herm". "The eyes are represented by a small cavity with a small plant component inset." "Nose and mouth do not project far, the latter is asymmetrical. The eyelet for hanging is attached crosswise to the reverse side of the head. The herm has a round filigree somewhat above the middle. It is bordered on both sides by thin cross-struts which perhaps go back to extremities."

St.Ha. 61715, "Jaunda", **suspended hook**, Plate XLI.1 (length 81 cm) forms to some extent a transition to Group III; in it the human body is very much more complete than in the hooks described so far, but the legs are missing. The figure is strongly flattened from front to back, with a thickness of 4 cm at the most; the face is flat as well and has a broad oval shape. The eyes are oval elevations with a shallow hollow in the centre. The nose is long and

narrow and slightly projecting, its wings are separated from it and carry the nostrils, elongated oval hollows on the front side; the septum is not pierced. To the side of the nose are two round flat elevations, possibly intended to indicate cheek bones. The mouth is a flat triangular bulge with [173] a half-moon-shaped mouth slit. The forehead bulges anteriorly; below this bulge is the hole intended for the rattan cord. The breasts are indicated by weakly incised lines, and the navel by a circular incision surrounded by a red star. The back is covered along almost its entire length by a row of shallow arch-shaped lines open above (vertebrae?). The very thin arms merge with the body with the extremities — hands are not indicated — in the region where the hips would be; the elbows are slightly thickened. The body tapers somewhat downwards until it finally transforms into the double-winged hook. On the surface of the hook part are several shallow indentations: of which those right at the end of the body are possibly intended to represent a vulva. Below these are eye-like structures, so that the entire middle part appears almost like an animal head.

H.S. 6660, 375 km-village, **suspended hook**, Plate XLI.3 (length 39 cm) a fully naturally formed human figure clearly intended to be a woman. The head is fairly long and narrow, in the mask-form with heavily accentuated cheek bones (for example St.Ha.61707). The eyes are transverse hollows, the nose is flat and has wide wings, deepened nostrils and a pierced septum through which a bast fibre noose is pulled as decoration. The mouth consists of a surprisingly large transverse bulge. The ears sit somewhat deeper than the eyes and are small handle-like structures each with a thin cord through their hole. The head carries a cone-shaped addition with a hole from front to back. The torso is made very three-dimensionally with very special attention paid to the shape of the genitalia: the breasts for example project a long way and show a beautiful curvature; above each one is a row of shallow-carved angular lines inside one another (decorative scars?). The navel, a small round hollow, is surrounded by four curved lines forming a star-shaped figure. The abdomen is distinct from the upper part of the body. The fairly short arms are clearly divided into upper arm, forearm and hand. The knees and calves are somewhat thickened, the feet merging with the hook part. The reverse side shows the back of the figure; shoulder blades and rump are clearly differentiated. The actual hook part shows a spiral decoration consisting of engraved lines that look almost like a pair of eyes.

H.S. 6661, 375 km-village, **suspended hook**, Fig.117 (length 1.20 m), made of hardwood and very much more bulky and roughly made than the preceding ones. It represents the figure of a man. The face is hollowed out like a trough; of the raised pieces only [174] the nose and the rim of the face remain; the nose turned out relatively naturally and shows a pierced septum decorated with a bunch of bast fibre. The eyes are round with holes inlaid with mother-of-pearl shell discs: a central depression must represent either iris or pupil. Above the eyes are thick eyebrow bulges formed from the side borders of the face uniting at this point. To the side of them are the ears, recognizable only through a deep hole; each ear wears a bunch of bast fibre. The mouth lies at the lower margin of the face, just as in the gable mask H.S.9368; in the wide open mouth slit it shows a series of short bulges, the teeth, and in the middle a protruding short tongue whose tip merges with the lower lip. The eyelet for hanging is situated on the reverse side of the head and forms a strong arch. The chest part shows fairly far-protruding nipples surrounded by low concentric ridges; to the sides are added lines, probably



Fig. 116. Suspended hook after Schlaginhaufen

Fig. 115 Suspended hook, H.S. 4549 1/10 actual size



Fig. 117. Suspended hook H.S. 6661. 1/10 actual size



1. Suspended hook St.Ha. 61715, 1/5 actual size 2. Suspended hook H.S. 6659, 1/5 actual size
 3. Suspended hook H.S. 6660, 1/5 actual size 4. Food cupboard H.S. 8981, 1/10 actual size
 5. Betel mortar L.Me. 7069, 1/3 actual size 6 & 7. Betel mortar L.Me. 9135, 1/5 actual size
 8. Pot H.S. 9242, 1/5 actual size 9. Clay bowl H.S. 4505, 1/5 actual size

representing decorative scarification. The body is long, narrow and somewhat flattened at the sides. The navel, a low oval bulge, is surrounded by incised curved lines uniting below on each side of the body into a rolled double spiral. The whole thing is reminiscent of the decorative scars reproduced in Fig.69 (p.110). The arms are slightly bent at the elbow joint, the hands indicated only by rough representations of the fingers. The legs are short, knees and calves only faintly modelled; the feet are carved as a shallow relief in a vertical position on the front side of the hook part. The reverse side represents the back of the figure; front and reverse sides are thickly painted red.

Here is added the hook illustrated by Schlaginhaufen (1910b, p.45) in Figure Y (village 4°12' S., 143°42' E.). An entire human figure is presented in this one too, resembling our specimen in form. Mainly the head differs, its face very reminiscent of that in the figure St.Ha.61623, that is, it is fairly flat, with round black eyes on a white background, surrounded by black circular lines in wide arches, a broad nose and black circles on the cheek bones; the transverse mouth is elongated. "In painting, white predominates on the head, red on the body." On the reverse side the head has a very strong loop; a second smaller one is located at the upper margin of the forehead. "On the hook part, besides both lateral hooks, there are two further hooks in the midline, one in front and one behind; but they are arranged in such a way that they do not disturb...the 'surface area' ". Laterally, at the base of the erect penis, is a pair of round white-rimmed elevations.

The same author (*loc. cit.* p.46) then illustrates an apparatus in Figure C that he likewise considers to be a suspended hook, but it differs in form so much from all the other hooks that he creates a special type for it, the "horizontal" type. "It consists of a transverse stick that runs into two hooks curving slightly upwards. From the upper margin run three short processes, the central one carrying the loop for hanging...." Unfortunately the author does not mention whether he has seen the object in use, only that a specimen merely came into view that "was decorated on both surfaces with relief carving." I am of the opinion, especially since the piece would be quite impractical as a suspended hook, that we are dealing with something totally different, that this "hook" is a simply-produced example of the remarkable ship-like representations, that it belongs with the wonderfully-fashioned St.Ha.61611, (see Plate LXXXVI.3) and is therefore probably a ceremonial instrument.

In the village of Nǎngĭt we found a remarkable device for the storage of food — sago bread, pork, yams, and fish were nominated for Hellwig — a type of larder, **H.S. 8981** (*džĭgŭm* Hell.), Plate XLI.4, like a dog kennel in shape (length 84 cm, width 60 cm, height 45 cm). It was hanging from the rafters in a house. A frame of bamboo slats flanked by two thick soft wooden poles is fastened onto two similar poles lying transversely to the long axis. The frame is reinforced by two thin staves, fastened on below; above it arches a half-cylinder consisting of sago palm sheaths bound together by strips of bast, forming the roof of the 'hut' and fastened to the hanging rope. The interior space is closed off front and back by sago palm sheaths; the front wall has a round opening. Roof, front and rear walls are supported and reinforced inside by various sticks and strips of rattan. The long hanging loop is made from rattan.

Dishes

Bowls made from leaf sheaths

It appears that the usual eating dishes in the river mouth region are often [175] simple bowls made from leaf sheaths of the ubiquitous sago palms of the region.

H.S. 9003, Nǎngĭt, **eating dish**, (*arĕngam*, Hell.) Fig.118 (length 64 cm, width up to 31 cm, height of the narrow side up to 16 cm), made from palm leaf sheaths, with a rectangular base. The dish is folded together out of one single piece in such a way that the narrow sides, at right angles to the fibre direction, are turned obliquely upwards while the long sides, running parallel to the leaf fibres, are turned vertically upwards. The left-over ends of the long sides are folded outwards under the narrow sides and are firmly held by two woven-on slats enclosing the upper edges of these sides.



Fig. 118. Food bowl, H.S.9003, 1/10 actual size

H.S. 9004, Nǎngĭt, **eating dish**, (*arĕngam*, Hell.) (length 57 cm, width 33 cm, height of the narrow side up to 12 cm), made from sago palm leaf sheaths, the same as the preceding one in shape and manufacture.

Wooden dishes

Eating dishes. Wooden dishes are also fairly common. They are often impressive in their form and decoration. We saw beautifully carved eating dishes particularly frequently in the sago swamp region.

H.S. 6529, Kōpār, eating dish (*nāmbīdō*, Müller) Fig.119 (length 60.5 cm, height of the side walls 9.5 cm, width 17 cm), with rectangular base and walls abutting at an angle. In its form it is an obvious imitation of the dishes made from sago palm leaf sheaths, which is also expressed by the sharp three-dimensional edges where the walls abut. The narrow sides are decorated on top with a fully three-dimensionally carved animal figure that, judging from the rolled-up curled tail, is intended to be a cuscus (Fig.120). The animal wears a neck band decorated with wavy lines, it has big round eyes, and along the front side of the head, from the neck to the tip of the snout, runs a crest; the mouth slit can be faintly seen. The figure is separated from the wall on which it stands by a deeply incised line; below it is a row of strongly deepened triangles. The inside floor of the vessel shows a painted decoration of two irregular concentric circles, that rises up grey against the dark-brown background. The decoration on the obliquely-rising narrow side (Fig.121) is produced by the same technique. The outsides of the dish are undecorated.

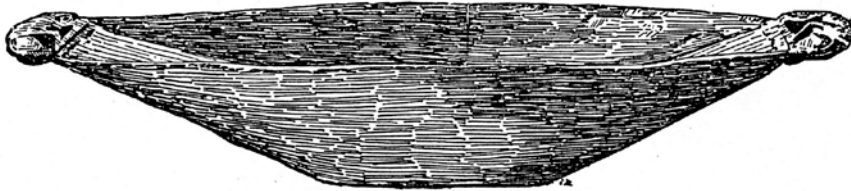


Fig. 119. Wooden eating dish H.S. 6529, 1/5 actual size



Fig. 120. Handle of the eating dish H.S. 6529, 1/2 actual size

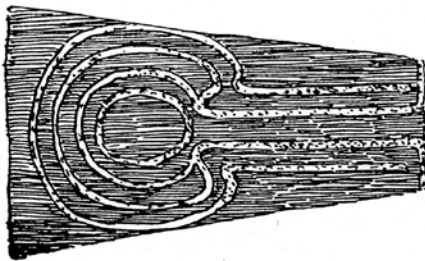


Fig. 121. Decoration of the eating dish H.S. 6529, 1/4 actual size



Fig. 123. Handle of the eating dish H.S. 1793, seen from above, 1/5 actual size

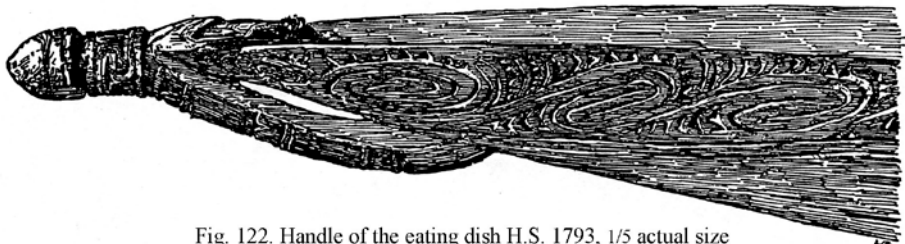
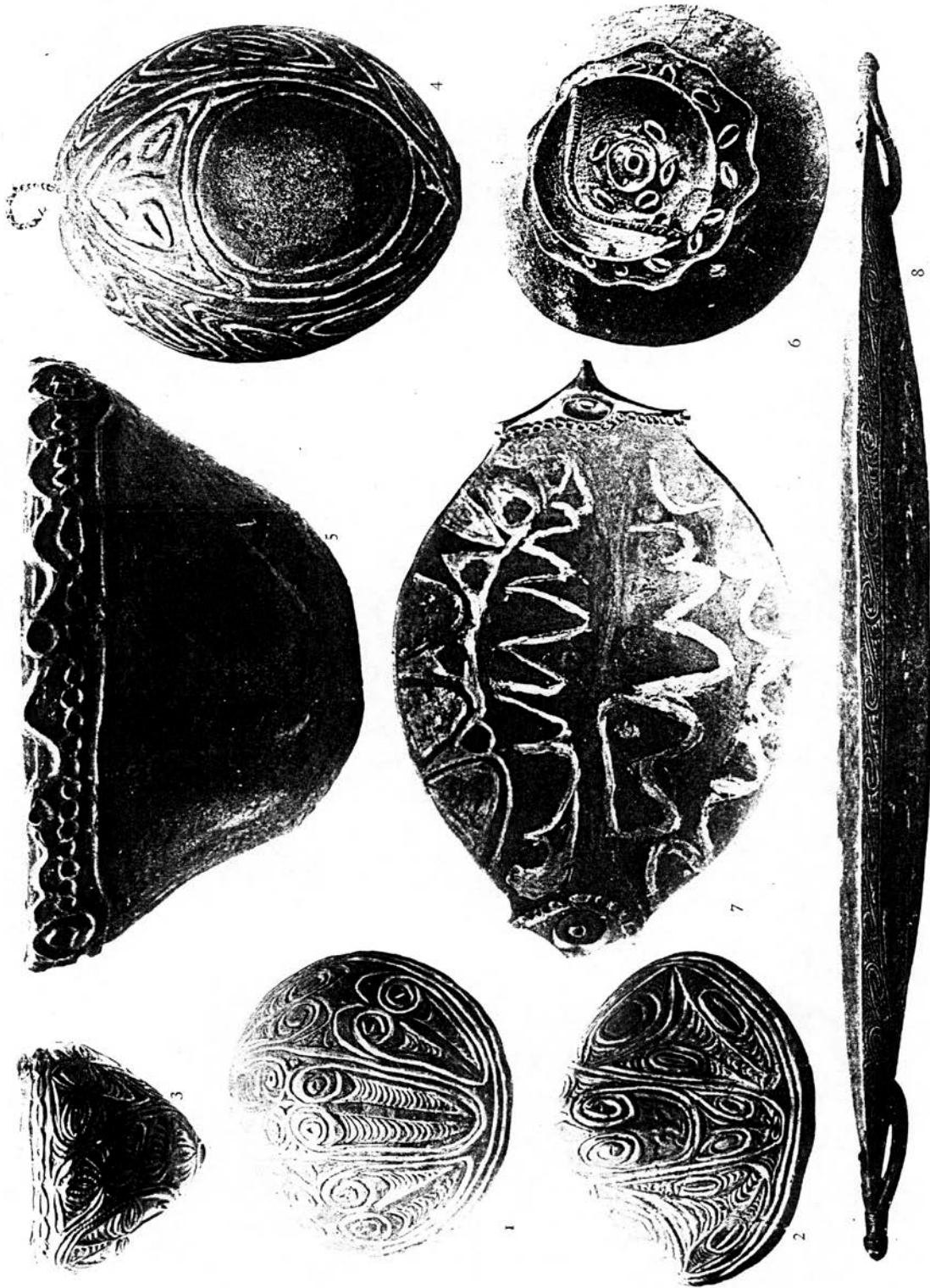


Fig. 122. Handle of the eating dish H.S. 1793, 1/5 actual size

Reche, Empress Augusta River, Plate XLII



1. Clay bowl H.S. 6638, 1/5 actual size. 2. Clay bowl H.S. 4503, 1/5 actual size. 3. Clay bowl H.S. 9137, 1/5 actual size
4. Clay bowl H.S. 6575, 1/5 actual size. 5. Cauldron H.S. 9157, 1/5 actual size
6. Underside of a bowl after Schlagmhaufen. 7. Clay bowl H.S. 9232, 1/5 actual size
8. Eating dish H.S. 1793, 1/10 actual size

H.S. 1793, Kōpār, **eating dish** (*nāmbīr*, Fülleborn), Plate XLII.8; of absolutely extraordinary size (length 232 cm, maximum width 35 cm, height of the side walls 15 cm). The piece is trough-like and resembles a dug-out canoe in form and size, which obviously is also within the natives' experience: namely the upper rim is adorned with a decoration that is otherwise found on the gunwales of canoes, a type of meandering pattern (Fig.122). Each of the two ends of the dish has a grip consisting of a horizontal spiral round peg and a stirrup going from this to attach to the underside of the dish; the peg is the high hairstyle of a human head (Fig.123) which, with its prolonged nose and slanting eyes resembles a type of 'cult figure' found in the coastal region; it is looking upwards, with its chin extending into the dish. The mouth, an incised line with peaks pointing upwards (the teeth), lies somewhat separate on a triangular raised plate. Below the face, at one end of the dish is a large circular prominent knob, which — faked by carved circles — appears to consist of four plates, one above the other. At the corresponding spot at the other end of the dish are two very much smaller oval knobs rising about 1.5 cm above the surrounding surface. The bottom of the dish is somewhat distinct from the walls on the outside, whereas on the inside it merges imperceptibly with them.

H.S. 1799, Kōpār, **eating dish** (*nāmbī*, Fülleborn) (length 72 cm, maximum width 20.5 cm, height 9 cm) similar to the preceding one. The rim is slightly discontinuous on the inside about ½ cm below the border. The outside has, for its sole decoration, an approximately 15 cm long strip in the centre of the long side with oblique indentations. The sharply tapering ends of the dish are provided with handles resembling those of the one just described; they also consist of long stirrups directed toward the underside of the dish and a head soaring above into the dish, which is however highly stylized; the eyes are totally absent; actually only [176] the carefully-made nose can be recognized, with a somewhat elongated tip and distinct wings extending far above. The facial surface is covered with incised lines that mostly run parallel to the edges. Outside, the circular bottom is distinct; inside, it merges into the sides without any border.

Schlaginhaufen (1910b, p.40) illustrates a peculiar wooden bowl from "Wolem", which stands on a small hollowed foot and runs out over the upper surface into "two longitudinal wooden braces carved in the form of two human figures." "Both figures — one is male the other female — lie face upwards, feet turned towards each other in such a way that the head [177] of one projects over one end, and that of the other projects over the other end of the dish, the shoulders merging with the rim of the corresponding end of the dish, the feet of both individuals uniting with one another and with the middle of the dish base." Whether it is actually a case of a bowl here, seems questionable to Schlaginhaufen, "since the figures on the upper surface would significantly hinder this purpose".

In preparing and storing sago, they use large trough-shaped wooden dishes (see for example Plate XXI.2) that are like canoes in their shape, similar to the large eating dishes described above. We never saw any kind of decoration on these sago troughs.



Fig. 124. Betel mortar, H.S. 9030, 1/2 actual size



Fig. 125. Betel mortar, H.S. 6597, 1/2 actual size

Betel mortars. In the river mouth area — we never noticed them further upriver — we find remarkable wooden containers that most resemble beakers in shape; we were given the information that these were betel mortars, that is, containers in which betel nuts were crushed before use — especially by older people who could no longer chew properly.

H.S. 9030, Mǔǎngĕm, betel mortar (?) (*děřím*, Hellwig) Fig.124 (height 17 cm, diameter of the upper bowl 7.5 cm and of the lower one 7 cm) carved from a single piece of wood. A rather damaged bowl rests on a cylindrical column decorated with five three-dimensionally carved human faces, and these rest on a grooved pedestal. The bowl is rather worn on the inside, and covered with a russet patina. On the outside, just below the rim, runs a chain of three-dimensionally carved elongated ovals, and below this a band of cruciform figures. The five facial representations on the column are very similar to one another, which may be the intention; the forehead projects obliquely downwards, the eyes are somewhat slanting, the noses are prominent and have very broad massive wings; the mouth [178] is a half-moon-shaped bulge with a wide mouth slit. The pedestal shows the same chain decoration as the bowl.

H.S. 6597, Āngĕrĕm, betel mortar? Fig.125 (height 14 cm, diameter of the bowl opening 6.5 cm, diameter of the pedestal 7.5 cm) carved out of a single piece of wood, like the preceding one. Here, too, the bowl rests on a column, but the column is on a massive hemispherical pedestal. The bowl is only shallow on the outside but is deepened right down inside the column and has a dark brown patina. The column is surrounded by five three-dimensional facial representations which, again almost the same as each other, represent a type markedly different from H.S.9030; their eyes are very oblique, the noses have snout-like elongated tips and longish nasal wings running obliquely downwards: we are probably dealing here with bird masks. Between the nose of one mask and the column is pulled a rattan strip, evidently for suspension.

L.Me. 9161, “Empress Augusta River”, betel mortar? Fig.126 (height 12.5 cm, diameter of the bowl 5 cm), carved from wood. The piece consists of a human figure with slightly bent legs standing on a pedestal and carrying a bowl on its slightly bent neck, at the same time holding the bowl firmly with its hands. The face has a beak-like elongated nose.

L.Me. 7069, “Anjam, Empress Augusta River”, betel mortar? Plate XLI.5 (height 14 cm, diameter of the bowl about 5 cm), made of wood. A female figure with very short legs, standing on a pedestal, carries a bowl on her head. The bowl is decorated on the outside with an engraved duplicated meandering pattern. The legs and forearms have incised zigzag lines, the upper arms have several concentric circles with connecting curved lines.

L.Me. 7070, “Anjam, Empress Augusta River”, betel mortar (?), Fig.127 (height about 11 cm, diameter of the bowl about 5 cm), made of wood. Two human figures with backs and arms merging, one male, the other female, carrying an oval bowl on their necks and hands; their faces are naturalistically produced.

L.Me. 9135, “Empress Augusta River”, betel mortar (?), Plate XLI 6 and 7 (height 23 cm). Two carved wooden human figures with their backs turned to each other and their buttocks merged, carry a shallow oval bowl on their heads. The faces are quite carefully made and appear to represent portraits. The noses are very prominent with broad wings and a pierced septum, in one figure decorated with a short chain of European glass beads. Elongation of the nose forms a sagittal crest running over the forehead. The eyes consist of slanting oval elevations with deep depressions in the centre. The mouth is reproduced in exactly the same way: a small transverse bulge with a depression in the middle. The forehead juts out somewhat above the eyes and passes laterally into a strip with a sharp edge bordering the lower face. Both heads sit on the chest (the neck is completely absent) so low down that the eyes are roughly at shoulder height. The arms are bent at the elbows, which are approximately at hip level. The forearms run obliquely upwards and the hands contact the bowl, which they help to support. A grass apron is around the hips of both figures. The four feet merge into a pedestal.

Little wooden bowls. In several places from the village of Kǎmbrĭngĭ onwards, we were offered great quantities of remarkable small wooden bowls of a type that we had never seen in any of the villages further downstream; the pieces collected by Schlaginhaufen

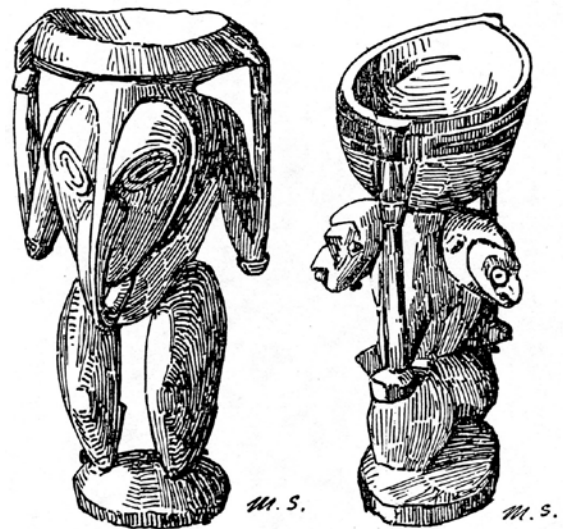


Fig. 126. Betel mortar, L.Me. 9161, 1/2 actual size Fig. 127. Betel mortar, L.Me. 7070, 1/2 actual size

(1910b, p.39) also came from this region. We could not find out what they were used for, but since the majority of them contained remnants of red or white dye, we can probably assume that they were used as dye pots (for body painting?).

H.S. 4558, Kāmbrīngī, **small wooden bowl**, Fig.128 (length including handles 24 cm, width 7 cm, height 4 cm) of oblong oval shape. There are grips at both ends, one representing a quite carefully made head with prominent eyes and the other the tail, of a crocodile; the bowl is intended to be the body of the animal. On the underside of the tail handle a transverse hole, is evidently for threading a hanging cord. Halfway up, the bowl has a decorative band of raised circular areas, accompanied above and below by two incised lines; this band ends in front and behind in a hook-shaped figure (remains of the leg) and continues as far as the tail. The floor of the bowl is sharply discontinuous with the side walls both inside and outside.



Fig. 128. Little wooden bowl, H.S. 4558, 1/5 actual size

H.S. 9141, 252 km village, **small wooden bowl** (length including handles 26 cm, width 6.5 cm, height 3 cm), very similar to the preceding one. One handle represents a very carefully carved crocodile head, the other a barely recognizable tail, with a wide transverse hole. On both side walls of the bowl, just behind the head, is an angular figure formed from two raised strips concave forwards, evidently intended as front legs; otherwise the side walls of the bowl have no decoration. The bowl floor is discontinuous with the walls only on the outside.

H.S. 6630, 252 km-village, **small wooden bowl** (length with handles 27.5 cm, width 6 cm, height 3.5 cm). One handgrip is much longer than the other and represents a very slender stylized crocodile head; only the upper side is naturalistically produced: here lie the eyes, oblong oval humps enclosed by narrow strips. The other handle is no longer recognizable as a tail; it has a wide transverse hole. The floor is very sharply divided from the walls on the outside.

H.S. 1857, 252 km-village, **small wooden bowl**, Fig.129, (length including handles 30 cm, maximum width 3.8 cm, height of the side walls 1.8 cm) elongated oval, canoe-shaped, similar to the preceding one, but much more elegant in form and more carefully made. One handle represents a beautifully carved crocodile head; the eyes, the nostril area, and two humps between eye and nose project beyond the profile view. On the upper side of the tail is a comb made of large scales and beneath this is again a hole for suspension. The walls of the bowl are decorated on the outside with a somewhat modified spiral decoration. On the outside the floor merges gradually into the side walls but on the inside it is reasonably distinct.



Fig. 129. Little wooden bowl, H.S. 1857, 1/5 actual size

H.S. 6752, Kāmbrīngī, **small wooden bowl**, (length including handles 17 cm, maximum width 4 cm, height up to 2.5 cm), oval, asymmetrical, one side wall surprisingly higher than the other. The crocodile head on one end is short, broad at the base and rapidly tapering forwards. The eyes are slanted outwards, the nostrils consist of two depressions that unusually do not lie on an elevation; the mouth slit is distinct but without teeth. The other handle, the tail of the beast, has a transverse hole at its base. At the head on each side is a slightly three-dimensional angular figure, probably indicating the front legs; the hind legs are less distinct. The area between the legs is filled with incised wavy lines — a continuation of the leg decoration. In the middle of each side wall is a three-dimensional oval. The slightly discontinuous floor of the bowl also carries a decoration on the outside: an oval surrounded by a wide bulge, probably intended to represent scales. Inside, the floor merges gradually into the walls.

H.S. 9142, 252 km-village, **small wooden bowl** (length including handles 18.5 cm, maximum width 9.5 cm, height up to 2.2 cm) almost circular. One handle represents a short, broad tapering head very similar to the preceding one, probably that of a crocodile; the eyes, ovals, lie on the shallow upper side, framed by several low narrow strips. The other handle, the tail, is very broad, short and with a hole through it; a hanging cord of bast is fastened through the hole. Front and back legs are indicated by strips forming an angle, to which are connected a number of similar figures in a decorative band; the middle of the side wall has a chain of four three-dimensional ovals. The wall decoration is separated from the floor by an almost unbroken row of triangles with their points downwards. The floor is only separated from the walls on the inside. The bowl contains the remains of a pale grey clay.

H.S. 9166, 252 km-village (?), **small wooden bowl** (length including handles 42 cm, width 11 cm, height up to 4 cm), oval. One handle represents a carefully-made crocodile head, the other the tail with a wide elongated-oval hole with a cord for hanging fastened through it. The crocodile [180] head has clearly-recognizable eyes, ears, and nostrils, and on each side has only one, but accordingly much longer, tooth that towers above the upper jaw. Front and hind legs are indicated by angular figures on each of whose lower ends is a large flat circular knob, the foot; the knobs representing the front legs show an engraved circular line on their upper surface. Only the floor of the bowl is



Fig. 130. Floor decoration of the little wooden bowl H.S. 9166, 1/5 actual size (worn off)

decorated, a characteristic that is found in a large number of the following bowls. The decoration is incised; it shows (Fig.130) in the centre a large oval with small oblique ovals connected to it in front and behind; the whole thing probably represents two human faces. The mouth is also recognizable, below the nose, as a half-moon-shaped depression.

H.S. 9147, 252 km-village, **small wooden bowl** (length including handles 23 cm, maximum width 3.5 cm, maximum height 2.3 cm), canoe-shaped, elongated oval. One handle again represents a crocodile head with big eyes and two teeth towering above the upper jaw, the other a sitting bird (Fig.131), whose long strongly-curved beak reaches to the feet thus forming the eyelet for the hanging cord. Eyes and ears are indicated by small round elevations, wings and tail clearly separated from one another. Neither walls nor floor of the bowl are decorated. The floor merges gradually into the walls on the inside, but is somewhat discontinuous with it on the outside.



Fig. 131. Handle of the little wooden bowl H.S. 9147, 1/2 actual size

H.S. 4557, Kāmbrīngī, **small wooden bowl**, Fig.132 (length including handles 34 cm, width up to 6.3 cm, height of the walls up to 3 cm). Here, one handle is extraordinarily large, to some extent dominating the entire piece. The head carved from it is probably intended to represent that of a crocodile, corroborated by the form of the eyes, the close positioning of teeth in the mouth slit, and the presence of the two large fangs towering above the upper jaw and here pointing obliquely upwards. The nostrils lie on a small elevation, further back than usual; moreover in front, on the tip of the snout, are three gnarled humps. Round the snout loops a wide strip of bast, knotted underneath. The second, very much smaller handle is short, stumpy, and transversely holed; it seems to represent the tail of the crocodile. Front and hind legs are missing, perhaps transposed into the ornamental band decorating the wall, that consists of a row of horizontal ovals showing an oblong depression with jagged edges (mouth aperture with teeth?) on one side of the bowl, and on the other a row each of round to angular humps (teeth?). The floor of the bowl is only slightly discontinuous with the walls on the inside, but correspondingly more so on the outside; it is undecorated.



Fig. 132. Little wooden bowl, H.S. 4557, 1/5 actual size

St.He. 60620, Mālu? **small wooden bowl**, (length including grips 31 cm, width 5.4 cm), oblong, shallow. One grip consists of a well-presented crocodile head, the other is a short transversely-drilled peg which, decorated on top with scale-like zigzags is probably intended to represent the crocodile's tail. The outside of the bowl walls are decorated with a chain of oblong ovals. The underside of the floor shows an indistinctly incised decoration of ovals

While all the pieces described so far represent crocodiles, in the following examples other animals and also humans are thought to be transformed into bowls.

H.S. 9143 252 km village, **small wooden bowl**, Fig.133 (length including handles 43.5 cm, maximum width 7.8 cm, side wall height 3 cm), oblong oval. One handle seems to represent a dog's head; corroborated among other things by the fairly long, pointed ears angled forwards, and the shape of the snout with the nostrils on the front. The mouth is slightly open, showing the teeth with the tongue hanging out about ½ cm in front. The eyes consist of two concentric raised circles. Below the ears on each side is an oval area filled with six small raised ovals. The other handle is very long and decorated with a three-dimensional zigzag band; its tip has deep circumferential incisions; through the transverse hole is pulled [181] a long twisted cord for hanging. The whole outer surface of the bowl is richly carved (Fig.134). The side walls, differentiated from the floor only by a deep line, show a large oval alternating with two small ovals, connected together by narrow strips; the remaining surface is filled by hook-shaped structures. The whole thing seems to be a modified spiral decoration. The floor surface has the same pattern except where a facial representation is added both in front and behind. Inside, the floor is rather sharply discontinuous with the walls.

H.S. 1860, 252 km village, **small wooden bowl**, Fig.135 (length including handles 23 cm, width 7.5 cm, height 4.8 cm) oval. The animal head represented by one handle most closely resembles that of a turtle; the snout is short and squat, beak-like; the round raised carved eyes sit well in front; behind them are the similar but somewhat larger ears. Above these, an oblong oval plaque framed by a narrow strip is built onto the head. The second handle is a quadrangular peg, tapering sharply, without any decoration; there is a hole in its base through which runs a doubled twisted cord. Fore- and hind legs are indicated by broad strips at an angle to each other, to which is connected a round disc decorated with an engraved circle (similar to H.S.9166, see above) both in front and behind. On the bottom of the bowl, slightly differentiated from the outside walls, is an engraved decoration almost totally identical with that of H.S.9166 (see Fig.130); the decoration is completed both front and back by a face.



Fig. 133. Little wooden bowl, H.S. 9143, 1/5 actual size



Fig. 134. Outer surface of the floor of bowl H.S. 9143, 1/5 actual size (worn off)



Fig. 135. Little wooden bowl, H.S. 1860, 1/5 actual size



Fig. 136. Little wooden bowl, H.S. 1867, 1/5 actual size

H.S. 6632, 252 km village, **small wooden bowl** (length including handles 20 cm, max. width 7 cm, height up to 2.3 cm) oval, like the previous but more simply made; walls and floor are undecorated. One handle represents a head that appears similar to that of a turtle, the other a quadrangular tapering peg whose edges are decorated with rows of incisions. Under the peg is a small hole through which is pulled a short, knotted cord.

H.S. 1856, 252 km village, **small wooden bowl**, Fig. 136 (length including handles 33.5 cm, maximum width 12.5 cm, maximum height about 4 cm) oval in shape. One handle, as in the previous specimen, has a head like a turtle, the other a crocodile tail with strong scale disks (like H.S.9166). In the wide hole in this tail is fastened a small hanger made from rattan, and also a long thick rope twisted into eleven knots. The side walls, sharply divided from the floor, are almost vertical; their upper rim is developed into a broad band sloping somewhat outwards, decorated with a row of three-dimensional ovals; depressions in the decoration are whitened with lime. On the somewhat sloping side wall — the floor of the bowl is separated from the wall on the outside by a prominently-projecting strip — the legs are represented in the usual way; the calves are shorter and show indications of toes; the gap between the legs is filled by a series of ovals. The lower side of the base of the bowl has a rather roughly carved pattern that appears to be a spiral decoration just as in bowl H.S.9143 (see Fig. 134).

H.S. 9131, 252 km village, **small wooden bowl**, Fig. 136 (length including handles 27.5 cm, maximum width 11.5 cm, height 2.5 cm) oval, similar to the preceding one, but much flatter. One handle shows almost the same head representation, the other is extremely short and has a small hole through which several bast fibres are pulled. The very thick side walls broaden above, and here again have the decoration [182] of ovals. The front legs are identifiable by an incised angular figure, the hind legs only by a simple line. The rest of the very narrow side surface of the bowl is undecorated. The floor surface again shows the modified spiral decoration, but inexact reproduction.

H.S. 9204, 252 km village, **small wooden bowl**, (*yǎnshǔ*, Hellwig) (length including handles 20 cm, maximum width 9 cm, height up to 2.5 cm) oblong oval. One handle again represents the head of a turtle, the other is only a very short pierced peg through which a short string is pulled for suspension. The floor, both inside and outside, is sharply discontinuous with the walls. On the side walls the angular leg decoration is repeated twice in front and behind, with ovals framed by angular figures in the space between. The underside of the floor has an engraved decoration, similar to H.S.9166, showing a large oval in the middle and a stylized facial representation at each end. The vessel contains vestiges of white clay.

H.S. 1858, 252 km village, **small wooden bowl**, (length including handles 26 cm, maximum width 14 cm, maximum height 3.2 cm), almost circular. One handle represents a turtle head, the other a crocodile's tail armed with big scales. This tail is not pierced; rather, the hole through which the hanging cord is pulled is formed by a three-dimensionally carved side piece running along the underside of the handle. The four legs are each indicated by an angular figure and are connected by a well-defined rib that runs along the outside of the dish. Since both the upper rim and the floor stand out from the side walls through a sharp border, the side walls appear to have two deep furrows. The wide band formed by the upper rim of the bowl wall is decorated with a chain of contiguous ovals. The floor surface is undecorated.

H.S. 1859, 252 km village, **small wooden bowl**, (length including handles 17.5 cm, maximum width 9.5 cm, height up to 2.5 cm), almost circular, very similar to the previous one. One handle displays a turtle's head that is relatively heavily flattened horizontally, the other is only a short stumpy peg that is, exceptionally, pierced vertically at its base. Among our material only H.S.9140 shows a similar vertical perforation; in all other bowls it is horizontal. The low side wall of the bowl displays two to four pairs each of three-dimensional angular leg representations in front and behind, and several oblong ovals in the middle, which seem to have come from a fusion of leg decorations. On its undersurface the floor displays a decoration formed from four ovals, similar to that of H.S.9143 (see Fig. 134).

St.He. 60619, “Empress Augusta River”, **small wooden bowl**, (length including handles 20 cm, length of the actual bowl 13 cm, width 10.5 cm), broad oval. One handle represents an animal head, apparently that of a dog, the other is a short pierced peg with a hanging loop. The side walls are decorated with ovals that show a central slit with vertical engravings, reminiscent of a mouth with teeth. The five-toed bent legs of the animal are attached in front and behind. On the outside the floor displays the decoration shown in Fig.137.

H.S. 9148, 252 km village, **small wooden bowl**, [183] Fig.138 (length including handles 18.5 cm, maximum width 9.7 cm, height up to 3.5 cm), oval, rather roughly and solidly made. Again, one handle comprises an animal head, similar to that of a turtle, the other a primitively-produced human head in which two eyes and a large nose are recognizable, and whose pierced septum provides the hole for the small rattan hanging loop. The legs are represented on the side wall in front and behind, and consist of a rather long thigh, a shorter lower leg at an angle to the thigh, and a paw with four toes; all parts are three-dimensional. The centre of each side wall displays a large oval surrounded by a mound. The floor, sharply discontinuous with the side walls both inside and out, is decorated on the underside with a three-dimensionally carved human face (Fig.139). In this bowl there are abundant remains of greyish-white fatty clay, probably used in body painting.



Fig. 137. Decoration on the floor of the little wooden bowl, St.He. 60619, 1/5 actual size, (abraded)



Fig. 138. Little wooden bowl, H.S. 9148, 1/4 actual size



Fig. 139. Decoration on the floor of the little wooden bowl H.S. 9148, 1/5 actual size (abraded)



Fig. 140. Little wooden bowl, H.S. 9140 1/5 actual size



Fig. 141. Handle of the little wooden bowl H.S. 6631, 1/2 actual size

H.S. 9140, 252 km village, **small wooden bowl**, Fig.140 (length including handles 22.5 cm, maximum width 6 cm, height up to 3 cm), oblong in shape; a very old piece with a thick dark-brown patina. It differs from the pieces described so far. One handle apparently represents a distinctly stylized head, on which only two prominent eyes out to the sides are clearly recognizable. Remarkably, this handle is pierced, and by a vertical hole through its base. The other handle is only a small almost-spherical knob. Neither side nor floor surface display any kind of decoration. In this bowl there is a rather large amount of the greyish-white clay already mentioned.

The small wooden bowls illustrated by Schlaginhaufen (1910b, p.39) are extraordinarily similar to those described here, and show no major differences; only one (Fig.L) has an animal's head as a handle which the author probably quite correctly says is a bird's head. Another (Fig.M) displays on its underside a decoration consisting of clearly indicated spirals. These vessels too contained the remains of a whitish substance: chalk, according to the author.

H.S. 6631, 252 km village, **small wooden bowl**, (length including handles 32.5 cm, maximum width 8.7 cm, height up to 3.2 cm), oblong oval with two strong handles, one representing a turtle's head, the other a human face. This face (Fig.141) touches the bowl with its nose, thus, to some extent, looking into it or, when the bowl is hanging up, it looks straight at the beholder. It is of the type frequently found in this region, with prominent forehead, sunken cheeks and a concave bridge to the nose. The eyes are round and shallow, with raised surrounding areas and a central depression. The mouth is missing. On the crown of the head is a helmet-like, sharply-bordered elevation probably intended to represent the favourite local hairstyle: short hair with carefully-razored neck and temples. The neck is very thin with deep indentations on the underside; with the chin it forms the eyelet for the rattan hanger. The handle decorated with the human head corresponds therefore with the short pierced handle of the other bowls, where it usually represents a fish tail. The present bowl is therefore no longer regarded as one creature, but a merger of two. The outside walls are decorated with a chain of ovals, strung together, a decoration also found on the underside of the floor.

H.S. 6751, Kāmbrīngī, **small wooden bowl**, (length including handles 13.5 cm, maximum width 5.7 cm, height 1.2 cm), oval in shape. Here the larger, non-pierced handle displays a facial representation that is similar to the

one just described, but shows ears, broad nostrils, and a strongly widened mouth with bulging lips; on the back of the head are two holes close together, of unknown purpose. The other handle is a short tapering peg with a wide transverse hole and a hanging loop, and scale-like raised areas on the upper border. The outer side of the bowl wall is decorated with a chain of ovals, the underside of the sharply defined floor with a narrow band parallel with the rim, showing a modified spiral decoration.

Oil Containers made from Gourds

In the lower reaches, and then not until the village of Málu — like the lime containers they seem to be very much more rare throughout the middle reaches — we obtained several pots made from gourds, all serving as oil containers.

H.S. 9307, Málu, **gourd pot**, Fig.142 (height 11.5 cm, max. horizontal diameter 13 cm) almost spherical in shape. Above, an approximately 3.5 cm diameter opening is broken into the bowl. The pot is wrapped [184] around with rattan strips; a hanging loop of rattan strips, wrapped round with rattan, is fastened onto the upper strong plaited ring. The container is completely saturated with oil.

H.S. 9306, Málu, **gourd pot**, (height 17.5 cm, maximum horizontal diameter 13 cm), very similar to the previous one but relatively higher. The opening above has a diameter of 3 : 3.5 cm. The pot is rather thickly wrapped round; the hanging loop consists of a simple rattan strip.

H.S. 6576, Îmbântön, **gourd pot**, (height 16 cm, maximum horizontal diameter 15.3 cm) similar to the preceding one, wrapped round with rattan. Both rattan rings are very thick, and the lower one sits so deeply that it simultaneously serves as a pot stand. The hanging apparatus consists of three hoops made out of rattan, two of which are united by binding. The pot is completely saturated with oil.

H.S. 9298, Málu, **gourd pot**, Fig.143 (height 43 cm, maximum horizontal diameter 15.5 cm), wrapped round with rattan. A strong hanging loop wrapped with rattan is attached to the upper ring. The lower plaited ring sits so high that it cannot serve as a stand. This container too shines both inside and out with oil.

Lü. 6977, “Empress Augusta River”, gourd pot, designated by the donor as a “lamp”. I consider the use of this gourd container for that purpose to be technically impossible. If one were to light such a “lamp” the effect would be only that the container, completely saturated with oil, would immediately burst into flames. Moreover, in none of the containers did we find a wick, and the Lübeck specimen did not have one either.

Furthermore Lü.6977 is very similar to the preceding gourd pots; in particular it scarcely differs from H.S.9306.

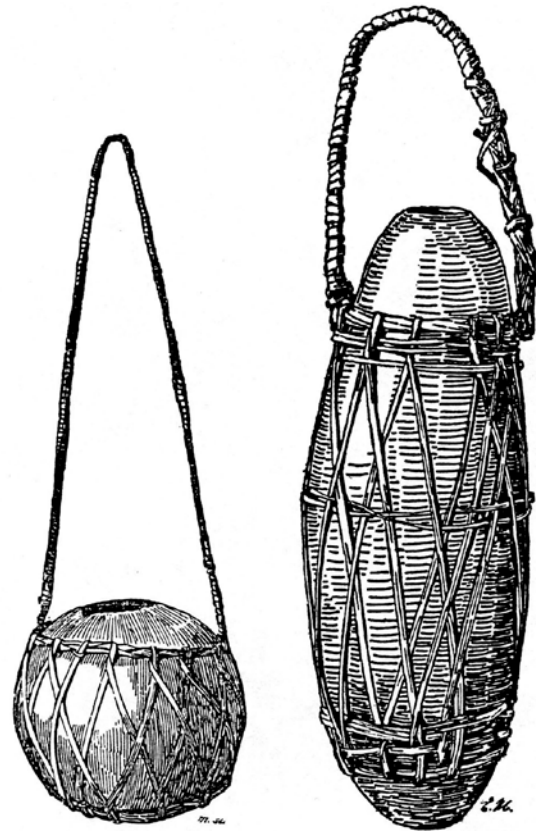


Fig. 142. Gourd pot,
H.S. 9307, 1/4 actual size

Fig. 143. Gourd pot,
H.S. 9298, 1/5 actual size

Clay vessels

The clay vessels that have become familiar so far, from the Empress Augusta River, are all, the conical dishes included, produced by the same technique, namely built up from clay rolls (for further detail see the chapter “Techniques” and Plate LI). W. Müller maintains (*Korrespondenzblatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte* 1911, No. 8/12, p.127), that the conical dishes were “produced by a totally different technique than that occurring further upriver, which nobody has so far witnessed(!)

namely the patting and pounding technique". That assertion is therefore unproven and, consequently, the deductions that Müller made from this collapse as well. The material is usually rather fine-grained clay. Firing, especially with the large vessels, is quite incomplete and therefore all the pots are rather brittle and porous.

In one portion of the small vessels in our collection the precise provenance can no longer be determined, because they were broken in transit and their labels were jumbled together; in such cases I offer only "Empress Augusta River" as their origin and put a question mark after the probable location.

The containers found along the river can best be divided into groups, [185] by using the very different characteristics of decoration as divisional criteria. The following four main groups are then obtained:

- 1) rather rough containers without any decoration,
- 2) containers decorated only with scratched lines,
- 3) containers whose outer surface is decorated with figures in relief, which were created by scratching out the areas between the figures,
- 4) containers with three-dimensional figures made by adding on material.

In groups two, three, and four several subgroups can be clearly identified; in group two there are firstly containers in which the scratched lines form a band running around the rim of the container, and secondly those in which the container rim is undecorated while the rest of the surface is covered in scratched lines.

Group 3 is split into conical shallow dishes; conical somewhat higher pots with slightly tapering rims; and, thirdly, shallow oval dishes.

In Group 4 no fewer than seven subgroups can be differentiated: 1) clay vessels with an added rim decoration; 2) basins with a foot and several added three-dimensional decorations; 3) very large conical or shell-shaped dishes with three-dimensional rim decoration; 4) small pots without necks, which have several strongly three-dimensional representations, handles, pegs, and so on, below the rim; 5) large bulbous pots with a distinct neck, and decorated at the base of the neck with a large number of added strongly three-dimensional representations; 6) very large bulbous containers with a long relatively slender neck that is usually decorated with strongly three-dimensional representations; and 7) containers that have three-dimensional decorations on the bottom and probably all serve as decoration of the gable towers.

The following container belongs in Group 1:

H.S. 6528, Kōpár, **clay pot** (*nānínō*, Müller) Fig.144 (height 15.5 cm, maximum diameter 21 cm), quite roughly presented, without any decoration, a pointed foot, slightly bulged belly, somewhat defined overhanging neck and a wide opening. The material is rather coarse clay with stones in it, which was relatively well fired. The pot appears to have been used as a cooking pot, and to have had a lot of use; it is heavily fire-blackened on the outside. Only the point of the base has remained pale; the pot was therefore probably able to stand up during use, bored a little way into the earth or ashes. A very similar though somewhat larger pot is seen on Plate XVI.2 on the left, in front of the ceremonial lean-to. These containers seem to represent the type of cooking pot commonly used in the lower reaches.

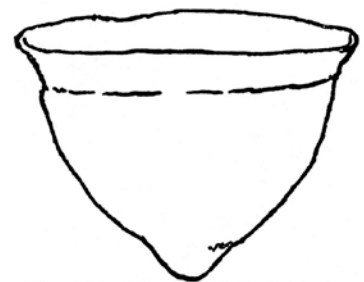


Fig. 144. Clay pot, H.S. 6528,
1/5 actual size

Belonging to Group 2 are: [186]

H.S. 9028, Muǎngĕm, **large pot** (*nĕni* or *náni*, Hellwig), Fig.145 (height 19 cm, maximum diameter 32 cm), bulbous, almost hemispherical in shape. The material is relatively finely washed clay fired quite hard. The decoration accompanying the upper rim consists of a zigzag band of two parallel lines, the intervals between being filled with horizontal scratched lines. The container is surprisingly thin-walled for its size, since the wall thickness is only about 5–8 mm.

The Dresden collection holds a great number of specimens of this type, illustrated and described by Schlaginhaufen (1910b, pp. 36 and 37). No.25177 (probably from Kǎmbrĭnŭm or that locality) shows almost the same scratched rim decoration as our specimen but has the form of “a deep dish”. It matches almost exactly the piece described by Preuss (1898, p.146, Plate 8, Fig.34) from the Berlin collection. No.25173 (probably from the same village) has almost

the same shape as our specimen, but a different rim decoration consisting of triangles inside each other. No.25175 (from the same village?) is again somewhat spherical; the decoration scratched into the rim shows triangular figures between a zigzag band made from several lines; “the uppermost part, occupied by line decoration, is separated from the rest by a slight border”. A pot just the same is on the left in Plate XV.2, on a low stand to the side. No.25183 is an oval basin; the lightly scratched line decoration forms a band running round the rim and consists of a zigzag line with circles and short curved lines between; at one spot the decorative band is interrupted. “The underside displays very superficially added wavy lines, possibly connected with the production technique.” This is quite possible, because another type of vessel, the large clay stove, has the same wavy lines that can actually be traced back to the manner of manufacture. No.25182 has a somewhat different form, since it has a “flask-shaped narrow opening”. “The upper side has a lightly scratched linear pattern in a band surrounding the opening.”

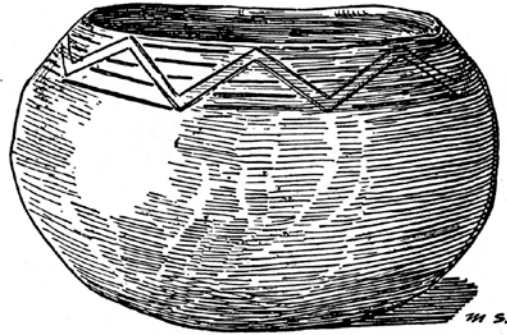


Fig. 145. Clay pot, H.S. 9028, 1/5 actual size

Our collection has two examples of the containers in the second subdivision of Group 2, which however differ from each other in shape.

H.S. 6709, 343 km village, **pot**, Fig.146 (height 17.5 cm, maximum diameter 23 cm), of rather fine-grained material. The walls are relatively thick (up to 8 mm). The container is blackened inside and out, but shows no clearly recognizable traces of the effect of the hearth fire. The rather deeply scratched decoration consists of several upright ovals, taking up almost the whole height of the pot; two of them are connected by a narrow band across the floor of the pot, the gap between containing a filler decoration consisting of densely-packed short curved lines. Towards the vessel wall the pattern is bordered by a wavy line hugging the contours; above it are engraved three parallel lines running round. There is a small hole right at the top on the rim.

H.S. 9242, 375 km village, **pot**, Plate XLI.8 (height 26 cm, maximum diameter 15.5 cm) of a high slender shape; very similar to the preceding one in material and presentation, but somewhat rougher, and thicker walled. The decoration of scratched lines and rows of dots represents two fairly clearly recognizable faces that are strangely inverted, with the eyes below and the chin part above; these faces are separated from each other by rather long upright bands, rounded at the ends, [187] which appear to be a continuation of the nose representation; at least its innermost line is the same as these, garnished with small dashes, while its inner surface has several vertical rows of small triangular depressions or with zigzag lines. The floor of the container is decorated with concentric circular lines. The fact that the whole exterior, with the exception of the bottom, which has retained its naturally pale shade, is strongly blackened by fire might suggest that it has been used as a cooking pot. The shape, too high and quite awkward for this purpose, and the inverted decoration allow, on the other hand, the possibility of another use: perhaps the pots of this group, like a number of containers discussed below, have served as decoration for the gable peaks of houses; for example, the charcoaled upper surface could have been caused by the house burning down — the container came from the burned village. Were we dealing with a container used for this purpose, we might probably have seen this kind of container more often, but we have only two; other expeditions did not bring back a single specimen of this type.

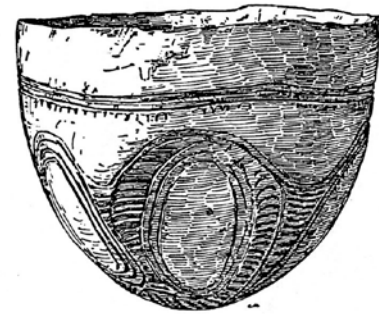


Fig. 146. Clay pot, H.S. 6709, 1/5 actual size

Most of the clay containers brought to Europe from the Empress Augusta River belong to the first subdivision of Group 3. They are shallow conical basins and, astonishingly, not one single expedition could obtain foolproof information about their use and purpose. Neuhauss (1911, I, p.328) regards them as pot lids; von Luschan (1911, p.105) reports that they “were — according to an oral account by Professor Neuhauss — usually used as lids. Neuhauss saw such a dish directly on one of the large containers with the pig’s head turned upside down, the convex decorated side up.” Given the fact that a container is found being used as a lid, one can still not conclude that this type of container is usually used as a lid. Not one single time did we find one of the large containers — we brought back five face urns and four other big pots and saw even more — covered with a dish of that sort; therefore it can certainly not be said that the dishes are usually used as lids. More often we saw people who had tipped these basins upside down on their heads, in play or because of a more convenient way of carrying them: yet nobody would draw the conclusion that the basins were usually used as headgear. Many things contradict the normal use of the basins as lids: firstly, the greater part of the facial representations on them would be upside down; secondly, they would be totally unsuitable for that purpose, sitting too loosely and easily falling off; thirdly, they might not be found in such great numbers that for each larger pot there are approximately ten lids. They could also not serve exclusively as lids for the containers decorated with faces (probably ceremonial vessels), for the simple reason that these could hardly be handled by women. Yet we bought by far the greatest number from the hands of women to whom they appeared to belong, as personal property. I feel that we are dealing here simply with eating vessels that occasionally perhaps also serve for baking sago pancakes as Neuhauss (*loc. cit.* p.252) reports for the Sissanu, who use “two shallow clay bowls like soup plates” for this purpose. In support of my argument is the great number of bowls: every individual appears to own at least one specimen. They were present in such abundance that in many villages people hauled them out in great quantities and without [188] much bargaining traded them cheaply. Furthermore: in this region we did not obtain a single wooden eating bowl, such as were quite common further downstream (while the clay bowls were rare); therefore here, where they are expert at working clay, they would produce this type of bowl probably from this material. Finally, positive observations and reports support their attributes as eating bowls. In the village of Îmbăntön, alongside a sago stem being processed, Hellwig found a clay bowl of this sort that contained vestiges of sago flour, and in two villages further upstream he obtained, with help from the interpreter, the information that these bowls served for eating sago. Of course we have never seen these bowls being used for this purpose, but during our presence in the villages the uproar of the natives was always so great that nobody at all thought of eating.

The conical bowls are all produced from quite finely washed material, thin-walled and fired relatively hard; the inside surface is always carefully smoothed. Two groups can be differentiated within them: one only decorated around the rim, the other covered with representations in relief over the entire outer surface.

I know of only one example of the first group:

H.S. 9135, 252 km village, **clay bowl**, Fig.147 (height 10.5 cm, maximum diameter 22 cm). The bowl has somewhat bulbous walls and a rather pointed foot; it is carefully smoothed both inside and out. The rim decoration consists of a ring of horizontal ovals with an oblong depression in their centres (cowry snails? eyes?); this has occurred through parts having been cut out of the surface along the contours. All depressions show remnants of red colour.

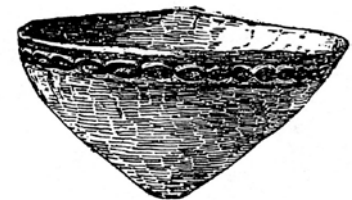


Fig. 147. Clay bowl, H.S. 9135,
1/5 actual size

All other conical bowls belong to the second group.

H.S. 9134, Empress Augusta River, 252 km village? **clay bowl**, Fig.148 (height 9.5 cm, maximum diameter 30 cm), very shallow in form; it differs from all the following in that two animals are clearly represented on it: with their thick heads, wide mouths and their large eyes set fairly wide apart they look like salamanders. All the feet have only four toes and the neck is long and slender. The animals are produced in shallow relief against a white background, and stand almost exactly opposite each other, which is naturally not so clearly expressed, due to abrasion. All the rest of the outer surface of the bowl is covered with three-dimensional recurrent spirals; the grooves between them consist mostly of a chain of impressed dotted depressions. Towards the rim the decoration is bordered by two deep grooves, which have a small triangular bulge outwards towards the rim at two places opposite each other. The deep lines and the surfaces with the animal figures on them are painted white; the small triple-pointed surfaces between the spirals are red; all the raised areas are dark brown.

H.S. 9133, Empress Augusta River, 252 km village? shallow **clay bowl**, Fig.149 (height 9.5 cm, maximum diameter 25.5 cm). On the outer surface are four upright stylized facial representations, of which the two broader ones are quite carefully produced, and the two narrower ones rather more roughly so. In the two broader ones the eyes are represented by concentric circles while in the narrower ones they are spirals. The tip of the bowl base is decorated with several concentric ovals: perhaps the [189] common mouth of the four faces. Here too the deep lines mostly show the remains of dotted depressions. The raised areas are shiny dark brown; the depressions and indented lines show vestiges of white paint.

H.S.4504 Empress Augusta River Kāmbrīnūm? **clay bowl**, Fig.150 (height 16 cm, maximum diameter 28.5 cm), of rather high form with an extraordinarily richly decorated outer surface. Here too we have four facial representations, alternately facing upwards and downwards; the most complex are those facing upwards, the others seem almost to be mere filler decoration. The narrow oblique eyes of the former are surrounded by a groove that runs towards the forehead as a spiral on each side. The nose is small and short and has broad sides. The mouth is strongly pulled wide; the contour of the angle of the mouth is repeated on each side by a series of hooks steadily diminishing in size. The faces looking downwards are, corresponding with the shape of the space available to them, wide above and pointed below. The eyes are formed from very long transverse ovals with an oblong depression, the palpebral fissure, between. The nose is similar to that of the other faces, the mouth is very much narrower; the angles of the mouth are drawn upwards. The contours of the eyes, the angle of the mouth and the sides of the nose are repeated by hook figures. On the forehead are several concentric ovals. Most lines here too show rows of dotted depressions. All the raised areas are painted dark brown, the depressions are white in some places and red in others, indeed rather randomly, although mostly the mouth, eyelid apertures, and nostrils are red. Towards the rim the decoration is bordered by three lines, which approach the rim at an acute angle at four, approximately equidistant, places.

The bowl (Fig.151) illustrated by von Luschan (1911, p.107, Fig.7) shows great similarity to the one just described; here too a couple of faces are recognizable, looking towards the ground, their eyes consisting of spirals. Between them are two representations reminiscent of the faces looking upwards on bowl H.S.4504, and so probably representing this; the two oblique lobes have evidently arisen from the eyes, and the nose is still clearly recognizable. Towards the rim of the bowl the decoration is bordered by a fairly-wide, wavy band. In another bowl illustrated by the same author (*loc. cit.* p.107, Fig.5), Fig.152, the faces are alternately pointing upwards and downwards: "One immediately sees two large faces with the forehead end orientated towards the tip of the cone and the chin towards the rim of the vessel. However between both these faces other heads appear to be depicted, similar in appearance to the preceding ones but very much more stylized with huge spiral systems instead of eyes, and with the chin ends orientated towards the tip of the cone so that the eyes come to lie against the free rim.

The decoration on the following clay bowls is arranged quite differently; here it is not a vertical addition to the conical surface that to some extent represents a band, but it is added to three bands running transversely across the outer surface of the bowl; here therefore the artist has interpreted the upper surface in a somewhat perverse manner, not as a conical mantle but simply as a curved surface. One could conclude from this that the conical shape of the bowl is only a secondary shape, and that the arrangement of the decoration in three bands is reminiscent of the original, probably oblong oval, shape of the bowl; moreover, we brought back an oval bowl of this type (H.S.6575, see Plate XLII.4).



Fig. 148. Decoration of the clay bowl H.S. 9134
1/5 actual size



Fig. 149. Decoration of the clay bowl H.S. 9133
1/5 actual size



Fig. 150. Decoration of the clay bowl H.S. 4504,
1/5 actual size



Fig. 151. Decoration of a clay bowl,
after von Luschan



Fig. 152. Decoration of a clay bowl,
after von Luschan



Fig 153. Decoration of the clay bowl H.S. 6638,
1/5 actual size

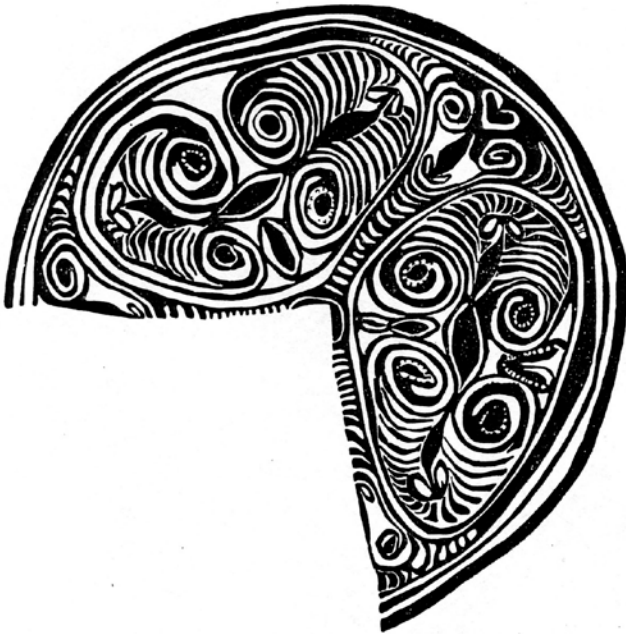


Fig 154. Decoration of the clay bowl H.S. 1866,
1/5 actual size

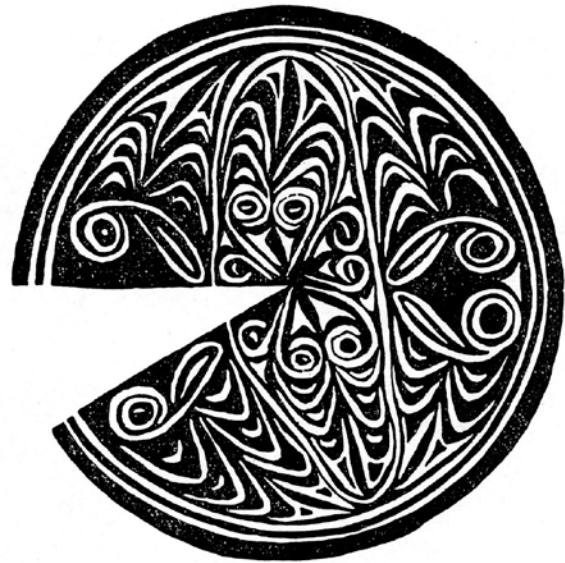


Fig 155. Decoration of the clay bowl St.He. 60628,
1/5 actual size

H.S. 6638, 252 km village, shallow **clay bowl**, Plate XLII.1 (height 11.5 cm, maximum diameter 26 cm) represents the simplest form of the conical bowls decorated in the triple-band style. In the three bands (Fig.153) there are two each, thus six in total, rather similar, heavily stylised facial representations, each pair with their forehead parts blending into each other, the chin therefore lying on the rim. The eyes consist of a small oval surface, depressed in the centre and surrounded by a double spiral; these spirals run outside along the face and unite at the chin. A long narrow raised area represents the nose; the mouth is missing, if one does not want to consider several triple-pointed depressions beneath two of the faces as the remains of such. Both surfaces on either side of the nose are completely filled with densely-packed short sickle-shaped elevations. The depressions are painted red and white.

H.S. 4503, Empress Augusta River, Kāmbrīnūm? rather high [190] [192] **clay bowl**, Plate XLII.2 (height 15 cm, maximum diameter 27.5 cm); the representations arranged in three bands are much more dissimilar than in the preceding specimen. Here the middle band shows four facial representations with the chin ends pointing towards the rim of the bowl; of these faces, those nearest the tip of the bowl are the most naturalistic; in the other two the eyes in particular are stylized. Each of the two side bands shows only two rudimentary faces, their forehead parts united by a large oval surrounded by rings. The oblique oval eyes lie in spindle-shaped fields; the contour of the corner of the eye is reproduced by hook-shaped structures. The depressions show remnants of red and white colour; the raised areas are pale brown.

H.S. 1866, Empress Augusta River, 252 km village? high **clay bowl**, Fig.154 (height 93 cm, maximum diameter 27 cm) with quite three-dimensional decoration arranged in three bands; the middle band is compressed into a narrow strip in places by the strong expansion of the two lateral ones. The middle band is filled with short hook-shaped bulges; its two wide parts are each adorned with a facial representation whose forehead part is turned towards the rim. While the eyes, consisting of spirals, and the nose are clearly recognizable, the mouth appears to have been dissolved into the hook structures mentioned above. Both very broad side bands each contain two faces with their foreheads merged, with big eyes formed by spirals, and long narrow noses with small sides showing the nostrils as depressions on the front. The entire free facial surface is covered with short curved lines repeating the contour of the lower rim of the eyes; the mouth is missing. The depressions are painted red and white, the surfaces dark brown or red as well; in places the colour has been destroyed.

St.He. 60628, Empress Augusta River, “250 miles upstream”, **clay bowl**, Fig.155 (height 9 cm, maximum diameter 29.5 cm) shallow cone-shaped. The middle band contains four faces with the chin part pointing towards the deepest point of the bowl, the eyes formed by spirals and each nose formed by a somewhat thickened line; the mouth is missing. The side bands each contain only one face, rather more carefully produced, with the chin pointing down. The surfaces of the three bands not occupied by faces are covered in the hook-shaped filler decoration. The painting is very vivid: besides red, white and dark brown, ochre-yellow is used also to a great extent; here again it is evident that colours are added rather arbitrarily: the eyes are usually red, but also white or brown, a pair on the middle band even have a brown palpebral fissure. The bowl illustrated by von Luschan (1911, p.107) in Fig.6 is very similar to this one except that there are two small faces instead of one in its side bands: one pointing downwards the other upwards. Here too, the rest of the surfaces are covered with the filler decoration consisting of small hooks and curves.

A bowl illustrated by Schlaginhaufen (1910b, Plate 2, Fig.19) “split into a middle and two lateral fields” thus shows a decoration similarly arranged in three bands. In places the facial representations are in the process of disappearing: in each band apparently only the two end faces are intended as such by the maker and correspondingly produced, all the rest have become rather irregular spirals and ovals. The obliteration process has progressed even further in another bowl illustrated by the same author (Plate 2, Fig.18); indeed here only two faces taking up the entire middle strip are clearly recognizable as such, but the side strips are filled only by two large spirals that may have arisen from representations of eyes.

St.He. 60630, “Empress Augusta River”, a rather high **clay bowl**, Fig.156 (height 12 cm, maximum diameter 30 cm) is quite similar to the one just described; but here all that remains of the facial representations are, at the ends of the three bands, small pairs of eyes with several curved lines added below; in the middle band, above each pair of eyes, is a large, somewhat projecting oval surface, surrounded by several concentric lines; in the side bands the ovals of both faces are merged into one. The raised areas of the bowl are dark brown, the depressions red or white.

H.S. 4506, Empress Augusta River, Kāmbrīnūm? a rather large **clay bowl**, Fig.157 (height 16 cm, maximum diameter 33 cm). Here too the bands are scarcely recognizable as such because a clear border between them no longer exists. The middle band, whose ends taper, contains two narrow spirals while each of the side bands contains two voluminous spirals. The raised areas are painted black, the depressions red and white.

H.S. 9136, 252 km village, **clay bowl**, (height 15 cm, maximum diameter 22.5 cm), rather high in shape; with its somewhat constricted rim, it is reminiscent of the containers of the following subgroup. In this bowl too the borders of the bands are no longer clearly recognizable; all three are filled by two large spirals. Painting is dark brown, red and white.

H.S. 8995, Empress Augusta River, Nāngīt? rather shallow **clay bowl** (*nāyūwāre*, Hell.), Fig.158 (height 9.5 cm, maximum diameter 28.5 cm). That this bowl, by virtue of its decoration, belongs to the group in question is recognizable only by comparison with the preceding piece; here each [193] [194] of the three bands contains two large spirals interconnected by a raised area consisting of three narrow bulges. The deepest point of the bowl is designated by an oval surface. The triple-pointed fields attached to the spirals are filled with rows of hook-shaped bulges. The painting is in dark brown, red and white. A specimen illustrated by von Luschan (*loc. cit.* p.107, Fig.10) and one by Schlaginhaufen (1910b, Plate 2, Fig.20) are almost the same as the one just described; the latter differs principally only in that the two spirals of the middle band are somewhat smaller, but that the deepest point of the bowl lies therefore in the middle of a third, larger, spiral. Furthermore, along the rim of the bowl runs a narrow wavy band, as we have already seen in several other pieces illustrated by the same author.



Fig. 156. Decoration of the clay bowl St.He. 60630, 1/5 actual size



Fig. 157. Decoration of the clay bowl 4506, 1/5 actual size



Fig. 158. Decoration of the clay bowl H.S. 8995, 1/5 actual size



Fig. 159. Decoration of the clay bowl H.S. 9132, 1/5 actual size

H.S. 9132, Empress Augusta River, 252 km village? a high **clay bowl**, Fig.159, (height 13.5 cm, maximum diameter 28 cm). In the middle band, whose ends are markedly narrowed, only one large spiral is retained, surrounding the deepest point of the bowl, while the rest of the surface is filled with densely-packed curved lines. Each of the two greatly enlarged side bands contain two large physically unconnected spirals that, with their large smooth central field, are strongly reminiscent of the other eye representations. The bowl shows red, white, and dark brown paint.

In the piece illustrated by von Luschan (*loc. cit.*, p.107) in Fig.9 there are two large spirals in each transverse band, similar to H.S.9136 (see above); the rest of the surface is filled with small circles and wavy lines. Another bowl illustrated by the same author (Fig.8), Fig.160, shows a middle band that has become extraordinarily narrow, consisting only of several almost parallel lines. In each side band are three symmetrically-arranged spirals, close together.

Finally in this series belongs:

H.S. 4505, Kāmbrīnūm, a large high **clay bowl**, Plate XLI.1 and Fig.161, (height 14 cm, maximum diameter 31.5 cm). Here the middle band is clearly retained only in its part leading over the deepest point of the bowl bottom. It consists of a chain flanked by two low walls, and assembled from ovals deepened in the middle (cowry?); at both ends it unravels into two spirals wound towards the outside with a long spindle-shaped bulge between them, probably the remains of a nose representation. On each side band is engraved a facial representation, still recognizable as such, with a very carefully-made smaller face on its forehead, its chin end pointed towards the bowl rim. The depressions are painted red and white, the elevations dark brown.

Both of the following pieces appear to belong with this developmental series; in them the middle band has become triple-pointed and each of the three peaks thrusts sideways almost up to the bowl rim; thereby three side bands arise.

H.S. 6640, 252 km village; in this **clay bowl**, Fig.162, (height 11.5 cm, maximum diameter 27.5 cm) the middle band, evolved into a curved triangle, contains three spirals with small circles between them; the tip of the bowl bottom is likewise marked by a circular surface. Each of the three side fields contains two spirals turned towards each other, still strongly reminiscent of the eye decoration. A circle has been inserted between each of the upper and lower ones (the lower one a remnant of the nose?). The raised areas are again dark brown, the depressions red and white.

H.S. 6639, 252 km village; this **clay bowl**, (height 12 cm, maximum diameter 28 cm) is very similar to the previous one, showing the same division into three parts. Here too the middle triangle contains three spirals whose intervening space is not filled with small circles but with rows of curved lines. The three outer surfaces show only one large spiral each, under each of which is a small spindle-shaped elevation with a depressed middle stripe, looking like a half-opened eye. The raised areas of the relief representation are painted dark brown; the depressions inside the spirals are white; inside the small triangles filled with curved lines red; the outlines of the eye-like representations are painted ochre-yellow.

In none of the subgroups described so far do the following bowls [195] precisely fit; the only feature in common with the first is that the upper surface is regarded as a cone envelope and is decorated in corresponding symmetry. [196]

St.He. 60629, Empress Augusta River, Fig.163, in this **clay bowl** (height 11 cm, maximum diameter 27 cm) the middle shows two pairs of spirals with their backs to some extent leaning against each other, grouped around the deepest point of the bowl. Accompanying the rim of the bowl are seven larger spirals, the space between filled with smaller ones. The depressions are red and white, the elevations dark brown.

H.S. 6552, Empress Augusta River, Kōpār? one of the most beautiful **clay bowls** in our collection, Plate XLIV.2 (height 14.5 cm, maximum diameter 33 cm). The decoration shows a four-lobed figure on each side, extending from the rim almost to the middle of the base, possibly intended to represent a bird; it is accompanied by red, white and dark-brown lines deepened in some places and raised in others. In the central axis of the figure, close to the rim, is a small unique face with the chin end turned towards the rim of the bowl. A spiral is rolled around the deepest point of the bowl. The rest of the entire surface is covered with spirals and spindle-shaped representations like eyes. The depressed scratched lines show, for the most part, long rows of lightly-indented dots and dashes. Red, white, and dark brown, and also an intense pale ochre-yellow are used as colours.

H.S. 6551, Empress Augusta River, Kōpār(?); this rather shallow **clay bowl**, Fig.164 (height 12 cm, maximum diameter 30 cm) is very similar to the preceding one; in this one as well there are two examples of the large four-lobed "bird" figure opposing each other, here showing a clearly-produced humanoid face at the upper end, on the bowl rim. The body of the "bird" is represented by an oval that has a small depression surrounded by a low ridge at its posterior end. The rest of the bowl surface is filled with four large, and four small, spirals, and the small gaps between them with rows of curved lines. A portion of the deepened lines again shows lightly indented rows of dots and dashes; remnants of red and white colour are recognizable in the depressions.



Fig. 160. Decoration of a clay bowl,
after von Luschan

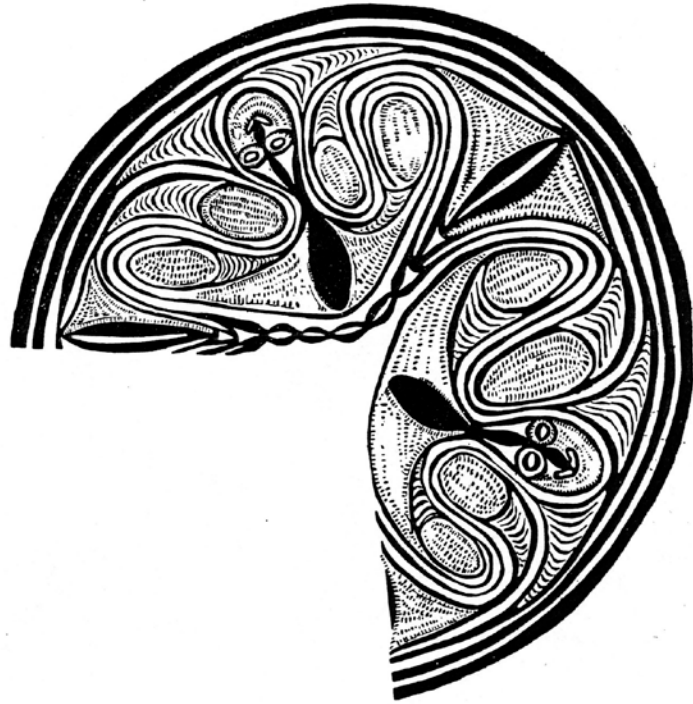


Fig. 161. Decoration of the clay bowl H.S. 4505,
1/5 actual size

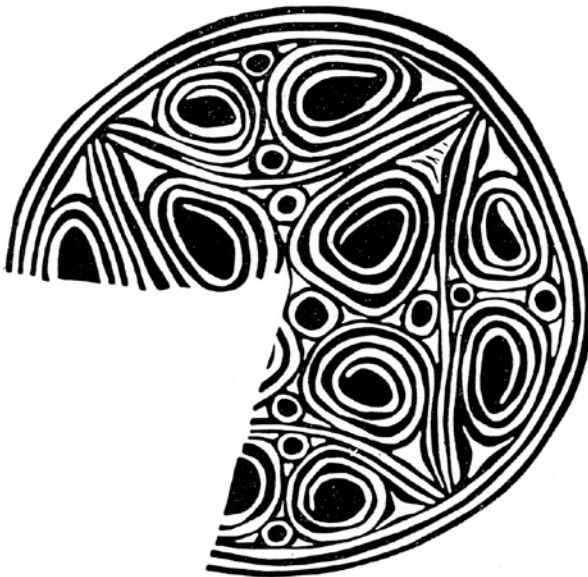


Fig. 162. Decoration of the clay bowl H.S. 6640,
1/5 actual size



Fig. 163. Decoration of the clay bowl H.S. 60629
1/5 actual size

The following vessels, forming the second subdivision of Group 3 differ from those just described uniquely in their form: they are relatively higher and narrower and have a rather strongly tapering narrowed rim; therefore their greatest diameter does not lie in the vicinity of the bowl mouth but somewhat deeper; use as a lid could be fully dismissed; they also serve, so we were told, as plates for eating sago. The specimens familiar to me are extraordinarily similar; the facial representations are always upright with the chin pointed towards the bottom of the container. The ever-present three-dimensional decoration is produced in the same manner (by scratching lines), as in the conical bowls of the previous sub-group.

H.S. 9192, 252 km-village, splendid small **clay bowl**, Fig.165 (height 11 cm, maximum diameter 16 cm), with carefully-produced relief representations. The outer surface is cut into two halves by a receding spiral whose windings surround the deepest point of the bowl while the ends run right up to the rim in a curve. On the concave side of the ends of the spiral there is first a chain consisting of ovals (eye or cowry decoration?) and then a facial representation in which eyes and nose are clearly recognizable while the mouth is missing. The triangular field between each face and the adjacent spiral end is again filled with eye-like ovals and a chain of similar construction runs along the rim of the bowl. In the large central spiral the depression of one part is painted red and that of the opposing one white; the other depressions in the bowl surface are irregularly red or white, the raised areas are always dark brown and shiny. The edges of the raised areas are often slightly jagged, the depressions decorated with impressed rows of dots.

H.S. 4514 Empress Augusta River, Kāmbrīnūm? bigger **clay bowl** (height 16.5 cm, max. diameter 24.5 cm), very similar in decoration to the preceding one, but somewhat more roughly and less carefully produced; missing throughout is the filling-in of the smaller surfaces with the short curved lines, so abundant elsewhere. In the facial representations [197] [198] the nose is long and narrow (similar to H.S.4504) and has only small sides. The surfaces between the faces and the ends of the central spiral are filled by 'eye' representations interconnected by zigzag lines. The depressions are, for the most part, provided with rows of small indented dashes and painted red and white, while the raised areas are a rather pale brown.

H.S. 9137, 252 km-village, somewhat larger **clay bowl**, Plate XLII.3 (height 16.5 cm, maximum diameter 20 cm, maximum diameter of the opening 16 cm), very similar to the preceding ones but with an even more strongly narrowed rim on the bowl. While in both other specimens the spiral surrounding the deepest point of the bottom of the bowl was twisted to the left, here it runs to the right. The faces are very carefully scratched in; they differ from those of the other specimens by their foreheads being covered with three curved triangles. In this bowl the 'eye' decoration that fills the area between face and end of the spiral, is evidently intended to be just that, by the manufacturer. The decoration appears to have evolved from an entire face; this is quite easily recognizable on the polished portion of the surface (Fig.166). Polishing of the entire surface was not possible, due to the strong bulging of the bowl. The raised areas are shiny dark brown, the depressions red and white. The bowl illustrated by von Luschan (1911, pp.106/7, Fig.7) with its somewhat tapering rim matches the container described here, but since in all other aspects it resembles the shallow conical clay bowls, particularly in decoration, it is discussed in detail there (see above).

In its form it has rather bulged walls and a somewhat tapering rim; **H.S. 9180**, 252 km-village, belongs here. It is a clay bowl decorated with very carefully carved and painted relief representations, Plate XLIII (height 17.5 cm, maximum diameter 22 cm), surrounded with plaiting and equipped to be hung up; incidentally, a further indication that these types of bowl were used as containers and not as lids (see above). The plaiting, from strips of rattan dyed red, consists of a strong bottom ring enabling the bowl to stand upright, and a narrow hoop surrounding the container just below the rim and knotted into the bottom ring by oblique bands. Along the upper ring is fastened a very long narrow plaited strip forming a strongly-curved horizontal wavy line, and firmly holding a rather strong hoop on the outside, concentrically surrounding the inner one and decorated with small white feathers. The hanger consisting of rattan is firmly fastened to the upper inner hoop; above, it forms a loop by sewing the sides together. From the loop hang three small stiffly-plaited horizontal rings that have perhaps served for securing longer items placed in the pot. The decoration, Fig.167, shows above first, along the rim of the container, a chain formed from ovals (cowry?). On two opposite places on the bowl surface are two high narrow faces surrounded by a "cowry chain" whose eyes are formed by transverse ovals with deepened palpebral fissures painted red. The nostrils are engraved into the front surface of the wings of the nose. Both large surfaces between the faces each show two opposite-running spirals whose ends divide and unite in two acute angles above one another; in the small field thus created is added a small face, upside down however. Below the face, a long spindle-shaped surface runs right to the floor of the bowl, possibly intended to be the body of an animal whose front legs are then represented by the two large spirals while the hind limbs are represented by two small lateral circles. By way of example, similar forms are shown by many of the animal feet on the wooden bowls of the region. Should the representation actually indicate an animal, then a relationship with bowl H.S.9134 (see



Fig. 164. Decoration of the clay bowl H.S. 6551,
1/5 actual size



Fig. 166. Decoration of the clay bowl H.S. 9137,
1/5 actual size



Fig. 165. Decoration of the clay bowl H.S. 9192,
1/5 actual size



Fig. 167. Decoration of the clay bowl H.S. 9180,
1/5 actual size

Reche, Empress Augusta River, Plate XLIII



Clay bowl H.S.9180, 1/2 actual size

above) might be considered. In the free spaces between the representations is the favourite filler decoration of curved lines. If one observes the bowl surface in total, one would notice that the decoration corresponds with the 'triple-band' type of the conical bowls, for both faces are connected together over the deepest point of the bottom of the bowl, thus forming a distinct narrow middle band; the surfaces filled with the large spirals could then be the side bands. The colouring of the container is quite vivid but not unacceptably garish. The inside is covered with a pale brown almost resembling ochre, and surprisingly shows no traces of use; the outer surface too seems so fresh and unused that the time of manufacture cannot have been so long ago. The raised areas of the outer surface are shiny brown, while the depressions are coloured red, white or ochre yellow.

Of the third subdivision of Group 3 we possess only one container. It seems to be an imitation of a wooden bowl; at least it tends in form and decoration surprisingly towards several of the wooden [199] bowls described further above. I have already mentioned my opinion, that in these oval clay bowls we possibly have before us the original form of the conical bowl, from which the otherwise difficult to explain 'triple-band' type promptly evolved.

H.S. 6575, Īmbântön, oval **clay bowl** (*nõärã*, Müller), Plate XLII.4 (height 10.5 cm, width 25.5 cm, length 31 cm), with fairly thick walls (about 8 cm), more roughly made than the conical bowls. At one end the rim is somewhat raised and has several shallow indentations; it is shallow at the other end, also with several indentations and also perforated twice horizontally; a rattan loop is pulled through these holes for suspension, as in many of the wooden bowls. With the exception of the central lowermost part of the floor, that forms a large smooth oval surface, the entire outer surface of the bowl is decorated with relief representations, again done by scratching broad lines. The decoration is surprisingly reminiscent of what we found on several wooden bowls (for example H.S.9166, see Fig.130). At one end (only rudimentarily at the other) there is a large triangular facial representation with spindle-shaped oblique eyes, and a nose. Its form might be described as "anchor-shaped". This face, together with the rudimentary one at the other end and the large oval on the bottom surfaces, forms a distinct middle band, to which are added two side bands covered with somewhat indistinct spirals and curved lines. The container is black inside, and the raised areas of the outside are also black, while the depressions show remnants of red and white colour. The vessel gives the impression of being very old and well used, and also seems to have come into contact with fire occasionally; it is therefore probably an eating dish.

All the following containers belong to the main group 4; they are therefore decorated with three-dimensional representations made by adding clay. In the first subdivision are:

H.S. 9305, Empress Augusta River, Málu? "sago dish", circular clay bowl, Fig.168 (height 10–11 cm, maximum diameter 26 cm), strongly reminiscent of the conical bowls in shape. It is rather rough and irregularly made, the same dark-brown shade inside and out, and has as its sole ornament four equidistant short bulges, on top of the rim, into which five to seven round impressions were made from above — probably with a small stick, not with the finger tips. No traces of painting were found.

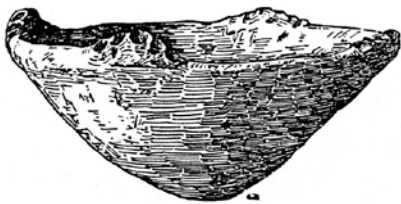


Fig. 168. Clay bowl H.S. 9305, 1/5 actual size

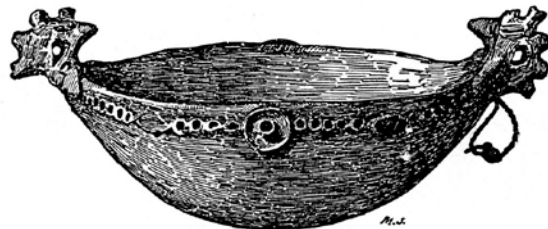


Fig. 169. Clay bowl H.S. 6657, 1/5 actual size

H.S. 6657, 293 km village, **clay bowl**, Fig.169 (height 8.5–14.5 cm, length including the handle 35 cm, maximum width 21.5 cm), oblong oval in shape, very heavily built with relatively thick walls (ca. 1 cm). At both ends two strongly three-dimensional handles are formed; with an eye on each side and with their cock's-comb-like upper bosses they are probably intended to represent a rooster looking into the bowl. Obliquely below the eyes each head is perforated transversely. On both sides of each one a fairly short rounded lobe spreads onto the rim of the bowl (wattles of a rooster's head?). The side walls of the vessel each have a large circular wall in the middle, inside which rises a second smaller but higher one. Attached to each side of it is a chain consisting of small circular walls (made by depressions in an added-on ridge) which, each interrupted by a larger but shallower circular wall, go right to the

wattles of the rooster's head. Beneath one of the rooster heads are two equally-high adjoining small holes through the narrow wall, through which a [200] thin cord is pulled (for hanging?). The bowl has no further ornamentation; the impression of a palm frond is probably only accidental. The bowl is dark brown inside and out, and shows no trace of coloured paint. Its purpose could not be ascertained.

H.S. 9157, 293 km village, large, high, bowl-like **cauldron**, Plate XLII.5 (height 30 cm, maximum diameter 53 cm) appears to have been used as a cooking pot; it is dark brown inside and out. About 7 cm below the rim a fairly sharp, distinct, slightly wavy ridge runs around the vessel; above it are four large equidistant transverse ovals, of which three have a prominent smaller circular wall while the fourth is adorned with five of this type of structure. The four ovals are interconnected by a chain of small circular walls; above this a projecting bulging wavy line runs around the rim, interrupted at several places by small circular walls. The edge of the pot opening is beset with small indentations right round the circumference.

I am familiar with only one example of the second sub-group. Schlaginhaufen (1910b) collected it, and illustrates it on Plate 2, Fig.13, (Plate XLII.6).

“The vessel is provided with a foot. There are relief decorations in the concavity of the latter. In the middle there are two concentric rings, which are surrounded by five figures. These bear a certain resemblance to cowry—possibly also with *Nassa* snails. Furthermore, on the outside of the pot, the zone immediately adjacent the foot addition is decorated by variously placed *Nassa* figures and is bordered in the direction of the pot rim by an irregular wavy relief line. At the margin of the foot are two diametrically-opposed holes through which the bast strips of a hanging cord are pulled; height 12, diameter 26 cm” (*loc. cit.* p.39).

So far, containers of the third sub-group have been brought back to Europe by our expedition only, and then only three specimens: thus they do not seem to be too plentiful. They are huge clay vessels, usually conical in shape, appearing to be located exclusively in ceremonial houses where they serve to hold the fire. They are set onto a ring so that they can stand upright. The local people place clay feet into the vessels themselves and put the cooking pots between these. The people did not want to sell us the fireplaces that we discovered in the one ceremonial house in 252 km village at any price; these must have meant something very special to them, because they finally did sell us fireplaces of this type, but they fetched them from another house. The ones that we bought did not differ in any respect from those that were not surrendered to us, probably for some sort of ceremonial reason.

H.S. 6623, 252 km village, clay **fireplace**, Fig.170, (height up to 46 cm, maximum diameter 68 cm) heavily built; on the outside the clay bulges from which it was built can still clearly be recognized. While the container is russet on the outside, the interior shows an intense blackening, evidently from contact with fire. The construction material is fairly coarse, obviously unrefined clay. The container had been fired relatively hard. The decoration — the container stood right on the ground and was observed only from above — was all on the inside and restricted to the upper rim. Here three prominent wavy lines with sharp edges run around the container, one above the other. In their upwardly-concave curves there are large oval to circular ridges close to the rim, with a similarly strongly-projecting wall in the centre of each one. At one point the bowl rim rises into a tall peg expanding upwards with a beak-like tip and peering into the bowl. In its outline it resembles the “rooster heads” of bowl H.S.6657 (see Fig.169). Below this figure, on the inside of the bowl wall rises a sharply-tapering peg soaring about 4 cm resembling the nose of a face whose eyes are formed by two small walls consisting of two concentric rings [201] and whose mouth is formed by a larger double-ringed wall. The fireplaces are always arranged in such a way that the part of the rim with the peg is situated in the vicinity of the house wall so that the gaze of the beholder will fall directly on the representation of the face; (Fig.171). Around about, with the exception of the spot opposite the face, the rim is drawn out into short broad peaks that always lie at the places where the already-mentioned wavy lines describe a curve directed upwards; correspondingly the wavy lines do not form curves below the bare sites opposite the face; they sink further downwards, thereby leaving a large surface free. This is filled by a large wall consisting of two concentric rings; this wall lies exactly opposite the facial representation. No trace of any kind of paint was found on the fireplace. With regard to technique see Plate LI.1.

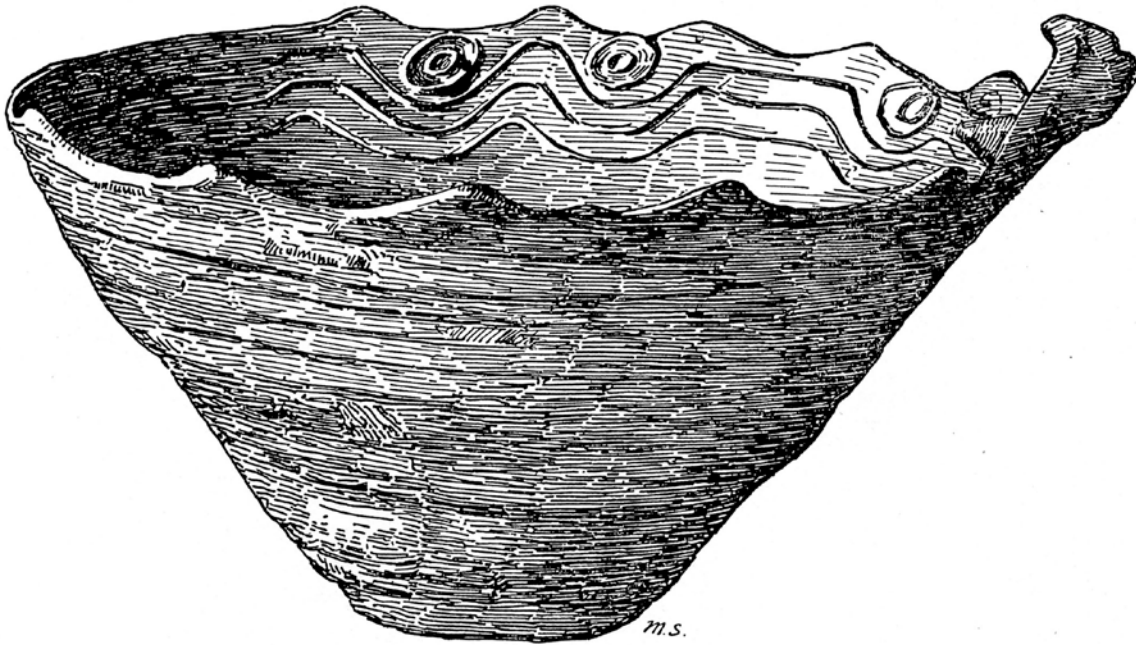


Fig. 170. Clay fireplace, H.S. 6623, 1/5 actual size

H.S. 6622, 252 km village, clay **fireplace** (height up to 32 cm, maximum diameter 52 cm), very similar to the previous one although smaller and with simpler decoration. On one side it too has the high peg-shaped addition resembling a rooster's head in shape; but instead of the face the part of the inside of the bowl beneath this carries only a large double ridge with a small simple one above it; the large one is flanked on each side by a short peg deepened in the middle. The rim of the bowl is drawn out into eleven short pegs; only the spot opposite the "rooster's head" is smooth once more. Again, on the inside there are three parallel wavy lines projecting as sharp edges, following the contours of the rim with their elevations and depressions. Rim walls like those added in the vicinity of the wavy lines in the larger fireplace are not present here. In this fireplace too the inside is blackened by fire while the outside has retained its natural russet colour.

H.S. 9232, 293 km village, smaller oval **bowl**, [202] Plate XLII.7 (height 17 cm, length including peg 53 cm, maximum width 36 cm), that has evidently served the same purpose as the two large ones just described. At first glance it differs from these in that it has two large peg-shaped additions, resembling a bird's head, opposite each other at the ends of the bowl. These pegs are, like those of the smaller fireplace, triple-peaked when viewed from the front and also carry no face on the inside but rather, a large, double rim wall. The two lateral of the three peaks are joined together by a chain running around the inside of the bowl below the ring walls, and consisting of small three-dimensional rings. Here the lateral rim of the bowl is smooth, only accidentally rather wavy. What differentiates the bowl perhaps the most from the two previous ones is that its entire inside surface is painted in red, white, and black colours. This painting scarcely contradicts its use as a fireplace; it was indeed damaged by fire but appears to have been renovated more frequently; it is very irregular and consists for the most part of wavy lines which — perhaps in imitation of the three-dimensionally projecting wavy lines of the large fireplace — run parallel with the rims; circular red structures are perhaps intended to represent the rim walls. On the large end pegs the depressions of the small ring walls are painted white and those of the large one red; the entire surface separated below by the circumferential chain is white. The outside of the bowl shows two broad red stripes which, intersecting at right angles, form a cross.

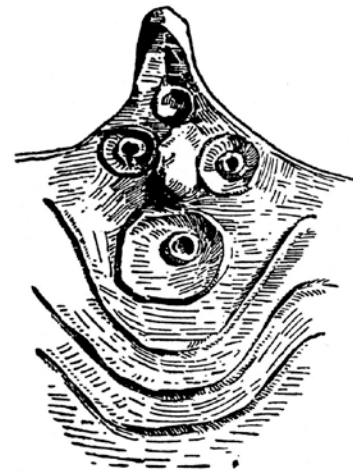


Fig. 171. Facial representation on the inside of the fireplace H.S. 6623, 1/5 actual size

The containers of the fourth subgroup all appear to have been used as cooking pots, because on the outside they show an intense blackening caused by fire, and a flaking of the upper surface, while the inside appears to have been altered by the effect of food, in

particular losing some of its porosity. These cooking pots usually attain a fairly considerable size and are, as demonstrated by their very durability, mostly quite solid, thick-walled, and well fired. They are made from fairly fine-grained clay.

H.S. 9159, 252 km village, small **cooking pot**, Fig.172 (height 12 cm, diameter of the opening 13 cm, maximum diameter 16 cm), is the simplest and most non-decorated of the type. The base is so flat that the pot can stand firmly without further effort; the vessel wall rising above steadily narrows so that the greatest diameter of the pot is in the lower half. Wall thickness is on average about 1 cm. Below the rim, handgrips are attached on two opposite sides; the grip looks like a triangular peg when viewed from above, with oblong-oval impressions, obviously made by finger tips, in its sides, forming four sharp edges on the handle. At the same height as the handle small circular knobs are attached to two symmetrical points between the handles, with a shallow depression on their upper surface, probably produced by fingers. Further decoration of the pot consists of several scratched curved lines that run along beneath each handle like a garland.



Fig. 172. Cooking pot H.S. 9159, 1/5 actual size

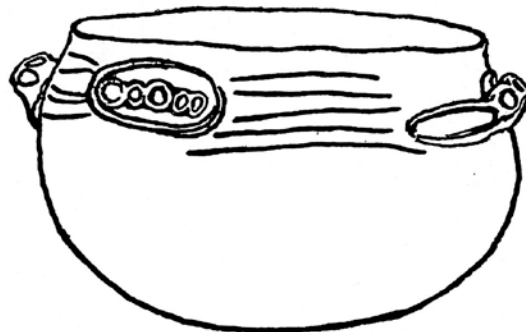


Fig. 174. Cooking pot H.S. 6616, 1/5 actual size



Fig. 174. Cooking pot H.S. 6621, 1/5 actual size

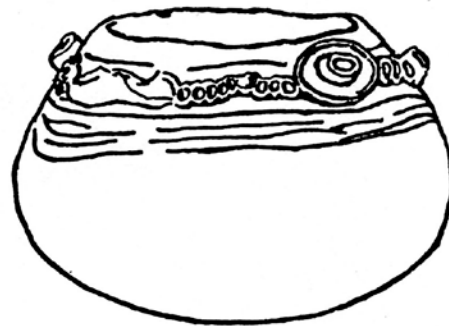


Fig. 175. Cooking pot H.S. 6619, 1/5 actual size

H.S. 6621, 252 km village, **cooking pot**, Fig.173 (height 14.5 cm, diameter of the opening 16 cm, maximum diameter 20 cm), similar to the previous one, only more spherical in shape and with a fairly strongly tapering rim; wall thickness is 0.6 – 1.0 cm. Both handles are somewhat longer, rise obliquely upwards and have a small circular impression at their tip. The knobs attached six to ten almost horizontal scratched-in lines. The bottom of the vessel again shows clear impressions of leaf ribs.

A pot described and illustrated by Schlaginhaufen (1910b, p.37, Fig.E) is extraordinarily similar to both of these pots, particularly the first one: it shows the same handles and projecting knobs connected by scratched lines. The same author writes of a second specimen, "The piece is similar to the previous one but somewhat larger. The scratched lines run in an undulating motion around the pot. At the free border are many transverse notches." (*loc. cit.* p.38). In a third example (*loc. cit.*, Plate 2, Fig.11) the decoration is somewhat richer since the knobs have transformed into transverse oval ridges that each contain a smaller ridge.

H.S. 6616, 252 km village, **cooking pot**, Fig.174 (height 18.5 cm, diameter of the opening 25 cm, maximum diameter 28 cm), bulbous in shape: its greatest diameter lies in the lower half. The decoration is one level more complex; similar to the preceding container, instead of the knobs there are transverse ovals that are however larger, and protect a chain of five small ring walls of which the middle one projects particularly far. Also, the handles are somewhat [203] more complex: at their tips are two or three round impressions. Handles and ovals are again interconnected by scratched lines. The pot is distinguished by its rim being carefully smoothed and pressed thin.



1. Hairpin H.S. 9049, 1/2 actual size

2. Clay bowl H.S. 6552.

3. Club H.S. 1890, 1/5 actual size

H.S. 6619, 252 km village, larger **cooking pot**, Fig.175 (height 19.5 cm, diameter of the opening 17 cm, maximum diameter 27 cm), rather bulbous in shape with a narrowed rim; it is rather coarsely made. Instead of the knobs it again shows two ovals that are however decorated with only one ring wall each. Handles and ovals are here interconnected not only by scratched lines but also by a chain consisting of small ring walls situated above most of the lines; the middle ridge projects particularly far. The outside of the container has been surprisingly strongly affected and blackened by fire. The upper rim is very irregular and shows several transverse indentations. On the base there are again impressions of leaf ribs.

H.S. 9158, 252 km-village, large **cooking pot**, Fig.176 (height 20.5 cm, diameter of the opening 32 cm, maximum diameter 27.5 cm). The greatest diameter lies in the lower half of the pot. The upper rim is slightly offset. Both handles have only a circular impression at their tips, the transverse ovals have only a small ring wall. The handles are connected together by a chain consisting of small ridges that are not interrupted by the transverse ovals but runs along beneath them; somewhat deeper, several lines are scratched in, running parallel with the chain. Outer rim and base are heavily soot-coated, the latter shows several short cracks, probably caused by fire.



Fig. 176. Cooking pot H.S. 9158, 1/5 actual size

The container illustrated by Schlaginhaufen (1910b) on Plate 2, Fig.17, (Plate XLV.5) is included here, a 16 cm high pot of the same shape as the preceding ones; beneath the rim is a slight recess. The handles have been transformed into actual noses [204] and, with the addition of two eyes and a mouth, a face is completed; eyes and mouth are formed by circular bulges, with a further smaller bulge over the nose. The face is therefore very reminiscent of those which we saw attached to the larger fireplace (see Fig. 170) but also of the facial representations on the pots of the sixth subgroup (see below). The lateral impressions on the handles have, in their contours, become the wings of the nose. A simple round knob is attached between the two handles. Around the pot runs, “a chain of small rings in a garland”.

The pots of the fifth subgroup are distinguished from those just described mainly by their significant size and by a clearly pronounced neck; they too appear to have been used for cooking.

H.S. 6618, 252 km village, large **cooking pot**, Fig.177 (height 29 cm, diameter of the opening 20 cm, maximum diameter 31 cm), bulbous in shape with a rather tapering lower end and a short continuous neck. There is a peg-shaped handle on each side with a circular double wall between them; these four parts are interconnected by a horizontal chain of small ring walls. Below this, a sharp-edged narrow wall runs round the container, always deviating downwards beneath the handles and the ridges. The pot is made from the same material as the preceding ones and fired rather hard; the wall thickness is small for its size: only 0.6 – 1.4 cm. The cooking pot illustrated by Schlaginhaufen (1910b) on Plate 2, Fig.10, is very similar; it has a small rim wall beneath each handle. The neck is somewhat short; the pot therefore provides a transition from those of the preceding subgroup.

H.S. 6617, 252 km-village, large **cooking pot**, Fig.178 (height 32 cm, diameter of the opening 20.5 cm, maximum diameter 36 cm), bulbous, with a fairly narrow standing base; the greatest diameter occurs in the lower part of the upper half. The neck is short and fairly sharply delineated. This pot differs from the previous vessel mainly by four handles being added at equal intervals apart; the ring walls are therefore missing and are replaced by handles. All four are simple pegs directed obliquely upwards without lateral impressions.

H.S. 6620, 252 km village, large **cooking pot**, Fig.179 (height 43 cm, diameter of the opening 27 cm, maximum diameter 42 cm), the largest specimen in our collection, bulbous yet quite elegant in shape. The greatest diameter is in the upper half; the pot tapers rather sharply downwards, so that the standing base is relatively small. The neck is distinctly pronounced but not sharply delineated; upwards it expands again somewhat, so that the smallest diameter is quite a distance below the opening. The neck decoration is extraordinarily three-dimensional and almost the same as on the previous container. Four very strong handles with wide lateral impressions serve as hand grips; they are interconnected by a chain consisting of fairly large prominent ring walls; beneath each ring wall is a single similar ring wall of the same size. The decoration is again cut off below by a sharp border that describes an arc beneath each handle. Wall thickness is only 1.5 – 2 cm on average.

H.S. 9178, 252 km-village, large **cooking pot**, Fig.180 (height 41 cm, diameter of the opening 29 cm, maximum diameter 46.5 cm), somewhat lower but more spacious than the previous one, to which it is very similar in shape except for the fact that the decoration is richer. The handles are four very strong pegs of the usual form, with strong lateral impressions and sharp edges. The chain of small ring walls is somewhat deeper, and runs around the

container in waves. Equally strongly undulating, and following the contours of the chain, is the sharp bulge attached below it. The space between the handles is filled by large oblong ovals bordered by narrow bulges and containing a horizontal chain of small ring walls. Wall thickness of the container is very small, ranging between 1 cm and 1.5 cm.

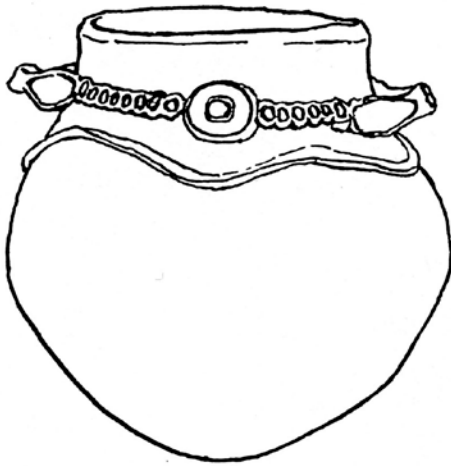


Fig. 177. Cooking pot H.S. 6618, 1/5 actual size



Fig. 178. Cooking pot H.S. 6617, 1/5 actual size

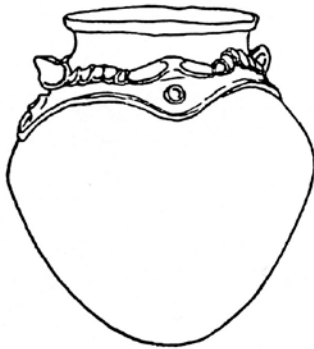


Fig. 179. Cooking pot H.S. 6620, 1/10 actual size



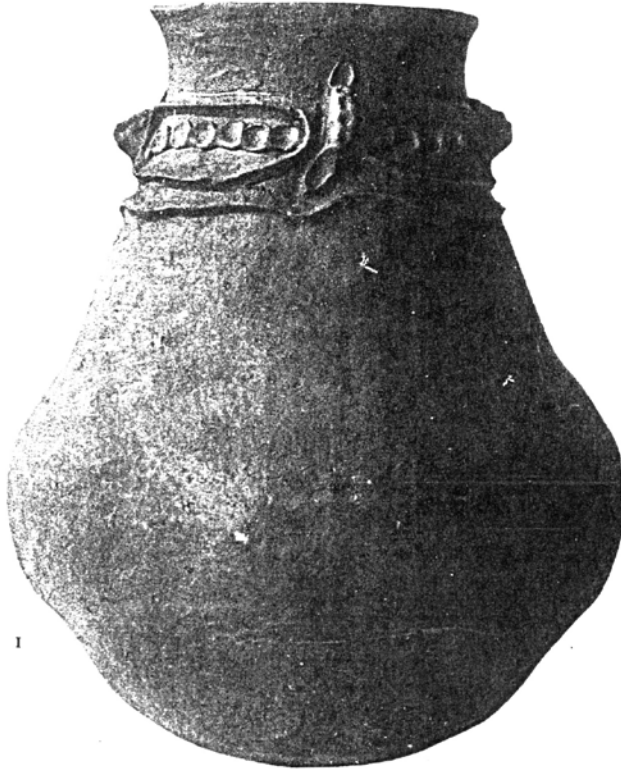
Fig. 180. Cooking pot H.S. 9178, 1/10 actual size

The following containers form subgroup six: they are very large bulbous pots with long slender necks. The material is a rather fine-grained clay; firing is quite poor because only the outer surface is relatively sintered; the inner side of the wall, on the other hand, is very porous and remarkably dry and crumbly; the containers are therefore quite fragile. [205]

H.S. 9156, 252 km village, large **pot**, Plate XLV.1 (height 53 cm, diameter of the opening 23 cm, maximum diameter 44.5 cm), that certainly belongs to this group in form, size and material, but provides a transition to the previous one insofar as its neck is not decorated with a facial representation but carries a decoration resembling that of the preceding group. Here again we have four opposing handles, which, however, consist of vertical projecting strips whose outer edge is beset with a row of round impressions. Between the handles sit long ovals bordered by sharp bulges each showing a row of small ring walls. The decoration is completed below this by a slightly-wavy, sharp border. Wall thickness is small for the size of the container, 1 – 2 cm. Colour both outside and inside is a rather pale warm brown; there are no traces of hearth fire, charcoaled spots and the like.

H.S. 6613, 252 km village, large **pot**, Plate XLV.2 (height 64 cm, diameter of the opening 22 cm, maximum diameter 48 cm) of a high, elegant form; the greatest diameter lies in the lower half; from there the container tapers rather rapidly both upwards and downwards. The base is quite narrow and the urn can stand upright only with the help of a ring. The neck develops extremely gradually, and again expands somewhat at the rim; it is decorated on one side with a three-dimensional facial representation that rather resembles that on the clay tower knob illustrated by von Luschan (see Plate XXXIV.5). A wide vertical 'stirrup', evidently derived from an added handle, forms the nose; especially reminiscent on the handles are the knobs with round depressions, attached to the outer border; its inner

Reche, Empress Augusta River, Plate XLV



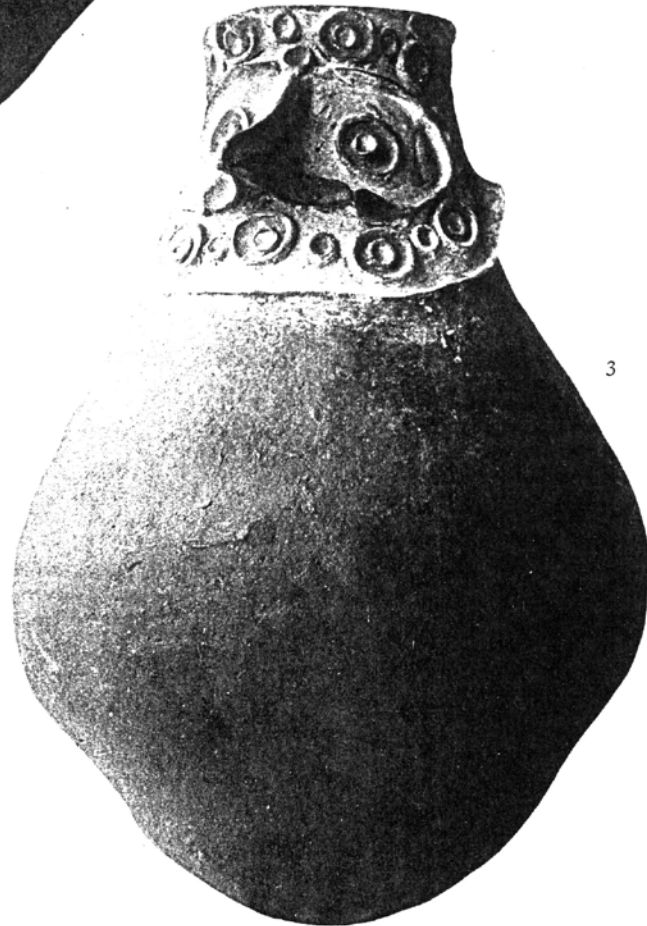
1



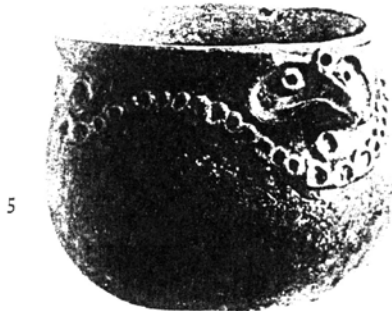
2



4



3



5

1. Pot H.S. 9156, 1/5 actual size
3. Pot H.S. 6614, 1/5 actual size

2. Facial representation on pot H.S. 6613, 1/5 actual size
4. Facial representation on pot H.S. 6615, 1/5 actual size
5. Pot, after Schlaginhaufen

border is approximately 3 cm from the container wall. On either side are the eyes, consisting of double [206] ring walls. A sharp border arising from both ends of the nose 'stirrup' passes in a wide arc on each side around the eyes, and rises to a peak with a narrow perforation, representing the ear. These borders are accompanied on the outer side by a little chain consisting of small ring walls that also runs out over the lateral surfaces of the nose. Beneath the nose lies a mouth consisting of two concentric walls, and on each side of it is a flat knob slightly deepened at the centre; added to it is a chain put together from the same structures, running around the entire facial representation. The whole thing is then surrounded by a sharp border that ends on each side just below the rim in a roundish, somewhat hollowed-out surface. The rest of the surface of the container has no decoration of any sort. The colour is brown, both inside and out; in this urn too no traces of fire were found.

H.S. 6614; 252 km village, large **pot**, Plate XLV.3 (height 63 cm, diameter of the opening 19 cm, maximum diameter 45 cm), is very similar in form to the preceding one except that the neck is more slender and narrow. This urn too cannot stand without a ring. The facial representation on the neck resembles that on the preceding container, particularly since here too the surround is a chain consisting of ring walls and a sharp-edged wall. This outer wall expands on each side into a lobe that is perhaps intended to represent an ear. The face itself shows a completely different character, and appears to have been intended as a reproduction of that of a bird. Far out from the surface projects a beak-like cone, triangular in cross-section, with a very sharp upper edge and side edges expanded into long trough-shaped nostrils. At the end of each nostril sits an oval ring wall, with a small circular one at the root of the nose. Eyes and facial surrounds are formed in exactly the same way as in the preceding container. The entire facial representation is painted red, white and black. The background, the sharp-edge strips, the outer sides of all the ring walls, the inside of most of the small walls, and the lateral surfaces of the beak are all white; only the upper edge of the beak, the nostril margin and the upper edge of several ring walls are black; all the rest is red, that is, the inside of all the large and small ring walls, especially the eyes, the flat ends of the outermost sharp edge, and the nostrils. Furthermore, the container is yellowish-brown inside and out and shows no traces of the effects of fire.

H.S. 6612, 252 km village, large **pot**, (height 63 cm, diameter of the opening 22.5 cm, maximum diameter 52.5 cm), very bulbous with a relatively short neck which is, however, rather distinctly demarcated. The upper margin of the vessel is somewhat expanded. A three-dimensional representation of a pig's head (Plate XLVI.1) is attached to the neck, recognizable especially from the shape of the snout and the nostrils on its front surface. The snout is a massive three-edged peg projecting up to 6 cm out of the surface, and carrying an expansion at the end in the form of a round flat disc. Its lower lateral edges each show two depressions with an elevation between them carrying an impressed point: perhaps an imitation of a boar's tusk. Here again a small knob, depressed in the middle, lies over the root of the nose, from each side of which develops a sharp edge, passing into the contour of the snout below; within the field thus isolated lie the eyes, consisting of double rings. The outer surround of the face is the same as in the preceding specimens, except that a chain, consisting exclusively of small ring walls, passes above. The large wall just below the snout differs from its neighbours by containing a cross, formed from small rings, whose midpoint is formed by a long-projecting knob. This container too is red, white, and black. The background, the inside of the small ring walls inside the large ovals, the end of the snout, and the inside of the eyes are white; the rest of the small ring walls, the large oval, and the side edge of the snout are red; the bridge of the snout is black, or more accurately dirty grey. Finally, the entire part of the neck not provided with decoration is white. The rest of the urn is brown. Fractures in the outmost layer reveal a brick-red colour, while deeper in they are yellowish-grey. The vessel illustrated by von Luschan (1911, p.105, Figs. 1 and 2) is very similar to the one just described. In it a pig's head is depicted in exactly the same manner. The two holes of each ear are decorated by bunches of grass knotted inside them. The snout bears two small pegs on the bridge. As well as the neck, this container also shows vestiges of colour on the bulb, "in the Berlin piece further pendant decoration had been indicated by merely painting; but by now it has for the most part disappeared."

H.S. 6615, 252 km village, large **pot**, Plate XLV.4, (height 66 cm, diameter of the opening 22 cm, maximum diameter 51.5 cm), the largest container that we collected on the river. Again a pig's head is represented, although differing in several features from those described so far. The three-edged snout projecting 8.5 cm shows, remarkably, a third central hole on the round slightly hollowed-out front surface, as well as the two nostrils. The bulge surrounding the eyes is very much more sharp-edged and three-dimensional, resembling an added band with high edges. The entire face is surrounded by a chain of small rings, three to four of which are surrounded [207] by a large oval wall at great intervals. The edge forming the limit of the entire decoration is developed only in the lower half; it is replaced in the upper half by a chain of small ring walls. Ears are missing.

Schlaginhausen too illustrates a type of "facial urn" (1910b, Plate 2, Fig.12), which differs from our specimens by its very much smaller size; it has a height of only 14 cm and a diameter of 17 cm. "The small pot is furnished with the three-dimensional decoration of a human face. This appears in the form of a flat shell over the outside of the pot. Eyes and mouth are indicated as small depressions. The gigantic perforated nose projects strongly. On the opposite side below the rim of the pot are two knob-like projections. In conjunction with the facial decoration they serve for fastening the bast cords for hanging the pot up" (*loc. cit.* p.38). The container comes from "Pagem", a village very much further downstream than the places where we collected our containers decorated with faces; perhaps it was imported there; since this type of container is otherwise unknown in the area just above the estuarine swamps.

Unfortunately we could not determine the purpose of the facially-decorated containers that we obtained. We found all of these pots in just the one village, indeed in the same ceremonial house as the large clay fireplaces. They were all completely empty and contained no remains of any description. Since large clay jugs occurred further westwards, on the coast, where they were used for storing sago, we did not consider it impossible that the “face urns” were used for the same purpose. Therefore, their use as storage- and not cooking-vessels is supported by the fact that in not one specimen were there traces of fire.

The containers of the sixth group all appear to have served as tower knobs, and to have been attached to the high gable towers of the ceremonial houses; they are therefore described and illustrated in the chapter “House Construction” (see Plate XXXIV, 3–5).

Ladles

Coconut shells fastened to a handle serve as ladles. Attached to very long staves, they are used for pouring water onto the sago flour during sago preparation; a utensil of this type can be seen on Plate LIII.1. The following small specimens are used in the household:

H.S. 9241, 375 km village, **ladle**, Fig.181 (total length 68 cm, maximum diameter of the bowl 13 cm). The handle consists of a thick rattan stick; its lower, tapered end is pushed into one of the micropyles of the coconut shell and projects obliquely inside. Reinforced attachment is provided by a rattan binding running through a hole bored in the upper rim of the shell. Both ladles mentioned by Schlaginhaufen (*loc. cit.* p.116) are virtually identical to that described.

St.Ha. 61711, “Simar” **coconut ladle** without a handle, Fig.182 (maximum diameter 12.5 cm, maximum height excluding the grip 5 cm, including the grip 10 cm) hemispherical. Part of the upper half of one side of the coconut shell is left as a tapering handgrip, which is perforated through the top.

H.S. 6533, Kōpār, **strainer spoon**, (*ĩngãmãn*, Müll.) Fig.183, (total length 35 cm, maximum diameter of the bowl 11 cm), consisting of a shallow coconut shell with a rattan handle. The handle is fastened in the same way as H.S.9241, with its tapered lower end projecting through a micropyle into the nut. In total there were seven sieve holes. [208]

Cooking utensils

Funnels

Both the following pieces, plaited in a spiral bulge manner from thin strips of rattan (technique as in Fig.219) have most probably served as funnels; indeed nothing could be found out about them with absolute certainty, but totally unexpectedly they resemble the familiar oil funnels from the Admiralty Islands.

H.S. 6641, 252 km village, **funnel?** Fig.184 (height 13.5 cm, maximum diameter 11.5 cm); the lower opening is somewhat enlarged. The outside shows indistinct remnants of painting, in black, white, and ochre yellow; several spirals are still recognizable.

H.S. 6642, 252 km-village, **funnel?** (height 11.5 cm, maximum diameter 11.5 cm), very similar to the previous one, in painting as well; the expansion at the lower end is missing. Inside are two circumferential narrow black lines. A long thin strip of rattan is pulled through the funnel, probably for hanging it up.

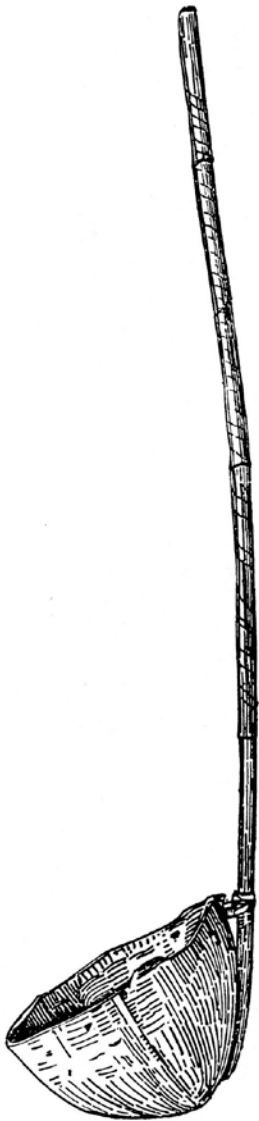


Fig. 181. Ladle
H.S. 9241, 1/5 actual size

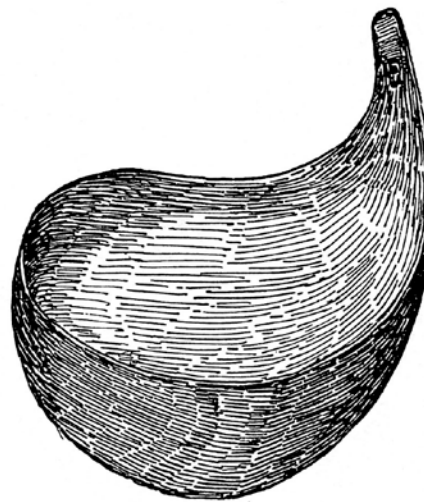


Fig. 182. Coconut spoon St.Ha. 61711,
1/5 actual size



Fig. 183. Strainer spoon H.S. 6533,
1/5 actual size

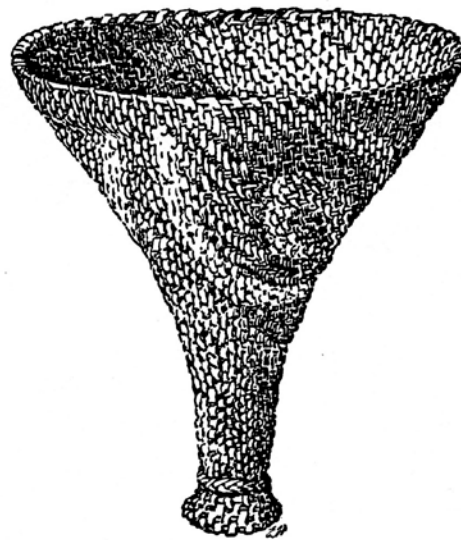


Fig. 184. Funnel H.S. 6641, 1/2 actual size

Taro crusher

St.Ha. 61586, "Karau", designated as a "carved post" by the collector; appears to have been used as a **taro crusher**. Plate XLVI.2 (length 49 cm). It is a conical piece of wood bearing a fully three-dimensional human figure on the handgrip, thought to be wearing a bird mask.

Eating utensils

Spoons

Spoons appear to be very much in use. They are usually made from coconuts, more rarely from mother-of-pearl shell.

H.S. 9343, 343 km village, **spoon** of oval form, Fig.185 (length 13 cm, width 7 cm), made from coconut shell. The underside has a carved facial representation (Fig.186) at the handle end; its eyes consist of round, somewhat projecting plates surrounded by narrow circular rings. The nose is less distinct, the mouth is formed by an oblong wall with a central slit. On the otherwise untouched half of the underside there are two very pale lines, obviously scratched on a short time before.

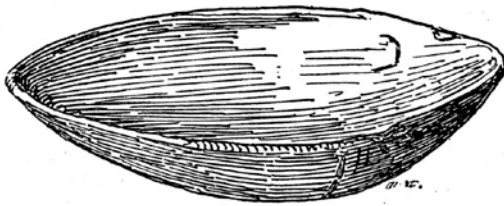


Fig. 185. Spoon made from coconut shell
H.S. 9343, 1/2 actual size

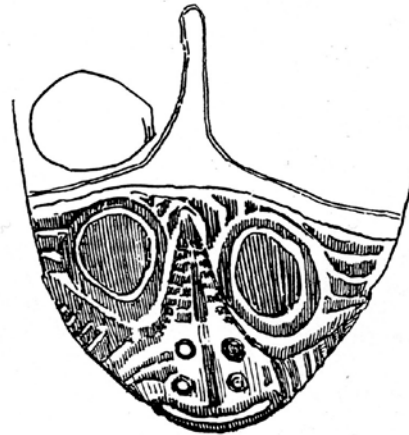


Fig. 186. Decoration on the handle end
of spoon H.S. 9343



Fig. 187. Coconut shell spoon, after Schlaginhaufen



Fig. 188. Spoon handle, after Schlaginhaufen



Fig. 189. Spoon made from coconut shell
H.S. 6601, 1/2 actual size

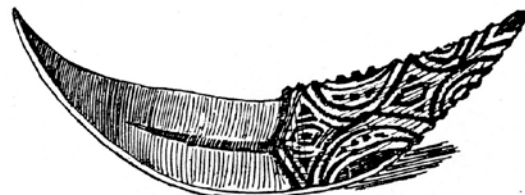


Fig. 190. Spoon made from coconut shell
H.S. 6602, 1/2 actual size

A piece described and illustrated by Schlaginhaufen (1910 b, p.47) is very similar in form to the one just mentioned, but has a somewhat different decoration on the underside (Fig.187). "The hand grip decoration consists to some extent of a rather elongated diamond shape. A circular pattern borders each of the two sides of the decoration passing into the actual spoon, while adjacent to each of the other two edges there is only half of such a decoration."

The handle end is perforated, and the length is 31 cm. A second piece (No.24943) “likewise shows the diamond extended in four dimensions; there is no decoration on the sides facing the actual spoon, but probably on those facing the rim of the grip. They each seem to represent a stylized face and are open-worked at two places. The deepened lines are striped red.” In a third specimen (Fig.188) the grip edge shows filigree work, with an animal represented on each side, which Schlaginhaufen wants to regard as a snake; to me the figures much more resemble the frequently depicted (for example on filigree-carved house boards) *Buceros* heads. A fourth piece, (No.24952) also consisting of coconut shell, has a more slender shape; the decoration on the grip resembles that of the preceding piece, but is simplified and drawn lengthwise; the animal figures are no longer recognizable. In the other three pieces described by that author the decoration lies more on the actual spoon part; a special grip is not developed here; it is always a face that is depicted.

H.S. 9282, 343 km village, **spoon** made from coconut shell (length 11.5 cm, maximum width 7.3 cm) oval in shape; one end is drawn out into a short double-lobed handgrip. The underside has a carved decoration in which two eyes formed from circles are clearly recognizable; it is surrounded by a narrow strip that forms a re-entrant angle above and below; concentric circles lie in the lower angle, probably intended to represent the mouth. A spiral decoration runs along the rim.

H.S. 9096, Mändānām (*ngām*, Hellwig) **spoon** made from coconut shell, (length 12 cm, maximum width 5 cm), similar to the preceding one, but somewhat narrower and shallower; undecorated.

H.S. 6601, Mändānām (*ngām*, Müller) **spoon** made from coconut shell, Fig.189 (length 13.5 cm, maximum width 5 cm), long and narrow. One of the two tapering ends is treated as a handle and is decorated on both sides. The pattern is carved and shows the same drawing on both sides, (to whose peculiarities I allude in the illustration); the scratched lines are left pale, while the raised areas are dark. Jagged edges are carved into the handgrip. [210]

H.S. 6602, Mändānām (*ngām*, Müller) **spoon** made from coconut shell, Fig.190 (length 14 cm, maximum width 4 cm), very similar in form to the preceding one. Here too the handgrip is carved on both sides. The decoration differs from that of the previous piece; apart from minor details it is the same on both sides. Two four-peaked fields are formed from groups of concentric half-curves, and are decorated with circles and ovals and the usual filler decoration. The edges of the handgrip are jagged and its tip is slightly rounded. A long low strip, tapering forwards and running along the actual spoon, is attached to the decoration. The specimen is evidently an old piece that has been used for a long time; its surface is completely polished from much handling.

Small bowls

St.He. 60622, Málu, **small bowl** made from coconut, Fig.191 (length 11 cm, maximum width 6 cm, height approximately 3 cm), probably used as a drinking vessel; at one end is a small, knob-like, perforated elevation. The [211] entire underside is carved; the decoration (Fig.192) consists mostly of ovals, and recognizable at one end is a rudimentary facial representation.

H.S. 9342, 343 km village, **small bowl** made from coconut shell, almost circular (maximum diameter 8.5 cm, height about 3 cm). The underside is covered with a carved decoration (Fig.193), consisting of three spirals with large and small ovals between them; short curved lines follow the contours. A jagged pattern decorates the rim and is interrupted at only one spot, where an oval goes right to the rim; there is a small dent at this very spot, probably the remains of an earlier bored hole whose upper bridge has broken away.

In the village of Nángīt we saw similar spoons, made from *Nautilus* shell; Hellwig obtained the local name for them as *ābīo*.

Surprisingly designated by the collector as “spinning top”, are several bowls made from the lower half of a coconut.

H.S. 6534a, Kōpár, **bowl**, (*ūtīkimbō*, Müll.) Fig.194 (diameter up to 10 cm). The upper rim of the outside is decorated with a carved decorative band similar to a half “entrails” pattern. The bottom ends below in a tapered process that is triangular in cross-section.

H.S. 6534c, Kōpár, **bowl**, (*ūtīkimbō*, Müll.) (diameter up to 9.5 cm), differs from the preceding one only in the absence of the decorative band. The inside shows a thin dark-brown coating that tends to flake off; perhaps a deposit from a fluid that was drunk from these bowls.

H.S. 6534d, Kōpár, **bowl**, (*ūtīkimbō*, Müll.) (diameter up to 10 cm), just like the previous one; the process extending down from the base is shorter and stumpier. Here too the inside has a slightly flaky dark brown layer.

H.S. 6534b, Kōpár, **bowl**, (*ūtīkimbō*, Müll.) (diameter up to 10 cm), like the preceding one but rather shallower. The process beneath the base is extremely short and flattened. [212]



Fig. 191. Little bowl St.He. 60622,
1/2 actual size



Fig. 192. Decoration of the little bowl
St.He. 60622



Fig. 193. Decoration of the little bowl
H.S. 9342, 1/2 actual size (abraded)



Fig. 194. Bowl H.S. 6534a,
1/2 actual size

Since the collector regarded the bowls as spinning tops, he refrained from giving precise information about their purpose and operation. What was instantly astonishing was their great similarity with the customary kava beakers in Astrolabe Bay (cf. Biro 1901, p.103, Fig.55). I do not think it impossible that they knew the taste of kava in the lower Augusta River even if until now, to my knowledge, there has been no indication of *Piper methysticum* on the river. Hollrung, who admittedly studied the flora of only the upper middle reaches in detail, had in any case not found the kava bush on the Augusta River; his *Die Flora von Kaiser Wilhelms Land* does not mention it.

Scrapers

St.He. 60655, "Empress Augusta River", scraper made from turtle shell, Fig.195 (length 12 cm, width at the handle end 2 cm, maximum width 4.5 cm). The handle end is markedly indented on each side; the two lobes thus formed are decorated on the bulging inside with a latticework of engraved crossed lines.

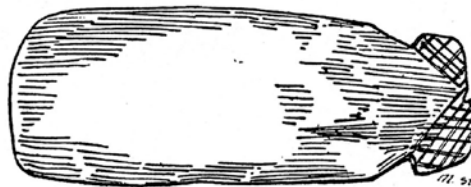


Fig. 195. Scraper St.He. 60655,
1/2 actual size

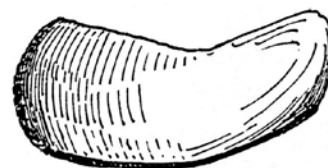


Fig. 196. Scraper St.He. 60654,
1/2 actual size

St.He. 60654, "Empress Augusta River", scraper made from mother-of-pearl shell, Fig.196 (length 9 cm, width at the hand grip end 3 cm, maximum width 4.5 cm), slightly curved in the plane of the long axis. The blade has heavy indentations, like a saw.

St.He. 60653, "Empress Augusta River", mother-of-pearl shell scraper, (length 9.5 cm, width at the hand grip 2 cm, maximum width 4 cm), very similar to the previous, but slightly indented on the cutting edge and both sides.

Spatula

L.Me. 9095, “Empress Augusta River”, **bone spatula**, Fig.197 (length 28 cm), flat shape; the point has broken off. The piece has evidently been used as a taro fork — at least the Hamburg Collection has an almost identical piece from Angriffshafen, given as “taro holder”. Approximately in the middle of the spatula a section is plaited round and adorned with *Nassa* snails. At the end is a small hole through which is pulled a short cord carrying several cowry shells, a large milk-white glass bead and at the end two little chains plaited from rattan; a small feather is fastened to one of these chains. The upper part of the plaited section of the spatula is decorated with a double-rowed fish scale pattern. It is astonishing that two almost identical pieces should come from two places so far apart; importation through coastal trade is indeed possible, but I see it as much more likely that for one of the pieces the provenance is incorrect.

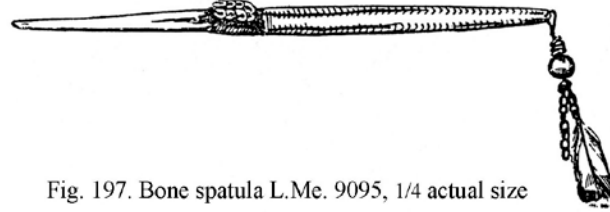


Fig. 197. Bone spatula L.Me. 9095, 1/4 actual size

Bone knives

In New Guinea, dagger-like implements made from long tubular bones are very often found; although only a portion can be regarded as actual [213] daggers; the rest — they are characterized by having a stumpy point or a very broad cutting edge — are nothing more than simple knives used in the household.

H.S. 9099, Mändánām (*žálím*, Hellwig), **bone knife**, Fig.198 (length 23.5 cm) with a broad, flat, rounded tip and somewhat sharpened sides. At the upper end are two holes through which a thin rattan strip is pulled for hanging.

H.S. 9095, Mändánām, **bone knife** (*žálím*, Hellwig; length 17 cm) exactly the same as the preceding one, made from a pig bone. The blade is very flat and broad.

H.S. 9127, Mändánām, large **bone knife** made from cassowary bone (length 29.5 cm; *gǎgrī nǒ*, Hellwig, probably = cassowary); like a dagger. The point is blunt. At the handle end a rattan loop is attached to the back for hanging. The front surface shows a face carved into the broad part, resembling the one on dagger H.S.9334 (see Fig.371), but very much more simply and roughly made.



Fig. 198.
Bone
knife
H.S. 9099,
1/5 actual size

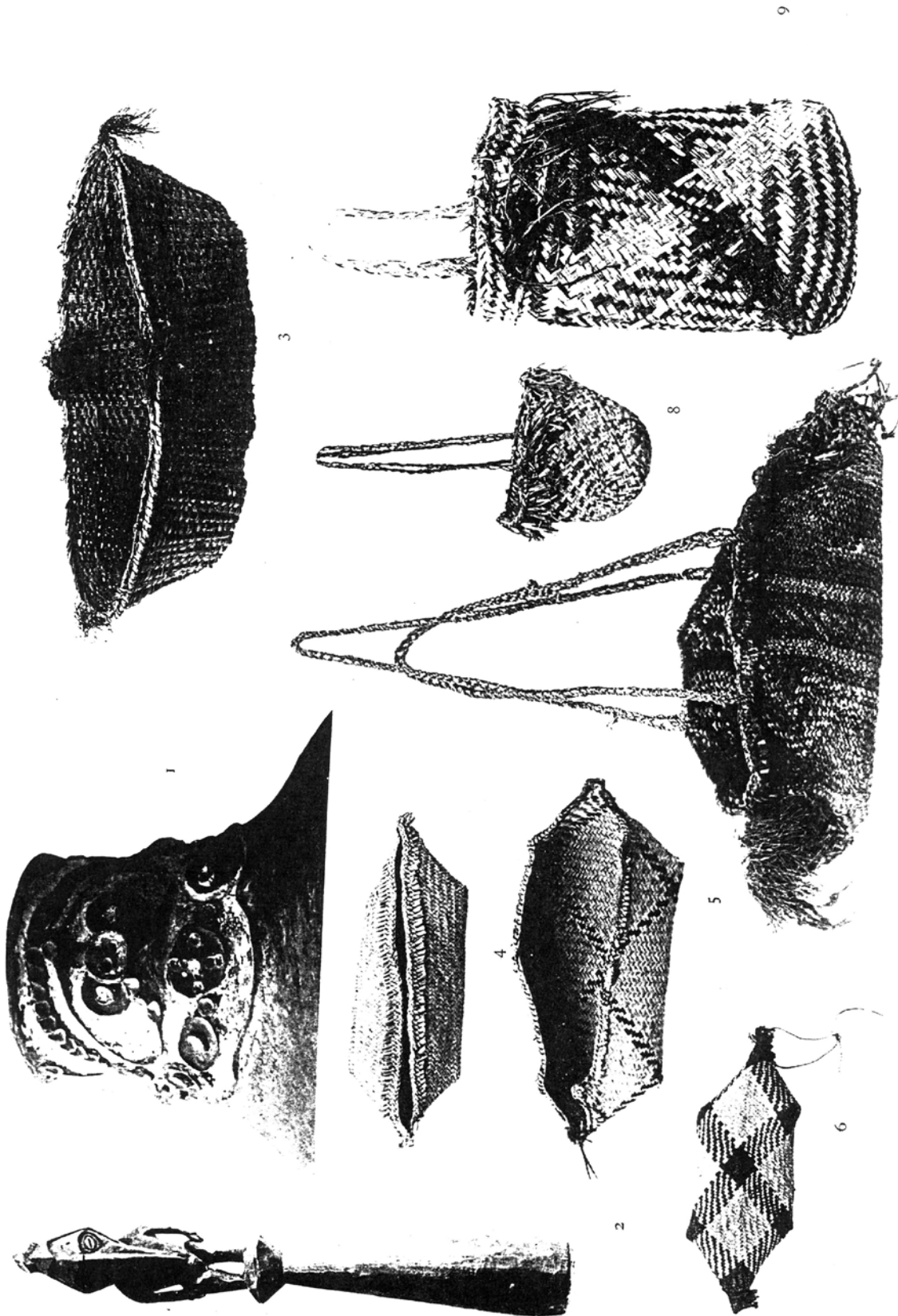
Baskets and bags

The stores of baskets and bags were astonishingly replete in all the villages, which should not come as surprise, given the high standard of plaiting skill on the river.

Baskets

H.S. 4563, Kāmbrǐngī, **basket**, Plate XLVI.3 (length 45 cm, width 21 cm, height 13 cm), stiffly plaited from rattan, oblong-oval in shape. The technique shows the usual taffeta weave into which a narrow barely-recognizable decorative strip is plaited about 3 cm below the rim in satin weave. The bottom of the basket also shows taffeta weave, but here three to six individual strips are combined into a wide plaited strip each time. The basket rim is stiffened by interwoven rattan bands, and is decorated at four places by opposing pairs of several bunches of red-dyed bast knotted onto it. At one spot a rattan loop is attached for hanging.

Very similar but somewhat more rounded in form are the three stiffly plaited baskets described by Schlaginhaufen (1910b, p.62), one of which he illustrated (*loc. cit.*, Plate 3, Fig.22).



1. Facial representation on pot H.S. 6612, 1/5 actual size. 2. Taro crusher St. Ha. 61586, 1/5 actual size.
 3. Basket H.S. 4563, 1/5 actual size. 4. Purse H.S. 4553, 1/5 actual size. 5. Purse H.S. 9190, 1/5 actual size.
 6. Purse H.S. 6749, 1/5 actual size. 7. Bag H.S. 9170, 1/5 actual size. 8. Bag H.S. 9253, 1/5 actual size.
 9. Bag H.S. 6732, 1/5 actual size.

Small bags

H.S. 4553, Kămbřínġī, small, plaited **bag**, Plate XLVI.4 (length up to 28 cm, width up to 10 cm) with a basic rectangular pattern to which are added the tapering ends of the bag as two further corners; Schlaginhaufen (*loc. cit.*) quite practically designates these bags as the “hexagonal” type. The bag is plaited in simple reversible twill-style. The sole decoration consists of the surplus ends of the plaited material being turned over at the rim, back-spliced a little on the outside and pushed through the stitches already made; the outermost ends therefore remain free and form stiff fringes.

H.S. 9103, Măndănăm, **bag** (*göndávyě*, Hellwig) (length up to 34 cm, width up to 11 cm) is almost the same as the preceding one, only somewhat larger. The colour is darker, due to more extensive use.

H.S. 9190, 252 km village, small **bag**, Plate XLVI.5 (length up to 33 cm, width up to 13 cm) belongs to the same type; the upper rim is decorated with six round peaks. As decoration the bag has several narrow bands plaited out of russet-dyed strips of bast fibre that always intersect at right angles and form a diagonal cross on the bottom. On one narrow side a red cord is pulled through the rim for hanging.

H.S. 4555, Kămbřínġī, small **bag** (length up to 32 cm, width up to 15 cm) in form, decoration and technique almost the same as the previous one, except that the peaks are missing from the rim and the interwoven red decorative strips vary widely in width.

H.S. 4556, Kămbřínġī, small **bag** (length up to 26 cm, width up to 9.5 cm); apart from the decorative strips consisting of paired red, dark-blue-grey and black fibres, the same as the previous one.

H.S. 6749, Kămbřínġī, small **bag**, Plate XLVI.6 [214] (length up to 25 cm, width 10.5 cm) just like the previous one; the decorative strips are wider and consist of alternating red and black material.

H.S. 4554, Kămbřínġī, small **bag** (length up to 27 cm, width 12 cm) exactly the same as the previous one in plaiting style, form and decoration.

The small bag No.25109 described by Schlaginhaufen (*loc. cit.*, p.62) belongs to the same type; its pattern is formed from only red-dyed material.

H.S. 9171, 252 km village, small **bag** (length up to 36 cm, width 12 cm) is very similar especially to H.S.9190 and, like the latter, it is decorated on the rim with six round pegs. The interwoven decorative strips consist only of red-dyed material; there are two more, so that the bottom has two diagonal crosses.

We saw these small bags in the villages of Muăngġēm, Ăngöróm and Kămbřínŭm in particular, where they were worn behind in the cross-over of the belt, to some extent forming a part of male attire.

H.S. 9170, 252 km village, larger **bag**, Plate XLVI.7 (length about 41 cm, width about 18 cm) with shoulder straps; it likewise belongs to the “hexagonal” type and is plaited in the same style from the same material as the previous ones. The rim is decorated by eight small pegs. Both pointed ends of the bag are closed with knotted red-dyed bast cords to prevent the contents from otherwise easily falling out. The pattern formed by the red and black strips of bast is extraordinarily reminiscent of the women’s smooth hoods (see Plate IX) and, if the shape of the bags with their prepared corners did not make it impossible, one could almost believe that the bag was made from a cap of this type. The pattern shows two bands bordered in white, with a middle band between them consisting of red, white and black strips; on both sides there is a zigzag band of red and white strips on a red background (cf. for example the cap H.S.9163, Plate IX.1). Schlaginhaufen, who describes a very similar cap, immediately stumbled on this similarity with the hoods; the “basket has on its under surface a big interwoven zigzag pattern, which is even more enhanced by later painting with red, white, yellow and black colours. This decoration is strongly reminiscent of that which we had observed. . . in the rain capes” (*loc. cit.*, p.62); a second example is very similar to the previous one. In our specimen (H.S.9170) a carrying strap plaited from cord is attached to each long side.

H.S. 9117, Măndănăm, **bag**, (*řzi*, Hellwig; height 29 cm, width 16 cm) plaited from supple bast fibre in four-ply reversible twill-style, with two carrying straps produced in a peculiar style (see Fig.224). The bag is coloured brown. The rim is thickened by plaiting.

H.S. 9253, 375 km village, **women’s handbag**, Plate XLVI.8 (height about 12 cm, width 14 cm), plaited from grass in four-ply reversible twill-style. The sole decoration consists of several interwoven red strips of bast fibre. The shape of the little bag somewhat resembles the “hexagonal” type and, as with that one, shows a base isolated by four prepared angles and an interwoven rim. Two short carrying straps are attached above, produced in the same technique as in bag H.S.9117 (see Fig.224).

H.S. 6732, Kōpár, **handbag** (*tsém*, Müller), Plate XLVI.9 (height 33 cm, width about 21 cm), plaited rather roughly and very irregularly from straw and red-dyed bast fibre, partly in four- and partly in six-ply twill-style; in

Reche, Empress Augusta River, Plate XLVII



1. Bag H.S. 3043:05, 1/8 actual size. 2. Bag H.S. 1804, 1/8 actual size. 3. Bag H.E. 4043, 1/8 actual size
4. Bag H.S. 9112, 1/5 actual size

isolated spots, probably more by chance and without ornamental effect, satin weave appears also. A stiff, fairly wide carrying strap plaited in taffeta weave from bast fibre, is fastened to the rim above.

H.S. 9225/1, Îmbântön, large oblong **bag** (height about 44 cm, width about 63 cm), plaited from straw partly in four- and partly in six-ply twill-style, thereby creating a not easily recognizable decoration. The bag is almost completely closed by a very short handle joining both long sides together, and is only somewhat more widely open to the side of the handle. The bag served for storing a skeleton.

H. 3043:05, Wătâm, **bag**, Plate XLVII.1 (height 41 cm, width 54 cm) designated by the collector as a “shopping bag”; similar to the previous one in form and technique. By using dark grey-brown straw and red-dyed bast fibre, a decoration of right angles is achieved.

H.S. 1804, Kopar, large decorated **bag**, (*săpăr*, Fülleborn.) Plate XLVII.2 (height about 51 cm, width about 74 cm), plaited mostly in four-ply reversible twill-style but offset with six-ply twill-style and several satin-weave strips. One side is richly decorated: just below the rim is plaited a narrow strip with a second one below it, strung with *Nassa* snails. Just above each of the strips are several knots made from the same material as the bag, knotted on in the same manner as the small knots on the women’s hoods (cf. Fig.242). As further [215] decoration the bag has several broad strips of interwoven white bast fibre and yellow, red, and black bunches of grass; several further little knots have been added between them. On the upper rim of the bag, two small eyelets plaited in taffeta weave from the same material as the bag are located to right and left of each end, and in the middle of the front surface; in addition a fairly wide handle strap is fastened in the middle of each long side.

H.E. 4043, Marangis (on the Ramu near the mouth), large decorated **bag**, Plate XLVII.3 (height 52 cm, width 75 cm), similar to the preceding one in form and material. The left side is only decorated with several irregular interwoven red strips; near the rim on the right side are two strips of *Nassa* running parallel with it; between them lies a third strip which forms a wavy line. Below is a 27 cm high and 57 cm wide area densely covered with short bunches of grass dyed red, yellow, and black, and bunches of white bast fibre overlapping one another in rows like a tiled roof. On each long side, as in the previous example, is a short handle. The small plaited knots are missing from this bag.

H. 3044:05, Wătâm, large plaited **bag** (height about 52 cm, width about 62 cm), similar to the preceding items in material, form and technique. The sole decoration of this much more simply presented piece is provided by four narrow, somewhat projecting, plaited-on strips, two of which are just under the upper rim and the other two more towards the lower end. Several interwoven darker blades of straw provide an indistinct pattern.

All the following bags are pliable, expandable pouches produced in an unique style from twisted double-stranded cords made from plant fibre.

H.S. 9110, Măndănăm, **net bag** (*năndēm*, Hellwig), Plate XLVIII.1 (height about 27 cm, width about 32 cm), wide-meshed, of thick, raw, double-stranded cord. Production technique is the same as for the men’s girdle H.S.9288/2 (see Fig.226). The ends of the three cords used in manufacture hang down from one corner of the bag; two lying parallel are spirally wrapped by the third, and a knot is then looped into the whole. The carry strap woven onto the upper rim is produced by the same technique as the mourning cord H.S.9284 (see Fig.228).

H.S. 9113, Măndănăm, **net bag** (*năndēm*, Hellwig; height about 27.5 cm, width about 41 cm), wide-meshed, identical in form, material and technique with the previous one. The carry band is plaited in the same style as for the bag itself, but somewhat more wide-meshed.

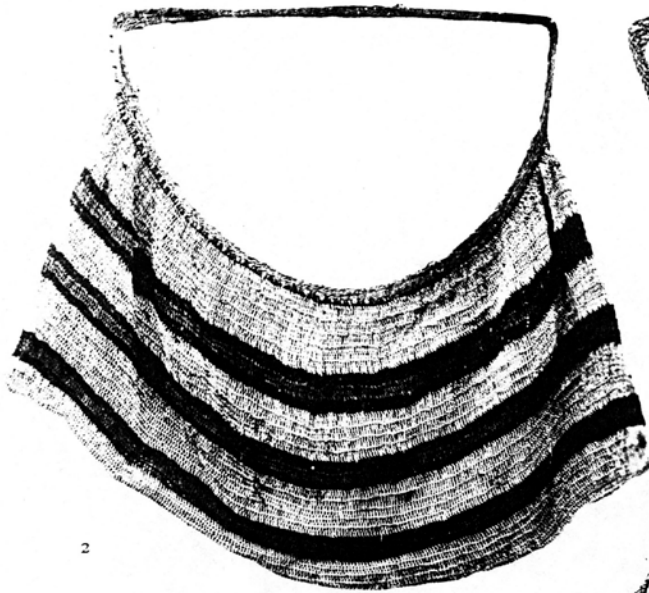
H.S. 9112, Măndănăm, **net bag** (*năndēm*, Hellwig), Plate XLVII.4 (height about 24 cm, width about 20 cm), narrow-meshed, rather stiffly plaited from thin, double-stranded cord. See Fig.233 for technique. The upper edge and the carry strap show a different technique, the same as for the mourning cord H.S.9284 (see Fig.228).

H.S. 9111, Măndănăm, **net bag** (*năndēm*, Hellwig; height about 27 cm, width about 20 cm), narrow-meshed, stiff, produced in the same technique as the previous one, from thin cord. The shape is more pouch-like, rather high and somewhat enlarged lower down. The upper edge and the carry strap show a markedly different technique from that of the bag, that of the leg band H.S.9102 (see Fig.229).

H.S. 9100, Măndănăm, **net bag** (*năndēm*, Hellwig; height about 13 cm, width about 17 cm), the same as the previous one in technique and material, but very much smaller. A spacer stick is thrust into the bag, serving to give the floor form and rigidity. The upper edge shows the plaiting style of the mourning cord H.S.9284 (see Fig.228), the carry cord the style of carry strap H.S.9117 (see Fig.224).

H.S. 9318, Mălu, **net bag** (height about 16 cm, width about 22 cm) produced by the same technique as the men’s girdle H.S.9228/2 (see Fig.226). The interwoven rim shows the same technique, but while the fibre direction in the bag is vertical, in the rim it is horizontal. The style of interweave is similar to that of the bag H.S.9115 (see Fig.230). The carry cord is produced by the same technique as the bag.

Reche, Empress Augusta River, Plate XLVIII



2



1



3



4

1. Net bag H.S. 9110, 1/5 actual size. 2. Net bag H.S. 8994, 1/7 actual size.
3. Net bag H.S. 9115, 1/5 actual size. 4. Net bag H.S. 9266 1/5 actual size.

H.S. 9319, Mǎlu, **net bag** (height about 19 cm, width about 23 cm), differs from the previous one only in that here a dark-russet dyed plaited band 3 cm wide runs transversely across the front surface of the bag. The technique is that the entire bag is made from a single fibre: just before a section is plaited, a desired length is soaked in dye and, after a short drying time, plaiting continues. Cessation of dye at the transition points is clearly recognizable.

H.S. 8994, Nǎngīt, large **net bag** (*měndēm*, Hellwig), Plate XLVIII.2 (height about 27 cm, width about 65 cm), the same as the previous one in material and technique. Three wide, dyed bands (here, too, the fibre has been dyed during plaiting), each consisting of a blue-green central and two russet lateral stripes, run transversely across the entire front surface. The carry band (this too shows a red-dyed area) and the upper edge are plaited by the same technique as the bag.

[216] **H.S. 1803**, Kōpár, large **net bag** (*mǎndǐgǎb*, Fülleborn; height about 28 cm, width about 55 cm) with carry strap, like the previous one in material and technique. On the front side — the rear side is undecorated — are attached four dyed bands overlapping one another, each again consisting of a central blue-green stripe and two lateral russet stripes. The upper edge and the carrying strap arising from it show the same technique as the bag, although the dye course is horizontal in the edge. The basket is plaited onto the edge in the same way as the previous one; the cord plaited on is dyed pale grey-blue.

H.S. 9115, Mǎndǎnǎm, **net bag**, (*nǎndēm*, Hellwig) Plate XLVIII.3 (height about 23 cm, width about 42 cm), with a carry strap, of the same type as the previous examples. The reverse side shows several transverse strips dyed red and ochre, while the front side has a complex pattern likewise obtained with dye. Below the rim, a double row of alternating right angles runs transversely across the entire bag. Below this are two wide zigzag bands comprising a middle black and two russet lateral stripes that are plaited in a somewhat deviating technique, just like the previously-mentioned right angles (see Fig.230); between them runs a straight narrow ochre stripe transversely across the front surface; a black and a red horizontal stripe form the lower limit of the decoration. The upper edge and the carry strap are produced by the same technique, but from rougher material; the type of interweaving differs from that of the preceding specimens; Fig. 230.

H.S. 9266, Mǎlu, small **net bag**, Plate XLVIII.4 (height 9.5 cm, width 12 cm) worn on a wide strap on the chest. The bag itself is plaited in the same technique as the previous one, as is the specially-made rim and the carry band; decoration is lacking. The carry band reaches 7 cm in width and is decorated at two places with widely-extending fibre ends.

The bags are often so richly decorated that they appear to serve more as decorative items than their actual purpose.



Fig. 199.
Little bag
H.S. 6734,
1/4 actual size

H.S. 6734, Kōpár, small pouch (*mǎndǐgǎb*, Müller), Fig.199 (height 7 cm, width 8 cm) with a narrow carrying strap, worn as an ornament on the front of the neck. The pouch itself is plaited from cord in the style of the leg band H.S.9102 (see Fig.229), while the carrying strap is plaited in the style of the mourning cord H.S.9284 (Fig.228). The whole front is densely trimmed with vertical rows of *Nassa* snails.

H.S. 9123, Mǎndǎnǎm, **net bag** (height about 23 cm, width about 20 cm), the same as bag H.S.9112 (see above) in form, technique and material; also, the carrying strap and the upper edge show the same technique as in that specimen. On the front and the reverse sides are attached five narrow red-dyed strips which are almost totally concealed in front by a thick overhang of knotted cords and feathers; the yellow-brown and black feathers have their quills pushed through the mesh, and are attached by cut notches; the cords hang down a long way and usually have several knots on their ends. Fastened to the carrying strap is a removable bundle of red-dyed cords decorated with small feathers.

In the river mouth region there are decorative pouches that are richly trimmed with *Coix* seeds on the front; they resemble the familiar ones from the Berlinhafen area. We saw them only rarely (on Plate I.1, the native squatting in the background is wearing a pouch of this kind on his chest), and were able to obtain only a few. The Thiel collection contains one specimen:

H.Th. 11.88:45, “Empress Augusta River”, **net bag**, Plate XLIX.1 (width up to about 57 cm, height up to about 29 cm), a somewhat torn piece, plaited from twisted cord in the technique of bag H.S.9115 (see Fig.230). The front has horizontal red and blue-green stripes and is decorated with five wide vertical bands of *Coix*. The *Coix* seeds are always strung on interwoven cord, and thus to some extent interwoven into the bag. Just below the upper rim of the bag long cords are knotted on at six places between the *Coix* bands, hanging down a long way as tassels.

[217] Schlaginhaufen obtained a bag of this type in the village of “Kamburumdou” (Kāmbrīnūm?), thus relatively further upriver. It seems, judging from the illustration, (*loc. cit.* Plate 3, Fig.21) to be made from cord in the same technique as girdle H.S.9288/1 (see Fig.226). “One side is trimmed with the seed husks of *Coix lacrima* L., arranged in nine rectangular fields”. “At several places on the bag are fastened short knotted fringed cords. . .” “Two small bast fibre rings are on the upper rim”.

L.Me. 4860, “Empress Augusta River”, **shoulder bag**, Plate XLIX.2 (height about 20 cm, width about 20 cm), plaited from cord in the technique of girdle H.S.9288/1 (see Fig.226), similar to the one described by Schlaginhaufen. The front is trimmed with ten double-rows of *Coix* seeds pushed into one another in pairs and, as additional ornament, carries a little bell made from snail shell, a round fruit kernel and a shell overlain with carved turtle shell, similar to the decorative hair pieces H.E.4109 and H.E.2514 (see p.93). The upper rim of the bag and the carry strap are produced by the same technique as the bag itself.

In the upper part of the stretch of the river that we visited, we found shoulder bags whose fronts were so densely trimmed with black feathers that the actual bag appeared virtually only as a hanging frame, almost disappearing under the dense bush.

H.S. 6705, Málu, **shoulder bag**, Plate XLIX.3 (height about 15 cm, width about 32 cm), plaited from thin cord by the same technique as H.S.9288/1 (see Fig.226). The upper rim of the bag and the carry strap show the same technique; the type of binding between bag and bag rim is similar to H.S.9115 (see Fig.230). To give the bag its shape a bow of split rattan is inserted inside it. On the outside a dense bushy trim of cassowary feathers accompanies the rim of the bag. The front is densely trimmed with clipped coarse black feathers (rhinoceros hornbill?) and several rooster feathers, fastened by bending the quill ends round and pushing them through the mesh; therefore the quill ends project forwards just like the feathers. A thin band of rattan running roughly parallel with the rim of the bag surrounds the entire bunch of feathers and holds it together.

H.S. 6704, Málu, **shoulder bag**, (height about 14 cm, width about 24 cm), similar to the previous one in form and technique, but plaited from somewhat stronger cord; the outer rim of the bag is again trimmed with cassowary feathers. A cord secures the dense trim of the front, again consisting of coarse black feathers and rooster feathers.

H.S. 9295, Málu, **shoulder bag**, (height about 15 cm, width about 21 cm), the same as the previous in form, technique, material, outer decoration; rather damaged.

H.S. 9365, Pāmúŋgrī, (traded from a canoe) **shoulder bag**, Plate L.1 (height about 25 cm, width about 60 cm), of a somewhat different type. Including its rim, this bag is plaited by the technique of bag H.S.9112 (see Fig.232), while on the other hand the carry strap shows a different style of plaiting (see Fig.227). The front is decorated with long blue-green feathers of the crested dove and several yellow-white rooster feathers overlapping one another like roofing tiles; the feathers are pushed with their quills so far between the meshes that they are clamped firmly by the lower part of the feather. The upper border of the front is formed by a wide plaited band following the rim of the bag and showing three round lobes pointing downwards; to some extent firmly sewn to the bag by a thin rattan band. It is made from two-ply cord by the same technique as the leg band H.S.9102 (see Fig.229). A wooden stave firmly clamped onto the floor inside again serves to maintain the shape and stability of the bag.

St.Ha. 61632, “Radja” Plate L.2, plaited from cord in the same style as girdle H.S.9288/1 (Fig.226), otherwise similar to the previous example. The front is densely trimmed with split rooster feathers. The upper rim is clad in a wide band plaited by the technique of leg band H.S.9102 (Fig.229); a row of boar’s tusks is interwoven on each side.

Five specimens in the Lübeck Museum represent a type markedly different from the bags described so far. All bear the provenience label “Empress Augusta River”. Surprisingly, in none of the other collections from the river is there a bag of this type; but an identical bag occurs in New Britain, and indeed we have found the simpler form (for example Lü.6987c) on the south coast, for example at Pulié, [218] while the more complex plaited style occurs among the Baining (e.g. H.S.875 in our collection). I therefore feel that the provenience label of the bags is incorrect; these items have probably passed through several hands before reaching the museum: an incorrect statement of origin could easily have crept in. Since however we cannot completely exclude the possibility that the bags came from the upper reaches of the river, I shall briefly describe them:

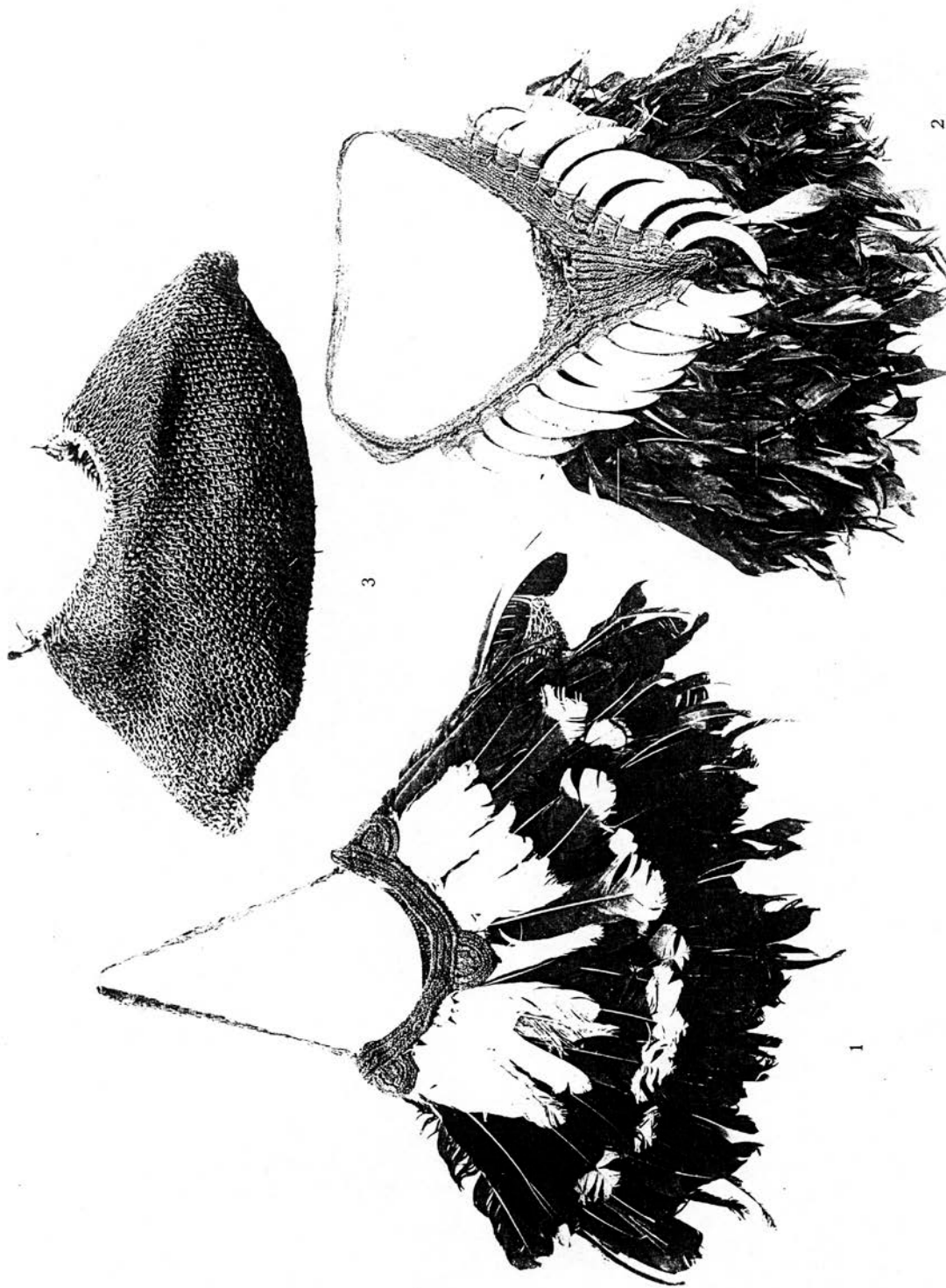
Lü. 6987e, “Empress Augusta River”, **bag** (length about 41 cm), Plate L.3, plaited from rather hard brittle material (see Fig.234). The lower part of the bag is very wide, the upper part relatively narrow.

Lü. 6987c, “Empress Augusta” **bag** differs from the preceding one in its narrow meshes and the simple style of plaiting (illustrated in Lehmann, 1912, p.19 (VII A c 8)). **Bags Lü.6987, b, g, i** are the same in form and technique.

Reche, Empress Augusta River, Plate XLIX



1. Net bag H.Th. 11.88-45, 1/5 actual size
2. Shoulder bag L.Me. 4860, 1/5 actual size
3. Shoulder bag H.S. 6705, 1/5 actual size



1. Shoulder bag H.S. 9365, 1/5 actual size. 2. Shoulder bag St.Ha. 61632, 1/5 actual size
3. Bag Lü 6987e

Working Tools

Axes

Apart from in the coastal villages in the neighbourhood of the New Guinea Company trading station, we did not find a single metal tool during our journey up the Augusta River. Thus, in spite of the very well-developed trade, the coastal dwellers do not appear to have traded any metal goods upriver.

All the axes that we saw had blades made from stone, shell, or bone.

Two types could be distinguished among the stone and shell axes: those in which the cutting edge runs in the same direction as the handle (as in European iron axes), and others in which the cutting edge is transverse. The latter type appears to be the more common, as it does everywhere else in the South Seas. The following specimens belong to this group:

H.S. 9311, Málu, **axe**, Fig.200 (length of the handle 47 cm). The axe consists of a knee-shaped handle (base of a bough), the two-piece wooden chuck and the stone blade. The blade is pushed into the chuck, and this is fastened onto the handle. All the components — clearly recognizable in the illustration — are bound together by wide rings plaited from rattan; several thin strips of rattan are then wrapped obliquely around the end of the chuck to reinforce the binding. The blade is not worked or polished with particular care; it is less than 5 cm wide, flat-spindle-shaped in cross-section, and its cutting edge is sharp, and polished by use. The handle has several transverse bulges at the lower end, evidently to prevent the hand from slipping.

H.S. 9274, Málu, **axe** (length of the handle 37.5 cm), similar to the previous one but much smaller; blade and chuck are attached to the handle in the same manner. The blade, only 3.5 cm wide, has been carefully sharpened. The handle is undecorated.

H.S. 9272, Málu, **axe** (length of the handle 49 cm), like the previous specimens. The blade has been prepared from a slate-like stone and is completely flat; it reaches a width of 5.5 cm.

H.S. 4532, Málu, **axe** (length of the handle 50 cm), differs from the previous specimen in that only the blade and chuck are united by plaited rings, while everything else is covered by a thick layer of transverse and crossed-over strips of rattan. The blade is up to 6 cm wide, fairly thick, and has a spindle-shaped cross section.

The following axes differ from those described so far, in that the chuck consists of a thick piece of wood, split in front to receive the blade, and projects backward beyond the knee of the handle; this end is usually decorated.

St.Ha. 60646, Āmním, **axe**, Fig.201 (length of the handle 39 cm). The end of the chuck projecting beyond the knee is decorated with a fully three-dimensional small head. The blade is held firmly in the chuck by rattan rings, while the other parts are fastened together by wrapping with strips of rattan; [220] this wrapping extends a long way down the handle.

H.S. 9243, 375 km village, **axe** (length of the handle 42 cm), extraordinarily similar to the previous specimen; here too the prolongation of the chuck beyond the knee has a carved head. The stone blade is very flat; it has a broad, carefully-polished cutting edge.

H.S. 9149, 252 km village, **axe** (*kūrā* or *kūrā*, Hell.), differs from the previous one almost solely by the carved head's being thicker (length of the handle 48 cm, width of the blade 2.5 cm).

H.S. 1863, 252 km village, **axe** (length of the handle 35 cm, width of the blade 2.5 cm), resembles the preceding specimen.

H.S. 9269, Málu, **axe** (length of the handle 40 cm, width of the blade 3 cm). In this specimen the chuck ends in a knob, that is, the small peg normally attached to the end of the knob, is missing.

H.S. 9270, Málu, **axe** (length of the handle 39 cm, width of the blade 4 cm). Here the chuck process is only very small, barely projecting beyond the knee, and it is unornamented.

H.S. 4533, Málu, **axe** (length of the handle 48 cm, width of the blade 5 cm), resembles the preceding specimen. The handle has a slight thickening at the lower end.

H.S. 9273, Málu, **axe** (length of the handle 42 cm, width of the blade 5 cm), the same as the previous axe.

The blade is surprisingly flat.

H.S. 6698, Mălu, **axe** (length of the handle 45 cm, width of the blade 5 cm), resembles the preceding specimen. The blade is relatively long and very roughly worked.

H.S. 4534, Mălu, **axe** (length of the handle 49 cm, width of the blade 5 cm), differs from the specimens described so far, in that the process of the chuck tapers into a short thickening.

H.S. 9356, 343 km village, **axe** (length of the handle 48 cm, width of the blade 5.3 cm); similar to the preceding specimen. The blade is very flat.

H.S. 9191, 252 km village, **axe** (length of the handle 40 cm, width of the blade up to 3 cm); like the previous axe, except that the process of the chuck has two thickenings, one behind the other. The lower end of the handle is decorated with several incised rings.

H.S. 9145, 252 km village, **axe** (length of the handle 63 cm, maximum width of the blade 5.5 cm); similar to the preceding specimens; here too the process of the chuck has two round thickenings. The blade is very thick and solid, and has an oval cross-section.

H.S. 6558, Mbim, **axe** (*tārār*, Müll.; length of the handle 68 cm, maximum width of the blade 4 cm); differs from the specimens described so far in that the blade consists of *Tridacna*; it is fairly roughly polished. The process projecting over the knee of the handle is completely undecorated.

Representing a third type of axe with a transverse blade is:

H.S. 9271, Mălu, **axe**, Fig.202 (length of the handle 48 cm, maximum width of the blade 2.5 cm); in this one the chuck is only short; the prolongation above the knee is formed by the handle itself, and shows rich, partially-filigree carving. In order to leave the decorated places exposed, the plaited rattan ring binding is restricted to the front part. The carefully-worked blade, also polished on the upper surface, differs in form from those described so far: it has a triangular cross-section; the blade is convex like the rest of the specimens, and somewhat chipped from use. The lower part of the handle, slightly curved at the sides, has a knob-shaped thickening on the end.

The following axes have straight blades, and therefore their cutting edges are in the same plane as the handle, as in European axes. Two variations can be differentiated: those in which the chuck is short, and those in which it projects above the knee; in the latter it is usually decorated.

There is only one specimen of the first variety in the collection:

H.S. 4535, Mălu, **axe** (length of the handle 55 cm, maximum width of the blade 5 cm). Apart from the position of the blade, the axe resembles those with transverse blades in every respect; the type of binding is the same as for example in St.Ha.60646 (see Fig.201). The blade is fairly flat, and spindle-shaped in cross-section.

In the following specimens the undecorated chuck projects only a little above the knee. [221]

[222] **H.S. 1862**, 252 km village, **axe**, Fig.203 (length of the handle 65 cm, max. width of the blade 7 cm), a fine old piece, with a shiny handle polished by use. The blade is very carefully worked and polished, and has an elongated oval cross-section.

H.S. 6557, Mbim, **axe** (*tārār*, Müll.; length of the handle 78 cm, maximum width of the blade 6 cm); a very big axe of the same type. The blade consists of *Tridacna* and is extraordinarily worked and polished; oval in cross-section. The cutting edge is achieved by strongly bevelling one side.

In both the following specimens the prolongation of the chuck has a knob-shaped thickening, similar to that in St.Ha.60646 (cf. Fig.201).

H.S. 9177, 252 km village, **axe** (length of the handle 53 cm, maximum width of the blade 5.5 cm). The binding is exactly the same as in the previous specimen, which it resembles totally, apart from the shape of the process. The blade is relatively thick and has an oval cross-section.

H.S. 9144, 252 km village, **axe** (length of the handle 48 cm, maximum width of the blade 3.5 cm), similar to the previous. The blade is thick and solid.

The stone axes described by Schlaginhaufen (1910b, pp.51 and 52) are like those discussed here.

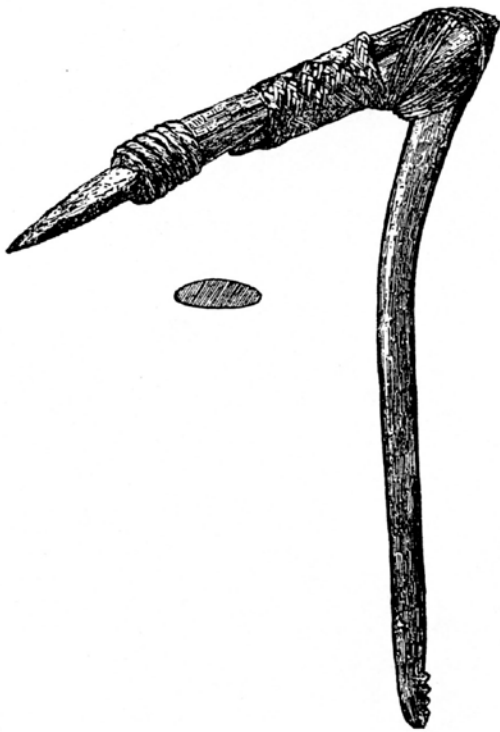


Fig. 200. Axe H.S. 9311, 1/5 actual size



Fig. 201. Axe St.Ha. 60646, 1/5 actual size

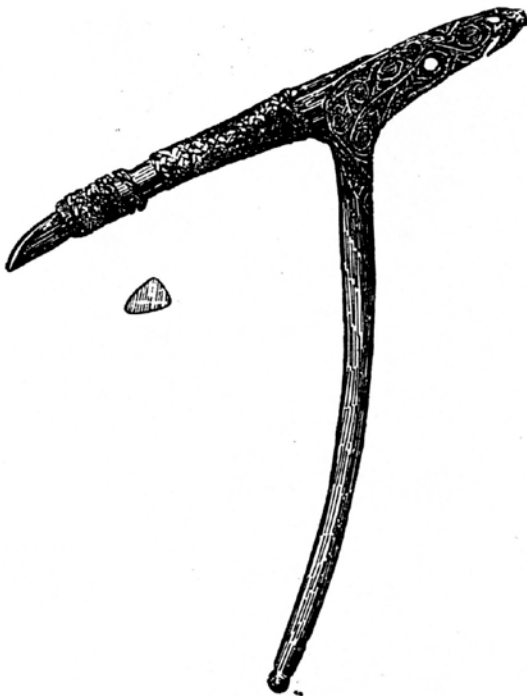


Fig. 202. Axe H.S. 9271, 1/5 actual size

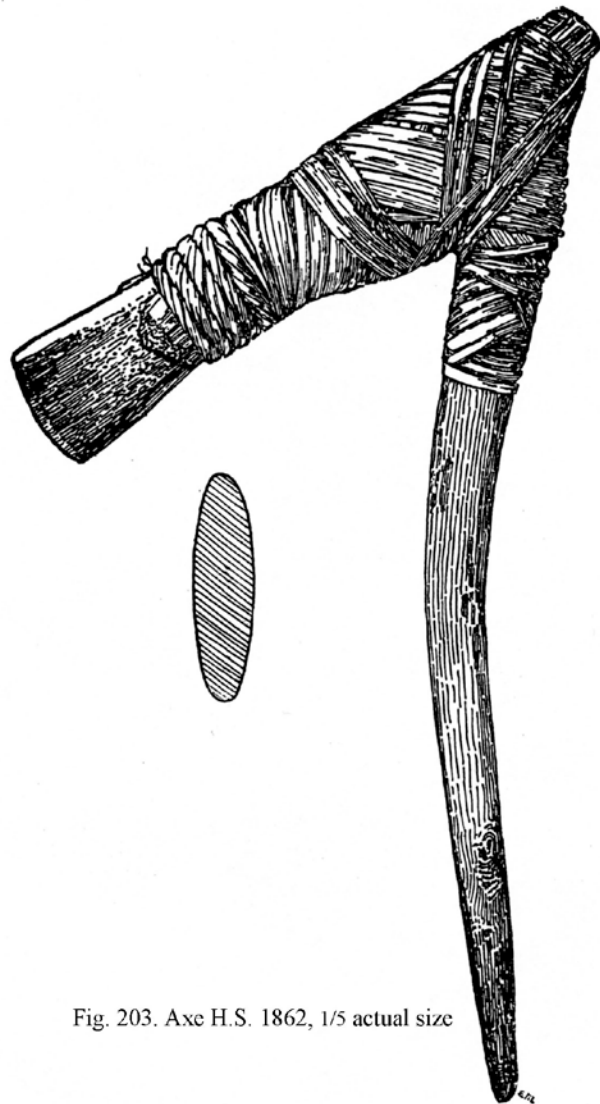


Fig. 203. Axe H.S. 1862, 1/5 actual size

H.S. 9320, Málu, **stone axe blade** (length 13 cm, maximum width 8 cm), Fig.204, very carefully and evenly worked and polished; the cutting edge is straight and somewhat convex, just as in all the blades mentioned so far.

H.S. 9322, Málu, **axe blade** (length 7.5 cm, maximum width 4 cm), similar to the preceding one, but smaller and less carefully worked.

H.S. 9321, Málu, very unevenly and less precisely worked **blade** (length 11.5 cm, maximum width 4.5 cm).

H.S. 1842, Sīngrīn, **axe blade** (*sūlīnīn* or *sūrīnīn*. Fülleborn; length 10 cm, maximum width 3.5 cm); prepared from the hinge part of a *Tridacna gigas*; the convex cutting edge is again, just as in the *Tridacna* blades mentioned above, achieved by the bevelling of one side. The cross-section has the shape of a scalene triangle.

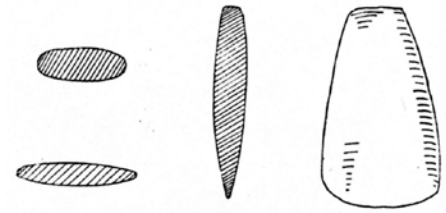


Fig. 204. Axe blade H.S. 9320, 1/5 actual size

There are also axes in which, instead of stone or shell blades, sharply tapering tools are fastened to the handle.

L.Me. 9026, “Empress Augusta River”, **axe**, Fig.205; here the tapered thigh bone of a cassowary is attached to the handle — perhaps the blade of a broken dagger. The fastening is effected by a plaited ring and an extensive twill-style rattan plaiting which completely surrounds the knee part of the axe like a casing, and carries an oblong plaited head-piece on top, decorated with nine bunches of cassowary feathers; the whole thing is evidently intended to give the impression of a bird’s head. A hanging loop is attached to the middle of the head-piece. About 3 cm from the plaiting surrounding the knee, a 5 cm wide ring is attached to the handle, plaited from rattan in four-ply reversible twill style. The bone blade has several engraved lines on the forehead surface.

Schlaginhaufen (1910b, p.53) describes two similar pieces; in both of them the blade consists of a wooden spike; both come from the middle reaches of the river. In one [223] specimen “a finely-woven decorative casing is place on the knee which in turn is decorated with several small cassowary feathers and takes its attachment from the rattan binding. In addition a knotted bundle of dried grass is attached here.” The blade is a simple sharpened wooden stick. In the second example the stick attached to the handle exceeds the handle in length, “and is furnished with alternating serrations. Evidently it was once a spear tip. At the angle no process emerges from the binding.”



Fig. 205. Axe L.Me. 9026, 1/5 actual size

Unfortunately the collectors have not provided any information about what these axes were used for. Schlaginhaufen designates these items as tools, but owing to the fact that apparently usually, or always, a broken piece of a weapon is attached as a blade, it seems to me more likely that we are dealing with weapons; it is also possible that they were used for ceremonial purposes.

Carving tools

The following tools appear to serve for wood working, especially carving:

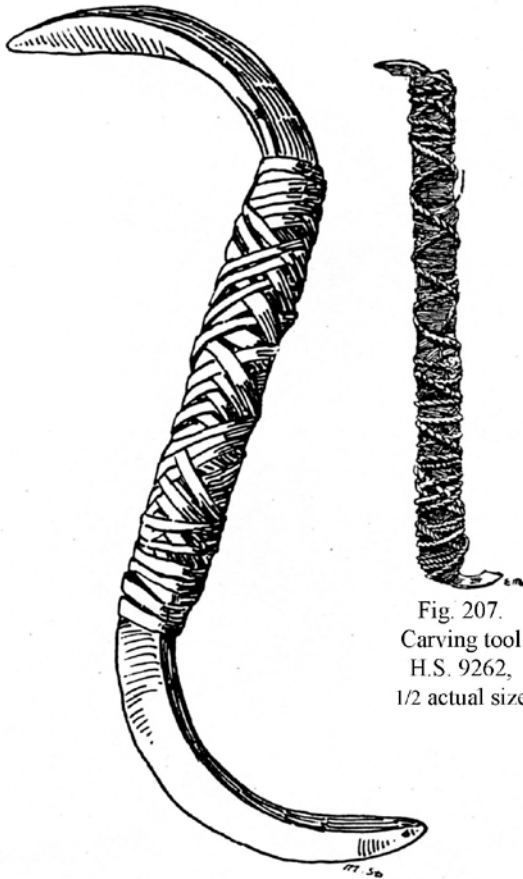


Fig. 207.
Carving tool
H.S. 9262,
1/2 actual size

Fig. 206. Tool H.S. 1865, 1/2 actual size

H.S. 1865, 252 km village, Fig.206, two **boar's tusks** facing in opposite directions, (total length 23 cm); they are bound together by thick wrappings of rattan, creating a convenient handgrip. This binding is, however, not especially firm, and thus when using it one has to press firmly on the tusk itself. The ends of the tusks have sharp cutting edges.

Also, we occasionally saw this form of interconnected tusks hanging on the chest, perhaps as an ornament.

H.S. 9169, 252 km village, **carving tool** (total length 15 cm), consisting of two boar's tusks, just like the previous specimen; these are, however, very much shorter.

Schlaginhaufen (1910b, p.53) mentions a tool consisting of a boar's tusk fastened to a wooden stick with rattan binding.

The following instruments appear to be the tool used solely for finer carving:

H.S. 9261, Málu, carving tool (total length 14 cm); between the ends of two small bamboo sticks are clamped both halves of the lower jaw of a rodent, (according to the Natural History Museum in Hamburg probably belonging to the genus *Hydromys* (see p.46)), in such a way that only the incisors project. The bamboo lathes and jaw are thickly wrapped in a thin double-stranded cord in such a way that a convenient four-sided handgrip is formed. The incisor tooth of the right half of the mandible has broken off.

H.S. 9262, Málu, carving tool, Fig.207, (total length 14 cm). Here only the two incisor teeth, extracted from the jaw, are clamped between two bamboo lathes and fastened, firstly with bast fibre and then wrapped round with cord. [224]

A carving instrument collected by Neuhaus (1911, vol.I, p.259) from the Kai might also contain a rodent tooth as a cutting tool; it appears to be similar to the specimens just discussed. Nothing more detailed can be gathered from the illustration, which is too small and unclear; unfortunately there is no accompanying description. The occurrence of two such similar instruments in two regions so far apart would be most remarkable.

Needles and awls

The following tools, made from bone, appear to serve as awls and needles; the awls are probably related to woodwork, but perhaps also, drawing a conclusion from information we obtained in Málu, for perforating the septum of the nose. The needles also appear to be used in the manufacture of net bags (cf. Fig.231, p.235).

H.S. 9155, Mándánām, **bone awl**, Fig.208 (length 10.5 cm), carefully tapered.

H.S. 9256, Málu, **container with bone tools**, Fig.209 (length of the container 14 cm, length of the individual tools: 9.5, 9.2, 8 and 7.8 cm). The container consists of a bamboo internode, one wall of which forms the bottom, while the other wall is removed. To prevent splitting, the upper part of the container is wrapped in a narrow plaited

ring. The contents consist of three awls, similar to the preceding one, and a thin bone needle. As the instruments — this appears to be their usual manner of storage — have their points downwards in the container, their thicker ends at the same time act as a closing device.

H.S. 6697, Málu, container with bone tools, (length of the container 14 cm, length of the individual tools: 10 and 9 cm); like the previous one, but contains only two awls.

H.S. 9263, 1– 4, Málu, four individual **bone tools**, similar to the preceding ones. There are three awls of 15 cm, 10.3 cm, and 9 cm in length, and a slightly-curved bone needle — without an eyelet — 11.2 cm long.

H.S. 4526, Málu and **H.S. 4527**, Málu, two **bone awls** of 10 and 9 cm in length. When I asked what both these items were used for — they do not differ in any way from the preceding ones — someone put them into the perforation in the nasal septum; of course conversation was conducted only in sign language.

H.S. 4527, Málu, rather thick strong **bone needle** without an eyelet (length 11 cm).

H.S. 4529, Málu, tip of a **bone needle** (length 6.4 cm).



Fig. 208. Bone awl H.S. 9155
1/2 actual size



Fig. 209. Canister for bone tools H.S. 9256, 1/2 actual size

Drills

L.Me. 7268, “Empress Augusta River” drill, Fig.210 (height 62 cm, length of the cross-piece 25 cm). A stick tapering below, and decorated at the upper end with two knob-shaped thickenings, carries a cross-stick on a cord. Up-and-down movement causes the twisting motion. The ‘swing governor’ [225] is a coconut, through which the handle of the drill is pushed and which is enclosed by bast weave. The plaiting forms a decoration (‘fibre cross’), which consists of squares standing on their points and connected to one another. The coconut is filled with stones that make a clattering noise. Surprisingly, the lower end is not provided with a hard tip, but directly beneath the coconut is a hole that perhaps served to secure a tip of that sort.

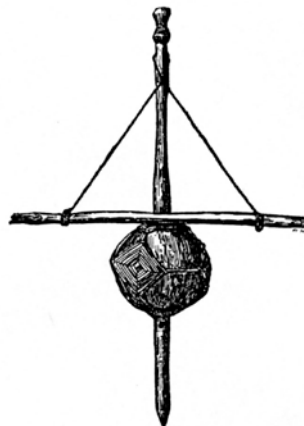


Fig. 210. Drill L.Me. 7268, 1/10 actual size

Technology

Woodwork

In woodwork, they seem to make use of fire for larger surfaces, and stone axes for smaller surfaces. Iron tools (procured from the trading station at Wātám) were known and used only in the river mouth region at the time of our visit. Finer carving — as demonstrated also by the nature of the incised marks, usually consisting of short narrow strokes — is probably all done using the small tools described above, which have an animal tooth as the cutting blade (cf. Figs. 206 and 207).

In Māndánām we found a work site for large slit drums, a site situated in front of a ceremonial house and bordered by a thick enclosure of coconut palm leaves, on which stood two large still-unfinished drums. Therefore, these large items also were made right on the river.

Pottery

Not a lot can yet be said about the technique by which pottery ware is produced, since neither we nor any of the other expeditions had the opportunity, during only brief stops on the river, of observing the manufacture of a clay container; however, a lot has been revealed by examination of the material.

The first thing is that all the clay vessels so far brought back from this region, as varied in form as they are, have one thing in common: they are made by the same technique, being built up from rolls of clay placed one on top of the other, showing therefore as a group the characteristic technique of the New Guinea interior. A fairly fine-grained clay is used, which probably in most cases is not washed especially clean but used as it is found; the alluvial clay occurring here is already naturally so fine-grained that it needs no further treatment.

The small vessels are usually fired fairly hard, the larger ones less so; these often do have a quite hard, robust surface but the firing has not penetrated, and so the clay inside the fairly thick [227] walls is often surprisingly raw and crumbly. None of the vessels is naturally so strongly sintered by firing that it has lost its porosity. The least relatively porous are the conical bowls, but also only by virtue of a coating consisting of totally finely-washed clay; the broken edges of the shards here too show a major tendency to absorb water. Thus, the art of firing is not at a particularly elevated level on the Augusta River; at any rate, it is no better understood than anywhere else in New Guinea.

From the outside, the manufacturing technique, the build-up of rolls of clay, is best seen in the large clay fireplaces (Group 10), except that the technique has already been somewhat modified in these vessels: namely in one part of the built-up rolls they seem to undulate or serrate the upper border, probably to achieve better adhesion of the layers. The undulating and serrated contours can be seen particularly clearly on the outside, since this is very much less carefully smoothed. Plate LI.1 shows a piece of the outside surface of the large fireplace H.S.6623.

In most other vessels the inside and the outside are fairly carefully smoothed, so that the individual rolls can be recognized only indistinctly; in many the technique can be noted only in the shards. In the conical clay vessels for example, the manner of their production is

seen only rarely from the outside, they rather give the impression that they are made by the hit and pound manner. However, should they shatter, the fracture line runs along the component clay rolls of the vessel: the upper edge of the shard is then convex, and the lower one concave; Plate LI.2 shows two of this kind of broken edge. This demonstrates that the individual rolls in the clay bowls have a surprisingly smooth surface; they have therefore obviously not been formed freehand, but rolled smooth on a firm base, probably a wooden board. The individual rolls of clay are very thin, their diameter usually does not even appear to be 1 cm. Even the floor of the conical bowls does not consist of one piece but is also made of narrow rolls. The bowl built up in this manner is then further treated: for filling the seams and to provide better cohesion for the whole thing, inside and outside are smoothed with a 1–2 mm thick layer of finely-washed clay. They usually use a broad spatula or simply a finger for this, as can be seen quite clearly from the surface of many bowls: the smoothing strokes almost always radiate from the floor of the bowl up to the rim. Colours — mixed with water? — are evidently put on only after firing, because on each fragment it can be clearly seen that the coloration has penetrated to some extent into the interior of the mass; the fired clay, having become porous, has absorbed part of the colour. Moreover, the fact that the colour adheres only loosely to the surface, indicates that it has not been fired already coloured.

The fact that even these small conical vessels are built up by the laborious roll [228] technique is, moreover, quite surprising. If even these vessels, (from whose form it would almost seem self-evident that they would have been made in the pound or press manner), show the roll technique, one has to assume that any other pottery technique is currently not only totally unknown in the region, but also that such a technique has never been known here. The tribes when migrating upriver therefore seem still to have been unaware of the beating technique currently used in many ways on the coast; otherwise they would have championed it at least in these bowls against the local roll technique.

Nothing could be learned about the locations where clay vessels are manufactured, whether they are brought in from outside or made locally. I rather believe the latter; the necessary clay is in abundance on the river, and, furthermore, a number of the vessels — here I am thinking especially of the big, heavy, poorly-fired and therefore easily-breakable urns — would probably scarcely stand up to prolonged transportation. Finally, (my opinion is supported by the enormous numbers in which the vessels, particularly the conical bowls, are found on the river), if they were imported, they would be very much more rare and expensive.

Plaiting technique

Plaiting technique stands at quite a high level on the Empress Augusta River; their products show artistic and tasteful forms; in places the techniques are quite complex.

Unfortunately we were unable to observe the production of any plaited item; I am therefore not in a position to discuss the process, or the technique of plaiting, but must restrict myself to describing the plaited items occurring along the river. However, in many cases from the style of plait the manner of the plaiting can be also inferred.

Plaiting styles display a significant diversity: there are examples from almost all of the main groups proposed by Lehmann (1907 and 1912); there are even several new varieties not described until now.



Fig. 211. Taffeta weave

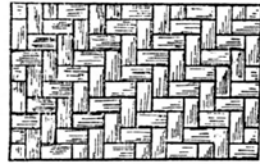


Fig. 212. Four-ply reversible twill style

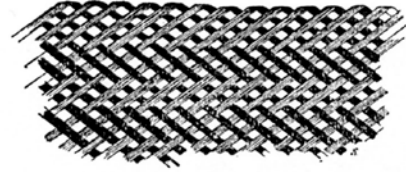


Fig. 213. Belt, H.S. 9229

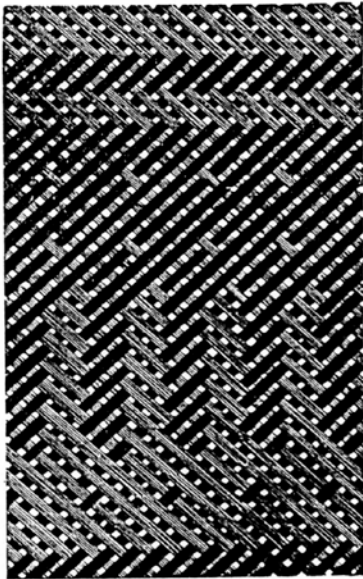


Fig. 214. Belt, H.S. 9153



Fig. 215. Rattan pigtail plait



Fig. 216. Fish trap H.S. 9304

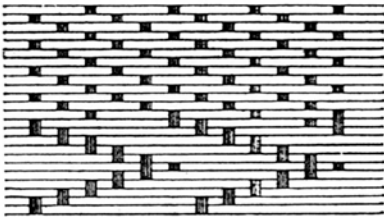


Fig. 217. Fish trap, H.S. 6573

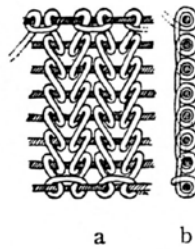


Fig. 218. Belt, H.S. 9026, a. frontal view; b. cross-section

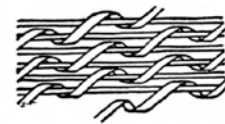


Fig. 219. Body of the bird, H.S. 7132

I shall describe the various types of plaiting that I found, while arranging them in Lehmann's proposed main groups. I shall make use of the technical terms that he used, the most important of which he defines as follows: "The plaited cords are of a passive nature, the plaited strips active. The relationship of these to one another produces the style of weave. The style of plaiting on the other hand is the manner in which a weave arises" (1912). For each of the styles found along the river I shall always give only one example, with a brief allusion being made to each item with the same technique, during the description.

I. Weave from strips plaited in two directions.

Weaving in the first subgroup with taffeta weave (Fig.211) occurs relatively [230] rarely. We found this type of weave in basket H.S.4563 (Plate XLVI.3) and in the carrying band of bag H.S.6732 (Plate XLVI.9).

Those of the second type are more numerous: plaiting with twill weave. Most of the arm- and leg rings, almost all of the plaited bands attached to tools, weapons, figures and the like, the women's hoods, sleeping bags, a portion of the bags and the like, are produced in this style of weave. Most commonly I found four-ply reversible twill (Fig.212). The plaited strips used, moreover, are never in several parts.

Rather less simple is the weaving style of belt H.S.9229, Fig.213; the figure shows only half its width. Here the entire middle part is produced in six-ply and the edge in seven-ply twill-style.

The technique of belt H.S.9153, Fig.214, is even more complex; here twill- and taffeta weave have been used alternately. Again the figure shows only half the width.

Usual pigtail weave of three plaiting strips is found occasionally in the cords used for tying on spear tips, for example in spear H.S.9377 (from Wātām), Fig.215. Here the pigtail is made from rattan bands; because the material is quite hard, all bends and curves have become sharp angles.

II. Plaiting where cords woven parallel are bound by *parallel interwoven strips*.

Here, and indeed in the first subgroup ("The woven strips bind grouped woven cords with one another"), instantly belong the fish traps and fish baskets collected along the river.

The fish trap H.S.9304, Fig.216, shows for the most part (above, in the figure) a taffeta-weave course of weave strips (after Lehmann: IIA a α), that actually lie closer together than in the drawing, where they are represented as somewhat teased apart to enhance clarity. The rear section of the trap shows a different technique (below, in the figure): here there is only one weave strip, spiralling several times around the basket; in so doing it forms a loop around every individual weave cord (formula: IIA e α). Its starting point is secured with a simple finger knot at the cross-over point of a cord and a weave strip.

In several fish traps the woven cords are in several parts.

In fish trap H.S.6573, Fig.217, various techniques have been applied. In the rear narrow part is a taffeta-weave course of weave strips; in the entire front section, on the other hand, it is three-ply twill-style. The basket part between shows a plaited zigzag decoration (see also Plate LI.3) that results from each woven strip crossing over four (in some cases three) cords, (see the lower part of Fig.217).

[231] Belt H.S.9068, Fig.218, represents a variant of the example designated by Lehmann (1912, p.13) as II A e α : a weave strip runs in loops round eight parallel weave cords and, forming a knot, turns round each edge and, in reverse twist, turns back to the other side.

The body of the bird H.S.7132, Fig.219, shows similarly parallel weave cords, but around them run several weave strips always surrounding one cord only; as well, the strips are directed obliquely (cf. Lehmann, 1907, Plate I, Fig.16).

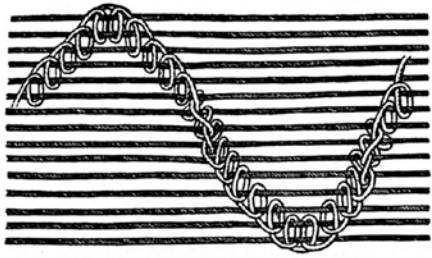


Fig. 220. Neck band, H.S. 9025

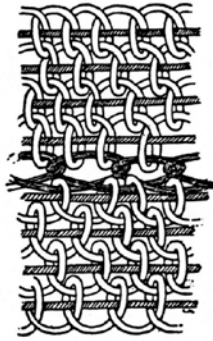


Fig. 221. Belt, H.S. 9069

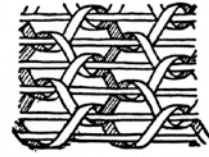


Fig. 222. Mask H.S. 6628

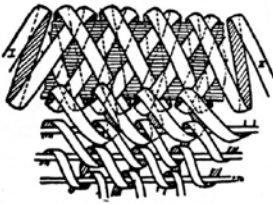


Fig. 223. Bird wing, leading edge, H.S. 7132



Fig. 224. Carrying cord of the bag H.S. 9117



Fig. 225. Carrying cord of the bag H.S. 9170



Fig. 226. Bag 9288/1

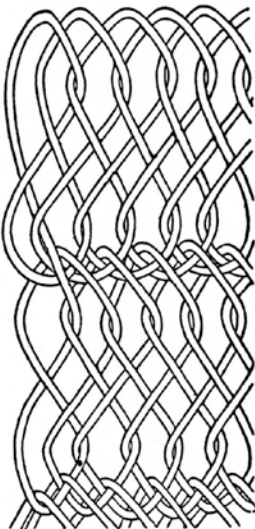


Fig. 227. Bag H.S. 9365

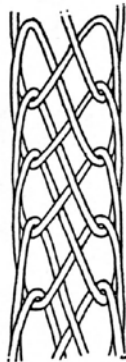


Fig. 228. Mourning cord, H.S. 9284

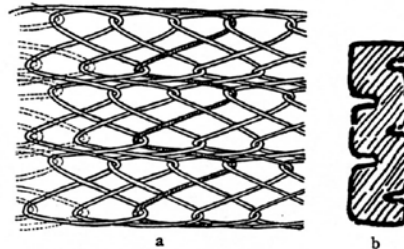


Fig. 229 Leg band, H.S. 9102, a. frontal view; b. cross-section

In neck band H.S.9025, Fig.220, there is only one weave strip, which zigzags obliquely from one side of the band to the other, while forming loops encircling every two cords.

Belt H.S.9069, Fig.221, shows a combination of two types of weave, only one of which belongs in the group here, in subgroup B: "The weave strips bind only a certain number of weave cords with one another". By this technique, already illustrated by Lehmann (1907, Plate I, Fig.21), and designated with II B a β , both the wide lateral parts of the belt are produced. They are bound together by a weave strip that is accomplished in Group V weave style, ("Weave from a weaving strip", (cf. Lehmann, 1907, Plate 2, Fig.112; the formula is: V A a α).

The mask H.S.6628, Fig.222, is produced by a technique that likewise belongs to subgroup II B: the weave strips always bind only two weave cords together, and indeed this binding occurs with assistance of the cord; the weave strips thus run in such a way that two adjacent strips always intertwine.

The edge part of the wing of the bird H.S.7132 shows the same technique, (for the body technique see above, Fig.219), Fig.223, except that the weave strips always tend somewhat to one side. The outermost edge shows an over-plaiting (Group VIII): two thin strips (I and II on the figure) are wrapped obliquely round the stick in opposite directions: they thus form the uppermost loop of the woven strip of the wing edge.

It remains to be mentioned that the majority of the extensive plaiting, for example the masks, is spirally constructed, that is, the plaited rolls are spirally rolled up and thus form the border walls. This is especially clearly recognizable on Plate LXXIX, 2, 3, and 5.

III. Weaves from a single weave strip (Group V in Lehmann) are quite common, and show different variants.

The simplest form is represented by the carry cord of bag H.S.9117 (Fig.224); it resembles the one illustrated by Lehmann (1907, on Plate 2, Fig.112), (formula: V A a α). In the present case the material is a twisted cord, thus technically a "simple weave strip". [232]

[233] One level more complex is the carrying cord of bag H.S.9170, Fig.225 (formula: V A b α). Here the weave strip always leaps over the adjacent loop and intervenes only in the next one.

The following weaves belong to subgroup B:

Belt H.S.9288/1, Fig.226, a very common weave. The technique is identical with that illustrated by Lehmann (1907, Plate 2, Fig.62), (formula: x V B a). The x in the formula signifies that plaiting onto each other is introduced. The entire weave is formed from one strand that runs in meandering loops and forms parallel bands or strips hooked into each other to some extent. The illustration shows the edge of the weave on the left; it can clearly be seen how the weave strips pass over into the next, upon completion of a band, and begin its formation.

Whereas here each loop always encloses only one of the neighbouring bands and the next loop alongside, in bag H.S.9365, Fig.227, it simultaneously seizes two of the neighbouring bands and the next but one loop. This forms the weave that belongs to subgroup C (see Lehmann *loc. cit.*; the formula would be x V C a). Here again the illustration also shows at its edge the overlapping of the weave strip on the next band.

It is noteworthy that the bags of this type have originally, it seems, been spirally constructed; only with the introduction of various dyes has use of this scheme stopped, so that the plaited band now usually runs alternately spirally and in zigzags around the bag; the weaving strip is thus dyed during the plaiting (see p.215, H.S.9319).

The mourning cord H.S.9284, Fig.228, shows this type of weaving style with the sole difference that the plaiting onto each other is missing; here one of the bands from which the

bag was assembled, is to some extent isolated. (Lehmann illustrates this type of plaiting (1912, p.17); the formula is V C a).

A further example of the same technique is shown by leg band H.S.9102, Fig.229: a very frequently occurring type of plaiting. The band has three times the width of the mourning cord, and seems at a superficial glance (similar to bag H.S.9365 described above) to consist of three bands of this sort plaited together. But actually the fibre (the weave strip) zigzags transversely over the entire breadth of the band each time; in the illustration the intentional cross-hatched portion of the weave strip can clearly be recognized. The bands produced in this manner have the characteristic of pulling themselves together laterally, reducing their width; and so it comes about that their cross-section (Fig.229b) resembles a zigzag band.

Several weaves of this type show a variation, insofar that, in order to achieve a coloured pattern, a second, differently-dyed, weave strip is [234] used which, in accordance with the pattern, occasionally appears on the site of the actual weave strip.

An example of this is bag H.S.9115, Fig.230. It apparently shows the same technique as the belt H.S.9288/1; on closer examination, however, one recognizes that it is formed from two weave strips: one pale brown (represented as white in the figure) and the other dark russet-brown (cross-hatched in the figure). After it has formed 4–5 loops, each of the strips transfers to the neighbouring band and is replaced in the one just left by the other dyed strip. The edging strip plaited onto the top of the bag is formed from one fibre (in the technique of belt H.S.9288/1). The interweaving is likewise effected by a weave strip.

In plaiting of this style the production method is not so easily recognizable. Elucidation of the plaiting style is given by a bag H.S.8777, from the Sikáwa (on the Maclay coast) which shows exactly the same technique; it was obtained in a still unfinished state. The individual loops are thus prepared with a bone needle across wide parallel leaf strips that primarily give the necessary firmness to the plaiting, while at the same time ensuring that the loops are always of uniform size. When the weave is complete the leaf strips are pulled out.

The carry cord of band H.S.1871, Fig.232, consists of two interwoven bands, each of which is produced from a weave strip by the technique of belt H.S.9288/1 (see Fig.226); thus here we have two combined bands of type V B a (see Lehmann, 1912, p.17).

The following examples belong to main group VII, "*Weaving of two or more weave strips that change direction*":

The bag H.S.9112, Fig.233. The style of weave is illustrated by Lehmann (1912, p.19), (formula: VII A c α).

In bag Lü.6987e, Fig.234, the weaving is rather complex; it consists of two interwoven weaves of the type just mentioned.

It has already been mentioned (p.218) that this and also bags Lü.6987 b, c, g, and i, probably do not come from the Empress Augusta River at all, but from New Britain.

Armband H.S.9074, Fig.235, belongs to the same main group. A larger number of weave strips run parallel over longer stretches. At regular intervals each forms a loop that surrounds the two adjoining strips on one side. The two uppermost strips and likewise the fourth (from the top) are an exception: they do not form loops and have a totally straight course.

Several weaves are very complex; they represent a unification of various techniques, and particularly interesting around- and over-plaiting. [235]

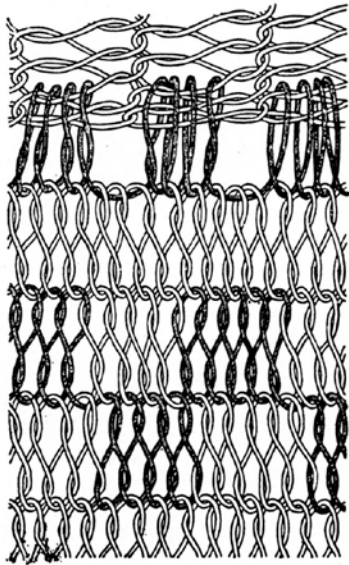


Fig. 230. Bag H.S. 9115

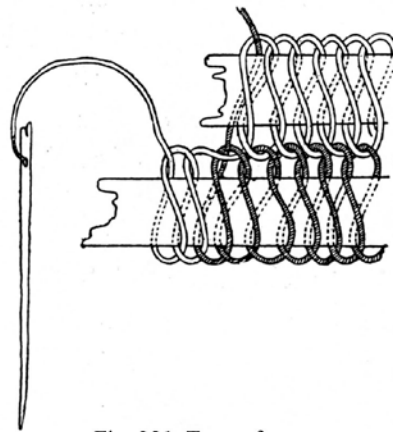


Fig. 231. Type of weave of bag H.S. 8777 (from Sikawa)

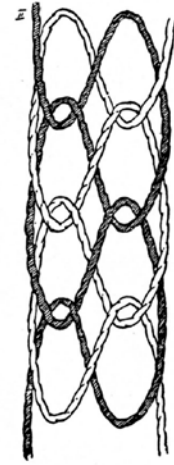


Fig. 232. Carrying cord, H.S. 1871



Fig. 233. Bag, H.S. 9112

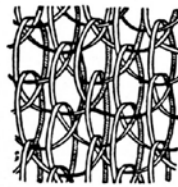


Fig. 234. Bag, Lü. 6987e

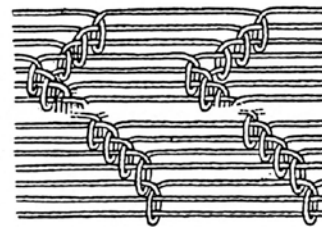


Fig. 235. Armband, H.S. 9074



Fig. 236. Over-plaited edge of mask, H.S. 9384

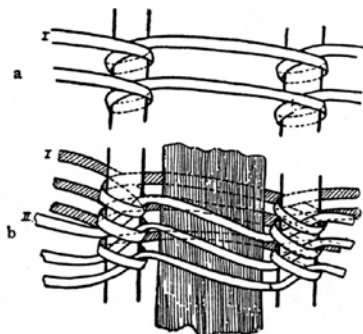


Fig. 237 a and b. Hair basket H.S. 6736

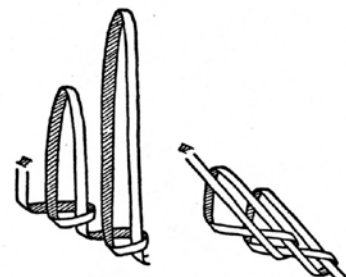


Fig. 238. Over-and-around plating of hair basket H.S. 6736

[236] Mask H.S.9384 has the plaiting type of mask H.S.6628 already discussed, (see Fig.222). Its edge is plaited round with two weave strips (Fig.236) — indicated by I and II in the illustration — which, by alternating around the plaited cord on the edge, form a type of knot.

In hair basket H.S.6736 the plaiting cords consist of alternating very wide bamboo lathes and narrow rattan sticks. They are bound together by two types of weave strips (of rattan). One (indicated by I in Fig.237a) runs transversely over the outside of the bamboo lathes and surrounds each rattan stave with a loop directed inwards (just as in the weave strips of belt H.S.9068, see Fig.218 — formula: II A e α); the other (indicated by II in Fig.237b) runs transversely across the bamboo lathes on the inside of the hair basket, each time passing through two of the loops formed round each rattan stave by the first type. The lower edge of the hair basket is decorated with over-plaiting, forming a number of triangular figures. They are each formed by a single weave strip, which (represented in isolation in Fig.238 — designated by III) always surrounds a larger number of strips of the basket with ever-diminishing loops. The lower edge is then plaited around with a further strip (indicated by IV). Finally, Fig.239 represents a piece of the completed hair basket, to show how the weave strips II, III, and IV are bound together.

Of quite complex weave are the decorative combs obtained in the vicinity of the Hunstein Range. Comb H.S.6686, Fig.240, is a typical example. In the illustration the weave strips are of greater clarity by being depicted as somewhat further apart. Around the teeth of the comb, which to some extent represent the weave cords, are wound two weave strips. The longer, No.1, begins below, over the tooth on the extreme left. It first runs (corresponding evidently with the actual succession of rows in weaving) horizontally in front of all the teeth, to the right, looping around the stave on the extreme right. It then runs behind the teeth, and encircles the stave on the extreme left. Then it simultaneously loops around — in a vertical zigzag first from left to right then in the reverse direction — both the teeth and the two self-made horizontal strips; finally it ascends on the left side and begins a new weave of the same kind with the horizontal course. From the fifth pair of transverse strips onwards, it restricts itself to forming the horizontal strips, and to surrounding the two lateral teeth of the comb; it terminates at the top left corner. The zigzag looping round the middle part in the upper comb section is done by the second weave strip that begins between the third and fourth transverse pair of strips and the first and second teeth from the left, and this ends between the same two teeth, at the top left. Lehmann does not illustrate any similar example; perhaps this type of weaving is found more commonly only in the interior of New Guinea. All of the [238] combs made in this style that we brought back, came from Malu, the furthestmost point that we reached.

In the woven edge of the wooden mask H.S.1823, Fig.241, the rattan strips serving as plaiting strands are placed edge-on, which is why in the reproduced illustration they appear extraordinarily narrow when viewed from above; they do not by any means always run parallel, but are often quite irregular, as is also shown in the illustration. Each pair of weaving strips surrounds every three or four weaving strands, alternately rising and falling in a zigzag. Thus, in order that the adjacent pair always overlap one or two strands, the strips come to lie close together, and so there arises a woven line pattern running transverse to the direction of the strands. The edge plaiting consists of two plaited strips that, by interweaving, form loops directed alternately right and left.

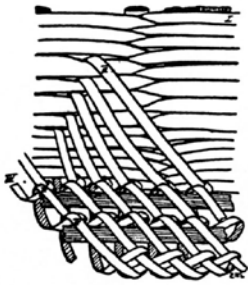


Fig. 239. Hair basket
H.S. 6736

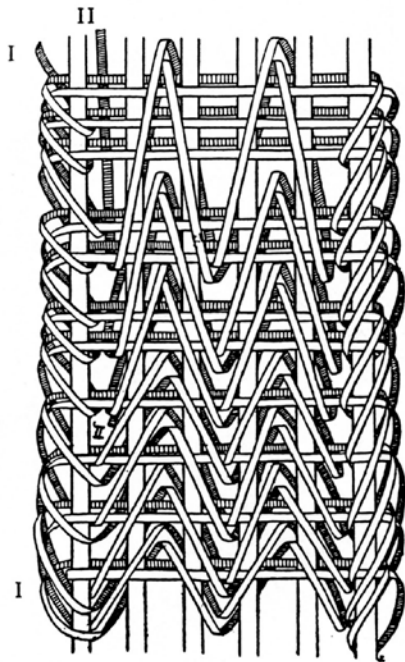


Fig. 240. Comb, H.S. 6686

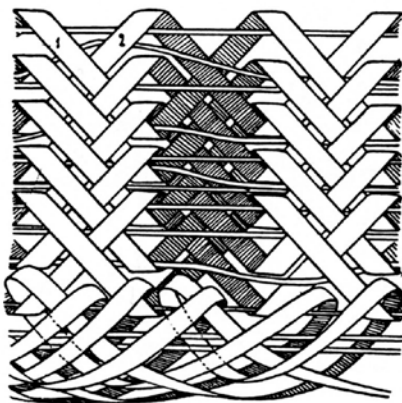


Fig. 241. Edging of the
wooden mask H.S. 1823

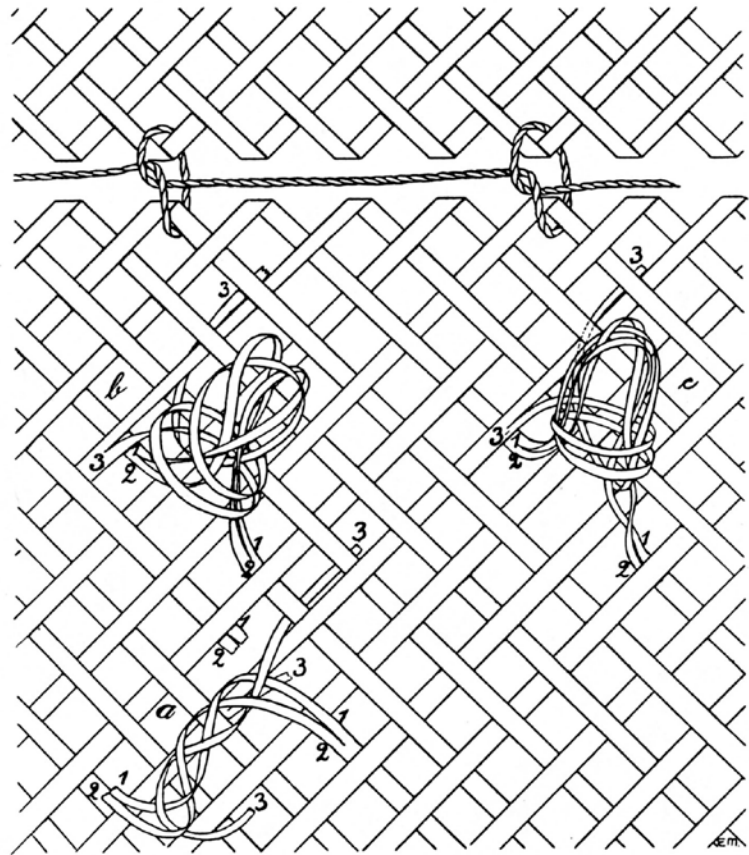


Fig. 242. Woman's hood, H.S. 6645

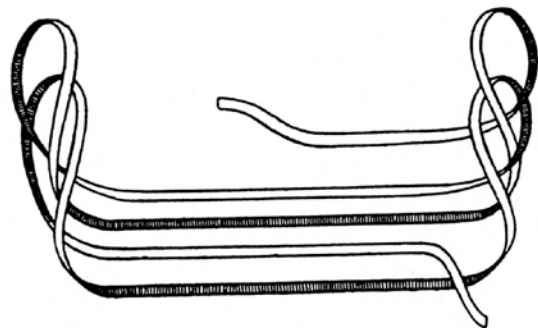


Fig. 243. Wrapping-round of the man's loin cloth, H.S. 6626

Figure 242 shows a section of woman's hood H.S.6645. The woven strips are drawn further apart for the sake of clarity; in reality they are in contact. The basic weave of the hood is a common four-ply, reversible twill weave (cf. Fig.212, p.229). Only the formation of the small knots is complex; they are reproduced in the illustration in three stages of untying (a, b, and c). The plaiting style is most easily recognized in 'a': if a knot of this type has to be tied at a given spot, two weaving strips that cross each other are each split into two, one of which is further interwoven as normal; shortly after splitting it regains its normal width. A short pigtail is produced from the three other strips (1, 2, and 3 in the illustration), and made into an upright loop that is wrapped round at the base by strip No.3. The remaining, short end of No.3 is plaited underneath towards the sides, while No. 1 and 2 are again united into normal plaiting strips and plaited further in twill-weave. In 'a' No. 1, 2, and 3 are seen as ripped apart, for better representation of the braiding; 'b' and 'c' show the finished knots in relation to the basic weave. Finally, the reverse binding of both sides of the cap is presented in the upper part of the illustration: a cord intervening in the twill weave at regular intervals on both sides, thus forming a knot each time.

In the man's loincloth H.S.6626 the rattan plaiting-round of the anteriorly-directed peg (Fig.243) is formed from a woven strip. It first runs forwards transversely across the peg surface, then surrounds the edge of the grass peg in a loop, thereby boring through it, and then returns back across the rear surface to loop around the other side. It then runs over the front side once more, and repeats the process just described.

The material used in the various styles of plaiting is always given in the description of the plaited object.

[239] The numerous cords used in plaiting, wrapping and decoration are, with one exception, all double-stranded. The one triple-stranded item, a spinning top whip-cord from the river mouth area, consists of three two-ply cords twisted together; influence of European examples seen at the Wātām station is not ruled out here. [240]

Foodstuffs and semi-luxury foods

Foodstuffs

The nourishment of the inhabitants of the Empress Augusta River, as probably everywhere else in New Guinea, consists mainly of vegetables.

In the swamps of the river mouth area with their huge stands of sago palms, the readily-obtainable sago forms the principal diet. Without it, these infertile, often-flooded morasses, swarming with mosquitoes, would most probably not be inhabited at all.

Further upstream, while sago still plays a fairly important role, its significance decreases somewhat because the stands of sago palm appear to be fewer. A significant part of the vegetable diet here — the very much firmer and drier alluvial soil of this region is highly fertile — is obtained by cultivation of crops. They grow mainly yams, but also taro, bananas and sugar cane; the fruit of the coconut palm, found cultivated by the natives along the entire stretch of the river that we travelled, and that of breadfruit tree afford a pleasant change to the menu. On the other hand, there are a large number of wild plants whose fruits are eagerly gathered. The 1887 expedition reports on these: “They eat the fruit of three species of *Jambosa*, the so-called rose-apple, and also breadfruit in roasted form, mangoes, the fruits of two species of *Tabernaemontana*, lemons, pome-citrons, the clover-acid-tasting fruits of *Averhoa*, *Canarium* nuts, a small dark-blue fruit perhaps derived from *Ardisia*; and also the oval pea-like tasty seeds of *Nelumbium speciosum*, the roasted seed capsules of *Nymphaea*, a fruit similar to Spanish plum, the *Areca* nut and the *Calmus* root, as well as several other fruits that I saw only in fragments...” (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.30). However, this report relates only to the people dwelling in the vicinity of the Hunstein Range who had the mountain forest with its fruit trees right at hand. The diet of the inhabitants of the plain is probably somewhat less varied, although the aquatic plants mentioned above were very probably also used by them; at any rate in Īmbǎntǒn we were able to establish that they ate the fruit of a species of lotus there.

[241] The bulk of their animal food is provided by catching fish; fishing equipment, especially nets and fish traps, are seen in great quantities everywhere. Even the first visitors to the lower reaches of the river, Dallmann (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.69) and Schellong (1911), gained the impression that the abundance of fish in the river must be very great, because a lot of fish, particularly eels, were offered to them; also, in the water itself they saw fish: “Eels were attracted to us in numbers, in passing; how inquisitively they poked their pointed heads straight up out of the water” (Schellong, 1911). Periodically, these eels increased in such great numbers that they could be simply scooped out of the water (Full. 1909, p.739). Hollrung (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31) writes that at certain times a larva (*kaal*) appeared in great quantities in the river, and these were smoked and eaten; I do not discount that these are identical with the small “eels” swarming in numbers. More commonly among the people of the middle reaches we found great quantities of a small species of crab that was eaten boiled, including the shell; the dish — in the boiled state the crabs appeared pale pink and were served on broad leaves — tasted not at all bad, due to rapid decay a little like hydrogen sulphide. The 1888 expedition also mentions that the inhabitants of the middle reaches (Málu) ate crabs.

Some of the fish caught were *preserved*. Schellong (1911) reports that in 1886 at the river mouth, besides live eels, smoked eels were offered to him, “the latter packed in groups but strongly dried by the sun. . .”; Dallmann too mentions these fish (*loc. cit.*, p.69). On our expedition we likewise found this kind of smoked goods, particularly in the river mouth area; in the village of Sīṅgrīn we were also shown an apparatus used for smoking: a small grating about 30 cm long of wooden staves tied one above the other like a ladder. In Kāmbrīnūm we saw a large number of *dried* fish, again including mainly eels.

Finsch (1888a, p.294) reports that on the coast mussels were eaten as well. According to him the inhabitants of the villages in the vicinity of Venus Point consumed two types of fresh-water mussel, in particular *Batissa violacea* and *Batissa Finschii*.

Hunting would yield less for the kitchen. Among game animals are mainly wild pig, the cassowaries very numerous in the plain, cuscus, flying foxes, bush hens and several other bird species; it could not be established whether there were wallabies. It is taken for granted that the small animal world provides all kinds of edible creatures.

Of the few domestic animals available — pigs, dogs and hens — probably only the first two were eaten, then roasted only on special occasions; hens are probably kept for their feathers.

Possibly throughout the entire stretch of the river that we visited, at least in the lower part of the middle reaches, *cannibalism* also occurs. In Īmbāntōn [242] I obtained three skulls whose crania had been broken open. To my question as to why a hole had been made in the cranium, I obtained the following answer through the interpreter: the skulls came from slain “bush kanakas”, and had been opened to take the brain out and eat it. The villagers standing around laughingly mimicked eating, evidently they were remembering the tasty meal. It was astonishing that the interpreter showed no sign of abhorrence; perhaps the pleasure was not entirely foreign to him either. The fact that, in the river mouth area too, people uplifted enemy skulls as trophies with a piece often broken out of the occipital region, makes this not impossible. Two other skulls obtained in Īmbāntōn, which according to the natives came from villagers, and therefore relatives, did not have an opening in the cranium.

Probably a proportion of the skulls that I collected in the villages further upriver also came from slain people or cannibal victims. In Kāmbrīnūm I likewise found skulls in which a part of the occiput had been broken away to enlarge the foramen magnum; in several obtained in Kāmbrīngī they had cut out the upper half of the temporal bone on both sides, while of course the majority showed no damage. Naturally this is not absolute proof of human cannibalism; the skulls might have been opened for all sorts of other reasons. Information that both Hellwig and I quite independently obtained in two different villages in the middle reaches was quite remarkable. Of course we could make ourselves understood by the villagers by gestures only; when we indicated the skulls — those hanging up in the ceremonial house, modelled over with clay — the natives made gestures of spear thrusts and then of eating; the immediate impression that we both obtained and that the people wanted to make clear to us, was that they had killed the former owners of the skulls with spears and then eaten them, and our interpreters were of the same opinion. Yet in spite of this information, I do not believe that in these artistically-modelled skulls we were dealing with enemies, because in the lower reaches they appeared to model only the skulls of dead relatives, and besides, as far as I could ascertain, not one single skull showed an injury; it is possible that some enemy ones hung among them — several were not modelled — and that by chance we had indicated one of these. Moreover, if the people are actual cannibals, it is very interesting that they admitted it so matter-of-factly.

Acquisition of Food

Obtaining sago

Sago is obtained in a fairly primitive manner. They cut down the trunk of an older sago palm about 60–100 cm in diameter and bring it to a [243] dry spot nearby, or raft it to the village; there, it is laid on the ground and supported on the sides so that it cannot roll over. The bark is then slit lengthwise on top and bent apart, so that a type of trough is formed (Plate LIV.1). The light-yellow pith that fills the whole inside of the trunk is now exposed, and is rasped out with a hammer-like instrument and broken down to fine chips. We found two types of these *sago pounders*; both have a long knee-shaped curved handle whose upper end is hollowed out into a broad shallow groove.

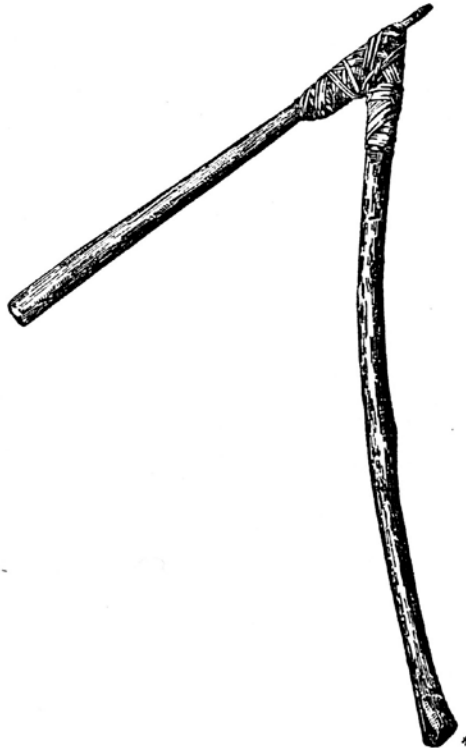


Fig. 244. Sago pounder H.S. 6532, 1/10 actual size

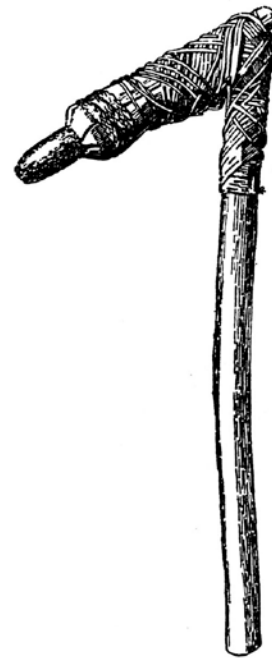


Fig. 245. Sago pounder H.S. 6531, 1/10 actual size

In one type an extended twisted piece of hardwood is secured into this groove, tapering at the rear end while the front, wider on the end, has a hollowed-out depression. The sharp wooden edges formed by this hollow, cut into the sago pith and split it into chips. This hardwood blade is fastened to the handle by a rattan binding. In the second type, instead of the hardwood, an oblong nipple-shaped stone is used. (Finsch too (1888b, Plate XX, Fig.4) illustrates a sago crusher with a stone blade, from the Sechsstroh River). This is fastened to the handle just as in the stone axe blades, with a two-part wooden chuck. It does not have a sharp edge, and probably wears down the sago pith solely through pressure.

To the first type belong: [244]

H.S. 6532, Kōpār, **sago crusher** (*mākōr*, Müller; length of the handle 87 cm, length of the hardwood blade 63 cm), Fig.244. The end of the blade lying on the handle is simply tapered and decorated only with a shallow circumferential indentation.

H.S. 8996, Kōpár, **sago crusher** (*pǎguměr*, Hellwig; length of the handle 58 cm, length of the hardwood blade 62 cm). Here the sharp rear end of the wooden blade is somewhat more richly decorated; it has four coarse indentations running round the circumference and four bulging rings.

We acquired only one example of the second type.

H.S. 6531, Kōpár, **sago crusher** (*pǎngróm*, Müll.; length of the handle 80 cm, length of the visible part of the blade 7.5 cm), Fig.245; three 1.5–2.5 cm wide bands plaited in twill-weave hold the stone blade into the wooden chuck; a binding of rattan strips holds this firmly to the handle.

With the crushing of the sago pith the men's activity is ended; everything else is the task of the women. First they transport the sago flour to the washing place. Right beside the water — we saw these preparations very frequently, thus the time of our visit was possibly the main harvest time for sago — the washing apparatus was set up; it consists of an obliquely-placed sago leaf sheath resting on a simple stand built from four staves crossing each other in pairs (Plate LIII.1); the narrow end is higher. Beneath, just in front of the point at which the wide end of the leaf sheath bends downwards, a type of sieve is built in: a shallow wooden hoop bends inwards at the curvature of the leaf sheath and carries a number of radial, inwardly-converging, wooden sticks bound together where their ends touch; a horizontal stave spreads both ends of the wooden hoop apart and presses them firmly against the leaf sheath. This sieve framework is held in place by a stave with a lot of bends laid around the leaf sheath and firmly fastened. A piece of dried coconut palm leaf sheath forms the actual sieve; it is fastened to the upper cross-bar and laid in front of the sticks of the sieve frame, preventing it from bending. In front of the lower opening of the sago leaf channel, is then set up a canoe-like trough. The woman tips the sago shavings over the strainer apparatus into the channel and basically kneads it through, at the same time busily pouring water onto it. The water is scooped directly out of the river by means of a long-handled ladle (a coconut shell). The sago flour trapped in the shavings is released by the water, floated off, and lands in the wooden trough, while the wooden shavings cannot pass through the sieve, and remain lying in the channel. When they have been sufficiently washed, they are taken out and discarded. The sago settles on the bottom of the wooden trough, while the clear water flows over the edge. Finally, the left-over water is poured off, and the sago taken out and dried. They either make hard cakes by roasting, or leave the mass in its semi-dry, gelatinous state. It was frequently offered to us in small flat cakes; we could not get any real flavour out of them, they actually did not taste of anything, and one always had the experience of their sticking to the mouth. In this condition the [245] sago was also stored for a long time: in Muǎngĕm and Āngöröm we found several large canoe-like wooden troughs (the sort used for sago washing), on a platform, carefully covered with leaves: investigation showed that their contents were great quantities of sago (Plates XXI.2 and XXIV.2).

Agriculture

The tribes settled in the river mouth area do not appear to occupy themselves much with agriculture; at any rate, we do not remember having seen gardens here. Their swamps are indeed so rich in sago palms that they do not need to undertake laborious tilling of the soil to obtain plant food. It is different further upriver, in the region of the plains mostly covered with grass and light bush. Here, obviously, sago is not so abundant that they can restrict themselves to it, and so they are forced to cultivate the soil. The extensive gardens

are usually found right on the riverbank where they often accompany long stretches of the river in the form of narrow strips. Both forested land and areas covered with grass or wild sugarcane are used for fields. Grass- and cane areas appear to be cleared by burning in the dry season; we, and other expeditions, have seen this sort of burn-off. The individual plantings are never large, having an area of only about one eighth to a quarter of an acre; on the other hand there are a lot of them. They grow mainly yams (*Dioscorea papuana* and other species), which, due to the fertility of the soil, reach an impressive size and quality, and, very much less often, they grow taro (*Colocasia antiquorum*), bananas (*Musa*), saltbush (*Atriplex*, used as a vegetable), and sugarcane. “As in other places, the yams are planted quite regularly in rows. At the time of our arrival they had just been established, they flower at the beginning of November. I believe that yams are planted and harvested twice a year” (Hollrung, *Nachrichten über Kaiser-Wilhelmsland*, 1888, p.29).

Of the inedible plants they grow mainly tobacco (*Nicotiana*) and bottle gourds (*Lagenaria*); tobacco, which seems to have been well established here for a long time, in sufficient quantity that large amounts can be exported. (Cf. Jacobs (1844, p.302): Even in 1834 Captain Morrell found local tobacco on the coast west of the river mouth: “and gave us fruit and ‘cigars’ of their own manufacture. In some of the gardens were growing the finest and largest tobacco plants that I have ever seen.”) The report of the 1888 expedition comments quite extensively on tobacco cultivation: “The natives grow it, partly in combination with their plantings of yams, and partly in specific gardens. The Málu people initially raise tobacco in seed beds, and thin the plants when they are 15 –20 cm high, about 2– 3 months after sowing. The small plants are transplanted at intervals of 40 to 50 cm, in some cases in a triangle, in others in a quadrangular unit. For protection against the sun’s rays the newly-transplanted [246] seedlings are shaded in a suitable way with palm leaves. In several gardens the tobacco plants had been earthed up. At the beginning of the flowering season harvesting of the leaves takes place, from below upwards. The harvested leaves are individually lined up on thin threads of rattan and later arranged into ‘carrots’. Storage of the carrots ensues in palm frond sheaths.” (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.30) — thus an extremely arduous tobacco cultivation following all the rules of the art. In the swampy river mouth region they do not appear to grow any tobacco, but cultivation begins as soon as the riverbank becomes somewhat higher; we saw the first plantations in the newly-established village of the Májũm people. How far upriver tobacco is grown is still not known; we were able to find it as far as Málu, the furthestest point that we reached.

We brought back several specimens of the ‘carrots’ mentioned above; they differ greatly in size.

H.S. 9151, Lámbríngī, Fig.246, has a length of only 45 cm, whereas H.S.9062, Kámbrínũm (*dzágũé*, Hell.) has a length of 97 cm.

The small packets are probably for individual use, and destined for small-scale trading — we received these as welcoming gifts, also often handed over from canoes — whereas the larger ones would represent parcels for export; at any rate in Kámbríngī Fülleborn was given two of the larger packets as an “honorarium for medical services”.



Fig. 246. Tobacco parcel H.S. 9151, 1/5 actual size

The villages of the middle reaches almost always lie inside complete groves of coconut palms and breadfruit trees, although probably only the coconut palms are planted in regular rows, and play a significant role in the entire stretch that we visited. It is a complete surprise that this palm, which appears elsewhere only in the coastal region where favourable growing conditions are found, has penetrated deep inland along the banks of the mighty river in Kaiser-Wilhelmsland. It is found not only on the Empress Augusta River, but also on the upper Markham and the central Ramu; I imagine that it has migrated upriver with the population. An observation that we made appears to support this: people plant the coconut palm with great care; in the village of Kāmbrīngī, between the riverbank and the houses, we found walls six to eight metres wide and parallel with one another, which carried coconut palms planted in rows. Whether these elevations served to provide a dry spot for the palms, or whether it was a case of a site that enabled a more rapid recession of floodwaters, could not be ascertained.

They probably hardly ever plant the breadfruit tree (*Arctocarpus incisa*), yet they take good care of it, just as they do the betel palm, (*Areca*) which is encountered quite often; since [247] betel chewing is very much in fashion for men and women, large quantities of its fruit are required. Cared for, but not cultivated, in addition to betel pepper (*Piper betle*), are Spanish pepper (*Capsicum longum*), the *Canarium* tree, and others as well.

We were unable to see anything of their gardening tools. For breaking up the soil they probably use sharpened poles, as elsewhere in Kaiser Wilhelmsland. Perhaps, as is the case for example among the Sissanu, the flat, women's clubs also serve this purpose. These are indeed not only weapons, but are also used for agricultural purposes. Weeding the gardens is the women's task.

Hunting

As the numerous pelts and feathers in the natives' possession show, hunting cannot be totally unprofitable, although it does not seem to play a major role in domestic life. Hollrung (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31) reports on hunting by the Málu men. . . "this seems to be more of a sport than an actual occupation". They hunt mainly wild pigs, cassowaries, cuscus, flying foxes, bush hens, and pigeons, but also particularly birds distinguished by brightly-coloured feathers, since they like using beautifully-coloured feathers as adornment.

Nothing definite could be learned about their hunting methods. For larger animals they probably use mainly spears and clubs. Large catching nets, more for wild pigs, so widespread in Melanesia, do not seem to occur; at least, neither we nor any of the other expeditions have seen them. Setting up pit traps is probably out of the question, due to the swampy nature of the ground. Traps are very probably used, although we did not see any. They presumably catch cuscus like everywhere else, simply by climbing the trees to catch the sluggish creature.

Fishing

Fishing is, in the main, women's work; men are occupied only with spear fishing. Moreover, for fishing equipment they use baskets, fish traps, nets and angling hooks.

The most frequently used equipment is undoubtedly traps and baskets; we saw them in large quantities in all the villages; this trap fishing seems especially to be a women's task.

H.S. 6573, Īmbántōn, **fish trap** (*kādyīī*, Müller), Plate LI.3 (length 75 cm, maximum diameter 34 cm), plaited out of rattan. It consists of a casing into which projects a sort of funnel; this funnel ends in a short tube provided with spines at the end, to prevent the fish from swimming out again. Remarkably, the fish trap is also left open behind. Just in front of the rear end a narrow, circumferential decorative band appears, through a somewhat different style of plaiting. (For technique see Fig.217). [248]

H.S. 8983, Nǎngīt, **fish trap** (*kǎdžīī*, Hellwig), very similar to the preceding but larger, (length 85 cm, maximum diameter 40 cm); the interwoven decoration is missing. In this specimen too the rear end is open.

H.S. 8982, Nǎngīt, **fish trap** (*kǎdžīī*, Hellwig), (length 80 cm, maximum diameter 26 cm) constructed and plaited just like the two preceding examples though somewhat narrower in form; it has the same interwoven decoration as H.S.6573. The rear end is open.

H.S. 6572, Īmbántōn, **fish basket** (*pārūm* or *pōrūm*, Müller), Plate LI.4 (length 50.5 cm, maximum diameter 27.5 cm), in the form of a double cone; plaited with the same technique as the fish traps. Only the wider end is open.

The last-mentioned basket shows no fittings to make swimming out impossible for fish. This circumstance, and the fact that the fish traps described above are open at the rear and thus also appear incomplete, make it probable that fish traps and baskets belong together: that they are attached together for fishing. If this is the case — unfortunately we saw neither fish traps nor baskets in use — the rear end of the fish trap could be pushed into the opening of the basket; the fish would then swim into the fish trap and from there into the basket. To recover the catch, one then only needs to lift the basket out of the water while the fish trap can remain in place. Perhaps Plate LIV.2 shows a fish trap site; in the foreground on the left a fish trap of the type described above can be seen lying horizontally on two obliquely rammed-in poles.

H.S. 8984, Nǎngīt, **fish basket** (*bārūm* or *bōrūm*, Hellwig; length 115 cm, maximum diameter 49 cm), just like the preceding, in the form of two cones of unequal height with the base tucked into each other; it also exhibits the same plaiting style. Likewise it is open at only one end and has no locking device.

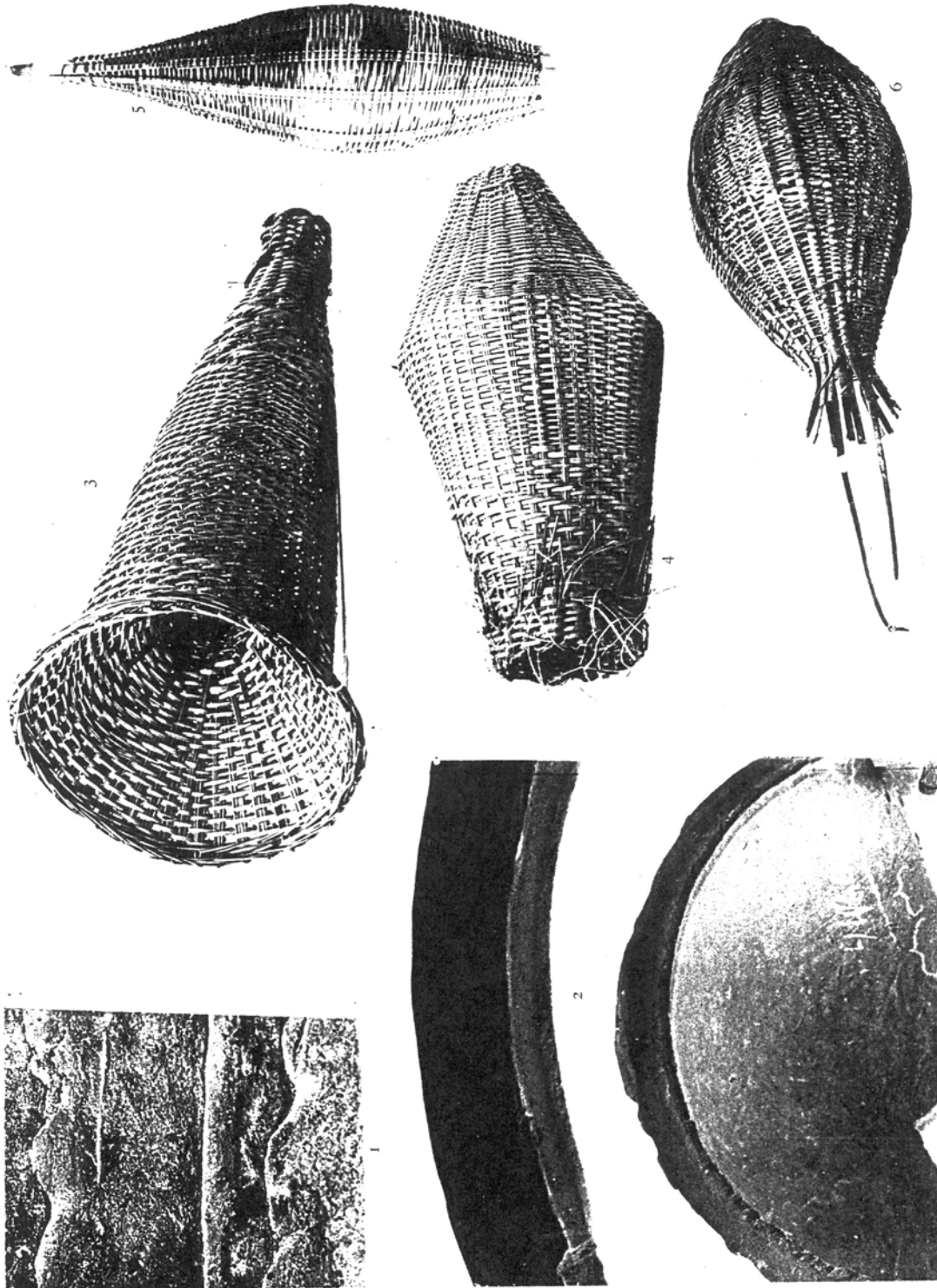
While we encountered the fish traps and baskets just described everywhere we went, we saw examples of the following forms only in the uppermost stretches of the river, which naturally does not preclude them from also occurring even further upstream.

H.S. 9303, Mǎlu, **fish trap** Plate LI.5 (length 50 cm, maximum diameter 14.5 cm), plaited out of rattan and bamboo, spindle-shaped. A strong bamboo tube, one knot of which sits at the rear end of the trap, closing it, is split into narrow strips; these are bent apart, reinforced by thin rattan sticks laid on them, and then plaited together into a basket with rattan. Here too the opening has no apparatus for preventing the fish from swimming back out; therefore a basket probably belongs with this fish trap too.

H.S. 9304, Mǎlu, **fish trap** or **basket**, Plate LI.6 (length 47 cm, maximum diameter 21 cm), plaited from rattan, flask-shaped. The plaiting technique in the front part is the same as in H.S.6573, but in the rear part each rattan strip wraps round each stave of the rib once before passing on to the next (see Fig.216); thus a very wide-meshed weave arises, allowing water to flow through unhindered. Two of the framework staves are elongated beyond the mouth of the basket, and form a handle. The opening of the basket is somewhat enlarged, its walls are curved outwards. A locking device is absent here too.

Preuss (1898b, p.146) mentions “small fish traps made from *Calamus* whose natural spines make it impossible for the entering fish to turn round”.

H.S. 9255, 375 km-village, is probably a **fish landing net**, Plate LII.1 (length including pole 215 cm, length of the basket 61 cm, maximum width of the basket 28.5 cm); we did not see it in use. It consists of a long handle with a basket plaited from rattan attached. The handle is made from hardwood flattened at the sides and tapering at the end; this end is curved to the side like a hook. The other end is pushed lengthwise through the upper rim of the boat-shaped basket and has [249] two short barbs at the tip to prevent the basket from sliding down. A plaited cross-bar runs from one side of the basket to the other and surrounds the handle. Schlaginhaufen (1910b, p.56, Plate 3, Fig.28) describes a specimen that is exactly the same; he too regards it as a fish landing net. That specimen differs from ours in that the free end of the handle is not curved, and the handle is “decorated on one surface by a succession of angular lines”.



1. Part of the outer surface of fireplace H.S. 6623, about 1/2 actual size
2. Upper and lower rims of fragments of a cone-shaped clay bowl
3. Fish trap H.S. 6573, 1/5 actual size. 4. Fish trap H.S. 6572, 1/5 actual size. 5. Fish trap H.S. 9303, 1/5 actual size
6. Fish trap H.S. 9304, 1/5 actual size

Nets of very different sizes are very common on the river; they are usually fastened to a wooden hoop, also occasionally — we saw these in the river mouth area — to long poles. Both of these types of net can be seen on Plate XVI.1; of the two hoop nets the upper one is wide- and the lower one very close-meshed. Plate LIII.2 shows what an enormous size these nets can attain; the young boy standing in front provides a good scale. We found specimens of three to four metres in diameter. Hollrung (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31) mentions that net fishing too is women's work. In 252 km village we saw a canoe returning from fishing; it was manned solely by women and, among the fishing equipment, contained round nets up to 1.5 metres in diameter.

Remarkably on the Empress Augusta River, they are also familiar with line fishing. How this was done in the turbid water — actual angling is unknown in Kaiser-Wilhelmsland — the collectors were unable to ascertain, nor whether it was men's or women's work. So far, of the necessary equipment, we know about only three hooks.

L. 862, "Empress Augusta River" (Knoth collection), cord with two fish hooks, Fig.247, made from mother-of-pearl shell; both have the same form but somewhat different size; the larger one is illustrated. It is curved, with the tip bent quite markedly inwards.

St.Ha. 61632a, "Radja", bone fish hook, Fig.248 (length 3.3 cm). I found this hook in the large bag St.Ha.61632; it had gone unnoticed by the collector. While both of the previous specimens probably came from the coast, the origin of this one is definitely the middle reaches, supported by the fact that it lay unnoticed in a bag that certainly did not come from the river mouth region. Amazingly, the hook is made from bone, not a shiny material. The cord fastened to the hook is double-stranded, and is wrapped several times around the hook below the thickening on the end.



Fig.247. Mother-of-pearl shell fish hook
L. 862, 1/2 actual size



Fig. 248. Bone fish hook
St.Ha. 61632a, 1/2 actual size

Occasionally men do go fishing, but more from a love of sport than harvesting for the greater needs of the kitchen; they use a fishing spear exclusively. They go probably extremely rarely in their canoes without taking the spear with them for any eventuality, for then, if during the journey they see a fish, "or reach a spot where from previous experience fish can be expected, the *pagajer* grips the spear in the right hand that is already holding the *pagaje* (paddle) and *pagajet* on calmly in this fashion until the [250] moment comes to throw. Then the right hand releases its grip on the *pagaje* which, then held only in the left hand, serves mainly as an aiming pole for the fish spear. During the journey it was thrown many times without ever catching anything". (Friederici, 1909, p.335).

Of fish spears, our collection contains the following specimens:

H.S. 1764, Kōpār, simple fishing spear (*mbép*, Füll., "possibly only the name for the material"; length 225 cm). Six short, smooth, palm wood tips are set into a bamboo shaft that is somewhat split in front, and held together by two twill-style plaited bands one above the other (the lower one is 6.5 cm wide, the upper one 1.5 cm wide); further forwards are three narrow rings plaited in the same style, which surround the six tips and hold them in place.



Fig. 249. Fishing spear
H.S. 6738, 1/3 actual size



Fig. 250. Fishing spear
H.S. 1765, 1/5 actual size

H.S. 1763, Kōpār, **fishing spear** (*mbép*, Fülleborn), Plate LII.2 (length 262 cm), with a bamboo shaft, similar to the preceding one. It has six tips, of which the one in the centre is smooth while the outer five are provided on one side with a row of simple barbs. The tips are held together above by eight tightly-packed rings plaited in twill-style, and they are held firmly in the bamboo shaft by a wide band made in the same manner.

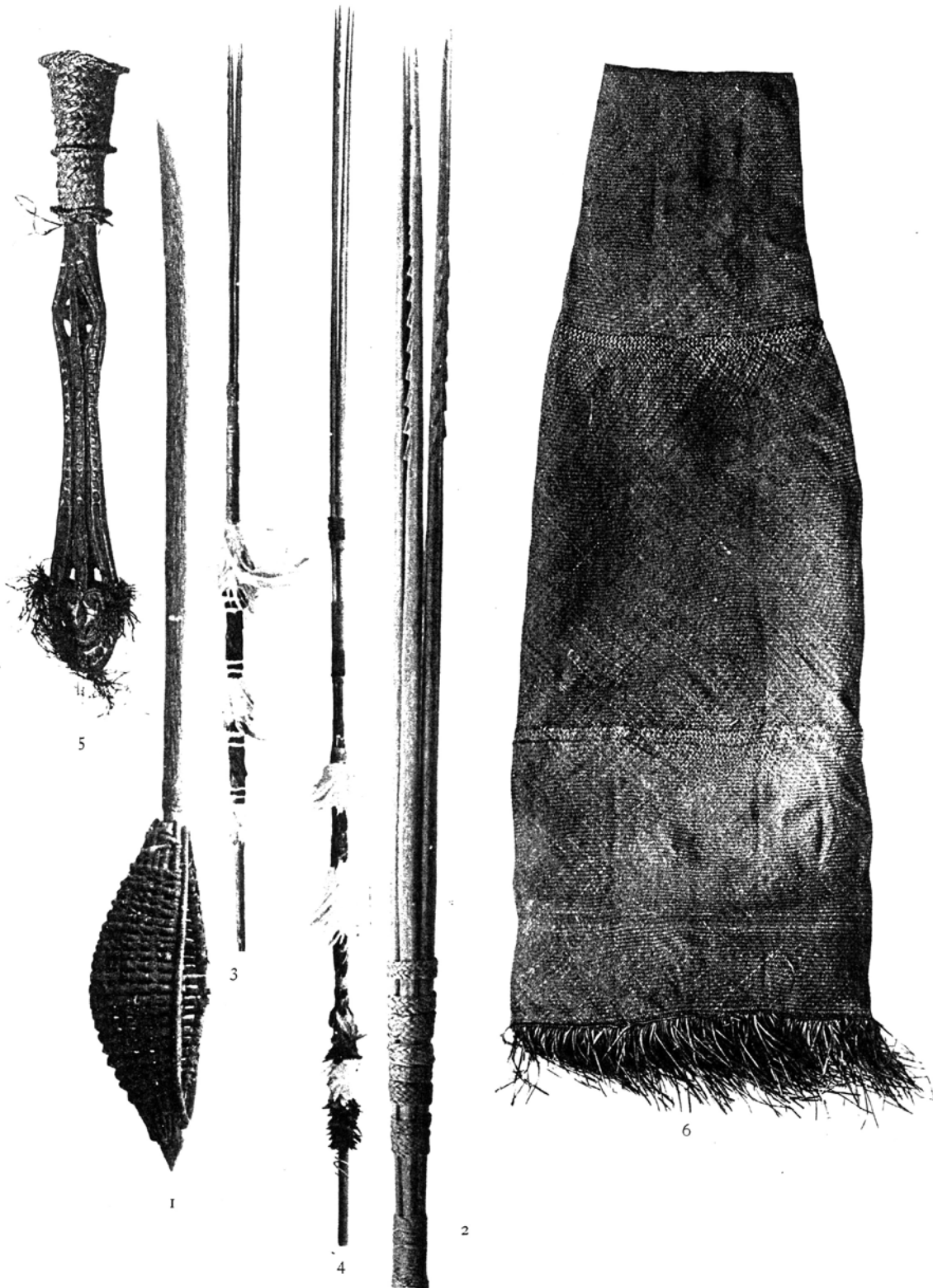
H.S. 6738, Kōpār, **fishing spear** (*āudūbím*, Müller). Fig.249 (length 233 cm) with a bamboo shaft, similar to the preceding examples but very much more carefully made and decorated. It has five palm wood tips of which the centre one is again short and smooth while the four outer ones have rich carvings: just above the plaited rings holding them firmly, they each have a human face covered with a bird mask (*murup* type), with the chin pointing towards the tip of the spear. The nose of these faces is relatively short in two cases, while in the other two it is provided with a long straight spine, like a barb. The actual spear tips are slightly flattened and adorned on both edges with a row of barbs increasing in length towards the back; also, the middle of the front surface of each tip has a row of obliquely-indented short serrations. The five tips are firmly held in the bamboo shaft by two wide bands plaited in twill-style, above which are attached four double-stranded twisted cords of human hair and a little chain of a string of *Nassa* snails. Russet dye has been [251] rubbed into the tips. It is hard to believe that this spear could be intended for practical use; the marvellous, yet quite delicate, carving would suffer from this; perhaps it has ceremonial significance.

H.S. 9331, Mālu, **fishing spear** (length 279 cm) exactly the same as H.S.1764 (see above). Six smooth wooden tips are inserted into a bamboo shaft and fastened with two wide rings plaited in twill-style.

H.S. 6679, Mālu, **fishing spear** (length 284 cm), similar to the preceding one; with a bamboo shaft into which are fastened seven completely smooth palm wood tips. The centre, short tip carries a wrapping of grass and rattan that is evidently intended to serve as an abutment to the outer tips, to spread them apart. A very wide plaited band ensures that the tips are firmly held in the shaft.

This simple type of fishing spear is thus found along the entire length of the river that we visited, from the mouth right up to the Hunstein Range.

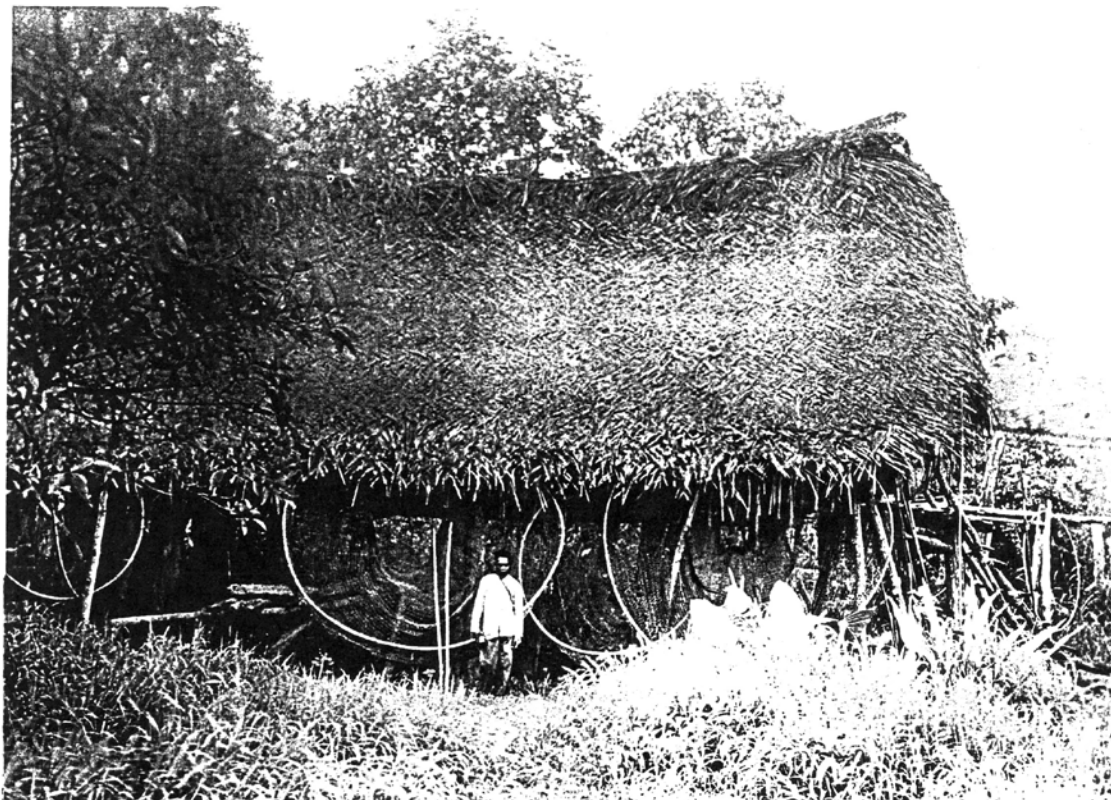
Reche, Empress Augusta River, Plate LII



1. Fish landing net H.S. 9255, 1/10 actual size. 2. Fishing spear H.S. 1763, 1/5 actual size. 3. Fishing spear H.S. 9022, 1/10 actual size
 4. Fishing spear H.S. 9080, 1/10 actual size. 5. Decoration added to the lime container St.Ha. 61655, 1/5 actual size.
 6. Sleeping bag H.S. 9373, 1/20 actual size



1. Apparatus for washing sago in the village of Imbantón (beside it is one of our houseboys, a Buka).



2. Large nets hanging up beneath a dwelling house (Malu); nearby is one of our houseboys.

H.S. 9022, Āngōrōm, **fishing spear**, Plate LII.3 (length 192 cm), as with the preceding ones, assembled from a bamboo shaft and palm wood tips. The tips are relatively long, the shaft very short. Of the four tips, two are completely smooth while the other two are furnished with alternating short barbs; as usual, they are held together and fastened in the shaft by a wide plaited ring. Over half of the shaft is adorned with rich feather decoration: bunches of long, in places halved, rooster feathers alternate with wide rings consisting of reinforced brown, black, russet, white and dappled-blue feathers. In places the rings partially overlap one another; they are fastened by bast fibre wrappings.

H.S. 9080, Kāmbrīnūm, **fishing spear** (*kóγn*, Hellwig) Plate LII.4 (length 260 cm); differs from the preceding one mainly by the bamboo shaft being even shorter, only about one third of the total length. Of the four very long tips three are completely smooth and the third has two rows of fairly long barbs with a row of indentations in the middle of the front surface. The tips are held together by two wide, and four narrow, bands plaited in twill-weave, and by two wide strips formed from human-hair strings. The bamboo shaft is again densely adorned with feathers: two large bunches consist of long white rooster feathers interspersed with alternating short red or blue (parrot?) feathers; just before the end of the shaft are three bunches of long feathers, two black and one white.

H.S. 9332, Mālu, **fishing spear** (length 239 cm), like the preceding one, put together from very long tips and a short bamboo shaft; here, the length of the shaft does not even amount to one quarter of the entire length. The four tips are totally smooth and undecorated; they are bound to the shaft by a wide plaited ring, and bound to one another by a second narrower ring, further forward. An inlay consisting of plant fibres is jammed between the tips, to keep them apart.

H.S. 9176, 252 km village, **fishing spear** (length 243 cm), similar to the preceding one. The bamboo shaft occupies a third of the total length; it is wrapped over its full extent with strips of rattan, between which there are still several feathers, evidently the remnants of a rich feather decoration. The spear has seven tips with one in the centre; they are held together by several plaited bands and cord wrappings. As decoration, each tip has short rows of densely-packed small, very shallowly-engraved grooves arranged in groups.

The fishing spear illustrated by Schlaginhaufen (1910b, p.57) is extraordinarily similar to the one just described, also having a very short bamboo shaft with six tips fastened to it and it is densely decorated with feathers. It differs from the other specimens in one minor point: above the shaft “cords poke out from between the individual spears and, besides their decorative purpose, also serve to fill the space between the spears and thus make the unit a very firm one.” (*loc. cit.* p.56).

H.S. 1765, Kōpār, **fishing spear** (*tāgrót*, Füll.), Fig.250 (length 308 cm), of a deviating type. The shaft consists of wood; tips are bound on its laterally-flattened front end and fastened with rattan strips and plaited rings. Each of the tips has two barbs in front and, as decoration, groups of widely-separated shallow transverse notches on the outer surface.

Stimulants

Betel chewing. By far the most common luxury consumption, or stimulant, is betel nut (*Areca*); it is, like everywhere else in the South Seas where it is used at all, [252] chewed together with burnt lime and the leaves of the pepper bush (*Piper betle*). In every village men were seen, almost without exception, accompanied by their lime containers, and women too indulged extensively in betel chewing. It is remarkable that they still have great quantities of betel lime in villages as far up as the Hunstein Range, 400 km upstream. Since it is made from coral limestone, it has to be traded from the coast so far upstream, and in very significant quantities.

The lime containers in which they carry sufficient lime for daily use are quite varied in shape and, corresponding with the great value that they place on betel chewing and the essential equipment for this, they are very carefully and tastefully decorated. The containers themselves consist either of bamboo — an internode (the part between two cross-walls) — or of a bottle gourd.

In the sago swamp region we saw lime containers made exclusively from bottle gourds.

H.S. 1805, Kōpár, **lime container** (*ájd*, Fülleborn; height 27.5 cm, maximum circumference 33.3 cm, diameter of the upper opening 1.3 cm), made from a short wide gourd with a decoration burnt into the surface, surrounding the container in two bands one above the other. In the upper band, the pattern shows long narrow ovals whose contours are accompanied by short oblique lines; laterally each oval is enclosed by one wide, sausage-shaped structure. The band is bordered above and below by two lines each, with hatching added between. In the lower decorative band the ovals are much shorter and wider, as are the sausage-shaped figures, which in places have almost completely lost their ends.

H.S. 8989, Nǎngīt, **lime container** (*ájr*, Hellwig), Fig.251 (height 25.6 cm, circumference 32 cm, diameter of the opening 1.4 cm), similar to the preceding one. The burnt-on decoration again consists of two bands: a narrower one above and a wider one below. In both of them, ovals are again flanked by sausage-shaped figures. Between every two adjacent 'sausages' are several lines, quite irregularly arranged. Their probable significance can be recognized in only one place; they appear to be the remains of a facial representation: at that one place the eyes, the nose with its sides, and the pale oblong-rectangular area below, possibly intended to represent the mouth, can clearly be seen (Fig.252).

Normally the calabashes of this area, above the sago swamps, appear to have a somewhat oblong shape.

H.S. 8991, Nǎngīt, **lime container** (*ájr*, Hellwig), Fig.253 (height 32.6 cm, circumference 23 cm, diameter of the opening 1 cm), made from a gourd. The burnt-on decoration is arranged in three bands one above the other. It again shows the ovals and sausage-shaped structures; the 'facial' representations have totally dissolved into triangles and lines. The two lowermost bands are separated by a strip about 1 cm wide which shows black-rimmed hexagons and ovals: perhaps an 'eye' decoration; this is at least corroborated by the fact that every two of them appear to serve as eyes for the two "facial representations" of the lower decorative band. From the lowest decorative band hang two spirals with their backs leaning towards each other, and extending almost to the end of the calabash. The associated lime spatula (length 33 cm) is fashioned from a cassowary bone. A parrot head is carved out of the upper end; the sharply-curved beak is half open and the tongue can be seen; a transverse hole representing the eyes simultaneously serves for attaching a decorative hanging of rooster feathers, bound in places to a very light piece of wood 10 cm long.

H.S. 9118, Mǎndǎnām, upper part of a similar **lime spatula** (*wǎrǐóřǐ*, Hellwig), Fig.254. The production is even more painstaking; the bird's head more true to nature. The upper side of the head and beak is decorated with all kinds of three-dimensionally carved bands and ovals. On the back of the head a human face is recognizable, with eyes and a perforated nose; a knotted little piece of string is pulled through the septum and through the nostrils in the bird's beak.

H.S. 9292, Mǎlu, **lime spatula** (length 37.5 cm), made from cassowary bone. The upper end again represents a bird's head: upper and lower beak and the tongue are recognizable; the upper beak is adorned [254] with indentations on the outer edge. A crocodile tooth is fastened to one of the cords suspended from it.

H.S. 8990, Nǎngīt, **lime container** (*ájr*, Hellwig), Fig.255 (length 47 cm, maximum circumference 19 cm, diameter of the opening 1.5 cm), made from a bottle gourd, with a burnt-on decoration that differs only little from that of the specimens described so far (Fig.256); it is arranged in three bands one above the other. The container shows a repair site: a fairly extensive tear in the region of the lower half of the calabash is thickened with a russet gum.

Calabashes of this type are found, admittedly less frequently, in several villages further upstream as well, possibly as a result of trade; at any rate they are not local.



Fig. 251. Lime container H.S. 8989, 1/4 actual size

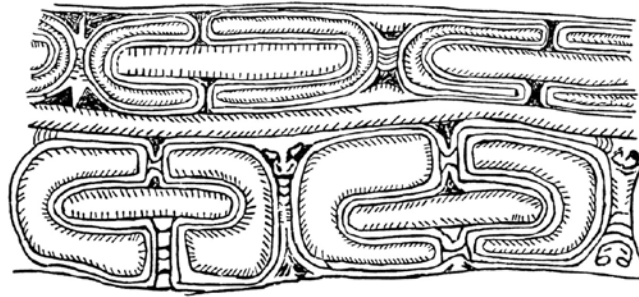


Fig. 252. Decoration of lime container H.S. 8989, 1/4 actual size



Fig. 254. Lime spatula H.S.9118, 1/3 actual size



Fig. 253. Lime container H.S. 8991 with spatula, 1/4 actual size

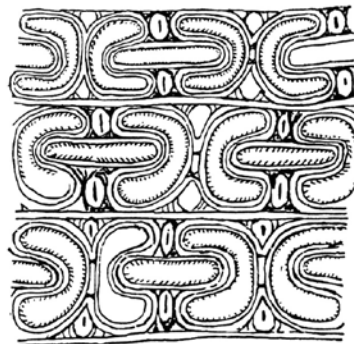


Fig. 256. Decoration of the lime container H.S. 8990, 1/4 actual size



Fig. 255. Lime container H.S. 8990, 1/4 actual size

H.S. 1848, Măndănă, **lime container**, Fig.257 (length 37 cm, maximum circumference 20 cm, diameter of the opening 1.2 cm), made from a bottle gourd. The burnt-on decoration is in three bands one above the other, and separated from one another by two more narrow strips containing the ‘eye’ pattern. A marvellous piece is the **lime spatula** belonging to this container: made out of a gigantic cassowary femur (length of the piece 43 cm!) it bears on its top, a carefully-produced bird figure carved fully three-dimensionally out of the condyle (length of the figure 12.7 cm = transverse diameter of the condyle!) which, judging from the shape of the bill, is intended to represent a rhinoceros hornbill. The strongly curved beak is slightly open, and carries a small, knotted cord in the nasal apertures; the eyes consist of mounted *Conus* discs. From each one hangs a long chain of plaited rings with a bunch of cuscus skin at the end. The chains are gathered in the middle by means of a cord running through an opening in the neck, so that they do not hang down too far. The wings adorned with incised depressions; the tail in which six individual feathers can be clearly discerned; and the legs, where even the feet and toes are formed, are very painstakingly reproduced. Two perforations on the front of the neck and four in a longitudinal rib between the wings are decorated with knotted strings; a thin cord is wrapped several times around the leg as a leg band. The spatula was evidently attached just below the bird’s leg, because at that point it is polished like a mirror, through use. Just below this spot, a narrow ring of tree bast fibre surrounds the spatula, apparently intended to close the calabash opening at the same time.

Similar, but more simple, is **L.Me.9096**, “Empress Augusta River”, **lime spatula**, Fig.258, carved from a piece of bone; the lower end has broken off. The upper end likewise represents a bird, probably a rooster. The beak is slightly open with the tongue visible. Neck, tail and feet are enclosed with plaited (four-ply twill-style) rattan rings.

H.S. 6637, 252 km village, **lime container**, Fig.259 (length 40 cm, maximum circumference 22.5 cm, diameter of the opening 1 cm), made from a bottle gourd; the furthest upstream specimen of this type. The burnt-on decoration organized in three bands one above the other shows the pattern characteristic of this type, except that the bands with the ‘eye decoration’ are missing. The shape of the container differs somewhat in that the lower end has a hook-like curvature.

H.S. 8992, Năngîț, **lime container**, (*ăjr*, Hellwig; length 27.5 cm, maximum circumference 32.5 cm, diameter of the opening 2.7 cm), Fig.260, made from a bottle gourd, without decoration. The belly of the flask is wrapped in a coconut palm leaf sheath, probably to prevent the lime escaping from the somewhat defective container.

The specimens of this type mentioned by Schlaginhaufen (1910b, pp. 49–50) and illustrated in part, mostly come from “Pagem” (Măgăgēm) and “Olem” (Wolem), that is, the same area as ours.

In the middle reaches most by far of the lime containers consist of bamboo. Perhaps the bottle gourd is not cultivated here; only in the vicinity of the Hunstein Range does it again appear more frequently.

H.S. 9073, Kămbrînŭm, **lime container** made of bamboo (*žingám*, Hell.; length 40 cm, circumference 11.7 cm) does not totally correspond with an internode. At the lower end, the natural wall remains, while a wooden roof has been inserted above, and is decorated with several irregular scratched lines, with a one-centimetre-wide opening for the lime spatula. The bamboo container itself has a scratched decoration which again consists of ovals surrounded by sausage-shaped structures, arranged in five bands lying [255] one above the other; instead of the ‘facial representations’ there are triangles inside one another. The decorative strips are separated from one another by narrower bands filled with a ‘fish scale’ pattern. Right at the top, separated from the others by a wavy line, is an especially broad decorative band showing a different pattern: four-pointed stars that are half-hidden both above and below by a sausage-like figure.

H.S. 9060, Kămbrînŭm, **lime container** made of bamboo (*gŭmbŭnă*, Hell.; length 28 cm, circumference 18 cm) similar to the preceding one. The lid inserted above consists of a coconut shell and has three holes: the micropyles of the nut. The decoration has the same characteristics as that of the preceding specimen but is produced by a somewhat different technique: the lines are burnt on, the larger surfaces scratched. The decoration is arranged in three bands one above the other. In one spot, the face between the rear sides of the sausage-shaped structures is clearly recognizable (Fig.261). The concave floor of the container — a residual piece of the enclosing internode — is filled with gum, and into this mass is pressed a large cowry snail and several shiny dark-brown seed kernels.



Fig. 257. Lime container
H.S. 1848, 1/4 actual size



Fig. 258. Lime spatula
L.Me. 9096, 1/4 actual size



Fig. 259. Lime container
H.S. 6637, 1/4 actual size



Fig. 260. Lime container
H.S. 8992, 1/4 actual size

H.S. 1849, 252 km village, **lime container** (length 31.5 cm, circumference 13 cm) made from bamboo. The decoration is burnt on and shows the same representations as on the other containers, but the individual bands are not separated from one another, so that the individual figures are somewhat intermingled: the container looks almost like the work of an unskilled beginner. The upper rim of the container is decorated with a crown of deeply engraved triangles, and has a hole with a thin cord pulled through it. The lid is again made from foreign material and fastened with a dark sticky mass; it has a narrow hole for the spatula. The **lime spatula** is a palm wood stick 46 cm long, tapering above and below, with a small plaited triangle on top as a decoration, and a number of ring-shaped grooves on the lower half.

[256] These grooves are found on almost all of the spatulas of the middle reaches. They are caused by shoving the spatula in and pulling it out again, rubbing on the edge of the inserted hard lid and making a rattling sound that the natives seem to like very much. Virtually every time, they shove the spatula into the container with enough force to make the loudest rattle possible. If the lime container is made out of a gourd, the spatula is always smooth; the gourd shell is evidently not sufficiently hard and resistant to be able to sustain the constant rubbing without becoming damaged.

H.S. 9182, 252 km village, **lime container** (length 31 cm, circumference 18 cm) made from bamboo. The lid is missing. The burnt-on decoration offers little new; only in the middle band have the ovals become large circular figures, which have pushed aside the sausage-shaped structures, so that these have become narrow half-moons. Several of the 'facial representations' are fairly clearly recognizable as such. The **lime spatula** belonging with the container is a simple stick 51 cm long, made from palm wood, tapering at both ends; in its middle part there are only a few grooves.

St.Hor. No.9, "Empress Augusta River", **lime container** made out of bamboo, very similar to the previous one in decoration also. The 111 cm long lime spatula consists of palm wood, with well-developed serrations in the middle part and a decoration of feathers and little plaited chains at the upper end, (similar to H.S.9351, see Fig.284 below).

H.S. 6633, a and b, 252 km village, **lime container** (length 26.5 cm, circumference 12 cm) made from bamboo with a spatula. The lid again consists of foreign material and is inlaid. The decoration is pretty much the familiar one, except that the sausage-shaped structures and the no-longer recognizable 'facial' representations are adorned with series of dots, and in places the ovals show a horizontal line running through the middle, in one case adorned with peaks pointing up and down: the designer has evidently had a mouth with teeth in mind. The concave floor of the container is painted red. The **lime spatula** carved out of palm wood (Fig.262), (length 55.5 cm) is furnished with very carefully-made grooves over a length of 18.5 cm. The upper part bears six rings of varying thickness, mostly plaited in four-ply twill-style; the tip has a plaited top-piece with a small ring both in front and behind, probably for attaching further adornments.

H.S. 4552, Pămúŋgrī, **lime container** (length 34.5 cm, circumference 13.5 cm) made from bamboo; of almost the same form and decoration. The decoration is arranged in five bands one above the other. The 'facial' representations are very indistinct: the ovals have no mouth slit. The lid is inserted and consists of mother-of-pearl shell; the concave floor is painted red inside. The **lime spatula** (Fig.263) is a palm wood stick exactly one metre long bearing the head of a crowned pigeon (*Goura*) fastened on a piece of softwood as decoration. A 23.5 cm length of the stick is adorned with carefully-incised grooves.

H.S. 9291, Málu, **lime container** (length 34 cm, circumference 21.5 cm) made from bamboo; of the same type. The decoration is arranged in four bands, and shows rather remarkable angles in its course of lines. The 'facial' representations have become rhomboid areas through which a line like a tree branch with side branches runs lengthwise. Lid and spatula are missing.

H.S. 6724 a and b, Pămúŋgrī, (purchased from a canoe) **lime container** (length 35 cm, circumference 13.5 cm) made from bamboo, with spatula. The decoration scratched in some places and burnt on in others differs somewhat from those described so far. In place of the 'facial' representations, there are in some places triangles inside one another, and in others the 'tree branch' pattern. The sausage-shaped structures above and below, each border an oval edged by jagged lines; the elongated central ovals are likewise beset with serrations, several of them show a transverse line (mouth slit?). The decorative bands are separated by narrow strips filled with crossed lines. Secondarily, and done by a less-practised hand than that of the creator, all kinds of scratched lines have been made in several places on the smooth surfaces of the decoration: by their very lack of regularity obviously only in play. The upper rim of the vessel is surrounded by a ring plaited out of rattan (four-ply twill-style). The lid consists of a piece of coconut shell with three micropyles. The lime spatula, a palm wood stick 47 cm long has incised grooves on two short lengths and, at the upper end, has an almost-circular plate made from soft wood, around which is inserted short, pale yellow-brown rooster feathers and coloured paint. The painting consists of a cross-like figure in the centre on a white background, surrounded by one narrow black and several broad red and black lines. Along the rim runs a black wavy line whose convexities are painted red. The decoration is almost identical on both sides.

H.S. 9360, 343 km village, **lime container** (length 31 cm, circumference 12 cm) made from bamboo. The burnt-on pattern resembles those described thus far, and is arranged in three bands one above the other. It again shows somewhat angular forms; thus several ovals have become rectangles, and the 'facial' representations have become triangles.

H.S. 9352, 343 km village, **lime container** (length 30 cm, circumference 13.5 cm) made out of bamboo, with a spatula. The burnt-on decoration, Fig.264, gives an unfinished, quite primitive impression, little reminiscent [258] of that of the preceding specimens; the sausage-shaped structures have each dissolved into two ovals one above the other, the transverse ovals between them have completely disappeared and been replaced by markedly elongated upright ovals. The inserted lid consists of a piece of coconut shell. The palm wood lime spatula is 112 cm long, and embellished with grooves over a length of 24 cm; it carries no decoration but has a shallow notch 8 cm below the upper end and a transverse hole through which decoration can be fastened.

H.S. 9181, 252 km village, **lime container** (length 35.7 cm, circumference 16 cm), made from bamboo, with spatula, Fig.265. The burnt-on decoration differs markedly from those described so far; it is arranged in four bands one above the other, and is bordered above and below by a wavy line running around the container; the bands beneath it are separated by narrow strips of intersecting lines. The upper rim of the container has a circumferential indentation decorated with narrow, chiselled triangles. The inserted lid consists of coconut shell; it has a central hole for the spatula, surrounded by a circular line and a hexagon; from each of the six angles a line runs to the edge of the lid, giving rise to a star-shaped figure. The lowermost, undecorated part of the box and the concave underside of the floor are rubbed with pale red dye. The lime spatula is a simple undecorated stick of palm wood 47 cm long, which has only a few grooves.



Fig. 262. Lime spatula
H.S. 6633b, 1/3 actual size



Fig. 261. Face in the decoration of
lime container H.S. 9060,
actual size

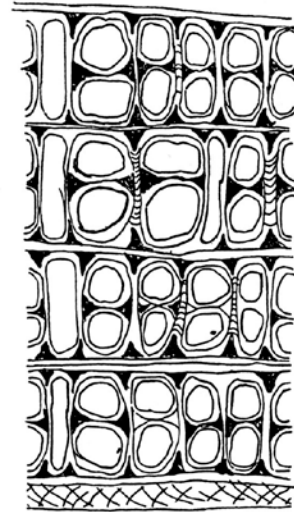


Fig. 264. Decoration of lime container
H.S. 9352, 1/4 actual size



Fig. 263. Lime spatula H.S. 4552,
1/4 actual size

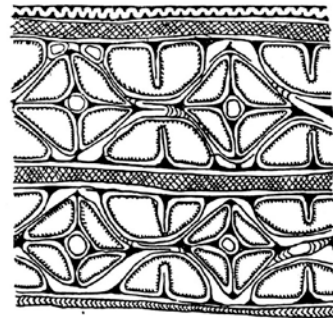


Fig. 265. Decoration of lime container
H.S. 9181, 1/4 actual size

H.S. 9066, Kămbřínŭm, **lime container** (*žňgám*, Hellwig; length 38 cm, circumference 13.5 cm) made from bamboo, and corresponding precisely to an internode. Therefore the lid is not formed by an inserted piece but by the natural dividing wall (diameter of the opening for the spatula 1.5 cm). The upper rim of the container is decorated with alternating deep triangular indentations. The burnt-on decoration is organized into three stripes of very unequal width, one above the other; both of the upper stripes show the usual pattern of ovals and sausage-shaped structures, while the bottom one shows signs found as a rule on the containers described further below: peculiar spirals and elongated ovals taking up space, possibly regarded as nothing more than representations of objects, but here serving only to fill the space. At the upper rim of the container is a hole through which the bast band used as a hanger is fastened.

H.S. 9061, Kămbřínŭm, **lime container** (*gŭmbŭňňă*, Hellwig), Fig.266 (length 35 cm, circumference 16 cm) made from bamboo, with a spatula. The lid, made from bone, Fig.267, has relief carving consisting of two concentric circles with the space between filled with four slightly-curved, elongated ovals. The decoration burnt onto the outer wall of the container (Fig.268) consists of a pattern like the one found on the lowermost decorative band of the container just described. It is arranged in two very wide bands, one above the other, and is assembled essentially from two large spirals comprising several lines. The spirals, coming from opposite directions, pass each other. The reverse sides of the spirals are continuously connected: the binding piece is filled with circular or oval surfaces. The foot of one spiral of the lower decorative band shows a figure with four limbs. The concave floor of the container is again painted with red dye. The 37 cm long **lime spatula** consists of palm wood; it is a long stick with a hollow bone pushed over the top as a handgrip, fastened below to the wood by a plaited ring. The bone has a few scratched lines, the wooden part carefully-carved grooves.

H.S. 9183, 252 km village, **lime container** (length 36 cm, circumference 15.5 cm) made from bamboo, with a glued-on lid of coconut shell. The burnt-on decoration of the outer wall is quite similar to the one just described, and is arranged in two wide bands.

H.S. 1850, 252 km village, **lime container** (length 30.5 cm, circumference 15 cm) made from bamboo, with a lime spatula. The lid is formed by the natural transverse wall of the bamboo. The upper rim shows deep triangular carving round the edge; here a hanging cord is pulled through a hole. In the hollow beneath the floor of the container, a large shiny red fruit and a number of small red fruit kernels are fastened as decoration. The burnt-on decoration resembles that of the preceding example. The **lime spatula** (Fig.269), a 72 cm long stick of palm wood, shows carved grooves below the middle with a small plaited ring above, then a 2.5 cm wide band evidently intended to prevent the gripping fingers from sliding upwards, and, above this, three triangle-like plaited figures sitting one above the other. The tip is adorned with rooster feathers from which, at short intervals, parts of the tuft have been removed.

H.S. 6635, 252 km village, **lime container** (length 38.5 cm, circumference 14.5 cm) made from bamboo, without a spatula. The inserted lid (Fig.270) is made from coconut shell embellished with carved decoration. The pattern covering the outside wall again shows the spirals, (Fig.271) with a recognizable face-like representation at the base of each. The large free spaces between the spirals are occasionally filled with all kinds of lines that bear no relationship with the actual decoration, perhaps having been added later, for amusement. [260]

H.S. 9354, 343 km village, **lime spatula** (length 114 cm), Fig.272, made out of palm wood provided with grooves over a length of 32.5 cm. Below the tip is a bunch of white feathers, from which hangs a long tail of white, blue, black, red and green feathers whose end is adorned with rooster feathers.

H.S. 9287, Málu, **lime container** (length 39 cm, circumference 14.2 cm), made of bamboo, with a spatula, totally without decoration. The upper rim is surrounded with a 3 cm wide ring plaited from rattan (four-ply reversible twill-style) with a loop attached for hanging. On top, a softwood stopper, with a hole for the spatula, is set into the container. The 43 cm long spatula, made from palm wood, has no grooves — rubbing on the soft stopper would certainly not produce a rattling sound — but just below the upper end there are several notches and thickenings as decoration. The container was filled with lime; therefore in spite of its unfinished look it was already in use.

H.S. 6706, Málu, **lime container** (length 36 cm, circumference 13 cm), made out of bamboo, with a spatula; very similar to the preceding specimen and equally recent. A band plaited from rattan (six-ply, reversible twill-style) fitted with a hanger surrounds the upper rim. Here too, a stopper made from soft wood closes the opening. The surface of the container is embellished with all kinds of burnt-on lines in quite a primitive style (Fig.273), which is only remotely reminiscent of the usual decoration. The lime spatula is an extremely simple, undecorated stick of palm wood, 73 cm long.



Fig. 266. Lime container
H.S. 9061, 1/4 actual size



Fig. 267. Lid made of bone for
H.S. 9061, 1/2 actual size

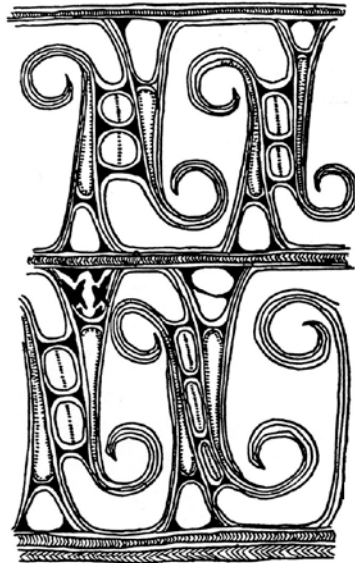


Fig. 268. Decoration of
H.S. 9061, 1/4 actual size

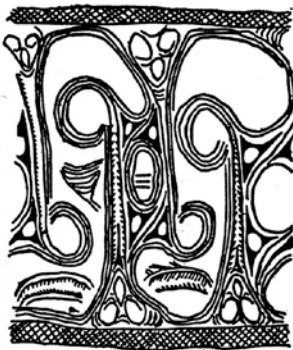


Fig. 271. Decoration of lime container
H.S. 6635, 1/4 actual size



Fig. 270. Lid of H.S. 6635,
1/2 actual size

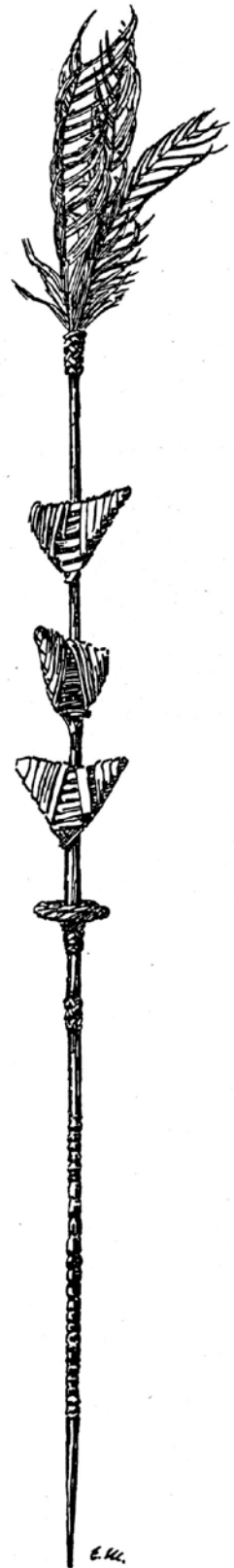


Fig. 269. Lime spatula
H.S. 1850, 1/2 actual size

In the bamboo lime containers described so far, there is a demonstrable effort to decorate the lower part; it had either been simply painted entirely in red, the colour of joy and festivities, or pasted over with snail shells or fruit kernels. Now, in the middle reaches of the river, are found lime containers in which the need for decoration — the lime container is a particularly-favourite apparatus — has led to the addition of extraordinarily artistically-produced decorative pieces. These always consist of a long wooden part inset by a peg into the floor of the bamboo container and fastened with rattan plaiting. Two types can be differentiated: in one the wooden part serves only as the bearer of quite complex plaiting that forms the actual decorative part, in the other the wooden part, which often has marvellous carving, is the main piece; in this type the plaiting totally retreats into the background and serves only for fastening.

The following specimens belong to the first type:

H.S. 9189, 252 km village, **decorative addition** to a bamboo container (length 39 cm), shows a relatively simple form. A polished, undecorated stick, tapering downwards, carries a plaited double-tipped bulge at the end; on each side it is framed over its entire length by a plaited strip, which [262] forms two peaks at the sides, and an almost circular hoop at the end. A 13.5 cm wide plaited ring (six-ply reversible twill-style) decorated with three woven plate-shaped wheels and rubbed with red and white dye serves for fastening to the bamboo container. The stick is also coloured white.

H.S. 9184, 252 km village, lime container made from bamboo with a decorative addition (total length 80 cm, length of the decoration 53 cm, circumference of the bamboo 11.5 cm), Fig.275. The bamboo itself is not decorated, its upper rim surrounded by a 2 cm wide plaited ring of red-dyed strips of rattan (irregular, six-ply reversible twill-style) with a plaited hanger attached. The lid is missing. The decorative addition is similar to that of the preceding specimen. The wooden part, tapering towards the end, is four-sided, and rhomboid in cross-section; both in front and behind it shows on the upper side a face in relief, with a third one at the extreme end, its tongue poking out. The wooden part is coloured bright red, only the depressions in the face being whitened with lime. Just above the head at the end is a 5 cm wide ring plaited from rattan strips, ending below, towards the end of the decoration, in a plaited wheel shaped like a dinner plate (4.5 cm in diameter). The plaited band framing the sides of the entire wooden piece is only narrow (less than 1 cm) and forms two loops at the near end with an almost-circular hoop at the far end. The decorative addition is again attached to the bamboo by means of a wide (7 cm) plaited ring decorated with three plate-shaped plaited wheels and painted red and white.

St.He. 60612, Málu, decorative addition, Fig.276, incorrectly designated as a 'dance staff' by the collector (length 59 cm); similar to the preceding one, but simpler. The wooden part, a palm wood stick tapering towards the end, is for the most part wrapped spirally in strips of rattan, and elsewhere concealed by plaiting. At the end is a plaited ring carrying a wide, plate-shaped plaited wheel. A plaited nozzle, adorned with three plaited wheels, again serves for fastening.

A decorative addition illustrated by Schlaginhaufen (1910b, p.49, Fig.N) is included here; its end is elongated into a long flexible rod, which carries a round plate adorned with cassowary feathers as a terminal decoration.



Fig. 272. Lime spatula
H.S. 9354, 1/6 actual size

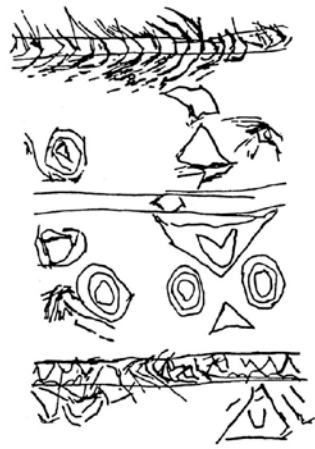


Fig. 273. Decoration of lime
container H.S. 6706, 1/4 actual size

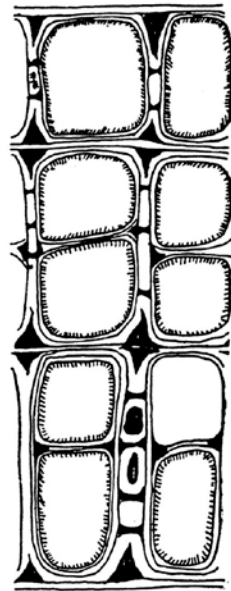


Fig. 274. Decoration of lime container
H.S. 9353, 1/4 actual size

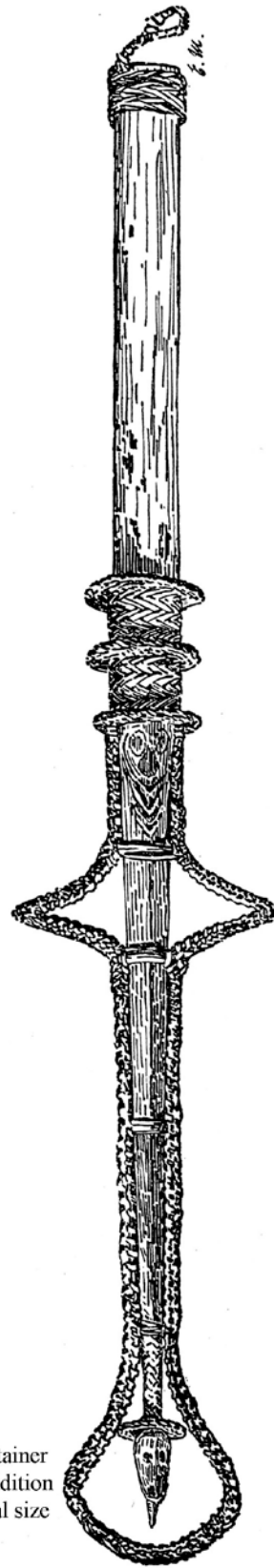


Fig. 275. Lime container
with a decorative addition
H.S. 9184, 1/4 actual size

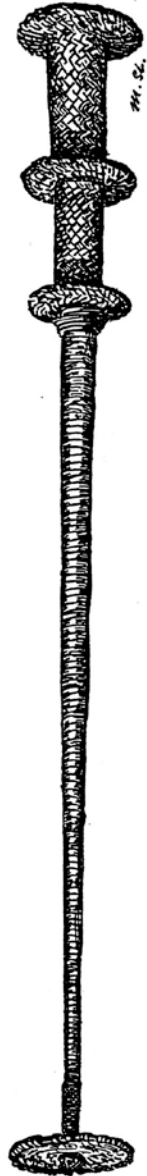


Fig. 276. Decorative addition
St.He. 60612, 1/4 actual size

The following items belong to the second type; in these the wooden part is the actual decorative piece and the plaiting recedes almost totally, serving usually only for attachment of the decorative addition.

St.Ha. 61655, “Gambrium”, **decorative addition**, Plate LII.5 (length 42 cm). By its form it actually belongs to the first type and is strongly reminiscent of H.S.9184 (see above), but it differs from this in that, while retaining its form, the plaiting is replaced by wood. Just below the site of the decorative addition, the stick divides to some extent into three parts, a middle one that ends distally in a fairly large carved face, and two lateral ones that initially form two loops (cf. the loops of the plaited bands in H.S.9184), then accompany the middle stick to both sides and finally merge into an arch surrounding the face of the middle stick; thick bunches of fibres are interwoven at three places. The surface of all three parts of the decorative addition is decorated with flat ovals, rectangular elevations, and chiselled grooves. A plaited nozzle with three plate-shaped plaited wheels again serves for attachment.

The following pieces are totally different in form and decoration from those so far described.

H.S. 9247, 375 km village, **decorative addition**, Fig.277, (length 42 cm), made of wood. On the head of a standing female figure sits a bird with a long neck, and long, narrow, somewhat curved beak. In the human figure legs, arms and genitalia are clearly recognizable, while the breasts are missing; the head is carefully produced in full detail, nasal septum and ear lobes are even pierced. In the bird figure three wooden loops are attached to the back between the wings, evidently for attaching bunches of bast; the beak shows a perforation shortly before the end, probably for the same purpose. The eyes are represented by a transverse hole through the head, through which is pulled a cord knotted close to each side of the head. The decorative addition has a thick dark patina of age, evidently a very old piece; we obtained it without its lime container. A 13 cm long rattan nozzle (six-ply, reversible twill-weave) serves for attachment.



Fig. 277. Decorative addition H.S. 9247, 1/4 actual size



Fig. 278. Decorative addition H.S. 4559, 1/4 actual size

H.S. 4559, Pāmūngrī, **decorative addition**, Fig.278 (length 45 cm), made from wood. A crocodile head is produced in marvellous naturalistic carving, with [263] a rooster sitting on its snout: the motif widespread in Melanesia of a bird that is hunted by crocodiles. The front of the rooster’s wings show, at the joint, a figure carved in shallow relief, reminiscent of the shape of a cloverleaf; the rest of the wing surface behind is decorated with carved semicircles. The rooster’s head is very carefully fashioned, although sadly the tip of the beak is missing. The undersides of both animal heads show deep grooves.

It is almost impossible to tell the difference between this decorative addition; those illustrated and designated, (incidentally incorrectly), by von Luschan (1911, Fig 23 and 24) as “closure pieces” (the lime container is always closed below by the natural transverse wall); and Schlaginhaufen’s (1910b, p.49); so that one might think that they were made by the same artist. Actually the specimen described by Schlaginhaufen came from a village much further upriver (375 km village?) but could have been traded to there.

St.Ha. 61718, “Simar”, **lime container** made from bamboo (length 26 cm) with decorative addition. The bamboo container is undecorated. The decorative addition is extraordinarily similar to that of the preceding piece, and shows both heads, those of the crocodile and the rooster, presented in almost the same style. The crocodile head has somewhat upwardly-projecting eyes, further forwards two blunt bumps, and at the tip of the snout two sharper bumps. The rooster’s wings show in front the ‘cloverleaf’ pattern — but with four leaves — painted white against a red background. The rest of the wing surface is decorated with chiselled sickle-shaped curved lines outlined in white, with

serrations to the rear. Head, neck, body, and tail of the bird are painted white, while the head and neck wattles are red. The ears are ring-shaped, perforated and with bulges decorated with little sticks. On the back of the rooster, between the wings, is a small border with a serrated edge and multiple transverse perforations, adorned with bunches of bast. The rooster's tail is divided lengthwise. Each foot has eight toes. The decorative addition is fastened to the bamboo container by a wide plaited ring, which is trimmed on the upper end by cassowary feathers.

L.Me. 9175, “German New Guinea”, **lime container** made from bamboo, with a decorative addition, carved from wood, which can scarcely be distinguished from those preceding. The lime spatula carved out of bone has a carved bird's head at the handle end (*Buceros* or parrot?) similar to that of H.S.8991 (see p.252).

H.S. 6634 a and b, 252 km village, lime container made from bamboo with a decorative addition (total length 68.5 cm), and lime spatula. The bamboo container shows a burnt-on decoration arranged in two bands, one above the other. The pattern of the lower band is the already-familiar ‘spiral decoration’ (see H.S.9061, Fig.268), that of the upper probably goes with this one but is markedly varied (Fig.279): the large spirals are missing, and the surfaces otherwise occupied by them have become ovals and rectangular areas. In the upright borders, which evidently correspond with the connecting pieces between the rear sides of the large spirals, there are small spirals. The upper margin of the container shows a ring of deeply incised triangles and a hole for the hanging cord. The container lid is formed by the natural cross-wall. The decorative addition again represents crocodile and rooster; it differs from the previous ones in that the whole style of carving is rather more forceful. In the crocodile head, all prominent places, as well as the zigzag line between the teeth, are painted black while the depressions are white; only an elongated triangle in front of the eyes is [264] red. The rooster has a somewhat shorter and wider neck than usual, a short beak, and no ‘cloverleaf’ pattern on the wing joint but several incised lines intersecting at right angles. From the ear, which is perforated, to the similarly perforated nose, runs a narrow three-dimensional band decorated with circular depressions; a second, similar, one runs from the eyes downwards, beneath the ear aperture and merges finally into the skin folds on the underside of the head. The nostril and, likewise, four eyelets on the back are decorated with bands of bast knotted into them. In the rooster too, all the raised areas are dark brown and all depressions are white; only the beak slit, part of the comb, and the underside of the throat are red. The neck is white, and carries two narrow black rings, and two red rings each accompanied by two narrow black ones. Fastening of the decorative piece is, as usual, effected by a plaited nozzle, adorned with three plate-shaped plaited wheels and painted rather garishly black, white, and red. The **lime spatula**, a 114 cm long palm wood stick, is furnished underneath with numerous grooves, carries seven plaited rattan bands distributed fairly evenly over its length, and a rooster feather at its uppermost tip, the upper half of whose shaft is very skilfully split lengthwise.

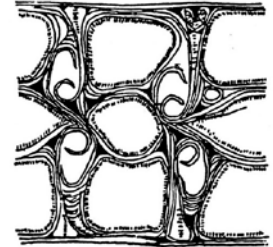


Fig. 279. Decoration (upper band) of lime container H.S. 6634a, 1/4 actual size

H.S. 6636 a and b, 252 km village, lime container made out of bamboo, with a decorative addition (total length 65.5 cm) and lime spatula. The burnt-on decoration of the bamboo container is arranged in two bands, one above the other, and consists of a little-changed ‘spiral’ pattern. Round the upper rim of the container run two red indentations. The lid is formed by the natural cross-wall of the bamboo. The decorative addition again shows crocodile head and rooster carved quite powerfully in three dimensions. Sadly, the actually good, old piece has been badly painted with thick colours. Head and neck of the rooster are somewhat thicker than in the preceding piece. On the front part of the wing joint is a black circle which is surrounded by a deep, red line beset on the inside with serrations; the rest of the wing decoration is the same as on the previous pieces, and coloured alternately black, white and red. The neck is white, but carries a wide red ring edged in black. In the widely perforated ears are knotted two long pendulous cords; two equally-long cords are fastened to the neck, and three shorter cords to the eyelets on the back; the crocodile head also has two holes — just in front of the eyes — that are similarly provided with long cords. For fastening the decorative addition to the lime container, there is again a plaited nozzle adorned with three plaited wheels painted white, red and black. The lime spatula consists of palm wood, is only 50 cm long, with incised grooves over 21.5 cm, interrupted in two places by three-dimensional zigzag bands.

St.Ha. 61654, “Gambrium”, lime container made from bamboo, with a decorative addition. The bamboo container is decorated with designs. The decorative addition is almost the same as those just described, but more roughly made. The rooster's tail is not divided lengthwise. The neck is painted red and has several black transverse stripes. The crocodile head has an elongated red triangle in front of the eyes. The plaited nozzle serving for attachment has only two low, plaited wheels, the larger of which is surrounded by a bast strip adorned with feathers.

St.He. 60614, Málu, lime container made out of bamboo (length 65 cm) with a decorative addition. The decoration burnt into the container consists of fairly irregularly arranged circles and ovals. The decorative addition shows crocodile and rooster rather better presented than in the previous example. In front on the wing joint, instead of the ‘cloverleaf’ pattern, there is a red circle bordered in black; attached behind it are black semicircles right to the wing tip.

St.Ha. 61672, Kāmbrīngī, lime container made from bamboo (designated as “staff” by the collector), with a decorative addition (length 57 cm) similar particularly to St.Ha.61654, but very roughly made; the piece gives a

completely novel impression, perhaps it was made solely for trading. The decorative addition again represents crocodile head and rooster: the beak and the upper part of the bird's tail are red, the upper surface and the eyes of the crocodile, the tip of the tail, the throat, a neck ring and the head of the bird are white, the bird's wings are striped red and white. The rooster's eyes are formed by small cowry shells. Four holes in the bird's back, and the ears and the nose of the bird are adorned with bunches of grass and with cords. The plate-shaped plaited wheels of the nozzle for attachment are adorned with cassowary feathers.

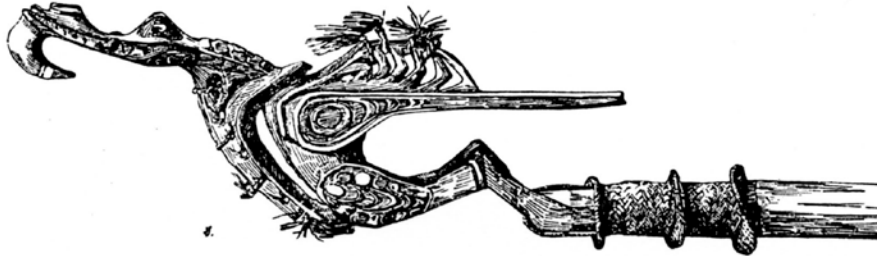


Fig. 280. Decorative addition to lime container H.S. 9238, 1/4 actual size



Fig. 281. Decorative addition H.S. 7099, 1/4 actual size

H.S. 9238, 375 km village, **lime container**, Fig.280, made out of bamboo, with a decorative addition (total length 79 cm). The bamboo part is undecorated, but shortly before the upper rim it has a plaited ring up to 3 cm wide (four-ply, reversible twill-style) with a hanging loop fastened to it. A longer, perforated piece of wood serves as a lid (diameter of the opening 1.5 cm) and is pushed into the tube. The decorative addition is a blend of crocodile and bird figures. Both long legs of the bird are directed backwards, and on the side of each thigh is a line of projecting hook figures, one inside the other, surrounded by alternating black and white round knobs; [265] with a white-painted border around the whole thing. The other side has only a group of knobs on the thigh. The legs are, moreover, painted red, with two black and two white rings behind the three-dimensional representations. Tail and wings are directed backwards, and merge together. The wing joint is decorated with a three-dimensionally projecting, black circular surface surrounded by a white and a black circle; behind this are hook-shaped structures, right to the wing tip. A tall, filigree comb adorned with four red-dyed bunches of bast fibre rises from the back. A second, similar comb, decorated in the same manner, extends from the front of the neck, along the chest, to the legs. The head resembles that of a crocodile; it has eyes projecting somewhat upwards, the eyeball consisting of a small cowry shell, and sharp red teeth. On each side one tooth is particularly large: it rises obliquely upwards and backwards out of the lower jaw, over the upper jaw. On the tip of the snout is a short conical peg whose tip has unfortunately broken off; below it is a large backward-curved hook, which is painted red, and carries a white ring shortly before the tip. The decorative addition is fastened with a plaited nozzle adorned with three plaited wheels. To prevent as much as possible the add-on from slipping out, a rattan band has been attached, running from the nozzle, and passing between the bird's legs.

A piece illustrated by von Luschan (1911, p.112, Fig.25) is similar to the one just described, except that here the bird's body is much slimmer while the head is more solid.

H.S. 7099, "Empress Augusta River" (without exact provenience), **decorative addition**, Fig.281, a lime container carved from a piece of wood somewhat curved when viewed from the side. The crocodile head is small and very much less carefully made, only the eyes and two pegs in front of the snout — probably the nostrils — are relatively clearly recognizable. The rooster is better presented; the equally-divided tail is certainly still made from a fairly rough piece of wood, but the wings are separated from it; on the joint it carries a number of flat knobs. The neck is long and only slightly curved, very much more stretched than in the other specimens. Between head and neck are the pierced and somewhat pendulous ears. Once cowry shells were probably inlaid in the eyes, but now there are only the empty sockets. The tapered peg pushed into the lime container shows no kind of hole; the decorative additions appear always to be pushed exclusively into bamboo tubes, but never to be fastened to a cross bar.

St.Ha. 61695, "Simar", **decorative addition**, Fig.282 (length 44 cm), made from wood and representing a bird, with the feet missing; the body rests directly on a peg with a three-dimensional carved decoration on the sides; this consists of an oval raised area with hook-shaped figures one inside the other attached on the left and right, and at the very end on one side is a small oval surface. Probably the decorated peg is a heavily-stylized crocodile head, and

the hook-shaped figures would then be the teeth. In the bird figure, the wings show a strip formed by hook-shaped raised areas on the sides; along the back between the wings runs a triple- [266] drilled border that was probably formerly decorated with bunches of bast fibre. Ears and eyes are represented by oval, somewhat-projecting, areas with a small depression in the centre. The beak is very bulky, narrow, on edge, and carries an elevation at the end; upper and lower beaks are separated by a very distinct curved groove. Vestiges of red and white paint are visible all over the figure.

St.Ha. 61688, “Sobando”, **decorative addition** (length 28.5 cm), made from pith-like soft wood. Again, a bird figure is depicted, but is heavily damaged.

St.Ha. 61670, “Panguli”, **decorative addition** (length 25 cm), likewise made from soft wood; the bird figure, very similar to the preceding piece, is very damaged; only the central part remains, head, feet and tail are missing.

St.Ha. 61694, “Panguli”, **decorative addition** (length 32 cm); only the rudiments of a bird figure made from soft wood remain.



Fig. 282. Decorative addition St.Ha. 61695, 1/4 actual size



Fig. 283. Decorative addition, after Schlaginhaufen

Furthermore, the specimen illustrated by Schlaginhaufen (1910b, Fig.Y, p.33), Fig.283, is undoubtedly a decorative addition to a bamboo container. Schlaginhaufen writes, “A parrot is represented in the carving, naturalistic in head and feet, but heavily stylized in body. It is markedly flattened laterally and has two rows of semilunar filigree. The piece is coloured red.” A decorative addition illustrated by von Luschan (1911, Fig.26) also represents a bird, probably a rhinoceros hornbill, which is indeed heavily stylized.

In the area near the Hunstein Range they once more use bottle gourds more commonly to make lime containers.

H.S. 9351, 343 km village, **lime container** made from a gourd, Fig.284 (length 40 cm, circumference 14 cm), with a lime spatula. The calabash is very long and narrow; several designs, zigzag lines, and rectangles are burnt-on in a regular arrangement near the upper end. The **lime spatula** consists of palm wood (length 99 cm); it does not have any incised grooves; the excessively soft rim of the calabash opening would not elicit the favourite sound by rubbing. A thick bunch of brown rooster feathers is fastened on the point of the stick with a narrow plaited ring just below it. At roughly two thirds of the length are attached two long chains of plaited rings, each carrying a bunch of hen feathers at top and bottom.

H.S. 9122, Măndăna, **lime container** (*monénañ*, Hell.) made from a gourd (length 20 cm, maximum circumference 22.5 cm). The burnt-on decoration (*wandegrí*, Hell.) represents a variation of the ‘spiral’ decoration so far observed only on bamboo lime containers. The spirals are never back-to-back, two are pointing downwards, two between them upwards; at their base are heavily-stylized, face-like representations in which mostly nose, eyes and mouth are recognizable.

H.S. 9351, 343 km village, **lime container** made from a gourd, Fig.284 (length 40 cm, circumference 14 cm), with a lime spatula. The calabash is very long and narrow; several designs, zigzag lines, and rectangles are burnt-on in a regular arrangement near the upper end. The **lime spatula** consists of palm wood (length 99 cm); it does not have any incised grooves; the excessively soft rim of the calabash opening would not elicit the favourite sound by rubbing. A thick bunch of brown rooster feathers is fastened on the point of the stick with a narrow plaited ring just below it. At roughly two thirds of the length are attached two long chains of plaited rings, each carrying a bunch of hen feathers at top and bottom.



Fig. 284. Lime container
H.S. 9351, 1/6 actual size



Fig. 285. Lime container
H.S. 6695, 1/4 actual size



Fig. 286. Decoration of lime container
H.S. 6695, 1/2 actual size
(depressions dark)

H.S. 9122, Mändänäm, **lime container** (*monénañ*, Hellwig) made from a gourd (length 20 cm, maximum circumference 22.5 cm). The burnt-on decoration (*wāndegri*, Hell.) represents a variation of the 'spiral' decoration so far observed only on bamboo lime containers. The spirals are never back-to-back, two are pointing downwards, two are pointing upwards; at their base are heavily-stylized, face-like representations in which mostly nose, eyes and mouth are recognizable.

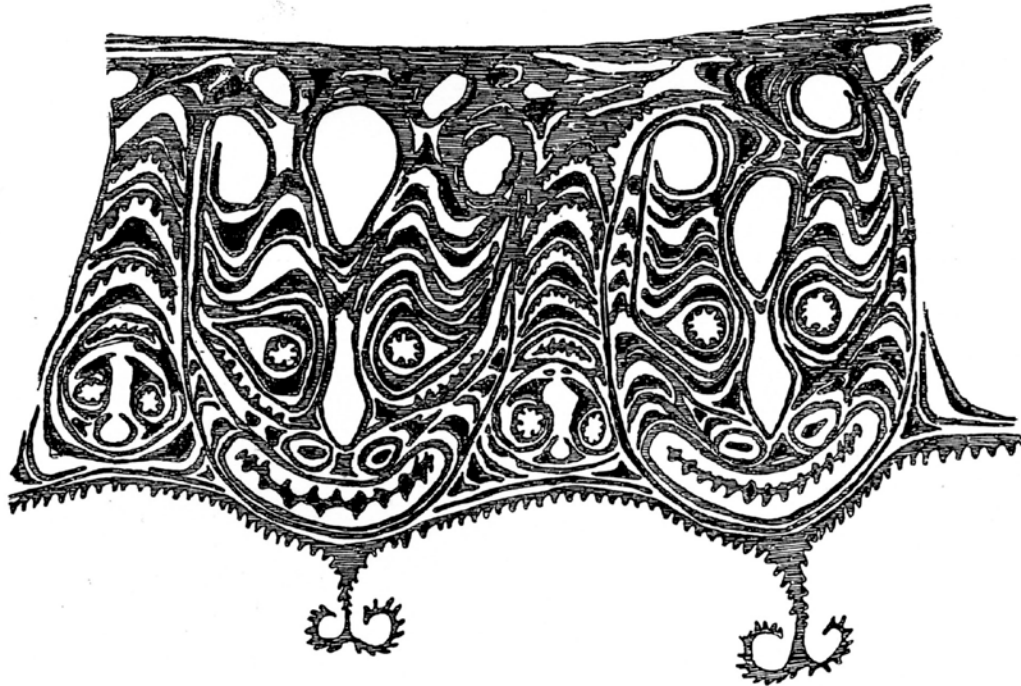


Fig. 287. Decoration of lime container H.S. 9267, 1/2 actual size.
(The depressions are dark).

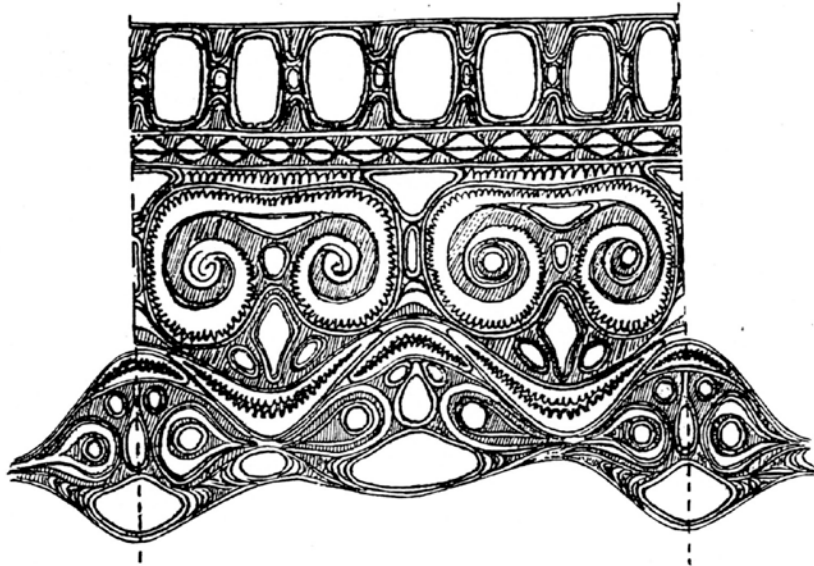


Fig. 288. Decoration of a lime container, after von Luschan,
(The depressions are dark).

H.S. 9138, 252 km village, **lime container** made from a bottle gourd (length 34 cm, maximum circumference 15.5 cm). The burnt-on decoration is arranged in three bands of very different widths. Uppermost is a narrow band of arcs one inside the other, with two very much wider bands beneath probably forming a variation of the 'spiral pattern'; however, the spirals have dissolved and merged with one another, giving rise to elongated upright ovals, surrounded by several lines. At one place on the lowermost band is a representation like a face. The lower border of the decoration is formed by deeply burnt-on [267] triangles with a very acute inferior angle; on the outsides, the contours are each accompanied by a line and a row of dots.

H.S. 9308, Málu, **lime container** (length 28 cm, maximum circumference 21.5 cm) made from a gourd, without any decoration.

H.S. 6695, Málu, **lime container** made from a gourd, Fig.285 (length 29 cm, maximum circumference 21.5 cm). The deeply burnt-on decoration (Fig.286) sits at the base of the neck of the flask and in one broad band shows two circular human faces surrounded by circular lines; the eyes are represented by ring-shaped raised areas with a deep hole in the centre. In the [269] nose the sides are depicted as self-supporting structures, the mouth is slightly open; on the forehead above the nose, three transverse wrinkles are indicated. The faces are connected by an oblique double border; groups of concentric circles are attached above and below these borders, probably evolving from spirals, like the borders. The decorative band is enclosed above and below by zigzag bands, which are in turn bordered by low horizontal strips.

H.S. 9267, Málu, **lime container** made from a gourd (length 32.5 cm, maximum circumference 24.5 cm) shaped like a cucumber; the circular opening at the thick end has a diameter of 0.9 cm. Only the upper part of the calabash is decorated, with a pattern burned extraordinarily deeply into the wall (Fig.287), with two large stylized faces clearly recognizable. The contours are always deepened so that the representations remain as raised areas. The eyes are formed by short, comma-like areas, the iris by a circle with jagged edges, the nose by a spindle-shaped area. The cheeks and the forehead are filled with burnt-on curved and wavy lines. The vertical stripes between the two large faces each show a smaller, but inverted, visage with several curved lines attached. Below, the entire decorative band is closed by a jagged crown, which forms two small spirals suspended beneath each of the large faces.

A decoration illustrated by von Luschan (1911, Fig.27) shows a certain similarity; in this one as well there are faces pointing alternately up and down, but differing somewhat in presentation, the eyes of the large face for example consisting of spirals (Fig.288).

H.S. 9309, Málu, **lime container** made from a gourd (length 39 cm, maximum circumference 27.5 cm), like a cucumber in shape. The opening for the spatula has a diameter of 1.5 cm. Just below the upper rim, a zigzag band is formed by deeply-incised triangles pointing alternately up and down. Below this, is a wide ornamental strip (Fig.289) whose pattern is strongly reminiscent of that of the container just described, evidently a derivative of it. Here too we have two large facial representations, which are however heavily stylized. The eyes have become like spectacles owing to a connecting piece; the nose is still quite clearly recognizable, the sides consist of concentric circles. Rows of small curved lines are connected on each side to the narrow mouth. The vertical strips between the faces show only concentric circles, instead of the facial representation above and below. The ornamental band ends below in a type of fringed hanging of deeply burnt-in triangles.

In the river mouth region we found lime containers of a totally different form; these are made from spherical gourds, and contain a larger quantity of lime; they appear to serve as storage containers.

H.S. 1840, Sīngrín, **lime container**, (*ā́id*, Füll.) Fig.290, made from a thick-walled, almost-spherical gourd (height 10.5 cm, circumference 48 cm, horizontal diameter up to 15.5 cm, diameter of the opening 2 cm). Right by the opening are two small holes that serve for attachment of a hanging loop made from plaited rattan. The decoration is deeply carved and surrounds only the upper part of the container in a wide band; it consists of meandering looped bands and ends above and below with a jagged line.

H.S. 1839, Sīngrín, **lime container**, (*ā́id*, Füll.) made from a spherical gourd (height 13.3 cm, maximum diameter 15.5 cm, horizontal circumference 48.5 cm, diameter of the opening 1.2 cm), similar to the preceding one. Near the opening, again there are two small holes, into which the hanging cord is fastened. There is little decoration: in the vicinity of the opening are engraved two short curved lines adorned with deeply-chiselled peaks; somewhat further below, a similarly-peaked line runs around the container.

With regard to the use of the lime container it must yet be mentioned that, with the obvious exception of the spheres just described, which are hung up inside, they are normally carried around clasped under the arm. With the other hand, invariably the right, the lime spatula is pulled out when needed, carrying the adhering finely powdered lime to the mouth. The spatula is then thrust back inside the calabash with a certain flourish, and as great a flourish as possible, so that the grooves on it create [270] a loud rattle by rubbing against the rim of the opening. This rattle gives the people so much pleasure that not infrequently they thrust the stick up and down several times just to evoke this noise. To break up the betel nut, the old people apparently use betel mortars. The vessels that I obtained are described and illustrated on pages 177–178.

Tobacco smoking. Compared with betel chewing, the enjoyment of tobacco, which is, moreover, familiar throughout the area that we visited, is surprisingly limited, in spite of the



Fig. 289. Decoration of lime container
H.S. 9309, 1/4 actual size



Fig. 290. Lime container
H.S. 1840, 1/4 actual size



Fig. 291. Decorated *Massoi* bark H.S. 9259, 1/2 actual size

large quantities of tobacco that they cultivate all year round; the greater part of the tobacco crop is evidently intended for export. The indigenous designation for tobacco is, according to Pöch (1908, p.172), in *Wātám*: *tschokái*; and according to Hellwig in *Āngöróm*: *dzáwě*.

Tobacco is always smoked in the form of a cigarette, which is usually rolled just before use; they often use a leaf of a tree as the outer wrapping, especially often a green banana leaf. They do not appear to be familiar with any kind of smoking apparatus, like pipes or cigarette tips: neither we nor any of the other expeditions observed the like.

Capsicum. Red pepper (*Capsicum longum*) is cultivated, and even planted. We found it quite often, on occasion it was traded with us. We could not find out how they used it. [271]

Massoi bark. Not uncommonly a piece of *massoi* bark is found in the men's carry bags; it is always decorated with chiselled designs, an indication that it has great value. They appear to enjoy sniffing at the pieces, which give off what is for our noses an obtrusive aromatic scent, but they use it mainly for chewing. Hollrung (1888a, p.454) reports, "It resembles cinnamon and saffras in taste, causes heavy perspiration and possesses the special property of causing strong sexual arousal."

H.S. 9259, *Málu*, little piece of *massoi* bark, Fig.291 (length 18.5 cm) which is rolled together into a tube not completely closed. The outside surface is decorated with deeply-carved, fairly irregular zigzags.

Cinnamon. Friederici (1909, p.333) reports that cinnamon is found in the natives' possession on the Augusta River.

Kava. In *Kōpār* we found distinctive vessels made from coconut shell (cf. Fig.194, p.211) that looked just like the customary kava beakers of Astrolabe Bay. It is therefore not inconceivable that they are familiar with the pleasure of kava in the river mouth area.

It must yet be mentioned that Finsch (1888a, p.295) believed that he had found edible earth at Venus Point, which was in error, as he himself later reported (1888b, p.226). [272]

Domestic Animals

They recognize only three domestic animals: pigs, dogs and hens.

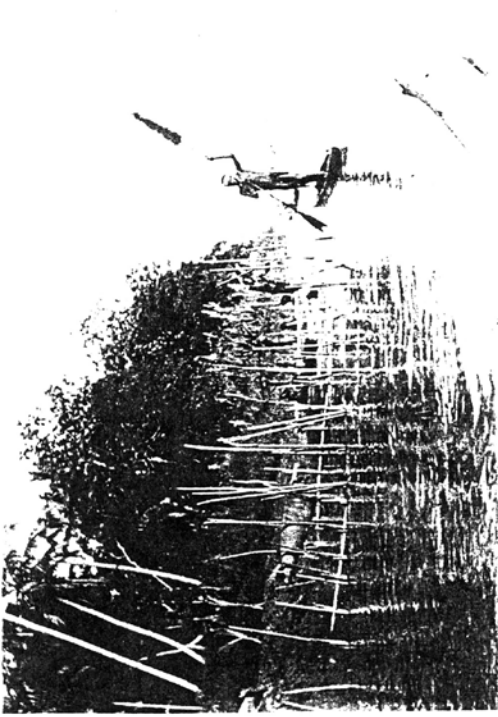
Pigs, which probably differ little in race from those observed elsewhere in New Guinea, were very numerous in many villages, for example in Kāmbrīnūm. In others we saw almost none; they had most probably been driven away at our approach, and made secure. We did not notice purpose-built pig sties.

They appear to treat dogs well; like almost all New Guinea dogs these resemble Pomeranians. It was surprising that they quite calmly allowed us to touch them; most South Seas dogs are not even friendly towards strangers. When we entered a village they greeted us with loud howls but were never keen to attack. In most villages dog numbers were quite high. For what reason they were kept, or whether they were eaten, could not be ascertained.

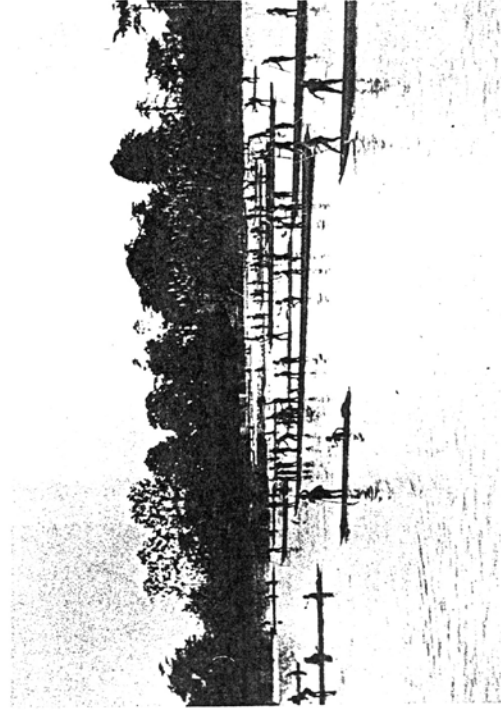
All, or almost all, hens seemed to be white, or whitish-yellow or whitish-brown in colour. They appeared mainly to value the roosters, raising poultry only on account of rooster feathers. Countless rooster feathers were offered as trade items from the canoes off almost every village, and a great quantity of tools, weapons and decorative objects were adorned with these feathers. They probably eat hen eggs just as little as elsewhere in New Guinea, but they possibly eat the hens.

We never saw tamed animals, like parrots or cassowaries, as are occasionally found in Melanesia.

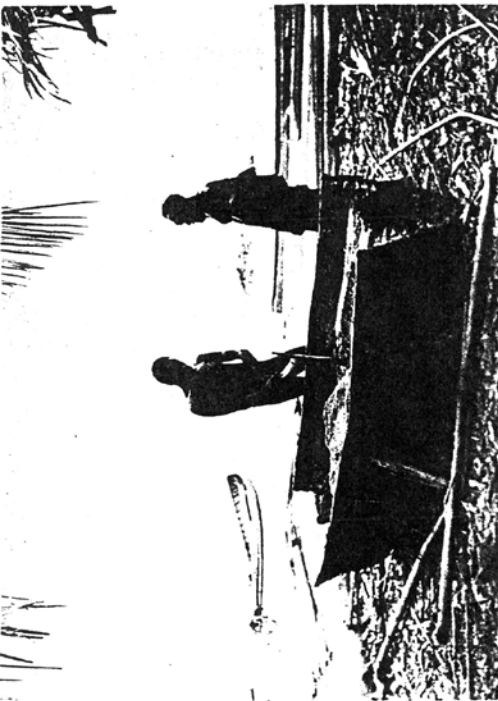
Reche, Empress Augusta River, Plate LIV



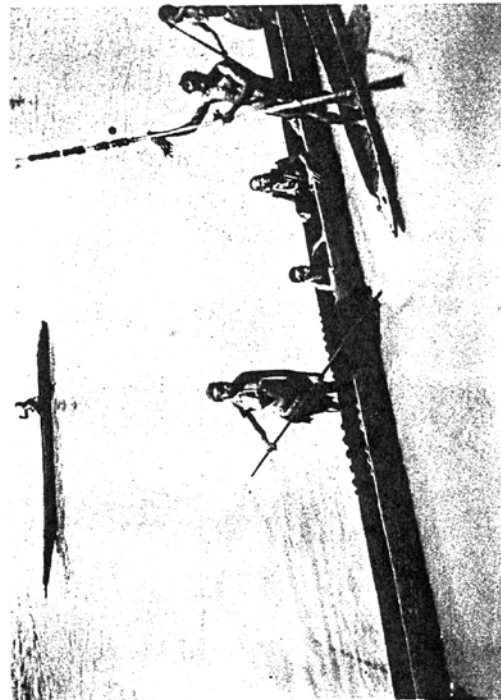
2. Fish trap site near 343 km village



4.. Canoes from 375 km village



1. Opened sago stem, from which the pulp is beaten out (Imbântón).



3. Canoes from 252 km village

Navigation

Canoes

The typical boat is the dug-out canoe, a vessel without outriggers made from a single tree trunk. Outrigger canoes are found, in small numbers, only in the coastal villages, they are otherwise unknown along the length of the river. We saw them only at Wātām and Kōpār; alongside a house in the latter village there was a particularly fine specimen, about 15 metres long, with a splendidly carved bow piece and ornamented sides; it had been turned upside down and covered with sago palm leaves as protection from the rain. The engraved decoration running along the gunwale consisted of a type of meandering design, similar to that of the big wooden bowl H.S.1793 (see Plate XLII,8). The end of the prow consisted of a process about 50 cm long, which probably once represented a human figure but had been badly damaged. The outrigger vessels are common box boats, similar to those of Potsdamhafen for example; they also carry masts and sails. Finsch (1888a, Atlas Plate 8, Fig.5) illustrates a sail from Cape de la Torre (about ten nautical miles from the Hammacher River): it is quadrangular, “of mat-weave”, and about ten feet long. Figure 292 is a sketch of a

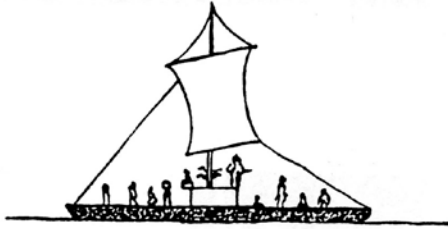


Fig.292. Canoe from Cape de la Torre;
after Finsch

canoe complete with mast and sails, after Finsch (*loc. cit.*, Plate 8, Fig.7). They frequently appear to decorate the masthead; Finsch illustrates a couple of trimmings of this type. Plate 8, Fig.3 (*loc. cit.*) shows a “decoration of a masthead from Venus Point, made from tapa and bast fibre with a type of cross at the extreme tip”, and Fig.4 shows another, “from the same region, representing a frigate bird made from feathers”. Finsch adds “these decorations at the masthead also have a practical

purpose by serving as distinguishing signs”.

Very probably the two brightly-painted, cross-shaped objects made from bark which we found hanging outside the ceremonial lean-to in the village of Kērkēr were decorations for the masthead; at any rate they seemed to be hung on the lean-to for storage; right beside them hung, and stood, spears, canoe battle insignia, baskets, pots, and so on. [274]

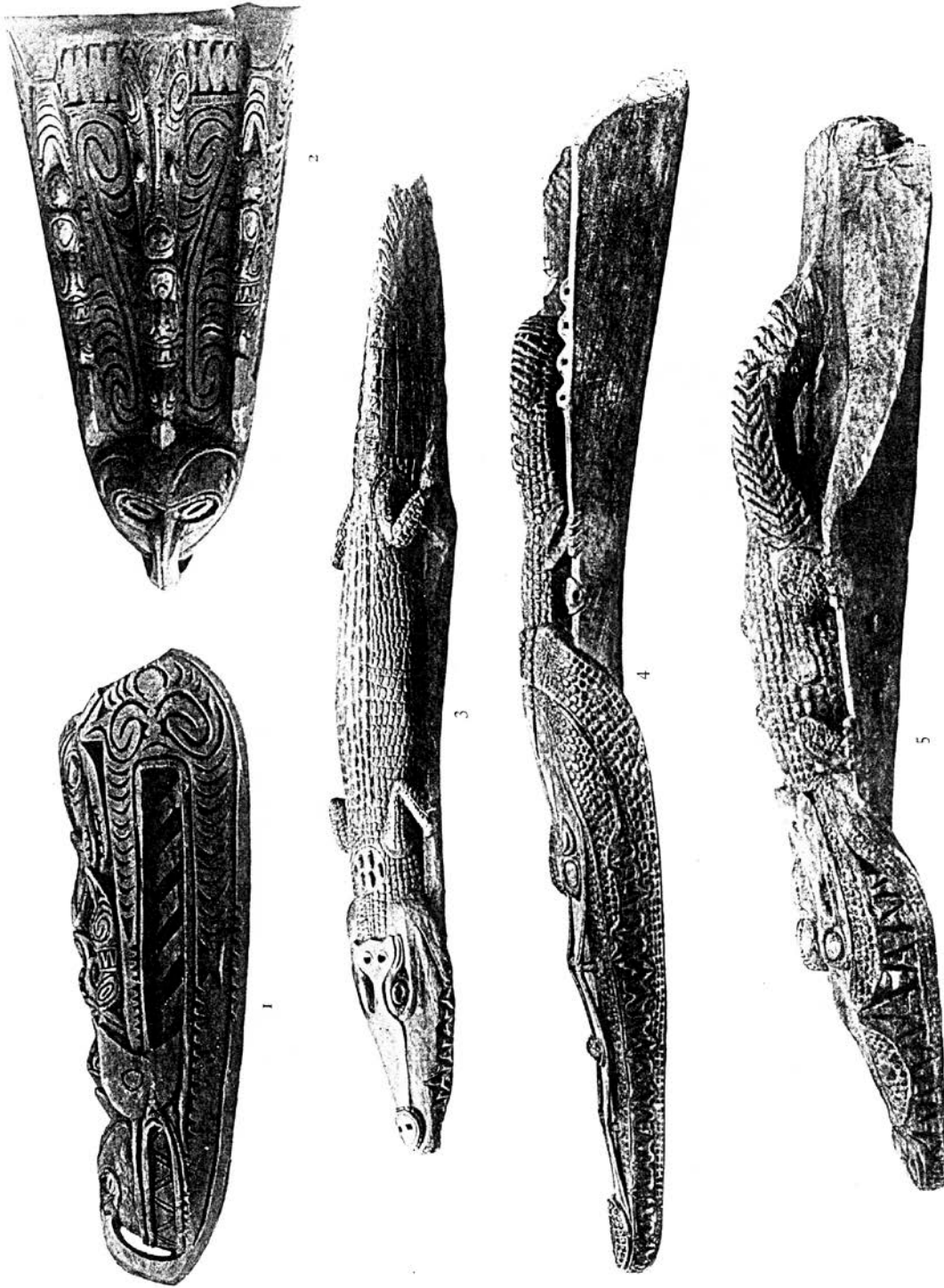
One of these cross-shaped objects seems intended to represent a bird (see Plate XVI.2): the uppermost peak shows two eyes, the lateral arms may represent the wings, and the lowermost the bird’s tail: it is correspondingly divided in two. It is painted mainly white but with a few red and ochre lines on a dark-brown background. The edges of the figure have three or four holes each, on the sides of the head and on the wing tips; long bunches of bast fibre have been knotted into these holes.

H.S. 4566, Kērkēr, mast ornament (height 31 cm, maximum width 35 cm), generally similar to the preceding specimen, however the ‘tail piece’ has broken off. The ‘head part’ has the form of a triangle standing on its tip; it has no place for eyes, but in the middle it has an elevated ochre-coloured oval surrounded by red and white concentric lines. Otherwise, the painting is roughly the same as in the preceding specimen, as is the hanging of bunches of bast fibre. However, the middle surface has four holes with bast fibres pulled through them also, evidently for hanging.

It is extraordinary that in these decorations for the masthead the figure of a bird is so frequently represented, a custom that is also quite common elsewhere in the South Seas; perhaps here too the bird is the symbol of a protective spirit.

Friederici (1912, p.268) gives a whole series of local designations for canoe parts, in the dialect spoken in the river mouth lagoon region. The same author reports that during the voyage a small fire was constantly maintained on the outrigger canoe, “either on a potsherd or in a special fire pot”.

Reche, Empress Augusta River, Plate LV



1 and 2. Canoe prow H.Th. 11,88:41, 1/6 actual size. 3. Canoe prow H.S. 6578 1/10 actual size
 4. Canoe prow H.S. 9047, 1/10 actual size. 5. Canoe prow H.S. 9044, 1/10 actual size

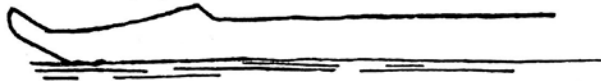


Fig.293. Canoe stern, after Friederici



Fig.294. Canoe stern, after Friederici

The dug-outs of the river mouth region (see Plate I.1) are slender, usually very narrow vessels with bulbous sides whose gunwales converge upwards. According to our observations, bow and stern are usually high and enclosed, shaped somewhat like a spoon; at the stern there is often a short stumpy peg, and at the bow a three-dimensionally carved arch extending inwards, forming a loop with the floor of the canoe; the rope for tying up the canoe is pulled through this eyelet. Friederici (1912, p.268, Figs. 71 and 72) presents two sketches of typical bow shapes (Figs. 293 and 294): the first shows the characteristic form of the river mouth region (with peg); the second a bow that is typical of the canoes found further upriver. We saw decoration only of the side walls, which occasionally — in especially large canoes — were decorated along the outside of the gunwale with an incised, spirally-meandering design (similar to that of the wooden bowl H.S.1793 (see Plate XLII.8)). Finsch, who incidentally was welcomed off Venus Point by several dug-outs which had put to sea, depicts two canoe prows, allegedly from dug-outs, that show rich carving; one specimen (1888a, Atlas, Plate 7, Fig.5) — the illustration has, unfortunately, probably been reproduced only from a sketch in which very few details were recognizable — [275] represents, according to the description, a “crocodile head in combination with a human face” (1888a, p.294); “the nose of the human face is perforated, the eye is surrounded by a ring of mother-of-pearl shell” (1888a, Atlas, p.10); here too the side appears to be decorated with a meandering design. The second specimen is presented in the illustration as “Man in a canoe, Venus Point” (1888a, p.292); on the upper side of the canoe prow it shows a carved crocodile, “whose tail merges into the head of a rhinoceros hornbill” (1888a, p.294).

H.Th. 11,88:41, “Empress Augusta River” **canoe prow**, Plate LV, 1 and 2 (length of the entire piece 55 cm), appears to have come from the river mouth area and could possibly have belonged to a dug-out (cf. H.S.6550). A stylized crocodile head is presented in marvellous filigree carving, bearing foremost a human face glancing upwards. The whole thing gives the impression of dealing with a stylistic reproduction of the canoe prows consisting of crocodile representations, found further upriver (roughly from Īmbántōn on). In those crocodile heads (see below), the clearly recognizable teeth added to the sides have here become a simple oblique latticework; the greatly-enlarged tooth rising high out of the lower jaw on each side has gathered an eye-like circular decoration, and only the front of the teeth still clearly resembles the original, with recognizable tooth shape. The eyes of the crocodile head have become raised areas that only slightly resemble the original form. The bulge on which the nostrils are always added elsewhere has here been transformed into a human face, whose eyes are formed by the original nostrils; added to this is a nose in the style of the coastal region, markedly elongated, and extending forwards over the tip of the crocodile’s throat to the underside. Additional features include a strip running along the midline of the upper surface of the head which in the posterior segment forms an extended crocodile’s head armed with two very long teeth, while the front section bears two totally rudimentary short head representations (apparently one of a bird and the other of a crocodile). Between front and rear sections rises a peg on which rests the tips of the snouts of the small heads. A similar strip with the rudimentary representation of a bird- and a crocodile head is found on each side between the eyes of the main head and the tooth rising high. The surface between the three strips, the sides of the main head, and the underside of the front half of the snout are decorated with incised meandering designs, curves, and zigzag lines. In the rear section the throat is deeply hollowed out. The canoe prow consists of remarkably hard wood; its entire surface painted red.

H.S. 6550, Kōpār. **canoe prow** (length 46 cm) is extraordinarily similar to the preceding one, only very much older, heavily weathered, water-logged, and damaged in several places. It too represents a stylized crocodile head, and shows a human face on the tip of the snout, three strips adorned with head representations on the upper surface, and teeth transformed into lattice work; its surfaces bear the same carved decoration. The similarity is so striking that I cannot ignore the possibility that this specimen has served as a model for the preceding specimen.

The specimen illustrated by von Luschan (1911, p.112, Fig.22) is very similar to both pieces just described; it is just as damaged as H.S.6550.

L.Me. 8806, a **canoe prow** found in Leipzig supposedly comes from the Augusta River. However, it so typically shows the style of the Trobriand Islands that one cannot possibly doubt its origin from there. Therefore, either the given provenance is incorrect or we are dealing with an article brought ashore by currents.

The length of the dug-outs of the river mouth region is frequently not inconsiderable, those described by Finsch measured 20–30 feet: “several carry 18 men”. We too saw fairly large specimens; one of them, which we used on a journey, measured approximately ten metres.

The shape of the dug-outs changes roughly from Īmbántön on. Here as well, (in the villages of Āngöróm, Mụ́ǎngĕm and so on, the same type of canoe is found), the vessels are [276] long and slender, but the sides are less bulbous, rise vertically and thus show only slightly converging gunwales (see for example Plate LIII.1). They are open at the bow; the floor of the canoe is raised only a little above the water level, so that one is always afraid that the water might come in. This form occurs sporadically in the actual river mouth region (see Fig.294, p.274). In these boats the prow usually shows marvellously-carved, realistic crocodile and bird figures.

H.S. 9045, Mụ́ǎngĕm, **canoe prow** (length of the entire piece 120 cm), Fig.295, represents a bird figure sitting on the tip of a crocodile’s snout. The reptile’s head is markedly stylized; laterally, as an indication of the teeth, there is a row of three-dimensional, projecting angular peaks, as well as very prominent eyes with two bored arches in front of them on each side. In front, the snout merges directly into the bird figure. The bird has no legs; tail and wings are united into a single piece extending backwards closely over the crocodile’s head to just behind the eyes. The front of the wings carry a very strongly incised decoration on the sides: deep grooves separate a circular- and several sickle-shaped areas. The head has the markedly-curved strong beak of a bird of prey, and prominent eyes.



Fig.295. Canoe prow H.S. 9045, 1/10 actual size

The crocodile lacks a body; the very roughly hewn tail forms an eyelet for attaching the mooring line. All the vessels that we saw had a similar eyelet. The canoe prow had broken off the boat, rather than having been cut off, as in most of the others described here.

The pieces No. 25093 and 25096, illustrated by Schlaginhaufen (1910b, pp. 54 and 55), from “Olem” are similar. In the first specimen the crocodile tail is missing and in its place a “fish representation” forms the eyelet for the mooring line. A third piece, No.25016, a rooster figure, is, likewise, probably a canoe prow; broken-off, but evidently a component part, is a crocodile head, pursuing the rooster.

H.S. 9015, Nǎngĭt, front part of a **canoe prow** (total length of the piece 60 cm). A crocodile head is represented, with a frail body that is much too small, only the front half and the short front legs remaining. The piece has been separated by axe blows by the natives from the evidently no longer usable canoe. The head shows two eyes looking upwards, projecting markedly beyond the profile, behind them on each side is a large triangular surface covered with rectangular humps (evidently intended to represent scales) and on the side gigantic pointed interlocked teeth, separated by an incised zigzag line. A round raised area on the tip of the snout carries the nostrils. The lower jaw has four holes leading downwards on the rim of each side, probably for attaching bast fibre decoration. The throat is hollowed out from below.

A canoe prow illustrated by Schlaginhaufen (1910b, p.53) is similar: “The figure is complicated by a bird which is carved out of the upper side of the carving”. Also, in this piece the handle is “represented by the body of a fish whose head lies on the rear edge of the crocodile’s head while the tail disappears into the canoe floor”.

H.S. 6578, Īmbántön, is probably originally from a **canoe prow** (*uōrāmī*, Müll.; length 131 cm), Plate LV.3. Admittedly all wooden parts not belonging to the crocodile head and the remains of the canoe have been almost completely removed from the piece, and it was stored in the ceremonial house where it served perhaps a religious

purpose — even touching it was instantly forbidden; in spite of this its original purpose as a canoe prow can hardly be doubted. The crocodile figure is naturalistically produced and up until now is the sole known specimen in which the length and proportions of head, body, and limbs are in correct relationship to one another. The eyes rise above the profile line and are bordered below by a horizontal bulge. The surface between the eyes is accompanied by similar bulges and ends posteriorly in a wide, armour-plated shield with two depressions, [277] and anteriorly in a raised area carrying the nostrils. Behind each eye is a narrow, slightly-curved bulging slit, probably intended to represent the ear orifice. The interlocking teeth are fairly carefully produced: the boundary between tooth and gum is recognizable in each of them. Behind the nose bulge a mandibular tooth rises somewhat further upwards on each side. Body and legs are totally covered with small scales — oval raised areas; the neck shows a wide shield with arches, the back has wide strong scales; the big stylized tail scales are less carefully produced; the extreme tip of the tail has broken off. Remarkably — no other piece shows this — the tail is completely straight, shows no inferiorly-concave curvature, and its underside is merged into the floor of the canoe; it has therefore not formed an eyelet, a feature that finally refutes our assumption that we are dealing with a canoe prow.

H.S. 9047, Muǎngĕm, **canoe prow**, Plate LV.4 (length of the whole piece 188 cm); a large crocodile head carved in marvellous artistic fashion with a very short body that has become relatively far too small. Long before we obtained it, (all the visible cut surfaces are old), the piece had evidently been severed from the canoe with an axe by the natives. The entire rear section of the head, the sides of the head, and around the nostrils and in front of the eyes are covered with three-dimensional, prominent, round or rectangular scales, and likewise the entire body with the exception of the legs. Again, the eyes rise considerably above the profile line and rest on a flat swelling; a narrow completely three-dimensional wooden band rises from the head, just in front of them, and ascends slowly to lie on the tip of a cone. From here it passes to a second cone-shaped elevation and from there to the arch on which the nostrils lie; between the two cones it sinks, growing wider, onto the head, where it is held firmly by a wide third cone. On the side of the head the alternating, interlocking teeth are recognizable, each one carefully produced, and showing even the gums. Surprisingly, the crocodile shows only one pair of legs, apparently the hind legs; the toes (only four) are firmly dug into the gunwale. The tail is relatively long, and the end bends towards the starboard side. On each side between head and feet a transversely-bored arch is attached to the gunwale, and there are four raised areas of this type in the region of the end of the tail. Just behind the head on each side can be seen an irregular hole 3–4 cm in diameter bored vertically down through the bottom of the canoe; these holes serve for securing a canoe battle shield (see p.291) by receiving the peg at the bottom. Thus the present canoe prow quite likely belonged to a large war canoe, as further evidenced by the careful carving. Very similar, only smaller and extremely carefully made is the piece illustrated by von Luschan (1911, p.111) in Fig.21 (above); here too the end of the tail twists towards starboard, here too there is only one pair of legs; however, the head is significantly shorter and the holes for the canoe battle insignia are missing.

H.S. 9044, Muǎngĕm, **canoe prow**, Plate LV.5 (length of the whole piece 168 cm); representing a crocodile quite true to nature in the most careful carving. The entire body, the legs, and the sides of the head are covered with scales. On the top of the head, along the midline, is a row of larger scales with an extremely large triple-peaked plate with two shallow depressions at the rear end, quite characteristic of *Crocodilus porosus*. The eyes again form bulges far above the profile line and have an inlaid cowry shell as an eyeball. A small oblong bulge with two lateral depressions is joined on behind each eye. The interdigitating teeth are more roughly produced than in the preceding specimen and separated from one another only by incised lines; several of them are particularly long, possibly for decorative reasons. Again the nostrils lie on a flat raised area. The throat is not hollowed out on the underside, as in the previous specimens, but is flat. The four legs are bent acutely at the knee joint and are dug into the gunwale, which the beast appears to be hanging onto; all feet have five toes. The tail is completely straight and, its tip merging into the floor of the canoe, forms the eyelet for the mooring line. Behind the back legs two holes pass through the floor of the canoe; they are 3–5 cm in diameter and again serve evidently for securing a canoe battle shield. Between the fore- and hind legs there are two holes through each side, probably for fixing some other kind of decoration. This canoe prow too had been hewn from the canoe by the natives themselves, a long time before our purchase of it.

St.Ha. 61730, “Panguli”, **canoe prow** (length of the entire piece 163.5 cm); the specimen is almost so similar to the preceding one as to be mistaken for it, and is just as carefully made. It differs actually only in: the absence of the row of large scales on the top of the head (although the extremely large three-pointed scale behind the [278] eyes is present); the end of the tail turning towards the starboard side; and an extra vertical hole through the canoe floor on each side between the head and the front legs, although this hole is much smaller than those behind for the canoe battle shield. The collector made no comment on the purpose of these front holes.

The specimen illustrated by von Luschan (1911, p.111, Fig.21 lower) is quite similar to the two just described. It differs only in a few minor details, for example two mandibular teeth just behind the nostrils are markedly elongated upwards. Also this specimen has a couple of vertical holes through the floor of the canoe, just behind the four legs.

A canoe prow from “Pagem”, illustrated and described by Schlaginhaufen (1910b, p.54, Fig.A) shows a completely different character, more reminiscent of the pieces collected in the river mouth region, (for example H.S.6550 from Kōpǎr), especially in its strong stylization. A crocodile head is represented, with three parallel strips on

the upper side. "Along the midline we have a train of three figures one behind the other. The significance of only the first is not discernible in this piece. It is a small oblique oval. Behind this comes firstly the bird already observed in another specimen, and behind this the fish body that is here also fashioned as a handle." Right in front, before the tip of the snout, is a somewhat inorganically added parrot's head as well.

The boats of this region are longer on average than those of the river mouth area, the war canoes in particular are distinguished by their large size; for example in Mụảngẽm we found one with a length of 22 paces, about 15 metres long.

For renovations, especially plastering over cracks, they use clay; they also love to paste on a clay transverse bulge at the stern, in front of the flat opening of the canoe, to prevent water getting in when the canoe is heavily laden.

Roughly at the village of Kămbrínũm another type of canoe begins to appear, then remains essentially unchanged as far as the Hunstein Range. In these vessels the stern is admittedly similarly open and lies only a little above the water surface (Fig.296) exactly as in the previous type, but the side walls are almost vertical, and the prow is indeed decorated and also shows representations of bird and crocodile. However the carvings are smaller in relation to the canoe's length, and they are treated with less care, and play more the role of a subsidiary decoration. Often the tip of the canoe shows no carving at all (further downstream, near Mụảngẽm and neighbouring villages, we did not see a single canoe without decoration!) They take more care over the side walls, usually totally devoid of decoration further downstream. The gunwale is ornamented either with fully three-dimensional arches (see Fig.296) or groups of round humps (Plate LIV.3).

Figure 297 illustrates the best-carved canoe prow that we saw in this region.

Canoes are made in all sizes; we saw vessels with places for only two people or three at the most, but the majority had room for four or five people.

Besides this, there were also marvellous giant canoes over 20 and even 25 metres long, which can probably all be regarded as war canoes; they all had the holes forwards for stepping the war adornments. On Plate LIV.4 one of the [279] giant war canoes is illustrated in the middle; no fewer than 19 people are standing in it and there would still be enough space for 7–10 more; 11 of the 19 men have paddles in their hands. The width of the canoe is very small in proportion to the length; even in the war canoes it is no more than 50–60 cm.

It is remarkable that we occasionally saw the war vessels 'manned' by women and children (for example on Plate LIV.3). Possibly this may be explained in that upon our unexpected arrival everyone climbed into the nearest available canoe to get to us as quickly as possible, in order to share in the profitable trading. At any rate this demonstrates that women are not forbidden from climbing into the war canoes. It must also be mentioned that these dug-outs were occupied either by men only, or by women and children only; very rarely did we see men and women in the same boat; in those instances both sexes paddled it on an equal basis.

Paddles

There are two types of paddle: one is used by men, the other by women.

The women's paddle is relatively short, on average about two metres long and has a lance-shaped, fairly wide blade that takes up almost one third of the length (Fig.298).

The longer paddles usually used by men have two different forms: in one the blade is tapered (Fig.299), in the other it is double-pronged like a swallow's tail. In the lower reaches only the tapered paddle seems to occur; only from the village of Máĩũm on did we see both forms used side by side. Here the 'swallow-tailed' paddle was still rare, but further upstream

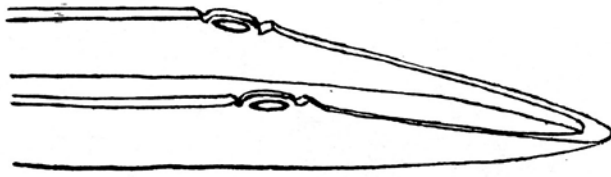


Fig.296. Stern of a canoe from 252 km village



Fig. 297. Canoe prow from 252 km village



Fig.298. Woman's paddle

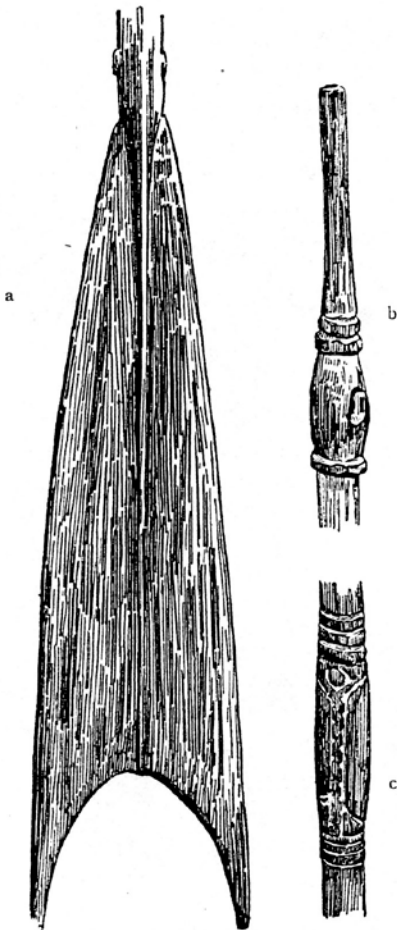


Fig.300. Swallow-tailed paddle H.S. 4511, 1/5 actual size



Fig.301. Paddle, after Schlaginhausen

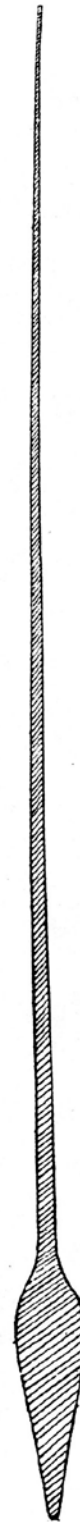


Fig.299. Man's paddle

it became just as common as the tapered paddle. For the conditions on the river the double-pronged paddles are decidedly more practical: on a muddy bank or a soft bottom they do not

sink in so deeply on the forward stroke — they are used for this purpose, and in addition one can easily separate the driftwood that often comes down the river in a dense mass, when it threatens to collide with the vessel, and deflect it before it becomes a danger to the canoe; with the single pointed paddles this is not nearly so effective.

Among the ‘swallow-tailed’ paddles there are two types: in one, handle and blade are carved from a single piece, while in the other the blade is fastened to a bamboo handle; perhaps the latter type is produced from shattered specimens of the former type.

H.S. 4511, Kāmbrínūm, **swallow-tailed paddle** (*īnéb*, Re.; total length 330 cm, length of the blade 50 cm), Fig.300a, made in one piece. The handle continues on each side as narrow, steadily tapering ribs on the blade; at the end it widens somewhat, and here, between the [281] two points is a flat knob. Two centimetres above the beginning of the blade there is a low, round knob on each side of the handle (just as in a specimen illustrated by Schlaginhaufen, 1910b, p.55, Fig.D,b). About one metre from the lower end the handle is surrounded by a 7 cm-wide ring plaited (four-ply, reversible, twill-style) from rattan; at this spot the shaft shows several splits and cracks: the ring probably has the effect of reinforcing it here, preventing fracture. The upper end of the shaft (Fig.300b) is somewhat thickened with a blunt end; twenty centimetres below is a second, much stronger thickening, bordered above by two, and below by a single, incised ring; it is bored through laterally, perhaps for attaching feather decoration. Seventy-six centimetres below the upper end a 15 cm-long swelling of the shaft (Fig.300c) begins, bordered both above and below by four incised rings, with a carved wavy line between longitudinal ovals on each side.

H.S. 6030, “middle Augusta River”, **swallow-tailed paddle** (total length 226 cm, length of the blade 39 cm), made from a single piece, similar to the preceding one but much more roughly and more simply made; again on each side of the blade is a raised middle rib; moreover the paddle has no decoration at all.

A piece described by Schlaginhaufen (1910b, p.55) under N°.25156 shows no major differences, except that the upper third of the handle is decorated with a thick bunch of cassowary feathers, “and indeed the feathers of the upper half of this part are cropped, the rest left long. They are lined up on a bast fibre band running spirally around the wooden handle and fastened to it by a second band that is continuously wrapped around the first one”.

Also, we saw paddles of this sort very commonly decorated with feathers or *Cuscus* skin, at least in the middle reaches, roughly from Kāmbrínūm on; they did not seem to occur further downstream, in the river mouth area. When Fülleborn (1909, p.741) reports, “The paddle handle wielded by the very front man in the boat is decorated on its upper half with cassowary feathers”, there is probably an error of observation or memory, since firstly no boat has carried such a paddle for a long time and, secondly, just as often we saw, instead of the first person, the second, third, or fourth man flourishing this type of paddle decorated with feathers (see for example Plate XXXIX.3); thus it is not restricted to a certain position in the canoe — perhaps only on ceremonial occasions.

The rest of the paddles mentioned by Schlaginhaufen all have a bamboo shaft into which is pushed a peg at the end of the paddle blade; the point of attachment has a rattan binding. In N°.25149 (Fig.301) the blade shows a somewhat different decoration.

In the paddles with the tapering blade, (see Fig.299), blade and shaft are almost without exception fashioned from a single piece. On the blade, as an elongation of the shaft, there is a central rib running up to half the length. Above, on the shaft, there is frequently a hole, serving usually to attach a bunch of bast fibre or feathers; once (Májūm) we also saw a thick attachment of cassowary feathers, similar to the ‘swallow-tailed’ paddles.

The men paddle standing up, the women usually kneeling; they kneel so low that their bottom rests on their heels. Paddling is equally effective standing or kneeling, facing forwards. The paddle is grasped in both hands: the upper one gripping it from in front, the lower one from behind; it is therefore paddling rather than rowing. [282]

Canoe handling

With their exceptional narrowness in relation to their length, the dug-outs used on the Augusta River are unstable vessels which are very difficult to handle. The more so then, must one marvel at the confidence with which the natives handle their canoes. Whereas for the unskilled, the Europeans, it is difficult enough to maintain equilibrium while sitting down, one sees the natives, as already mentioned, paddling usually while standing up (see for example Plate XXXIX 3 and 4) and with such a confidence that always amazes the observer; we never saw a vessel tip over, nor one that seriously wobbled.

Hollrung has already stressed the difficulty of travelling in such dug-outs (1888a, p.454): "Although a little more widely-built than the ocean-going canoes, the river canoes still require great skill, practised from youth onwards, if one wants to avoid capsizes. While I achieved some dexterity in handling the sea canoes, I was never able to achieve success with the river canoes, and all my efforts ended very quickly with a fall into the water". Neuhauss (1911, p.350), who undertook journeys of exploration with the Sissanu in this type of dug-out, writes that he could "only look back on these boats with a trembling heart"; the very first boat that he boarded, tipped over immediately on his getting in. "How the Augusta River people accomplish standing six men upright in such a boat without tipping over is very difficult for a non-acrobat to comprehend" (*loc. cit.* p.350).

Fülleborn and I travelled in such canoes along several canals in the river mouth region, naturally with local paddlers. We did not tip over, but the boat swayed quite considerably at the least movement on our part, even though to start with we had been careful in getting in, and had taken our place in the bottom of the boat, incidentally not a very comfortable position, for the boats were so narrow that one could squeeze in only with difficulty. One then sat so firmly fixed that one could scarcely get free if it capsized.

In the river mouth region, the canoes are propelled forwards in the canals usually only with long poles, and often do not carry a single paddle. Further upstream, on the other hand, where they travelled probably more often on the river than in the canals, they also used paddles for propulsion. If several people were in the boat, they loved to paddle in unison; "we always heard only a single stroke", recorded Friederici (1909, p.335) on his lagoon journey. This unified stroke is probably also practical for maintaining equilibrium.

Not only, as Neuhauss (see above) reports, up to six or in some cases up to twenty-five and thirty stand behind one another in the canoe and, in spite of the crowd, the boat shows not the slightest sway. The most wondrous feature is not that the people do not tip their canoes over, but that they steer their narrow and often unwieldy long craft extraordinarily skilfully, even at great speed; [283] in the swarm of boats that often surrounded our steamer we never saw a single serious collision, there was never an unpleasant collision with driftwood or the numerous floating islands. How legendary the confidence of the people is in the handling of their canoes is reinforced especially by our own observation, made at 375 km village. As we steered over towards the village, a canoe about twenty metres long with 7-8 men in it came close to our vessel. The first and last paddlers, their long paddles decorated with cassowary feathers and *Cuscus* skin in their hands, had taken up positions on the carved ends of the canoe (a life-sized crocodile head was represented at the front), and not at the wide part but at the very narrowest end; here they stood without losing their balance for an instant, they even moved in a cocky mood in spite of the rapid passage of the boat in a shuddering up-and-down bobbing motion. It was really admirable how they were able to hold themselves in undisturbed grace and confidence, in spite of their lively paddling action, on the few square centimetres that bobbed up and down

and swayed rhythmically sideways at the same time.

If one considers the strength of the current, one would come to the conclusion that it must be quite difficult for the natives to travel upstream in their canoes. We were therefore very astonished when we noticed that the people, when they set their minds to it, came upstream almost as quickly as we did in our steamer. They are extremely skilful at using the current. First of all they can cope quite well with currents that are not too strong, due to the narrowness of their canoes. If it is very strong, they use another technique: they very skilfully use the concave sides of the river; here, right by the bank, the current is either zero or even quite often reversed. We experienced it ourselves: in such places one moves forwards very easily. But then in the very tortuous Empress Augusta River one loop of the river follows quickly on another; thus the natives have no current, or a reverse current, at their disposal almost everywhere. The sole difficulty, where ground is always lost, is in crossing the river to reach the currentless opposite side of the next loop.

Thus, in spite of the strong current, conditions are very favourable for navigation; right as far as beyond Málu, the flat land, the current is always favourable for canoes; only with the advent of the actual highlands does this cease, for here the current becomes too much of a torrent and the river too narrow.

In the river mouth region they appear to be accustomed to taking the canoes into the canals, where they either tie them to poles pushed into the ground or haul them completely ashore or only beach the front part. In Kōpǎr too several large outrigger canoes were ashore; they were tipped upside down and covered with big leaves for protection from the rain.

[284] In the middle reaches the canoes are usually anchored in the river itself, indeed in places with little current they are usually anchored to poles driven into the ground. On the other hand, in places with stronger currents there is a simple form of harbour arrangement. Here, long floating beams are fastened to strong posts drilled into the ground; these deflect the current quite satisfactorily away from the canoes made fast between them and the bank. Here they seldom appear to haul the vessels ashore. In 252 km village the mouth of the little side stream was used as a boat harbour.

At the landing places, often when the bank slopes upwards tree trunks are laid over the soft mud as footholds. If the bank is high and steep, there are often regular steps cut into it; we saw particularly carefully made steps in 293 km village. Schlaginhaufen and Friederici (*loc. cit.*) also mention this type of steps. [285]

Trade and Communication

Trade

Trade appears to be quite well developed. Of course they probably rarely undertake great trade excursions over long stretches of the river, otherwise the differences between the individual cultural and language regions would not have remained so distinct for such a long time; nevertheless all kinds of sea products progressed a long way upriver, even beyond Málu; from hand to hand, through the intervention of many middlemen, they evidently progressed even further.

Only a few accounts of trade in our region are found in the literature. Full (1909, p.739) reports on the inhabitants of the coastal villages: they, "are busily engaged in trade with the inhabitants of the lower reaches of the river. On long voyages through the much-branching network of lagoons in the lower part of the river they accumulate tobacco from there, and this is shipped further along the coast and to the Le Maire Islands on powerful sailing canoes." Tobacco is therefore, as we too were able to verify, the principal article, the favourite element of trade. Full reports further, "Tobacco is produced, over and above personal needs, for trade purposes, and in bigger or smaller bundles which are wrapped in leaf sheaths of a species of *Areca*, tied, and held in storage, ready for transport." It must be added that tobacco is cultivated in greater amounts only roughly from the village of Májũm on. From that point, we saw the bundles in question of tobacco prepared for export (see p.246) in every village, and we obtained a number of them. It was indicative of the importance of tobacco that we were offered mainly tobacco throughout the middle reaches; it surprised us that the tobacco bundles always had well-defined sizes — there appeared to be two or three of them — that possibly represent a substitute for money. Tobacco seems to be by far the most important trade product that comes downstream. Foodstuffs, which are traded to the coast in so many other areas of New Guinea, are scarcely an export article here, for the coastal inhabitants certainly have their extensive stands of sago, and the trade in artistic products, weapons, tools, stone axes, and the like, might not be very great.

Thus practically everything that the natives of the upper and middle reaches require in coastal products, they probably purchase with tobacco, and their needs are not small; for example, each year quite large amounts of coral lime need to travel upstream, [286] because betel consumption is very great for a long distance upriver, and everywhere, even in Málu, there are found astonishing quantities of betel lime. Equally widespread upstream are sea snails and sea shells, especially mother-of-pearl shell which, highly prized by the inhabitants of the interior, is eagerly used for jewellery. They appear to be particularly proud of a mother-of-pearl nose ornament, or a large half-moon-shaped plate of the same material worn on the chest. The Ramu expedition members also were astonished at how far upstream sea shells were worn as jewellery. Thus besides lime, these conchoid shells appear to form the main payment for tobacco on the Empress Augusta River.

A not totally insignificant article of trade is perhaps *Massoi* bark, which is eagerly purchased everywhere, in the belief that it possesses, as Hollrung (1888a, p.447) says, "the particular attribute of strong arousal of sexual drive", and as an aphrodisiac should attract the attention not only of primitive people. *Massoi* bark should, additionally, cause heavy perspiration.

As Friederici (1909, p.333) recounts, station manager Rodatz found "impressive quantities of cinnamon, that probably arrived there via the trade route."

We could not find out whether salt was traded upstream in great quantities.

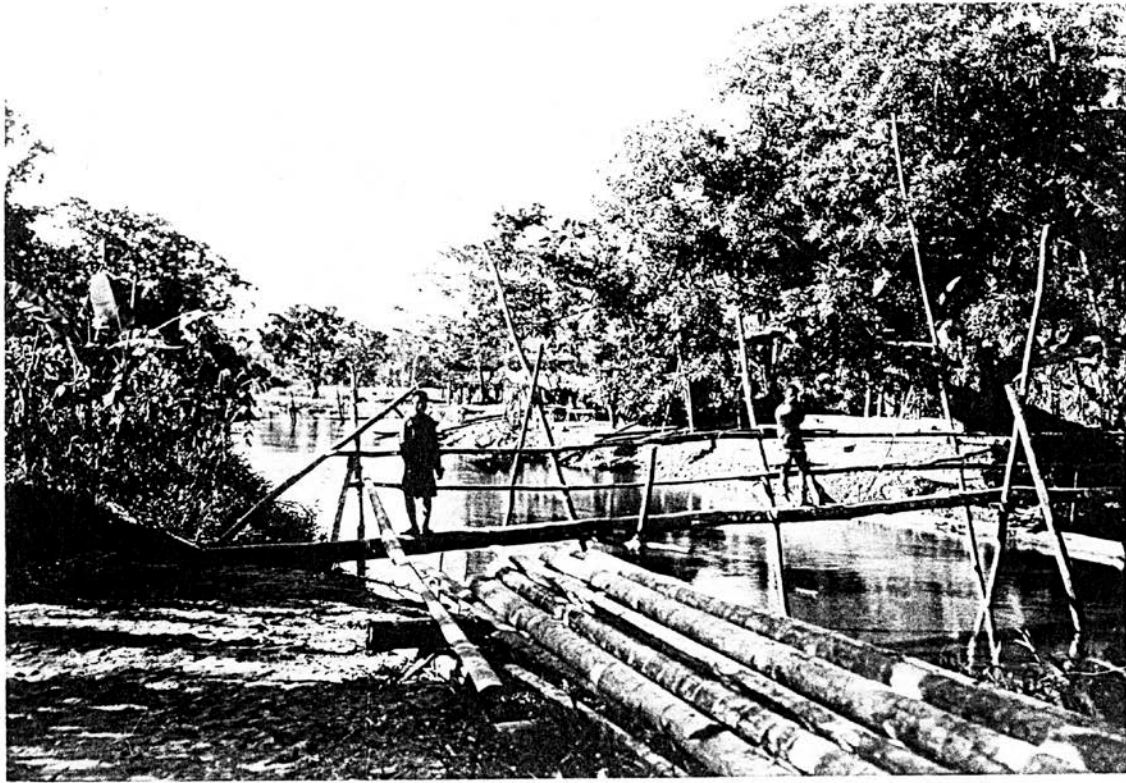
Stone axe blades must be brought here from a fairly great distance, probably from the high ranges of the interior, because in the broad alluvial plain the raw material is certainly not available. Also, since the possibility of properly grinding this type of blade is hardly available at this place, they would be purchased in the finished state, probably even provided with a shaft.

Communication

Communication appears to take place almost exclusively on the waterways, the river itself and the numerous canals; also, those villages that do not lie directly along the river, are presumably accessible on a waterway, a lagoon or a canal. These canals are probably, as I have said in greater detail in the geographical section (see p.34), artificially constructed, with dependence on natural waterways. They are usually not particularly deep; for instance, on the return journey from Sīngrín our dugout, in spite of its very small draught, stuck fast fairly often.

We walked on paths only extremely rarely, and these few were in such a bad state that one came to the conclusion that they are very seldom used. One led from the riverbank to Kōpǎr, another to Sīngrín; the path to Kōpǎr, which passed through deep swamps in places, was overlaid with thin tree trunks and thereby somewhat firmed. The path to Sīngrín was even worse; at the very bad spots long sago palm leaves had been thrown on the ground, and one had to perform gymnastics along their very woody central ribs. This path too was [287] very little travelled, for the leaves were mostly quite rotten and had therefore probably lain there for a long time. To avoid sinking above the knees at every step, we had to rip off sago leaves ourselves and throw them on the path. How little value is placed on paths is shown also by the fact that not even the 161 km village under construction was connected with Má ĵũm beyond by a land route. Since we wanted to move on to Má ĵũm from here, we looked around very carefully for a path, but in vain, for here too the only connection was a canal.

Thus although one evidently only goes short distances along the Empress Augusta River on foot, (waterways probably hardly forming a hindrance to commerce), we nevertheless found an artistically-constructed bridge, in 252 km village where the tributary was bridged. Obviously there were special circumstances here: the stream flowed right through the middle of the village, forming a real impediment to local communication. Yet this bridge was suitable for the important river commerce, being built high enough for the canoes to be able to pass beneath unhindered (Plate LVI.1). This was facilitated in this case by the height of the bank, whose upper lip was approximately 1½ m above the water surface when we saw it, probably at the normal water level. The bridge construction was quite interesting. Four poles, 4–8 metres long, were rammed obliquely into the ground, crossing each other in pairs, with the two crossing positions at water level. Approximately 1½ m above the water a horizontal cross beam was added to each, and fastened to the poles with rattan. The actual footbridge rested on these cross beams and the banks. It consisted of two beams approximately nine metres long, one of which was an extension of the other, their abutting



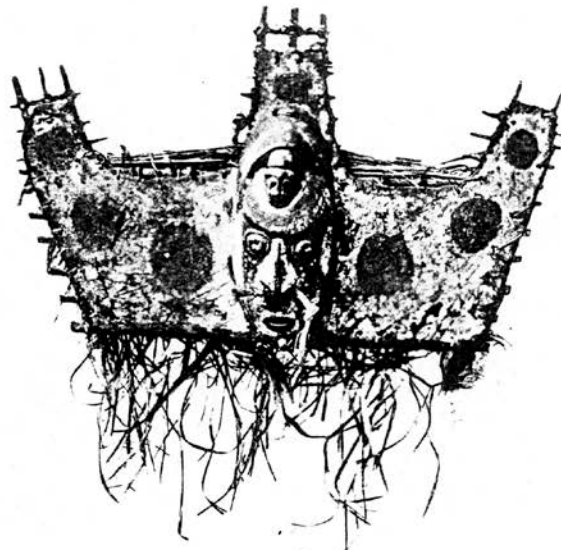
1. Bridge in 252 km village

Fullborn phot.



2

2. Canoe battle shield H.S. 6563, 1/10 actual size



3

3. Canoe battle shield L.Me. 7270, 1/10 actual size

ends lashed together with bindings. This “rough construction” of the bridge was then improved by all kinds of embellishments. First, various stiffenings and reinforcements were added; in the centre, where the two floor beams were lashed together, a long pole was driven obliquely into the ground and bound onto the foot beams to give greater security to this rather insecure position. Also, both bridge wings were made more stable by a long beam being pushed obliquely into the ground, one on the left side, the other on the right, and bound onto the wing; the oblique poles on one side also carried the bridge landing, which consisted of two rows of poles lying one above the other, and made especially secure on each bridgehead by one vertical and two oblique poles. Thus a fairly stable and, for New Guinea, quite luxurious bridge — it even had a landing — came into being, one which could be used without any feeling of insecurity. Furthermore, the bridge yokes were disproportionately wide, and since a large number of long beams lay nearby, I do not discount that in ordinary times the bridge is wider, but that [288] some of the beams had been removed, on our approach, to make crossing difficult for us. The following morning they actually made an attempt to take the bridge completely apart when we wanted to cross it. The total length of the bridge would be about 14–15 m. Moreover, in our entire South Seas journey we saw a similar bridge construction only once, and that was in the Admiralty Islands.

The bridge just described is mentioned as something particularly remarkable by all travellers who have visited the village, such as Schlaginhaufen (1910a, p.8) and Friederici (1909, p.333). Other bridge constructions, for example from rattan, appear to exist more commonly in New Guinea; thus Schultze mentions mighty rattan bridges that span the upper reaches of the Empress Augusta River.

About 100 m above the bridge we found two pairs of poles standing obliquely in the water of the adjacent stream, looking like the remains of a second, destroyed bridge. Somewhat further upriver another crossing had been created by a type of pontoon bridge that consisted of floating tree trunks fastened in the water. [289]

War and Weapons

Warfare

The natives of the Empress Augusta River, particularly in the middle reaches, appear to be quite warlike, which can come as no surprise, given the large populations of the villages, and the number of young warriors. This is why almost every one of the expeditions further upriver experienced several conflicts. The inhabitants of the river mouth have definitely become more peaceful since the establishment of the station in Wātām, yet Pöch (1908, p.171) still writes, "The Wātām are very warlike, skull trophies can be seen hanging in many houses".

For the time being, there is little to be said about the manner of warfare, for so far nobody has witnessed a fight between natives. The impression is that the battle is usually carried out on the water, since firstly, in most cases the enemy village can only be approached by canoe because of the great area of water; secondly, in the swampy region there is probably scarcely a suitable battle site on land, apart from in the villages themselves; and thirdly, the presence in every village of large, very carefully-built war canoes which they also embellish with special war decoration seems to corroborate the idea of frequent 'sea battles'. Finally, it is surprising that not one of the villages shows a single indication of a fortress or barricade; therefore they seem to feel secure against attack from the land.

The battle probably begins, if one can draw any conclusions from our minor skirmish, by the parties paddling up to each other in the big war canoes, and, from a relatively great distance, firing a dense salvo of missiles by means of the spear launchers. There is room for a large number of people in each canoe, just a few paddling while the rest are engaged exclusively in catapulting spears; they launch these at great distances in relative safety. Since the occupants of the canoes right alongside our steamer, armed with their long thrusting spears, made an attempt to clamber aboard, one can assume that the parties finally tend to get to grips, and then grab for lances and clubs which up until this point of the battle have lain in the bottom of the boat. There would probably not be too many deaths in open combat, as is the case throughout New Guinea, for the attack against us came quickly to an end when the people saw that several of their number had been wounded. The [290] Dutch expedition of 1910 too, more often succeeded in scaring their attackers with several fusilades. If the enemy has come surprisingly close to the village, they appear to be confronted in large numbers near the bank: at least the same Dutch expedition reports that in a heavily-populated spot they were awaited, in close column: "Close together, six to seven deep, stood the men in front of the biggest house, to observe the foreigners travelling on the river. They held large bundles of arrows in their hands, but did not appear eager to attack". (*Globus* 1910, II, p.377).

In the upper reaches the bow takes over from the launched spear. Here, expeditions were fired upon from the bank with arrows; the method of attack is perhaps somewhat different from that in the middle reaches.

As a lookout, evidently in order to observe the approach of an enemy in time, they occasionally build small tree houses. We saw only one single example (see Plate XXXIX.2), which by its small size could only serve the afore-mentioned purpose, and not as a fortress; it had room for perhaps six people at the most, whereas the village had about 1,000 inhabitants. These tree houses did not appear to be too common; also the villages are usually sited in gentle convexities of the river or on the concave side of short loops so that they can see a good distance up- and downstream, and observe the approach of an enemy in good

time. Our approach was for example always noticed fairly quickly, and the village was always already warned of our approach.

War decoration

Our attackers had not put on a special war decoration, but the fact that the great majority of modelled skulls had face makeup makes it seem not improbable that war paint does occur.

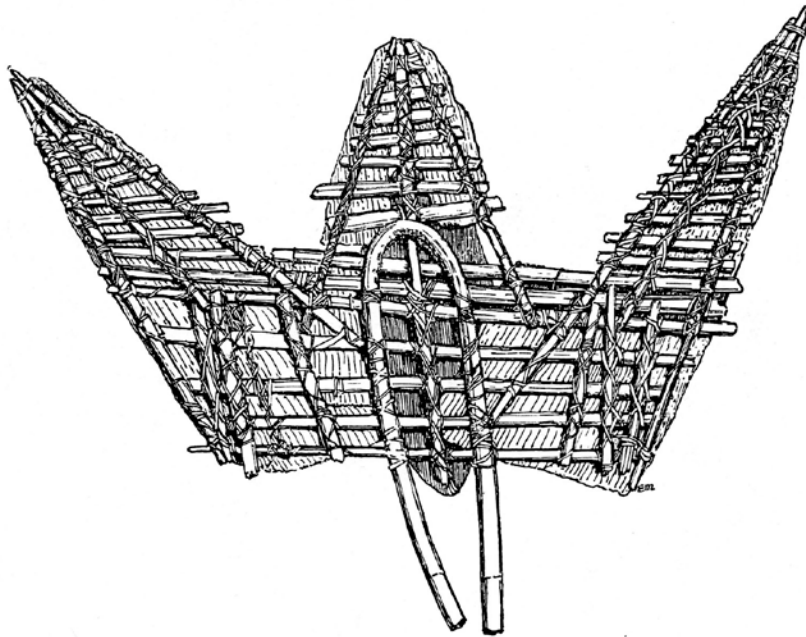


Fig.302. Construction of a canoe battle shield (H.S.9124), 1/10 actual size

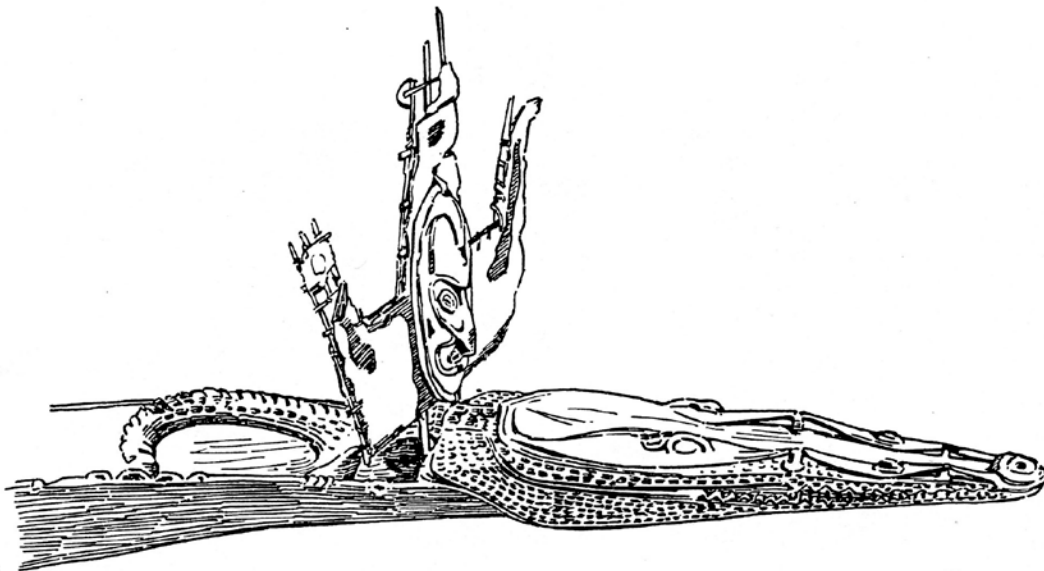


Fig.303. Position of the decorative shield on the canoe prow (H.S. 1844 on H.S.9047), 1/10 actual size

The only war decoration that we observed were decorative shields, which were attached to the bows of the war canoes. (Earlier, in the Duke of York Islands, similar additions to the canoe seem to have been customary, at least Hunter (1793, between pages 236 and 237) illustrates an ornamental piece that was fastened to the bow of a canoe, "An

Instrument carried in a boat to denote that there is some person of distinction on board her"; the interpretation is probably only an assumption. The ornamental piece shows a face-like representation.) These shields were already mentioned in the report of the 1886 expedition, "The bow is often adorned with large caricature-like, shield-shaped additions" (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, p.127). At that time their significance was not recognized; they were evidently regarded as a peaceful decoration. It was not suspected that they represented a semi-declaration of war on the part of the occupants of the canoe. Schlaginhaufen then brought back a specimen, but was unable to offer any information about its use; yet already it surprised him that the painting on these shields was calculated to have an effect from a distance (1910b, p.28). That the decorative shields are placed on the front of the canoe had been demonstrated to us [291] in Kōpár, where a specimen was fastened on as a demonstration. When we were attacked in the middle reaches, we saw the shields on the front of the war canoes, they evidently wanted to frighten us from a distance.

These decorative additions are, moreover, found along the entire stretch of the river that we visited, from the mouth right to the Hunstein Range; this emblem of war is therefore surprisingly widespread. In general form they are all the same, however there are such great differences in their details that in every [292] case the region it came from can be determined instantly. Construction is the same for all of them: a framework assembled from palmwood staves bound crosswise over one another (Fig.302) forms a trapezoid area, wider above, to which are attached wide processes pointing upwards. The frame is covered on the front with a piece of sago palm bark. This piece of bark is sewn to the edges with strips of rattan; its smooth front surface is painted, and bears a wooden mask in the middle. On the reverse side of the frame is attached a thick, arched rattan stave, whose parallel ends extend down below the shield. These two pegs serve to secure the shield to the canoe; they are pushed into two holes made in the canoe prow for this purpose (see p.277) so that the shield stands vertically. Figure 303 illustrates the position of the decorative shield. Observed in their entirety, all these shields resemble a bird plunging downwards with half-open wings, and, since this similarity is particularly clear in the very middle reaches where the shields probably have their origin, I cannot ignore the possibility that originally they actually had the representation of a bird in mind. Perhaps here again the vestige of the idea comes to light, that the soul of the dead is connected with a bird (frigate bird?), and transforms into it (cf. the tower additions, p.140–141, probably representing a frigate bird). If this is so, then they must regard the decorative shield as the embodiment of a dead person (the wooden mask attached to the canoe war shield H.S.9124 was designated as *barángu* (= spirit?)), probably a particularly feared warrior, under whose protection they place themselves and the war canoe (they also secure the aid of a dead person when for example hunting); thus to some extent the dead person comes down out of the air in its bird form, and settles on the canoe, at the very front, so that it spreads its 'protective wings' in front of all the warriors in the canoe. Moreover, I think it probable that originally the facial skull of the dead person was fastened on the front of the canoe shield. and was only later replaced by a wooden mask; indeed skull masks and the like also occur on the river (and I was also able to determine a similar replacement on several dance decorative items and modelled skulls). Now in order to enhance the effect of the canoe shield on the morale of the enemy — it was intended that it would be seen from a distance that the opponents stood under the protection of a mighty spirit — they probably added two large round, eye-like, dark-painted marks on both lateral surfaces, the wings of the 'bird'. When seen from a distance (Schlaginhaufen recognized this as well) these let the shield appear as a face; the nose of this face is thus formed by the wooden mask, which, probably for this reason, is abnormally narrow and prominent in many

of the shields, so that it resembles a nose even when seen close-up. It is noticeable that these eye spots are missing in the canoe shields of the lower reaches; instead there are oblong dark spots, almost taking up the entire surface, which may have evolved from these; they do not act as eyes.

[293] The following specimens come from the river mouth area:

H.S. 6563, Mbīm, **canoe battle shield** (*gīgrībōrōm*, Müller). Plate LVI.2 (height without pegs 35 cm, maximum width 60 cm). The front wall here does not consist of one piece of bark but is assembled from four pieces; a big piece forms a transverse section, while each of the three peaks soaring upwards is formed by a small piece. The wooden mask, whose reverse side is completely smooth, represents a very common type in the river mouth area: eyes surrounded by low walls and a fairly prominent nose, whose tip is somewhat elongated and whose septum is widely bored and decorated with a wooden thickening (rudimentary representation of mother-of-pearl nose ornament?). The mouth is a low transverse wall with a mouth slit. On the forehead are indications of a hairstyle. The mask is attached to the shield by rattan bindings pulled through a hole both at the upper and the lower ends of the mask. Mask and bark surfaces are painted red; the surrounds of the mouth and eyes as well as several parts of the hair are painted white and ochre. At the side of the mask are round white areas with a red centre, which transpose into wide strips passing onto the side peak; a large oblong white patch is attached to the middle peak. Around the entire shield runs a chain of dried fruit (looking like withered apples). Thin staves are bound onto the reverse side, whose long half-untied bast fibre strands form a decorative hanging also visible from the front.

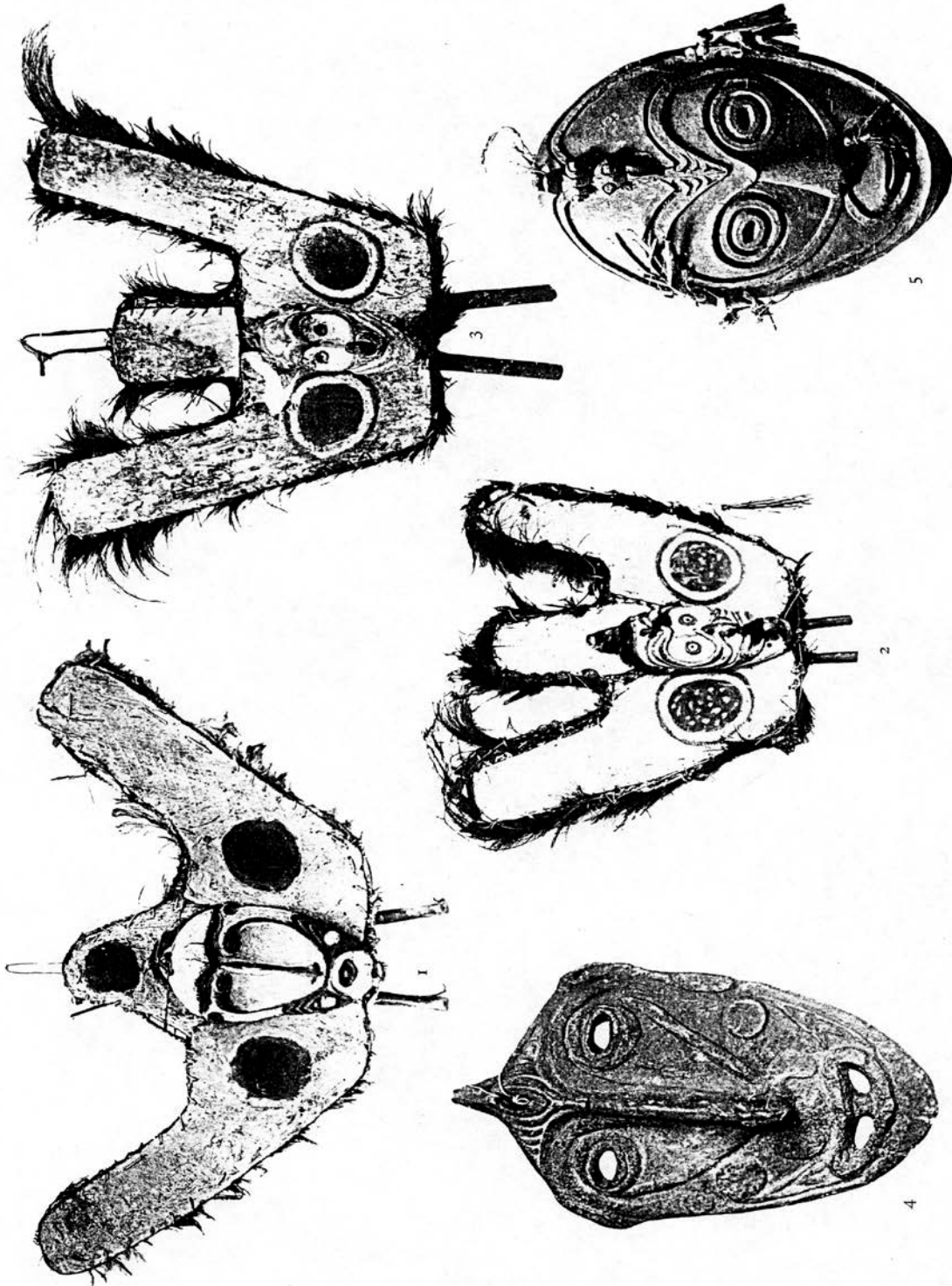
H.S. 1844, Sīngrín, **canoe battle shield** (called *kīgrín* in Sīngrín; the interpreter from Kōpár called the piece *tūglín*, Füll.; height without pegs 47 cm, maximum width 64 cm); similar to the preceding one but simpler, without a fruit chain or hanging fringe; an old, already somewhat damaged specimen. Here the entire front cladding consists of a piece of bark. The wooden mask deviates somewhat from the preceding one; the eye fields are larger, the tip of the nose is shorter, and from each side of the septum rises a big three-dimensional arch that extends below the mouth. In mask and bark surfaces the background is a dirty white; the strips that project down into the three peaks are red, as are the eye fields, the surrounding of the mouth, the rim, and the hair on the mask.

H.S. 6574, Ībántōn, large **wooden mask** (height 36 cm, maximum width 19 cm, *gīgrīnō*, Müller), designated by the collector, evidently as a result of misunderstanding by the interpreter, as “Mask, allegedly bull roarer”. The piece appears to be nothing other than the mask of a canoe battle shield, since it is very similar to that of the preceding specimen, has a completely level reverse side, and shows the two holes found at the upper and lower ends in all of these masks, (necessary for fastening the mask). The carving is the same as in the preceding piece; painting is mostly red; only the nose decoration, the outermost surround of the eyes, the rim of the wing of the nose, and parts of the hair, are white, while the lateral surfaces of the ridge of the nose and other parts of the hair are ochre.

L.Me. 8955, “Empress Augusta River”, **wooden mask** (height about 35 cm, maximum width about 22.5 cm), Plate LVII.5 is very similar to the preceding one and appears to have served the same purpose. On the forehead is a carved border whose three-dimensional figures appear to represent stylized birds.

St.Ha. 61648, “Panguli” **wooden mask** (height 23 cm, maximum width 17 cm), oval in shape, similar to the preceding one. The bridge of the nose is somewhat shorter, the tip more extended in length. The deeply-inset eyes again are ring-shaped and surrounded by several concentric borders, the outermost of which surrounds both eyes. A low, narrow, wavy, incised border runs lengthwise over the forehead. The ears, low bridges each with three holes, are developed from a wide, sharply-offset marginal strip which surrounds the entire mask. The nasal septum is perforated; its front part appears surrounded by a fully three-dimensionally carved ornament: two strips arise laterally out of the nasal holes and unite below the mouth: probably a representation of the favourite mother-of-pearl decorative hooks worn in the river mouth area. The mouth is a small oval opening bordered by pointed lips. At the upper rim, the mouth has a hole bored from front to back for a fastening band.

St.Ha. 61597, “Mangot”, **wooden mask** (height 33 cm, maximum width 21 cm), oval in shape, very similar to that of the canoe shield H.S.6563 (see Plate LVI.2); it has probably also served the same purpose. Almost its only difference from the latter is in the somewhat simpler presentation of the hairpiece rising from the forehead. On the innermost eye border is attached a resinous mass. The tip of the tongue is visible in the slightly-open mouth. In the left ear — the right ear is damaged — are fastened a bunch of grass and a cord bedecked with *Nassa* snails. The mask shows only slight traces of earlier painting.



1. Canoe battle shield H.S. 9064, 1/10 actual size. 2. Canoe battle shield St.Ha. 61726, 1/10 actual size
3. Canoe battle shield H.S. 9254, 1/10 actual size. 4. Mask St.Ha. 60601, 1/5 actual size
5. Mask L.Me. 8955, 1/5 actual size

H.S. 1802, Kōpār, **canoe battle shield** (*tūglīn*, Fülleborn; height without peg 45 cm, maximum width 76 cm); this specimen was stored in a house in such a way that the pegs had been pushed into the inside of the wall of the house. Fülleborn was given a demonstration of its use as a canoe battle shield: the rattan pegs were pushed down into the vertical holes behind the canoe prow. The specimen is similar to the preceding specimens; its [294] front wall consists of a piece of bark and is bedecked with large, dark-grey-rimmed, maroon flecks. A long bast fibre- and grass hanging is again fastened onto the rear side, similar to H.S.6563 (see above). The type of mask is different (Fig.304); in the Hamburg collection there is only one specimen that resembles it, H.S.6727 (from Kōpār). Over the entire length of the rather strongly curved mask, from the forehead to the chin, runs an hourglass-shaped flat, but sharply-edged strip from which develops the somewhat-Semitic, prominent nose, whose septum has a very wide hole, and whose nostrils extend a long way laterally. The mouth is a deep curved slit right through the mask, bordered by somewhat thickened lips. The small eyes lie in a depressed, almost almond-shaped, smooth surface. The ears are small strips with two holes. The mask ends above and below in a short peg which has a hole for fastening, at its base. The reverse side is surprisingly deeply hollowed-out like a trough, perhaps an allusion to the hollow of the skull mask probably used originally. The mask is painted red, only the surrounds and the deepened lines show the remains of white colour; the pupils are filled with wooden charcoal.



Fig. 304. Mask of the canoe battle shield H.S. 1802, 1/4 actual size

L.Me. 7270, “Empress Augusta River”, **canoe battle shield**, Plate LVI.3 (height with pegs about 45 cm, maximum width 74 cm) seems also to come from the river mouth area. The mask is somewhat more complex since a second smaller carved head is attached to the forehead. The bark surface has a series of three round “eye flecks” on each side, on a white background; the middle peak shows only one fleck of this type.

The canoe battle shields from the middle reaches differ from those just described in the following characteristics: the mask does not sit on a piece of bark, the space behind it is much more hollowed out, the bark thus covering only the lateral parts and the peaks; round “eye flecks” are attached to the side surfaces in all of them, and the tongue is visible through the open mouth (sign of contempt for the attackers?) in almost all the masks and occasionally even hangs right out.

H.S. 9064, Kāmbrīnūm, **canoe battle shield** (*watāmba*, Hellwig; height without pegs 49 cm, maximum width 99 cm), Plate LVII.1. The piece is rimmed with plaited small rooster feathers. The wooden mask is the shallow slightly-concave type; the bridge of the nose is very long and narrow, the wings of the nose are small, the septum is perforated. The eyes, consisting of a circumferential wall with a raised centre, are connected with the base of the nasal septum by narrow strips running in an arch. The mouth is a projecting oval surface with a depressed centre, in which the tip of the tongue is visible. On each side of the mouth is a white-painted, knob-shaped round elevation on a red background, with several angular figures added. The ears are formed from round projections with a hole through each. The mask is basically white; the inside of the mouth, the tongue, the eyes, the ears, part of the cheeks, and the eyebrows are red; the nose, the lips, and the narrow strips reaching up to the eyes are painted black. The rest of the surface of the shield is white, but both eye spots are red and have a dark-grey rim about 1 cm wide; however, the fleck added to the central peak, that is, above the mask, is also red.

H.S. 9124, Māndānām, **canoe battle shield** (*kambrīn*, Hellwig; height without pegs 61 cm, maximum width 103 cm). It is surprising that Hellwig obtained “local designations” for both the latter specimens [295] that quite clearly resemble the name of a village further upriver, Wātām, and Kāmbrīnūm; it is not impossible that since there is an error, the interpreters were already working quite unreliably here. The specimen in question is very similar to the preceding one, the mask (*barāngu*, Hell.) is exactly the same type as the previous ones. The strips leading up to the eyes develop in it, although out of the wings of the nose; this appears to be the original form. Here the forehead juts out further, with a hairstyle indicated above it. The ears are only holes through the rim of the mask; one is decorated with a bunch of bast fibre. The tongue extends relatively far out of the mouth. Again the basic colour of the mask is

white; the same parts retain red and black as in the previous specimen. The bark surfaces are also white; the “eye flecks” added to them are formed from a black and red rimmed area. There is no feathered decoration.

H.S. 6075, “middle Augusta River” (gift from Captain Roscher) **mask** (height 39 cm, maximum width 15.5 cm), very similar to the preceding, but somewhat more roughly made. It appears to belong to a canoe war shield, corroborated particularly by the presence of bored pegs at the upper and lower ends; it is only surprising that, as the sole mask of this type, it has no discernible tongue, but this is perhaps due only to the less careful manufacture. Moreover, in this mask, the narrow strips arising from the wings of the nose do not touch the eyes, but pass over into the eyebrows. The reverse side is, as usual, flat.

St.Ha. 61726, “Radja”, **canoe battle shield**, Plate LVII.2 (height without pegs approximately 55 cm, maximum width 71 cm). The rim is decorated with plaited-on cassowary feathers and with the same fruits as H.S.6563. The wooden mask is of a different type, like the previous example, and somewhat resembles St.Ha.61707 in form, while its painting is reminiscent of the modelled skulls of this region. The face is not very concave, the nose strong and prominent, and the perforated septum carries a bunch of grass; a short upright arch perched on the forehead is decorated the same way. Out of the wide-open mouth pokes a very long tongue, whose tip extends down to the chin. The ‘eyes’ sitting on the lateral surfaces of the shield are very large, trimmed with white points and surrounded by a dark ring.

The specimen illustrated by Schlaginhaufen (1910b, Plate 4, Fig.41) is similar to the preceding one, except that the wooden mask is quite surprisingly narrow. “The nose passes in a curve into the similarly elongated and narrowly extended lower end of the face. Into the opening formed in this way, and extending from right to left, projects a pointed, red tongue”. Through the slimness of the mask and the careful manufacture of the large eye flecks on the sides, the facial resemblance of the whole shield is particularly strong in this specimen; “if this piece is seen from a distance it resembles a face, whose nose is the long mask, whose eyes the black flecks”. Furthermore, this piece has a fourth bark process, extending down from the midsection, through which the similarity with a bird is even greater, since the process has the effect of a bird’s head.



Fig.305
Mask of the canoe
battle shield H.S. 9254,
1/5 actual size

H.S. 9254, 375 km village, **canoe battle shield**, Plate LVII.3 (height without pegs approximately 65 cm, maximum width 66 cm), similar to the preceding one. Here too the mask is relatively narrow and high and from a distance must have the effect of the nose of the whole face; the accompanying eyes are formed from two large black flecks. Similarity with a bird is also quite clear in this shield, since the contrast between the short tail (the middle peg) and the long lateral wings is strongly emphasised. The contours of the piece are thickly trimmed with long cassowary feathers. The wooden mask is of a type that differs from all the others that I know from this region. The slightly depressed facial surface is indeed reminiscent of the concave type of mask, but the nose with its heavily reinforced tip decorated with a regular horn has no parallel anywhere (Fig.305). The most astonishing feature is the gigantic snout-like mouth, wide open and heavily adorned with teeth; from it hangs a long red tongue. Here there seems to be an attempt to form a throat ripped open as

wide as possible and a tongue poked out quite far, sacrificing the mask form common elsewhere. It must be mentioned that the eyes of the mask consist of round inlaid fruit stones depressed in the middle. [296]

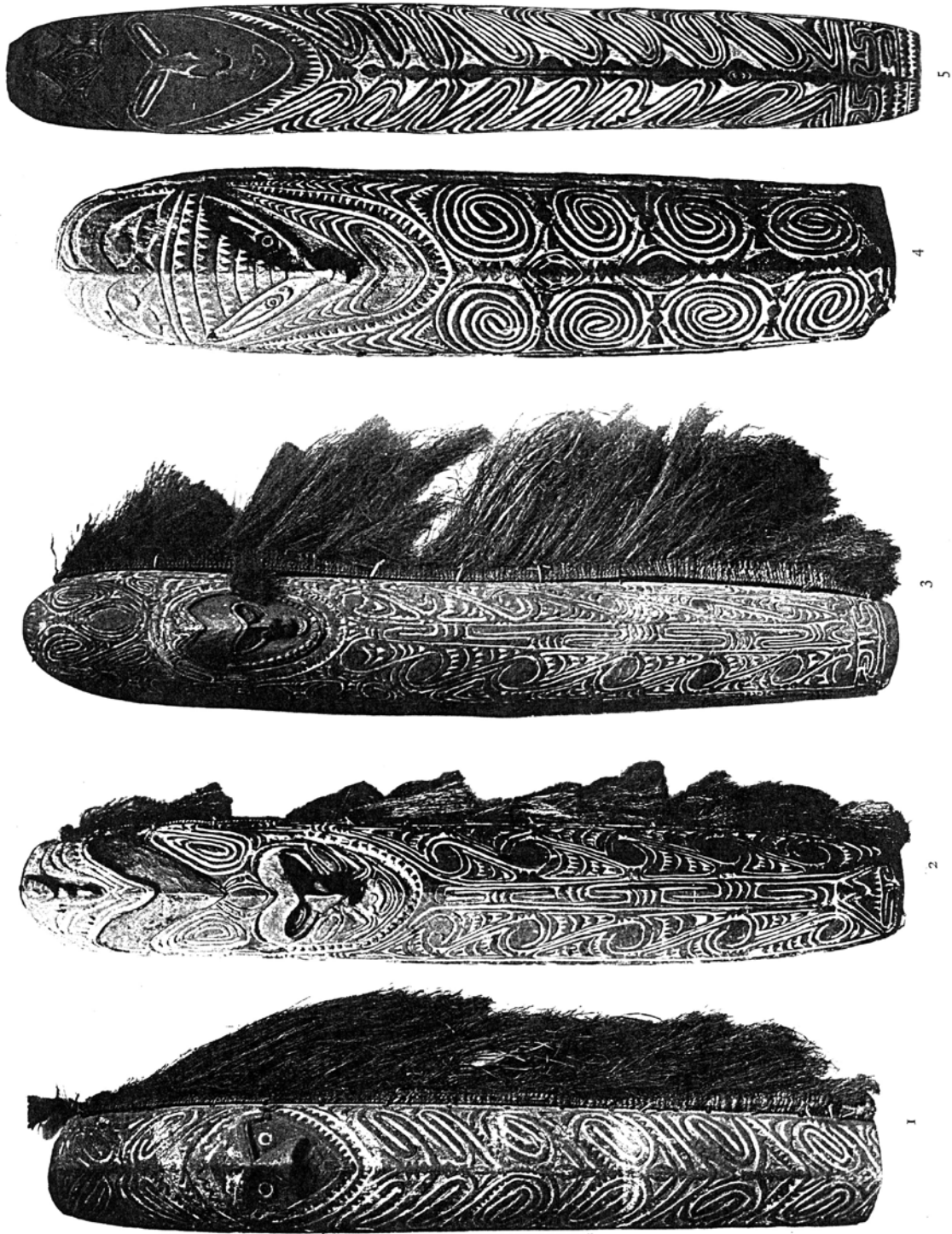
Weapons

Shields

For protective weapons they seem to be familiar only with the big long shield covering almost the entire body; this is found along the entire stretch of the river that we visited, and also in the plain above Málu (*Nachrichten über Kaiser-Wilhelmsland*, 1887, p.191) but shows a quite different style in the individual regions. Overall, two main types can be distinguished, differing in material: wooden shields and hide shields.

The wooden shields, occurring in the lower and middle reaches, all have one characteristic that is immediately surprising: in their upper section they show the carved representation of a human face (the head of a dead person, intended to protect the shield bearer?); a series of differences or local variations in form and decoration can be defined.

Reche, Empress Augusta River, Plate LVIII



1. Shield F.N.S. 6272, 1/10 actual size. 2. Shield L.Me. 7868, 1/10 actual size. 3. Shield F.N.S. 6271, 1/10 actual size.
4. Shield L.Me. 8769, 1/10 actual size. 5. Shield St.Ha. 61615, 1/10 actual size

I would like to designate the first as the coastal form; it is found not only in the estuary regions of the Empress Augusta and Ramu rivers but variations occur all along the coast nearby, for example in Potsdamhafen, Hansa Bay, and the offshore islands. These shields are long enough to cover a man completely, they are relatively narrow, and are distinguished by a very slight longitudinal- but a marked transverse curvature. The reverse side is always distinctly concave, so that the bearer, if he presses himself tightly into the shield, is also quite well covered on the flank. The shield's handgrip usually consists of two longitudinal strips carved completely three-dimensionally, and bound together at the upper and lower ends by rattan to a stick or a rope of bark material. At the uppermost end of the shield there seems to be always a three-dimensionally carved small arch serving for looping the hanging cord. One of the two sides of the shield is often decorated with long fringes.

The second variation differs from the previous one at first glance by its plumper, more solid form, its weight, an even greater transverse curvature, and by a massive three-dimensional peg sitting at the top of the shield, replacing the eyelet of the coastal shield, and probably serving for fastening the hanging cord. The front surface again shows a carved face with incised decoration below, somewhat reminiscent of the coastal type in style, but very much more coarse and solid in construction. Also, in this type of shield, one of the sides usually has a hanging fringe. It is noted that none of these shields has a handgrip. This second variation appears to be indigenous to the area just above the sago swamps; we obtained all our specimens in the villages of Ĭmbántõn and Nǎngĭt.

Group three is similar to the previous one insofar as it also ends above in a wide peg, but differs immediately from it by its sharp rectangular form, its lightness, the splendid shape, and by an entirely different [297] decoration, showing strong stylization, and by being flatter. The handgrip consists of two fully three-dimensionally carved strips running longitudinally and connected together by cross staves, therefore very similar to that of the coastal type. Both rims of the shield are trimmed with short fringes. The specimens obtained by the Hamburg South Seas expedition (this type of shield is missing from other collections) both come from the village of Mũǎngĕm, a district somewhat still further upriver.

The fourth variation has tapering ends; a fairly sharp central spine runs the entire length; the transverse curvature is small; and the longitudinal curvature is very much greater than in the other types. The handgrips again consist of two longitudinal strips connected together. The decoration is arranged in several bands laid transversely over the shield; the upper half of the shield again shows a stylized facial representation, which is then repeated in even stronger stylization in the decorative bands below. This type of shield seems to occur only in the middle reaches: roughly from Kǎmbrĭngĭ as far as 315 km village; at least the specimens that I know of were obtained within this area.

Group five is similar to the previous one but flatter, and always shows a rectangular shape; there are no tapering ends. Here too the decoration is organized in transverse bands; it also has a clearly-developed central spine, but the longitudinal and transverse curvatures are smaller and the character of the decoration resembles that of the following type of shield. Its domain appears to begin roughly at 293 km village and to extend somewhat further upriver from there; in places it overlaps with that of the fourth type of shield.

The sixth variation consists of a flat rectangular board widening somewhat in the upper half, with only a slightly-developed central spine and very minor transverse and longitudinal curvatures. On the front side, the upper part appears to be occupied almost completely by a large face, bordered above and below by a transverse decorative band. The typical handgrip form differs from those described so far: a thick rattan stick is bound onto the back of the flat board and bent in such a way that both limbs run parallel and replace the

two bridges attached in the other types of shield; like the latter, they are connected together by cross staves and cords. The Hamburg expedition obtained a typical representative of this type of shield in Málu by the Hunstein Range, although it also occurs — in a slightly different form — somewhat further downstream.

We saw only two identical specimens of hide shield, and indeed in Málu. We obtained just one; it seemed almost as though this type of shield was not local to the river itself — perhaps it came from more distant parts of the mountain range. Furthermore, none of the other expeditions brought back a shield of this type.

Wooden shields. The following specimens belong to the first variation of wooden shields: [298]

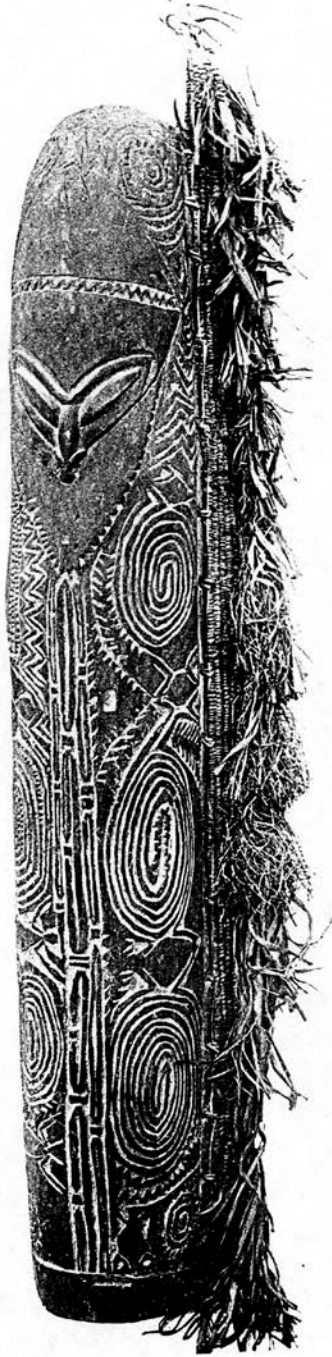
H.S. 6561, Mbim, **wooden shield** (*kāmbūgūm*, Müll.; length 177 cm, maximum width 20 cm). Transverse curvature is relatively small, longitudinal curvature is almost completely non-existent. Along the entire shield runs a clearly-developed spine. On the hollowed, roughly polished reverse side, the side parts are slightly separated from the middle parts. The handgrip is formed by two narrow, projecting strips, 40 cm long and up to 6 cm wide, with two low elevations at each end and a transverse hole beneath them; two transverse bindings of rattan strips are fastened through these holes (Fig.306). The shield is held in such a way that the forearm is inserted behind the upper transverse binding (that is, between it and the shield surface) and the handgrips the lower binding. The front side of the shield has a transverse ‘entrails’ decoration on the upper end (see Schmidt 1903, p.77). Below this is a carved face resembling one of the mask types extending throughout the river mouth area (see for example H.S.6726, Plate LXXVIII.2). It is bordered below by a chain of circular three-dimensionally projecting rings, probably the representation of a necklace (similar chains are alluded to in the carved house boards of this region, cf. Plate XIX). All the rest of the front surface of the shield above and below the face is filled with spirals arranged in pairs, probably identical with the ‘butterfly wings’ of the Monúmbó. The entire front surface is painted pale red; there are remnants of white colour in the eye depressions. The left side of the shield has small holes for fastening a grass fringe.

F.N.S. 6272, “Empress Augusta River” (Wanderer collection), **wooden shield**, (Plate LVIII.1 (length 153 cm, maximum width 22.8 cm), somewhat wider than the previous one and rather more strongly curved in a transverse direction. The ‘butterfly wings’ on the front all stand upright, different from the previous specimen, and in many ways resemble facial representations. The large three-dimensionally projecting head mask of the upper half of the shield shows a different form: the forehead projects like a ledge and flows laterally into the ears. The eyes each consist of a low circular plate surrounded by a circular ring; the interval between is white. The most surprising feature of the face is the nose, distinguished by enormous plumpness and width. The mouth is missing. Along the entire left edge of the shield is attached a narrow plaited strip (cf. H.Do.1132:6 further below) whose superfluous material forms a long, thick grass hanging. The handgrip again consists of two three-dimensionally carved longitudinal risers; it is interesting that while a piece of wood forms the upper crossbar, a bone is used below.

St.Ha. 61615, “enemy village” (different, incorrect village designation), wooden shield, Plate LVIII.5 (length 177 cm, maximum width 25 cm, length of the grip bridge 31 cm, its height 5.5cm), similar to the preceding one, except that the ‘butterflies’ covering almost the entire front surface are arranged horizontally. The face sits right at the upper end of the shield; it has very long oblique eyes. From the lower end a narrow strip, 81 cm long and 1 cm high, extends right to the middle of the front surface and stops abruptly. A meandering band about 17 cm wide, resembling the ‘entrails’ pattern runs transversely across the end of the shield. The depressions show the pale natural colour of the wood while the raised areas are dark brown. The bridges of the handgrip are connected together by bark and a transverse loop of rattan.



Fig. 306. Handgrip of shield H.S. 6561, 1/5 actual size



1



2



3

1. Shield H.Do. 11.32:6, 1/10 actual size. 2. Shield H.S. 8988, 1/10 actual size
3. Shield H.S. 6567, 1/10 actual size

St.Ha. 61614, “Radja” (provenance from this village seems most unlikely to me), **wooden shield** (length 153 cm, maximum width 34 cm) similar to the previous one in decoration except that the face is three-dimensional. Above this is added a fully three-dimensional fish, whose three-pronged head points down while the tail [299] points upwards; the middle peak, the dorsal fin and the tail each have a bored hole. The front side of the shield is painted red, and the reverse side is markedly concave. The handgrip consists of two 39 cm long and 4–7 cm high longitudinal bridges and a round cross stave. The left edge of the shield has 11 holes for a fibrous hanging.

L.Me. 397, “Empress Augusta River”, **wooden shield** (length 160 cm, maximum width 34 cm), similar to the preceding shields although wider and more massive. The longitudinal curvature is very small, but the transverse curvature is quite considerable. The middle ledge running the entire length of the front surface is quite sharply pronounced and continues upwards in a low strip beginning near the root of the nose on the head. Only the upper part of the face is three-dimensional; the mouth part shows the characteristics of the relief carving covering the rest of the shield surface. The face is naturalistically produced, like those of the preceding shields. All the rest of the surface is taken up by large spirals that are reminiscent of the ‘butterfly decoration’, but also of stylized facial representations. The two grip bridges are connected by two transverse rattan sticks. A rattan loop is fastened to the eyelet attached to the top of the shield. The entire right edge of the shield is decorated with a thick grass hanging; the fact that here the right side of the shield carries the hanging, while it is always on the left side of the others, perhaps allows the conclusion that the shield was carried on the right arm by its owner.

L.Me. 7868, “Empress Augusta River”, **wooden shield** Plate LVIII.2 (length 152 cm, maximum width 24 cm). The face presents one of the most common types of mask, with its upper part carved particularly three-dimensionally, fairly deeply incised into the shield with sufficient space above for two peak-shaped areas pointing downwards, possibly intended to represent the hairstyle. From the middle of the upper rim of the shield a short incised strip projects several centimetres downwards. The middle ledge of the shield is only poorly developed; a type of meandering decoration resembling a half ‘entail decoration’ runs parallel with it. The lateral surfaces are filled with spirals, and the intervening space with short jagged curved lines resembling the ‘beard hairs’ of the Monúmbo (Schmidt, 1903, p.111). The raised areas of the decoration are painted red, the depressions white. The left side of the shield has a thick hanging of grass. The handgrip is constructed just like that of the previous shield.

F.N.S. 6271, “Empress Augusta River” (Wanderer collection), **wooden shield**, Plate LVIII.3 (length 156 cm, maximum width 23.8 cm), very similar in form and decoration to the previous shield; fastened on the left edge of the shield is a narrow plaited strip, and, onto this, a surprisingly long, thick decorative hanging consisting of grass (cf. H.Do.1132:6). The face mask is almost the same as in the previous specimen; several spirals fill the area above it.

H.S.6560.Mbim, **wooden shield** (*kāmbūgūm*, Müller; length 177 cm, maximum width 24 cm). The transverse curvature is relatively great, the longitudinal curvature very small, the middle ledge is only faintly indicated. The face is of the style of masks H.S.4486 and H.S.6726 (see Plate LXXVIII.2); the rather horizontal eyes are inlaid with mother-of-pearl shells; a ring chain similar to that of H.S.6561 (see above) forms the lower border. The remaining surface of the front side is covered with ‘butterfly wing’ decorations, in which however every large spiral is replaced by two small spirals. The raised areas are painted pale red, the depressions white. The reverse side of the shield is noticeably concave.

L.Me. 8769, “Empress Augusta River”, **wooden shield**, Plate LVIII.4 (length 146 cm, maximum width 33 cm), with small transverse- and longitudinal curvatures and only a weak middle ledge. The piece differs from the previous one mainly in the form of its surprisingly large face; this occupies almost one third of the entire front surface. It has very slanted, deepened and longitudinally-extended eyes, a disproportionately short nose with a bored septum and a very big open mouth whose lips protrude only slightly. The beak-like downward-projecting forehead is trimmed with jagged lines; above it is a very small face flanked on each side above by a round eye-like raised area. The lower half of the shield is covered with several large spirals — typical vertically-arranged ‘butterfly wings’. On both rims of the shield are holes for the fibrous fringe. The handgrip consists of two long bridges connected by transverse sticks.

H.Th. 11,88:39, “Empress Augusta River”, **wooden shield** (length 167 cm, maximum width 34 cm) with somewhat greater longitudinal and very marked transverse curvature; the back is deeply concave and heavily charred. The front side resembles that of the preceding specimen, especially the face, which is, however, more roughly produced; for example the eyes consist only of oblique bulges, and the mouth two slightly-curved chiseled furrows one above the other, the upper one with slight zigzags representing teeth. A wavy line runs across the forehead. Instead of the middle ledge, and also at each edge of the shield, there is a vertical half ‘entail’ decoration. The side areas are covered with large somewhat irregularly-arranged spirals, ‘butterfly wings’. The lower end has a transverse ‘half entrails’ decoration. On the left side of the shield is a narrow strip with holes for attaching the fibrous hanging. The present shield [300] differs from all those of the same type described so far, by its handgrip, which consists of two massive three-dimensionally carved arches; thus here, without the longitudinal ledge, the transverse handgrips, elsewhere made from rattan or bark, are bulky.

H.Do. 1132:6, “Empress Augusta River”, **wooden shield**, Plate LIX.1 (length 169 cm, maximum width 26 cm), so surprisingly similar to the previous specimen in form and decoration, that one could almost think that it had

been made by the same artist. The marked transverse curvature is also exactly the same, as is the handgrip consisting of two huge cross-planks. The decoration is somewhat less carefully presented; both the 'entrail' bands are missing from the rim of the shield. Thus the left rim of the shield exhibits a very interesting decoration along its entire length: a stiff plate up to 8 cm wide, consisting of rattan staves wrapped with bast fibre. It is secured by thin strips of rattan pulled through the holes in the edge of the shield; the surplus ends of bast fibre overhanging the sides form a thick fringe. The plaited plate just described evidently does not solely have the purpose of decoration, it represents rather more an attempt to extend the protective surfaces of the shield sideways: it is, so to speak, a plaited shield added on to the wooden shield. Furthermore, the plaiting possesses a sort of firmness and strength that must quite decidedly offer good protection. Its upper, gradually-narrowing end extends beyond the upper rim of the shield, so that if the man behind the shield is not too large or stoops somewhat, his head is protected as well. Several rattan bands (hangers?) are pulled through the fully three-dimensionally carved arches at the upper rear end of the shield.

We obtained only three examples of the second variant.

H.S. 8988, Nǎngĭt, **wooden shield** (*kǎmbŭgŭm*, Hell.) Plate LIX.2 (length 158 cm, maximum width 34 cm). Longitudinal curvature is very small, transverse relatively greater; the reverse side is correspondingly noticeably hollowed, with the side walls sharply separated from the middle section. There is no handgrip, and no place can be seen where there might have been one. Therefore I cannot ignore the possibility that shields of this type were not used as battle shields. In decoration this shield most resembles the first type of shield; it looks almost like a somewhat unsuccessful copy of the coastal type: the face (*barǎngŭ*, Hellwig) has an absolutely identical cut to the latter, while the lower half of the shield surface is covered in spirals. To some extent, vestiges of the middle ledge remain, namely three small, drilled eyelets decorated with bunches of grass, regarded as the noses of small incomplete faces. Two similar holes added to the sides above the large face are probably considered as ears. The entire front surface of the shield is painted, mainly in red; the raised areas are mostly black, and a portion of the depressions is white. There are no holes for a hanging fringe at the sides.

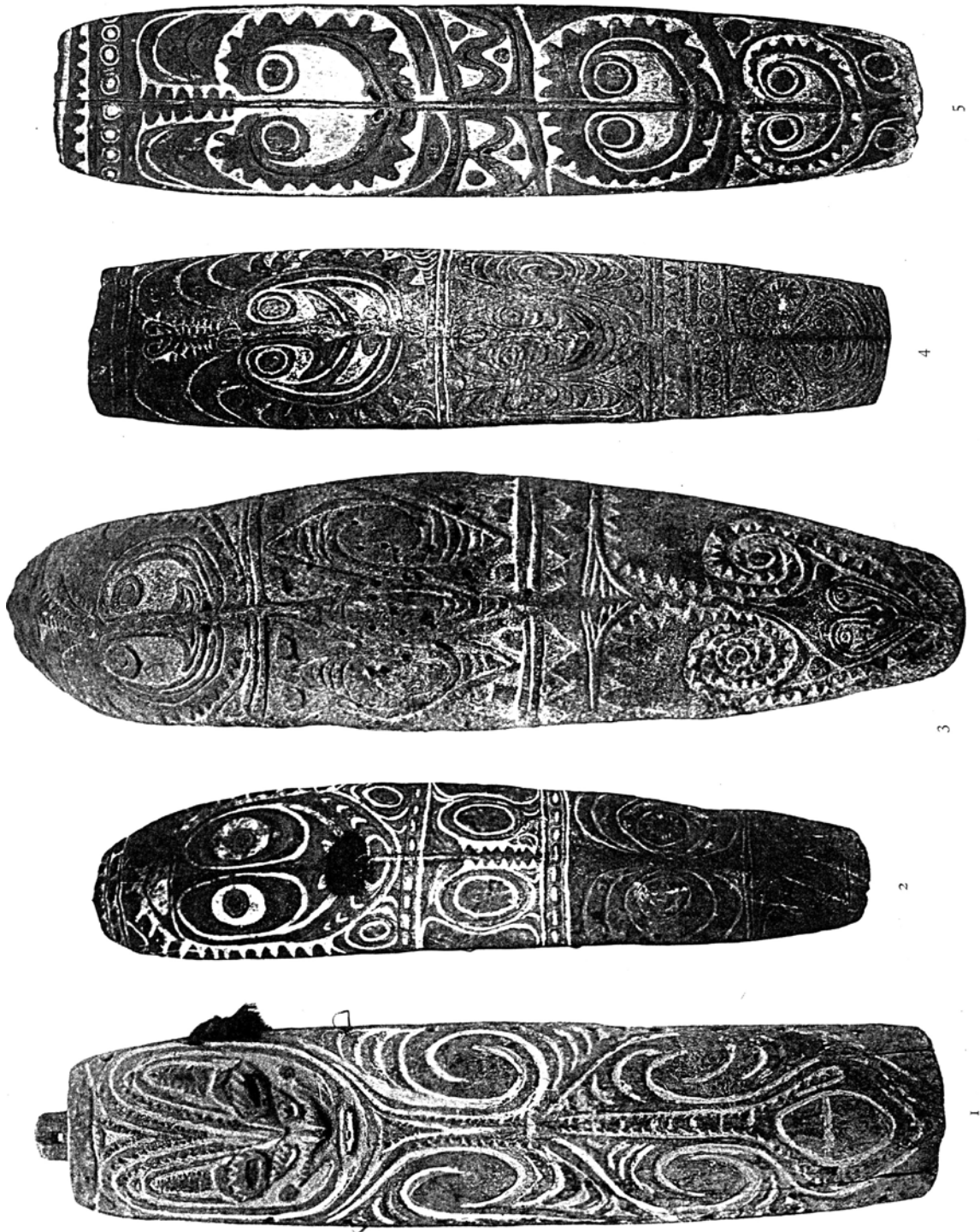
H.S. 6567, Ĭmbǎntŏn, **wooden shield** (*kǎmbŭgŭm*, Müll.) Plate LIX.3 (length 178 cm, maximum width 36 cm). Like the previous one, this shield has a very small longitudinal curvature and a major transverse curvature. The large facial representation occupying the upper part is fairly roughly produced, and is of a totally different style. Along the entire front surface runs a clearly-pronounced central ledge with three small facial representations added, the middle one pointing upwards. The lateral surfaces are covered with large spirals and a filler decoration consisting of short parallel curved lines. The painting is very colourful: the raised areas are all dark-brown, some depressions are white, others ochre-yellow, and also red in several cases; in contrast to the other shields red is the least-used colour on this shield. The noticeably-hollow reverse side has two very bulky, widely-set longitudinal strips which, however, have no holes or other mechanism for attaching a handgrip. The back surface is heavily charred.

H.S. 6566, Ĭmbǎntŏn, **wooden shield** (*kǎmbŭgŭm*, Müll.; length 193 cm, length without pegs 177 cm, maximum width 29 cm), very similar to the previous one. The longitudinal curvature is almost exactly zero while the transverse curvature is considerable. The reverse side is deeply hollowed out. The peg sitting on the top is especially long. The shield appears to be of very recent date, perhaps made only for sale. Front and rear sides have evidently been charred over their entire surface after the rough form has been produced, but on the front surface, since a number of areas and lines have been incised (certainly after charring) only the raised areas still show the black colouration while the depressions have been painted red. Decoration is similar to that of the preceding specimen: above, a face of the same style, below it a fairly distinct middle ledge trimmed with several indistinct faces and two projections with transverse holes, each representing a nose. The side surfaces are again covered in interconnecting spirals. There is no handgrip. Both side edges of the shield have holes, but a grass hanging is knotted through them only on the right side.

[301] Shields of the third variation are represented by only two, good, old examples.

H.S. 9027, Mŭǎngĕm, **wooden shield** (*bǎke* Hellwig; however he was also given the same word for the head represented on the shield; length 143 cm, maximum width 33 cm) Plate LX.1. The longitudinal curvature is extremely inconsequential, and the transverse curvature is also only small. Both sides of the shield are slightly tilted against one another like a roof, giving rise to a low midline ridge. In the upper part of the shield is an unique stylized face in which the forehead extends as a long peg between the eyes. The nose is pierced transversely and the sides of the nose have a zigzag contour at the upper rim while the nostrils are painted red and are directed forwards. The rest of the shield surface is covered with spirals, the sole similarity to the decoration of the preceding shield type. The raised areas are painted dark brown, the depressions red, white, or rose. The short process attached to the top of the shield has a hole from front to back. Both rims of the shield have small holes, but only in one of these holes is there a small bunch of grass. Both long bridges of the handgrip have two holes at the upper end, close together, although only the upper one on each side is used for fastening the cross pieces, made from thin strips of rattan.

Reche, Empress Augusta River, Plate LX



1. Shield H.S. 9027, 1/10 actual size. 2. Shield St.Ha. 61618, 1/10 actual size
3. Shield H.S. 4560, 1/10 actual size. 4. Shield St.Ha. 61617, 1.10 actual size. 5. Shield H.Th. 11.88.46, actual size

H.S. 9224, Mṁǎngēm, **wooden shield**, Plate LXI.1 (length 159 cm, maximum width 30.5 cm). The transverse curvature is very small while the longitudinal curvature is somewhat greater than in the previous specimen: approximately 4½ % of the length; that is, the distance of the deepest point of the reverse side from a straight line between the two ends of the shield is 7 cm. The middle ledge is only very slightly developed. The large facial representation on the front resembles that of the preceding shield, but is somewhat more naturalistically preserved. The eyes are spindle-shaped and very slanted. The septum of the short nose is pierced. On the forehead is a remarkable, quite strongly-projecting arch, oval in shape. Two eye-shaped representations are added above the face in the corners of the shield, with two similar ones below the chin. A face, still clearly recognizable as such, sits right at the bottom of the shield; its nasal septum is also pierced. With regard to the rest of the as yet unexplained ornamentation, I refer you to the illustration. The painting is so well preserved that all raised areas are painted dark brown, some depressions red, some white, and a few are ochre-coloured. Both side rims of the shield have holes decorated with bunches of grass. The handgrip resembles that of the preceding shield; here too, the longitudinal strips each have two holes close together above, but both carry a rattan loop, so that the grip has three transverse handles. The reverse side of the shield shows traces of paint: white curved lines on a red background; as far as can still be seen, most appear to represent spirals and ovals.

The following specimens belong to the fourth type of shield:

St.Ha. 61618, “Simar”, **wooden shield** (length 158 cm, maximum width 47 cm), Plate LX.2. The longitudinal curvature is pronounced, being about 8% of the length; the transverse curvature is also great, the central ledge running along the entire shield is sharply pronounced. Almost the entire upper half of the shield is occupied by a large incised facial representation reminiscent of the faces found on the clay bowls of this region. On each of the transverse bands below, is a pair of eyes (vestiges of two faces?). The nose of the large face is bored transversely and decorated with a bunch of grass. The raised areas are painted dark brown and the depressions are mainly white but also red in some places. The 58 and 61 cm long bridges of the handle are about 5 cm high; they each have two transverse holes, the two upper ones connected by rattan plaiting, the lower ones by a wooden cross bar.

H.S. 9361, Pāmǔngṛī? (bought from a canoe) **wooden shield** (length 165 cm, maximum width 36 cm). The longitudinal curvature accounts for about 7% of the total length, the transverse curvature is relatively pronounced — 25% of the width; the middle ledge is sharply developed. The front shows only one facial representation, which resembles that of the previous shield and also the masks on the house gables, for example H.S.6650 (see page 137); otherwise the surface is undecorated. The noticeably-hollowed reverse side shows two very massive longitudinal strips with two holes above and two below; in each of the upper holes is a rattan handgrip, while in the lower ones a wooden cross bar is firmly attached.

H.S. 4560, Pāmǔngṛī? (bought from a canoe) **wooden shield**, Plate LX,3 (length 142 cm, maximum width 34 cm); stands out from all the others through its extraordinarily accentuated longitudinal curvature (Fig.307): the distance of the deepest point of the inner surface from a straight line between the two ends of the shield is no less than 28 cm — 20% of the total length. The transverse curvature is relatively small, and the midrib strongly pronounced. The large face filling the upper part of the shield shows almost the [302] same features as the previous specimen. The septum is pierced. Below the face is a broad transverse band with stylized spirals, and below that a zigzag band. The lowermost section of the shield is occupied by a second, fairly large face, whose nose is equipped with a third smaller face. The shield has a beautiful patina of old age, with numerous deep holes in the mid-section, probably from arrow strikes; it is evidently an old, much-used specimen. The raised areas are dark brown, the depressions show traces of red and white colour. The handgrip again consists of two longitudinal bridges, which are transversely bored through twice at the upper end and once at the lower end, with two rattan loops above and a wooden stick attached below.

The two shields illustrated and described by Schlaginhaufen (1910b, p.61) are similar; both come from the region above Kāmbrīngī. Their longitudinal curvatures are not very great, only 5% and 8%. In one specimen the midrib is particularly abrupt and three-dimensional.

St.Ha. 61617, Kāmbrīngī, **wooden shield**, Plate LX.4 (length 156 cm, maximum width 37 cm), with fairly broad angular ends, similar to the preceding shields. Transverse and longitudinal curvatures are small. Above the forehead of the large face adorning the front side is a very small facial representation. Further faces are added to the transverse bands; the lowest one is the most stylized, and again shows the characteristic of its nose being transformed into a tiny face. The raised areas of the carving are dark brown while the depressions show traces of white. The handgrip is exactly the same as that of the preceding shield: the upper cross-piece consists of rattan, the lower of wood.

H.Th. 11,88:46, “Empress Augusta River”, wooden shield, Plate LX.5 (length 150 cm, maximum width 33 cm), consisting of a very flat board from which only the narrow middle ledge projects somewhat more. Ornamentation is carved in shallow relief. Almost the entire upper half of the front side is occupied by a large facial representation; below it is a band filled with wavy lines and four small circular areas; finally, two faces one above the other, in the same style as the large one, decorate the lower section of the shield. Almost all the depressions are painted white; some

of the chiselled lines are white, others red; the raised areas are dark brown. The reverse side has two bridges, not very high and bored transversely; a rattan stirrup was evidently fastened as a handgrip, similar to H.S.9362 (see Fig.307).

I know of only one example of subgroup five:

H.S. 4524, 293 km village, wooden shield, Plate LXI 2 (length 160 cm, maximum width 38 cm). The longitudinal curvature is small, amounting to only $4\frac{1}{2}$ %; both lateral surfaces slope together like a roof and form a distinct midrib. The upper half of the front surface of the shield is occupied by a very large facial representation, differing in style from that of the preceding shields. The two transverse bands beneath show two large pairs of spirals, which may have originated from representations of eyes. Raised areas of the shield have stayed dark brown, while some depressions are red and some white. The handgrip is the same as in H.S.4560. Short bunches of grass are attached to small holes in the sides of the shield.

The following specimens belong to the sixth subgroup:

H.S. 9362, Pămúŋgrī (?) (bought from a canoe) **wooden shield**, Plate LXI.3 (length 160 cm, maximum width 39.5 cm), markedly rectangular and flat; longitudinal and transverse curvatures are only small, and the midrib is weakly developed. The specimen forms a type of transitional form and, in the facial representation, is reminiscent of H.S.4524 (Plate LXI.2). The handgrip is a combination of both types: it consists of two massive, three-dimensionally carved longitudinal bridges, each with seven transverse holes, to which a curved stick of rattan is attached (Fig.309); a wooden cross-bar fastened on lower down forms the actual hand grip, four rattan arches hold the arm. Almost the entire front surface of the shield is occupied by a large facial representation with two figures in red, like eyes, added to the forehead. The big wide-open mouth is filled with four rows of angular flat knobs (teeth?); the nose is very flat and not perforated. At the lower end of the shield surface are several transverse decorative bands. The raised areas are dark brown, the depressions red and white.

H.S. 6707, Málu, **wooden shield**, Fig.308 (length 155 cm, maximum width 42 cm). The longitudinal curvature is zero, the transverse curvature very slight; the shield is a flat rectangular board, with the widest point at the upper end and the narrowest point at the bottom. The large facial representation is of a different type to those described so far: the eyes are incised circular lines surrounded by curved lines; the rest of the facial area is sunken, with the raised narrow nose, mouth, the hook-[303] shaped nasal decoration, and two circular surfaces probably indicating the cheek bones. The face is bordered above and below by incised jagged lines, evidently intended to represent hair and beard. The beard is accompanied on each side by a long narrow strip that ends below in a spiral. A transverse decorative band forms the limit of the decoration above and below. The shield has a dark brown patina of age; there are no discernible remnants of painting. The back is completely smooth. The handgrip is missing; it had evidently also consisted of a rattan arch. Four holes bored through the shield above and below served as its attachment.

H.S. 6708, Málu, **wooden shield** (length 139 cm, maximum width 43 cm) almost identical in form and decoration to the previous one; equally evidently an old specimen. It is somewhat damaged, as a piece has broken off the right side. [304] The handgrip (Fig.310) consists of a curved stick of rattan and is fastened on with narrow strips of rattan running through eight holes in the shield; two cross pieces serve as handgrip and for securing the forearm in position. The rattan arch above simultaneously gives a further advantage: it is added just high enough for the shoulder to be pushed under it, decidedly assisting the holding of the shield in battle. A doubled band of bast fibre is fastened to the right side of the handgrip, serving to hang the shield backwards over the shoulder when on the march.



1

2

3

1. Shield H.S. 9224, 1/10 actual size 2. Shield H.S. 4524, 1.10 actual size
3. Shield H.S. 9362, 1/10 actual size

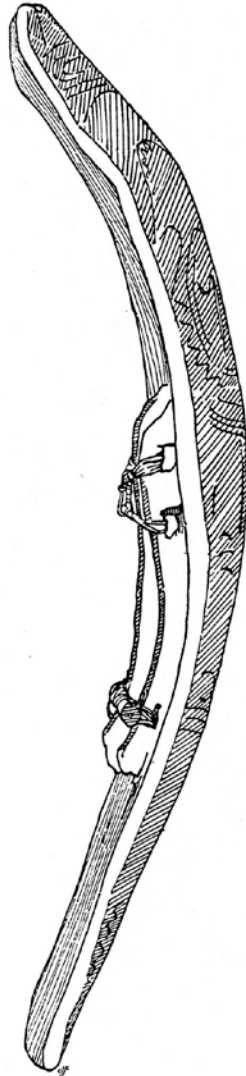


Fig. 307. Profile of shield H.S. 4560, 1/10 actual size



Fig. 308. Wooden shield H.S. 6707, 1/10 actual size

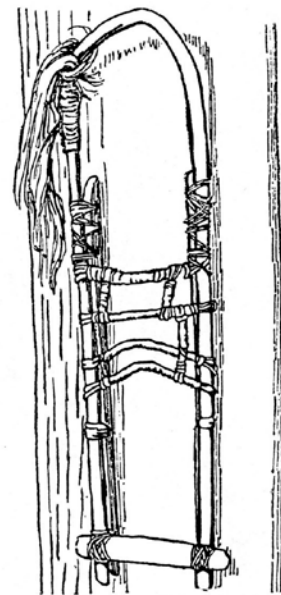


Abb. 309. Griff des Schildes H. S. 9362, 1/10 n. Gr.



Fig. 310. Hand grip of wooden shield H.S. 6708, 1/10 actual size

The *Peiho* collection possesses only one example of **hide shields**; a second specimen, which we found in the same village, was not collected as it was far too damaged. It could not be ascertained whether these shields are used in battle or rather for ceremonial purposes.

H.S. 9296, Málu, oval **hide shield**, Fig. 311a (length 105 cm, maximum width 49 cm). A frame of two parallel thick rattan staves wrapped round with thin strips of rattan has a pig skin stretched over it with the hair side outwards. The reverse side has a unique handgrip of crossed rattan staves (Fig. 311b). A long bast fibre band is fastened onto the left side, probably again serving as a carry-band.

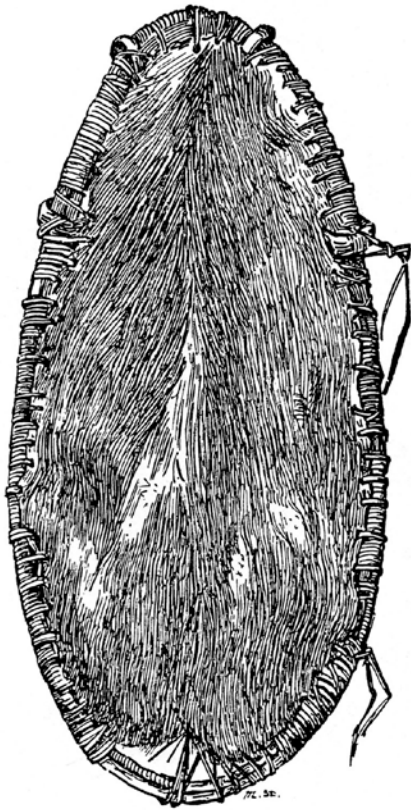


Fig. 311a. Hide shield H.S. 9296,
1/10 actual size

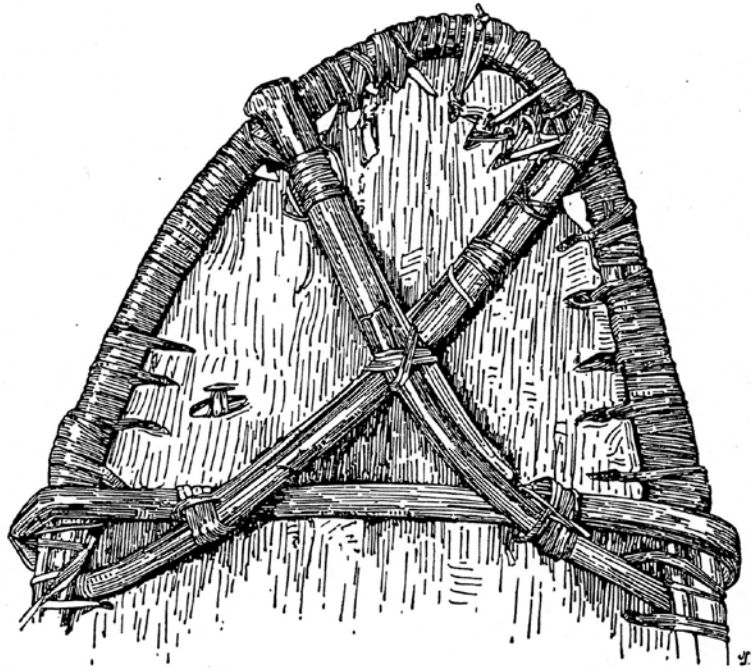


Fig. 311b. Hand grip of hide shield H.S. 9296, 1/5 actual size

Spear launchers

As offensive weapons on the Augusta River we find: the spear-launchers (with their throwing spears), spears, and lances, daggers and clubs. The bow [305] is found only sporadically in the lower and middle reaches, whereas in the upper reaches, above the Hunstein Range, it seems to be the principal weapon.

The spear launchers (I prefer this word to the misleading and clumsy "throwing wood" or "throwing stick") all belong to the so-called 'female' type, that is, they have a hollow at their end for receiving the end of the spear. On the Augusta River they consist of a piece of thin bamboo; the hollow is formed from a cross-wall left in place at the end. Almost the entire upper half is split off from the part of the bamboo shaft in front of this socket, so that a groove arises, forming a convenient entry into the socket and receiving the rear end of the spear. The groove almost always lies somewhat obliquely, that is, if a person holds the spear launcher in the throwing position, an imaginary plane laid transversely across their upper borders would not be horizontal but would slope towards the inside, the thrower's side. This oblique position enables a more secure positioning of the spear, whose shaft is thereby spontaneously directed against the inner side of the wooden abutment. Surprisingly, in a few specimens the rim slopes to the right, outer side; since throwing with these spear launchers in the right hand would be extremely awkward, and well nigh impossible, I believe that these specimens are intended for throwing with the left hand, and that there are therefore also left-handers here among the natives.

A piece of wood is inset shortly before the front end of the bamboo shaft, serving to prevent the spear slipping sideways in the launcher. This abutment usually shows artistic carving. Right in front, on the shaft of the spear launcher, there is often a thick plaited ring, which has the effect of preventing the hand sliding forward.

The spear launcher occurs along the entire stretch of river that we visited, but appears to become rare roughly from the Hunstein Range on; from there on, it is replaced by the bow. Its spread into the coastal regions neighbouring the river mouth, and the offshore islands, has been long known. (It appears to have been mentioned and illustrated for the first time by Jacobs (1844). The description, in English, reads: "The latter is an instrument used for throwing the former with great force, by inserting the end of the shaft in the socket, by means of which the hand darts the spear forward in the same manner that a boy casts an apple from the end of a stick". (*loc. cit.*, p.301)).

From our observations, manipulation of the spear launcher is, without exception, as follows: from below, the entire hand grasps the roughly horizontal weapon by the part in front of the wooden abutment (Figs. 312 and 313); the third, fourth and fifth fingers grasp it firmly while thumb and index finger grip each side of the spear shaft. Thus, all the illustrations and descriptions of handling so far, are not entirely correct; indeed they are based in part only on supposition. Then for throwing, the arm holding the launcher is stretched obliquely backwards while maintaining the spear roughly horizontal, and is then brought forward with a powerful jerk while the socket containing the end of the spear [306] describes an arc forwards and upwards; the spear launcher therefore acts as a lever, and the spear receives a greater initial speed and flies further than if it had been thrown by hand. While the marksman is pointing the weapon with arm raised to fire, he usually stretches the left arm forwards to aim.

While the residents of the neighbouring stretch of coast do not seem to use spear launchers very much, shooting performance on the Augusta River is not too bad at all; in particular, the great distances over which they skilfully catapult spears are amazing. During the attack on us on 1 June, spears were already landing on the deck while the war canoes were still so far away that we had not given any thought to the possibility that the attackers might fire so early. This is only possible because the spears used here are very light and have a relatively heavy tip. At a greater distance one naturally throws in a high arc. In addition, the certainty of hitting was also fairly strong: we really had to be quite careful not to be struck. Furthermore, the force of the spears was considerable; while without exception the shafts splintered, the tips penetrated deeply into the wooden parts of our steamer.

H.S. 6740, Kōpār, **spear launcher** (*pākāun*, Müller), Fig.314 (length 90 cm). The specimen is cut in such a way that it seems to be intended for throwing with the right hand. The socket is adorned with an incised 'half entrails' decoration; the same pattern is found again just behind the carved abutment, and again, close together at the front end. The abutment (*pākāungéb*, Müller) has become a richly carved decorative piece: a stylized crocodile (*ūdīn*, Müller) is depicted crawling along a branch. The lower arch of the abutment, set into the bamboo, is firmly fastened to the front end by a narrow rattan ring (plaited in irregular twill style). Just before the front end is a thick, bulging rattan ring.

H.S. 9013, Nāngīt (bought from a canoe), **spear launcher**, Fig.315 (length 70.5 cm), similar to the preceding one, intended for the right hand. The slightly tapering socket has no engraving. The front end of the weapon is closed by a wooden plug and decorated by an irregularly-plaited rattan ring. The decorative piece again represents a crocodile that seems to be creeping along the fastening arch; this arch is fastened to the shaft by a plaited rattan ring.

H.S. 1819, Sīngrīn, **spear launcher** (according to the Kōpār interpreter *pāgón*, in Sīngrīn: *pāgāu*, Fülleborn; length 76 cm), intended for the left hand. The decorative part (*pāgōngíp*, Fülleborn), Fig.316, represents a crocodile that is however more highly stylized than in the preceding specimens; front and hind limbs are in the process of merging into the lower arch. The socket is decorated with a roughly-carved zigzag band. A simple plaited ring sits at the front end of the weapon; two further rings secure the decorative addition.

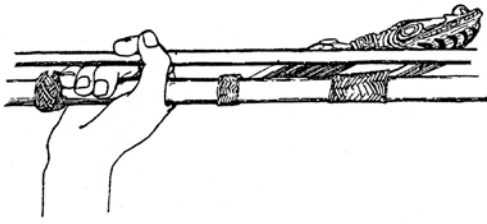


Fig.312. Hand position on the spear launcher viewed from the inner side

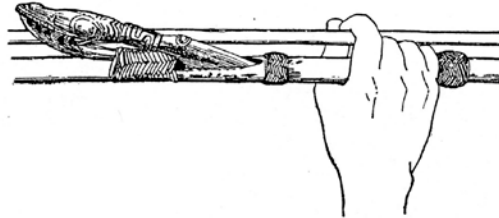


Fig. 313. Hand position on the spear launcher, viewed from the outer side

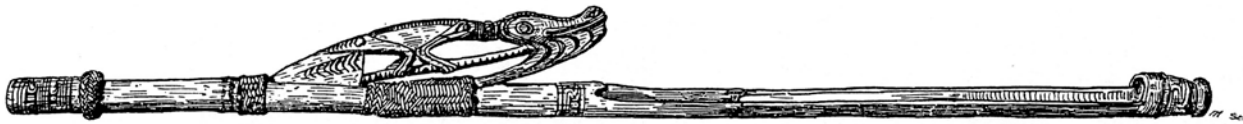


Fig. 314. Spear launcher H.S. 6740, 1/5 actual size



Fig. 315. Spear launcher H.S. 9013, 1/5 actual size,



Fig. 316. Decorative piece of spear launcher H.S. 1819, 1/5 actual size



Fig. 317. Decorative piece of spear launcher H.S. H.S. 6739, 1/5 actual size



Fig. 318. Spear launcher H.S. 1768, 1/5 actual size

H.S. 6739, Kōpār, **spear launcher** (*pākāun*, Müller; length 80 cm), right-handed. The decorative addition (Fig.317) represents an even somewhat more highly stylized crocodile whose extremities have totally disappeared. Around the animal's neck is looped an ornamental band showing the 'entrails' pattern; the same pattern also decorates the socket. Two plaited rings hold the decorative part; a third is attached to the front end.

H.S. 1768a, Kōpār, **decorative piece** of a spear launcher (length 26 cm); very similar to that of the preceding specimen although somewhat more roughly produced. It is a freshly-carved, still-unused piece.

H.S. 1768, Kōpār, **spear launcher** (*pāgōn*, Fülleborn), Fig.318 (length 72 cm), right-handed, similar to those preceding. A crocodile that is even more markedly regressed is carved out of the decorative piece (*pāgūngép*, Fülleborn); even the greater part of the body has disappeared. The socket has a decoration of incised zigzag lines. a plaited ring is put onto the front end of the weapon to prevent the hand slipping. The abutment is secured by two plaited rings while a third, narrower ring sits just in front, probably to prevent the bamboo splitting. The shape of the abutment described here [308] is by far the most common found in the spear launchers of the river mouth area.

L.Me. 7866, “Empress Augusta River”, **spear launcher**. The abutment (Fig.319) represents a crocodile whose body has been reduced to a very short piece; the head is comparatively larger, and sits on a very long, richly-decorated neck.

H.S.9012, Nǎngīt, **spear launcher** (length 70.5 cm), intended for the left hand. The carving of the abutment (Fig.320) appears to represent a crocodile also, in which the lower arch participates in forming the snout; the tongue is visible in the open jaw. Fastening is effected by a wide plaited ring. Both ends of the bamboo piece are undecorated and slightly tapered. The inside of the rim in front of the socket is decorated on each side with a longitudinal, burned-on, irregular zigzag line.

H. 3022:05, Wātám, **spear launcher** (length 83 cm), right-handed. Here too a crocodile is clearly recognizable in the decorative piece. Only one wide plaited ring serves for attachment. A small fragment of shell is fastened on behind, on the base of the socket, evidently to create a firmer base for the end of the spear, to stop it sticking in place. The socket is decorated with a carved zigzag band. A wooden insert has been fastened in front into the bamboo shaft; the shaft still shows the two bored holes into which the securing stick had been pushed. Close by is a simple, narrow, flat plaited ring. The specimen illustrated by von Luschan (1896) in Plate 11, Fig.8, is similar.

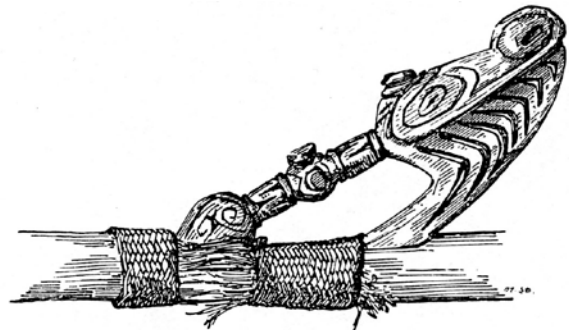


Fig. 319. Decorative piece of spear launcher
L.Me. 7866, 1/3 actual size



Fig. 320. Decorative piece of spear launcher
H.S. 9012, 1/3 actual size



Fig. 321. Decorative piece of spear launcher H.S.3022:05, 1/3 actual size

All the specimens discussed so far had an abutment whose carving depicted a crocodile; in the following specimens this is replaced by a bird figure.

St.Ha. 61676, “Matembe” **decorative piece** of a spear launcher, Fig.322 (length 27 cm); here the bird figure is the most clearly recognizable; it has a head with a large beak, carefully fashioned wings, and a fairly short tail. The legs enter the lower arch, which serves for fastening.

H.S. 1852, 252 km village, **spear launcher** (length 81 cm), with a very shallow groove; intended for the right hand. The abutment (Fig.323) shows a slightly-stylized bird- (*Buceros?*) head with the tongue visible in the open beak; the neck is long and slender. Only a triangular piece of the body remains, its pattern probably representing the remnants of the wing decoration. Attachment of the decorative piece is effected by a plaited band. The socket is decorated by an indistinctly-carved zigzag band. There is a thick plaited ring at the front end of the weapon with a wide plaited band attached in front. Sticking into the shaft, in front, is the remains of a wooden inset, fastened by a wooden nail; the outer part has broken off.

Two pieces illustrated by von Luschan (1896, p.150 from Hatzfeldhafen, and p.145 from the Augusta River) are completely alike; in the latter, which I am reproducing here because of its beauty (Fig.324), several other representations are amalgamated with the *Buceros* head. A specimen illustrated by Schlaginhaufen (1910b, p.59, Fig.Kc) is very little different from those just described; it comes from the middle reaches.



Fig.322. Decorative piece of a spear launcher
St.Ha.61676, 1/5 actual size



Fig. 323. Decorative piece of spear launcher
H.S.1852, 1/5 actual size



Fig. 324. Decorative piece of a spear launcher,
after von Luschan



Fig. 325. Decorative piece of spear launcher H.S. 9088,
1/5 actual size



Fig. 326. Spear launcher H.S.1853, 1/5 actual size



Fig. 327. Decorative piece of spear launcher H.S.1853, 1/5 actual size

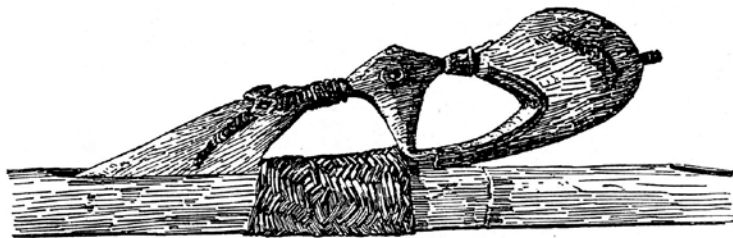


Fig. 328. Decorative piece of spear launcher H.3025.05, 1/5 actual size

H.S. 9088, Mändānām, **spear launcher** (*ūlūyūnā*, [310] Hellwig) Fig.325 (length 85 cm), intended for the right hand, with a groove sloping very clearly inwards. The decorative piece, (*ūlāyūnē*, Hellwig), shows a highly-stylized bird representation with the beak closed; fastened to the shaft by two plaited bands (*gīnēmā*, Hellwig). The socket is tapering and has no decoration. A wooden stick is inset into the front end of the bamboo, the end forming a knob (*yuwārīn*, Hellwig); the point of insertion is closed over by a wide band (plaited in double right-sided four-ply twill style); above it is a thick, bulging, plaited rattan ring with a rattan hanger attached.

H.S. 1853, 252 km village, **spear launcher** (length 74 cm), Fig.326, right-handed. The decorative addition (Fig.327) probably belongs to the series described here; on a triangular body sits a head, about which nothing further

can be said with certainty, whether it is that of a bird or a crocodile. Fastening to the bamboo is by a plaited band, which not only surrounds the inset arch but extends higher. The slightly tapered socket is decorated with a zigzag band. The front end of the weapon is particularly richly made; the wooden peg inserted into the bamboo at this point is carved in filigree work; a wide plaited band is laid around the point of insertion. The bulging ring preventing the hand from sliding is somewhat further back, and carries a short loop for hanging.

H. 3025:05, Wātām, **spear launcher** (length 83.5 cm) Fig.328, right-handed. The decorative piece represents a bird (*Buceros?*) The beak is closed; it has a short round process, possibly the remnants of the tongue. Attachment is effected by a wide plaited band. The socket has a somewhat separated end and a very carefully carved ‘half entrails’ decoration. The bulging plaited ring attached just before the front end of the weapon is held in place by a rattan strip threaded through a hole in the shaft; here, there was no wooden peg inset into the bamboo.

H.E. 4192, “Empress Augusta River”, **spear launcher** (length 77 cm), right-handed. The specimen is very similar to the preceding one, including the shape of the decorative addition, differing almost only in the more bulky manufacture and the peg descending from the eye not extending right to the arch. It is secured by two bands. The socket has an incised zigzag band. A wooden peg is fastened into the bamboo tube in front, although only the part in the shaft is still present. A specimen illustrated by von Luschan (1896, Plate 11, Fig.5) is very similar to the last two described.

In the decorative pieces of the following spear launchers, the bird’s (*Buceros?*) head forming the basis of the representation is embellished with all kinds of decoration, and thus rendered more complex.

H.E. 3377, “Empress Augusta River” (?), **spear launcher**, Fig.329 (previously illustrated by K. Hagen, 1901, p.25; length 87 cm), with the groove sloping to the right, thus probably left-handed. The abutment resembles the stylized *Buceros* head of the preceding specimens only in general shape; individual parts are further decorated. Thus, both the bird’s eye and the nostril have each become a human face; they border one another at the chins. The abutment is fastened to the shaft by three narrow bands. The shaft has no ornamentation.

H.S. 9120, Māndānām, **spear launcher** (length 74 cm), a small decorative specimen with a groove markedly sloping to the left; right-handed. The decorative piece (Fig.330) evidently originally represented a *Buceros* head with open beak, showing the tongue; its nostrils have been transformed into the eyes of a head sitting forwards on the beak. No actual arch is present; the plaited ring holding the abutment firmly, runs through a hole in the body. A decorative piece illustrated by Schlaginhaufen (1910b, p.59, Fig.I) is similar, although shorter and fatter.

H.S. 9089, Māndānām, **spear launcher** (*ūlūyūnā*, Hell.; length 85 cm), with a groove sloping distinctly to the right, therefore left-handed; the slope is so great that the spear could definitely not lie on the left side of the decorative piece on the launcher. The very carefully-carved decorative piece (Fig.331) appears on the side, the best known so far. A *Buceros* head forms the foundation of the representation, with its mighty, open beak still clearly recognizable, although the head and neck part have become a long narrow arch on which is added an artistically-produced almost caricature crocodile. The depressions are red. Otherwise the launcher is undecorated, with only clusters of lightly-chiselled, parallel lines on the inner and outer rims of the groove. The shaft is evidently of recent date but the decorative piece is ancient.

It seems overall as though they have treated the artistically-carved abutment very carefully, as if [311] it outlasts so many generations; should the easily breakable bamboo shaft snap in two, the decorative piece is put onto a new shaft, and thus it happens that quite often one finds a marvellously-worked abutment combined with a quite simple, newly-made shaft void of decoration.

H.E. 4193, “Empress Augusta River” (probably from the river mouth area), **spear launcher** (length 86.5 cm) right-handed. What type of animal the decorative piece (Fig.332) was intended to represent, whether bird, or crocodile, or even something else, I could not distinguish. The figure is complicated in that a four-footed animal or human figure, creeping upwards is added in front, on the rising arch (as on drum handles, and the like). It is secured by four plaited bands, two holding both halves of the arch firmly, while one each, fastened in front and behind, is probably intended to prevent the bamboo from splitting. Further decoration of the launcher consists of two narrow carved zigzag bands surrounding the socket, and a wooden stick inserted in front into the bamboo and fastened as usual by a wooden nail and a plaited band. Just before the point of insertion, the stick has a knotty thickening, in front of which is an incised, fairly broad meandering band, resembling a ‘half-entrails’ pattern.



Fig. 329. Decorative piece of spear launcher H.E.3377,
1/5 actual size



Fig. 330. Decorative piece of spear launcher H.S.9120,
1/5 actual size



Fig. 331. Decorative piece of spear launcher H.S.9089,
1/5 actual size



Fig. 332. Decorative piece of spear launcher H.E.4193,
1/5 actual size

In the middle reaches of the river, there are also quite often found very simple or, more accurately, highly simplified decorative pieces that may have arisen from triangular (see above) body vestiges of the bird figure; we never found these forms in the lower reaches.

H.S. 9119, Măndănă, **spear launcher** (length 79.5 cm) left-handed, with a groove sloping very definitely to the right. The decorative piece (Fig.333) has a triangular shape and, at the edge, a series of slightly-raised small ovals and several indistinct jagged lines on its surface. Attachment is by three plaited rings. Further decoration is absent.

Two specimens illustrated by Schlaginhaufen (1910b, p.59, Figs. H.b and K.d) are very similar; in them the decorative piece has “the form of a little triangular board not carved in filigree style”. Unique, and differing from that of the specimens so far described, is the fastening: “Near the triangular side inserted into the bamboo are three holes for threading the string that attaches the added-on piece.” Fastening is therefore not achieved by plaited bands but by cross-over narrow strips of rattan. [312]

St. no number, “Empress Augusta River”, **spear launcher**. The triangular decorative piece, Fig.334, is similar to the preceding one; it has three holes below, through which run criss-crossing rattan bands. The triangular surface is decorated with several carved lines.

St.He. 60644, Ămnî, spear launcher, very similar to the preceding item except that the tip of the triangular decorative piece is missing.



Fig. 333. Decorative piece of spear launcher
H.S.9119, 1/5 actual size



Fig. 334. Decorative piece of spear launcher
St. no number, 1/5 actual size

Launched spears

The spears for throwing using the launcher are lighter and smaller than those thrown by hand and, especially in the middle reaches, rather resemble arrows. They are usually balanced in such a way that, when laid on the spear launcher, their extra weight is not forward. On the Augusta River, they always apparently consist of a tubular shaft with an inset wooden tip. Customary spears in the coastal region appear to be somewhat different from those in the middle reaches. In the river mouth area the launched spears are relatively long; the shaft consists of bamboo with the wooden tip firmly bound on. Right throughout the middle reaches we initially wondered why we saw numerous spear launchers, but never saw the spears that went with them; finally, we noticed that the cane stalks, roughly one metre long, that we found very often in thick bundles in houses and canoes, and whose purpose was totally inexplicable, represented spear shafts. The wooden tips, in some places very carefully carved, were specially stored, and only placed into the shaft just before use. When such a spear hits an object, the shaft almost invariably seems to split and fall off, while the tip remains in the wound and, without the shaft, is probably very difficult to remove, especially since it is also barbed. Of the spears fired at us during the fight on 1 June, we always found only the wooden tips sticking into the wooden parts of our steamer; the splintered shafts either lay some distance away or had flown overboard. The catapulted spear of the middle reaches is therefore a far more dangerous weapon than that of the coastal region. The shaft of the launched spear observed and collected by us on the Augusta River is always smooth; we never found any spiny process which hooked onto the socket of the spear launcher, as seen on many spears of the neighbouring coastal region and the offshore islands. Thus on the Augusta River the spear end always appears to be placed into the socket.

[313] The following specimens come from the lower reaches of the river:

H.S. 6746, Kōpār, **launched spear** (*nāndān*, Müller; the designation is thus the same as for the arrow), Plate LXII.1 (total length 221.5 cm, length of the visible tip 63.5 cm). The smooth circular palm-wood tip is inserted into the bamboo shaft; the point of insertion is surrounded by a plaited (irregular, multi-strand twill-style) rattan socket.

H.S. 6745, Kōpār, **launched spear** *nāndān*, Müller; total length 191 cm, length of the visible tip 75 cm), similar to the preceding one; the tip is somewhat more roughly worked and not completely circular.

H.S. 6743, Kōpār, **launched spear** (*nāndān*, Müller; total length 231 cm, length of the visible tip 104 cm), Plate LXII.2. The almost circular, very long palm-wood tip has a row of fairly long barbs along one side at the front; behind it is a short stretch of ring-shaped incisions. The tip is fixed into the shaft just as in the preceding specimen; (we obtained an almost identical specimen, H.S.1888, on Vulcan Island).

H.S. 6748, Kōpār, **launched spear** (*nāndān*, Müller; total length 235 cm, length of the visible tip 76 cm). The palm-wood tip is similar to the preceding one, although the indentations behind the barbs are missing. In the vicinity of the insertion point are several deeply-carved bands. The fastening of the tip offers nothing new.

H.S. 4565, Kērkēr, **launched spear** (total length 247 cm, length of the visible tip 73 cm), almost identical to the preceding one, except that behind the site of the barbs are several circumferential indentations, as in H.S.6743.

H.S. 4564, Kērkēr, **launched spear** (total length 252 cm, length of the visible tip 69 cm); just like the previous one. The barbs have broken off.

H.S. 6741, Kōpār, **launched spear** (*nāndān*, Müller; total length 255 cm, length of the visible tip 74 cm). The round palm-wood tip has a row of barbs in the front section (Plate LXII.3), with several ring-shaped indentations behind, and finally several three-dimensionally projecting carved circumferential rings at the transition point of the shaft. The tip is fastened to the shaft just as in the preceding spears; it is almost too heavy for a launched spear.

H.S. 6744, Kōpār, **launched spear** (*nāndān*, Müller; total length 250 cm, length of the visible tip 79 cm). The rather damaged palm-wood tip is very similar to the preceding one; the carved circumferential bulges at the rear end are rather more carefully produced.

H.S. 6747, Kōpār, **launched spear** (*nāndān*, Müller; the total length cannot be determined because the end of the shaft has broken off; length of the visible tip 62 cm). Plate LXII.4. The palm-wood tip is slightly flattened and trimmed in the forward section, with two very dense rows of long barbs. On the midrib between the barbs is, on each side, a row of small jagged points directed obliquely backwards. The outermost tip is four-sided with a rhomboid

cross-section. Roughly in the middle of the tip and on the basal section are several circumferential shallow indentations.

H.S. 1766, Kōpár, **launched spear** (*nāndān* or *mādūgūm*, — the latter “apparently the special name for launched spears” — Füll.; total length 296 cm, length of the visible tip 98.5 cm), Plate LXII.5. The round palm-wood tip is four-sided in the anterior part and trimmed with numerous upright barbs, always in fours. Between each barb group a circumferential indentation. Behind the barbs: several indentations and bulges; several carved rings on the basal part.

H.S. 1767, Kōpár, **launched spear** (*nāndān* or *mādūgūm*, Fülleborn; total length 214 cm, length of the visible part of the tip 72 cm), very similar to the preceding one, only somewhat less carefully produced; the tip likewise has barbs, incisions and rings.

H.S. 1817, Sīnggrīn, **launched spear** (generic name, according to the interpreter from Kōpár: *nāndān*, Fülleborn; total length 187 cm, length of the visible part of the tip 30 cm), Plate LXII.6. The wooden tip differs completely in shape to those so far described. With the exception of the quadrilateral front section it is markedly flattened; the middle, extended sideways, displays an angular filigree carving adorned with engraved lines. The decoration of the middle section is reminiscent of the ovals flanked by ‘sausage-shaped’ figures of the Monumbo drums. Like the preceding spear, the tip is pushed into the shaft and secured by a plaited (irregular twill-style) socket.

H.S. 1818a, Sīnggrīn, **launched spear** (total length 191 cm, length of the visible part of the tip 33 cm), of the same type and similar decoration to the preceding. The carving is rather less carefully done.

H.S. 1816, Sīnggrīn, **launched spear** (*nāndān* — according to the interpreter from Kōpár, Fülleborn; total length 206 cm, length of the visible part of the tip 35 cm). The tip is the same as the preceding tip in material, shape, and decoration.

H.S. 1818, Sīnggrīn, **launched spear** (total length 197 cm, length of the visible part of the tip 32.5 cm); it scarcely differs from the two preceding spears.

H.S. 1815, Sīnggrīn, **launched spear** (*nāndān*, see above, Fülleborn; total length 189 cm, length of the visible part of the tip 33.5 cm); almost completely the same as the preceding spear. The tip [314] differs in that the front part is somewhat wider, and the carved section is less carefully worked; as for the “butterfly decoration”, only the central holes are present. In addition to the central hole, the centrepiece of this part has two round lateral holes; the outer rim has several indentations.

Of the spear tips characteristic of the middle reaches, which are only inserted into a shaft just before use, the collection obtained only one example:

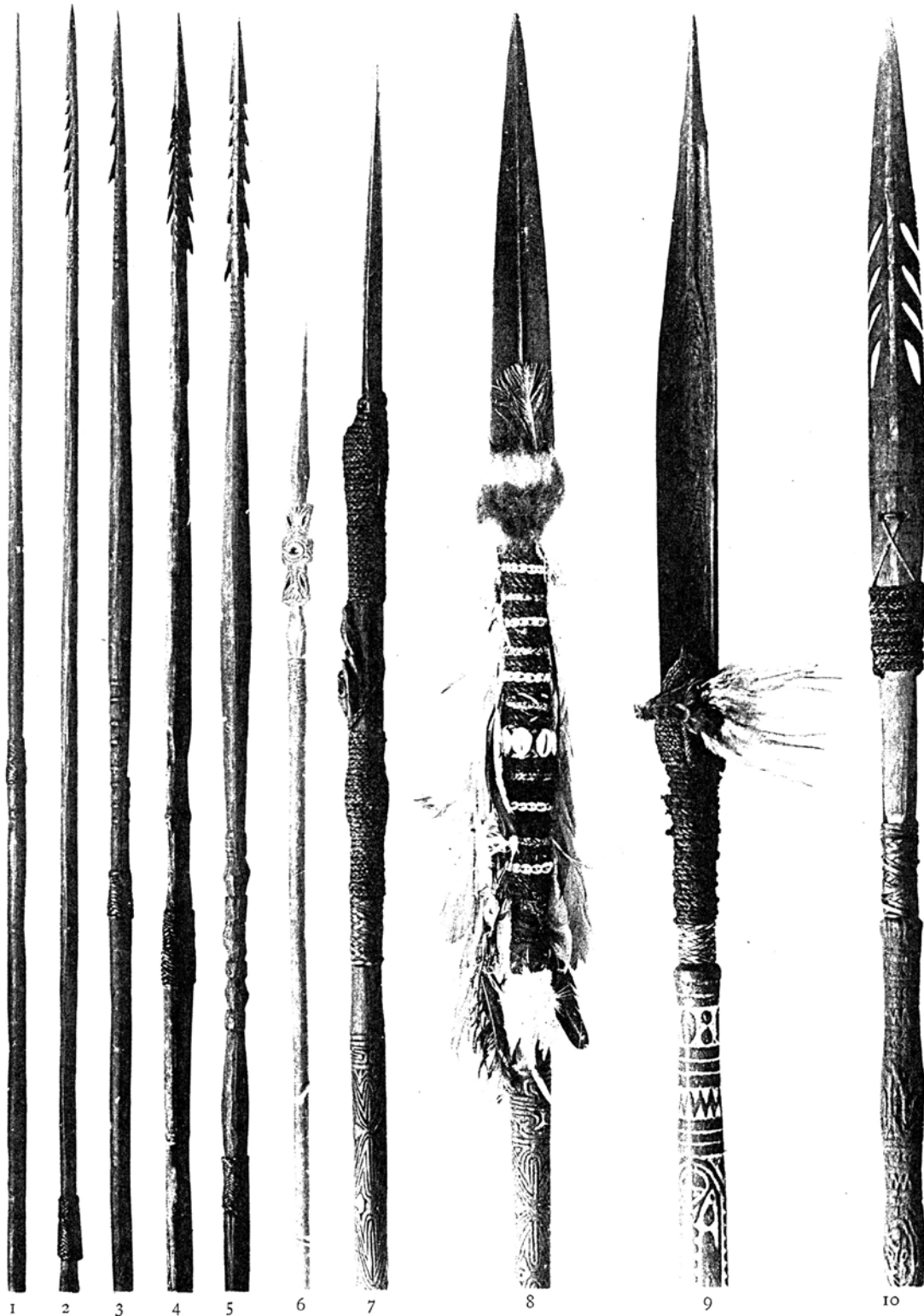
H.S. 4544, 375 km village, isolated spear tip, Fig.335 a and b, (total length 49 cm), made from palmwood. The front four-sided part is trimmed with barbs on two sides, which become progressively larger towards the back. The longitudinal rib between the two rows of barbs bears a row of short points directed backwards (cf. H.S.6747) on one side of the tip. Following this section is a stretch with small grooves, then a somewhat flattened thickening, and finally, after a gap, the tapering part which is pushed into the shaft.

H.S. 4545 a and b, 375 km village, two cane stalks used as spear shafts (length 132 and 123 cm, thickness about 1 cm), splintered at both ends; totally devoid of decoration. The wooden tips are inserted into shafts of this type when in use. The two specimens available are the best preserved of the spears catapulted on deck during our fight.



Fig. 335. Spear point
H.S. 4544;
a: whole tip, 1/4 actual size;
b: spear point 1/2 actual size

Reche, Empress Augusta River, Plate LXII



1. Launched spear H.S.6746 2. Launched spear H.S.6743 3. Launched spear H.S.6741
 4. Launched spear H.S.6747 5. Launched spear H.S.1766 6. Launched spear H.S.1817
 7. Lance H.S.1774 8. Lance H.S.1773 9. Lance H.S.6716 10. Lance H.S.9193
 All 1/5 actual size

Lances

Besides the spears intended for the launcher, along the entire length of the river that we visited we also found heavy lances, probably intended mainly for thrusting. Apart from weight and length, they also differ from the launched spears in that their shaft does not consist of cane but of solid wood. In construction two main groups can be identified: lances in which shaft and tip are made in one piece, and those where the tip is inserted; in the latter group one can further separate lances with bamboo tips and lances with wooden tips. In all groups there are specimens where a piece of bamboo is added to the end of the shaft, and others that bear rich feather decoration. Schrader (*Nachrichten über Kaiser-Wilhelmsland*, 1887, p.127) mentions that the spears, "were often decorated with human vertebrae".

Surprisingly, the more primitive form in our area appears to be lances with add-on tips (cf. Gräbner, 1905a). These have the advantage that when the tips hit they easily break off, and are then difficult to remove from the body of the victim. They therefore appear to take into account the loss of the tip, and thus for ease of manufacture they use material that is easy to obtain and easy to work; lances with bamboo tips might therefore represent an older form than those with added wooden tips. Bamboo is moreover highly suitable for tips: it is very hard, produces sharp cutting edges (For the same reason, on the Admiralty Islands they use — probably instead of bamboo tips — obsidian, which splinters much more easily still, thereby causing wounds that heal only with very great difficulty and repeatedly break out. Also, these obsidian tips are fastened in such a way that they easily separate from the shaft.).

We found spears with bamboo tips from the river mouth all the way up as far as Málu; they all have the same construction and actually differ only in their decoration. The lances of the river mouth area are decorated with an extraordinarily cleanly and precisely incised highly-stylized pattern, in the style so characteristic of this area. These carvings are almost invariably found only in two places: just behind the bindings and wrappings serving for fastening and, secondly, roughly in the middle of the rear half of the shaft; there the pattern appears as Gräbner (1905a) has probably represented it, the wrapping for securing the bamboo addition.

It is also very characteristic of the assembled lances of the river mouth area, that the tip of the shaft, just before its front end, almost always bears the three-dimensionally carved figure of a little man, or at least the head of one. Little figures of this kind are also occasionally found on the lances of the neighbouring coastal region, for example Potsdamhafen. There they are designated by the natives as "images of cherished dead of the male gender" (Schmidt, 1903, p.112). One can therefore assume that in the spears of the Empress Augusta River it is likewise a case of memorials to the dead; these are evidently figures of feared warriors whose spirit, to some extent banished to the spear, will confer force and success upon it. Two facts are very characteristic of the basic idea: firstly, these small images are always attached to the shaft and not to the tip, which remains in the wound and thus would be lost (the power, the protection of the spirit should be retained in the spear), and secondly, they sit as close as possible to the tip, to the effective part of the spear: the spirit is thus to some extent compelled to turn his whole attention to this; his face is correspondingly always turned forwards towards the tip. [316]



Fig. 336. Decoration of lance H.S. 9377, 1/3 actual size



Fig. 337. Decoration of lance H.S. 9377, 1/3 actual size



Fig. 339. Decoration of lance H.S. 9378, 1/3 actual size



Fig. 338. Decoration of lance H.S. 9378, 1/3 actual size



Fig. 340. Decoration of lance H.S. 9375, 1/3 actual size



Fig. 341. Decoration of lance St.I.C. 5932, 1/3 actual size

The custom of attaching a piece of bamboo on the rear end of the shaft can possibly be traced back to a quite similar belief. The piece of bamboo certainly does not have the purpose assumed by Gräbner (1905a), that of protecting the end from wear by the spear launcher, because, on the one hand, the solid spear wood would hardly be noticeably damaged in any way by the socket of the spear launcher, and secondly, the spears trimmed with the piece of bamboo are certainly not used as catapulted weapons. It astonished me that these added pieces of bamboo — especially when seen from a distance — have a surprising similarity, in form and colour, to human arm bones, which in other places [317] are stuck onto the back of the spear (for example in Jacquinot Bay, New Britain); in particular, the length is usually roughly the same. However, if my opinion is correct, the bamboo piece is the replacement for the earlier-used human arm bones, so here again we very probably have the spirit of the dead summoned and compelled to help: his own arm to some extent guides the spear. The line of evolution would then be: human arm bones — (cassowary bones) — piece of bamboo — substituted by thickenings and ornamentation attached to the end of the wooden shaft.

Of the lances with bamboo tips, from the river mouth area come:

H.S. 9377, Wātám, lance (total length 322 cm, length of the visible part of the tip 45 cm). The bamboo tip less than 4.5 cm wide has its rear end firmly bound to the tip of the shaft. The wrapping consists of a cord plaited in pigtail style from tough root fibres; in addition, there are two plaited rattan bands, and the front section is also wrapped with a twisted cord of human hair. Just before the front end of the shaft is added a carved, somewhat stylized head. Several centimetres behind is a bulging thickening of the shaft, formed by a wrapping of leaves, which engulfs the rearmost end of the bamboo tip and serves to some extent as an abutment. This knot too is wrapped with the cord plaited in pigtail style. Just behind the plaited rattan band following the wrapping, the shaft becomes somewhat thicker; here begins the relief decoration covering a length of 51 cm, to whose peculiarities I must allude in the illustration (Fig.336) (These, as in the following spear decorations, were obtained by rubbing with black wax: the black part of the illustrations thus always represent raised areas; the white ones depressions). Then, 96 cm before the rear end of the spear, a second ornamented piece begins (Fig.337), and continues with two long peaks on a broad swelling of the shaft. Since there is no inserted piece of bamboo, this swelling must be regarded as an allusion to the knotted thickening of the end of the bamboo, and the incised decoration as representative of the binding holding the bamboo firmly (cf. Gräbner, 1905a). Then at the very end is a further thickening: the other knot of the bamboo.



Fig.342.
Little figure on
the shaft of
lance H.S.1771,
½ actual size

H.S. 1771, Kōpār, lance (*nānglín*, Fülleborn; length 322 cm, length of the visible tip 49 cm), similar to the preceding one. On the front end of the shaft is an entire human figure (Fig.342), which, however, is not carved three-dimensionally out of the shaft, but is added on. The bamboo tip is held firmly by a bark material wrapping. The incised decoration ornamenting the shaft is similar to that of the preceding spear, and adorns the same spot. There, where the front end of the bamboo foot would lie, the shaft again has a slight swelling, in front of which is an identical decoration to the one at the front of the spear. The spear shows vestiges of red colouring.

H.S. 1774, Kōpār, lance (*tāngōn* or *tānōn*, Fülleborn; total length 306 cm, length of the visible part of the tip 27 cm), differs only little from the preceding one; Plate LXII.7. The bamboo tip is fastened in the same way as in H.S.9377, (see above). On the front end of the shaft is a fully three-dimensionally carved human figure, in the same style as spear H.S.1771. The incised decoration adorning the shaft is added at the same positions as in the specimens described so far: it resembles that of H.S.9377 (see Fig.336), except that the individual features are somewhat larger and more extended lengthwise; bands filled with a meandering ('half entrails') decoration occur only as upper and lower boundaries, and in the middle of the decorated area. The pattern added to the rear section of the shaft is not extended into peaks; the swelling behind it is only very slight. The end of the shaft has a knotty tapered thickening.

H.S. 1775, Kōpār, lance (*nānglín* — "name of the material?" Fülleborn), similar to the preceding specimens (total length 307 cm, length of the visible part of the tip 26.5 cm). In front, at the tip of the shaft, is a fully three-dimensionally carved face. The decoration is arranged exactly as in the preceding spears; the individual designs are somewhat more solid. A tapered knob is again at the end of the shaft.

[318] **H.S. 9378**, Wātám, lance (total length 318 cm, length of the visible part of the tip 44 cm), differs only little from the preceding ones. A flat, fairly cursorily-carved human figure, reminiscent in type to that of spear H.S.9377 (from the same village), is added to the front end of the shaft. The decoration (Fig. 338 and 339) is similar to

that of the previous spear, although the individual figures are smaller. The depressions are filled with white colouring. In the hollow side of the bamboo tip are several large, engraved ovals.

H.S. 9375, Wātām, **lance** (total length 319 cm, length of the visible part of the tip 37 cm), like the preceding specimen in form and material. The small human figure towards the front of the spear shaft has the same flat type as that of spear H.S.9378. The decoration (Fig.340) differs from that described so far; its depressions have been rubbed with white dye, the undecorated part of the shaft with red dye. The swelling in the region of the rear half of the shaft is only small. The decorative band added just in front of the terminal knob of the shaft bears a meandering ('half entrails') pattern.

St.I.C. 5932, "Empress Augusta River", **lance**. The incised decoration (Fig.341) is probably a derivation of the preceding one.

H.S. 1772, Kōpār, **lance** (total length 306 cm, length of the visible part of the tip 34 cm). The piece of the shaft between the tip and the section adorned with incisions is richly decorated. Close to the bamboo tip is fastened a wide strip of cuscus skin, and behind it are rings encrusted with *Nassa* and cowry shells; in addition the whole specimen is adorned with yellow, white, green, and grey feathers and pendulous cords. The decoration (Fig.343) shows a totally different pattern from the preceding specimens and appears to be made up of stylized faces. The depressions are painted white, the raised areas and the undecorated parts of the shaft are painted red. The decorative band (Fig.344) in front of the swelling on the second half of the shaft passes backwards into two peaks.

H.S. 1813, Sīngrīn, **lance** (*nānglīn*, Fülleborn; total length 290 cm, length of the visible part of the tip 29 cm). The carved human figure in front on the end of the shaft is of the same type as that of H.S.9378. The incised decoration on the front section of the shaft shows on its front part the same pattern as H.S.9377, and further back the same as H.S.1772; the depressions are white, the raised areas russet brown.

H.S. 1773, Kōpār, **lance** (*tāngōn*, *tānōn*, Fülleborn; total length 293 cm, length of the visible part of the tip 30 cm), Plate LXII.8 differs from all those described so far by the absence of the small dead figure in front, and by the tip being made of wood although resembling a bamboo tip in form. The part between the tip and the section with incised decoration is much more richly decorated than H.S.1772. At the base of the tip a wide strip of cuscus skin envelopes the shaft, then follows a wrapping with thick two-ply cords made from human hair completely covering the bast fibre layer, interrupted at regular intervals by narrow red-dyed plaited bands and several rings; the latter are encrusted with *Nassa* snails. In addition, a strip covered with cowry shells is attached in the middle of the wrapped stretch. A piece of red European fabric shrouding the shaft forms the rear border. A narrow sagittal zone is thickly beset with yellow and white feathers, cords and little chains consisting of large blue European beads. The incised decoration is arranged just as in the preceding spear; it has almost the same pattern as that of H.S.9377 (cf. Fig.336, p.316) from which it differs only by the absence of the meandering bands ('entrails' decoration). The markings in the second half of the shaft, in front of the now-narrow swelling, shows the same pattern; there are no peaks pointing backwards.

In a bamboo-tipped spear (from the lower reaches) illustrated and described by Schlaginhaufen (1910b, p.57), a bamboo end is stuck onto the butt of the shaft and fastened by a plaited band. To the rear of the wrapping for securing the tip there are only two narrow incised decorative bands.

From the region above the estuary swamps, the villages between Īmbāntōn and Māndānām, surprisingly we did not obtain a single spear with a bamboo tip; and since none of the other well-known collections, nor Schlaginhaufen's, possesses a spear of this type, one may well conclude that the spear armed with a bamboo tip is not at home here, at most occurring in isolation as an imported item.

Only from the village of Kāmbrīngī on did we again find lances of this sort which, however, apart from their ornamentation, also differ from the coastal type in the [320] abutment, for the rear end of the bamboo tip does not consist of a bulge formed by wrapping, but a sharply-pronounced section carved completely three-dimensionally from the shaft. Whereas in the river mouth area a piece of bamboo only rarely appears to be stuck onto the rear end of the shaft, here about half of the lances had this addition. Ornamentation carved into the shaft does not show the minutely-worked narrow lines close together, as in the river mouth area, but a significantly larger-scale pattern; the lines themselves are wide and strong, often quite deeply incised, with large undecorated areas between them. While in the river mouth area the dominant effort in decoration is to fill the surfaces as much as possible, here people evidently want to illustrate individual objects; correspondingly the representations here are very much more realistic; one can often quite clearly recognize the object depicted.

The difference between the spear decorations of the lower and middle reaches is so considerable that they can at a glance be used to tell the spears apart, and determine their origin. In the middle reaches, they never seem to fasten three-dimensionally carved figures to the spear, and yet the basic idea of this custom does not seem to be foreign here, for quite often distinct facial representations, or the remnants of them, are found in the carved decorations, even, in individual cases, heads carved in shallow relief.

H.S. 9199, 293 km village, **lance** (total length 261 cm, length of the visible part of the tip 41 cm, length of the bamboo addition 67 cm). Following the section serving as an abutment is a decorated swelling (decoration as in H.S.6676, see Fig.361, p.332) then, (Fig.345) after a shallow indentation, two small faces carved as relief — one each on the front and reverse sides of the shaft — diverging backwards into a wavy line. From the end of this line on one side of the shaft arises a large nose with a bored septum, projecting quite far out of the surface, with a small mouth below, whose teeth are formed by small elevations. On each side of the wavy line, above the nose, is a downward spiral, which resembles those of the swelling further above; both spirals appear to have arisen from the eyes belonging to the nose and mouth. Finally, a facial representation, consisting only of eyes and nose, forms the rear boundary of the shaft decoration. The depressions in the decoration, which have however darkened and become weathered and dirty, are all filled with white. Since the end of the shaft has a bamboo foot, which is fastened on by a narrow band plaited from rattan (four-ply, reversible twill-style), ornamentation is missing from the rear section of the spear; the bamboo piece is undecorated. The bamboo tip is fastened at the rear end by a rattan-plaited band (irregular 5-6 ply twill-style) and further forwards by wrapping with a cord plaited from three strips of rattan in pigtail fashion. The most anterior section of the restricted part of the tip is concealed by a broad band that is plaited from red-dyed cord in the technique of leg band H.S.9102 (see Fig.229, p.232).

H.S. 9200, 293 km village, **lance** (total length 277 cm, length of the visible part of the tip 33.5 cm, length of the bamboo addition 48 cm). The ornamentation is similar to that of the preceding spear, but more complex (Fig.346). Here too are found a whole series of clearly recognizable facial representations that in places emerge quite three-dimensionally. Those on the edges especially, (the spear is triangular at the ornamented spots), stand out quite proud. All depressions are painted white. Bamboo tip and bamboo foot show the same form and style of fastening as in the preceding specimen.

H.S. 9235, 293 km village, **lance** (total length 276 cm, length of the visible part of the tip 37.5 cm). The shaft is markedly flattened below the tip, and at the same time greatly enlarged. The surfaces thus arising on both sides are each covered with a large facial representation in flat relief (Fig.347); four wavy bands complete the decoration [321] behind. Below it, is a sharply-carved mark, perhaps an ownership- or maker's mark; in any case it has nothing to do with the decoration, and is only on one side of the spear. The bamboo tip is fastened at the rear by a plaited band (rattan, six-ply, reversible twill-style) and in front by a narrow spiral wrapping with a strip of rattan; this strip is in turn wrapped in thin rattan along its entire length. Below the strip is a layer of bast fibre. There is no bamboo foot fastened onto the end of the shaft; instead, there is a thickening in the middle of the rear half adorned with two slightly projecting ovals, each bordered both in front and behind by three, three-dimensionally carved rings (in allusion to the wrapping). The extreme end of the shaft consists of a slightly flattened swelling, 12 cm long.

H.S. 6716, Pămûngrî, **lance** (total length 292 cm, length of the visible part of the tip 48 cm, length of the bamboo foot 12 cm), Plate LXII.9. The bamboo tip is fastened at the rear with a plaited rattan band (irregular twill-style), and in front with rattan wrapping, which is completely covered by a cord of twisted human hair. At the point where the tip emerges from the wrapping is a sleeve plaited from cord (technique of the leg band H.S.9102, see Fig.229, p.232) with two wide tags pointing forwards. A short tail, assembled from red, black, and white feathers, is fastened to this sleeve. The inner surface of the tip has a pattern consisting of vague, branded lines: several large ovals. The decoration added below the tip (Fig.348) is extraordinarily carefully produced; the white-painted depressions stand out sharply against the dark-brown raised areas. In the front (upper) part stylized faces can be clearly recognized, pointing alternately up and down; the peculiar downward spirals again represent the eyes. Also, several further faces seem to be contained in other parts of the decoration. Here therefore — and also on several of the following spears — they have abstained from the three-dimensional representation of a face but honoured the face motif in decoration. The decoration is terminated behind by a broad band plaited from rattan (fairly regular six-ply twill-style). At the rear a short thick end of bamboo is stuck onto the shaft; fastened by a wide band plaited in irregular twill-style.



Fig. 343. Decoration of lance H.S. 1772, 1/3 actual size



Fig. 344. Decoration of the butt section of lance H.S. 1772, 1/3 actual size



Fig. 345. Ornamented section of lance H.S. 9199, 1/2 actual size



Fig. 346. Decoration of lance H.S. 9200, 1/3 actual size



Fig. 347. Decorated section of lance H.S. 9235, 1/2 actual size



Fig. 348. Decoration of lance H.S.6716, 1/4 actual size



Fig. 349. Decoration of lance H.S.4551, 1/2 actual size



Fig. 350. Decoration of lance H.S.9363, 1/2 actual size



Fig. 351. Decoration of lance H.S.93641, 1/2 actual size

H.S. 4551, Pāmūngṛī, **lance** (total length 289 cm, length of the visible part of the tip 45 cm, length of the end of bamboo set into the rear 11.5 cm), similar to the preceding specimens. The insertion point of the bamboo tip is firstly wrapped with rattan, and then — as an outer layer — firmly wrapped with a tightly-twisted cord of human hair. Right on top, there again sits a twin-peaked cuff plaited from cord (same technique as for H.S.9102, see Fig.229, p.232). Right beside it is a cord bridging the groove of the bamboo tip; on this hang two thick bunches of feathers and a fairly long tail made of feathers. The very precise and quite deeply incised pattern (Fig.349) is reminiscent of that of the preceding spear and again contains, apparently, a larger number of stylized faces. While the raised areas (black in the illustration) are dark-brown in colour, the depressions are extremely neatly painted red in some places and white in others. Although a short piece of bamboo is fastened onto the end of the shaft, approximately at the start of its final third, the shaft has a 34 cm long spiral wrapping of rattan which, having no intrinsic purpose can probably be regarded as a continuation of the band used to secure the bamboo. Of course it is possible that there is a fracture point within it, that the wrapping represents a repair. Unfortunately the shaft cannot be examined without disturbing it.

H.S. 9363, Pāmūngṛī, **lance** (total length 277 cm, length of the visible part of the tip 46 cm, length of the bamboo addition 84 cm), differs very little from the preceding ones. The fastening of the bamboo tip is very much more simple, achieved only by a wrapping of rattan and of human hair and lacks any ornamentation. The decoration (Fig.350) exhibits the already familiar motif, especially numerous facial representations, but is somewhat damaged. The depressions are rather roughly rubbed with lime. A band plaited from rattan (four-ply reversible twill-style) forms the rear boundary of the decorated part. The piece of bamboo stuck into the shaft at the rear is secured by a similar plaited band.

H.S. 9234, 293 km village, **lance** (total length 279 cm, length of the visible part of the tip 41 cm). The tip is fastened similarly to H.S.9199 by wrapping with a cord plaited like a pigtail from rattan. On top of this at the end of the shaft is a short narrow wrapping of human hair, over which is pulled a twin-peaked cuff (as in H.S.4551). The ornamentation covering the shaft behind the tip is well made, and resembles that of the most recently described spear, but also that of H.S.9199. Furthermore, the shaft at this point is lightly shaped into four sides. The depressions show very old remnants of a pale colour (white?), which have subsequently darkened. In this spear the decoration is not completed at the rear by a plaited band. No bamboo foot is fastened to the end of the shaft; instead the shaft has a short slight swelling at the spot where the bamboo would be. The butt is slightly thickened.

[323] **H.S. 9364**, Pāmūngṛī, **lance** (total length 255 cm, length of the visible part of the tip 46 cm, length of the bamboo foot 77 cm). The tip is fastened to the tapering end of the shaft by a wrapping of thin twisted cord and under it a rattan band plaited in pigtail style. The wrapping is rubbed with a red colouring, but is otherwise undecorated. The pattern incised into the shaft (Fig.351) shows faces in the front section, probably alternately pointing forwards and backwards and merging together in places, and in the rear section two rows of eye representations consisting of spirals and concentric circles. The figures, quite reminiscent of animal bodies between the two rows, seem to come out of the noses accompanying the eyes. The depressions have been rubbed with lime with little care. The bamboo end at the back of the shaft is held firmly by a simple band plaited in twill style.

H.S. 4550, Pāmūngṛī, **lance** (total length 262 cm, length of tip visible 45.5 cm, length of the bamboo foot 58 cm). Fastening of the tip is the same as in the preceding spear. The upper end of the wrapping is enveloped by a loose-fitting plaited (in the style of H.S.9102, cf. Fig.229, p.232) cuff without lappets. The ornamentation (Fig.352) of the shaft resembles that of the preceding spear, in particular the decorative band at the front is almost the same; in the band at the back the downward spirals have become a meander. In this lance too, the depressions have been so unskillfully rubbed with lime that the raised areas appear almost equally pale. The shaft is triangular at the ornamented region. Fastening of the bamboo foot is the same as in the preceding spear.

H.S. 9237, 293 km village, **lance** (total length 264 cm, length of the visible part of the tip 44 cm, length of the bamboo foot 81 cm). The bamboo tip is fastened by wrapping with a rattan cord plaited in pigtail-style, and the base by a narrow plaited band. The somewhat weathered, once sharply carved decoration of the front part of the shaft hardly differs from that of lance H.S.9364. The ornamented part has four flat swellings passing back in diminishing size. The bamboo piece is fastened to the end of the shaft just as in the preceding spear.



Fig.352. Decoration of lance H.S.4550, 1/3 actual size

H.S. 9193, 252 km village, **lance** (total length 262 cm, length of the visible part of the tip 56 cm), Plate LXII.10. The bamboo tip differs from those so far described by having a row of deep indentations on both sides, with fairly long barbs emanating from them. The fastening of the tip is relatively loose: several thin strips of rattan run through two holes in the bamboo blade and are wrapped around the tapering front end of the shaft which has a knotty thickening. Behind this a cuff plaited from cord (technique of leg band H.S.9102, see Fig.229, p.232) only loosely surrounds shaft and tip; the extreme rear end of the latter plunges into a rattan wrapping. The ornamentation carved into the shaft below the tip is rather badly weathered. It is very similar to that of lance H.S.9199, and likewise shows a distinct facial representation worked in flat relief (with a pierced nasal septum adorned with a little string); and further back an elongated face with downward spirals as eyes, a short transversely-pierced nose and an open mouth through which can be glimpsed the teeth with the tongue between. The rear half of the spear shaft appears originally to have been adorned completely with short black and white feathers pointing obliquely backwards. Only a short end feather trim remains, the rest of that distance shows only the extensive rattan wrapping that had secured the feathers. No bamboo cap is added to the end of the shaft.

H.S. 6673, Málu, **lance** (total length 243 cm, length of the entire bamboo tip 70 cm, length of the bamboo foot added on at the back 64 cm). The bamboo tip is only loosely fastened to the shaft by an untidy rattan wrapping. The ornamentation incised into the shaft behind it very closely resembles that of the preceding spear, showing the same stylized facial representations and the same humanoid figures evidently emanating from the nose. In the vicinity of the decorated part the spear there appear five consecutive [324] swellings steadily diminishing in length and size posteriorly. A plaited rattan band secures the piece of bamboo into the end of the shaft.

The following lances form a separate group that is not difficult to differentiate from those described so far; they all come from the most distant upstream region that we visited. In the spear group just described there was always a distinct three-dimensionally carved thickening found just behind the tip and sharply differentiated in front, serving to provide a firm base for the tip and preventing a slide backwards when hitting the target. This thickening is usually only slightly indicated in the following lances, and almost not at all differentiated from the tip; it can therefore hardly serve this purpose any longer. Only beyond this point is there a swelling which, however, has a purely ornamental character; it starts out quite gradually and fades away just as slowly again, backwards. This position is always covered with surprisingly deeply-incised decorations which show a different character from those so far described; on the other hand they are strongly reminiscent of the pattern of the wooden shields from Málu (see Fig.308, p.303) in technique, form and motif. They seem never to have been rubbed with dye; the shield decorations too showed no colouring. At this thickened position, the shaft is usually flattened from front to back; and is, at the same time, four-sided, so that it is rhomboid in cross-section.

H.S. 6678, Málu, **lance** (total length 270 cm, length of the visible part of the tip 45 cm). The junction point of the bamboo tip and also the end of the shaft is enveloped in a layer of fairly firm stiff bast fibre, which is then spirally wrapped with a strip of rattan. The ornamentation (Fig.353) shows several stylized facial representations in the upper (front) part, and in the rear section firstly rather indistinct jagged and wavy lines possibly related to the markedly elongated eye representations of the previous spear groups. A fairly broad decorative band (Fig.354) is found at the beginning of the final third of the shaft, in front of a short knotty thickening, indicating the missing bamboo foot. The extreme end of the shaft is tapered.

H.S. 6675, Málu, **lance** (total length 284 cm, length of the visible part of the tip 68 cm). The added tip is not made of bamboo but of wood, which however has been given the shape typical of bamboo in order to fake a bamboo tip. Even the hollowing is imitated; one has to look very closely at the tip to recognize its true nature. On the base it has a row of humps, and on the convex side a carved decoration consisting of oval areas, and enclosed by curved lines. Tip and front end of the shaft are wrapped firstly with bast fibre strips at the point of connection, forming a knotty thickening in front. Over the bast fibre lies a very thick rattan wrapping. The binding site is adorned in front and behind with a little piece of Cuscus skin, and also in front there are several red feathers close together. The decoration engraved into the shaft behind the tip differs only little from that of the previous spear. The final third of the spear again begins with a slight swelling, in front of which is a carved decorative band, like that of H.S.6678 (cf. Fig.354).



Fig.353. Decoration of lance H.S.6678, 1/2 actual size



Fig.354. Ornamental band of lance H.S.6678, 1/2 actual size

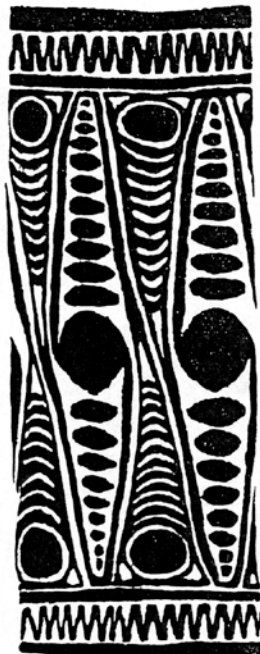


Fig.358. Decoration of lance H.S.6666, 1/2 actual size



Fig.359. Decoration of lance H.S.6672, 1/2 actual size



Fig.355. Decoration of lance H.S.6667, 1/2 actual size

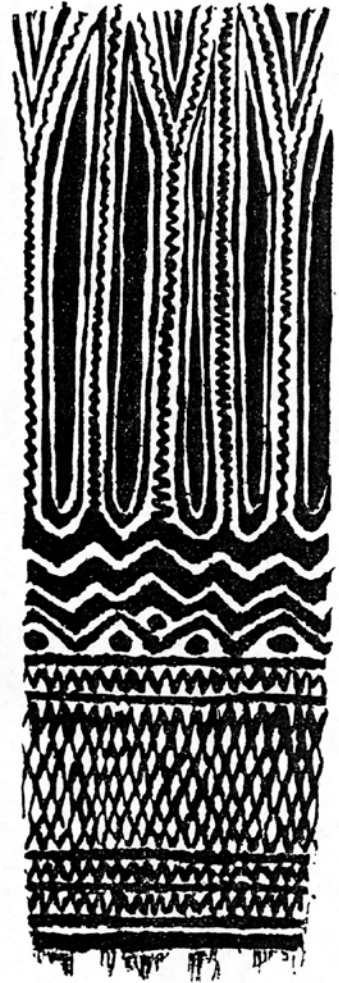


Fig.356. Decoration of lance H.S.9330, 1/2 actual size



Fig.357. Ornamental band of lance H.S.9330, 1/2 actual size

H.S. 6668, Málu, lance (total length 284 cm, length of the visible part of the tip 50 cm, length of the added piece of bamboo 75 cm). The bamboo tip is, like that of the previous spear, fastened with bast fibre and rattan wrapping, but has no ornamentation. Decoration of the shaft reveals nothing new. At the back, a long end of bamboo is added to the spear; the point of attachment shows only a simple rattan wrapping. Since an end of bamboo is present, ornamentation of the final third of the shaft is lacking.

H.S. 6671, Málu, lance (total length 255 cm, length of the visible part of the tip 44 cm, length of the bamboo foot 28 cm); similar to the preceding in form and ornamentation. The item is interesting in that besides an imitated thickening of the shaft, there is also a genuine bamboo addition which, admittedly, is very small. Before the imitation there is a decorative band consisting of a three-dimensionally projecting zigzag [326] between two low circumferential walls. The genuine addition is secured by a rattan wrapping.

H.S. 6667, Málu, lance (total length 283 cm, length of the visible part of the tip 58 cm, length of the bamboo addition 38 cm). The tip consists of wood and imitates a bamboo tip, although the resemblance is not nearly as good as in H.S.6675 (see above). Fastening is effected as usual by bast fibre and rattan wrapping. The engraved ornamentation just behind the tip is similar to that of the preceding spear (Fig.355), but does not show such clearly recognizable facial representations; it is incised quite surprisingly deeply. Even though a bamboo addition is present, in the region of the rear half of the shaft of this lance too there is an engraved ornamental band (like Fig.357), in front of which there is also a narrow strip plaited in four-ply twill-style. There is no thickening of the shaft here.

H.S. 9330, Málu, lance (total length 320 cm, length of the visible part of the tip 71 cm), Plate LXIII.1. The tip again consists of wood, and imitates the form of a bamboo tip; two pairs of parallel lines scratched transversely are intended to represent the contours of a bamboo knot. Fastening is the same as in the previous specimens; but here the attachment site is richly decorated, adorned with two strips of cream Cuscus skin and several red and white feathers. The shaft decoration (Fig.356) resembles that of the preceding spear, although the 'facial representations' are missing, assuming that the circular areas below the transverse zigzag lines are not remnants of eyes. A bamboo addition is missing; the site of addition is marked as usual by a swelling of the shaft with a carved decorative band (Fig.357) in front of it, and an eye-like figure marking its rear border and lying on the swelling. The extreme end of the shaft has a short thickening, the beginning of which is wrapped with a narrow strip of dirty brown bark.

H.S. 6677, Málu, lance (total length 276 cm, length of the visible part of the tip 50 cm), almost identical with the previous one in form and decoration; the adornments of the tip and the small terminal thickening of the shaft are missing.

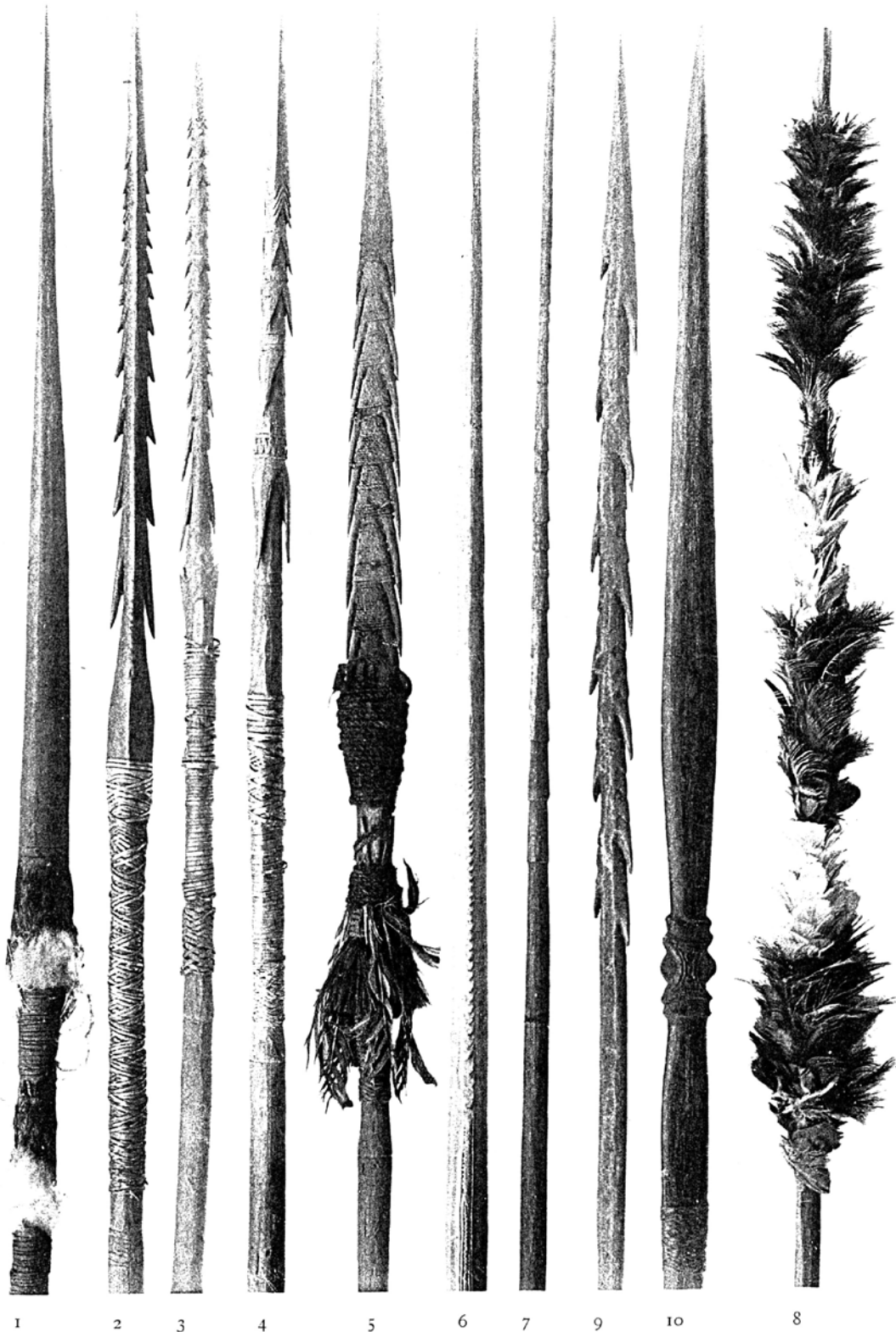
H.S. 6666, Málu, lance (total length 266 cm, length of the visible part of the tip 42 cm, length of the bamboo foot 32 cm). The specimen differs from the preceding one mainly in the shaft decoration (Fig.358); the decorated part is very much shorter. The pattern consists mainly of varied spirals, similar to those in lances H.S. 9199, 9193, and others, (see above), that seem to have originated as eye representations. The decoration is deeply-incised and shows no colouring. The bamboo tip is fastened by a simple rattan wrapping, while the bamboo piece at the back is secured by a narrow plaited band.

H.S. 6672, Málu, lance (total length 290 cm, length of the visible part of the tip 87 cm). The tip made from wood again imitates one of bamboo and is correspondingly deeply hollowed lengthwise; on the base its margins have several wide and deep incisions. It is secured by a layer of bast fibre with a rattan wrapping on top. The fastening point is decorated both in front and behind with a bunch of yellow-grey Cuscus skin. Here the shaft decoration (Fig.359) by way of exception is not just behind the tip but 36 cm further back. It is almost the same as the preceding one except that the areas between the spirals are not filled by curves but by angular figures. A piece of bamboo 8.5 cm long is fixed to the end of the shaft; a rattan wrapping does the fastening.

At first glance the following lances differ from those described so far by their very much rougher and bulky presentation. In them there is again the strongly pronounced three-dimensional heel serving as an abutment for the rear end of the tip, which we observed in the first group of spears.

H.S. 9329, Málu, lance (total length 249 cm, length of the visible part of the tip 38 cm, length of the bamboo foot 79 cm). The front end of the shaft consists of a circular securing peg, 22 cm long and only about 2 cm in diameter, to which the bamboo tip is fastened by a rattan wrapping. The rear end of the tip does not touch the very abruptly offset thickening at the front of the shaft but is received into a rattan bulge just in front. Behind the joint the shaft has one long and two shorter swellings; in front of the first one is a decorative band only 3 cm wide: a three-dimensionally projecting zigzag line between two circumferential rings. The bamboo addition is secured by a rattan wrapping.

Reche, Empress Augusta River, Plate LXIII



1. Lance H.S.9330 2. Lance H.S.9326 3. Lance H.S.1769 4. Lance H.S.1814
 5. Lance H.S.6568 6. Lance H.S.1776 7 and 8. Lance H.S.9195
 9. Lance H.S.6674 10. Lance H.S.9175 All 1/5 actual size.

H.S. 9236, 293 km village, lance (total length 260 cm, length of the visible part of the tip 37 cm, length of the bamboo foot 60 cm); similar to the preceding lance. The bamboo tip is fastened to the peg of the shaft by wrapping with a twisted cord in front and by a narrow plaited rattan band at the back. In series, first one long, then two short, bulges follow the thickened abutment; in front of the first one there is again a narrow ornamental band, which has the same pattern as on the preceding spear, although three-dimensionally produced. The first short bulge has one circumferential groove and the second has two. The bamboo end is fastened with a plaited rattan band.

H.S. 9327, Málu, lance (total length 319 cm, length of the visible part of the tip 74 cm). The tip is made from wood but imitates the form of a bamboo tip. For fastening to the shaft, firstly a palm leaf sheath is wrapped around the end of the tip and the shaft, with a rattan wrapping over the top. The abutment is strongly offset in front; two bulges follow behind, and on their front ends is a three-dimensionally projecting circumferential carved zigzag band. No bamboo is stuck into the end of the shaft; it is replaced by two thick gnarled swellings, one of which is at the beginning of the final third of the shaft and the second smaller one at the extreme end. In front of the first is a three-dimensionally carved zigzag band.

H.S. 6670, Málu, lance (total length 306 cm, length of the visible part of the tip 70 cm, length of the attached piece of bamboo 57 cm). Here too the tip consists of wood imitating a piece of bamboo; it is fastened to the shaft by means of a rattan wrapping and a narrow plaited band of the same material. The attachment point is covered by a broad leaf. Fifteen centimetres below the tip is a circumferential ornamental band consisting of zigzag lines with a slight bulge behind it. The bamboo foot is fastened by a simple rattan plaited band (four-ply twill-style).

H.S. 9328, Málu, lance (total length 269 cm, length of the visible part of the tip 40.5 cm). The attachment point of the tip is first covered by thin leaves then a wrapping of rattan strips on top. Fourteen centimetres behind the abutment (which is sharply delineated anteriorly), there is a carved circumferential ornamental strip consisting mainly of a broad wavy band. Further back, the shaft has several ring-shaped grooves, and, just before the bulge, again alluding to the missing bamboo end, there is an incised decoration consisting of two zigzag bands one above the other. The extreme end of the shaft has a strongly weathered and damaged spherical thickening.

H.S. 9326, Málu, lance (total length 310 cm, length of the visible part of the tip 67 cm, length of the bamboo foot 42 cm), Plate LXIII.2. The bamboo tip is secured by a rattan wrapping. Behind this part, a 41 cm length of the shaft is surrounded by a complex wrapping. As far as can be ascertained without definitively removing the wrapping and destroying it, the deepest layer is formed by a fairly thick rattan wrapping; above it is a covering of dried banana leaves, and right on top an extensive wrapping of thin strips of rattan. Right behind this point is a narrow rattan band plaited in irregular twill-style, then a narrow carved slightly-projecting plain ring. The rest of the shaft is undecorated. The piece of bamboo added to the end is held firmly by a simple rattan wrapping.

H.S. 9325, Málu, lance (total length 272 cm, length of the visible part of the tip 59 cm). The attachment point of the bamboo tip is wrapped in a piece of bamboo leaf sheath, forming a knotty thickening in front; on top of it is a simple rattan wrapping. With the abutment for the rear end of the tip sharply separated in front, the shaft assumes a significant width. In addition this whole front part of the shaft shows a marked flattening, and three successive bulges separated from one another by simple ornamental bands. The first of these consists of a circumferential zigzag band, the second of a simple, narrow, barely three-dimensional ring, and the third — it forms the boundary with the undecorated middle section of the shaft — of three narrow shallow grooves. Both of the first two decorative bands are connected together on one side of the shaft by a longitudinal strip extending right to the front end of the abutment. There is no bamboo end inserted behind; instead the beginning of the final third of the shaft has a fairly short thickening, in front of which is a carved decorative band (pattern as in H.S.6668). The extreme end does not have a swelling.

Spears with attached wooden tips were found combined in the preceding group, but there they were always a surrogate for the bamboo tips. In the following lances the wooden tip is always massive, and no way reminiscent of the bamboo tips; it is furnished with three-dimensionally carved barbs. Lances of this type seem to occur only in the river mouth region, at any event we did not find a single typical example further upstream.

[328] Two sub-groups of this spear can be differentiated: in one the tip is flattened from front to back and at the same time trimmed with barbs in the same plane; in the other it is circular and provided with three or four rows of barbs. Finally, there is an intermediate form, which combines the features of both subgroups.

A characteristic piece with flattened tip is **H.S. 1777**, Kōpár, lance (total length 292 cm, length of the visible part of the tip 50 cm, length of the bamboo foot 34 cm). Besides the two-line barbs, the tip shows a middle edge on both sides that is carved into short serrations directed obliquely backwards — mock barbs. Fastening of the tip to the

shaft is effected by a rattan wrapping; the rearmost tapered end is held firmly by a plaited rattan band, likewise the bamboo foot stuck into the back of the spear. Behind the tip an ornamental band surrounds the shaft; it has a cursorily-produced 'half entrails' pattern; 40 cm behind is a second decorative band of the same type. It is interesting that the spear, in spite of having a bamboo end, has a slight bulge roughly at the start of the final third of the shaft with two pairs of shallowly-incised lines in front of it. The shaft shows remnants of red colouring.

H.S. 1770, Kōpár, **lance** (*mīmék(ō)*), Füll.; total length 299 cm, length of the visible part of the tip 37 cm). The wooden tip is markedly flattened, and trimmed with two rows of barbs, increasing in size backwards. The method of attachment cannot be ascertained since the point of attachment is densely wrapped with thick cord twisted from human hair. A cord of red-dyed rattan plaited in pigtail-style wrapped around the rear section, chains of *Nassa*, and a ring plaited from bast fibre and trimmed with cowry serve as further decoration of this section. In addition, at regular intervals, pale greyish brown twisted cords are wrapped round the joint, their ends hanging down a long way and adorned with feathers and big pale blue beads. A piece of yellowish-brown cuscus skin forms the front end of the decorated part, while the rear boundary is marked by a narrow strip of red European material wrapped around the shaft and firmly holding several rooster feathers pointing backwards. At three points about 20 cm apart the shaft is enveloped in a carved decorative band depicting a 'half entrails' pattern. At the beginning of the final quarter of the shaft are four incised circumferential double lines, with a slight bulge behind. The extreme end of the shaft is tapered. Red colouring has been rubbed into the entire shaft and the wooden tip.

H.S. 6568, Īmbántōn, **lance** (*īmūn*, Müll.; total length 312 cm, length of the visible part of the tip 55 cm, length of the added-on bamboo foot 82 cm), Plate LXIII.5. The markedly flattened wooden tip has two rows of very long flat barbs whose base is in each case tightly wrapped with a cord firmly holding several cassowary feathers cropped into steps, and whose free ends hang down like tags. Fastening of the tip is achieved in the front section by thickly wrapping with a cord of twisted human hair, in the middle by a band plaited out of root fibres in pigtail fashion, and right at the back by a plaited rattan ring. At the same time a pair of dirty-brown rooster feathers directed backwards, and a bunch of cassowary feathers, are held firmly by the cord wrapping. On the shaft at a separation of 36 cm are two incised decorative bands, both consisting of a 'half entrails' pattern. Several lines are incised as a termination, forming an incomplete pattern as in spear H.S.1773 (see Plate LXII.8). A piece of bamboo is stuck into the end of the shaft, held firmly by a plaited rattan ring (irregular twill-style). It remains to be mentioned that at the front end of the shaft, just behind the wrapping cord of human hair, is a heavily-stylized, mask-like head carved out of wood in profile almost resembling that of a bird.

H.S. 9376, Wātām, **lance** (total length 309 cm, length of the visible part of the tip 53 cm). The red-dyed wooden tip is only slightly flattened and is roughly four-sided in cross-section. It is trimmed with two rows of barbs increasing in size backwards; just behind the last one is a circumferential incised zigzag band. A rattan wrapping serves for fastening the tip. Behind the joint is a narrow decorative band consisting of a roughly-incised 'half entrails' pattern. Otherwise the slightly curved, roughly polished shaft is devoid of decoration.

H.S. 1812, Sīngrīn, **lance** (*mīmék*, Füll.; total length 316 cm, length of the visible part of the tip 49 cm), similar to the previous specimen, but more carefully prepared. The red-coloured wooden tip is slightly flattened, has two rows of barbs increasing in size backwards, and on the front side a sharply projecting-, and on the reverse side only a slight [329] ridge. Behind the final pair of barbs is a marked lateral expansion. The tip is fastened by a rattan wrapping and a simple plaited band. Just behind the joint is a narrow circumferential ornamentation consisting of a three-dimensional zigzag band. Otherwise the shaft is undecorated.

H.S. 1769, Kōpár, **lance** (*mīmék(o)*), Füll.; total length 302 cm, length of the visible part of the tip 51 cm), Plate LXIII.3. The wooden tip is trimmed with four rows of barbs in the region of the front third, and two rows elsewhere; therefore, we have here to some extent a transitional form to the following spears. Fastening is effected by a rattan wrapping, and, at the rear end, by a narrow plaited band. Behind the joint the shaft shows a circumferential incision and a brief thickening at the very end; otherwise it is totally smooth and undecorated.

H.S. 1814, Sīngrīn, **lance** (*tūhānbōn*, Füll.; total length 317 cm, length of the visible part of the tip 60 cm), Plate LXIII.4. The wooden tip has three rows of barbs steadily increasing in size towards the back. The very front end is smooth; behind it are several very closely-clustered hooks; the distance between consecutive groups increases. In front of the last group of hooks an engraved zigzag band passes around the tip; behind are five indentations. Fastening of the tip is effected by a rattan wrapping and a narrow plaited band. The shaft is totally devoid of decoration.

H.S. 6665, Mālu, **lance** (total length 274.5 cm, length of the wooden part 128 cm, length of the bamboo part 146.5 cm); represents a type deviating from those already discussed and the groups which follow: like the catapulted spears of the river mouth area it has a wooden tip and a bamboo shaft. However, it can hardly have served for throwing with the spear launcher, because it is much too heavy. The wooden tip — perhaps a somewhat shortened shaft — is completely smooth, undecorated, with a gentle taper; it is fastened to the bamboo shaft by an irregularly-plaited rattan band.

The one-piece lances show, for the most part, that the natives are still aware that the add-on tip is the more primitive. At the place where the tip passes into the shaft there are still often bands made from cord or rattan, just as if a tip were still being held firmly. These bands are frequently replaced by carved ornamental strips or three-dimensional ring bulges. The plaited bands often imitate the fastening of the tip so astonishingly that at a first glance one is often in doubt whether one is dealing with a compound or a one-piece spear.

Among the known lances of this type from the Augusta River five variants can be distinguished.

Variant I shows a very long (occupying almost half the entire length of the spear), very massive, strong tip, beginning with a slight thickening, but slightly flattened, and showing on front and rear surfaces a more or less distinct middle ridge that gradually disappears further forward; barbs are absent. Fastening of the tip is alluded to by a fairly wide, carved ornamental band. The rear end of the shaft shows a thickening, abruptly separated forwards and tapering backwards. The rear section of the shaft is often trimmed with feathers. Spears of this type come from the river mouth area.

Group II, related to the preceding one, has a circular smooth tip, which is separated from the shaft either by a plaited band, or by an incised ornamental strip, or a slight bulge. The tapered end of the shaft often sticks into a bamboo foot. This variant occurs — with the exception [330] perhaps of the river mouth area — along the entire stretch of the river that we visited. A variation has the front part of the tip beset with thickenings somewhat reminiscent of barbs, sharply separated towards the back.

In Type III, the smooth tip is clearly four-sided over its entire length; its cross-section has the shape of a rhombus; it passes into the shaft either without a boundary, or is separated from it by a plaited or ornamental band. In several cases the shaft is decorated with feathers; its end is free or is stuck into a bamboo foot. If it is free, it often has step-like separated thickenings. This spear form too, with the exception of the river mouth area, occurs right up to the Hunstein Range. In a variation, the front part of the tip is trimmed with five rows of humps.

The fourth variant resembles the preceding, except that the fairly short tip is adorned with simple barbs arranged in two lines. This type of spear is found along the entire stretch of the river that we travelled.

Finally, Type V has a very flat broad tip, rather resembling the bamboo tip. It is always very distinctly separated from the shaft, usually by strong carving and a plaited band. Often the flattening also extends onto the shaft. The rear end of the shaft either shows a tapered thickening or sticks into a bamboo foot. One specimen is adorned with a dense arrangement of feathers. Its extent seems to be limited to the middle section of the river.

The following pieces belong to the first variant:

H.S. 1776, Kōpār, lance (*sūmburāñ*, Fülleborn; total length 309 cm, length of the tip 120 cm), Plate LXIII.6. The incised ornamental band dividing the tip from the shaft resembles that at the shaft end of the spear H.S.9377 (from Wātām, see Fig.336, p.316) and, like that one, runs out on each side into a long narrow peak whose process becomes a sort of middle ridge. Above all, surprisingly, the tip of this spear resembles the shaft end of spear H.S.9377. As can also be recognized in the figure, due to oblique notches the middle strip of one side has turned into a row of short teeth pointing obliquely downwards. The whole spear has been lightly rubbed with red colouring.

H.S. 9016, Nāngīt, lance (purchased from a canoe; total length 263 cm, length of the tip 120 cm). The smooth tip is almost circular in the front section and slightly flattened further back; only one of the middle strips is sharply developed. The decorative band separating the tip from the shaft shows the pattern that in five-fold repetition forms the decoration of spear H.S.1771 (from Kōpār, see p.317). The rear section of the shaft is trimmed with alternating short brown and white, and long white, heron feathers.

Four lances can be counted among variant II.

H.S. 9174, 252 km village, **lance** (total length 263 cm, length of the tip 126 cm). The long circular tip is totally undecorated; a simple wide band plaited from rattan (in four-strand twill-style) forms its rear border. The tapering end of the shaft is stuck into a 28 cm long bamboo foot, which is fastened on by a narrow plaited (four-ply twill-style) rattan band. The second-last quarter of the shaft is decorated with eight bunches of cassowary feathers separated in steps, overlying one another like a slate roof (Fig.360), secured by rattan.

H.S. 9017, Nǎngǐt, **lance** (bought from a canoe; total length 246 cm, length of the tip 129.5 cm). The undecorated tip is separated from the shaft only by a shallow circumferential groove. Almost the entire [331] shaft is decorated right up to the end with alternating wrappings of red European cotton material (trimmed with overlaid serrated white feathers) and thick bunches of soft white down feathers.

H.S. 6559, Mbīm, **lance** (*gǐgrínǒ*, Müller; total length 303 cm, length of the tip 130 cm). The not fully circular undecorated tip ends at the rear in a wide carved decorative band that represents a somewhat more roughly worked variation of the decoration in H.S.1771. The front half of the shaft is covered by a dense bunch of very long cassowary feathers pointing backwards, to which are added small short bunches in front and behind, consisting alternately of cassowary feathers and tree bast fibre. A wide, red-dyed band plaited irregularly from rattan, adorned with a circumferential cord of *Nassa* shells forms the front border.

H.S. 6676, Mǎlu, **lance** (total length 270.5 cm); differs instantly from the preceding specimen by tapering gradually at both ends, so that it cannot be established which end is the actual tip. A wide incised decorative band (Fig.361) with strongly pronounced depressions occurs not quite in the middle.

H.S. 9195, 252 km village, **lance** (total length 263 cm, length of the tip 32.5 cm), Plate LXIII 7 and 8. Here the front half of the tip is adorned with thickenings resembling barbs, abruptly cut off behind and narrowing gradually in front. The extreme tip has a sharp edge trimmed with groups of three to five small notches. Where the tip crosses into the shaft is a wide plaited rattan ring (four-ply twill-style) wrapped with several cords of human hair. Three quarters of the shaft are trimmed with thick bunches of long black and white feathers. The blunt end of the shaft has a step-like, separated thickening.

The following specimens belong to the third variant:

H.S. 6669, Mǎlu, **lance** (total length 267.5 cm, length of the tip 83 cm). The four-sided tip is divided from the shaft by an irregular wrapping of cord, in which are fastened several cassowary feathers pointing forwards. Then follows a very wide ornamental band with strongly carved depressions. The pattern (Fig.362) seems in places to have evolved from facial representations. The tapered end of the spear shaft sticks into a short bamboo foot, only 18 cm long and held in place by a cord wrapping. Furthermore, the decorated part of the shaft is also four-sided.

H.S. 9094, Mǎndǎnǎm, **lance** (*yǔngwě*, Hellwig; total length 302 cm). The completely undecorated irregularly four-sided tip crosses into the shaft without any borderline. The end of the shaft is somewhat flattened and provided with three slight thickenings separated at their rear like steps. The entire lance is rubbed with red colouring.

H.S. 9090, Mǎndǎnǎm, **lance** (*yǔngwě*, Hellwig; total length 303 cm, length of the tip 167 cm). The border between tip and shaft is indicated by a wide, ring plaited multi-ply twill-style from rattan. From this point on, almost the whole shaft is trimmed with feathers held in place by cord and bast fibre wrappings; mainly white but also green and red feathers are used. The end of the shaft (like H.S.9092, see Fig.363, p.332) is quite markedly expanded, and has two step-like separations. According to Hellwig the feathers are *gawǐgm*, the plaiting *ginemañ*, the wood? *yǔngwě*.

H.S. 9019, Āngǒrǒm, **lance** (total length 237 cm, length of the tip 119 cm). The roughly-carved tip is irregularly four-sided. A shallow groove and a low bulge form the border with the shaft. The blunt-ending shaft is trimmed with alternating white, red, and black cropped feathers over almost its entire length.

H.S. 9093, Mǎndǎnǎm, **lance** (*mǎnyěně*, Hellwig; total length 293 cm, length of the tip 126 cm). This specimen shows a certain similarity with the spears of variant I: the decoration bordering the rear of the tip runs out on each side into a narrow sharp-edged strip extending to the very tip; this is sharply four-sided. The ornamentation (*b'ě ūngūm*, Hell.) consists of an oval surrounded by a narrow groove; appended to this are several incised angular figures, one inside the other. Just behind the decoration, a narrow and a wide band, plaited from rattan (four-strand twill-style), surround the shaft. The spear ends in four thickenings, two in front, one behind, and one in the middle, separated on both sides like steps: perhaps imitation of a bamboo foot with its internodes.

Schlaginhaufen (1910b, pp. 56-57) depicts and describes a spear as “bilaterally symmetrical, both with regard to its general form and in the arrangement of the occasional barb-shaped humps. It is compressed laterally. The humps are in five longitudinal rows: one in the middle of each of the broad sides, two on one of the narrow sides, and one on the other narrow side. The edges occupying the end of the tip follow the same arrangement.”



Fig. 360.
Shaft end of
lance H.S. 9174,
1/6 actual size



Fig. 361. Ornamental band
of lance H.S. 6676,
1/3 actual size



Fig. 362. Ornamental band
of lance H.S. 6669,
1/3 actual size



Fig. 364. Ornamental band
of lance H.S. 6737,
1/3 actual size



Fig. 363.
Shaft end of
lance H.S. 9092,
1/4 actual size

[333] The following are spears of variant IV:

H.S. 6674, Mǎlu, **lance** (total length 250 cm, length of the part of the tip with barbs 73 cm), Plate LXIII.9. Going from front to back, the very elongated barbs become smaller and shorter; each has a series of incisions reproducing the contours of the barb tip. There is no recognizable border between tip and shaft. The end of the lance sticks into a 76 cm long bamboo foot, where it is firmly held by a plaited rattan band (4-6 ply twill).

H.S. 9091, Mǎndǎnām, **lance** (*mǎfǎn*, Hellwig; total length 277 cm, length of the tip 60 cm). The front half of the tip has two rows of alternately standing barbs increasing in size as they go backwards. The rest of the tip is slightly flattened, and shows a small lateral swelling. The tip is bounded from the shaft by a slight thickening, separated fore and aft like steps, and slightly constricted in the middle with a small knob on either side. The spear shaft is distinctly flattened; the end sticks into a 49 cm long piece of bamboo (*ǎgǒgm*, Hell.) held firmly by a rattan wrapping.

H.S. 9092, Mǎndǎnām, **lance** (*yǎngwě*, Hell.; total length 285 cm). The tip is similar to the preceding; the lateral swelling behind the barbs is even greater, the cross-section clearly four-sided. The carved thickening between tip and shaft is bordered both front and rear by two deeply incised circumferential grooves (*tǎmpú*, Hell.); its middle constriction is greater and the two knob-like elevations added here are bigger. The end of the shaft (Fig.363) is flattened and has five thickenings separated towards the rear like steps. If the end of this shaft is compared with the step-like cropped feather trim of other spears, for example H.S.9174 (see Fig.360), one comes to the conclusion that these trimmings carved out of wood are imitations of the feather decoration.

H.S. 4512, Kǎmbrínūm, **lance** (total length 264 cm, length of the tip 67 cm). The tip is trimmed with two rows of fairly small barbs; the border with the shaft is marked by several engraved lines at an angle to one another, bounded in front and behind by a narrow plaited rattan band. The rear half of the shaft is trimmed by alternating bunches of long white and short brown and blue feathers; the extreme end has several step-like thickenings.

H.S. 6737, Kōpǎr, **lance** (*kǔrǐ*, Müller; total length 259 cm, length of the tip 100 cm; “allegedly intended for *Singsing* — dances —”), an extraordinarily carefully-fashioned spear with a beautifully-carved and ornamented tip reminiscent of that of spear H.S.6674 (see Plate LXIII.9). The barbs alternate in two lines, increasing backwards in length. On the outside of each of the rear barbs is a small carving: a row of five small knob-like arches, parallel with the long axis, all surrounded by a narrow wall. In place of this, the barbs further forward have only several grooves. The tip is flattened; behind the barbs are two very-sharp lateral and one rather flatter medial ledge on each side, trimmed at intervals with groups of small grooves. Tip and shaft are separated by a carved ornamental band (Fig.364) bounded in front by a band made from cord and behind by an irregularly-plaited rattan band. The greater part of the shaft is decorated with carefully-fastened bunches of feathers: from front to back, after a bunch of long rooster feathers come short red parrot feathers, then somewhat longer white, then green, then again white, and finally mid-length black feathers. The blunt end of the shaft has several graduated thickenings.

Finally, the following pieces belong to the fifth variant:

H.S. 9194, 252 km village, **spear** (total length 254 cm, length of the tip 105 cm), with a very flat broad tip, resembling a wide iron spear point in shape; it is probably intended to imitate a bamboo tip. Its maximum width is 5.5 cm, its cross-section has the form of a rhombus. Its rear end is furnished with several oblique grooves that form short stumpy barbs. The narrowing behind is surrounded by a plaited rattan band; then on each side follows a big knob-shaped projection deepened in the centre. The shaft is, for the most part, decorated with feathers: black, white, red, and green. The spear end is blunt.

H.S. 9173, 252 km village, **spear** (total length 264 cm, length of the tip 88 cm). The tip is very flat, as is that of the previous spear, but rather less broad; it has a midrib on both sides; it is separated from the shaft by a narrow groove, followed by a plaited rattan ring (four-ply twill). The shaft is likewise somewhat flattened; in the middle of the rear half it has several irregular lateral grooves and ends in a small tapered thickening. [334]

H.S. 9175, 252 km village, **spear** (total length 234 cm, length of the tip 73 cm) Plate LXIII.10. The tip is somewhat less flattened, its greatest breadth lies further forward than in the two previous specimens. A carefully-produced carving forms the border with the shaft (Fig.366), evidently the model for the less-precisely fashioned decorative piece of spears H.S.9091 and 9092 (see above). A little behind the carving, a wider, somewhat irregularly-plaited, rattan ring surrounds the flattened shaft. The end of the spear sticks into bamboo 80 cm long, fastened with a plaited rattan ring. It is surprising to note that one side of the spear has a very smooth surface whilst the other side by comparison has a rough surface with deep holes and splits. [335]



Fig. 365.
Tip of the spear
H.S.9194,
1/2 actual size

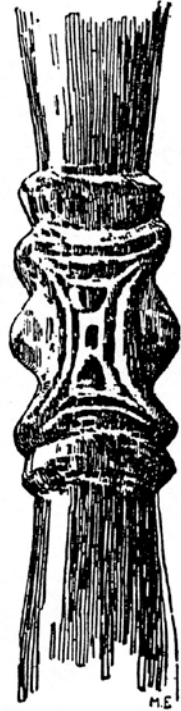


Fig. 366. Carving on
spear H.S.9175,
1/2 actual size



Fig. 367a.
Bow H.S.6605,
1/10 actual size,
(with cross-section)



Fig. 367b. Fastening of
bowstring to the bow
H.S.6605, 1/2 actual size

Spear holder

Schlaginhaufen (1910b, pp. 61 and 62) describes a spear holder made from basketwork, which, if the author had not observed it in use, would without further ado have been taken for a headband.

“The container for the whole thing is a slightly-curved, plaited leaf 36 cm long, and 8.5 cm wide at the middle, but narrowing to 4.5 cm at each end. Three zigzag or undulating bast fibre strands are plaited onto the convex side in such a way that all three run lengthwise, one in the middle and the other two along the edges. The distinct wavy arches of each strand are each bound into one another by a longitudinal strand, and, in addition, the three lengthwise strands are bound by five transverse strands. Both ends are provided with loops, and cords are fastened to these to tie the article to a house pole. I found an object like this in a house in the end village; the spears were stuck into the curves of the wavy bast fibre strands in a similar way to which we would put walking sticks or umbrellas into an umbrella stand.”

Bows and arrows

According to all accounts so far, the bow is found right in the upper reaches where it appears to be the only long-range weapon; there the catapulted spear is, in all probability, unknown. However, isolated and foreign (or relic?), the bow appears almost throughout the middle and lower reaches, the region of the spear launchers.

The bows that we found on the river are produced from palm-wood, flattened staves, broad in the middle but tapering sharply towards the ends. None of them, in their typical form, shows Gräbner's (1909, p.754) characteristic cross-section of bows of the "bow culture" — flat outside, convex inside. The bowstring consists of a rattan string. Even though they all belong to one type, two variations can be identified: in one the string attachment point consists of a plaited rattan bulge; in the other it is an inset piece of wood.

The former appears to be the most common. It cannot be distinguished from those found around Berlinhafen.

H.S. 6605, Mändänäm, **bow** (*pāmbān*, Müller; length in the strung position 142 cm, maximum width 3.3 cm), Fig.367a, made from palmwood; fairly old weathered specimen. The outer and inner sides are slightly convex; a narrow, slightly-projecting ridge runs along the inner side, used perhaps — like the dark line found on the inner side of the Solomon bows (Frobenius, 1901, p.29) — for aiming. The string surrounds the tip of the bow projecting from the bulging cord attachment point with a double loop, created by double-back plaiting of the end of the string (Fig.367b). Both ends of the bow are treated in the same way as regards attachment of the string, which is hooked on without any further ado. As its sole decoration the bow carries eight bands of varying width plaited from rattan in 4, 5, and 6-ply reversible twill-style.

H.S. 6606, Mändänäm, **bow** (*pāmbān*, Müller; length in the strung position 138 cm, maximum width 3.5 cm), made from palmwood, similar to the preceding bow. The outer side is more markedly convex than the almost flat inner side, which, moreover, does not show a middle 'sight' line. Attachment of the cord is somewhat different: it forms only a simple loop. The string attachment point at one end consists of an almost spherical thick bulge bearing a hanging loop, and at the other end of two bulges, a very large spherical one and a small flat one. The bow's decoration consists of two less carefully-made bands plaited out of thick strips of rattan in irregular twill style.

[336] In spite of every effort, no more bows were brought forth in the village, and arrows were absolutely not obtainable.

H.S. 1791, Kōpār, **bow** (*bān*, Fülleborn; length in the strung position 190 cm, maximum width 4 cm), made from palmwood, particularly similar to H.S.6605, since outer and inner sides are convexly curved to the same degree, and also the 'sight' strip is here again, running down almost the entire length of the bow (cf. the bows illustrated by Erdweg, 1902, p.324, and Biro, 1899, Plate 15, Fig.5, from Berlinhafen). The string attachment point is formed at both ends by a disc-like knob plaited from rattan, which is very much more carefully made than in both the preceding specimens. The string, of rattan, ends on both sides in a simple, removable loop wrapped in rattan. The decoration of the bow is very extensive. Enhancing the bowstring attachment point at the lower end are firstly two wide, then three narrow, rings made from rattan in twill-style; then follows a narrow ring, plaited from pale-yellow material, which, when we bought the bow, was carefully wrapped in leaves. The entire mid-section of the bow is unadorned. The upper end, which was likewise very carefully wrapped in leaves, had the richest decoration. This wrapping of sensitive parts has, as Erdweg (*loc. cit.*, p.324) reports, the purpose of beautifying the trimmings and "preserving the vividness of the colours..." "Only during war, festivities, visits, is the wrapping removed so that each man can admire the beauty of the bow." So it is at Berlinhafen and so it will be on the Augusta River especially as the bows appear to be imported from that region. When the wrapping is removed (Fig.368a) one first sees, close to the string attachment point, a dark-brown plaited ring; then follow wide plaited bands made from pale-yellow material, separated from one another by very narrow dark-brown or pale rings; next is a spot with an engraved decoration on the inner side (Fig.368b) which is however almost completely covered by a parrot skin (green wings, red neck) pressed flat. Another pale, plaited band marks the lower limit. On the outside of the decorated section runs a twisted cord consisting of the same material as the dark and pale narrow separating rings; it is trimmed with all kinds of pendants: strips of red European cloth and big split pods which all bear one or more parrot feathers at the end.

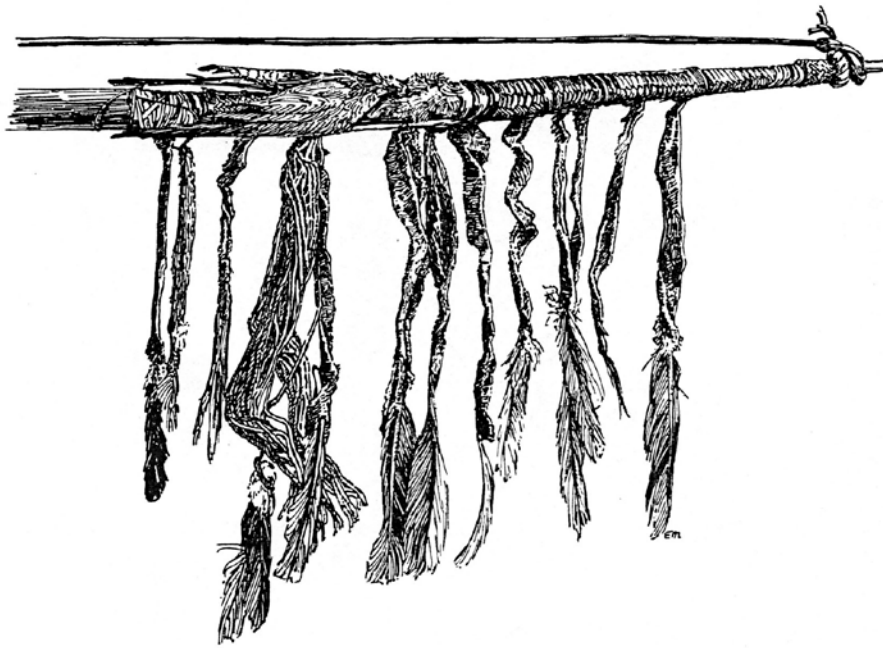


Fig. 368a. Decoration of the bow H.S. 1791,
1/5 actual size



Fig. 368b. Decoration of the inner surface
of bow H.S. 1791, 1/2 actual size
(rubbing)

[337] The second type of bow was mentioned and illustrated, for the first time, to my knowledge, by Pöch (1908, pp. 171 and 172); Frobenius (1901) is unaware of it. Pöch writes, "But in addition the Wātām have bows and arrows, the bow with an unique attachment of the bowstring. At the ends the string is laid over two quarter-circular wooden discs. This takes the bowstring so far from the bow that a rebound against the forearm is probably avoided. The bow is of palm-wood; the bowstring is a strip of bamboo; the interpolated pieces of wood are plaited onto the bow with rattan." To enlarge on this, it can be added that each of these "quarter-circular wooden discs" has a long, gradually-tapering extension (Fig. 369); it is this that is bound onto the bow with plaited rattan bands. According to Pöch, this type of bow also occurs among the Nubia people, in Hansa Bay. We did not happen to find it on the Augusta River, but on the other hand found several specimens on the Hansa-Vulcan Island.

I have not carried out investigations as to what force is necessary to bend the various bows; with the dried-out bows in the museum atmosphere one would not achieve any result to enable drawing a conclusion on the draw strength of a specimen used in the open.

We were able to obtain arrows belonging to the bows only in the river mouth area, indeed without any difficulty, an indication that the bow is relatively common there and is also more often used. Quite surprisingly, in places the arrows resemble those from Berlinhafen, and I cannot ignore the possibility that they share a common origin; arrows are transported extraordinarily widely on the New Guinea coasts by trade, and partly also as gifts of friendship.

The arrows that we obtained in the river mouth region all have a tubular shaft to which is added a tip carved from palmwood or bamboo; they are unfeathered. The back end is always smoothly cut off, and never shows a groove.

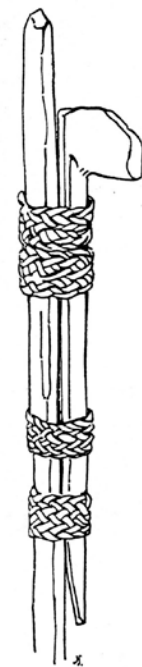


Fig. 369.
Upper end
of bow
H.S. 6775
(Vulcan Island),
1/2 actual size

Arrows with wooden tips (*nǎndǎn*, Fülleborn):

H.S. 1778, Kōpǎr, **arrow** (total length 149 cm, length of the tip 51.5 cm). The inset tip is a smooth palmwood stick tapered on both sides, with both ends dyed black; the midsection has several black rings. The tip's joint is wrapped with bast fibre. The shaft is undecorated.

H.S. 1779, Kōpǎr, **arrow** (total length 145.5 cm, length of the tip 46.5 cm), similar to the previous one. However the smooth tip is dyed completely black.

H.S. 1780, Kōpǎr, **arrow** (total length 141.5 cm, length of the tip 48 cm), Plate LXIV.1; the tip has a thickening in front of the joint; this whole section is wrapped in rattan.

H.S.1781, Kōpǎr, **arrow** (total length 148 cm, length of the tip 50.5 cm), similar to the preceding one. Just before the front end the tip has two alternately positioned barbs; the middle part is trimmed with several rings painted black. Separate long lines have been burnt onto the shaft. [338]

H.S. 1782, Kōpǎr, **arrow** (total length 168 cm, length of the tip 43 cm), Plate LXIV.2. The wooden tip has five alternating short barbs; the part behind them is divided into sections of roughly equal length by four pairs of incised circumferential grooves. The joint is wrapped round with thin bast fibre; just behind it is a burnt-on decoration.

H.S. 1783, Kōpǎr, **arrow** (total length 139 cm, length of the tip 39.5 cm). The tip is similar to the preceding tips, and has, in front, two short barbs close together. The extreme end is coloured black, the remainder painted with red and black bands. The joint is tightly wrapped, and smeared with a sticky mass. The shaft just behind shows several irregularly-carved lines.

H.S. 1784, Kōpǎr, **arrow** (total length 152 cm, length of the tip 51 cm). The wooden tip is fairly wide and flat in the middle section, and is triangular in cross-section. It is evidently intended to imitate a bamboo tip: the boundaries of the internode, the knots, are signified by indentations. The joint is spirally wrapped in thin rattan.

The following four arrows are especially strongly reminiscent of those local to Berlinhafen.

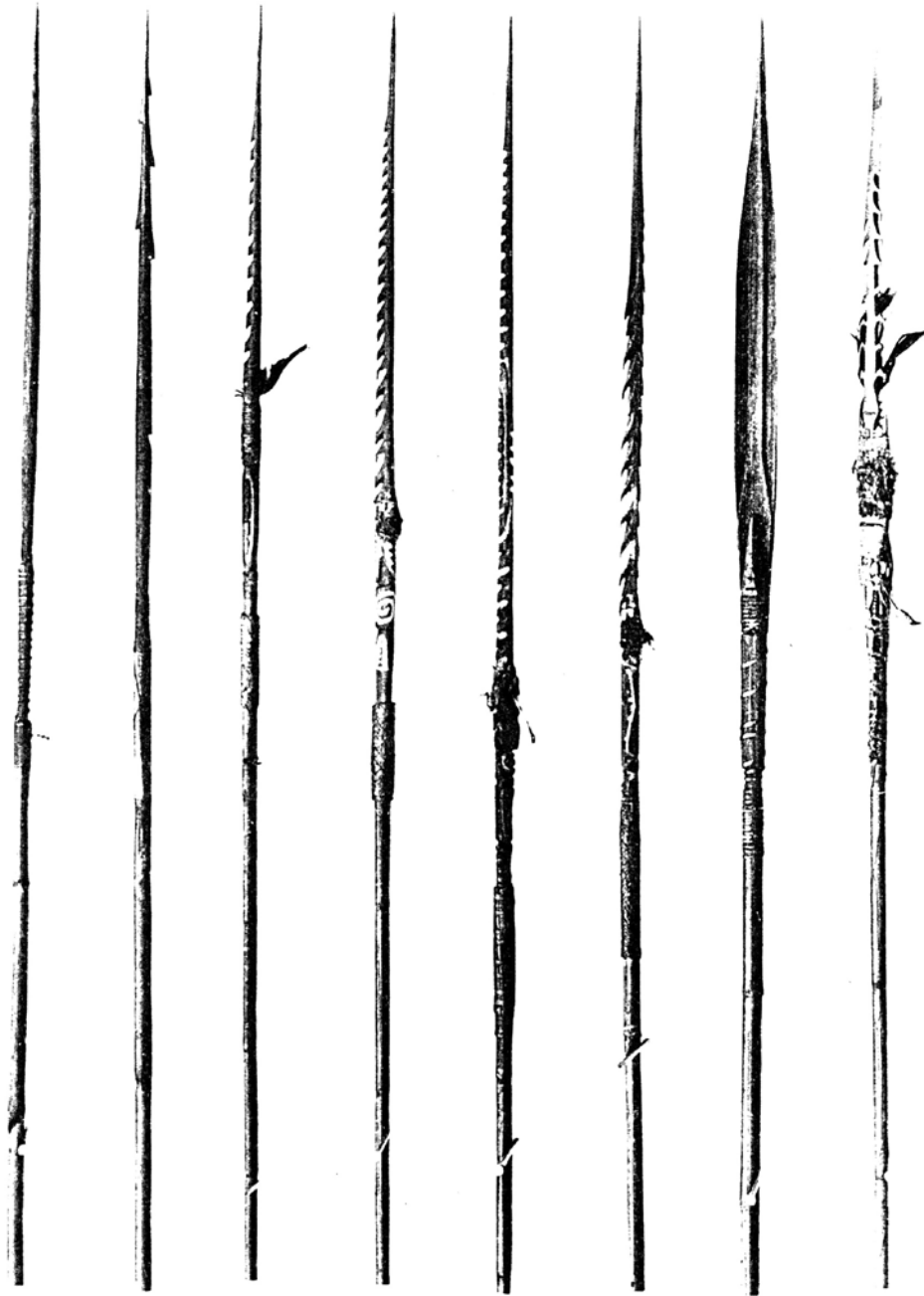
H.S. 1785, Kōpǎr, **arrow** (total length 135 cm, length of the visible tip 41 cm), Plate LXIV.3. The wooden tip is very much more complex than those already discussed. The end part is trimmed with barbs created by deep grooves along almost the entire length of one side. Behind this, wrapped in thin rattan, is a leaf covering with a small feather fastened on; it is noticeable that the part under the leaf is completely smooth and undecorated, presenting absolutely nothing worth wrapping or keeping beautiful; perhaps we are dealing with a charm. The base part of the tip has three-dimensionally carved ornamentation whose raised areas are coloured black and whose depressions are pink. The shaft is wrapped at the joint with a sleeve plaited in four-ply reversible twill-style.

H.S. 1786, Kōpǎr, **arrow** (total length 141.5 cm, length of the visible tip 46.5 cm), Plate LXIV.4. The tip is similar to those preceding. The insides of the grooves separating the barbs are painted black in the foremost section and the rest of the tip, whilst further back they are painted alternately red and white. The place separating the hindmost section of tip from the barbs, and wrapped in thin rattan, is rubbed with a resin-like substance, which firmly secures two small red feathers. The hindmost section of the tip is even more richly carved than that of the previous arrow; the depressions are red in some places and white in others. The joint is surrounded by a plaited sleeve. The shaft has burnt-on, longitudinal lines close together.

H.S. 1787, Kōpǎr, **arrow** (total length 145 cm, length of the visible tip 57.5 cm) Plate LXIV.5. Like the preceding, the tip is trimmed with barbs along almost the entire length of one side, but also has a few on the other side; again the depressions are painted either red or white. The wrapping at the rear border of the barbed section is thickly clad in red, and yellow-green parrot feathers. The carved pattern of the hindmost part of the tip differs somewhat from that of the preceding arrow; its raised areas are black, its depressions red or white. The joint is surrounded with a plaited sleeve (four-ply, reversible twill-style), which is almost completely covered by a thick layer of strips laid lengthwise and wrapped transversely. The shaft has burnt-on lines right into the internodes, close together, long, and constantly-alternating longitudinal and oblique, forming a ziz-zag line running round the shaft.

H.S. 1788, Kōpǎr, **arrow** (total length 156 cm, length of the visible tip 52 cm) Plate LXIV.6. The tip is trimmed on both sides with barbs, a number of which are painted alternately red and white. The plaited spot bordering this section behind is trimmed with red parrot feathers and several *Coix* shells. The rear end of the tip is flattened and decorated with a carved ornament whose raised areas are painted dark brown and the depressions red and white. The joint is surrounded by a very long plaited sleeve (four-ply, reversible twill-style). The shaft has burnt-on lines, some parallel to the long axis, others forming a circumferential zigzag band.

Reche, Empress Augusta River, Plate LXIV



1. Arrow H.S.1780 2. Arrow H.S.1782 3. Arrow H.S.1785 4. Arrow H.S.1786
5. Arrow H.S.1787 6. Arrow H.S.1788 7. Arrow H.S.1789 8. Arrow H.S.1790
All 1/5 actual size

Arrows with bamboo tips (probably also: “*nāndān*”, Fülleborn).

H.S. 1789, Kōpār, **arrow** (total length 162 cm, length of the tip 50.5 cm) Plate LXIV.7. The flat undecorated bamboo tip tapers abruptly at both ends; it is not pushed directly into the shaft but fastened to a wide wooden peg with a rattan binding which is inset into the shaft. The latter again displays several wide burnt-on lines parallel to the long axis, at each internode.

H.S. 1790, Kōpār, **arrow** (total length 149 cm, length of the visible tip 27.5 cm), Plate LXIV.8. Like the wooden tips just described, on two sides [339] the tip has barbs incised out of the cutting edge. It also does not appear to stick directly into the shaft but to be fastened on by means of a wooden peg; this cannot be seen in detail because the entire joint and the adjoining section are thickly covered by plaiting. Several wide, plaited sleeves (mostly in four-ply twill-style) joining one another seamlessly, form the deepest layer; the part turned towards the tip is thickly trimmed with stuck-on red and yellow-green feathers; behind this is a ring of *Coix* seeds with two more small feathers attached, yellow with black edges. Finally, the hindmost part is surrounded by a loose-mesh plaiting of bast fibre strands. The shaft has relatively complex drawings composed of burnt-on lines: some cross-over zigzags, some peaks attached to the knots and filled with hook-shaped lines, and some groups of long lines parallel to the long axis.

Catapault

The Linden Museum has a stone catapault presented by an engineer, Hornung, which, according to the collector, came from the Augusta River. I consider this provenance to be incorrect, because, firstly, the occurrence of stone catapaults along the Augusta River would be very surprising and, given the lack of stones, very unlikely, and secondly, the specimen St.Ho.91 matches completely the catapaults found in several parts of New Britain in form, material and manufacturing style, and is, especially, indistinguishable from those of the Willaumez Peninsula. This might therefore be an error of the collector, who probably, in packing the specimens collected on various voyages, was no longer quite clear on the origin of each one.

The pad for holding the stone consists of rough, hard-fibre, bast fibre. Of the two strings attached to it, one (83 cm long) is very carefully plaited; at the end it has a flat knob, wrapped in ashy-pale European material, out of which hangs a long bunch of bast fibre, with a round disc (diameter 3.4 cm) of mother-of-pearl shell fastened over it. The other cord (78 cm) is twisted triple-ply (on the Augusta River cords are almost exclusively two-ply) entwined into a knot at the end.

Daggers

A highly-favoured weapon, usually carried in an armband, is the bone dagger, which is probably also used occasionally as a work tool, or an eating utensil. It is almost always made from the shin-bone of a cassowary.

H.S. 9334, 343 km village, **bone dagger** (length 37.5 cm) Fig.370. The tubercles of the joint have each been bored through three times and connected together by three arches plaited from rattan; the strongest of them carries two cords, in one of which a lot of small grey feathers have been plaited into a long bushy tail. With the exception of the tip, the dagger is completely covered with engraved designs. In Fig.371 where the unwrapped decoration of the front and reverse sides is reproduced, the deeper lines are drawn in black. The main decoration, both in front and behind, comprises a stylized human face with the extended ends of the sides of the nose passing into the contours of the eyes. The nostrils are added to the front surface of the sides. A small cowry shell is inlaid into one of the lateral sides of the end of the joint, evidently intended to represent an eye; the specimen on the other side has fallen out. The inlay of the snail was done by removing the bone mass in order to flatten the entire lateral surface, then placing the cowry shell on the surface and finally filling the whole surface up again with a red-coloured mass of resin. On the left side, the mass of resin is missing, as is the snail.

H.S. 9098, Mändánām, **bone dagger** (*dzalím*, Hellwig) of cassowary bone (*gagríno*, Hellwig) with a beautifully polished [340] surface, evidently an old, much-used piece (length 35 cm). Both joint tubercles have a fairly wide hole on the rear side; into these holes is fastened an arch of twisted cord dyed red, and onto this two bast fibre tags, which, in their upper section, are plaited in a pigtail then knotted and frayed out at the end. The upper surface of the joint tubercles is covered by several sharply-incised (with a metal knife?) lines intersecting mostly at right angles.

H.S. 4540, Málu, **bone dagger** (length 30.5 cm), very similar to the preceding one but without any decoration; the front side displays only a pair of irregularly scratched lines.

H.S. 6696, Málu, **bone dagger** (length 33 cm). The end of the joint is divided into three longitudinal lumps by two wide incised lines. The two outer bulges have a hole behind them, through which runs a cross-bar of twisted cord. No decoration.

H.S. 9355, 343 km village, **bone dagger** (length 23.5 cm). The interval between the joint tubercles is excised quite deeply so that the upper end of the dagger appears as two wings. The lateral surfaces of the tubercles have again been narrowed by removal of the bone mass and appear, as in H.S.9334 (see above), to have been filled with resin, perhaps they too bore cowry shells as decoration. On the reverse side, the tubercles are bound by a multiple rattan band. The beautifully polished front surface of the dagger displays a carefully-carved pattern (Fig.372) which includes a facial representation. The depressions are reproduced in black in the figure.

L.Me. 9099, “Empress Augusta River”, **bone dagger**, similar to the preceding specimens; it is adorned with a bunch of bast fibre, a *Coix* chain, and a little clapper-less bell made from a snail shell.

The two daggers described by Schlaginhaufen (1910b, p.60) are also similar. One displays a scratched design on the front surface consisting of “pointed ovals and extended spirals”; the other a cowry shell puttied into the end of the joint with a mass of resin.



Fig.370.
Bone dagger
H.S.9334,
1/5 actual size



Fig.371. Decoration of
dagger H.S.9334,
1/5 actual size



Fig.372. Decoration
of dagger H.S.9355,
1/2 actual size

Clubs

We, like other expeditions before us, brought back from the middle reaches of the river, large wooden implements furnished in front with a three-dimensionally carved hook, that probably should be considered as clubs. Nobody has seen them in use, and also, nothing further could be gleaned from the natives about them. In the end, one could regard them as gardening tools (Schlaginhaufen); but on the other hand, this is contradicted firstly by their rich ornamentation, and secondly by the absence of heavy traces of wear on the tip of the hook, which would undoubtedly be seen if the soil had been worked with them. Quite astoundingly, these hooked clubs resemble, as Schlaginaufen (1910b, p.71) himself comments, the recognized two-piece [342] hacking weapons of Aua and Wuvulu; admittedly, it seems doubtful whether they are based on this type of composite article, since the strip separating hook and handle (mentioned by Schlaginhaufen (*loc. cit.*) occurs only quite rarely.

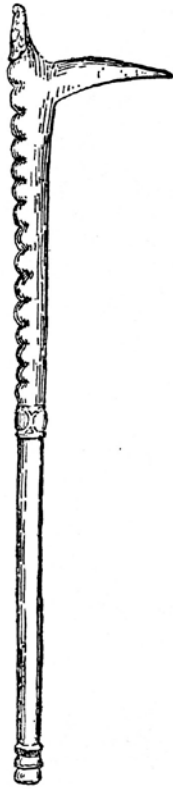


Fig. 373 Hooked club H.S.9369, 1/15 actual size



Fig. 374 Upper end of hooked club H.S. 9369, 1/4 actual size

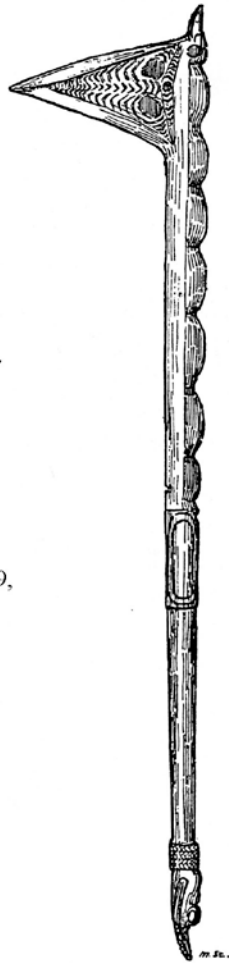


Fig. 376a. Hooked club St.Ha. 61750, 1/10 actual size

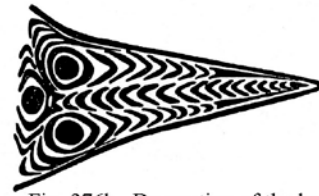


Fig. 376b. Decoration of the hook part of club St.Ha.61750

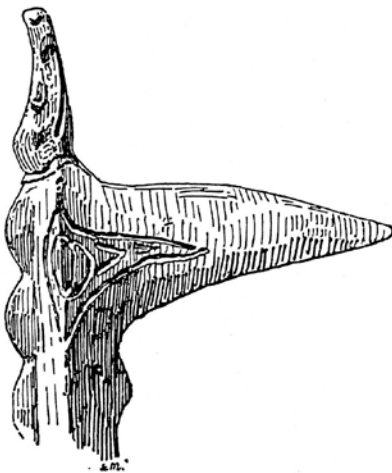


Fig. 375. Upper end of hooked club H.S.4548, 1/4 actual size



Fig.377. Hooked club, after Schlaginhaufen



Fig.378. Hooked club, after Schlaginhaufen

H.S. 9369, Pămúŋgrī, **hooked club?** (bought from a canoe; length 164 cm), Fig.373, carved in one piece out of hardwood. The lower end of the handle has a knob-shaped thickening with two carved bulging rings above it; the upper one runs into a somewhat stylized crocodile head (Fig.374) whose eye- and nose- parts project beyond the profile. The hook part, carved from a side branch arising at this point, has a smooth undecorated surface. The upper, slightly flattened half of the handle displays a row of consecutive roundish carved humps on the side turned away from the hook. This section is bordered below by a carved decorative band filled with three, three-dimensionally projecting, oval areas surrounded by narrow curved strips. Just above the knob, at the end, a simple thin double-stranded cord is wrapped several times around the handle, its end forming a loop obviously used as a hanger.

H.S. 6717, Pămúŋgrī, **hooked club?** (bought from a canoe; *yākúŷŷi(?)*, Müller; length 137.5 cm); like the previous one, carved out of a single piece, however the material is a relatively soft wood. The handle displays a roughly-produced crocodile head at the grip end; it ends at the top in a small knob-shaped thickening which is bored through transversely, with bast fibres pulled through as decoration. The hook part, again fashioned from a side branch, is partially decorated, admittedly only on one side: its contours are followed by an incised line, which also passes over the bordering part of the handle; four small angular strips, one inside the other, mark the lower limit of the decoration. Since a roundish elevation is recognizable in the middle of the decorative part on the handle, the hook gives the impression of a bird's head whose eye is indicated by the elevation. On the rear edge of the handle there is again to be found the row of roundish prominent humps; the handle in this section is four-sided. The wide, three-dimensional band, separating off the part below, is devoid of decoration. At the grip end, immediately above the crocodile head, is a band plaited from rattan and provided with a hanging loop.

H.S. 4548, Pămúŋgrī, **hooked club?** (bought from a canoe; length 158 cm), prepared from a single piece of relatively soft wood; an old specimen, covered in patina. The grip end of the handle displays only a slight thickening, above which is fastened a very wide plaited band (four-ply reversible, twill-style) made from rattan, with a long strong hanging loop. While the lower half of the handle has a rounded cross-section, like that of the preceding example, the upper half is decidedly four-sided. The row of humps on the rear side is sharp-edged and delineated on each side by an incised line. The handle ends above in a crocodile head, which is distinguished by two especially powerful teeth projecting out of the lower jaw (Fig.375). On its base the hook part displays a decoration of incised lines following its contours, perhaps similarly intended to represent a bird's eye. Below the hook and, exceptionally, on the front side, is a small roundish hump. The ornamental band marking the lower border of the upper half of the handle has two large oval areas separated from each other by angular lines.

St.Ha. 61750, "hostile village", **hooked club?** (length 130 cm), Fig.376a, similar to the preceding specimens. The handle is four-sided in the upper section and round in the lower one; it ends above in a cursorily produced, and below in a more carefully carved, crocodile head. The upper section, decorated with the row of humps, is bordered below by a decorative band, which is similar to that of the preceding specimen. The hook part is the most richly ornamented, and stands out also due to its particular width. The incised pattern (Fig.376b) consists of two oval areas and three rows of consecutive three-dimensional hook- and half-moon structures. The length of the hook from base to tip is 24 cm, and its greatest width is about 16 cm.

St.Ha. 61749, "Panguli", **hooked club?** (length 138 cm), very similar to the preceding specimen. The handle ends above in a fairly roughly made animal head (dog?), and below in a knob-like thickening. The hook part is damaged.

The specimens illustrated and described by Schlaginhaufen (1910b, p.58) are more richly carved. In one of the clubs the handle (Fig.377) ends beneath in a crocodile head (the features mentioned by that author: the big tooth soaring out of the lower jaw and the "strip running to the jaws" from the eyes, which seem to him to refute the assumption that one is dealing with a crocodile head, are indeed characteristic of crocodile heads of this region; compare for example the canoe prow and the decorative parts of the lime calabashes;) and above in a parrot's beak below which is depicted a human [343] face in profile. "The hook part receives its border from a thin, curved simply-decorated strip." Especially carefully produced are the humps on the rear edge; each of them springs from a curved part bordered by low strips. The second specimen (Fig.378) is smaller and simpler; the handle ends above in a small, animal head, which in my opinion is likewise intended to represent that of a crocodile. In this specimen the arch-shaped sections are missing.

A specimen illustrated by Neuhauss (1910, vol. I, p.304, Fig.203) is similarly richly carved; on the front edge it displays a carefully-produced row of humps.

All the hooked clubs of this type so far known come from a fairly small region roughly defined by the villages of Kămbríŋgī and 298 km-village, and I cannot ignore the possibility that the spread of this weapon is actually not much greater than this. Furthermore, there are also clubs which show a certain affinity to those provided with hooks.

The most closely related is a specimen (Fig.379) illustrated by Schlaginhaufen (*loc. cit.*, p.57). “This laterally flattened club is carved in such a way that both long edges have a row of consecutive arch-shaped scallops in both upper thirds, from which in turn project arch-bordered prominences; the red, white, and black painting supports this impression.” The rows of humps — two are present here — thus show the same structure as that of the larger hooked clubs described by Schlaginhaufen (see Fig.377)

The clubs just mentioned form a transition to the following pieces, which I likewise consider to be clubs, although when we asked the natives during the hand-over what they were used for, they used one of them in front of us to take the green shell off a coconut. On the Admiralty Islands, among the Sissanu (Neuhauss, 1911, vol. I, p.305), in Tumleo (Erdweg, 1902, p.328) and so on, there are similar clubs which at the same time serve as gardening tools and women’s weapons; I regard it as very likely that here we are likewise dealing with women’s clubs.

H.S. 1890, “Empress Augusta River”, **women’s club?** Plate XLIV.3 (length 116 cm, maximum width 8 cm), of very flat, sword-like form. The handgrip has a leaf-shaped knob. The ‘blade’ is covered with painting on both sides, evidently intended to imitate the hump carved in wood in the type of club illustrated by Schlaginhaufen. It is possible that earlier all clubs had notched rims furnished with humps, which enhanced the effect of the blow. Now they seem to make the work easier and to leave the clubs usually completely round, but the notching is at least indicated by painting. Red, white, and black are used for this. The rounded tapered tip of the club shows traces of use even when about 1.5 cm are removed from the rim: here the upper surface is somewhat polished and the colour rubbed off.

H.S. 6718, Pāmūngrī, **women’s club?** (bought from a canoe); *yākūyī?* Müller; length 106.5 cm, maximum width 9 cm); an old fairly weathered piece, similar to the preceding one in form and painting, but made from very hard wood. No clear signs of use can be recognized on the specimen.

H.S. 4521, 293 km village, **women’s club?** (length 103.5 cm, maximum width 5.5 cm), similar to the preceding one with the exception of the handgrip being painted reddish. The piece has a very sharp cutting edge; it is very flat on one side and fairly strongly curved on the other. Here too, the stumpy tip shows traces of use: it is polished smooth over a width of about 1 cm. The knob on the handgrip has the same form as in the preceding specimens.

H.S. 9231, 293 km village, **women’s club?** (length 119 cm, maximum width 7.5 cm), like the previous specimen, but unpainted. The knob has a similar form to those described so far, but has angular contours. Only the tip shows slight traces of use.

St.Ha. 61752, “Simar”, **women’s club?** (length 194 cm, maximum width 6 cm) Fig.380, designated as a “striking sword” by the collector; similar to the preceding specimens in form and style. The knob is fairly roughly fashioned. [345]

St.Ha. 61751, “Simar”, **women’s club?** (length 210 cm, maximum width 7 cm) like the preceding specimen designated as a “striking sword”.

H.S. 4547, Pāmūngrī, **club** (bought from a canoe; length 162 cm, maximum width 7 cm), long, slender, sword-like in form. One side of the ‘blade’ shows a midrib extending from the handgrip right to the tip. The entire piece is rubbed with red dye. A band plaited in six-ply, reversible twill-style surrounds the handgrip. The knob is particularly artistically carved (Fig.381); the extreme end is formed by a fairly flat crocodile head; below, separated by an undecorated band, are two *Buceros* heads presented in profile with open beak and tongue visible; these strongly resemble the human faces of many representations and, on the other hand, the mask types with the markedly elongated nose (cf. also the betel mortar H.S.6597, Fig.125, p.177). The two faces (or *Buceros* heads) are separated from each other by a strip hacked out on both sides. A similar decorative band lies on the throat of the crocodile.

L.Me. 9089, “Empress Augusta River”, designated by the collector (Liedecker) as a “dance staff”, is certainly a club (length 108 cm, maximum width 8 cm), Fig.382. In shape the piece resembles a flat broadsword. The tip is not as round as in the specimens described so far. The relatively thin handgrip has a small knob at the end; it continues a short distance onto the blade, as a strip. At this point the blade is adorned with a carved decoration consisting of three facial representations produced in the style of the river mouth area (Fig.383); to some extent the strip lengthening the handgrip forms the nose of this face.



Fig. 379. Club,
after Schlaginhausen



Fig.380. Club
St.Ha.61752,
1/10 actual size



Fig. 382.
Club
L.Me.9089,
1/10 actual size



Fig. 381. Pommel of club
H.S.4547; a. front view,
b from the side; 1/4 actual size



Fig. 383. Decoration of club
L.Me.9089, 1/4 actual size

Intellectual Culture

Family and Society

So far, what we know of society, family, constitution, laws and the like on the Augusta River is still, naturally, very little. Without sufficient translators, not a lot can be gathered about these things in what is an almost untrodden area. Be that as it may, all sorts of chance observations and comparisons with further developed neighbouring regions lead to presumptions that will eventually uncover the truth.

Social Levels

From this point on, one would not expect any more complex forms of society; that would be rather quite out of the ordinary for German New Guinea. Yet surprisingly, Friederici (1910, p.335) reports that when visiting the big lagoon south of the river mouth he got to know a "high chief" named Apena, and continues, "Apena is regarded as the most powerful chief in the whole area" (*loc. cit.*, p.336). Now, there is probably not a single "high chief" in the entire Kaiser Wilhelmsland, and even the occurrence of an ordinary chief would be extremely remarkable in this region, for in the general vicinity, as far as we know, the title is completely unknown. We can be fairly confident in this respect in the case of the Monúmbo, of Potsdamhafen, who actually exhibit a very closely related culture and, moreover, appear to have had their roots on the Augusta River. Pöch (1908, p.140) reports on the constitution of this tribe, "All these people living along a narrow strip of coast in the above-mentioned villages and speaking the Monúmbo language, are not unified by a strict organization, and, even though the westernmost village group is barely two hours distant from the easternmost, certain conflicts exist between them." "There is no chief over the whole area, and even within the individual groups there is no chief in the narrow sense of the word, but a few older men have a greater influence. They are called Tuára". "The title of *tuára* is inherited. A boy of about 15 years old . . . said to me that he was the son of a *tuára* and would himself become a *tuára* when he was an adult." Father Vormann, who has [347] lived for many years among the Monúmbo and learned their language, corroborates these observations: "The Monúmbo are not organized in any way politically. There are no chiefs, no organs of administration and the like. However they have divided the care for their affairs among themselves. Those responsible for individual concerns are called *toára* (plural: *toaránga*), which probably translates as 'minister'. The *toára* position is inherited" (1910, p.414). According to Vormann, there is a great number of *toaránga* in every village; some have responsibility for village affairs, another for warfare, others for mask dances, looking after the pigs, obtaining curved boar tusks, and so on. There are one or more of each type of *toaránga* in each village. "I have also heard that one combined several areas of responsibility." However, these *toára* titles do not carry special powers: "This division of responsibility for communal affairs is not to be regarded as a *toára* having to organize the duties entrusted to him, exclusively and with absolute authority. He often brings something forward for discussion and pleads on its behalf. If it meets with agreement, he carries it out with the help of others. Frequently the matter is instigated from other quarters, then he has to take a lively interest in it as well."

Thus the political situation among the Monúmbo is *democratic*, as it is almost throughout Kaiser Wilhelmsland; the position of chief has not yet evolved, at most the *toára* can be regarded as a forerunner of this role.

The picture portrayed here by and large corresponds with our observations of the situation on the Augusta River, right along the entire stretch of the river that we visited. Nowhere was a chief presented to us, which tended to happen in Melanesia insofar as there was one, and nowhere did we have the impression that one person had more to say than the others. And not only in the river mouth area but also in the middle reaches, the thought never came to us that there could be chiefs. There was always a large number of older men who played host, as it were; in any kind of chance event, another person, who until then had not come to our notice, probably assumed the role of our guide and took charge of the situation. When for example Fülleborn replaced the arm wrapping of a wounded man with a European bandage, the latter showed his gratitude not only by spontaneously presenting several bundles of tobacco as payment, but also by taking over our guidance and very ably took care of the prompt execution of our wishes. Had there been chiefs in the villages, then on such occasions they certainly would not permit themselves to be excluded. Above all, it is noticeable wherever you go that nobody has to give orders; even the women do not say much. Also, the 1887 expedition, which certainly had the opportunity for studying behaviour fairly closely in the village of Málu, (at the Hunstein Range), came to the conclusion that there was no chief here: "The villages do not appear to have an actual [348] chief, it rather gives the feeling that a large number of individual family bands coexist, recognizing an overlordship among themselves." (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.31). Probably, in these 'leaders' they were dealing with the same, or a similar institution, as the *toaránga* mentioned above.

Of equal rarity as chiefs is a noble class. It was not determined whether slavery occurs; probably not, because prisoners of war are probably simply eaten.

The position of women

In most cases, as with the Monúmbo, marriage is probably monogamous, (cf. Vormann, 1910, p.412). Wealthy men, reports the 1887 expedition, (*Nachrichten über Kaiser Wilhelmsland*, 1888, p.31), also take several wives. In one case we also came to the conclusion that a quite wealthy man had only one wife: in the village of Kämbríngī an obviously very friendly native led us to his splendid dwelling, called his family out and presented us to them, especially to show our pale skin and hair. This family consisted of several children and only one wife, and we had the impression that the man really did have only this one wife with whom he evidently lived in perfect harmony.

In the middle reaches the woman seems to have a relatively independent position; she also has her private property, which she evidently manages, and can leave what she will. In this region the women usually participated very intensively in trade with us, and sold pots, aprons, decorative items and the like on their own account. In spite of this certain independence, the women have to carry out the main work. For example the 1887 expedition reports on the Málu women: they "keep the gardens clean; fish with nets and baskets; kill the *kaal*, a larva appearing in great quantities in the river at certain times of the year, and eaten smoked; wash out the sago and carry the 40–50 pound loads in nets, with the band worn across the forehead, from the sago thicket to the canoe; propel the canoe in which the man sits without lifting a hand; cook; weave nets and loin cloths and so on." (*Nachrichten über*

Kaiser-Wilhelmsland, 1888, p.31). On one occasion we were able to confirm these observations. Near 252 km village we encountered a canoe returning from fishing: it was occupied exclusively by women. In the lower reaches we learned that the washing of sago and its further preparation were exclusively the task of the women. The duties of men are, on the other hand, relatively small: "they build the canoes, prepare their weapons, cut down the sago trees and a few trunks in laying out a new garden, and sometimes accompany the women; the latter have to [349] do everything else" (*loc. cit.* p.31). Furthermore, the men appear to look after fishing with the very big nets, as well as trade along the river.

Usages and Customs

Attainment of manhood

Celebrations for the acceptance of boys among the ranks of the men differ in one major point from most of those that we have so far come to know in New Guinea: along the entire stretch that we travelled circumcision does not occur (cf. p.115). Otherwise the celebrations may be played out in similar fashion as around Berlinhafen; there I refer to the very extensive and interesting account by Father Schmidt (1907, p.1029 *et seq.*) on the attainment of manhood by the Karesáú Islanders.

As almost everywhere else, on the Augusta River they appear to deceive the uninitiated, women, and children that a spirit has appeared and swallowed the boys, in order to give them back, to some extent, as reborn: as men, a concept that was probably the real basis of most manhood initiations, being found for example on Karesáú too, (Schmidt, 1907, pp. 1032 and 1039). The pipes and bamboo flutes support of the idea of the appearance of spirits. We found them in large numbers in the ceremonial houses, particularly in the river mouth area. They serve to imitate the voices of various spirits during the ceremonies, and to terrify the initiates. In Kōpǎr at the time of our arrival, the people were apparently in the process of preparing for an initiation ceremony; in a ceremonial house — in a room set especially apart — lay a quantity of very fresh, still unpainted pipes, with small wooden masks, similarly unpainted, fastened to them, and also a large bundle of canes that would probably be made into flutes. These, and the flutes from the middle reaches, are described with the musical instruments.

On the Augusta River is found yet another implement often used during initiation ceremonies, one which we actually did not expect to find, since circumcision is not performed: the bull-roarer; it is used here just as on Tami, for example, (see Bamler, 1911) to evoke the voice of the spirit that swallows the boys.

We obtained the following pieces:

H.S. 4522, 239 km village, **bull-roarer** (length 71.5 cm, maximum width 8.3 cm), Fig.384. Whether we were actually dealing with a bull-roarer was initially quite doubtful, since it was the first specimen that we obtained; the size of the piece especially made us look for some other purpose and, furthermore, the lightly-done decoration of one side was astonishingly reminiscent of the painting on the sword-like clubs (for example H.S.1890, Plate XLIV,3). Only when we saw other specimens, among them a smaller one fitted with a band, did our doubts dissipate. The knob at the upper end has a wide bored hole with a narrow strip of rattan pulled through it, probably the remnant of the band with which the bull-roarer was swung. With regard to the decoration of both sides, I refer you to the [350] illustration. The raised areas are charcoal black; the universally shallow depressions are the natural colour of the wood. The material is a very soft type of wood.

H.S. 6649a, 293 km village, **bull-roarer** (length 37.5 cm, maximum width 4.7 cm), Fig.385; almost identical in form to the previous specimen, but very much smaller; it was stored in the belly of the very large plaited crocodile H.S.6649 (see Plate LXXXI.1) where we discovered it only after purchase. A cord (length 46 cm) of slightly twisted bark bast fibre is fastened to the upper end, and at the free end of the cord is the little piece of wood (length 9.5 cm, maximum diameter 1 cm), which is held in the hand while swinging the bull-roarer. Above the hole for this cord the end of the bull-roarer expands into a double-peaked process which serves for holding the knotted cord in position, parallel with the long axis. This keeps the bull-roarer in the same relative position while swinging it, and probably achieves a purer tone. One side of the instrument is very flat, the other slightly curved. Decoration is rather irregularly incised with primitive tools. The raised areas, which have probably also been slightly charred, show a dark-brown colour, while the depressions show the paler natural colour of the wood. This specimen appears to have been made from the same type of wood as the preceding item. It emits a very deep humming sound when swung.

H.S. 6596, Muǎngĕm, is very probably likewise a bull-roarer; Plate LXV.1 (length 140 cm, maximum width 10.7 cm). The form is exactly the same as in the specimen just described: at the upper end is a hole for the cord, with the double-peaked process above it. The reverse side is completely smooth. The front surface presents a very large, rather three-dimensional face whose raised areas are dark-brown or red, and depressions natural, or white. Two much smaller faces are both above and below the principal decoration (probably the face of the spirit), the highest of them above the string hole. The two faces in the lower section are separated by wide ornamental bands, consisting mainly of peculiar, combined spirals. Also, in the small faces the depressions are coloured white. Along the entire edge of the bull-roarer are small holes, great distances apart, evidently for attaching ornaments, grass hangings and the like; at the time of initiation this representative of the spirit is probably specially decorated.

Obviously we are not dealing with a common, customary bull-roarer here; its considerable dimensions already contradict this, probably precluding use. Also the fact that, contrary to the specimens described so far, it is extraordinarily richly bedecked with carving on only one side indicates that the piece serves exclusively formal decorative purposes. In my opinion the conclusion on its significance is given by Bamler's report [351] on the initiation ceremonies on Tami. There, in addition to the small actually-used bull-roarers (*kani*) there are more-carefully-made pieces, "principal *kani*"; "the principal *kani* are never swung, they are, to some extent, the holy relic of the village, and are carefully stored" (Bamler 1911, p.497). They show facial representations, while the common *kani* are "completely smooth and often very inconspicuous". These principal *kani* appear to be the actual representatives of the spirit, the smaller ones only imitations for use, to some extent offspring or children of them. I believe that we are also dealing with a "principal *kani*" in the previous specimen.

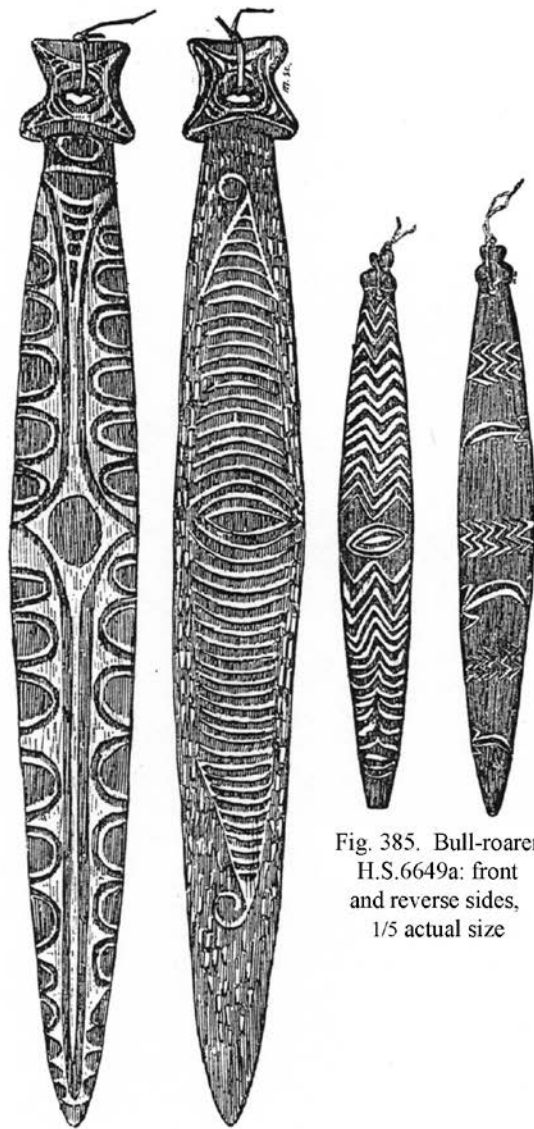


Fig. 384. Bull-roarer
H.S.4522, front and reverse
sides, 1/5 actual size

Fig. 385. Bull-roarer
H.S.6649a: front
and reverse sides,
1/5 actual size

Reche, Empress Augusta River, Plate LXV



1. Bull-roarer H.S. 6596, 1/10 actual size. 2. Pouch with teeth H.S. 9225/1, actual size.
3. Skull H.S.A. 777, 1/2 actual size

In 293 km village, in the same small (reception?) house where the mask piece H.S.6648 was stored, Müller saw several small boards, about 40 cm long, flat, and with a hole at one end, hanging on the wall, very probably also bull-roarers.

In the river mouth area there were small masks with a hole through the upper end. When Hollweg asked their purpose, the people mimed with two smaller ones (H.S.8993 from Nǎngĭt, *mōbŭr̄* or *mŭr̄ŭp*, and H.S.9035 from Mŭǎngĕm, *andángam*) and a larger one (H.S.9005 from Nǎngĭt *barǎngŭ*), from which he inferred that the masks served as bull-roarers. A long rattan band, which could be used for swinging, was fastened to one of them (H.S.9035). However, experimentation showed that these masks, even when they were allowed to rotate simultaneously around their long axis, did not emit any tone remotely like that of a bull-roarer; the noise obtained, even with the fastest twirling, consists only of a barely-audible hiss. Unfortunately nothing can be gleaned from the local names either at the moment, because we were given the words *mōbŭr̄* and *andángam* only on this one occasion. *Mŭr̄ŭp* appears to designate simply a certain kind of mask, and we were given the word *barǎngŭ* for almost any facial representation, but also for bamboo flutes; it is evidently combined with the Melanesian root word *bar* and might indicate simply 'spirit', 'soul of the dead'. However, we found identical small masks attached to ceremonial flutes or used as amulets; it is therefore most likely that the current three pieces served one of these purposes.

Just as with the Monúmbó, the narrow constricting belt is put round the boys during the attainment of manhood ceremony in the river-mouth area of the Augusta River; they never seem to lay it aside later, and so you often see men with totally unnaturally-narrowed waists (cf. p.113).

Possibly during the manhood ceremonies genital hair, where it exists, is shaved off; I did not see a single adult male who had not carefully shaved it (see Plate XI, 1 and 2). [352]

Burial

The type of burial, and burial customs, are not the same everywhere along the stretch of river that we visited. In the river mouth area, as I was told many times, the relatives were buried on the paths and a small hut was built over the grave. After some time, when the decay process had progressed sufficiently far, the skull and lower jaw were exhumed and stored in a house. Here, therefore, we have the same situation as occurs nearby, for example among the Monúmbó and at Berlinhafen. Occasionally they take the opportunity of removing several other bones from the grave and using them to make amulets.

In Ĭmbǎntŏn, just above the river mouth area, I obtained a skeleton carefully collected in a basket (H.S.9225), its skull neither opened nor decorated, and stored in a beautiful big house; I was informed that it was a villager. In the basket, besides the skeleton there was also a small pouch containing human teeth (Plate LXV.2), which evidently came from this skull, further remnants of human head hair, and several items that had probably been placed with the deceased: parts of two half-destroyed belts, a damaged arm band and a finger bone of a flying fox. As they told me, they bury the dead, then after a certain time they exhume the entire skeleton and store it in a basket in the house; what happens subsequently, could not be ascertained. In the same village I obtained several other skulls; they had all been forcibly opened at the back, and were adorned with an incised decoration on the frontal bone; these came, as they emphatically pointed out, from slain enemies.

From the village of ǎngŏrŏm onwards, the burial method is different again. In this village, a large wooden sago-washing bowl, firmly wrapped in bark, sat on a partially-roofed

platform (Plate XXIV.1). The natives calmly let us glance in: there lay a woman's corpse, still clad in a grass skirt, in the process of decay. The bottom of the vessel had a hole drilled in it; a thick bamboo tube (the thickness of an arm) inserted into the hole led down to the ground to drain the decay fluid into the soil. And so here we have a custom similar to that occurring elsewhere in New Guinea, particularly among inland tribes. Thus Neuhauss (1911, p.164) reports of the Papuan-speaking Warapu: "they lay their dead on high scaffolds which are covered over with a small roof and there let the body decay". "The likewise-Papuan neighbours of the Warapu, in the hinterland beyond Sissanu, behave the same way." It is evidently an old-established custom, which has been superseded in places on the coast by earth burial, introduced by immigrating tribes. The bones of the decayed corpse appear to be stored in the houses, just as in Īmbǎntōn. The purpose of the whole procedure is probably to free the skeleton, particularly the skull, as quickly as possible from all components not to be [353] preserved, in order to offer it as a dwelling to the wandering soul of the deceased before it can cause much misfortune.

Surprisingly, this above-ground type of burial appears to be restricted to only a few villages on the river; most likely it is more widespread in the adjoining hinterland, which is less strongly influenced by the coast. At Mǎndǎnǎm at least, but possibly even at Kǎmbrínŭm, another type of burial begins: here the dead are buried in the ground, indeed, apparently right under the houses standing on poles. At any rate, in Mǎndǎnǎm they showed us two houses, each with a grave beneath it (see Plate XXXVIII.1): sites measuring about two square metres, protected with horizontal staves showing no decoration of any kind; this fence was about a metre high. Thus, here, the burial style is similar to that on the coast in the river mouth area. In several villages further upstream we occasionally came across similar enclosed sites along the way; due to interpreter problems, it could not be determined whether they were graves. In Kǎmbrínġī we saw an almost oval, grassy site perhaps 30 square metres, on the opposite side of the village street to the houses, which was bounded towards the river by bush and towards the street by a simple lattice of wooden staves (see Plate XXVII.2). As we approached it the otherwise very joyful people grew anxious, and gave us to understand that the site was somehow sacred, and walking on it was forbidden; we dared not even touch the lattice fence. Perhaps this too was a burial site.

Hollrung (1888a, p.447) reports that they place bowls of water on the graves; probably he made this observation in the middle reaches.

The numerous skulls modelled over with clay found in the houses in this region appear to belong to villagers; thus they evidently disinter the burials as soon as all the putrefied material has disappeared.

Nothing could be gleaned with any certainty from the natives themselves.

The type of burial just described extends at least as far as Mǎlu, our farthest point.

Forms of Greeting

Greeting ceremonies are mentioned by almost all travellers who have visited the river, but remarkably, so far each one has been 'greeted' in a different way. It is therefore to be presumed that at least part of this ceremony had a totally different significance from that which the travellers had assumed. When, for example the 1886 expedition reports, "as a sign of friendship in one village on our arrival a dog was killed and specially-decorated peace lances had their tips stuck in the ground" (*Nachrichten für und über Kaiser-Wilhelmsland*, 1886, vol.4, p.127), it is actually not quite evident why these two events should express

friendship; sticking the lances in the ground, evidently thickly [354] adorned with feathers — like the battle spears that we obtained — could, on the contrary, be regarded rather as a sign of defence: this far and no further!

The following expedition, that of 1887, reports an event which is probably correctly interpreted as a greeting ceremony: “The greeting of a stranger coming into the village is highly original: a roulade of sago cake filled with grated coconut was pushed into his mouth, at which the chorus of those standing about intoned a staccato a-a-a-a-aaa”. (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.32). This a-a-a-a. . . moreover does not seem to belong to the actual greeting, it was probably more an expression of astonishment and pleasure. We were, for example, similarly received in Kāmbrínŭm with howls and loud “ha-ha-hiii”, a cry that one could also invoke with a gripping pain or a grimace: thus it is not a form of greeting.

Schlaginhausen (1910a, p.7) mentions an event that was very probably intended as a greeting, “A man paddled up with a large bouquet of coloured leaves and an uniquely-cut leaf and handed these things over, perhaps a sign of greeting or peace”.

Friederici (1909, p.333) reports, “Tobacco leaves in small bundles are regarded almost everywhere as a sign of greeting and friendship.” I can vouch for this observation. With the exception of the river mouth area where they did not appear to plant tobacco, we were offered these kinds of packet of tobacco almost every time that we entered a village, they often even reached them out to us from the canoes that came alongside. In Mŭǎngĕm they gave us some tobacco and sago bread when we went ashore.

When Hellwig was sprinkled with coconut water from the mouth of a man he met, in the villages of Ăngöróm and Kāmbrínŭm, this was probably less of a greeting than a type of mystical ceremony.

In the highest reaches of the river that we visited, roughly near 293 km village, we observed two very remarkable, “forms of greeting”. In this region not a single canoe approached the steamer without pausing for a moment: the occupants clutched their navels and performed a circular movement with their hand; only when we ostentatiously seized our jacket button in this region and displayed the same circular motion, did they advance trustingly, and peaceful trade could begin. With the inhabitants of Mǎlu and the villages further upstream we saw a variation of this greeting: here they did not clutch their navel, but the usually-unwrapped penis instead, and set this in a circular motion. Strangely, we were always greeted in this way only from the canoes, never on land [355]. It remains to be mentioned that the words, “*mai, mai, unamai*” (Hellwig) were called to us by the occupants of the first dugout that came alongside near Mǎlu, probably not a greeting but a question.

When we entered one of the large, densely-populated villages on the stretch of the river between Kāmbrínġī and Mǎlu we were received by old and young men without formality or ceremony, women among them sometimes. The older people played host to some extent and conducted us into small houses in the centre of the village, evidently official reception houses; there we first sat down, exchanged gifts, and then gradually trade started. On several occasions they led us instead to the ceremonial house, where we sat down on benches at the sides in the ‘downstairs’ area, between the gigantic poles of the house; entering the upper storey of the actual interior of the house was not an option. We always had the impression that this friendly steering to the reception- or ceremonial house had the main aim of ‘steering’ the visitor away from the dwellings, and from the women.

Finally, it must be mentioned that Pöch (1908, p.173) names two regular forms of greeting from Wătǎm, “*jak zang, u m birák*” = “I am going, you are staying” and “*jak birák, u zang*” = “I am staying, you are going”. [356]

Religion

Humanism

Nothing is yet known about the religion of the inhabitants of the Empress Augusta River, apart from some information that Pöch (1908) obtained about the Wātám people. We, and all the other travellers who have visited the river so far, paid only a relatively short visit and therefore did not have the opportunity to penetrate to any depth into the spiritual life of the natives. Yet if you compare the material basis of religion and the ceremonies with those of the more familiar neighbouring tribes, for example the Monúmbó, you still get the picture that by and large they are comparable.

Without a doubt humanism forms the basis of religious beliefs.

Even the exterior of the men's houses — so commonly the site of ghostly apparitions and interactions with the dead — leads to the conclusion that veneration of the dead occupies a great portion of the thoughts and feelings of the people. This relationship is mostly clearly expressed in the decoration of the men's houses in the middle reaches: here the entire building seems to represent a spirit; a large spirit face adorned with a tall dance hat gazes from each gable wall, the skulls of the dead look out of each gable window, while on top of the soaring tower above, a giant bird spreads its wings and seems to be carrying a man or a man's head (the site of the soul?) into the air (see Plate XXXIV, 1 and 2).

Thus, evidently, the soul (or part of the soul?) after leaving the body does not roam around restlessly and cause damage in its discontent; it is offered a similar dwelling place to its former body in which for so long it has enjoyed a feeling of well-being; they attempt to capture it, so to speak, to restrict it to a particular place, and thereby in some sense to assume its power.

The original idea seems to be that the deceased is offered his own skull as a dwelling, after the soft tissue has decayed, thus recreating as far as possible the condition before death; after several ceremonies the skull is uplifted into the spirit house. I obtained the information in the river mouth area that the skulls of villagers are exhumed and then stored in the houses (often other bones are also gathered when the grave is reopened, and used as amulets and the like). Further upstream, in the region just above the river [357] mouth swamps, they do not bury the dead but leave them to decay in the open air (see Plate XXIV.1); the decay fluid — here they evidently regard it as something damaging, since it particularly inhibits preservation of bones — they drain into the ground through a bamboo tube; then, when the flesh has rotted away, they too uplift the skull and several bones, often the entire skeleton, into the ceremonial house. Sadly, nothing could be learned about how they commune with the dead, from the natives in the middle reaches, the region of the beautiful ceremonial houses; nevertheless, great quantities of skulls were seen piled up in cult houses everywhere, and so it may be assumed that the people here treat the dead in a similar manner to the people of the river mouth area. Very likely the skulls on which they have attempted to reproduce the facial features of the living with clay, like a portrait — obviously to make it easy for the soul to find its way back — are those of deceased members of the tribe, because in the river mouth area they perform the same process, formerly probably on every villager's skull.

While the custom of entrancing the spirit of the dead by storing its skull seems to predominate almost totally in the middle reaches, (wooden figures are still quite rare here), in the river mouth area this has probably been in a transitional stage for a long time. There, the people are in the process of replacing the skull by a figure carved from wood. Skulls and

wooden images of the dead are found side by side. In fact, a specimen that we obtained (H.S.6537, Fig.400) is a transition between the two, and very clearly shows the connection between “ancestral skull” and “ancestral figure”: a body carved out of wood is placed on the actual skull of the dead person, on which they have attempted to reproduce the form of his face with clay. (Cf. also the ‘memorial images’ with skulls added, from Dutch New Guinea).

Furthermore, not only figurines of ancestors are found among the wooden figures, rather, the people appear to fashion a reproduction of each deceased member of the tribe, and quite rightly so, for why should only the souls of the ancestors be able to cause suffering by wandering around. Vormann (Schmidt, 1903, p.111) has established beyond doubt that this is the case among the Monúmbo (in Potsdamhafen), “Sons make an image of their dead father, fathers of their dead children, husbands of their dead wives . . .” The word ‘ancestral figure’, usually reserved until now for these reproductions, more recently of course usually used only in production lines, therefore does not cover this idea; it could be replaced by another word, translating roughly, ‘memorial image’ or ‘figure of a dead person’.

That these figures, as assumed earlier, are not merely images of veneration, but are the actual site of the soul, is also evident from Vormann’s accounts of the Monúmbo — the figures present themselves, “as though brought to life by a soul” (Vormann, 1911, p.426); in addition, he was also told here that the figures in the river mouth area of the Ramu and the Empress Augusta River would have the same significance. [358]

Out of fear of the spirits they pay them a certain respect, which, however, extends only to the images of those persons that they still remember. Images of people long deceased, whose names and features are no longer known, do not appear to be given much attention; they have no personal interest in them and have never noticed whether they have caused any damage. Among the Karowara of Tarawai, Biro (1899, p.47) reports that a large number of figures were not even standing up, but lay strewn around jumbled together, and, “my informant was able to obtain several of them with ease.” The native guiding the white men even let them “make a selection from among them.” They often seem to be happy when the figures of those long deceased, which they do not know what to do with, and are only in the way, have useful value to the white men. It is thanks to this ‘irreverence’ that every collection emanating from the north-western part of Kaiser Wilhelmsland contain a large number of these figures. We too succeeded, in most cases for a low price, in obtaining a whole series of this type of image; among them, after a bit of trading, even some for whom the natives, for whatever reason, still accorded some value.

Connected with the veneration there is, at the same time, an effort to make use of the spirit spellbound to the figure. Quite obviously they hold the belief that the spirit, by and large, has the same characteristics and abilities as prior to death. For example, were the deceased a great warrior or hunter, those same talents would be ascribed to his soul. And so, if they are going hunting or to war, the Monúmbo, as Vormann (1911, p.427) and Schmidt (1903) report, seek the help of a spirit who in life was regarded as a great hunter and warrior, for protection. For this purpose they even bring him a food or drink offering, to win his favour. They prepare a meal served with a special ‘medicine’ and set it in front of the image; with a couple of words they ask for support of the planned undertaking.

Naturally, they do not sell the figures of these useful souls, or very unwillingly, and for a high price. Pösch (1908, p.172) succeeded in obtaining a statue of this type in Wátám, but only after long trading, for the effigy of the deceased, “helps the living, even today, in pig hunting”. They also supplicate the souls of the departed for help, on the Augusta River.

They appear to place sacrifices before the images of the relatively recently deceased tribal members, without a specially dedicated prayer, evidently to appease their souls and to

make their resting place as agreeable as possible: to prevent their roaming around. In so doing, they behave — predictably — in our opinion very unjustly and partially, by sacrificing little to one and much to the other. They measure the size of the sacrifice probably simply corresponding with the level of fear that they have of each [359] particular soul. Among the Karowara of Tarawai, only a few figures (Biro, 1899, p.47) received food (bananas, taro, yams and so on) before them, and in very disproportionate amounts.

We too were able to establish that food was placed before various dead people, although only in the river mouth area. It was surprising that we did not once find food in front of a wooden figure, but always only in front of skulls. Thus the skull appears still to play a more important role than the wooden figure. Müller saw a sacrificial offering of this type in Mbīm. A coconut bowl filled with fresh water, betel nuts, and green leaves had been placed in front of several skulls that were stored in a lean-to inside a house; it was forbidden to touch. In the middle reaches we did not find sacrificial offerings of this sort in front of any skull — this might of course be just a coincidence.

It was quite curious that besides genuine skulls we also found imitations. Two specimens from the river mouth area consisted of a coconut (H.S.6542 and 6543); another, from the middle reaches, almost totally resembled a skull with a sculpted face, which had been solidly made of clay and so did not contain bones (H.Do.1132:5). Unfortunately nothing could be learned about it — what circumstance had led to this replacement of the real skull; possibly the real one had fallen into the hands of the enemy during battle, and it was felt necessary to exorcise the spirit by means of a replacement specimen. In the specimen from the middle reaches there is clearly an effort to recreate the facial features of the deceased as closely as possible on the imitation, obviously so that the soul would regard it as the right one. Moreover, in the middle reaches, the faces carved from wood appear to serve as replacements for real skulls.

Perhaps in parts of our area the beginnings of a type of priesthood had already taken place; according to Biro's account, in Tarawai an older man had the task of looking after the dead and their wooden statues, and placing the sacrifices before them.

Also, head hunting was undoubtedly connected with humanism, especially the skull cult; the rationale is probably that people are not contented with having exorcised the souls of their own tribal members and forced them into subservience, they also seek the skulls — the seat of the soul — of the enemy, to obtain his power, firstly to ensure the help of this spirit as well, and secondly to take it away from the enemy. That head hunting is endemic on the Augusta River is evidenced by information that I obtained about various skulls in the river mouth area; they were directly indicated to me as the heads of killed "bush kanakas". Pöch had obtained similar information in Wātām: "trophy skulls are seen hanging in many houses", (1908, p.171); a skull that he obtained "belonged to an enemy". Furthermore, most of the neighbouring tribes are very probably headhunters as well. Pöch mentions this [360] expressly of the Nubía people (in Hansa Bay, where we were given the same information), the inhabitants of Ambú (Monúmbo): "in my time captured skulls were still kept in the houses; two male Zepa skulls were given to me later in Ambú (Pöch, *loc. cit.*, p.141), and the Ikú (inland from Hansa Bay): "among the Ikú I also saw trophy skulls still hanging in the houses".

They appear to put on all kinds of ceremonies with the trophy skulls; Pöch (*loc. cit.*, p.171) reports from Wātām, "Another skull was refused me on the grounds that it had not taken part in enough pork feasts. After the enemy had been slain and seized, pigs are sometimes slaughtered and the skull 'takes part in the feast'; appeasement may be the intention here."

Thus, the idea that they are seeking to secure the aid of the enemy's soul through the skull is demonstrated by their also storing enemy skulls in the men's houses. Perhaps the human cannibalism practised here is based on a similar thought process: by the consumption of enemy flesh — especially the brain — they are probably seeking to obtain the valuable attributes of the adversary; I was often told that they eat especially the brain, verified by the fact that the back of the skulls had usually been opened forcibly.

While they more or less completely reconstruct the soft tissue of the skull of their own tribal members, in the lower reaches they decorate the frontal bone of the enemy skulls with an incised pattern, and adorn them also with rattan plaiting and feathers; (they evidently regard them also as trophies. Furthermore, they also add carved noses (as on the Fly River and Mt. Scratcheley).

Most likely they also seek to secure the help of the spirit in other ways on the Augusta River, firstly by preparing all kinds of amulet, and secondly by putting images of the dead on especially important objects.

Quite surprisingly, face and head representations are often found even on weapons. At the top of spears in the river mouth area, just behind the add-on tip, there is often a small wooden figure or a carved head (see Fig.342, p.317). As asserted by the Monúmbó, who practise the same custom, (Schmidt, 1903), these are representations of "revered" deceased of the male sex; they are regarded, just like the 'ancestral figures', as the site of the soul of a deceased person (Vormann, 1911, p.426). Through a type of 'consecration' they, like the dance masks (see below), are furnished "with a spirit and thus made to live. For this purpose they burn a certain liana, and allow the smoke to pass over the consecrated object" (Vormann, 1911, p.426). We are probably not [361] dealing with an actual 'consecration' but with a captivation, a ceremony in which the wandering spirit of the deceased is fastened to the carved object. At any rate, they believe that with the addition of these figures and faces, the spirit is fastened to the spear at the same time, and formally impelled to devote its full attention to the effect of the tip — immediately behind which it is fastened — to give it the necessary power. The same rationale is probably the basis of the faces added in shallow relief to the spears of the middle reaches of the river.

Furthermore, every shield on the Augusta River is decorated with a large facial representation, every canoe battle decoration bears a mask in front, probably an imitation of a skull which was attached here formerly. Here therefore is the spirit, (probably a particularly-feared warrior is always depicted), in front, protecting the warriors.

In the middle reaches even the decorative scars (see Figs 71–76, p.111) very often depict a face. Evidently the wearer places his entire body and his life under the protection of a spirit.

My opinion that, just as with the Monúmbó, we are dealing with spirit images in all these cases on the Augusta River too, is confirmed, ultimately, by the fact that for these facial representations, and likewise for some of the masks, (and also the flutes: the spirit voices) in the lower reaches, we were always given words like *barǎñ*, *barǎñu* and *barǎngǔ*, which are certainly connected with the root Melanesian word, *bar* = spirit (*tam-bar-an*) and undoubtedly have the same meaning.

They appear to regard the spirit's leaving the body, at least in the middle reaches, as the spirit (or part of it?) being seized by a bird and carried off: on the peak of the gable towers of the ceremonial houses there are often large bird figures with outspread wings, which appear to be raising a human head or an entire body, firmly held in their claws against their breast (see Plate XXXIV, 1 and 2). Here we might have the spirit bird of the Oceanians, which is found on Tahiti, Tonga, Borneo, and so on.

Perhaps too the *Buceros*, so often depicted on ceremonial instruments, plays a similar role. It is regarded by the Dayaks as the bearer of souls (Frobenius, 1898b, p.7).

In the middle reaches we also found representations of snakes (see Plate LXXVI.2); elsewhere they are often the embodiment of the spirit leaving the body. Perhaps the snake plays the same role here; of course it might possibly be connected with totemism, which cannot be ruled out. The idea of a spirit animal might be corroborated by its appearance on a very remarkable image, possibly representing a death ship (see Plate LXXVI.3). Right along the front and rear surface of this canoe- [362] shaped, or crescent carving runs a clearly-recognizable snake figure.

The mask-being is also connected with humanism; from the Monumbo we know that they regard both the masks (*murúpika*), and the memorial images as being occupied by a spirit which is confined within them by a ceremony, (Vormann, 1911, p.426).

The available collections contained the following items belonging to the cult of death:

Skulls

Two main groups of skulls can be distinguished: I. skulls of members of the tribe, and II. those of dead enemies. Both of these can be subdivided into two further groups: I.1: undecorated or only cursorily painted specimens; I.2: skulls with a face modelled in clay; II.1: enemy skulls with carving on the forehead; and II.2: undecorated specimens.

Of the skulls in Group I.1 most are completely devoid of decoration. They are totally undamaged, and do not have a broken foramen magnum like the enemy skulls. Only in the lower reaches and the region just above the river mouth swamp (roughly from Īmbántõn to Măndánă) do they appear to preserve a portion of the skulls of tribal members in this manner; a further portion seems to have belonged to Group I.2 originally, but to have lost the clay covering. The lower jaw is usually held in place with rattan. Several specimens show simple painting.

H.S.A.772, Kămbřínũm, **skull** including mandible. (The 'a' indicates that the skull belongs with the specially-numbered anthropological collection that I assembled). The entire cranial vault is painted red, with a wide, dark-brown line running in the midline from the root of the nose to the lambda; four lines branch off it posterolaterally on the right, and three on the left. On each side of the occipital bone is a dark-brown line enclosing an oval area. The skull is bored through in the Bregma region. The circular hole, about 1.5 cm in diameter, possibly served for threading a string to hang it up. The lower jaw is fastened on behind with rattan bands through the zygomatic arch and through the incisor teeth in front; the bands in front also run through the nasal openings.

H.S.A.778, Kămbřínũm, **skull without mandible**. The painting (Plate LXVI.1) is very similar to that of the previous specimen, except that the sagittal line on the frontal bone divides into two parallel lines with further side branches. There is no hole in the Bregma region. The eye sockets are filled with clay, possibly the remnants of a completely modelled face.

H.S.A.818, Pămũngřĩ (bought from a dug-out), **skull without mandible**. A very broad grey-black line runs from the root of the nose beyond the Bregma, splitting into two side branches past the highest point of the cranial vault which descend as far as the squamous occipital bone. The lateral surfaces are painted red. A rattan loop is fastened into the left orbit, probably for hanging.

H.S.A.777, Kămbřínũm, **skull without mandible**, Plate LXV.3. It has several thick undyed bunches of grass knotted to the zygomatic arch, (three on the right, two on the left), as the sole decoration.

H.S.A.771, Mũăngẽm, **skull** with mandible. Plugs of wood pulp have been inserted into both eye sockets, the nose, and between the zygomatic arch and skull wall. A fruit seed has been added to each eye as an imitation of the pupil; the one on the left is missing. The lower jaw is secured by rattan strips behind and between the incisor teeth.



1. Skull H.S.A.778, 1/2 actual size. 2. Skull H.S.4561, 1/2 actual size
3. Skull H.S.9227, 1/2 actual size

[363] Skulls of Group I.2 seem to occur along the entire stretch of the river that we visited; only in the village of Málu have they not been in evidence so far. Usually the entire face including the frontal bone, is covered with mud or clay. The soft tissue parts, the facial features, are often reproduced in an astonishingly lifelike way; one often has the feeling that one is confronted by an actual portrait as observed by the artist. A fairly thick bulge forms the edge of the modelled face, divided from the rear section of the skull, which is not covered with clay and is often regarded as a frontal band with all kinds of decoration: snail shells and fruit kernels. Usually a crown of actual locks of hair is fastened behind it, intended to mark the start of the part of the head covered with hair. Besides the skulls with faces represented as lifelike as possible, a variation is found in the region extending roughly from Āngöróm to Kāmbrīngī: skulls with a relatively thin covering of clay and a giant nose carved from wood inset into the nasal aperture.

A portion of the skulls with modelled faces is painted in one colour.

H.S.4561, Kāmbrīngī, **skull** with mandible, Plate LXVI.2, the most lifelike specimen in the entire collection. It feels almost as though one is confronted by the face of someone who has just died, especially as the colouration with its mat russet almost completely matches the natural facial shade of the people. The nasal septum is perforated. The eyes consist of inlaid cowry shells, whose aperture remarkably imitates the eyelid opening with its eyelashes. The ears project three-dimensionally, and both have a small hole on the upper rim of the helix, decorated with a thin cord knotted into it, one end bearing a little piece of cuscus skin. A crown of natural locks forms the border with the bald back of the skull and in front of it is a frontal band consisting of a piece of *Conus* shell attached over the Bregma and a row of cowry shells cemented onto each side and extending almost to the ears. Before the frontal band, one middle and two lateral tags appear in the hairstyle, which is indicated by *Coix* seeds set close together. The lower jaw is not filled out from below with clay as usual. This skull is notable for its absolutely surprising pygmy-scale size; it appears to be that of a youth about 20 years old.

L.Me.9171, “German New Guinea”, **skull** with mandible; a surprisingly big specimen from a fully-grown man. The face is quite lifelike and uniformly red in colour. The eyes consist of cowry shells. A clay bulge inlaid with cowry shells forms the upper border of the forehead, and behind it two rows of dark-brown locks are cemented on. The ear lobes are perforated.

All the other skulls of this type show a fairly complex facial painting, or the remnants of one. Nothing could be ascertained about its intent and purpose: whether it was war paint, a point contradicted by the fact that the natives who attacked us did not wear any. Two groups can be differentiated through the painting style: skulls where the painting consists mainly of curved lines and spirals, and those where there are instead fairly straight lines and stripes running transversely across the face.

Belonging in the first group, whose painting is reminiscent of many of the house gables:

H.S.9226, 293 km village, **skull** with mandible, Plate LXVII.1; also rather portrait-like apart from the unnaturally wide lips. A twisted cord of human hair is knotted through the perforation in the nasal septum. The clay bulge marking the rear border of the face shows only remnants of the locks fastened here, by numerous holes. The external ears have broken off. On the chin and [364] the left cheek are rips and tears. Cowry shells are inlaid in the eyes. Painting consists of russet lines on a cream background. The eyes sit in a big, comma-shaped dark-brown spot, their contours accompanied by thin lines extending from the bridge of the nose and ending laterally above the eyes in a spiral with an almost-circular centre. In the vicinity of the cheek bones is a second spiral. The contours of the corner of the mouth are repeated by a series of short curved lines.

H.S.4520, 293 km village, **skull** with mandible. The painting is extraordinarily similar to that of the previous specimen. Moreover, it must be mentioned that each eyelid gap is formed by a deep slit in the clay mass, the lips again project unnaturally far forwards, there are only remnants of the crown of locks, and the face has a whole series of cracks. The nasal septum is not perforated.

Reche, Empress Augusta River, Plate LXVII



1



2

1. Skull H.S.9226, 1/2 actual size. 2. Skull St.Kr.61165, 1/2 actual size

H.S.9227, 293 km village, **skull** with mandible, Plate LXVI.3. Eyes and lips are formed as in the preceding specimen. The septum is perforated and decorated with a long bunch of straw knotted into it. In the bulge forming the rear border of the face a number of locks still remain. The face painting is in the same style as that of the two previous specimens, except that the central brown spots are missing from the spirals, with a white area added instead.

St.Ha.61656, "Simar", **skull**; has mainly the same face painting except that the dark-brown spots in the centre of the spirals have several white dots. The comma-shaped fields in which the eyes lie are quite especially long; one of their points extends right to the bridge of the nose, the other almost over the ear. The facial mass is traversed by cracks. The mouth is slightly open so that the teeth are partially visible. This opening is deliberate; to achieve it a little piece of wood has been clamped at the back on each side between the jaws. The badly-modelled ears each have a hole through the pinnae and the lobes. The inset natural locks of hair form several rows; areas of *Coix* seeds are added in front.

Roughly the same arrangement of lines is shown in two skulls illustrated by von Luschan (1911, Figs 33 and 34) and one by Schlaginhaufen (1910c, Plate I, Figs 1 and 2).

St.Kr.61165, "Panguli", **skull** with mandible, Plate LXVII.2, from its decoration appears also to belong here, although the painted lines are not clearly recognizable everywhere. The skull has quite a natural appearance except that the lips are again widely stretched. The ears have three holes, two in the pinna and one in the lobe; the left outer ear is decorated with a tuft of bast. Almost half the skull is covered with inlaid locks of hair. The specimen lay in a little plaited basket.

St.Kr.61166, "Panguli", **skull** with mandible. The rather lifelike face shows a somewhat different painting, in black, red, and white. Here the two lateral spirals sit close together at the outer angle of the eye; the round areas in their midpoint are decorated with white dots. In the same manner a broad, dark russet stripe running in the midline from the root of the nose over the forehead is beset with white spots. The dark eye fields with their long tips extend to the tip of the nose. The narrow lips project markedly. The nasal septum is perforated. The very carefully modelled ears have a perforated lobe. The eyes consist of inlaid cowry shells. The thick crown of locks is bordered in front by a chain of inlaid cowry shells.

St.Ha.61661, "Radja", skull with mandible. The decoration done in russet on a yellowish-white background (Fig.386) is almost the same as that of the previous specimen, except that the eye spots are very much smaller and have no tips pointing towards the nose. The eyes consist of Cowry shells. The nasal septum and the pinna of the left ear (the right has broken off) are perforated. The crown of hair is bordered in front by three flat, rounded plates consisting of mother-of-pearl that are cemented in on edge.

One of the skulls illustrated by von Luschan (1911, p.117, Fig.35) shows similar lines. Among the specimens described by Schlaginhaufen (1910c) several show somewhat different painting which, however, seem to hark back to the two types described so far.



Fig. 386. Painting of skull St.Ha.61661, ½ actual size

L.Me.8951, “Empress Augusta River”, **skull** with mandible. The modelled face is painted red and white. A roll of clay about $\frac{3}{4}$ cm high and 6 cm wide forms its upper section, ending above the ears. It carries a crown of cowry shells behind which is a row of upright *Conus* discs and finally two rows of locks. The eyes consist of cowry shells.

L.Me.8950, “Empress Augusta River”, **skull** with mandible. The face is separated from the back of the skull by a roll of clay, which is decorated just like the preceding specimen, with cowry shells, *Conus* discs, and locks. The facial surface is painted red and white; as in the previous piece, red lines surround curved eyes and mouth.

L.Me.8952, “Empress Augusta River”, **skull** with mandible; surprisingly small specimen, that of a [365] child (the Bregma fontanelle is not yet fully closed). The face is presented quite true-to-life. The eye form differs from those described so far: between eyelids carefully modelled in clay sits an iris and pupil representing a funnel polished from *Conus* shell; only in this skull therefore are both eyes presented open. The nasal septum is perforated and decorated with a small bast fibre ring. Only vestiges of facial painting remain. A thick crown of curls forms the upper and rear border of the face.

H.S.4562, Kāmbrīngī, **skull** with lower jaw; also probably belongs here, although not many of the lines of facial painting are recognizable any more. Also, only the part of the face below the upper rim of the eye sockets is coated with clay, the entire frontal bone is only painted; correspondingly any indication of a crown of hair is missing. The representation of the face is not very true to life, above all, the nose is extremely long and pointed. The mouth, again deliberately, is opened fairly widely. In the sagittal suture just above the lambda, is a hole where a rattan loop is fastened for hanging. A smaller, unused hole is just behind the Bregma.

H.Do.1132:4, “Empress Augusta River”, **skull** with mandible. The very natural face is unfortunately badly damaged and traversed by cracks. Only traces of the painting are still recognizable, which however make it probable that it was similar to that of the preceding skull. The eyes are formed by cowry shells. A row of tightly twisted long locks marks the rear border of the face. A rattan band runs over the incisor teeth and holds the lower jaw firmly; a twisted cord is fastened to this on the inside, in the hollow of the curve of the jaw, with multiple knots and frayed into bunches at the ends, hanging quite a long way down.

The following specimens belong to the second subgroup: the skulls with fairly straight-line painting:

H.S.4518, Māndānām, **skull** with lower jaw, apparently that of a woman. It is modelled quite naturally. The painting consists of two red and two white strips on each side. One red line runs from the upper rim of the ear transversely across the face to the root of the nose, around the inner angle of the eye and then returns below the eye back to the ear where it terminates below the lobe. The second red [366] line runs from the middle of the ear to the lower eyelid; it is accompanied by the two white strips already mentioned. The mouth is slightly open, with the incisor teeth visible. Around it are rows of white areas. The nasal septum is perforated and adorned with small nose rings of bast fibre. Only small remnants exist of the hair crown bordering the face behind.

H.S.4507, Kāmbrīnūm, **skull** with lower jaw, Plate LXVIII.2. Painting consists of white lines on a dark-brown background. From the eyebrows, the outer angles of the eyes, the sides of the nose, the angles of the mouth, and the chin, white stripes run backwards, with side branches on each side. Mouth and eyes have white borders. The facial representation is not very true to life. The cowry shell eyes have a bulging surround, possibly a repetition of the lid representation. The mouth is open giving a view of a half-extended tongue made of clay. Behind the face is a border of a crown of big cowry shells; hair has not been added.

H.S.4516, Māndānām, **skull** with mandible, Plate LXXIV, the most richly decorated piece in the Hamburg collection. Over the pale grey face two broad black stripes run on each side in a sagittal direction, the inner wider one following a course above the eye. These stripes are beset with red, yellow, and grey rows of dots. The slightly-open, surprisingly small mouth has narrow lips, coloured red on the inside and black on the outside. The clay nasal septum has a wide hole. The very three-dimensionally projecting ears are each perforated: twice in the pinna and once in the lobe, and decorated with several tufts of bast fibre knotted into them. Instead of the cowry shell crown usually dividing the modelled face from the bald rear of the skull, there is a giant, richly-painted addition like a diadem. It consists of a piece of sago palm bark which, just like the canoe battle shields, is reinforced on the back by a simple framework of palm wood sticks tied together. The lower end of the diadem is formed by a rattan arch woven over with rattan (weaving style as for the men’s loin cloth H.S.6626; see Fig.43, p.237), which is moulded to the skull and fastened under the chin. Thus the diadem sits on the head just like the head ornament H.S.6653 (see Plate XII.2 and page 87). Further attachment is by two palm wood sticks each pushed into a hole bored in the skull vault — one anterior to the Bregma in the frontal bone, the other roughly in the middle of the sagittal suture — and firmly tied together with strips of rattan. This binding presses the lower arch of the diadem against the front stick, preventing it from sliding backwards. From the rear stick several rattan bands run to the sides of the arch. A strong hanging loop is fastened to the long middle stick of the diadem frame: the skull was stored by hanging up. A thick tuft of bast fibre is attached right by each ear, to the sides of the arch. The front surface is painted grey, yellow and red on a black background; the

grey was probably originally white with the darker background shining through. It must still be mentioned that the point of the chin is remarkably flattened; here a short twisted cord comes out of the mass of clay and forms a small loop in which a second cord is knotted.

The following skulls belong to the already mentioned subgroups with inlaid wooden noses. Nothing of any certainty could be learned about them, whether they were skulls of tribal members or enemies. I believe the former, since the pieces were all provided with a mud covering, usually quite severely damaged. The wooden noses always show a swelling on each side, probably intended to represent the sides of the nose. At this thickened part is a wide hole right through the peg: perforation of the septum. The wooden nose gradually thickens towards the tip; at the end it has a large circular area at right angles to the long axis. The eye sockets are always filled with a plug of pith over which clay is smeared. Skulls decorated in this manner seem to occur only in the middle section of the river, roughly from Āngöröm to Kāmbrīngī.

H.S.A.845, Kāmbrīngī, **skull** with lower jaw, Plate LXIX.1 has the most carefully made wooden nose. The lower jaw is fastened on both in front and behind, with rattan between the incisor teeth. [367] Pith plugs are jammed between the back of the jaws. The eyes are filled with pith and a fruit kernel inset as the iris. Minute traces of an earlier, thin layer of clay are still recognizable on odd parts of the face. The portion of the occipital bone bordering the foramen magnum is broken away, perhaps for removal of the brain.

H.S.A.846, Kāmbrīngī, **skull** and lower jaw. Here the wooden nose is somewhat less carefully made. The lower jaw is secured solely by a rattan binding running around the chin and through the nostrils. The entire face right to the coronal suture appears to have been coated with a thin layer of clay, large vestiges of which remain on only the frontal bone and zygomatic arches. The mass of clay on the forehead even shows the remains of painting, in several black lines. Plugs of tree gum are stuck into the eyes (but not the nose). The bones bordering the foramen magnum are undamaged.

H.S.4509, Āngöröm, **skull** with lower jaw. This specimen shows very extensive remnants of a layer of clay. With the exception of the forehead, the entire face appears to have been covered with red clay; unfortunately only the upper face is undamaged by it. Originally the clay coating had advanced as far as the wooden nose, taking part in the formation of the sides of the nose; there are still remnants of clay above the transverse hole. The nose is relatively small and less carefully made. Traces of paint are visible on the forehead: two broad white lines which, in parallel, follow the contours of the eyebrow swellings thickened with clay. The lower jaw is tied on with rattan in front, and on the left with twisted cord at the back; the binding on the right is concealed by clay. In the Bregma region is a small hole through the cranial wall.

The three specimens described are old and damaged, evidently belonging to dead people whom nobody remembers any more. Nobody sold us complete skulls of this type, of more recent date. The skull mask H.S.4508 (see Fig.422, p.401) from Kāmbrīnūm has a similar wooden nose.

The skulls of Group II.1 are distinguished by a carved frontal bone and, according to local information, all come from slain enemies. Two features back the truth of this claim: firstly only a few remain undamaged, more often in most of them pieces of bone are broken off, particularly in the region of the foramen magnum and, secondly, that in part the skulls show anthropological features that are probably not local to the riverbank. The custom of carving the skulls in this manner appears to be common only in the lower reaches, roughly up as far as Kāmbrīnūm, at least all the specimens that I know of come from this region.

H.S.6539, Kōpār, **skull** (*kārān*, Müll.), Fig.387. The head is encased in rattan plaiting, the shape resembling the diadem of H.S.4516 (see Plate LXXIV); it is adorned with a lot of short white feathers and several long white feathers. Two thick bunches of grass and bast and a bundle of long white rooster feathers are close to each ear. Hair is indicated by wood wool firmly held by short sticks inserted below the rattan arch. The rattan diadem is held in place mainly by the central stick, which is pushed through a hole bored in the cranial vault in the Bregma region, and also by a long band of rattan which runs along the sagittal suture, round the back of the skull, leaps over the foramen magnum

Reche, Empress Augusta River, Plate LXVIII



1. Skull St.Kr.61166, 1/2 actual size. 2. Skull H.S.4507, 1/2 actual size

and is fastened just in front of it to the rattan band passing through the nasal aperture and between the incisor teeth and holding the lower jaw firmly in place. Eyes and nose are filled with plugs of pith. The plug in the nose projects quite a distance, and approximately reproduces the contours of the soft tissue. The sides of the nose are, as in the wooden noses described above, represented as elevations; a transverse hole runs through them with a knotted bunch of bast fibre secured in it. The forehead has a decoration of engraved lines almost completely identical to that of skull H.S.6541 (see Fig.388). The cranial vault is undamaged.

H.S.6565, Mbīm, **skull** with mandible, similar to the preceding one in decoration. However the plaited arch forming the diadem is very much lower [368] and consists only of a bulge about 3 cm wide (plaiting technique as in H.S.7132, see Fig.219). Unlike that of the preceding specimen, it runs along the contours of the lower jaw and is apparently — here it is adorned with short soft white feathers — intended to indicate the anterior border of the hair and the full beard. Again the Bregma is bored through, but the wooden stick that was pushed into it is missing. Eyes and nose are filled with pith plugs, only a broken piece remaining of the plug for the nose. The incised decoration of the frontal bone is similar to that of the preceding skull, although less carefully made.

H.S.6540, Kōpār, **skull** (*kārān*, Müll.). The decoration is almost the same as that of the two previous specimens but somewhat simpler; the large plaited arch extends only from one zygomatic arch to the other, leaving the lower half of the face free; it is heavily damaged. A strand of rattan wrapped in rattan runs sagittally towards the back, dividing above the squamous occipital bone into two lateral strands which end on either side of the foramen magnum by knotting onto the lateral ends of the main arch. The lower jaw is firmly tied on to the zygomatic arch at the back and the incisor region in front, by means of several rattan strands plaited round by strips of rattan in pigtail fashion. Eyes and nasal apertures are filled with resin plugs. The incised decoration on the forehead again resembles that of H.S.6541. Upper and lower jaws show remnants of roughly vertical red and white lines.

H.S.6541, Kōpār, **skull** with lower jaw (*kārān*, Müll.). As with H.S.6539 the ornament plaited from rattan and surrounding the skull like a diadem is very high. It is secured above by a stick pushed into the skull. From this stick a strand of rattan runs sagittally over the occiput and the foramen magnum. A hanging loop is fastened to the plaited decoration above. Eyes and nose are filled with resin plugs; the plug in the nose only roughly reproduces soft tissue contours. The mandible is tied on firmly in the incisal region in front and to the zygomatic arches behind. The pattern carved into the forehead (Fig.388) resembles the “butterfly wing” of the Monúmbó. On each side of the nose and on the nasal bone is a broad blue line (certainly European dye); the rest of the skull shows traces of red painting.

H.S.6538, Kōpār, **skull** with lower jaw (*kārān*, Müll.) shows exactly the same ornamentation as the preceding specimens, except that the nasal plug is missing, evidently having fallen out, and the forehead decoration consists of a simplified “butterfly” ornament of which only the spirals and the attachment piece in front remain. The resin plugs in the eye sockets have incised circles: allusions to iris and pupil. Traces of blue are recognizable on the forehead and the eye plugs. A hanging loop is again attached above to the plaiting.

St.Ha.61658, “Wolem”, **skull** including mandible. The fairly wide plaited ring also encloses the lower jaw, as in H.S.6565 (see above). Eyes and [369] nose are filled with resin plugs; the nasal plug is bored through from the side and carries a bunch of grass knotted on each side of the ‘septum’. The lower jaw is tied on in front and at the back in the usual manner. Above, in the middle of the plaited arch, a strand of rattan again begins, running sagittally over the occiput as far as the front of the foramen magnum. A hanger is attached to the arch above. The forehead decoration is almost identical to that of the preceding skull. The skull is painted red.



Fig. 387. Skull H.S.6539, ¼ actual size



Fig. 388. Forehead decoration of skull H.S.6541
½ actual size



1



2

1. Skull H.S.A.845, 1/2 actual size. 2. Skull H.Do.11.32:5, 1/2 actual size

St.Ha.61665, Sīngṛīn, **skull** including lower jaw, very similar to the preceding skull. The rattan plaiting (same technique as in H.S.7132, see Fig.219, p.229) is 2–3 cm wide and surrounds the entire head. A rattan strand again runs around the back of the skull in a sagittal direction, dividing into two side branches. The resin plug is missing from the right eye. Just above the eyes the forehead carries a simple incised strip with a decoration above, similar to that of H.S.A.750 (see Fig.389, p.370).

The following skulls with decorated frontal bones have no plaited decoration, yet, since there is a small hole bored through the Bregma region of the vault of almost all of them — which served for attaching the little stick to hold the plaiting in position in the previous specimen — it is quite likely that most of these skulls once had a plaited ornament. And so these appear to be the skulls of people unknown to the present generation, who have therefore lost interest in them and consequently no longer decorate them, probably also a reason for selling these particular examples to us. Furthermore there are still remnants of coloration on several specimens. Most also lack the plugs of resin in eyes and nose. H.S.A. 750, 754, 776, 749, 752, 748, and 751 have a greatly enlarged foramen magnum (for removal of the brain?). In H.S.A.756 the entire occipital bone, the cranial base and the lower part of the squamous temporal bone are missing. It is surprising that these old skulls have forehead decorations that mostly differ from the more recent examples described so far.

H.S.A.750, Sīngṛīn, **skull without lower jaw**; an old somewhat weathered piece, covered in places with green moss, undecorated apart from the carving on the forehead. The forehead decoration is still quite similar to the ‘butterfly’ ornament of the previous skull (Fig.389); it consists mainly of two big spirals.

H.S.A.776, Kāmbrīnūm, **skull without lower jaw**. The forehead decoration shows only an indication of the two big spirals in very rough form.

H.S.A.754, Īmbāntōn, **skull** including lower jaw, which is, however, only secured on the left at the back. The eye sockets contain damaged resin plugs. The very simple forehead decoration consists of three adjoining oval forms surrounded by several concentric incised lines.

H.S.A.756, Īmbāntōn, **skull without lower jaw**. The decoration of the frontal bone shows a certain similarity with the “butterfly” decoration. The occiput, the cranial base and the lower part of the lateral wall have broken away.

L.Me.9245, Wātām, **skull** with lower jaw. The pattern carved into the frontal bone (Fig.390) shows mainly two ovals filled with ‘sausage’-shaped figures, as seen so often in the decoration of the lime calabashes (cf. Fig.256, p.253).

L.Me.9246, Wātām, **skull** with lower jaw. The forehead decoration (Fig.391) shows a certain similarity to the previous specimen and also to that of H.S.A.750; it appears to have been executed by an unskilled hand.

H.S.A.751, Sīngṛīn, **skull without lower jaw**. The pattern on the frontal bone (Fig.392) shows on each side two spirals facing each other; besides this, a simple rather elongated spiral is added to the right parietal bone. The frontal bone has four circular funnel-shaped holes, two of which are close together in front of the bregma with one on each side just above the intersection of the coronal suture and the temporal line; they very likely served for attaching a plaited decorative arch. The skull is damaged, its foramen magnum has been skilfully enlarged. [370]

H.S.A.752, Sīngṛīn, **skull without lower jaw**, with traces of red paint on the frontal bone. The decoration (Fig.393) has been very carefully carved, and is reminiscent almost of a Malayan pattern. The cranial vault has no bored hole. The foramen magnum has been artistically greatly enlarged.

H.S.A.763, Āngōrōm, **skull** with lower jaw. The pattern of the frontal bone (Fig.394) has an almost completely different character; the depressions (black in the illustration), show traces of white paint. Eyes and nose are filled with resin plugs. The lower jaw is firmly tied to the zygomatic arches. Behind the Bregma is a small circular hole that probably once served to secure rattan plaiting. The foramen magnum has not been enlarged.

H.S.A.764, Āngōrōm, **skull** with lower jaw. The frontal decoration is almost identical with that of the previous specimen. There are resin plugs in the eyes, that of the nose is missing. The lower jaw is fastened between the incisor teeth in front and to the zygomatic arches behind. In the Bregma is a small hole with part of the stick, which once held rattan plaiting, still in it. The face shows traces of white paint. The occipital bone is painted red and shows five parallel white curved lines that are roughly parallel with the coronal suture; the space between the first line and the incised decoration is filled by a white zig-zag line. The foramen magnum has not been enlarged.



Fig. 389. Forehead decoration of skull H.S.A. 750,
1/2 actual size (depressions black)



Fig. 390. Forehead decoration of skull L.Me.9245,
1/2 actual size



Fig. 391. Forehead decoration of skull L.Me.9246,
1/2 actual size



Fig. 392. Forehead decoration of skull H.S.A. 751,
1/2 actual size

H.S.A. 749, Sīngrín, skull without lower jaw, with a very extensive forehead decoration (Fig. 395) which might have arisen from a 'butterfly' pattern. Only the right eye still has a resin plug. Close to the Bregma is a hole. The foramen magnum has been skilfully enlarged. In depressions in the decoration there are still traces of white paint.

H.S.A. 748, Sīngrín, skull without lower jaw, Plate LXXIII.1. The decoration engraved in the frontal bone [371] is similar to that of the preceding specimen but more irregular. The foramen magnum has been very greatly and skilfully enlarged. The skull shows quite considerable deformation of the occiput.

L.Me. 8953, "Empress Augusta River", skull. The decoration (Fig. 396), — in the illustration only the right half has been reproduced — extends onto the parietal bone.

Skulls of Group II.2, completely, or almost completely undecorated pieces, are particularly abundant in the middle reaches. They usually show deliberate damage: either the foramen magnum has been enlarged or part of the squamous temporal bone has been removed. I believe, on account of this damage, that these are skulls of slain enemies. I shall describe only those specimens that show traces of decoration.

St.Ha. 61659, "Panguli", skull with lower jaw tied on. The eyes are filled with resin into which a grey-green bean-like fruit has been pushed (as in H.S.A. 771). The occiput has been opened on the right side.

St.Ha. 61664, "Matembe", skull with lower [372] jaw, which is tied on as in the preceding specimen. The skull is undamaged; it shows traces of red, white, and black paint.



Fig.393. Forehead decoration of skull H.S.A.752,
½ actual size



Fig.394. Forehead decoration of skull H.S.A.763,
½ actual size



Fig.395. Forehead decoration of skull H.S.A.749,
½ actual size



Fig.396. Right half of the decoration
of skull L.Me.8953, 1/2 actual size

St.Ha.61660, “Panguli”, skull with lower jaw. The eye sockets are filled with pith. In the Bregma region is a small, funnel-shaped hole which probably also served for embedding a little stick.

St.Ha.61663, “Matembe” skull with lower jaw. In the Bregma region are two funnel-shaped holes one behind the other; in the front hole is a black feather. Eyes and nose are filled with pith plugs.

Most of the skulls that I collected in this section of the river have no decoration of any kind.

As already mentioned, in addition to actual human skulls, we also found imitations and animal skulls stored in the ceremonial houses.

H.S.6543, Kōpár, imitation of a human skull made from coconut (*rūǎn* or *gūǎn*, Müll.; *γūǎn* (?) Re.), Fig.397. Two inlaid, projecting pith plugs imitate the eyes, a slit-like depression representing the nasal opening. The ‘face’ is surrounded by rattan plaiting, just like that of St.Ha.61658; a hanging loop is attached above.

H.S.4542, Kōpár, imitation of a human skull made from coconut (*rūǎn* or *gūǎn*, Müll.). The eyes are formed by two inlaid pith plugs, the nose by a deep hollow. The place where the stalk of the nut is located is regarded as the mouth. The ‘face’ is bordered above by just a short plaited rattan arch (similar to that of H.S.6539, although shorter), which is secured to three short sticks pushed into the coconut.

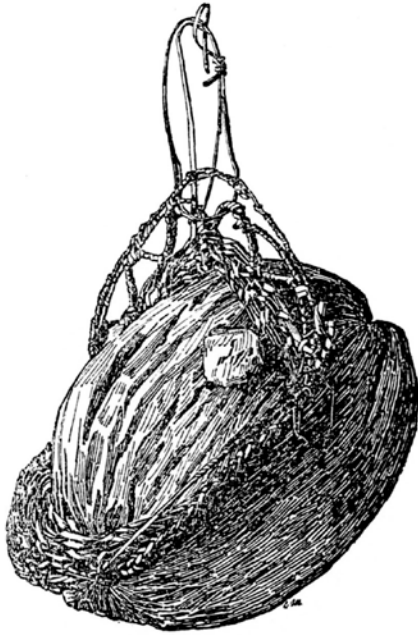


Fig.397. Imitation of a human skull, made from a coconut H.S.6543, 1/4 actual size

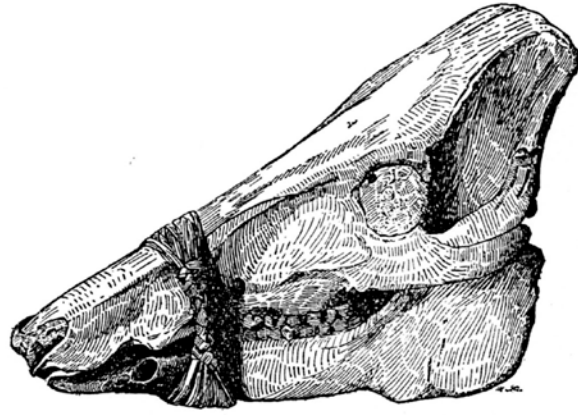


Fig.398. Pig skull H.S.6545, 1/4 actual size

H.Do.11,32:5, “Empress Augusta River”, imitation of a human skull made from clay and partially hollow inside, Plate LXIX.2. The specimen shows a quite natural facial structure and very skilfully resembles an actual skull with a face modelled onto it. The nose is relatively long. The eyes are fashioned differently: the left eye is represented by a polished *Conus* shell, and the right eye by a cowry shell. The face is bordered above by a markedly prominent clay bulge, which is adorned in the middle by a bigger shell plate inlaid at a right angle. [373] A row of natural human locks is cemented on behind. The face painting — pale red lines on a white background — shows a line pattern quite similar to St.Kr.61166 (see Plate LXVIII.1) and St.Ha.61661 (Fig.386, p.365). The eye field is black.

H.S.6545, Mbim, pig’s skull (*němbrékárán*, Müll.), Fig.398; it is made up similarly to the human skulls of Group II.1 except that the rattan plaiting is missing; pith plugs are in the nose and eyes. The lower jaw is tied on with straw. The tusks have been removed. No painting is evident. There is a broad area in the middle of the forehead with numerous rubbing and scratch marks.

Furthermore, there was a very similar pig’s skull in Kōpǎr too, alongside the human skulls in the ceremonial house.

Von Luschan (1911, p.108, Fig.12) illustrates a pig’s skull, bulkily fashioned quite true-to-life from clay, Plate LXXIII.2. A red tongue, carved out of wood, protrudes a long way out of the slightly open mouth.

Faces carved out of wood serve possibly in place of real skulls in the middle reaches, differing from the wooden dance masks by not being hollowed out at all in the back, or only very little, and, just like the skulls, having a face modelled from a layer of clay, facial painting, and often locks of real hair added. These wooden faces might then be a counter piece to the ‘ancestral figures’ of the river mouth region. However, I am only, so to speak, offering an opinion; nothing positive could be found out about the purpose of the wooden faces. The specimens in question have the numbers H.S.9251, St.Ha.61707, St.Ha.61604, and St.Ha.61602; they are described and illustrated with the wooden masks (Plate LXXVII.5–8).

Finally the manner of storing the skulls remains to be mentioned. In the lower section of the river they (together with the ‘ancestral figures’) were placed in the ceremonial house, either in front of or inside a small lean-to (see Plate XVI.2). In the region further upstream where the corpse is left to putrefy in the open air, a portion of the skeleton is possibly stored in the dwellings. In the middle reaches, the skulls with modelled faces are placed in the spirit

house in long rows on a brightly-painted piece of bark provided with pegs (see Plate XXXVIII.2) or placed in the window of the gable wall (see Plate XXIX, 1 and 2). The undecorated specimens, probably those of enemies, are often found hanging by lianas on the posts of the reception houses.

“Ancestral figures”

Among the wooden figures on the Augusta River there are undoubtedly a great number that cannot be counted among the ‘ancestral figures’ in the true sense, for example remarkable filigree carved figures that Schlaginhaufen (1910b, p.64) described as, “the elongated type, part of which is so stretched lengthwise that the figure appears to consist of nothing but thin staves running parallel to the body axis”. These figures — often even with the actual [374] body missing — may serve other purposes, possibly connected with the dances; they are described at the end of this chapter.

The actual ‘ancestral figures’ can best be divided into three groups, according to their origin: those of the first group all come from the river mouth region; those of the second, from the villages just above the estuarine swamps; and those of the third from the middle reaches. The three groups can be differentiated particularly by their artistic style.

The first group can be further subdivided into two groups: naturalistic figures, and those that can be regarded as apparently covered by a mask. Those of the first group can in a certain sense be considered as portraits: they reproduce many of the uniquely characteristic features of a deceased person. A figure illustrated by Schmidt (1903, p.112, Fig.12) for example represents a Monúmbo youth who died from chest complications: “the posture, with his hand on his chest, was intended to indicate the pain that he suffered during his illness” (p.111). When women died during childbirth, they were represented as they were during their labour pains. A female figure depicted by Pöch (1901, p.353, Fig. 1 and 2) is surprising because one leg is intentionally presented as very much shorter than the other: “This figure is undoubtedly intended to reproduce a situation of illness. . .”

The ‘ancestral figures’ were probably originally reproductions, amplifications of the stored skulls of the deceased: they wanted to offer the soul not only the most true-to-life head possible, but the entire earlier body, as a dwelling. However the bones of the skeleton were very little suited to this purpose — to model a body over them probably was beyond the capabilities of the people — and so they turned to another material, with whose processing they were much more familiar, and reproduced the figures in wood. One can therefore assume that the original form of the ‘ancestral figure’ consisted of a real skull with a wooden torso added; we found one specimen of this transitional form:

H.S.6537, Kōpár, male **memorial image** (*kādībón*, Müll.), Fig.399 (total length of the pole 191 cm, length of the figure including skull 56 cm). When Müller discovered the specimen with several skulls in a lean-to inside a ceremonial house, the people firstly appeared terrified and definitely wanted to usher him out of the house; finally however, when he offered a high price, they got on with the sale. Perhaps this was a dead person who had aided the people in battle or hunting. According to Pöch (1908; he introduced the word form *kaimbóng* from Wātám) only the portrait-like figures were designated as *kādībón*. The piece in question consisted of a long pole tapering towards each end, with a four-sided cross section in the lower half, and a round cross section in the upper half. The wide middle section is fashioned into a human figure carved three-dimensionally; a real skull is used as the head: the upper end of the pole has been pushed through the enlarged foramen magnum and a hole cut in the vault in the Lambda region. A thickening of the pole, consisting of four symmetrically-arranged three-dimensional longitudinal strips above the shoulders, prevents the skull from sliding down. Both of the lateral strips have four holes from front to back for fastening a strip of plaited rattan. This forms the lower wrapping and, in part, probably the support for the lower jaw;



1 & 2. Memorial figure L.Me.8968, ca 1/5 actual size. 3. Memorial figure St.Ha.61592, 1/5 actual size
 4. Memorial figure St.Ha.61626, 1/5 actual size. 5. Memorial figure St.Ha.61693, 1/5 actual size
 6. Memorial figure St.Ha.61690, 1/5 actual size. 7. Memorial figure L.Me.9142, 1/5 actual size
 8. Memorial figure L.Me.8966, 1/5 actual size. 9. Memorial figure L.Me.9159, ca. 1/2 actual size
 10. Memorial figure L.Me.9137, 1/5 actual size. 11. Memorial figure L.Me.9215, 1/5 actual size

unfortunately it is damaged, and has come loose in the middle of the jaw. On the back [375] a rattan arch is added above, surrounding the squamous occiput and pressing it against the pole, then passing upwards to be fastened to the pole. At this point, a second arch starts, running forwards along the sagittal suture and disappearing into a mass of resin. A transverse strip of rattan is fastened to it and, almost entirely covered by the mass of resin, encases the side walls of the skull, the ends passing on the outer surface of the mastoid processes, to be knotted to the pole at the back. Fastened in this manner, the skull looks obliquely downwards and forwards. The upper end of the pole, projecting above the skull, served a practical purpose: it was pushed up through the roof, and thus kept the figure upright. Evidently the entire front half of the skull had been coated in 'putty' (Fig.400), while the rear remained totally free. However only the forehead and the upper half of the face has retained the coating while the entire lower half, below the root of the nose and the lower rim of the orbit, has exposed bones. The putty mass consists mainly of fawn-grey unburnt clay; the outermost layer is heavily impregnated with a paste of red ochre. Big discs of mother-of-pearl shell have been set in the orbits, almost filling them, and arranged in such a way that the slightly concave side faces forward. Both of the discs have a large horizontal oval hole: a representation of the iris. Along the sides of the face — evidently also originally around the chin — was attached a strip with human hair, intended to represent the beard; only the upper ends of it remain. An ornament made from round *Conus* discs appears to have sat at the upper back edge of the modelled part; one of these discs is still there, and you can recognize the locations of the others. The figure carved out of wood shows the usual form and posture for this area; the arms are supported by the hands on the hips. The hands have only four roughly-carved fingers, and the feet, pointing straight down, have only four toes. A simple band plaited from rattan is on both arms and the right leg just above the ankle; a small ring made of coconut shell is fastened to the band on the right arm. The memorial image seems to be quite old: it shows the distinct patina of age.

L.Me.8968, "Empress Augusta River" (probably from the river mouth area), standing male **memorial image** (length 30 cm), Plate LXX, 1 and 2. Apart from its small stature, this figure is the closest resemblance to the previous figure that I know. The head carved from wood is very true-to-life and is, furthermore, adorned with real human hair — probably that of the deceased. Thus the figure represents, to some extent, a further stage of transition to the common wooden figures. The eyes consist of resin. The feet rest on a small pedestal, toes pointing downwards. Knees and ankle joints are especially accentuated by thickenings. The navel is a small round raised area. The thin arms are slightly bent at the elbows and rest on the projecting hips. The neck is disproportionately long and wide; on its back is a narrow step with a hole through it; perhaps a band for hanging passed through it.

St.Ha.61591, *Sīngrīn*, standing male **figure** (length 93 cm), long and thin with the usual form and posture. The head is produced fairly realistically. The face is oval; a poorly-defined strip runs over forehead and nose. The prominent nose has well developed sides and a perforated septum. The eyes are formed by two grooves; they are oval, oblong and somewhat oblique; around them runs a red strip whose end extends as far as the tip of the nose. The mouth is only a narrow slit with red paint inside and around it. The beard is indicated by white lines. The chin has been damaged. The ears have been roughly fashioned; the upper part of the outer ear has a hole through it, adorned by a tuft of skin on the left side. Arms and legs are very thin and slender, knees and elbows indicated by thickenings. The rough feet point obliquely outwards, on a small pedestal. The hands rest on the hips: the left with four, and the right with five fingers. The head carries a high, pointed process, evidently intended as a hair basket.

St.Ha.61720, "Gambrium"? standing male **memorial image** (height 71 cm), evidently also a portrait; very similar to the preceding one, equally slender and thin. It is painted red. There is only a small low knob on the head, as an indication of a hair basket. The nose is long, its side walls perforated and decorated with a double-knotted bunch of bast. The ornament worn by the ears, located very high, is of the same material. The steeply pointed feet stand on a small pedestal.

H.S.1792, *Kōpǎr*, standing male **memorial image** (*kādībōñ*, Fülleborn; height 58 cm), Fig.401, as already discovered from the local description, appears to be a portrait figure. It is not painted, and it has retained its natural pale brown colour. It is probably a carving of more recent date. The figure is somewhat bent over backwards, which probably harks back to the natural shape of the piece of wood used. It is slender in form; even the face appears markedly elongated. The head bears a pointed process, the hair basket; the hair style extends [377] with a beak-shaped point a long way down onto the forehead. The eyes are bordered by incised lines forming ovals; the eye slit is a deep oblique incision. The septum of the very long narrow nose is perforated transversely. The mouth consists of a short sickle-shaped indentation. A low strip runs along the chin. The roughly-carved hands rest on the hips. Elbows and knees are indicated by small thickenings, buttocks and calves by great thickenings. The feet merge into the pedestal.

H.S.9007, *Nāngīt*, standing female **memorial image** (*kandīnbōñ*, Hellwig; height 55 cm), very similar to the preceding specimen but somewhat more compressed; the face in particular is shorter and broader: evidently also a portrait. A sagittal strip runs along the forehead right to the root of the nose. The outer margin of the chin is markedly isolated roughly up to the level of the tip of the nose. The ears, small oblong steps, sit very high, above the outer angle of the eyes. Elbows, wrists, knees, calves, and buttocks are again recognizable as thickenings. The hands lie on the lateral surface of the hips, the right hand with five fingers and the left with six fingers. The feet are totally merged into the pedestal. The only clothing on the figure consists of a cord looped around the waist and knotted in front with its ends hanging down. This is an exception, for usually the female figures wear kilts.



Fig.399. Memorial figure H.S.6537, 1/10 actual size



Fig.400. Memorial figure H.S.6537, 1/5 actual size



Fig.401. Memorial figure H.S.1792, 1/5 actual size

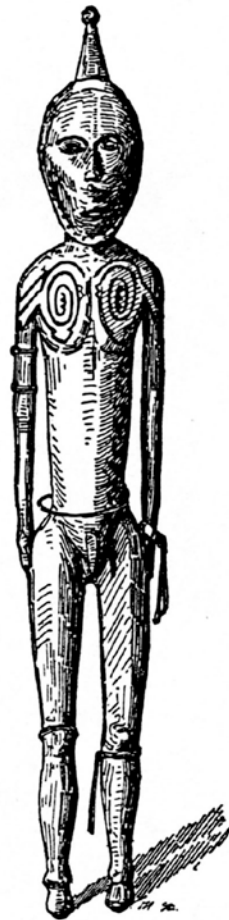


Fig.402. Memorial figure H.S.6536, 1/5 actual size

A figure from “Olem”, illustrated by Schlaginhaufen (1910b, p.18, Fig.C) is very similar.

St.Ha.61708, “Simar”, standing male figure (height 64 cm) is similar to the preceding figure. The head is relatively big and solid; on top is the imitation of a little hair basket, a high conical peg. From it a strip runs over the forehead to the root of the nose. The nose is prominent, its sides are broad and widespread; the septum has a wide perforation and is decorated on both sides with strands of bast. The facial surface is deepened below the forehead. The eyelids are oblong almond-shaped bulges with a second bulge peering out between them, representing the pupil. The mouth has heavily protruding lips, slightly open, revealing the tip of the tongue. The entire face is bordered by a sharply separated strip that virtually merges above with the ears, and has several holes. The face is dark russet; on the forehead, on each side, is a wide ochre yellow spiral; there are yellow flecks on the bridge of the nose and on the pupils. The neck is short, the shoulders appear hunched. The chest is separated off by a groove below. The belly protrudes while the waist is pulled in and girded by a piece of bark material. Buttocks and calves are surprisingly thick. The arms are thin, the legs powerful; elbows and knees are recognizable as swellings. The large plump feet stand directly on the ground, thus lacking a pedestal; five toes are indicated on each foot. The hands on the hips both have five fingers. A rough bast fibre armband is on both upper arms and the left thigh.

H.S.9006, Nǎngĭt, standing female **memorial image** (*kandĭnbōn*, Hellwig; height 57 cm), without a pedestal. The face fashioned true to life is, without doubt, a portrait: the eyes and nose in particular have been very carefully treated. Both halves of the face meet in the middle in a turned-up edge. The sharply-delineated strip bordering the chin extends, narrowing as it goes, right to the hairline with which it merges. Knotted strips of bast are pulled through nasal septum and ears. Elbows and knees show the usual thickenings; inner and outer ankle bones are indicated by small round discs. A strip of bark material is wrapped around the waist and between the legs; the genitals are not represented. A second strip of bark material is laid along the groove marking the lower border of the ‘hair basket’; it forms an eyelet for hanging.

H.S.6536, Kōpār, standing male **memorial image** (*kādĭbōn*, Müll.; height 110), Fig.402, made from relatively hard wood; again, probably a portrait. The figure stands with its feet directly on the ground. There is no pedestal. The head carries a high pointed process: the hair basket. The eyes are bordered by two white-painted grooves. The nose has a wide bored septum; however the tip has broken off and so the lower part of the septum rises from the facial surface like a short pencil. The distinct edge accompanying the chin extends laterally as far as the hairline; it has small holes along almost its entire length and is wrapped round with narrow strips of rattan. This facial edge so often found attached to the figure was probably originally an imitation of those found on masks, as demonstrated by the frequent wrapping; then secondarily it is often assumed to be a beard. Mouth and sides of the nose are accompanied by indistinct pale grey lines. The chest and also the shoulder blades show big carved spirals which are connected by zig-zag lines above the upper arms. Both arms and legs have a yellowish bast band as an ornament. Several strips of bast loop around the waist but do not conceal the penis. The whole body is thickly painted red.

St.Ha.61592, Sĭngŕĭn, standing male **figure** (height 78 cm), Plate LXX.3, similar to the preceding figure, only wider and slightly flattened dorsoventrally. The face in particular is relatively flat, an impression which is reinforced by its being surrounded by a very wide distinct edge. This edge [378] merges above with the ears, with holes along its entire length, and therefore originally wore some kind of plaited ornament. The hair, which is separated from the face, projects onto the forehead in a beak-shaped peak and changes laterally into the ears. It carries an imitation of a hair basket on top, and a wavy pigtail with a horizontal hole through it on the back of the head. The eyes are situated relatively deeply beneath a somewhat projecting forehead and are formed by two concentric oval rings. The nose is long, narrow and sharply profiled, its sides carved particularly carefully. The nose changes above into a sagittal crest over the forehead; the septum is perforated. The mouth is a small shallow oval ring with a narrow central slit. The neck is missing: the head sits directly on the shoulders, with the chin extending far down onto the chest. The chest rises to form a slightly-raised, tongue-shaped plate with the tip pointing downwards, and is adorned with an incised decoration consisting of a jagged band above a pair of reclining spirals. Since several engraved lines form a nose-like figure on the tip of the plate, the lower part of the chest decoration is reminiscent of a representation of a face. The navel is formed by a raised oval plate with an incised centre. Arms and legs are slender, the arms disproportionately longer than the legs. The hands lie at the sides, on the hips. Elbows, knees and ankle bones are accentuated by shallow buttons. The hands are quite carefully carved: the right with six fingers, while the left has five fingers. The feet point obliquely downwards and lie laterally on the pedestal; both have six toes. A loincloth of bark material is laid round the slender waist and between the legs. The two shoulder blades each have a decoration: an incised cloverleaf figure. Two circular lines are engraved on the buttocks. The entire figure is fairly evenly painted red.

H.S.1807, Sĭngŕĭn, standing male **memorial image** (*kādĭbōn*, Fülleborn; height 164 cm), resembles the previous ones in type but is very much longer and more slender; the arms and legs in particular are very long and thin. While the body is treated conventionally, the face, as had emerged from the local description, ought to represent a portrait. It is somewhat flatter than in the preceding figure, the extraordinarily high forehead does not project so far, and the narrow nose, expanding very gradually downwards, is not very prominent. The nose has only slightly delineated sides and its septum is perforated as usual. The mouth is a bulging transverse oval ring whose deep slit is

coloured red inside. The sharply separated strip surrounding the face is very wide, with a lot of holes, and runs along behind the ears till over the forehead where it merges with the peg representing the hair basket. Remnants of rattan plaiting show that the entire strip had been enveloped in plaiting. The ears are two big stand-out stages with a lot of holes, carrying a decoration of small bunches of bast. The neck is very short. On the chest and on the back is a slightly raised area with the tip pointing downwards, almost covering them, and adorned with engraved decorations. The representation resembles that described in the preceding specimen and looks like a face; on each side a short wavy band lies in the oblique ovals: the 'eyes'. Below, this triangular field continues on the front and back in a projecting strip with horizontal holes, forming two arches one behind the other. The navel consists of a projection like a pigtail. The hands on the hips are fairly roughly made: the right hand has five fingers, the left four. Penis and scrotum are represented uncovered. The feet are short and plump with no actual pedestal present. Particularly in the depressions in the decoration the figure shows traces of red colour, with white lengthwise stripes half faded on the trunk.

H.S.6729, Kōpār, standing male **figure** (*kādībōn*, Müller; length 69 cm), Fig.403; similar to the preceding image. The head is disproportionately large, and the face is broad. As a continuation of the nose, the forehead shows a fairly abruptly elevated median strip. The cheeks are deeply sunken, with the forehead projecting over them like a roof. The eyes, an oval with a deep centre surrounded by a furrow, lie on the underside of the forehead projection. The nose is sharply profiled, has broad sides, big nostrils and a widely perforated septum; each of the sides of the nose has two small holes. The entire face is surrounded by a sharply separated wide strip with numerous holes in which is fastened a plaited strip lying against the rim. The site where the ears merge with the rim strip, is adorned with a hanging of thick bunches of bast and thin twisted cords. There is no actual neck: the sole remnant of it is a short shallow arch on the reverse side, extending from the hunched shoulders to the coiffure. It has evidently served for pulling a cord through. A tongue-shaped raised plate again forms the chest. The trunk is very slender; a piece of red bark material is laid around the waist, covering the genitals. The arms are quite surprisingly thin and, like the much more solid legs, they are markedly flattened sideways. The fairly wide outer surfaces thus created on upper arm, forearm and thigh are covered with incised decorations, which are quite different on both sides of the body but are more carefully produced on the left side. Above on the shoulder blade is, first, [379] an oval surface surrounded by a furrow and below it, on the upper arm, a second, similar one greatly extended in length and filled with a wavy band. The forearm has several hooked lines surrounded by grooves. The buttocks — projecting backwards on each side as a sharp-edged ridge — are covered by a big oval area. Connected with this is the thigh decoration consisting of two spirals and a filling of short curved lines. Knee and ankle are indicated by button-like projections. Remarkably, the lower leg shows not only a pronounced swelling on the back, as a representation of the calves, but a very similar swelling on the front as well. The hands, separated from the arms by a narrow, three-dimensional meandering band, are carefully made; both have six fingers. The feet stretching steeply downwards — a pedestal is not present — are very short, wide, and flat; both have toes separated from one another by incisions. The entire figure is covered by a fairly thick layer of red, which, in places, has already become a type of patina.

H.S.1808, Sīngrīn, male **memorial image** (*kādībōn*, Fülleborn; height 112 cm). While the head should clearly represent a portrait, the body is treated decidedly conventionally; trunk, arms, and legs are effectively stiff and wooden and are overly long. The legs show a marked flattening sideways. Knees, ankles, and navel are designated by button-like elevations. The feet are — a pedestal is lacking here as well — short, plump stumps. The hands on the hips have fingers (five each) separated from one another by deep incisions. On the back of the hand is a somewhat projecting trapezoid area surrounded by deeply incised lines. The wide powerful chest is covered with a pair of incised spirals ending in the middle in a jagged, star-shaped area. The decoration covering the shoulder blades is similar, but consists of concentric ovals, the central one containing a figure with jagged edges; the whole thing is reminiscent of the 'butterfly' pattern of the Monúmbo. A row of tongue-shaped raised areas with the tips upwards, on each upper arm, forms the connection between chest and back decoration. Around the waist and between the legs — the genitals are presented in full detail — is looped a wide strip of red-dyed bark material. Fastened on the right wrist is a roughly-plaited, damaged rattan arm band. The head sits directly on the shoulders: the sole remnant of the neck is a thick transverse bulge on the reverse side; on the bulge, on the back of the head and extending to the hair line, is a narrow strip, probably intended to represent a pigtail (although we never saw one on a living person); it has a narrow transverse hole for a hanging band. The face resembles that of the previous figure and, like this, has a projecting forehead with a median strip; a prominent, slightly-convex narrow nose with clearly separated sides with one hole; and a horizontal oval small mouth with bulging lips and a deep oral slit. The eyes, almond-shaped, very oblique raised areas, lie rather far below the forehead; their deepened centre is painted red. On the head, as an imitation of the hair basket, is a double-stepped round peg. Along the facial margin runs a strip, which is very broad, particularly at the chin, and with a lot of holes, changing above into the hair. A red-dyed plaited strip less than 2 cm wide is fastened to it. The ears, short strips with two holes in each, are decorated with bunches of grass. The face shows paint: on a dark brown background white lines run from the mouth to the ears; the edges [380] of the sides of the nose and the lines bordering the eyes are also white. The spiral on each half of the forehead consists of white and ochre lines.

Reche, Empress Augusta River, Plate LXXI



1. Memorial figure St.Ha.61639, 1/5 actual size. 2. Memorial figure L.Me.8962, 1/5 actual size. 3. Memorial figure St.Ha.61600, 1/5 actual size.
 4. Memorial figure L.Me.8822, 1/5 actual size. 5. Memorial figure L.Me.518, 1/4 actual size. 6. Memorial figure L.Me.7278, 1/5 actual size.
 7. Memorial figure L.Me.9147, 1/5 actual size. 8. Memorial figure L.Me.9139, 1/5 actual size.

H.S.1810, Sīngrīn, standing female **memorial image** (*kādibón*, Fülleborn; height 35 cm), Fig.404. The specimen had been placed in the ceremonial lean-to of a house, even though it was a female figure. It has been very



Fig.403. Memorial figure
H.S.6729, 1/5 actual size



Fig.404.
Memorial figure
H.S.1810, 1/5 actual size

carefully carved and is clearly intended to represent a portrait; even the trunk and extremities have been treated in a true-to-life manner. The face resembles that of the preceding figures in type. Of the narrow sides of the nose, the right side has a single hole bored through it. The mouth is a broadly projecting oval. The ears, located somewhat higher than the eyes, have been carved most surprisingly carefully, more artistically than in any other figure: the tragus is clearly recognizable, as are the ear lobes, the auditory tube and the external ear with its various windings; the rim of the helix has two holes bored through it and the lobe has one hole. The hair is sharply separated and rests on the head like a four-pointed canopy: naturally there is no hair basket, since this is worn only by men. Behind, between the shoulders, is a small eyelet for the hanging band. The wide chest basket projects over the abdomen like a tongue; the breasts are presented as small round raised areas. Over shoulder and breast runs a row of slightly-curved raised areas like commas: obviously an imitation of a neck chain assembled from dog's teeth. The abdomen is markedly flattened from the side: while its transverse diameter, measured from one side to the other is 3.6 cm, the dorsoventral diameter is 7 cm, roughly double. On each side of the belly — somewhat above the navel (which is recognizable as a small shallow button) — is a

big three-dimensional figure in the shape of a markedly foreshortened arrow: evidently decorative scars, which were especially characteristic of dead people. The genitals and the anus are presented, but are concealed by a thick, monocoloured reddish-brown grass skirt. The back of the figure shows projecting shoulder blades, both adorned with a carved spiral line, and equally very prominent buttocks. The outside of the arms show a narrow three-dimensional band beginning above the wrist and extending to the shoulder blades, ending above in a diamond tip. A similar band decorates the upper and lower leg, its tip lying on the lateral surface of the buttocks, while below it contacts the ankle, which is presented as a button-like raised area. The hands lie to the sides on the hips; each has five slightly-curved fingers. The feet are short, wide and flat, raised areas scarcely rising above the pedestal, each with five toes separated from one another by shallow incisions. The pedestal is very solid and, as an exception, is so carefully made that the figure can actually stand, and not need to be leaning against something, like almost all the others. It remains to mention that a narrow

monocolour armband plaited from rattan is on each upper arm and forearm. The entire figure has been rubbed in red dye, but evidently the last time was a long time ago, because the colour has markedly darkened and rubbed off on the edges and the raised areas: several of the edges seem almost polished; thus we are dealing with quite an old piece.

St.Ha.61626, Sīngrīn, semi-crouching male **memorial image** (height 101 cm), Plate LXX.4, resting on a small, somewhat damaged pedestal. A piece of bark material is fastened around the hips. The entire figure is heavily weathered and badly damaged. The head is treated as a portrait, with the body highly conventional. The head with its projecting forehead, long nose, and oval mouth resembles that of the previous specimens. The sides of the nose each have three holes, and the septum has a wide perforation. The ears merge with the narrow strip accompanying the facial margin and decorated with bast fibre. On the head sits an imitation of a hair basket, with a pigtail attached behind. The chest shows a shallow carved relief decoration consisting of a pair of spirals and several curved lines joining below. Trunk, arms, and legs are very thin. The horizontal thighs each form a thick process projecting a long way backwards from the buttocks. The knees are situated at the level of the hips. The feet merge with the pedestal.

The following figures, probably all coming from the middle reaches, resemble those so far described from the river mouth region, but are shorter, and more solid and compact.

St.Ha.61646, "hostile village", semi-crouching male **figure** (height 32 cm); painted red, with a relatively large head, which, with its prominent forehead and its wide nose, resembles some among the preceding figures. The head sits directly on top of the shoulders; above, it has a large cone-shaped addition, the hair basket. The chest forms a



1. Memorial figure L.Me.9163, 1/5 actual size. 2. Memorial figure St.Ha.61627, 1/10 actual size.
 3. Memorial figure St.Ha.61610, 1/10 actual size. 4. Memorial figure H.Th.11.88:40, 1/20 actual size.
 5. Memorial figure St.Ha.61622, 1/10 actual size. 6. Memorial figure St.Ha.61623, 1/10 actual size

tongue-shaped process pointing obliquely downwards. Body and extremities are rather schematically presented. The short plump feet virtually blend with the high narrow pedestal.

St.Ha.61693, “Simar”, standing male **memorial** [381] **figure** (height 24.5 cm), Plate LXX.5. The wood shows its natural colour. The large head has a prominent forehead, a big solid nose with a bored septum, and eyes that consist of deep holes bordered by a low bulge. The ears, with only one bored hole, are very small and lie at the level of the eyes; a narrow strip leads from them, accompanying the facial margin and not sharply separated from it. The chest projects as a wide tongue and resembles the chin in shape. The fairly prominent belly carries a button-shaped navel. The hands, whose fingers are clearly recognizable, do not lie immediately on the belly, but are connected with it by a narrow bridge. Buttocks and calves are markedly thickened. The feet merge with the round pedestal. On the edge of each shoulder is an oval bulge surrounded by a wall.

St.Ha.61690, “hostile village”, standing male **figure** (height 37 cm), Plate LXX.6, fairly roughly carved out of naturally-coloured wood. The head is relatively small, the face flat; the surprisingly low forehead projects somewhat; the nose is big and wide. The eyes are slanting oblong bulges deepened in the middle. Any indication of a hairstyle is missing, as is the edge surrounding the face. The hands lie obliquely in front of the belly, right over the long thick penis; the fingers are not recognizable. The feet merge with the roughly carved pedestal, which tapers somewhat downwards.

St.Ha.61674, “Matemba”, standing male **figure** (height 19.5 cm), roughly carved out of naturally-coloured wood. The head is surprisingly long and narrow, strongly profiled, and with a very prominent nose whose septum shows a perforation. The eyes consist of almond-shaped, slanting, raised areas; the mouth is a transverse bulge with a central slit. The ears are only just hinted at. On each side of chest and shoulders are several engraved concentric circles. The navel is an elevation surrounded by four small arches. The greatly enlarged penis points steeply downwards. The legs are short and somewhat bowed outwards, the knees thickened. The obliquely-pointing feet blend by their soles into a small, cone-shaped pedestal.

L.Me.7876 “Empress Augusta River”, small male **figure** (height 11 cm), Fig.405, presented standing, of the same type as the one just described. The facial surface is somewhat sunken, the nose big, broad and fairly prominent; the forehead projects over the eyes. The short arms extend only to the level of the navel. The greatly enlarged feet merge into a roundish pedestal.

H.S.9029, Muǎngĕm, standing male **figure** (*bājāngū*, Hellwig; height 18 cm), very similar to the preceding one, although the head is longer and narrower. The wide sides of the nose, which carry the nostrils on the front surface, transpose on each side into a strip, which climbs obliquely upward and merges into the eyebrows above the eyes (cf. the gable masks from the middle reaches). A strip bordering the sides of the lower face gradually widens lower down, and carries the mouth at the end. On the head sits a short, cone-shaped imitation of the hair basket. The very short neck carries a vertical strip at the back, which does not, however, have a hole bored through it. Trunk and arms are thin and slender, the arms slightly bent at the elbows; the hands lie on either side of the penis. Nipples and navel are indicated by small round buttons, the nipples bordered below by two short carved hook lines; the navel is enclosed by two incised circles. Shoulder blades and buttocks project three-dimensionally. The legs are short, thick, and slightly flattened at the sides; the feet merge onto a plate which, originally, apparently had a bar about 1 cm in diameter pointing downwards, as a process; on the underside it shows at least a corresponding broken surface. Perhaps the figure is therefore the broken-off decorative part of a longer stave and not a memorial image in the true sense.

L.Me.9142, “Empress Augusta River” standing male figure (height 44 cm), Plate LXX.7, painted red, resembling particularly St.Ha.61592 in type. The head is large and rests directly on the shoulders. The forehead, forming a median ledge, projects quite far; below it lie the eyes, each formed by two concentric oval walls. The nose is big and wide with its septum perforated; out of it soar several hook-shaped curves lying one above the other and carved completely three-dimensionally, representing the mother-of-pearl nasal ornament common here. The face is surrounded by a sharply delineated strip with many bored holes, the ears attached above. On the head sits the imitation of a hair basket. The chest, abruptly separated from the belly, is covered with incised decorations consisting of jagged lines and roundish curves; it ends below in a long process which carries two rows of incised angular figures on the front and runs out into a small head representation. The row of humps coming from the chest continue onto the arms and extend as far as the wrists. Around the waist is laid a skirt of bark material. The steeply pointing feet are only short; there is no pedestal. [382]

L.Me.8966, “Empress Augusta River” standing male figure (height 49 cm), Plate LXX.8, is probably intended, despite its grotesque form, to represent a portrait. The face resembles H.S.6729, especially due to the extraordinarily large wide nose distinguished by big holes in the sides and a wide perforation of the septum; a thick bunch of grass is fastened through this hole. The eyes are only small oblong holes lying below the jutting forehead. The strip surrounding the lower part of the face is only narrow, the bored holes are broken away in places. The legs are surprisingly long, as are the steeply angled feet. The abdomen is very thin; it is concealed by a big wide bark cloth.



Fig.405.
Memorial figure
L.Me.7876,
1/2 actual size



1. Skull H.S.A. 748, 1/2 actual size. 2. Clay pig's head, after von Luschan
3 and 4. Skull with a face modelled onto it, from the Admiralty Islands (Leipzig), 1/2 actual size

L.Me.9159, “Empress Augusta River” standing male figure (height 17.5 cm), Plate LXX.9, evidently a very old piece; the upper surface is weathered and well-worn. Whether the figure was intended to represent a portrait seems rather doubtful: the shape of the face is not very true-to-life, yet on the other hand it does not resemble any of the mask types either. The profile is the shape of a muzzle. The big, button-shaped, prominent nose has a perforated septum. The eyes below the slightly rounded forehead consist of carved concentric circular lines. The head carries a low knob-shaped process, which is bored through at the base. The upper body is extraordinarily puny in comparison with the lower part: the chest appears sunken while the stomach, on the other hand, bulges; buttocks and thighs are disproportionately thick. A bark cloth girdle is around the waist and drawn between the legs. There is a circular decoration delicately scratched onto the shoulder blades.

L.Me.9137, “Empress Augusta River”, standing male figure (height 46 cm), Plate LXX.10. The head appears intended to represent a portrait; it has a frame strip, a somewhat projecting forehead, eyes formed from concentric low bulges, and a wide nose. The shape of the torso is astonishing: the thorax ends in a long, slightly curved, tapering, beak-shaped peg, which extends below the hips (cf. L.Me.9142). The arms are thin, the legs relatively thick, the feet short wide stumps. Shoulders and buttocks project somewhat backwards. There is no pedestal. The figure is thickly painted red.

L.Me.9215, “Empress Augusta River”, semi-crouching male figure (height 54 cm), Plate LXX.11, with a very big head which occupies almost half of the total length. The face is of a somewhat different type: the eyes have to a certain extent slid upwards on the round prominent forehead and lie on a spherical elevation. The lower border of the forehead is designated by two parallel, incised horizontal lines. The big four-pointed hairstyle is divided into two steps and ends above in a hair basket with four peaks pointing obliquely downwards. The small nose has a wooden imitation of the ornament of mother-of-pearl hooks one on top of the other, through the hole in the septum. The small body is treated only very roughly and conventionally. The thighs are imagined to be lying horizontally. The feet are blended with the low conical pedestal. The figure is painted red; only the ‘mother-of-pearl hooks’ and the eyes formed from circular lines are white.

St.Ha.61682, Sīngrīn, standing male figure (height 27.5 cm), Fig.406, painted red, differing in the whole concept from those described so far, although probably also representing a portrait. The head is big and long; everything on it appears to be extended in length. The forehead is flat; it forms a slight crest in the midline. The bridge of the nose is long and narrow with the tip prominent; the sides of the nose are narrow, with small nostrils and a perforated septum. The eyes consist of oblique, projecting bulges. The cheek bones are vaguely indicated, like those in the masks of type St.Ha.61602. The mouth is a small transverse bulge. The small ears sit high, stand out a long way, and each has a hole bored at right angles through it. On the head rises a high structure, an artistically-carved hair basket decorated with ornamental bands; the lowermost is a type of meandering band (= semi-‘entrails’ band), then there are several circumferential bulges, and finally a zig-zag band. The tip forms an egg-shaped peg, which is transformed into an animal? head with a tongue protruding from its open mouth. The figure’s neck is very short. The nipples are small buttons. Just below the chest the body is constricted, however the stomach projects. The penis points obliquely forwards and is uncovered. Elbows, knees, and ankles are thickened. The hands are balled into fists, although the fingers are recognizable. The feet, consisting of plump plates, rest on a circular pedestal about 1 cm high, whose outside edge is decorated with a zigzag pattern.

St.Ha.61639, “Gambrium” female figure in a crouching position (height 23 cm), Plate LXXI,1, not coloured. The hands are folded over the head. The head is carefully fashioned and is definitely intended to be a portrait. The nose is very big and powerful, its sides are wide and the septum is perforated. The eyes lie in a deepened roundish area. The mouth is a small, sickle-shaped slit. The lower half of the face is surrounded by a strip. The neck is completely missing with the head sunken into the shoulders, which extend roughly to the height of the tip of the nose. The breasts are bordered below by an [383] incision; the nipples are missing. The navel is designated by a large incised circle. The genitals are particularly carefully produced; the *mons veneris* is big and round. The thighs run obliquely upwards, the lower legs are almost vertical. The feet, pointing obliquely downwards, clasp a roundish pedestal, on the front of which an indistinct face may be recognizable. Both arms are decorated with a small arm ring, on one of which is fastened a hanging cord as well.

H.S.9046, Muǎngēm, small squatting human figure (height 19 cm), Fig.407, probably of the female sex, evidently still not fully carved (*šimbrēmeñbrēni*, Hellwig; — like an abbreviated composition?) The figure is concealed in a folded leaf sheath. According to Hellwig, when it was handed over it was treated very secretly,



Fig.406. Memorial figure
St.Ha.61682, 1/5 actual size



Fig 407. Figure
H.S.9046, 1/5 actual size

unwrapping even for glancing inside, and removing it from its wrapping, was suffered unwillingly; perhaps this was the memorial of someone who had died only recently. The word given above was whispered into the ear; to characterize the figure they performed the action of a frog hopping. The cross-piece on the head (length 6 cm) is evidently intended to represent a bowl carried by the woman; as Schmidt (1903, p.112) mentions, among the Monúmbó, women are often depicted, “carrying a bowl of water on their head, or a bag of taro and yams on their back”. This ‘bowl’ is supported at the sides by two carved arches arising from the upper ends of the ears. The left breast is decorated by a carved double spiral. The navel is surrounded by curved lines; a sagittal ornamental band is attached to it, extending between the chin and the markedly-projecting *mons veneris*. The figure is coloured bright red. A hanging band is attached to the top.

L.Me.8962, “Empress Augusta River”, female **figure** in a crouched position (height 38 cm), Plate LXXI.2, with a big wide head. Under the rather jutting forehead are the eyes, consisting of an oval bulge with a central depression. The nose is fairly prominent with a hole bored through each side. The breasts are long and pendulous. A skirt is fastened around the waist, almost covering the legs. The pedestal is wide, flat, and round.

St.Ha.61600, “Mangot”, kneeling figure (height 54 cm), Plate LXXI.3. The face is unrecognizable, although it is probably a woman; at least the figure is clad in a woman’s grass skirt. The type resembles those of the preceding figures. A tiny figure, carved fully three-dimensionally in the same form and posture as the larger figure, is attached to the chest and abdomen. Possibly the figure portrays a woman who had died in childbirth or had perhaps died at the same time as her baby. The faces of both figures are short and broad, with foreheads curved round anteriorly, and broad noses; their eyes are formed by slanting oblong depressions. Near the ears, indicated only by a small hump, a bulge begins, which borders the sides of the lower half of the face and steadily widens downwards, finally forming a snout-like protuberance on which lies the mouth, formed only by a slight transverse slit. On the upper part of the head is an indistinct shallow carving which evidently represents the hair. Both figures are kneeling, that is, they are resting on their knees and the tips of their toes. Traces of red paint are found in various places. This is probably an old specimen, because the surface is heavily weathered and damaged in places. In the realism of the presentation and in the whole style, the specimen resembles a type of memorial image found in the middle reaches of the river.

In the river mouth area, just as among the Monúmbó (Schmidt 1903, p.112), in addition to the realistically presented portrait figures there are others that appear to wear a mask. According to Pöch (1908, p.171) these are called *murúp* among the Wātám, “an expression used for masks and spirits”. Fülleborn and Müller were given the designation *kādibón* for these figures as well; but *murúp* on the other hand for only a few masks. [384]

With **L.Me.8822**, “Empress Augusta River”, a **figure** without legs (height about 74 cm), Plate LXXI.4, one may be in doubt whether the figure is regarded as having a mask or not; the form of the slanting eyes in particular makes one think of a mask. Again, the nose carries the wooden imitation hook-shaped mother-of-pearl ornament through the septum. On the head sits a very tall, fully three-dimensionally carved decorated hair basket, from the top of which rises a bunch of cassowary feathers. The body is only roughly alluded to. The legs merge with the high narrow pedestal.

H.S.1811, Sīngrīn, male **figure** (*kādibón*, Füll.; height 31 cm), Fig.408. The face is thought to be covered with a mask, which however does not resemble any of those mentioned by Schmidt (*loc. cit.*). The eyes consist of mother-of-pearl shell discs with a wide hole in the centre; they lie in an oblique area surrounded by a sharp border projecting from the face; over the nose this forms a tag projecting downwards, and changes, below, into the sides of the nose. The bridge of the nose is narrow and very prominent; the sides of the nose and the septum each have a hole bored through them. The tip of the nose is lengthened and forms an arch rising from the surface and merging again into the face somewhere above the mouth, which consists of a small three-dimensional oval. The transverse filigree thus formed is not identical with the hole through the septum, but is separated from it by the lower margin of the septum. The lower face is bordered by a sharply-separated narrow strip. The ears are reproduced in every detail and their rims have many holes. An imitation hair basket sits on the head. Around the neck, indicated only by an indentation, is a cord knotted at the back, which seems to have served for hanging. The body is treated exactly the same as for the other memorial images. The chest consists of a triangular projecting plate on which rests the head of an animal, carved fully three-dimensionally. A girdle of bark material is laid around the waist and also pulled between the legs. Shoulder blades, elbows, buttocks and calves protrude away to the rear; the shoulder blades are decorated with incised spirals whose innermost winding ends in a line beset with deeply incised serrations. On the outside of the right leg a snake is



Fig.408. Memorial figure
H.S.1811, 1/5 actual size

reproduced in elevated carving, with its head resting on the buttock while its tail almost reaches the ankle (representation of the soul?) In the hands, the right has five fingers and the left has six, all separated from one another by incisions. The feet have passed without trace into the round pedestal, which is slightly hollowed out underneath. The figure can stand without support. It is evenly painted red.

H.S.1809, Sīngrín, standing female **figure** (*kādībón*, Fülleborn; height 58 cm). The face is similar to the preceding face. The eyes consist of slanting, elongated ovals depressed in the centre and lying in an equally depressed area bordered by narrow strips. The nose is not elongated downwards but has a noticeably-widened septum carrying a three-dimensionally carved triangular ornament. On the head is a large spherical process, the hair. The lower face is again bordered by a strip. Torso and limbs show the conventional slender form. The breasts point obliquely downwards in elongated peaks. The genitals are produced in full detail, but are virtually concealed by a short thick red skirt. The carefully carved feet stand on a high cylindrical pedestal. The figure is painted red but in the face and in the circular lines surrounding the navel there are also remnants of white paint.

L.Me.518, “Empress Augusta River”, standing male **figure** (height 26.5 cm), Plate LXXI.5. The face shows the same type of mask as H.S.1811. On the top of the head sits a beak-like hairstyle projecting onto the high forehead and towards the ears in three tags. The ears, small arches, have many holes, and are decorated with a fibrous ornament. The broad chest rises like a collar three-dimensionally out of the rest of the body. Arms and legs are [385] flattened at the sides but very wide from front to back. The feet merge into a small pedestal. In the face, hair, and limbs the figure shows a large number of slightly curved white lines.

H.S.6730, Kōpár, standing male **figure** (*kādībón*, Müller; height 118 cm), Fig.409. The body, decidedly bent over backwards, has the conventional shape with very long slender limbs. The face is thought to be adorned with a mask resembling those of H.S.6725, 6726, 1822, and so on, and evidently intended to represent the head of a rhinoceros hornbill. It differs from the masks of the preceding type by the significant elongation of the tip of the nose, which in this case is even rolled into a spiral. The structure of the forehead, and the eyes in an enclosed field, are almost identical with that of the preceding type; the strip accompanying the lower face is very narrow here, and beset with indentations along its entire length. Around the elongated tip of the nose is laid a band of human hair encrusted with *Nassa* shells. The mouth is suggested by a barely-visible slit. The facial surface shows traces of curved white lines. The ears are narrow arches with only one hole bored through; they are decorated with short cords on which are strung white, pink, green, yellow, and blue European beads; thus the figure, which seems to be very old, has been refurbished with expensive new jewellery, an indication that for some reason or other it is held in high esteem. On the head is a giant, tapering, three-dimensional, four-sided process representing either an exaggerated hair basket or a dance hat. It has four filigree-worked longitudinal strips chopped out of its rim and beset with a thick hanging of bunches of red-dyed grass. The figure's chest forms a somewhat raised plate extending into twin peaks below; the attached remnants of white string allow one to recognize a wide neck band from which hang round shell discs. The thin stiff arms are adorned with several armbands of twisted grass and plaited rattan. The torso is conspicuously flattened at the sides. Buttocks, thigh muscles and calves of the similarly-flattened legs stand out posteriorly. The knees are cone-shaped elevations. The roughly carved feet are deprived of a pedestal. The figure is painted red.

H.S.6731 Kōpár, standing male **figure** (*kādībón*, Müller; height 56 cm), very similar to the previous figure but less carefully produced. Here too the body is distinctly arched backwards. The nose is less emphatically prolonged and the four-sided head is not as high. The front edge of the head has turned into a three-dimensional snake, with its head down and resting on the forehead; the other three edges each have a filigree-carved strip. The four surfaces of the head process between the edges are densely covered in incised spirals and ovals, with short, curved lines filling the spaces between. The very top of the head finery is formed by a somewhat cursorily-produced animal head from whose open mouth protrudes a tongue-like body. Torso and limbs of the memorial image show the usual rigid forms. The pedestal is missing from the plump feet. The entire figure is painted red, although the colour has already worn: soiled in some places and flaked off in others.

L.Me.7278, “Empress Augusta River”, standing male **figure** (height 71 cm), Plate LXXI.6; differs from the specimens just described by the true-to-life representations of the body and limbs. The forearms lie horizontally and the hands touch the chin. The nose is devoid of any process; the perforated septum carries a band of bast. The elongated almond-shaped eyes lie in a deep depression. The tall head process is round in cross-section with a flat disc at the top; in front a filigree-carved and jagged strip runs up to it. The genitals are presented in full detail: the penis points obliquely upwards and touches the point of the elongated chin. The feet are very big and fat, and deprived of the pedestal.



Fig.409 Memorial figure
H.S.6730, 1/10 actual size

L.Me.9147, “Empress Augusta River”, crouching male figure (height 50 cm), Plate LXXI,7. While the preceding figures are all flattened from side to side, this figure is surprisingly developed in width. The head appears somewhat grotesque. The nose spreads to a huge width; its elongated tip forms an arch which merges with the body only in the middle of the chest; we are probably dealing with an imitation of a *Buceros* bill. The eyes, oval raised areas somewhat slanting, and deepened in the middle, lie in an only slightly sunken region; they are filled out in white and surrounded by white dots. The nipples, hinted at by low elevations, are surrounded by white serrated lines, which continue as far as the upper arm and almost touch a spiral line engraved on the shoulder. The short, very thick thighs stand almost horizontally, the lower legs, with thick calves, are very short, and the big flat feet rise only slightly out of the small pedestal.

L.Me.9139, “Empress Augusta River”, standing male figure with bent knees (height 49.5 cm), Plate LXXI,8. It has a markedly elongated nose whose tip merges with the body only at the site of the navel; and because this elongation has a deep longitudinal fissure on either side, it resembles [386] the slightly opened bill of a bird, and the transverse bulge on the lower section is particularly reminiscent of a *Buceros* bill. The side of each nostril passes laterally into a scroll-like band forming the eyes. The ears are disproportionately large and not pierced. On the back of the figure’s head is a big, three-dimensionally stylized bird’s head with a markedly elongated upper bill, a short lower bill, and a visible tongue; a process touching the neck represents perhaps the legs; another, pointing downwards, the bird’s tail. Chest and shoulders of the memorial image are decorated with chiselled, curved, and spiral lines. The feet merge into the small pedestal.

L.Me.9163, “Empress Augusta River”, seated male figure (height 36 cm), Plate LXXII,1, with a very broad, flat, low head from which projects a long, sharp-edged bill-like nose whose tip meets the similarly elongated navel; both hands lie at this meeting point. The somewhat separated sides of the nose have multiple holes, and are decorated with bunches of grass. As an upward prolongation of the nose, a narrow sagittal crest runs over the forehead to the hairline. From the back of the head a carved pigtail extends onto the neck. The eyes, consisting of several concentric oval chiselled lines, lie in a depressed area as in H.S.1809, 6731, and so on. The figure sits on a flat wide pedestal with which the feet merge. The fact that a figure has been created here quite differently from the conventional manner of presentation, by being seated, is very remarkable (cf. St.Ha.61610).

A figure from Sīngrīn depicted and described by Schlaginhaufen (1910b, p.18, Fig.D), is very peculiar. The face is true-to-life but the body is presented as stiff and conventional. The figure continues below into a bird; the penis merging with the bird’s body, the navel with the tail, the human legs with the bird’s feet. The bird figure is very slender, its head pointing downwards. “Insofar as the rough workmanship of the figure allows an opinion, a rhinoceros hornbill is represented”.

From the section of the river just above the sago swamps of the river mouth region, that is from the villages of Muǎngĕm, Ĭmbǎntǒn, Kǎmbrīnŭm, and the like, come memorial images that differ from those of the coastal region mainly by being interpreted very true-to-life and individualistically, hardly showing any kind of conventional stiffness, and appearing to represent composite portraits. Perhaps L.Me.8962, already described above, belongs here.

H.S.6600, Muǎngĕm, standing male figure (*kǎndimbǒǎn*, Müller; height 25 cm), Fig.410. The head resting directly on the shoulders is roughly horizontal in cross-section: both halves of the face unite in front at a fairly acute angle. The sharply-chiselled nose is big and wide with flared nostrils and a perforated septum. The mouth lies on the foremost tip of the bulge bordering the face. The body is so markedly arched forwards that a deep lengthwise groove has arisen at the back, between the arms and the legs. The upper body recedes in comparison with the strongly-developed abdomen. The forearms are directed obliquely upward, with the hands lying close together on the chest. The feet merge into a pedestal. A rattan loop is fastened onto the head process representing the hair. The figure has a dark-brown colour; depressions are painted red in some places and white in others.



Fig.410. Wooden figure
H.S.6600, 1/5 actual size



Fig.411. Wooden figure
H.S.6599, 1/2 actual size



Fig.412. Memorial figure
H.S.6028, 1/5 actual size

H.S.6599, Mụąngēm, **tiny figure** (*ųąndĩmbĩ*, Müll.; height 13 cm), Fig.411. This specimen too has a lengthwise groove running along the torso but here, it is on the front. The collector was unable to find out the purpose of the little figure; it did not seem to be an actual memorial image. It has possibly (it has a wide hole through each ear and through the bung terminating the whole thing below, evidently for pulling a cord through), been worn as a pendant, an amulet. Both strips flanking the wide groove on the front merge on the back, and are covered with incised rectangles lying one inside the other. The depressions are coloured red while the raised areas are dark brown and are highly polished, evidently from much handling.

H.S.6028, “middle reaches of the Empress Augusta River”, (gift of Captain Roscher) standing male **figure** (height 41 cm), Fig.412; resembles H.S.6600 (see above), especially with regard to the position of the hands and forearms. Here too on the back, as a result of marked bending of the trunk, a deep lengthwise hollow has developed between shoulders and buttocks. The stomach again protrudes forcefully. The head is big and rounded, the face fairly roughly produced. The feet form a pedestal on which, however, the [387] figure cannot stand; the toes are indicated by incisions in the front edge. Clear traces of paint are recognizable: the face is basically red, and shows a broad white stripe running over the nose. Arms and legs have white, black, and red rings, and the body is covered with black, white, red, and ochre concentric circular lines, in the middle of which lies the somewhat elevated navel. A vertical step has been cut out of the back of the head and has a hole bored through it, probably to take a hanging cord.

H.Do.11,32:7, “Empress Augusta River”, standing male **figure** (length 101 cm), Plate LXXXI.3; very roughly carved; only the head is somewhat more carefully produced. The nose is prominent and relatively short, the mouth a transverse oval bulge with a slit; the eyes are formed from oblong almond-shaped elevations with a central depression. Nasal septum and ears are pierced and decorated with bunches of grass. The painting of the face is peculiar: on a red background (the colour has flaked off in places) white lines have been added with a number of lateral lines on each side, reminiscent of white feathers. Chest and neck are combined into an oblique oval plate. The arms are slightly bent at the elbows, and the legs at the knees. The feet are only flat plates lying on the pedestal. The pedestal is so solid, heavy and wide, that the figure can stand with no problem. Arms and legs show white transverse bands on a red background. On the back the part of the trunk between shoulder blades and buttocks is somewhat hollowed, but not as much as, for example, in H.S.6600. The wood used for the figure shows a naturally intense yellow colour at the fracture points.

St.Ha.61627, “Radja”? standing male **figure** (height 106 cm), Plate LXXII,2, flattened dorsoventrally, [388] and roughly carved. The front surface shows carved decorations in strong relief, while the extremities have transverse snaking lines. The face tapering downwards is rather flat. The eyes each consist of two almost circular concentric raised areas; below them, and extending almost to the somewhat pulled-up corners of the mouth, is an elongated triangular plate (cf. the comma-shaped raised areas in the hanging hooks H.S.9366 and so on). The bridge of the nose is long and narrow, and the septum has a wide hole. On the head sits a short perforated peg. The entire face shows splits, weathering, and all kinds of small defects. The thickenings indicating musculature of the thigh and calf point sideways. The feet are small and plump and point outwards. The back of the figure is even more roughly carved; along the midline is a series of slightly projecting serrations one above the other, possibly an indication of vertebrae. The back of the figure shows the natural colour of the wood; on the front, the depressions are painted red and the raised areas are white, however only vestiges of colour remain; eyes, nose and mouth slit are red.

St.Ha.61610, “Radja”, seated female **figure** (height up to the shoulders 112 cm), Plate LXXII.3, verbal report by the collector, “found in the spirit house”. The figure is made from relatively hard wood. Forehead and nose are prominent although the actual surface of the face is very flat. Eyes and mouth are elliptical bulges depressed in the middle. On the forehead are several coloured transverse bands. From the top of the head a broad decorated strip runs onto the back; it is probably intended to represent the hairstyle and is reminiscent of the Bavarian crested helmet. A little chain of plaited rattan rings hangs down from each ear. The female breasts are quite clearly recognizable. The decoration on the torso is in shallow relief and coloured black, white, red, and ochre. The very long, thin arms are adorned with two plaited rattan bands, and the hands rest on the knees. The legs are markedly flattened from side to side, but are very long. The vulva is a surprisingly wide, deep hole. The surface of the figure is

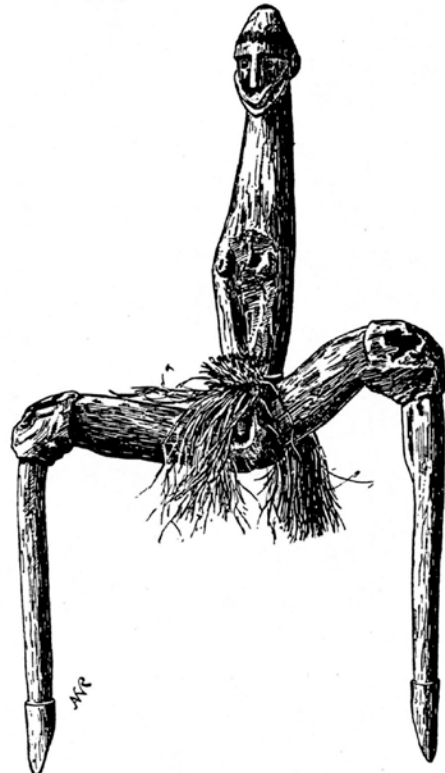


Fig.413. Wooden female figure L.29938, 1/4 actual size

heavily weathered in places.

L.29938, “Empress Augusta River”, seated female figure without arms, Fig.413. The torso is only roughly produced, with small breasts indicated by semi-conical projections. Vulva and anus are concealed by a russet grass skirt. Face and legs are painted red; there are traces of lime on the torso.

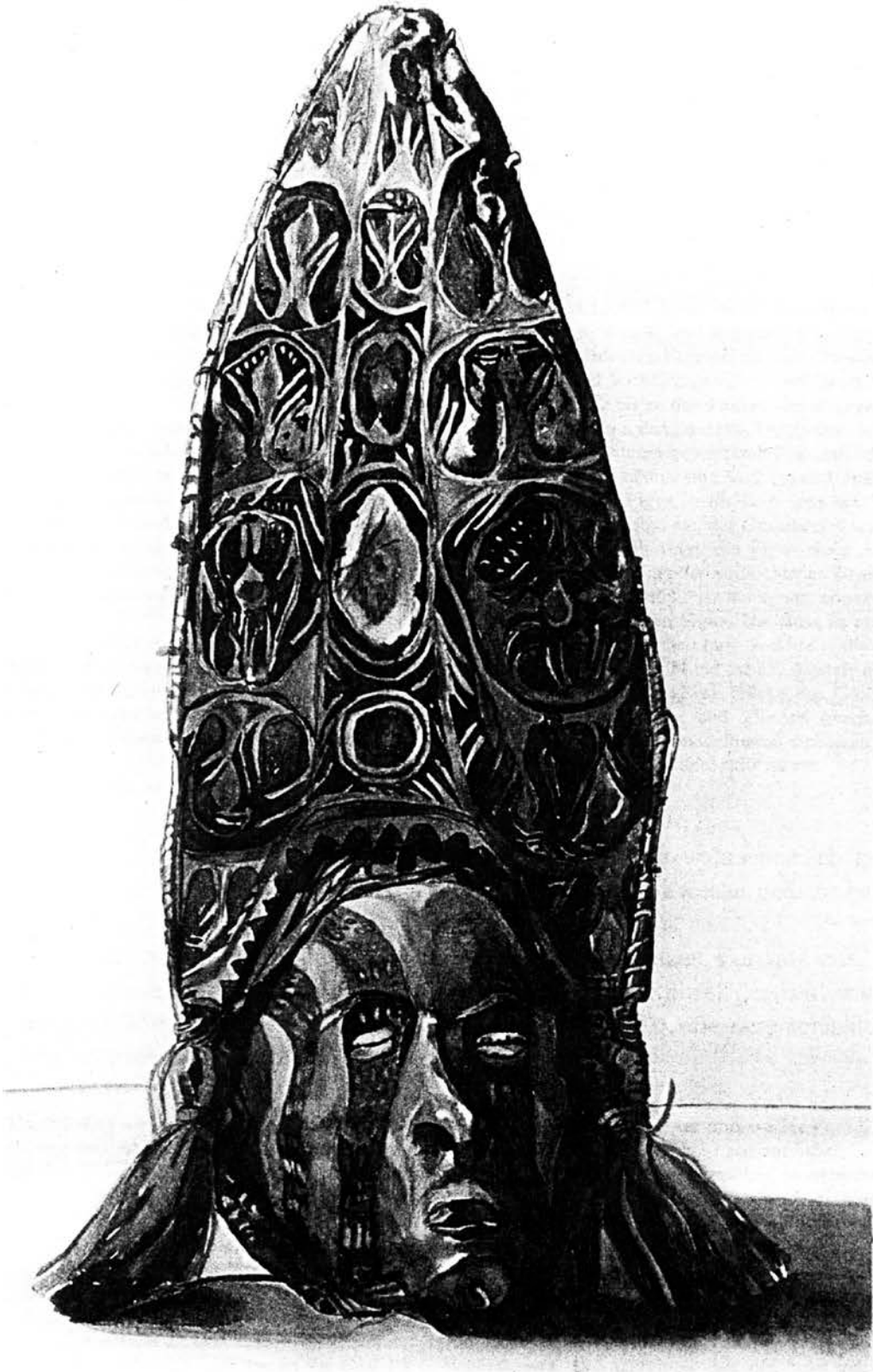
In the middle reaches there are also astonishingly big wooden figures, reminiscent of the carved house poles, although never having served as such. They appear to be memorial images that perhaps have some kind of special significance. Schlaginhaufen, for instance, reports on the image column that he obtained (209 cm long!): “I saw this image column standing watch at the entrance of a temple at the end of the village. . .” (*loc. cit.*, p.19). All of these figures are distinguished by a certain flatness, they do not possess the powerful three-dimensional relief of the carvings from Műang̋m and its neighbourhood. They resemble the forms of the river mouth region in their slenderness and the conventional treatment of the torso and limbs; without exception they are produced standing, with stiff arms and legs and hands on hips.

H.Th.11,88:40, “middle Empress Augusta River”, standing male **figure** (height 305 cm), Plate LXXII.4, made from relatively soft wood. The four-toed feet stretch steeply downwards and rest on a high pedestal. The head is distinctly flattened dorsoventrally. The face quite surprisingly resembles several of the gable masks like, for example, St.Ha.63214, H.S.6650 and others (p.137). It is very flat, the forehead juts out only a little way, the nose has a very long narrow bridge projecting only a little out from the face, but broad sides with big nostrils; the septum is pierced transversely. The narrow white stripes running laterally from the sides of the nose before climbing to the eyes, are accompanied by black lines. They resemble the spirals passing from the sides of the nose up to the eyes that are found in many hanging hooks (for example St.Ha.61620), clay bowls, and masks. The eyes, consisting of inlaid cowry shells, are surrounded by black and white circular lines. The mouth is an oblong bulge deepened in the midline with the corners of the mouth somewhat raised; the lips are painted black, the mouth slit red. To the sides above each corner of the mouth is a black oval [389] mark, perhaps indicating the jutting cheek bones (cf. hooks St.Ha.61620, figure St.Ha.61623, and many other facial representations of this region). The facial surface is white, while the added lines are black. On the back of the head is a vertical bulge, which narrows upward, an elongation of the neck.

An image column illustrated and described by Schlaginhaufen is exactly the same, except that the almost four-sided head has a totally different type: that of the carved house pole St.Ha.61619 (see Plate XXXVII.1) from which it differs mainly in the shape of the border of the face. “On the sides of the head and at the transition from the front surface into the latter, twelve aligned thickenings shaped like roof tiles have been carved out of each side. In profile, each thickening is bounded below by a line convex downward, which climbs up towards the anterior surface and changes into an arch, convex upward”. “In the forehead area a transverse very shallow oval dish is worked, possibly an imitation of the *Cymbium* shell ornament common on the coast.” (*loc. cit.*, p.19).

St.Ha.61622, “village 185 miles from the mouth”, standing male **figure** (height 190 cm), Plate LXXII.5, “out of a spirit house”. Trunk and extremities show the conventional slender form; they are coloured red. The left leg has broken off at the hip and been refastened by rattan wrapping. The feet are small and plump; a pedestal is missing. The face is fairly long and very flat. The nose is short, wide and low; the nostrils are very markedly deepened, and the septum is pierced. The eyes were perhaps originally represented by inlaid cowry shells; now there are only deep depressions. The mouth is an horizontal bulge with a deep slit. The ears are indicated by two holes each, decorated by tufts of bast fibre. The base colour of the face is a dark russet-brown. Nose and eyes are surrounded by white lines; the mouth also is white.

St.Ha.61623, “Radja”, standing male **figure** (height 148 cm), Plate LXXII.6, carved from relatively soft wood. Trunk and limbs show the usual overly thin shape, only the abdomen is somewhat thicker and slightly bulged forwards. The short arms do not reach right to the hips and so the hands lie to the sides of the belly. The pedestal with which the feet, stretching steeply downwards, blend at the sides, is very high (30 cm) and narrow; perhaps it was used to bore the figure into the ground. Neck, chest, and upper arms are painted red, and the lower body black. Around the neck the figure wears a ‘loincloth’ or collar of interwoven tufts of grass and bast fibre. The face is flat and in type resembles that of the previous figure. The nose is only slightly prominent but fairly long and broad; the forehead juts out only a little, the mouth is a shallow transverse bulge. Dark-brown lines and areas are drawn on the white areas of the face, resembling those found on many of the modelled skulls. The mouth slit is red.



Skull H.S. 4516

Here I add the description of several figures that are probably not actual memorial images, but may probably have served some other purpose.

Several of them run down into an undecorated pointed process by which they were evidently pushed into some kind of hollow object like a tube. Probably these were in part figures that were set up on the top of big ceremonial flutes (cf. for example St.Ha.61753, Fig.440).

St.Ha.61669, “Panguli”, carved male **head** (length 25.5 cm), Fig.414, with a long, circular handle. The face is characterized particularly by the strong projection of the cheek bones, and thus resembles the masks of type St.Ha.61602 (see Plate LXXVII.8). The nose has a narrow bridge, broad sides, and a short perforated septum, which is decorated by a cord. The small ears each have one hole. The handle sits on the back of the head, actually at two sites, the first behind the chin and the other at the level of the eyes. In the face are traces of red and white colour. The specimen would have served as decoration of a flute.

H.S.1861, 252 km village, carved male **figure** (length 29.5 cm), Fig.415; the legs are moulded into a tapering handle. The head is big, the face flat; the prominent nose does not have excessively wide sides, and has a perforated septum. The eyes consist of a circular area surrounded by a wall. The forehead projects somewhat with clearly pronounced eyebrows and has a slight sagittal crest. The ears — only the left is still [390] complete — are small strips with two holes. The breasts are indicated by two semi-conical projections, to each of which is added a row of hook-shaped furrows towards the shoulders. The *mons veneris* is sharply developed. The fact that a female figure is represented perhaps contradicts the assumption that the specimen was used as a flute decoration.

H.S.9036, Muǎngĕm, female wooden **figure** (*kandinbañ*, Hellwig; length 33.5 cm), Fig.416. The legs blend into a fairly long peg. The fact that Hellwig obtained for this figure the same local designation as for the actual memorial images, does not appear to exclude the idea that we are dealing with such a one here as well. The sole contradiction is only the presence of the peg, which did not occur in any of the real memorial images, and indicates some kind of practical purpose for the specimen. The figure is fairly roughly carved and clearly characterized as a woman; strangely, not once is there any indication of a breast. The head resting directly on the shoulders is flat; only the long narrow nose projects somewhat further out of the face; the sides of the nose carry the nostrils on the front surface. The very short septum is bored in, a long way. The eyes are round bulges deepened in the centre. The hands rest on the hips; each has five fingers separated by incisions, with two horizontally incised lines at the wrist. On each side a broad band runs over upper arm and shoulder and contains a raised, carved zigzag line. The navel consists of a small circular projection surrounded by a ring wall. A narrow strip of red European material is laid around the waist and knotted in front.

H.S.6728, Kōpǎr, small fairly roughly worked **double figure** (length 18 cm). Front and back are almost identical, and represent a standing figure with long thick legs, short thin arms, and a very short torso. The Janus head is imagined to be concealed by a mask in the same manner as shown by the type H.S.6730 (see Fig.409), thus showing a markedly elongated nose whose tip changes into the navel (on the back of the figure the tip of the nose has broken off). On the head sits a hair basket, combined for both faces. The entire figure is rubbed in red dye.



Fig.414. Wooden head
St.Ha.61669, 1/5 actual size



Fig.415. Wooden figure
H.S.1861, 1/5 actual size



Fig.416. Wooden head
H.S.9036, 1/5 actual size



Fig.417. Double figure
H.S.6553, 1/5 actual size

H.S.6553, Kōpár, **double figure** (*kātěbōñ*, Müller, designated by the collector as a “dance board”; length 43.5 cm, maximum breadth 12.5 cm), Fig.417, two male figures presented in profile back-to-back. Body and extremities disappear into a stick framework whose component parts can no longer be recognized with any certainty. The faces are evidently assumed to be covered with bird masks, and are very similar to the memorial images H.S.6730, 6731, and so on. A fully three dimensionally-carved ornament intended to represent a number of mother-of-pearl hooks laid one on top of the other is fastened into the perforated nasal septum. On each side, a row of incised triangular areas runs from the outer angle of the eye to the mouth. The heads are connected above by a sickle-shaped arch (the hairstyle?), which shows a shallowly-engraved, meandering pattern on each side; on the forehead on each side is added a rudimentary, slightly-projecting animal figure which [391] looks like a bird with half-spread wings and head pointing downwards. A short triangular peg whose edge shows an indentation parallel with it, forms the crown of the whole “dance board”: perhaps a roughly-produced animal head. The entire specimen shows a thick patina, peeling off in places, and traces of paint; in some places parallel- and in others at right angles to the contours, run half-vanished red and mainly ochre-coloured lines about 3 mm wide, part of which was probably originally white. It is less likely that we are dealing with a dance object here, otherwise there would have to be traces of use left at some spots from frequent handling; however, these are nowhere to be found, not even on the middle stave, which would have been considered as the most often used hand grip.

It is still totally unknown what purpose the following figures serve; they too do not appear to be actual memorial images, firstly because they differ a lot in form from the latter and, secondly, not once did we obtain for the former the usual local name for the latter. In form they match most frequently the “dance board” H.S.6553 just described. They are always remarkably elongated figures whose torso and limbs are lost in an air framework as in the former specimen, where the trunk is even completely dissipated. Usually, instead of the nose, the head has a long, beak-like process; thus it is either imagined to be covered with a bird mask or regarded especially as a bird’s head. Often the figures have a ring or a loop on top; they are therefore evidently hung up for storage.

H.Do.11,32:8, “New Guinea”, **wooden figure** (length 75.5 cm), Plate LXXV.1, the least stylized specimen. The figure is still clearly recognizable as that of a man; the male face is even produced quite true-to-life. From the point of the chin a mysterious thin stave runs right to the bottom end of the figure; it stands on average about 1 cm out from the body; the hands and feet of the figure grasp it. The arms are extraordinarily long and thin, the legs somewhat shorter. The torso, curved a little forwards, is barely thicker than the arms; it continues downwards, without separation, into an equally thick stave, which changes into the bottom end of the specimen. On the back of the head, just below the process probably representing a hairstyle, is a transverse hole for a hanging loop.

L.Me.8979, “Kap della Torre”, **wooden figure**, (length 45 cm), Plate LXXV 2 and 3. Here too the face shows male features; indeed the nose is furnished with a large horn pointing upwards, similar to that of the big dance mask H.S.1820 (see Fig.425). The tip of the tongue thrusts out of its mouth. Body and limbs have completely transformed into a framework hardly meaningful in detail any longer, with a further stick joining in front, starting below the chin and extending right to the pedestal. A big hanging ring is found on the back of the head. The low knot on top of the head, probably indicating a hair basket, is transformed into a face looking backwards and upwards.

H.S.9009, Nāngīt, **wooden figure** (*ulitamáno* or *uritamáno*, Hellwig; length 61 cm), Plate LXXV.4. Body and extremities are still recognizable as such, and resemble those of H.Do.11,32:8 (see above). On each side, from the elbow to the very short leg, a stick runs parallel with the trunk although separate from it. The head is distinguished by the nose becoming an extraordinarily powerful, open beak. The upper beak is blended with the foremost pole which, extending right to the pedestal, is grasped by the figure’s hands and feet. Between the extremities, several incised ornamental bands, zigzag lines, and rows of triangles run around the pole. The eyes lie on the underside of the forehead in a markedly deepened area. Tufts of bast fibre are fastened to the ears consisting of short arches. A pointed process crowns the head: probably a hair basket. There is no ring for hanging; this figure, like several of the following, appears to have been suspended by a cord around the neck. On the forehead and between fingers and toes are vestiges of red colour, and in the depressions of the beak there are traces of white.

H.S.9008, Nāngīt, **wooden figure** (*ulitamánu*, Hellwig; length 59 cm), very similar to the preceding specimen. However, the arms are fully stretched, and the poles parallel with the body on either side are missing. The hands are very distinctly characterized. The whole figure is painted red, only the oblong bulge bordering the eye slit is black. The ring for hanging is missing; in its place there is a hanging band around the neck. [392]

H.S.9056, Kāmbrínūm, **wooden figure** (*korāñ*, Hellwig; length 57 cm; was wrapped in betel palm bark); like the preceding. The arms are bent downwards, the legs upwards, that is, only half of them; the other — the legs have

therefore split in two — is outstretched and its foot rests on the pedestal. On the back of the trunk, along almost its entire length, is a deep groove occupying almost the full width; the lateral edges thus formed each have three holes, and are decorated with long hanging bunches of grass. The anterior rod, developing from the upper beak, is decorated in the same manner; it has tufts just above the hands and the two pairs of feet. A ring is carved out of the back of the head and a hanging band is fastened through it. Yellow and white lines are painted on a red background.

St.Ha.61605, “Sobando”, **wooden figure** (length 71 cm). Arms and legs are again connected together by a rod as in H.S.9009; on each side two leg halves pass from it to the rod developing from the beak, as in the previous specimen. The figure’s head is very big. The lateral edge of the huge beak shows several holes at the upper end on each side. Only traces of the paint remain: red and white transverse lines on a dark background.

H.S.6527a, “Empress Augusta River”, **wooden figure** (length 66 cm), Plate LXXV.5. Here the hollowing out of the back of the trunk has progressed so far that all that remains of the actual body is just a thin rod quite far in front, extending from the merged forearms down to the pedestal; above it sits the neck, broken in two in the midline and thus consisting of two rods. The figure is furnished with two pairs of legs, like the preceding specimens, simultaneously standing and crouching. The figure’s beak is big, and opened very wide. Tufts of grass and feathers are fastened into the ears. The back of the head has a powerful ring carved three-dimensionally. Painting consists of red and white lines on a dark brown background.

A figure illustrated by Schlaginhaufen (1910b, p.14) richly decorated with long bunches of bast fibre, is very similar.

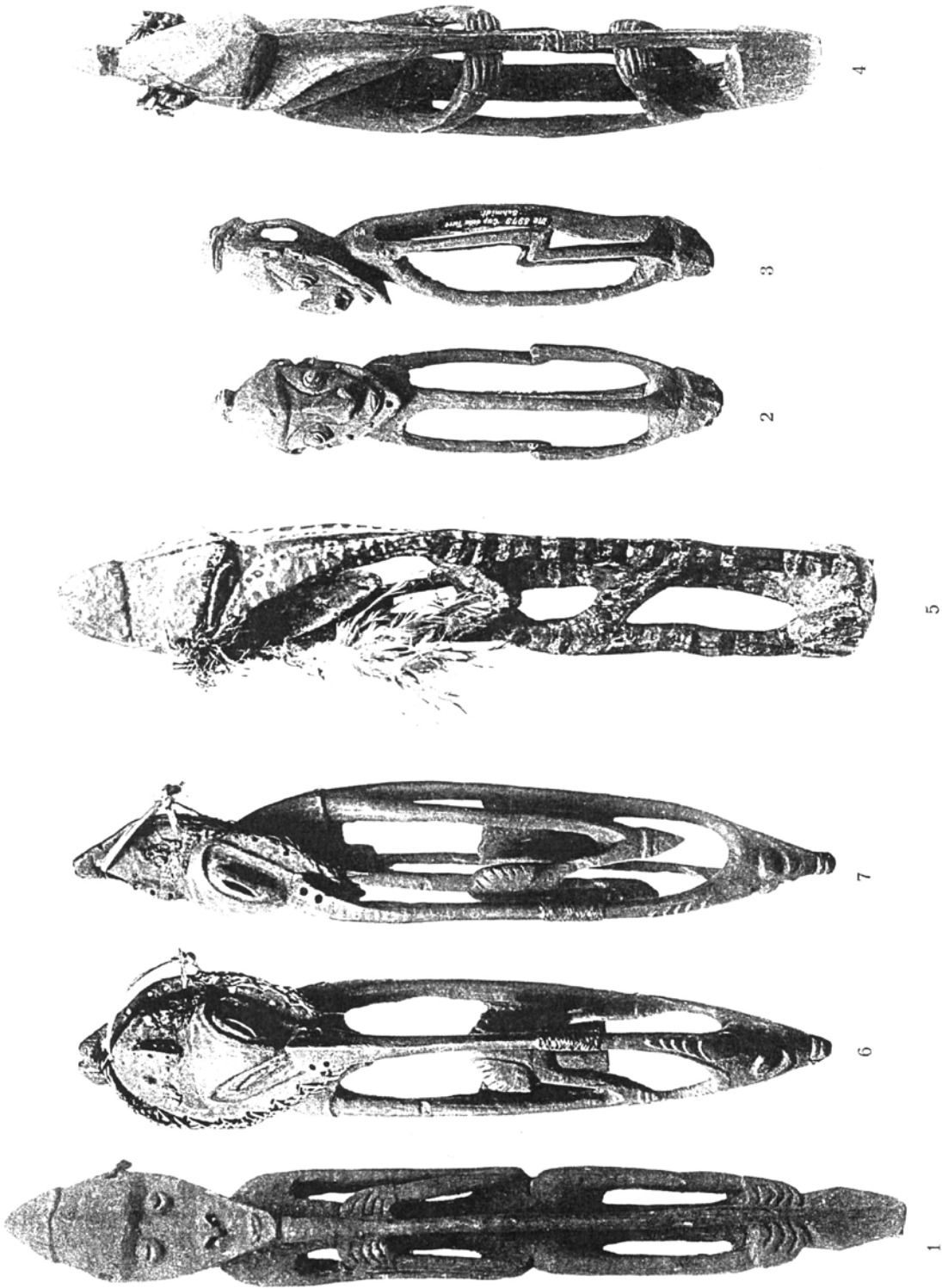
H.S.9014, Nāngīt, **wooden figure** (length 77 cm), especially similar to 9009 (see above). On either side, parallel with the trunk, arms and legs are connected to each other with a stick. The trunk is very thin, no thicker than the two lateral rods. The forearms run obliquely downward, extending as far as the long beak process; at the elbow a second thin rod branches off on either side, running obliquely backwards as far as the trunk, so that on each side there are actually two forearms present: one pointing forwards, the other backwards. The figure has a round pedestal with a stubby conical underside. There is no eyelet on the head for hanging.

L.Me.9132, “Empress Augusta River”, **wooden figure** (length 62 cm), Plate LXXV 6 and 7. In this specimen all that remains of the trunk are two lateral rods extending from the neck to the pedestal, and a flat plate joining the two rods together roughly midway along their length. The face of the bird’s head is framed by a fairly wide, separate strip with numerous holes in it; a plaited band is fastened to these. The eyes are steeply slanting; they are surrounded by bulges, and are painted red inside. In the middle of the forehead is a low sagittal strip with three transverse holes. The wide peg crowning the head has a hole from front to back for pulling a hanging loop through. The nose, or rather the upper beak, is fairly narrow; each side of the nose has two holes. The upper beak is again extended into a long rod, which, however, here runs in front of the hands; the end merges with the beak of a second bird’s face, into which the pedestal has been remodelled. The point of merger is recognizable by a wide plaited band.

Amulets

As amulets, from our observations, they use either actual parts, or images of the deceased; they evidently want to guarantee the help of the spirit in question via these items. As elsewhere, the favourite place for wearing the amulet was on the chest.

I can offer two examples of the use of body parts of the dead. In Sīngrīn I met an older man who wore the lower jaw of a child on a band around his neck. To my question, I was given, after several hesitations — they did not speak particularly willingly about these things — the answer that it was the lower jaw of his own child. Another inhabitant of the same village wore a [393] human sternum on a neck cord. It hung down so far that it lay over his sternum; I could not get any further details about it.



1. Wooden figure H.Do.11,32:8, 1/5 actual size. 2 and 3. Wooden figure L.Me.8979, 1/5 actual size.
4. Wooden figure H.S.9009, 1/5 actual size 5. Wooden figure H.S.6527a, 1/5 actual size
6 and 7. Wooden figure L.Me.9132, 1/5 actual size.

Very much more often in the lower reaches wooden facial representations are found worn on the chest: small, often quite accurate imitations of the big dance masks with which they also seem to share the same local designation. Surprisingly we also found the same small masks hanging on newly-made ceremonial flutes. In this case one should probably not construe them as actual amulets; they probably want only to recognize the sound of the flute as that of a spirit, through them. In the following specimens it could not always be established what purpose they had served.

L.Me.9653, “Empress Augusta River”, small **wooden mask** (length 15 cm), Plate LXXVI.1, of the type of one of the styles of dance mask, with slanting eyes surrounded by concentric strips. The lower half of the face is framed by a plaiting to which a row of boar’s tusks has been fastened. Very probably the specimen, backed up by the rich presentation, was worn as an amulet.

H.S.6725, Kōpār, small **wooden mask** (*mūrúp*, Müller; length 20.5 cm, maximum width 8.5 cm), is, “worn on the chest” (Müller). In facial carving, the specimen is similar both to the preceding, and the following, specimens. At both the upper and the lower ends of the mask is a short peg with a hole bored through it. The mask is indented around the rim. At the upper end of the forehead is a beak-like triangular area projecting downwards, similar to that of dance mask H.S.9005 (see below); a short strip extending right to the root of the nose is regarded as its prolongation. The eyes are pierced through; the back of the mask is slightly hollowed out.

H.S.1822, Sīngrīn, small **wooden mask** (“named *mūrúp* by the interpreter from Kōpār, but called *pārān* in the village itself”, Fülleborn; length 21.5 cm, maximum width 7 cm), Fig.418. The specimen is somewhat more slender than the preceding specimen, but of the same type. The triangular area on the forehead extends further down. At the lower end of the mask is an extremely small hole, probably unused, while at the upper end is a comparatively larger hole that probably served for fastening a hanging cord. The eyes are pierced; and the mask is slightly hollowed out at the back.

St.Ha.61540 (length 25 cm), **St.Ha.61542** (length 29 cm), and **St.Ha.61544** (length 11.5 cm), all three from “Medam”, are similar to those just described.

St.Ha.61698, “Mangot”, small **wooden mask** (length 24 cm, maximum width 8 cm), painted red, differs little from the preceding masks. The forehead juts out somewhat. The ears are two strips only 2 cm long, with a hole bored through both of them. The eyes are somewhat oblique. They contain a piece of mother-of-pearl shell with a hole in it, as the pupil. The nose is very wide with a pierced septum. The tip of the tongue is visible in the slightly open mouth.

H.S.8993, Nāngīt, small **wooden mask** (*mōbūr?* or *mūrúp*, Hellwig; length 18 cm, maximum width 5 cm). In his original catalogue Hellwig mentions that the specimen may have served possibly “as a bull roarer”; however, when swung, the mask does not produce any sound (cf. p.351). It particularly resembles H.S.1822 (see above) in type, but is narrower, and in addition, both halves of the face meet at a fairly acute angle so that, in cross-section, the mask forms almost an equilateral triangle. A remarkable cross-strut, separating from the base, forms the bridge of the nose. The septum is widely pierced, and the tip of the nose bears a short, sharp horn pointing upwards (as in the big dance mask H.S.1820, see Fig.425). Through the septum runs a narrow sickle-shaped strip. The concentric raised areas surrounding the slanting eyes are painted alternately red and ochre-yellow. At the upper rim of the mask is a hole for the hanging cord; the back is slightly hollowed out.

H.S.1847, Wātām? small **wooden mask** (length 23 cm, maximum width 8.5 cm), hollowed out like a bowl on the back. Similar to the preceding specimens except that the lower half of the face is excessively elongated, so that the mouth is situated far below the short nose. A three-dimensionally carved nasal ornament divided by grooves into six sections, is believed to be passed through the nasal septum. The mask has a peg without holes at both upper and lower ends. The specimen is uniformly painted red.

H.S.1821, Sīngrīn, small **wooden mask** (*pārān*, Fülleborn; length 19 cm, maximum width 8 cm), resembling the preceding mask in type, although much more flat. In the upper [394] section of the forehead is a low strip running sagittally. The ears are short vertical steps with one hole each. The mouth, a low wide wall, gives rise on each side to a raised area, which slants upward. The mask rim, slightly separated from the normal surface, has a great number of holes. Several strands of bast are pulled through these in the region of the ears. The back of the mask is almost completely solid; the front is uniformly red.



Fig.418.
Amulet mask
H.S.1822,
1/4 actual size

H.S.1794, Kōpār, small **wooden mask** (*kāḍībōñ?* “evidently more correctly: *mūrūp*”, Fülleborn; maximum length 16.5 cm, maximum width 7.3 cm), Fig.419 a and b; a specimen presented quite true-to-life, and painted uniformly red. The fairly low eyes are not bored out. Eyelids and brows are represented by shallow bulges. The nose is relatively narrow. At the upper end of the forehead, in the vicinity of the hair, is a figure only slightly raised, apparently representing the head, upper body and forelimbs of an animal. The mask is hollowed out fairly deeply at the back.

St.Ha.61691, “Matemba”, small **wooden mask** (length including nose 20 cm, maximum width 6.5 cm), Fig.420. The bean-shaped eyes lie somewhat obliquely in a deep triangular area. The nose has a markedly extended tip which, together with the sides of the nose, gives the impression of a bird’s head with a long beak. The septum is bored transversely. The mouth is formed by a small sickle-shaped groove. At the upper rim of the mask is a hole bored from front to back.

H.S.9035, Mṁāngēm, small **wooden mask** (*andāngām*, Hellwig; “bull roarer?”; length including nose 16.5 cm, maximum width 5.5 cm), very similar to the previous specimen. When swinging, it does not emit any sound,

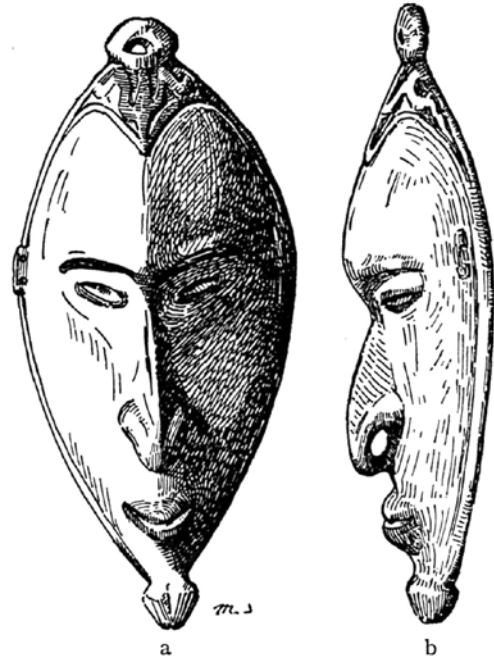


Fig.419. Amulet mask H.S.1794
1/2 actual size

and so it cannot have served as a bull roarer (cf. p.351). The elongated tip of the nose is even more slender than in the previous specimen. The septum is pierced, and adorned with a bast fibre loop. From the oblique sides of the nose a narrow strip passes diagonally upwards on each side, around the eyes, and finally reunites with the root of the nose. The eye region enclosed by this strip is deep-set and painted red. The strip and the bridge of the nose are painted white. There are white circles on the red forehead. The mask is slightly hollowed out at the back. The eyes have holes. At the upper rim of the mask is a hole bored from front to back with a narrow rattan band pulled through it.

Schlaginhaufen (1910b, p.13, Fig.Z) describes a small wooden figure from “Pagem”, attached to a plaited carry-band, which is probably also [395] regarded as an amulet (Fig.421), an assumption also favoured by the author. The facial representation is evidently regarded as the main feature of the figurine; the head even exceeds the rather thin torso in length, the latter therefore is perhaps only presented to clarify the female gender of the depicted person. The legs, which are superfluous to this purpose, are correspondingly neglected.

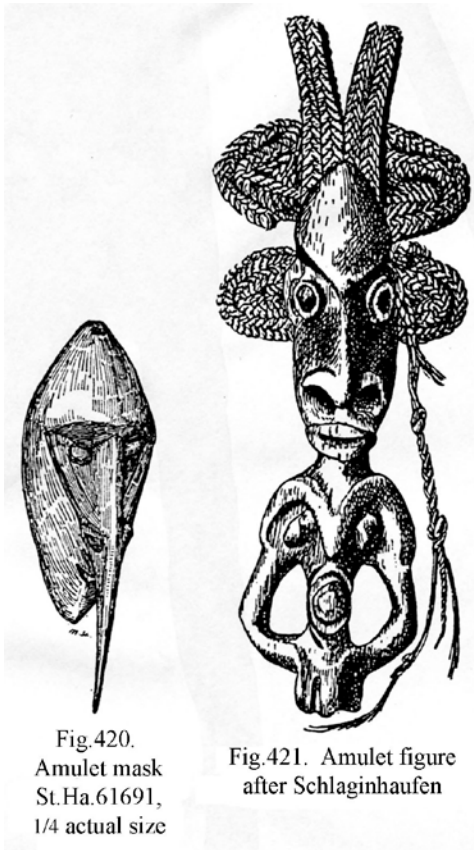


Fig.420.
Amulet mask
St.Ha.61691,
1/4 actual size

Fig.421. Amulet figure
after Schlaginhaufen

Finally, amulets are possibly the chest ornaments plaited from cord, from the middle reaches, which are described in the chapter ‘Decoration’, such as, H.S.6603 (see Fig.54), H.S.1864, H.S.8985 (see Fig.44), St.Ha.61666, for example; this is supported also by the fact that we were given the designation *bārāngū* for H.S.8985, probably signifying, ‘spirit’.

Symbolic Figures

In the ceremonial houses of the middle reaches we and other expeditions found all kinds of mysterious figures; nothing could be learned from the natives about their significance, but at least a proportion of them could be construed as representations of the soul.

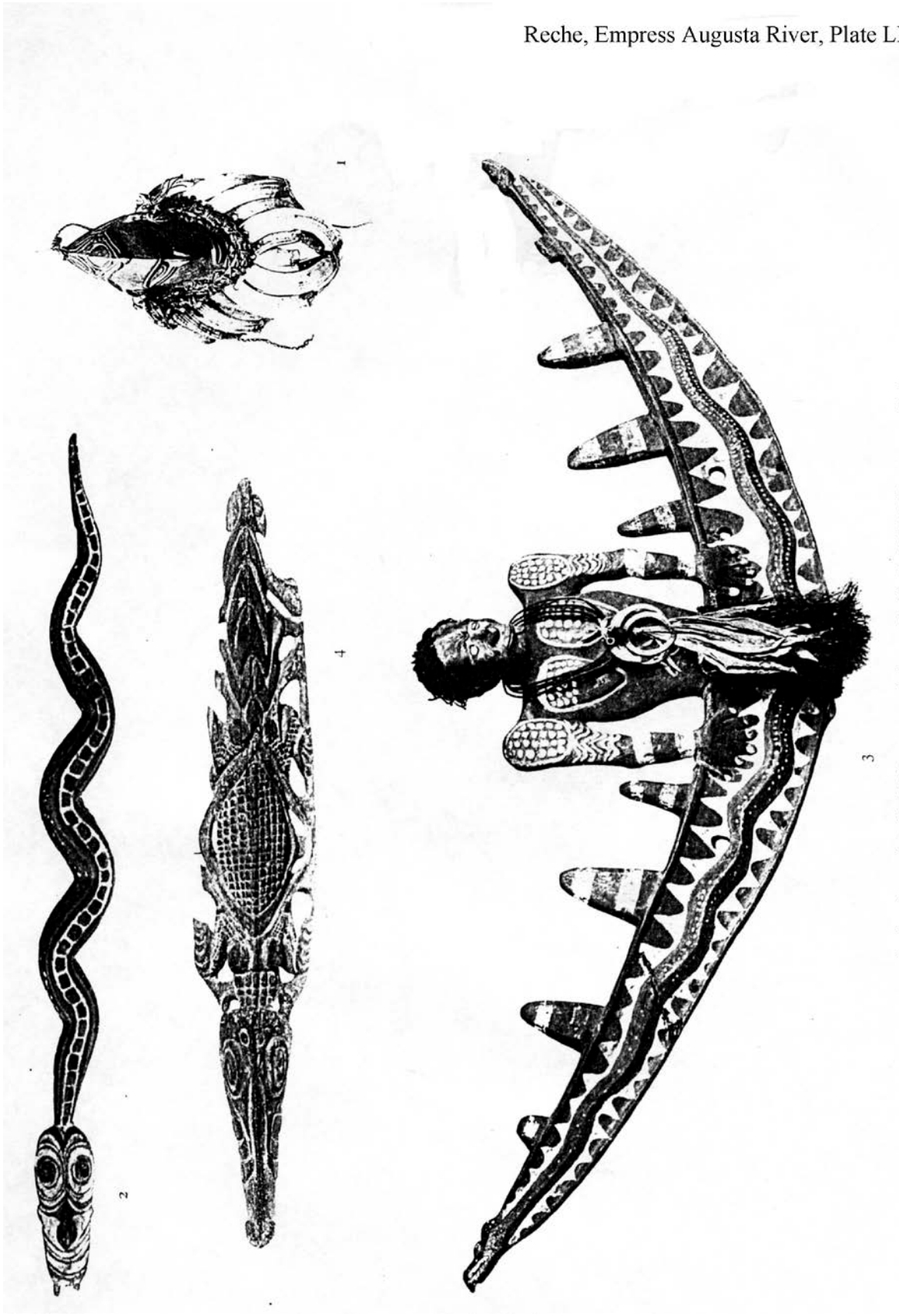
I have already alluded above to the big bird figures (see Plate XXXIV 1 and 2), which, among other things, crown the gable towers; we are probably dealing with representations of soul birds.

The following figures probably belong in a similar realm.

H.S.6658, 375 km village, figure of a **snake**, carved out of wood (length 143 cm), Plate LXXVI.2. The specimen hung head-down from the floor of the upper storey of a ceremonial house. On the belly side, just before the end of the tail, is a three-dimensionally carved eyelet through which the hanging band is secured. The snake's head, between whose big teeth (presented similarly to that of most of the crocodile heads) the forked tongue peeks out, shows a human head, probably strengthening the argument that we are dealing with the representation of a soul. In type, this face resembles the gable masks of this region, carved from wood, and, in painting, it also resembles the skull with a modelled face. The eyes, deepened in the middle, project a long way out from the surface. The nasal septum is pierced. The mouth slit and all the teeth are painted red. The body of the snake, whose under-surface is smooth while the upper surface has a slightly raised series of scales, has a dark-brown basic colour with white and orange-yellow flecks; a number of the scales are painted red.

St.Ha.61611, "Radja", canoe- or crescent-shaped **cult figure**, "found in the spirit house" (maximum length 277 cm), Plate LXXVI.3. In the middle of the half-moon rises the upper body of a female, carved fully three-dimensionally. The lower body, concealed by a thick grass skirt, merges into the crescent, yet can be recognized for what it is by an extraordinarily realistically produced vulva; human hair is attached to either side of this opening. The figure is supported by its arms on the upper edge of the half-moon. Between the shoulders sits a wooden peg pointing upwards, supporting a real skull with a face modelled on. The head is densely thatched with real human hair. The facial painting, red lines on a white background, is exactly the same as in St.Kr.61165 (see Plate LXVII.2). The breasts are indicated by shallow raised areas rimmed in white, adorned with white points in the upper section. The markedly projecting shoulders have a big oval area rimmed in white, and filled with four rows of little three-dimensional plates painted white. There are several white wavy lines below this, and two arm bands indicated by white paint on the forearms. The five-fingered hands lie flat on the crescent-shaped part; the nails are enhanced by white painting. The navel is a black dot surrounded by a red and a white circle, and by a four-pointed star consisting of three parallel lines: two red lines with a white line between them. The buttocks, like the decorated area of the upper arm, are covered with several rows of white plates, which, however, are fairly large (up to 1 cm²); the space between the plates is painted red. Running perpendicularly down the length of the back are [396] red and white wavy lines and rows of white dots. Around the neck of the female figure hangs a removable ornament of rattan strands and boar's tusks. The eight pegs from the figure, projecting above the upper rim of the sickle, are, if the whole thing is regarded as a canoe, perhaps intended to represent the crew. We would then have the representation of a ship of the dead, in which the female figure in the middle is paddled into the kingdom of the dead. Front and rear surfaces of this 'canoe' are painted white. Red teeth from both rims project into this white area, while the middle is occupied by the figure of a long snake, with its tail lying at one end while its head forms the other. This snake rises slightly from the surface; it is painted red, and beset with rows of white dots. The snake figure on the back is exactly the same. To the sides of the female figure's hands, just beside the little finger, is a small hole (diameter 1.5 cm) and, further away, a big hole, (diameter 3 cm), through the 'canoe' on each side. Perhaps bands were pulled through here to fasten the figure to the wall of the house. Upper and lower edges of the sickle project somewhat; the lower edge has six equidistant holes, which may have served for taking a decorative hanging.

The collector Haug has unfortunately been unable to find out anything about the significance of the carving; at any rate we have an extremely interesting specimen before us, about which the next expedition will hopefully be able to provide information.



1. Amulet mask L.Me.9653, 1/5 actual size. 2. Snake H.S.6658, 1/10 actual size
3. Cult figure St.Ha.61611, ca. 1/13 actual size. 4. Crocodile figure St.H.61653, 1/5 actual size

A “hanging hook of the horizontal type”, illustrated by Schlaginhaufen (1910b, p.46) seems to be none other than a simpler presentation of one of these “ships of the dead”: a sickle-shaped piece of wood from which rise three peaks, the middle one of which has a hole and a hanging cord; the specimen would be quite impractical as a hanging hook. The specimen is “dotted with red but does not have any decoration. However, at the site I have seen a specimen matching the preceding one according to the external scratches, which had relief carving on both surfaces.” (Is St.Ha.61611, collected on the same journey, intended here?)

Von Luschan (1911, Fig.18), Plate LXXVII.1 illustrates an unique carving, perhaps related to the specimen just described; it also comes from the middle reaches. Two bird figures are added on each side to an anchor-shaped figure whose middle section shows a human face above and below. The specimen is painted black, white, and red.

In several villages of the region just above the river mouth swamps, we occasionally found crocodile figures carved out of wood in the ceremonial houses. For example Müller saw a specimen like this in Îmbăntön. He did not dare touch it, and when he sought to buy it, it was instantly slipped away; however the purchase finally took place. It is H.S.6578, (see Plate LV.3), a figure which probably had originally formed the prow of a canoe. I also do not believe that this was an actual cult object; the people would probably have promoted the particularly well-made specimen only as a model for new projects. In the villages in this area we saw a whole number of canoe prows probably cut out solely for this purpose.

The following specimen is much more likely to have been a cult object:

St.Ha.61653, “Gambrium”, carved crocodile figure (length 66 cm), Plate LXXVI.4. Heavily stylized and surrounded by filigree-carved entwining work; the right side is damaged.

We found several mysterious implements in ceremonial houses of the middle reaches; it is possible that they have some kind of symbolic purpose.

In 252 km village, in the lower, earth floor area of the ceremonial house, in addition to other items there lay a [397] beautifully-painted bark cylinder about 1.25 m long and 60–70 cm in diameter. Nothing could be learned about it; it would not have stood on its head, since it had a framework of crossed sticks inside it.

On the floor of a ceremonial house in 293 km village lay three quite common clubs, somewhat greater than arm’s length and arm thickness, wrapped in banana leaf sheaths. A wedge had been driven into one of them; it was split. They must have had some special significance, for we were not allowed to touch them. [398]

Totemism

It is still not known for certain whether totemism occurs in our region; however many observations have deemed it probable. Above all, animal figures, particularly rhinoceros hornbills, crocodiles, dogs, and snakes, are often represented repeatedly in the ornamentation — animals, which, therefore, at the same time probably serve in part a role as soul animals. However, these are often identifiable as totem animals. It is, of course, surprising that according to Pöch's reports (1905b, p.235) no totemism seems to occur among the Monúmbo in Potsdamhafen: "furthermore, I found no trace of tribal groupings characteristic of totemism". Also, the food instructions among the Monúmbo offered no conclusion on totemism, according to Pöch. Should the absence of a pronounced totemism among the Monúmbo be confirmed, then one can assume — from the close relationship of this culture with that of the river mouth region — that totemism on the Augusta River, at least in the lower reaches, exists only as vestiges. [399]

Music and Dancing

General

“When I asked him about the origin of the songs, dances, and ceremonies practised among the Monúmbo, the old Monúmbo man, Bongai, repeatedly named “Koránduku”, the land at the mouth of the Empress Augusta River, as the homeland of all these things”, (Pöch, 1908, p.170). We can therefore assume that ceremonial dances and feasts are really blooming on the Augusta River. Unfortunately, so far only the 1887 expedition has observed a feast locally: “At the time of our visit a (sago) harvest festival was taking place in Málu, and the aforementioned open huts (what was meant was probably the ceremonial houses with their earthen floors) were richly decorated for the occasion. The cream-coloured leaf ribs of the *Ptychosperma* palm were used in abundance. They hung down from the roofs in a densely-packed row like a fringe, closing the otherwise open sides of the huts, or were fastened to the gables of the huts in frizzy bundles, like straw masks.” (*Nachrichten über Kaiser-Wilhelmsland*, 1888, p.32). Unfortunately, the feast proceedings, dances and the like are not mentioned in the slightest detail.

So far as can be gathered from material property, mask dances appear to be particularly popular on the Augusta River. Since most of the customary Monúmbo dances would originate from here, these would offer us an image, little changed, of those currently performed in our area. Pöch (1905b, p.230 et seq.) and Vormann (1911) observed several of these Monúmbo festivities and described them quite extensively. The people dance with vocal and drum accompaniment.

According to Vormann two main types of dance ought to be differentiated: “men’s dances” and the real “mask dances”; the former appear to be exclusively for enjoyment, while the latter (*murúp* means, presumably, both ‘mask’ and ‘spirit’) probably have a religious context.

Of the “men’s dances”, the *udsuángong*- and *zangál* dances are mentioned in particular as being common to both the Monúmbo and the Koránduku. Among the dancing mask figures of the former were two, named Bantuí and Kánapai, who mimicked women’s behaviour in a comical manner, choreographed apparently for the amusement of the spectators; two others, Manuréa and Zaréa, with characteristic movements, represented birds that would be particularly common at the mouth of the Empress Augusta River: namely, species of frigate bird; the [400] appearance of these masks explains perhaps the plaited masks with long bills, from the middle reaches.

The movements of the *zangál* dance are very much more complex. “There, what mattered, were mainly movements of the ankle joint, various positioning of the soles of the feet. Now the entire leg is fully outstretched, then completely bent at hip and knee, the upper body and head swings to and fro, with hand-held cloths waving back and forth. The dances were mostly pantomimes. They depicted all kinds of instructions for daily living, for example: the plaiting of arm bands, where people danced in four rows and positioned themselves opposite and between one another in the same manner that the rattan or bast fibre strips were woven into arm bands; theft and discovery; battle stratagems, and the like.” (*loc. cit.* p.234).

In the real mask dances, heavily-disguised young men appear wearing wooden face masks, regarded as the embodiment of spirits and designated as *murúpika*. “The dwelling places of the *murúpika* are said to be the vast primeval forest of the lower reaches of the

Ramu and the Augusta rivers. They are permitted to come from there, and to return there” (Vormann, 1911, p.418), also probably an indication that the dances came from that area. “The disguise is put on by the men in a lonely isolated place. The approach of women and children is forbidden on pain of death”, (*loc. cit.*, p.418). A *murúp*, “according to the men, is a monster which comes out of the ground and communicates only with men, but kills women and children”. The sound of the long bamboo flutes also found on the Augusta River is regarded as his voice. In a bewitching ceremony the masks, so Vormann reports, are invested by a soul, and the people seem to believe that this spirit then stays living in the mask (just as in the flutes and in the little talisman figurines, see p.360).

Pöch inquired about the dances, in Wātám as well: “The songs and the dancing figures also had the same designation, in the houses I found all the familiar masks from the Monúmbo” (*loc. cit.* p.233).

On the Augusta River, besides masks there are all sorts of dance implements for outfitting the dancers, and decoration for head and body.

Dance masks

Four main types of dance masks can be distinguished: skull masks, wooden masks and plaited masks, and totally plaited animal figures.

In most cases the first three types clearly represent *human* faces, occasionally combined, however, with animal figures.

Skull masks

They consist of the *facial skeleton* of a human skull; we are thus dealing with probably the *oldest form of mask* in use: the [401] dead person himself arrives and intervenes in the action. If one considers that the animal figures represented by masks are probably mostly soul animals, one becomes convinced that the majority of mask dances here, as elsewhere, (cf. Gräbner, 1909, p.740), are connected with the cult of the dead.

Just as, for example, on the *Gazelle Peninsula*, only either the front half of the skull or the actual facial skeleton is used for the mask. Here too, like the skulls stored in the ceremonial house, they have tried to reconstruct the facial features of the living person: the three specimens known so far have inset eyes and nose and traces of a clay coating. They always appear to enclose these masks in a plaited frame, concealing the head and neck of the wearer. On the back is a device for carrying it, a horizontal arch of cords, evidently gripped in the mouth. All of the specimens obtained came from the section of river just above the estuary swamps.



Fig.422. Skull H.S.4508 mask,
1/4 actual size

H.S.4508, Kămbŕînŭm, **skull mask** (maximum length 63 cm, maximum width 21 cm including the plaiting), Fig.422. The entire facial skeleton including the lower jaw is used. The cut removing the back of the skull runs closely behind the coronal suture and behind the joint surfaces of the mandibular condyle. Rattan strips pass through several holes bored through the rim at the back, to secure the plaited frame. The lower jaw is fastened to the frame (not to the upper jaw) by rattan, at the sides and in the middle. There are plugs of pith in the eye sockets and nostrils, with a long wooden nose in the latter as well, in form resembling that of skulls H.S.A. 845, 846, and H.S.4509. A tuft of bast fibre, knotted each side, is fastened in the horizontal hole. Only slight traces of the clay coating remain on the facial surface and the wooden nose. The plaiting surrounding the skull is of rattan, the technique in part resembling that of the bird torso H.S.7132 (see Fig.219), and in part that of mask H.S.6628, (see Fig.222, although here the plaited cords are end-on). The technique of the plaiting around the outside edge resembles that of mask H.S.9384 (see Fig.236). The plaited strip ends above in a strong loop with remnants of a rattan hanger still attached. Just above each mandibular condyle on the back of the plaiting is a small lengthwise loop; probably the stick that was gripped between the teeth passed through the two loops.

H.S.4517, Măndănăm, **skull mask** (maximum length of the plaiting 53 cm, maximum width 21 cm), similar to the previous mask, but using almost the entire skull: only the occipital bone, one squamous temporal bone, and the base of the skull have been removed. The lower jaw is missing and has been imitated by two bulges plaited together. A plaited, peg-like third bulge represents the upper teeth. The nasal cavity is empty. The eye sockets have been filled with pith plugs, covered with a thick layer of clay; a little piece of [402] mother-of-pearl shell has been inlaid in this clay on each side. A fairly solid coat of clay is still on the forehead as well. The upper limit of the modelled face (there appears to have been clay only above the bulge of the plaited teeth) was originally formed by a clay wall into which was pressed a series of large oval areas; three of them remain. The plaiting surrounding the skull, whose technique resembles that of the bird body H.S.7132 (see Fig.219), is decorated with a thick bunch of fibres at the level of each ear. The plaiting is secured at the top of the skull by a little wooden stick pushed into a hole bored through the vault in the Bregma region. A clearly-pronounced groove runs backwards from this hole, becoming steadily shallower; it has evidently been chiselled out by the little stick, which is not a tight fit. The skull, being out-of-balance, is prone to nodding movements, the little stick moving as well. Since the mask's mouth appears to open and close alternately, during the nodding motion, I feel that the nodding movements are deliberately produced during the dance, perhaps making the skull appear to be alive, and to arouse fear among uninitiated spectators. On the back of the plaiting, at the height of the upper border of the false lower jaw, is a strong horizontal arch plaited from rattan probably held firmly in the dancer's teeth. Somewhat higher on each side is a loop; from the right side a rattan band runs obliquely upwards, to be fastened to the left side of the highest point of the plaiting. The loop served either as a hanger or slipped over the head of the wearer of the mask. Remnants of a similar band are to be found in the left loop.

H.S.A.787, Măndănăm, **facial skull** minus lower jaw, most likely once used as a skull mask. (The 'A' indicates that the specimen belongs in the anthropological collection assembled during the journey). The posterior half of the skull has been separated anteriorly to the lambdoid suture. Both squamous temporal bones and the base of the skull have also been removed. At the posterior end of the parietals are three holes, which will have served for fastening the plaiting which once encircled the skull. Remnants of a rattan loop are still in one of the holes. The Bregma too has a hole: for the little stick firmly holding the upper part of the plaiting. Looped around the root of the nose and the outer rim of the eye sockets are knotted bunches of grass, dyed red. The facial surface shows slight traces of a grey clay coat.

Wooden masks

The wooden facial representations found in our area are of very different sizes. Only the large specimens actually used as face masks will be discussed here. The small ones are probably all decorative pieces and amulets; these have already been discussed above (p.392).

The face masks are probably in part surrogates for skull masks, thus likewise representing a deceased person; this is supported by the fact that several of them, like the latter masks, are framed by a strip of plaiting. Other types of mask appear to show certain species of bird, or to represent the face of a dead person concealed by a bird mask (cf. Schmidt, 1903, p.113). Either they have a remarkably elongated nose, explained by the Monúmbó as a bird's head, or bird and crocodile figures on the forehead, in places extending to the nose. Perhaps they represent soul animals.

The majority of specimens surrounded by plaiting belong among the lifelike masks, which reproduce only the face of the deceased.



1..Carving, after von Luschan. 2. Wooden mask H.S.1823, 1/5 actual size. 3. Wooden mask L.Me.9202, 1/5 actual size
 4. Wooden mask H.S.6029, 1/5 actual size. 5. Wooden mask H.S.9251, 1/5 actual size. 6. Wooden mask St.Ha.61707, 1/5 actual size.
 7. Wooden mask St.Ha.61604, 1/5 actual size. 8. Wooden mask St.Ha.61602, 1/5 actual size.

H.S.1823, Sīngrīn, **wooden mask** (according to the Kōpār interpreter: *tēwān*, Fülleborn; maximum length 41 cm, maximum width 20.5 cm), Plate LXXVII.2. The mask, deeply hollowed out at the back, has holes in place of the eyes and mouth. The sharp, very pointed nose has a perforated septum; in addition, there are two small holes decorated with short cords of bast fibre in each side of the nose. The ears, located very high on the head, are low strips, each with two holes and decorated with long tufts of [403] bast fibre. The face is dyed russet and shows traces of red paint. The plaited band, less than 3 cm wide surrounding the mask, is made from rattan; for the technique see Fig.241, p.237. The plaiting is fastened by rattan bands to the rim of the mask, which has holes 3 cm apart.

St.Ha.61523, “Karau”, **wooden mask** (length 35 cm, maximum width 28 cm), almost identical to the preceding specimen in its presentation of the face. Although the entire rim of the mask has holes, only the lower half of the face has a framework of plaiting, which possibly, in interpretation of the original purpose, is intended to represent the beard. The sides of the nose each have four holes.

St.Ha.61524, “Karau”, **wooden mask** (length 48 cm, maximum width 25 cm). Differs from the previous specimen in the rather more slanting eyes, and the painting. The eye field and an adjacent area on the nose are white; several white lines run beneath the eyes. In this specimen too, only the lower half of the face is framed by plaiting.

St.Ha.61565, “Karau”, **wooden mask** (length 40 cm, maximum width 19 cm), similar to the previous mask, except that the nose is slightly curved and somewhat elongated. The eyes and nose are painted white, and there are curved white lines on cheeks and forehead. There is no plaiting.

H.S.6727, Kōpār, **wooden mask** (*mūrūp*, Müller; according to the collector it was “bound to a stick”; (maximum length 45.5 cm, maximum width including the plaiting 22.5 cm), markedly hollowed out at the back with holes bored through the eyes. The plaited frame is only narrow. In facial type the mask differs from the preceding masks in that the nose is less pointed, with strongly pronounced, sharply delineated sides; it continues upwards in a shallow strip, which blends into the suggestion of hair. A tuft of bast fibre is fastened into the perforated septum. Below this is a solid, three-dimensionally carved triangular object: probably an imitation of the mother-of-pearl nasal ornament. Nose, eye surfaces, hair, and rim of the mask show vestiges of white paint; below each eye is a large oval white fleck. The mask ends at top and bottom in a thick peg with a hole from front to back.

The following pieces lack plaited frames although there are holes in places on the rim, from which we may conclude that plaiting was once fastened here.

H.S.1796, Kōpār, **wooden mask** (*kādībōn?* Fülleborn; (length 32.5 cm, maximum width 14 cm), Fig.423, with a projecting forehead rising to a slight ridge along the midline. The triple-pointed hairstyle rises only slightly above its surroundings; it has a slight elevation on top, the representation of a hair basket. Eyes and mouth are very small with holes through them. The short narrow nose has a wide opening through the septum with a hole in each side of the nose. A strip encircles the entire face, just in front of the mask rim, which has holes in it. The ears, with three holes in each, arise from this strip. The mask is painted a vivid red, with a white line above and to the sides of the eyes.

St.Ha.61526, “Karau”, **wooden mask** (length 32 cm, maximum width 13.5 cm), presents almost the same facial carving as the preceding mask, although the hair, the strip surrounding the face, and the holes through the rim, are missing. Painting is a uniform red.

St.Ha.61522, “Karau”, **wooden mask** (length 42 cm, maximum width 17 cm). The face differs from the previous face by its somewhat greater realism. The three-dimensionally projecting eyelids are produced especially carefully. The nose has sharply distinct sides. Above, on the forehead, is a small flat rectangular plate with several holes round the edges.

St.Ha.61521, “Karau”, **wooden mask** (length 35 cm, maximum width 15 cm), similar to St.Ha.61526, although the nose is broader.

L.Me.9202, “Estuary area of the Empress Augusta River”, (length 50 cm, maximum width 15 cm), Plate LXXVII.3, [404] hollowed out like a trough at the back. The round eyes are sunken, with holes through them. The almost diamond-shaped nose is short but distinctly prominent with a three-dimensionally carved white-painted imitation of a mother-of-pearl ornament projecting from the perforated septum. Four bangles, lying one on top of the other, are indicated by grooves. The mouth is a round button. The very small ears, each with two holes, are located higher than the eyes. The rim of the mask has many holes. The two lowest holes are connected by a rattan band running horizontally across the back. The cheek surfaces are slightly sunken, and basically dark-brown with numerous white spots. There are red lines on the forehead.



Fig.423. Wooden mask H.S. 1796, 1/5 actual size

The following masks are totally different from those described so far. These come from the middle reaches.

H.S.6029, “Middle Augusta River” (presented by Roscher) **wooden mask** (length 32 cm, maximum width 13.5 cm), Plate LXXVII.4. The back is very deeply hollowed out yet so narrow that the face of the dancer, if the specimen were actually used as a dance mask, would be unable to fit right inside. Eye and mouth slits pierce the mask wall. The very large mouth is wide open: the two rows of teeth, represented by carved arches, are clearly visible with the tongue protruding between them. The mask type resembles specimens that we obtained in western New Britain. From the two almond-shaped eyes with their slightly-raised rims a flat narrow strip curves obliquely down, almost to the corners of the mouth. The eyebrows are represented by swellings; two thickenings at the upper outer rim of the mask are probably the ears. The lips, the strips bordering the eyes, and the bridge of the nose are dark brown; above the nose is a wide dark brown strip on the forehead. The eyebrows, the inside of the mouth, and the ears are painted red, with everything else white, although only traces of colour remain.

Next to this piece is a specimen from the middle reaches described by Schlaginhaufen, (1910b, p.8; Fig.M). The mask has a very flat wide face from which the nose projects only slightly.

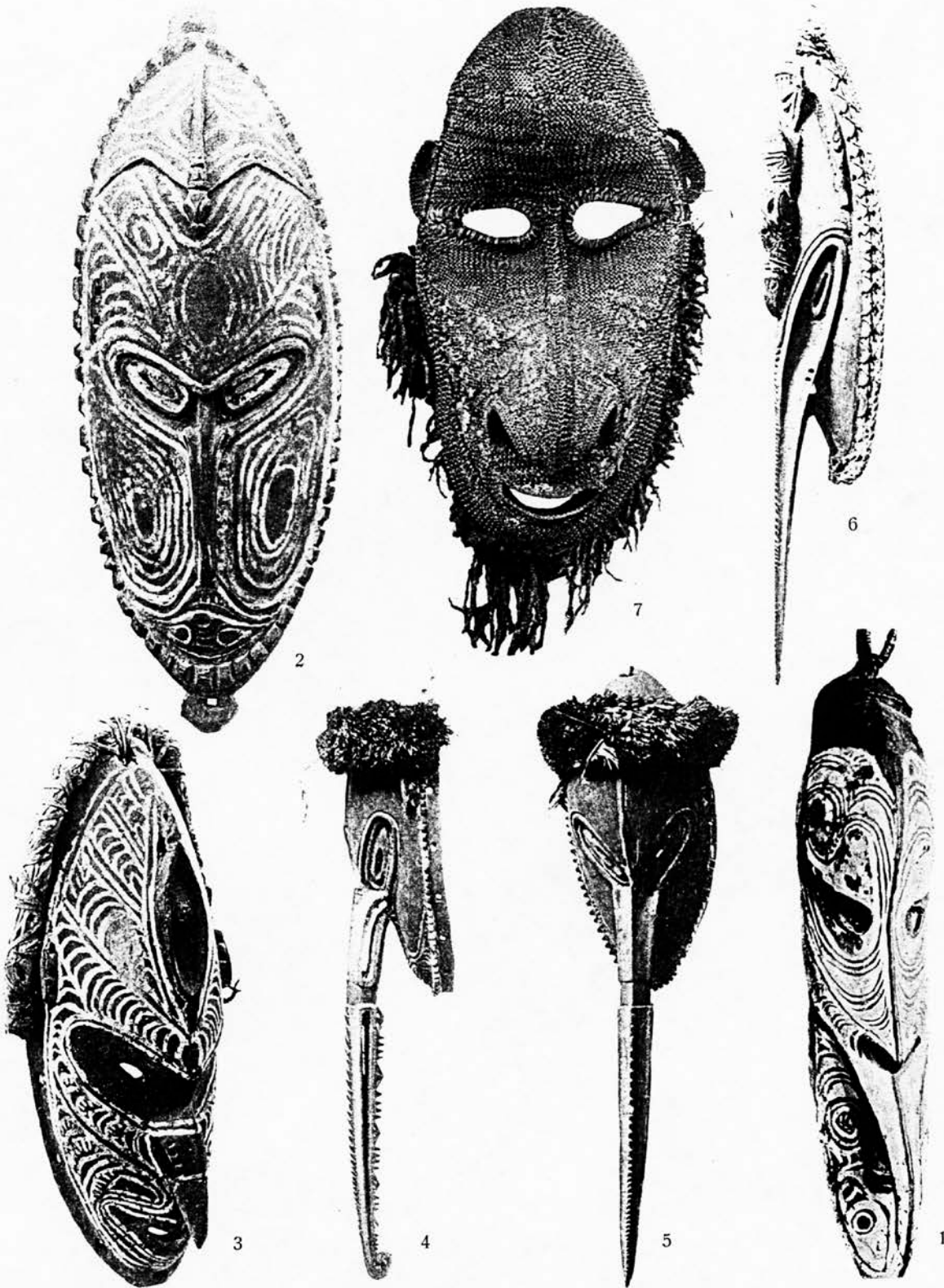
The following pieces, either hollowed out at the back slightly or not at all, would hardly have been used as dance masks. I believe that these are ‘death masks’, substitutes for skulls, to which they are surprisingly similar in painting. In the middle reaches, these seem to replace the ‘death figures’ of the river mouth region. This notion is supported by the fact that some of the masks, like the skulls, have a resin coating, inlaid eyes, and locks of real human hair. In a number of them, an animal figure is added to the chin, possibly the representation of the soul in flight.

H.S.9251, 375 km-village, wooden mask (length 40.5 cm, maximum width 18 cm), Plate LXXVII.5. The back is flat, eyes and mouth do not have holes. The deepest points of the rather flat face are the eyes, inlaid with mother-of-pearl shell. They are surprisingly close together, with the forehead rising steeply above them. The sharp bridge of the nose is very narrow with two thick, bulging sides. The septum is perforated, and decorated with three twisted cords dyed red, their ends frayed out into tassels. From the slightly open mouth protrudes a wide sharp tongue whose tip blends with the chin. The ears sit very high on the rim of the mask; they are short, high strips, each with two holes, and decorated with five tufts of grass each. One end of a rattan band is fastened in the upper hole of each ear, evidently having served for hanging. The cheeks protrude quite a distance. The rather weathered surface shows traces of white colour and narrow red lines, resembling those found on skulls with modelled faces.

St.Ha.61707, “Matemba”, wooden mask (length 39 cm, maximum width 11 cm), Plate LXXVII.6, similar to the previous mask but more markedly bulged and somewhat narrower in form. The eyes consist of inlaid *Conus* snails. The small ears each have one hole decorated with a little piece of bast fibre. The facial painting — russet lines on a white background — resembles that of the previous specimen: the two big spirals on the forehead are the most remarkable feature. A bast fibre loop is attached above for hanging. [405]

St.Ha.61604, “Sobando”, wooden mask (length 57 cm, maximum width 11 cm), Plate LXXVII.7. Is exactly the same type as the previous but is even more slender; the painting too is almost the same in colour and line form. The eyes consist of inlaid cowry shells. Ears are missing. Dark-brown hair is painted on. Ornamental lines are dark-brown in some places and red in others. The tip of the nose bears a remarkable process, which is probably regarded as the tail of a bird figure sitting on the chin with its head pointing downwards. Again, a hanging cord is fastened at the top.

St.Ha.61602, “Wolem”, wooden mask (length 50 cm, maximum width 10 cm), Plate LXXVII.8; even more slender than the previous one, which it resembles in form. Here the bird figure sitting on the chin is even more distinct. Its beak again points downward, the long narrow tail touching the tip of the nose. Both halves of the mask’s face meet at a fairly acute angle. The cheeks are again relatively heavily accentuated. Small shells are inlaid in the eyes. The bridge of the nose is very narrow, with the sides wide and pronounced. The entire face is painted uniformly red.



1. Wooden mask St.He.60611, 1/5 actual size. 2. Wooden mask H.S.6726, 1/5 actual size.
 3. Wooden mask H.S.6544, 1/5 actual size. 4 and 5. Wooden mask L.Me.9106, 1/5 actual size
 6. Wooden mask L.Me.7275, 1/5 actual size. 7. Plaited mask H.S.6629, 1/5 actual size.

Several masks described and illustrated by Schlaginhaufen, (1910b, pp. 6 and 7) are very similar; a bird figure is always sitting on the chin in them as well, but does not seem to be very clear in every case. The author believes that he can without exception discern a beak turned upwards, whereas in all the specimens that I examined there is no doubt whatever that it is pointing downwards.

The piece illustrated by Schlaginhaufen in Fig.1, (*loc. cit.* p.7), is the most realistically produced. A cowry shell lies in each eye. "The angles of the wide mouth are exaggeratedly pulled upwards. The lower end of the face extends into a crocodile head. On this sits an animal figure, probably a bird, which produces the curved connection with the tip of the nose of the facial mask, by boring its beak into the latter." Above the forehead is a coating of resin, "in which remnants of actual human hair are still visible. On the anterior rim, fragments of conch are still encrusted. The front of the carving is painted black. In isolated places white occurs as well." There are black lines near the nose, while the nostrils and mouth slit are red.

With the very narrow specimen illustrated by the same author in Fig.G, there is likewise a longer, narrower arch connecting the tip of the nose with the chin; the animal figure added here is damaged and indiscernible.

In a third piece (*loc. cit.* Fig.H,) the entire front is covered with a thin layer of red resin; at the upper rim of the mask this mass forms a thick wall decorated with imprints. "But at the same time it is the fastening material for the wig, which consists of real human hair. In the face area the layer is painted white, and decorative red lines run over this background", which again is strongly reminiscent of those found on skulls that have been modelled over, and also St.Ha.61707 and St.Ha.61604 (see above). "The black colour comes into use in the surrounds of the eyes, the nostrils, and the mouth, as well as the centres of the characteristic eye decorations on forehead and cheeks." The nose is connected with the chin by a step. "There a parrot head is produced, its beak pointing upwards and hooking into the lower end of the curve." The mask is "slightly hollowed out at the back, near the upper end an arch spans from right to left, leaving space for an up-and-down pathway."

St.He.60611, Mǎlu? wooden mask (length 51 cm, maximum width 11 cm), Plate LXXVIII.1, is very similar in form and painting to the one just mentioned, described and illustrated by Schlaginhaufen. The median ridge of the face is very pronounced, running down the forehead to the very tip of the nose. The eyes, round holes 0.5 cm deep, lie in oblique red-painted fields each extending upwards and outwards into a long point. The nose is elongated into a wide, flat tapering point ending near the chin but not merging with it. The nostrils lie on this point. The mouth, a 4 cm long slightly curved slit, is enclosed by a low wall. There are small holes on the rim of the mask, on either side of the mouth: five on the left and three on the right. A big hole through the hair serves for attaching a hanging loop.

The specimen just discussed marks the transition to the *heavily stylised masks* enlivened by animal representations. [406]

The following pieces belong among the masks designated by the Monúmbó (see Schmidt, 1903, Fig.15 a and b) as *murúp* (plural *murúpika*) which were tied over the men's faces in the unique, probably religious, "mask dances":

H.S.6726, Kōpár, wooden mask (murup, Müll.; length 61 cm, maximum width 23 cm), Plate LXXVIII.2. The piece, whose local name is exactly the same as in Potsdamhafen, is deeply hollowed out at the back. The eyes, narrow slanting slits in a depression below the forehead, are organised for peering through; they are both surrounded by two concentric circumferential ridges. The entire surface, including both eyes and the bridge of the nose, is then bordered by a ridge and a notched groove. The nose itself is only short; the tip, which has become a narrow arch extending almost as far as the very distant mouth, is comparatively longer. The two grooves separating the quite distinct sides of the nose from the bridge run right to the end of this arch. The mouth is surprisingly small; several white serrations (the beard?) lie above it, while below it and to the sides are two comma-shaped areas. Merging with the hair, which juts downwards in three beak-shaped peaks, are remnants of an animal figure (lizard?), of which only the head pointing downwards and the neck, decorated with a three-dimensionally carved zigzag band, are clearly recognizable. The body forms a high narrow ridge extending right to the upper end of the mask. The white-painted lines to the side of the body are probably considered as remains of the [407] limbs. The ears are low steps, each with two holes. The entire outer rim of the mask is serrated. Forehead and cheeks have white lines on a dark russet background. At the upper and lower ends the mask has a short wide process with a hole from front to back.

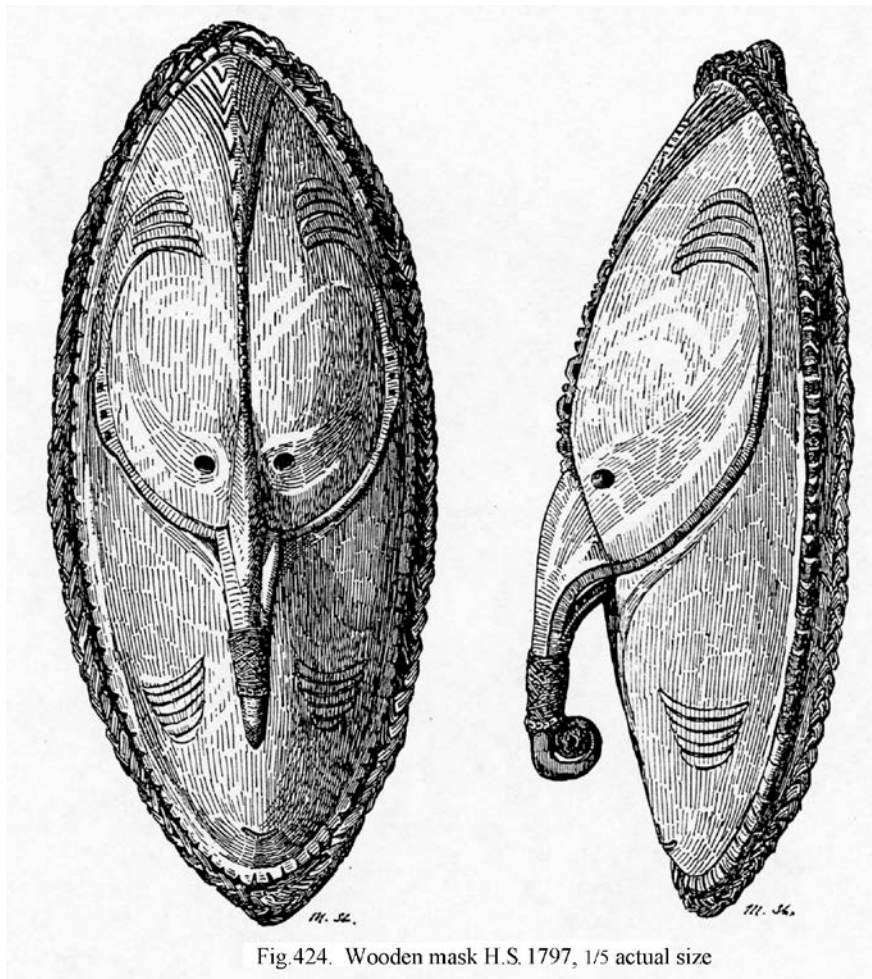


Fig.424. Wooden mask H.S. 1797, 1/5 actual size

St.Ha.61652, “Gambrium”? **wooden mask** (length 34 cm, maximum width 10 cm); is similar to the previous mask except that the nasal process is very much shorter; its lower end is decorated with a wooden imitation of a mother-of-pearl nasal ornament. The three-dimensional hairstyle extending into three peaks almost resembles the front part of a rudimentary animal figure. The eyes have the same structure as those of the preceding piece. A small raised area projecting fairly far out forms the mouth; added to each side of it is a comma-shaped ridge pointing obliquely upwards. There is a raised flat area on each cheek. The edge of the chin part is serrated. Paint is lacking.

St.Ha.61680, “Wolem”, **wooden mask** (length 38 cm, maximum width 10 cm). The general form, structure of eyes and ears are just as in the preceding specimen. The mask is painted monocolour red. The hair encroaching onto the forehead in three beak-shaped peaks is quite high and ends above in a hint of a hair basket, with a hole from front to back. This hair part is framed by a thick bulge of bast wrapped in rattan and firmly fastened along the rim of the mask. There is an engraved spiral on the hair on each side. The nose is very short.

St.Ha.61651, “Gambrium”, **St.Ha.61650**, “Panguli”, and **St.Ha.61538**, “Medam” differ insignificantly from the pieces described so far.

H.S.1797, Kōpār, **wooden mask** (*tēwān*, Fülleborn; length 60 cm, maximum width including plaiting 27 cm), Fig.424. The piece is hollowed out deeply at the back and has undoubtedly served as a dance mask. Along the rim runs a ridge with tightly-packed indentations, and behind this a narrow plaited strip. The well-rounded forehead very gradually transforms into the flat area where the small oval holes of the eyes are situated. The bridge of the nose is high and steep. The tip of the nose has a long thin process whose end is rolled up into a spiral (imitation of a phalanger’s tail?) From each of the sharply delineated sides of the nose a ridge runs sideways. The ears arise from the ridge, whose upper end divides into several parallel curved side branches. A group of similar ridges occurs in the lower part of each cheek. Along the midline of the forehead, runs a ridged continuation of the bridge of the nose alternately incised and perforated, and ending above in a triangular area consisting of a large number of parallel, angularly-curved strips. These are possibly remnants of an animal figure with legs bent at an angle. The front of the mask shows traces of paint. The eyes lie in a narrow red area bordered with white, whose markedly elongated peak curves upwards and outwards to end above the ear. Recognizable on the forehead are remnants of two spirals formed from white lines. The mouth is a very small narrow slit through the mask.

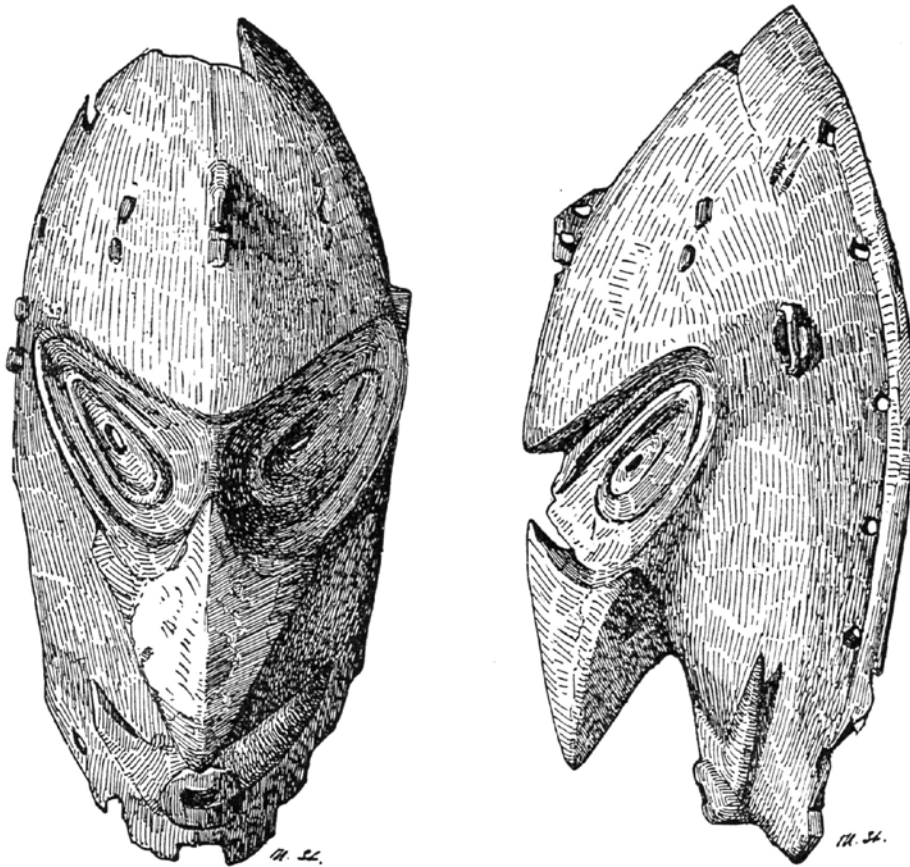


Fig.425. Wooden mask H.S.1820, 1/5 actual size

H.S.6544, Kōpār, **wooden mask** (*pārān*, Müller; maximum length 48 cm, maximum width including the leaf bulge 23 cm), Plate LXXVIII.3. Along the edge of the top half of the mask is a wad of leaves wrapped round and tied with bast, with a large number of holes bored in the front, probably to insert some kind of decoration for the dance, most likely feathers. Along the midline of the excessively high forehead is fastened a three-dimensionally carved dish-shaped structure with knob-like handles; out of the red-painted hollow of the dish rises a wide arch. The ears are projecting ridges with three holes each. The small eyes — oblong oval holes — lie in a red-painted area. The peculiarly angular nose rising from the face is slightly curved and fairly thick; its tip rises a long way. The septum has a big perforation; from it a wide hole passes right through the mask evidently to enable the wearer to breathe. The upper margin of the side of the nose has three or four holes. The middle part of the nose is black with a white surround, the tip shiny red. The mouth is formed by a slightly curved slit through the mask, and is bordered by red lips. The entire front of the mask shows white lines painted on a dark-brown background.

St.Ha.61599, “Mangot”, **wooden mask** (maximum length 55 cm), very similar to the previous mask, even in painting. Three-dimensional carving is added along the midline of the forehead, perhaps intended to represent an animal figure; it ends above the nose in a ridge serrated on both sides.

H.S.9005, Nāngīt, **wooden mask** (*barāngu*, Hell.; maximum length 35.5 cm, maximum width 14 cm). The eyes, very long narrow oblique slits, are sunken, and surrounded by ridges just as in H.S.6726. The nose is exactly the same shape as in the piece just described and, like that one, is separated at an angle from the forehead. Its sharply tapering tip extends almost to the mouth, but projects a long way. The mouth is a fairly long slit with thick lips. In the midline of the forehead is a low narrow ridge, ending at the top in a triangular area of diverging narrow walls; this forehead decoration resembles that of mask H.S.1797 (see Fig.424) to an extraordinary degree. The back of the mask is [408] hollowed out. The front displays red paint, obliterated in places. The lips are accompanied by white streaks. Both the upper and lower ends of the mask have a peg; the upper one is bored from front to back, with a bast loop pulled through the hole.

L.Me.9106, “Empress Augusta River”, **wooden mask** (length about 50 cm, maximum width about 13 cm), Plate LXXVIII, 4 and 5, with an extremely long nose. Probably, only the part with the bored septum is regarded as the actual nose, which is separated from the front section by a wide shallow groove. This front section ends in a rolled tip, decorated on the outside with small peaks going obliquely upwards and on the inside with an indented ridge. A long narrow slit runs transversely across it. The eyes are very slanted and, as in H.S.6726 (see above), show a border of

several concentric ridges. On both sides of the forehead is a narrow lengthwise step, 5 cm long, with three holes. A ridge with a hole in it runs in the same direction over the middle of the forehead. The face is framed by an edging cut into sharp serrations. Over the forehead is laid a bushy band of trimmed bast fibres. The front of the mask is russet coloured, but the nose is red, and the eyes are blue.

L.Me.7275, “Empress Augusta River”, wooden mask (length about 54 cm), Plate LXXVIII.6; similar to the previous mask, likewise with a very long, although tapering nose. The specimen evidently belongs in the category of masks designated by the Monúmbó as *kamboram*, and represents the head of a rhinoceros hornbill. It is very similar to the piece illustrated by Schmidt, (1903, p.113, Fig.15c), which also comes from the Augusta River. On the forehead of that specimen, of course, is the head of a crocodile, whereas on our mask is a clearly-recognizable bird figure in relief, its head lying on the root of the nose of the mask. The isolated rim of the piece shows numerous holes, for fastening a plaited rim bulge. [409]

A mask illustrated by Schlaginhaufen (1910b, Fig.F, p.5) is similar, although there is no animal figure on the forehead.

H.S.1820, Sīngrín, big **wooden mask** (*mūrúb*, “used in the *sing-sing* according to the Kōpár interpreter” Fülleborn; length 57 cm, maximum width 22 cm), Fig.425. The specimen belongs here despite its somewhat different, grotesque form, and in many ways resembles L.Me.7275. It is evidently a very old piece, its surface covered with a very thick layer of red, which is quite weathered and flaking in places. The rim is damaged at several points. The eyes, lying in oblique, very deep areas, consist of small slits; they are surrounded by several concentric ridges. The forehead juts out a very long way over them. It has a lengthwise, short but very narrow high step in the middle, with three transverse holes. On each side on the forehead are two small arches with a hole, the one furthest away, on the rim, representing the ear. Three of these five steps are damaged. The bridge of the nose is short and narrow, with two humps. The tip of the nose is very much bigger and wider; it extends upwards and to both sides into a peak with the end tapering sharply. The septum has only a small perforation. The mouth — an oval hole through the very thick mask — opens onto a high knob-shaped elevation, possibly intended to be pointed lips. The mouth lies on a three-dimensional area ending in three peaks, pointing upwards and to both sides, with the tips of the two lateral peaks projecting above the background. The border ridge of the mask has about a dozen holes. Its upper end is thickened and bored through from front to back. The back of the mask is hollowed out so deeply that the entire face of the wearer would disappear inside, ears included. Also, the mask is quite heavy; wearing it for a long time during the dance would be no mean feat.

H.S.1795, Kōpár, **wooden mask** (*kādībón*, Fülleborn; length 22.5 cm, maximum width 13.2 cm), Fig.426. The form differs in several aspects from those described so far. The nose is produced quite true-to-life while all the others are heavily stylized. The septum is pierced and each side of the nose has a small hole, with the remains of a small stick still in the left hole. The eyes are terraced depressions, bordered angularly above; they flow out into a narrow groove below which ends by expanding at the mouth. The latter, a strongly projecting area, is represented open, exposing the teeth. The forehead juts out quite a long way. It has a triangular area on its upper rim in the midline, resembling that of H.S.1797 (see above), probably the vestiges of an animal figure. Two long, low and narrow engraved ridges above the eyes towards the sides are probably intended to represent the ears. At the top is a hole evidently determined for the hanging cord. The rim of the mask is slightly separate. Only very small indistinct traces remain of the former painting. The mask is slightly hollowed out at the back, but because of its small size it could hardly have served as a dance mask; otherwise the eyes would also have been bored through.

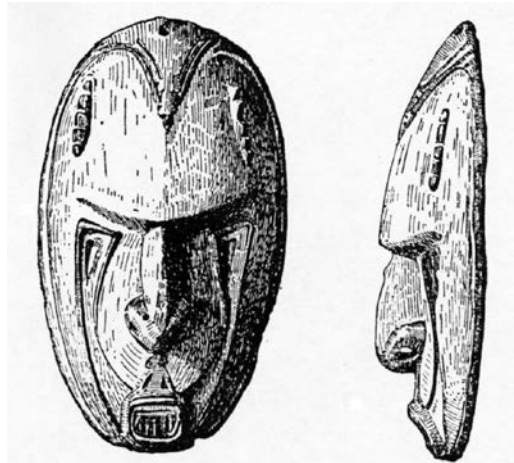


Fig.426. Wooden mask H.S.1795, 1/4 actual size

Plaited Masks

Among masks made exclusively from plaiting, four main groups can be differentiated: firstly, masks which conceal only the face; secondly, head masks placed over the entire head; thirdly, costume masks, which conceal head and trunk; and finally, characteristic animal figures. All the plaited masks obtained so far come from the middle reaches of the river.

Facial masks

H.S.6629, 252 km-village, **mask** (height about 50 cm, maximum width 27.5 cm), Plate LXXVIII,7. Plaited from rattan in the manner of H.S.6628 (see Fig.222). The foundation of the form, especially the bulging [410] forehead and the nose, forms a framework added to the inside, consisting of rattan staves bound crosswise one over another. The stirrup supporting the bridge of the nose and passing through the septum, has an end going upwards and free at the back, perhaps for gripping with the teeth to hold the mask. Eyes, nostrils, and mouth are openings right through the mask. The ears consist of small, shell-shaped discs. The facial type resembles that of wooden masks H.S.9251 and St.Ha.61707. The entire rim of the mask below the ears has a beard of short real locks of hair. The front surface of the upper half of the face including the surrounds of the eyes is russet-coloured, while the lower section shows remnants of a thin, formerly-painted clay coating. The use of real human hair makes it likely that in this mask we are dealing with the representation of a dead person, and that this mask is worn in a dance connected with humanism.

H.S.6628, 252 km-village, **mask** (height 34 cm, maximum width 22.5 cm), Plate LXXIX.1. This differs from the previous mask mainly by the missing forward bulging forehead part; instead it ends above in two small projections above the eyes, and being upwardly-convex borders, probably represent the eyebrows. Ears and locks of hair are missing. The lower face shows very sparse remnants of a clay coat. See Fig.222 for the plaiting technique.

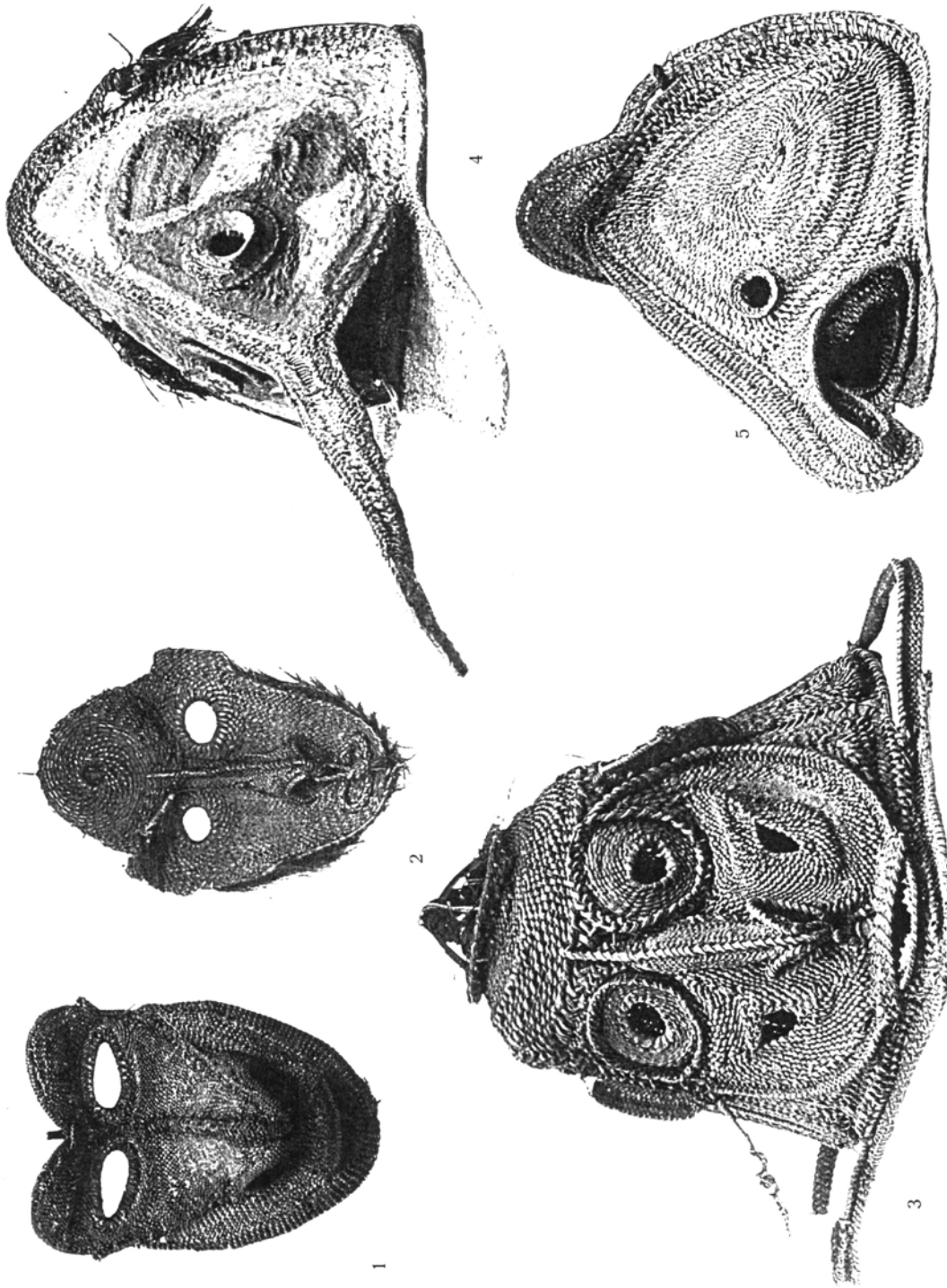
St.Ha.61631, "hostile village", **mask** (height 28 cm, maximum width 19 cm), Plate LXXIX.2. Here the forehead consists of a spirally-formed disc. Only the eyes are worked in filigree, not nostrils or mouth. The nose is hollow, as in the previous mask; a knotted twisted cord hangs from the pierced septum. The mouth is formed by an added oval ring. Fastened to the back of the mask on each side below the eye is a wide plaited arch. This hangs freely, extending as far as the lower rim of the mask. It carries the cheek beard. On the lower inner rim of the mask is an area polished shiny: perhaps the mask was also held firmly by the wearer's chin. The plaiting technique is the same as in the previous masks.

H.S.6713, 343 km-village, small **mask** (height about 15 cm, maximum width 16.5 cm), Fig.427. Made out of rattan in the same style of weaving as the preceding masks. The arch bulging downwards and supporting the entire mask ends on each side in two eyelets to which a cord is fastened. The cord is long enough to extend right around the wearer's chin; the mask was therefore probably worn on the forehead. The upper jaw, revealing particularly carefully made teeth, projects a long way, as does the nose, which consists of a plaited band curved backwards. The eyes are formed from circular thickenings in the plaiting. Embedded in the centre of each of them is a piece of mother-of-pearl shell. The front of the mask has a thin painted coating of clay. The basic colour is dark brown; the eye rings, ear lobes, and two lines following the facial contours are white; two other border lines and the teeth are red. On the back the entire upper half with the rattan arch is painted red, while the lower section is unpainted.



Fig.427.
Plaited mask
H.S.6713, 1/4 actual size

Head masks. They are put over the wearer's head, extending down onto the shoulders. Among the following specimens the undoubted intention was to represent a male head; all others belong to a type that Preuss (1898b, p.147) named "snout masks": the snout-shaped elongated nose is characteristic of them. These masks certainly represent some kind of animal. Schmeltz, (1895, p.165, and de Clerq 1893, p.241) conjectures that they are representations of echidna heads, and Frobenius (1898, p.82) believes they must hark back to a lizard tail. I would rather believe that we are dealing with representations of frigate birds: firstly this bird species is, apparently, also imitated elsewhere on the Augusta River (cf. for example the top-piece for the gable towers, (Plate XXXIV, 1 and 2); secondly, it plays a role in the dances [411] of the Monúmbo and the Wátám, (Pöch, 1905b, p.232); and thirdly the long nose, whose tip is always curved downwards, most strongly resembles the very characteristic form of the frigate bird's bill. If this opinion is correct, then in the middle reaches of the Augusta River we would have dances in which frigate birds appear, perhaps as embodiments of the souls of the dead; indeed the frigate bird is recognized as the bird of the soul in a whole series of locations in Oceania.



1. Plaited mask H.S. 6628, 1/5 actual size. 2. Plaited mask St. Ha. 61631, 1/5 actual size.
3. Plaited mask H.S. 6627, 1/5 actual size. 4. Plaited mask H.S. 9370, 1/5 actual size.
5. Plaited mask H.S. 9384, 1/5 actual size.

H.S.6627, 252 km-village, **head mask** (height about 36 cm), Plate LXXIX.3, representing a human head. The piece is plaited from rattan and mainly in the style of the body of H.S.7132 (see Fig.219). The mouth, the surrounds of the eyes, and the two side handles display the technique of mask H.S.6628 (see Fig.222). The surfaces are mostly built up in a spiral bulge manner. The eyes, the mouth and, surprisingly, also a spot in the middle of each cheek, break through the plaiting. The mask is supported on the inside by a quite robust frame made of thick arches of rattan. At the top on the inside of the mask is a rather soft ring, plaited over and horizontally secured, which sits on the wearer's head and is intended to avoid pressure caused by the mask. Above this ring the mask is open. The eyes are surrounded by plaited ridges with a narrow step branching off them on each side, running down to merge finally with the angle of the mouth. The septum is perforated and adorned with a little cord knotted into it. The ears are oblong discs plaited on. The wide strip forming the lower border of the mask widens on each side into a broad arch with a tendency to snap off below. The wearer appears to have put his arms through these arches.

H.S.9371, Pāmúŋgrī (bought from a canoe) head mask (height about 40 cm), Plate LXXX.1; plaited from narrow strips of rattan partly in the style of bird body H.S.7132 (see Fig.219), and partly in the style of mask 6628 (see Fig.222). Again the surfaces are built up in a spiral manner. The inner framework is made from two strong rattan arches crossing over at the upper end of the mask, with their four ends firmly fastened to the arch bordering the lower edge of the mask. The snout-like elongated nose of the mask very strongly resembles the upper bill of the frigate bird. The lobe stretched horizontally beneath the very wide, triangular mouth opening evidently represents the shorter lower bill. The eye holes are both surrounded by a plaited funnel expanding outwards, and also by a ring-shaped thickening. The face itself is bordered above and behind by a wide transverse plaited strip which breaks through on each side, probably representing the ear and adorned with a tuft of bast fibre. It also carries a hanging loop. The upper beak continues upward into a high, well-defined strip, which extends along the midline to the highest point of the forehead. Both it and the beak show traces of white paint. The entire surface of the face has a thin coating of clay. Painted behind each eye is a big double-lobed red patch surrounded by a narrow white line, which lies on a big black area. The entire rim area of the face is white, as are the eye funnels. On the other hand, the outer ring of the eye has red colouration. Added on the back of the mask is a 25 cm long, 15 cm wide oval plaited disc suspended from the tip. It is fastened only at one narrow point, so that it will clack up and down during the dance. The top side carries a painted narrow black cross; the areas bounded by the four arms of the cross are coloured alternately red and white. The back of the head of the mask is decorated with vertical, wide and narrow red, black, and white stripes.

H.S.9370, Pāmúŋgrī (bought from a canoe) head mask (height about 35 cm), Plate LXXIX.4; very similar to the previous mask: the style is the same. The tip of the beak again shows a hook pointing downward, which cannot be seen in the illustration since it is turned away from the viewer. The painting differs from the previous specimen only by the white area being bigger, and two red areas being behind the eye on each side and bordered by a black circular line which blends into the similarly black eye field. A hanging cord is again fastened to the top of the mask. The plaited lobe fastened on the back to clack up and down, is almost circular with a big round recessed hole in the middle. It is thickly beset with cassowary feathers around the rim.

St.Kr.61162, "Pamugli", **head mask** (height 46 cm), almost identical to the preceding mask. Here the tip of the upper beak is short, and decorated with a knotted tuft of bast fibre. The lower bill points obliquely downward so that the triangular wide-open mouth is clearly visible. The lobe at the back of the head is circular, with an oblong recessed hole in the middle.

St.Ha.61723, "Simar", **head mask** differs little from the preceding specimen. The [412] lobe at the back of the head is semicircular. The face is painted red, white, and black.

Two head masks illustrated by von Luschan, (1911, Figs 28 and 29), are very similar. In the first, the tip of the upper bill is curved back so that the end again merges with the beak to form an eyelet anteriorly. In the second, the lower bill hangs steeply down as a very big, almost circular lobe.

The specimen illustrated by Frobenius, (1898, Plate IV, 26), resembles the latter.

H.E.2351, "Empress Augusta River", **head mask** (height about 35 cm). Here too the end of the very long upper bill is bent back, forming an eyelet. In this specimen only the eyes are painted red, the rest of the face is whitened with lime. The "lower bill" projects obliquely forwards.

H.S.9384, 293 km-village, **head mask** (height about 32 cm), Plate LXXIX.5. This specimen differs from those before, mainly through the upper bill being very short, with its bent-back tip almost penetrating the mouth. Also, the "lower bill" is only very short: a broad, roundish, horizontal area. The lobe at the back of the head is completely missing here. The surface of the mask shows only slight traces of white paint.

St.Ha.61640, "Radja", **head mask**, similar to the preceding mask, with a similarly very short, bent-back upper bill, whose tip has four small holes, each decorated with a long thin tuft of bast fibre. The lobe at the back of the head is semicircular, with two eccentric holes. The handle-like ears, extensions of the plaited band surrounding the face, are adorned with strings and tufts of bast fibre.

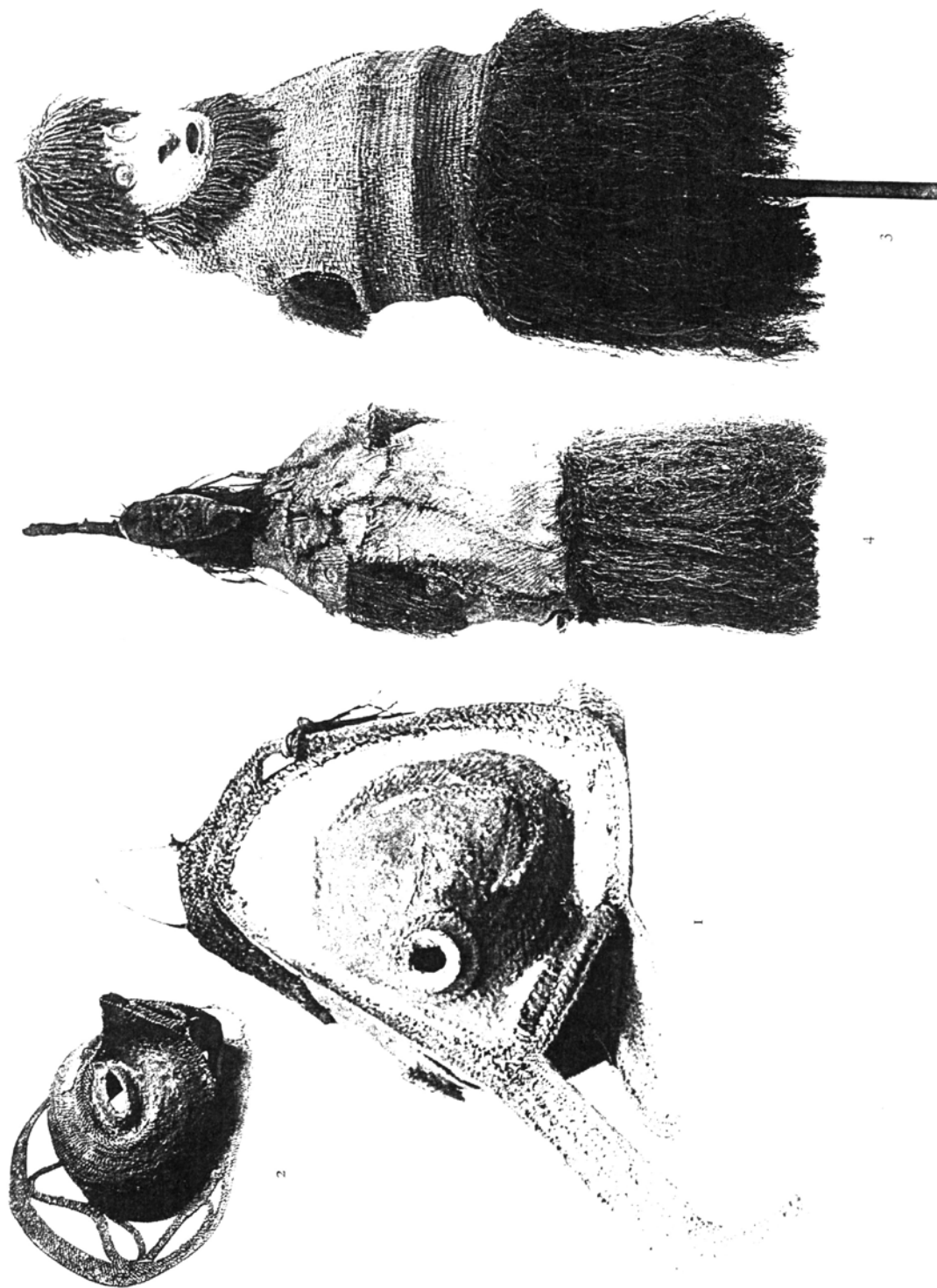
Mask costumes. The three examples that I know of consist of a stiff jerkin that reaches right to the hips, trimmed below with a long thick grass fringe, and a plaited head and neck with a mask fastened onto the front. In two specimens that Müller saw in a ceremonial house in 252 km-village, a second face mask was fastened to the stomach of the mask costume; unfortunately he was unable to obtain those specimens because they had been hastily slipped out of the house.

H.S.6648, 293 km-village, **mask costume**, Plate LXXX,3. The torso is plaited from strips of rattan in very irregular twill- and atlas style. The internal frame consists of a circumferential rattan arch bound together by vertical staves. On each side of the trunk is a wide armhole, whose upper rim has a thick grass fringe. The neck tube is very narrow, and so the head of the mask-wearer must occupy a place in the mask's chest. For this reason, the upwardly-expanded portion above the armholes is elevated. Evidently the mask is intended to rise a head's height above the spectators and the other masks. On the front of the chest, just above the face mask and half-covered by the fringe, two big eye holes are cut out to enable the dancer to see. The mask head is only small. In front it is attached to a fairly big mask made from plaiting, but it is attached only at its upper end, so that it can clang up and down while dancing. In face type, it bears an extraordinary resemblance to the face masks described above, although their arrangement of the eyes for vision could hardly be used in this type of face costume. The entire front surface of the mask is coated with a layer of clay displaying red and white lines against a black background. The eyes consist of big circular mother-of-pearl shell discs; they have an engraved circle (as a border of the iris) with a bored centre (the pupil). They are surrounded by a circular wall made from clay with a tag attached, pointing obliquely outward. The nasal septum is represented as perforated. The mouth is wide open; perhaps a tongue originally jutted out of it. The entire rim of the mask is beset with a row of *Coix* seeds and a thick black beard of human hair. On the forehead is a small triangular area, embellished with *Coix* seeds and red berries, resting on the hair border. The thick red-dyed grass fringe fastened to the lower end of the costume is so long that it would extend roughly to the dancer's knees.

St.Ha.61612, "Radja", **mask costume**, Plate LXXX,4. The internal structure supporting the costume again consists of rattan, however the trunk, or covering, is not plaited rattan but mats sewn together. The arm holes are almost rectangular and furnished with a grass fringe at the upper border. The upper portion of the chest, as in the previous specimen, is again distinctly raised to accommodate the dancer's head; and again there are two openings on the chest for the eyes. The russet [413] grass fringe at the lower end of the costume is very thick, and averages 60 cm in length. Remarkably, the torso has an arch on its back, which is not there by chance but is a deliberate addition; to retain its shape it has a special framework made from rattan staves. At the lower edge of the back of the costume is a two-stepped structure made of rattan from the middle of which runs a tail-like shape consisting of bunches of bast fibre. The arch and the tail lead us to suspect that we are dealing with the mask of a comic figure, like those appearing during dances at Potsdamhafen; this idea is supported by the extremely grotesque form of the face mask. This is made from wood. The eyes are long conically-projecting black pegs with a red tip; their black base is encircled firstly by a broad red depression and then a black ridge. The rather prominent nose is somewhat deep-set; its sides are narrow, the nostrils wide, and the septum is perforated. The mouth consists of two parallel sickle-shaped bulges painted black on the outside and red on the inside. From the mouth protrudes a very long red tongue curving downward with its tip touching the somewhat-projecting chin. There are no ears. A beard of real human hair is attached to the four-holed rim of the face. The weight-bearing part of the mask, the plaited head of the costume, ends in a very strong attachment loop on top; it is thickly covered with hair.

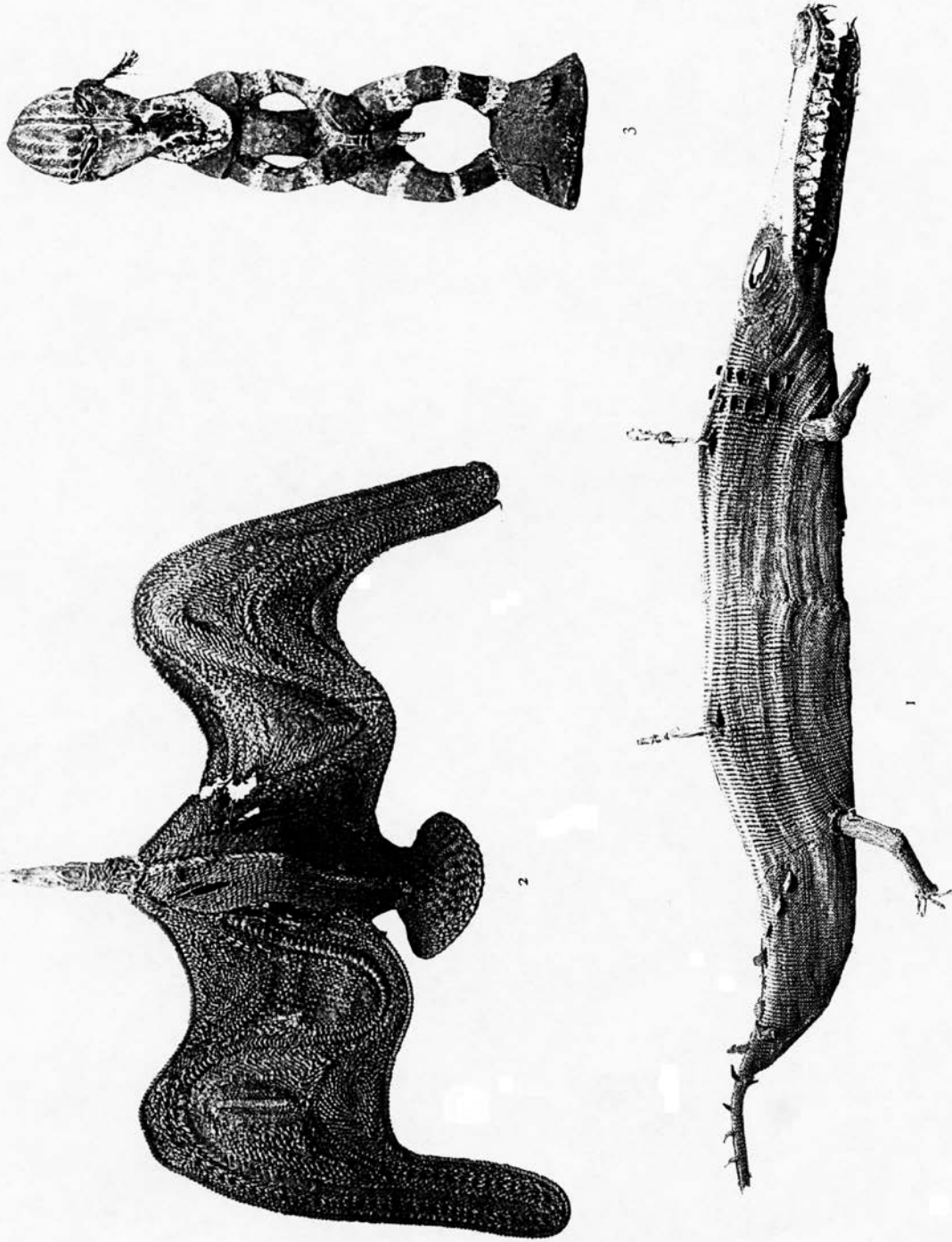
Schlaginhausen (1910b, Plate 4, Fig.33) illustrates a similar mask costume. Here the frame is, "covered with bast fibre material consisting of several pieces sewn together with bast fibre strips." A red, white and black painted wooden mask is added above. The head hair is again natural human hair, although the beard is represented by cassowary feathers. "The painting of the bark material is in three colours. Several thick red lines run down from the top on a black background, and at right angles to them alternating red and white wavy lines run horizontally around the mask." The skirt below consists of bark fibre. The author saw other costumes of this kind, "hanging on the upper floor of a spirit house in the end village. One of those specimens significantly exceeded in size the one described here."

Animal figures. Erdweg, (1902, p.302), records that at a certain dance celebration in Berlinhafen the hosts prepare an animal figure, "which forms the focal point of the dancing or rather, held by one man, it is waved about on occasion and the participants dance around it. The figure represents a fish, bird, serpent or other, and indeed, first this then that fish, this then that particularly familiar bird is presented." Possibly the following specimens are figures prepared for a similar purpose.



1. Plaited mask H.S. 9371, 1/5 actual size. 2. Plaited mask F.N.S. 6235.
 3. Mask costume H.S. 6648, 1/10 actual size. 4. Mask costume St.Ha. 61612, 1/20 actual size

Reche,Empress Augusta River, Plate LXXXI



1. Plaited crocodile figure H.S.6649, 1/20 actual size. 2. Plaited bird figure H.S.7132, 1/8 actual size.
3. Death figure H.Do.11.32:7, 1/10 actual size

H.S.6649, 293 km-village, giant **crocodile** (length about 363 cm), Plate LXXXI,1, plaited from rattan. The plaiting style of the body is the same as that of mask H.S.6628 (see Fig.222); the plaiting style of the eye surrounds, the nose, the legs and the surrounds of the hind quarters is the same as that of the trunk of H.S.7132 (see Fig.219). The fact that in the centre of the belly side is a wide rectangular opening surrounded by rattan rings into which a head and neck can comfortably be inserted, demonstrates that the figure is worn on the shoulders of a dancer. On the inner surface of the back is fastened a rattan ring, evidently intended for the dancer's head; two horizontal lathes at the stomach opening probably rested on the shoulders to lighten the load. Throat and underside of the crocodile head are open, and not covered with plaiting, possibly so that the dancer has a clear view out of the animal body. On the inside of the crocodile's body is a rigid rattan framework. Two hanging loops are attached to the back above the limbs. The eyes are oblong oval apertures. The nose part lies on a low circular elevation, built up as a spiral bulge. Upper and lower jaw margins are thickly covered in plaited tags, probably representing gums; on the inside of each one is fixed a real crocodile tooth of very great size. In the mouth is a big flat plaited tongue. The upper surface of the head, apart from the eye surrounds, is white, while the body has very wide dark brown- and narrow red longitudinal stripes. On the neck [414] are two transverse rows and on the tail two longitudinal rows of distinct plaited lobes probably intended to be scales.

H.S.7132, "middle reaches of the Empress Augusta River", **bird figure** (length 62 cm, wing span 109 cm), Plate LXXXI,2, with outstretched wings, plaited from rattan. The plaiting style of the body and wings is reproduced in Fig.219 (p.229); that of the edges of the wings in Fig.223 (p.232). The tail is plaited after the style of mask H.S.6628 (see Fig.222); the plaited band firmly holding the head is in four-ply reversible twill style. The hollow body has a wide opening on the ventral surface into which the head can be inserted as far as the forehead. Behind this opening on each side is a rattan eyelet, possibly for taking a holding cord. Each wing is held in its horizontal position by a rattan stick on its underside. On the upper surface of the wing are faint traces of a red coating. Along the midline of the back runs a plaited ridge with short cords tied on at intervals. The bird's head (Fig.428) is carved very realistically out of wood; it has a very powerful upper beak whose tip curves sharply downward, similar to many representations of *Buceros* from this region; it is transversely perforated. The tongue is visible in the slightly open mouth. The eyes are oval raised areas, each surrounded by a ring; the ears are quite major depressions bridged over by a sagittal step, which has evidently served for attaching decoration. The head is fastened to the plaited neck by means of a long process. The wooden head shows a thick patina, flaking off in places, probably mostly of aged colouration. It is probably an old piece, frequently used, with the body probably frequently renewed.

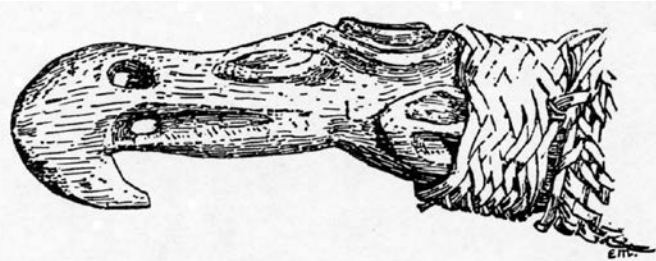


Fig.428. Head of the bird figure H.S.7132, ½ actual size

The bird's head (Fig.428) is carved very realistically out of wood; it has a very powerful upper beak whose tip curves sharply downward, similar to many representations of *Buceros* from this region; it is transversely perforated. The tongue is visible in the slightly open mouth. The eyes are oval raised areas, each surrounded by a ring; the ears are quite major depressions bridged over by a sagittal step, which has evidently served for attaching decoration. The head is fastened to the plaited neck by means of a long process. The wooden head shows a thick patina, flaking off in places, probably mostly of aged colouration. It is probably an old piece, frequently used, with the body probably frequently renewed.

Dance Decoration

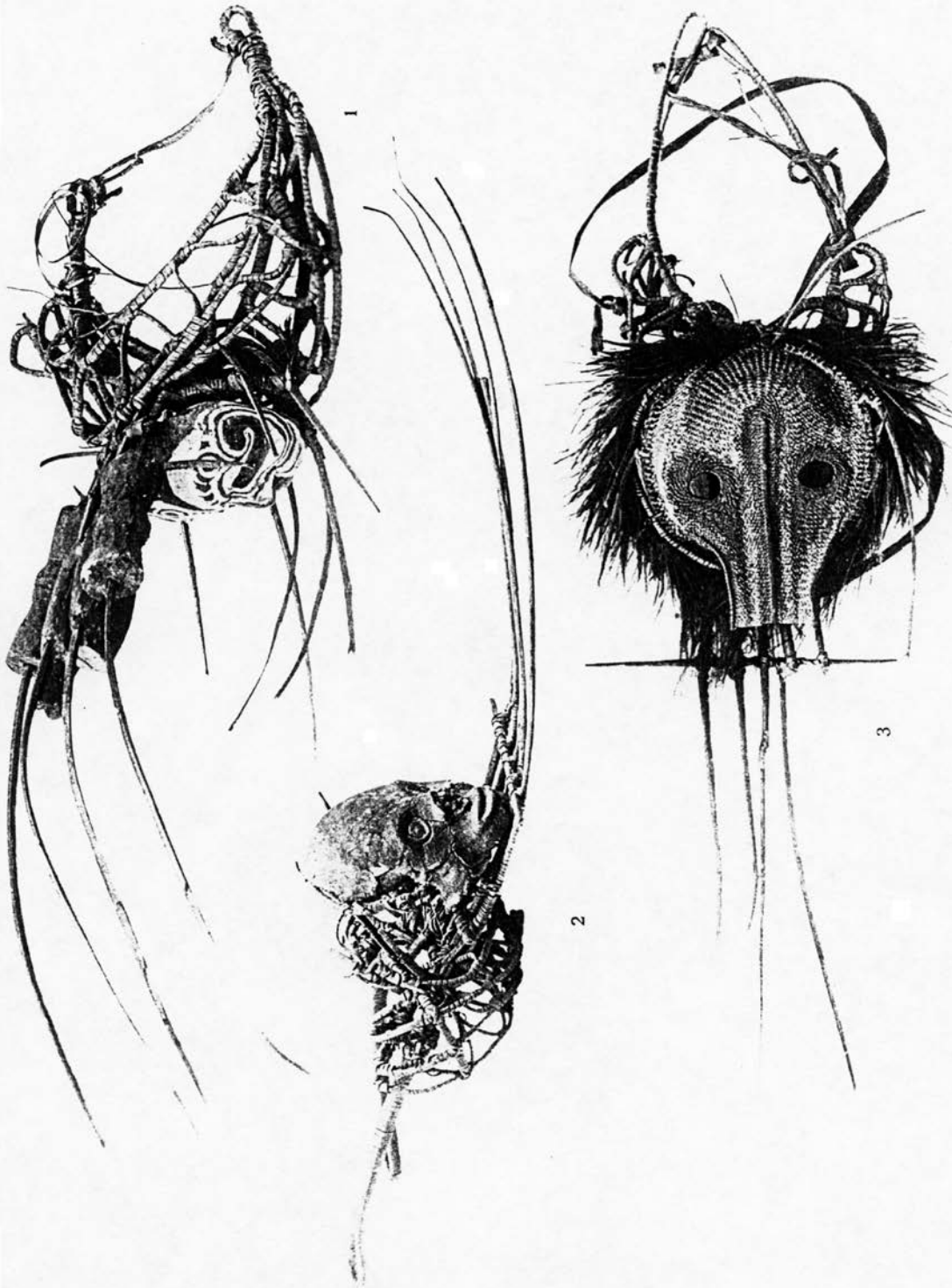
Festive loin cloths

As Pöch (1905b, p.234) records, the Monúmbo wear a special decoration of the girdle for *zangál* dances, "Over top of their usual loin cloth, the dancers have tied on long aprons made from the inner bark of trees and decorated with ornaments." Very probably this type of festive clothing is like the three richly decorated aprons H.E.4105, H.E.4041, and H.E.4042; these are described on pp. 68-69 and illustrated on Plate VII 1 and 2. Also, the fact that they carry representations of faces suggests their use for ceremonial purposes.

Dance hip decoration

As Müller witnessed, in one type of dance the following specimens are tied round the hips in such a way that they hang obliquely backwards and down.

Reche, Empress Augusta River, Plate LXXXII



1. Dance hip ornament H.S.9372, 1/5 actual size. 2. Dance hip ornament H.S.6655, 1/5 actual size.
3. Dance hip ornament H.S.9367, 1/5 actual size

H.S.9372, Pămúŋgrī, **dance hip decoration**, Plate LXXXII,1. The framework made from rattan consists of a row of rattan arches front and back, lying vertically together and connected by cross-staves, with their ends joined and forming a loop on each side. Each arch of one row is tied to its partner of the opposite row by a wavy, curved rattan girdle. A vertical rattan ring is inserted between the two final rows, or rather, pressed apart by arches. To some extent it forms the frame for a facial representation, looking behind, which is added here. Radiating rattan staves are bound to this ring, their free ends pointing obliquely backwards in the circle. The four upper ends are the [415] longest. Four red-painted objects made from soft wood are lashed onto it, the two outer objects resembling a small hand drum in shape, the inner a fish. The eyes and mouth in particular are clearly recognizable in the fish figure. The heads of the fish are turned towards the facial representation. This and the following decorative dance items are arranged in such a way that both eyelets, tied by a bast fibre band, come to lie forward, while the facial representation gazes backwards. This face is carved realistically; it has broad white patches and lines against an almost completely receding background. The eye regions, which are extended sideways into a peak slanting upward, are black; the eyes themselves are flat circular raised areas. There is a hole through both the upper and lower ends of the face with a cord pulled through to hold the face firmly.

H.S.6722, Pămúŋgrī (obtained from a canoe), **dance hip decoration**, similar to the preceding one. The part enclosing the waist, ending on each side in a strong eyelet, consists only of a rattan arch with two very thin rattan staves added on each side and running parallel backwards. Their inner ends are bent back and tie their outer part to the rattan arch as wavy bent switches. In the middle of the decorative piece, constructed just as in the previous specimen, is the site for a small facial representation made from soft wood. This is produced very realistically; it has white painting on a red background, except that the eye regions, drawn out to peaks at the side, are black. A short cord is knotted into the perforated septum. The mask is firmly held to the frame by a cord below and a long thin bone spine above. Of the rattan staves going out from this frame and extending around the face, those above and at the sides are short, while the lower ones are longer and decorated with softwood figures stuck onto them. Of these, the outer five again resemble small hourglass drums and the two inner, fish (Plate LXXXIII,5). The ‘drums’ are painted with broad black and narrow white bands running round the outside; on the ‘fish’, the head, back, and two lateral lines are white with a black surround while everything else is red.

H.S.6721, Pămúŋgrī (bought from a canoe), **dance hip decoration**; constructed just like the preceding specimens. The facial representation made from soft wood is fairly small; its painting, mostly red and white, has black colour in the centre of two spirals on the forehead and one on each cheek as well as in the pupils of the eye; the lips too are black. Of the two rattan staves dominating the circumference of the facial representation, only the lower staves are long and trimmed with four pieces of softwood, one in the shape of an hour-glass drum and three shaped like fish. The fish heads are again turned towards the face; their heads are painted white and the bodies black.

Three specimens described by Schlaginhaufen, (1910b, pp. 23–24), as “dance head-caps” differ only in minor details from those specimens just described, therefore they too are ‘dance hip decorations’.

As with many other ceremonial instruments, the facial representations carved from wood in these decorative specimens are nothing other than a replacement for an original skull; the following specimen provides proof of this.

H.S.6655, 293 km-village, **dance hip decoration** (“worn at the back, over the buttocks; stored in the ceremonial house”, Müller), Plate LXXXII,2. Here, instead of a wooden face there is a human skeletal face. The rather damaged specimen has been modelled over with clay and was, apparently painted as well. In the right eye, in the centre of a narrow ring wall, is a round piece of mother-of-pearl shell whose centre shows traces of a black fleck (pupil or iris). Almost the entire nose has broken off. The slightly open lips are somewhat stretched. The mouth representation is only on the upper jaw as the lower jaw is missing and not used in the mask. Of the rattan staves jutting out from round the face only the five lowest are long; they are connected together by a cross-piece and bear no decoration of any sort.

H.S.9367, Pămúŋgrī (bought from a canoe), **dance hip decoration**, Plate LXXXII,3. Here the human facial skeleton has been replaced by a plaited mask which, when the ornamentation has been put on, looks almost straight upward. It is made of very narrow strips of rattan in the same technique as the bird body (H.S.7132 (see Fig.219)). The eyes are circular blank spaces. The nose consists of a very wide plaited strip, the tip of which bends backwards on the underside, and is fastened below to a wide crack right through the mask. The mouth is a very long narrow transverse slit hidden below the wide nose, and inserted very close to the lower edge of the mask; a ledge added to its rim represents the lips. The circular rattan frame enclosing the mask is thickly beset with obliquely-inserted cassowary feathers. Of the [416] rattan staves projecting from the facial representation, only the lower ones are fairly long; they have no adornment.

H.S.6654, 293 km-village, **dance hip decoration** (“worn at the back, over the buttocks; stored in the ceremonial house”, Müller), Plate LXXXIII,1. The part encasing the waist consists of four thick parallel bast strands arranged over top of one another, uniting at the front on each side and forming a narrow eyelet. A thick two-ply bast fibre cord is fastened to each of these eyelets. The one on the left side forms a loop, the one on the right a knot, which is pushed through the loop to complete the decorative piece. Behind, the four bast fibre strands are joined together at three points, each by means of a vertical strand, and held apart at the same time. The entire length of each of these binding strands is densely covered with bunches of russet-coloured grass pointing backwards. Both of the outer brushes thus formed are held together at the base by a circumferential strip plaited from bast fibre; all three above and on either side (in total therefore each brush of three) is flanked by a slanting torch-like structure. Each of these small torches consists of 4–5 diverging strips, which are held together by a piece of plaiting running at right angles to their long axis. They are secured to the vertical strands of bast fibre by their very narrow base.

St.Ha.61728, ‘Radja’, **dance hip decoration** (length about 185 cm), Plate LXXXIII,2; a very richly-made specimen. The facial representation consists of a plaited mask. The eyes are formed from plaited, slightly-concave plates, from the middle of which rises a tube, 6 cm long and 2 cm in diameter, enlarging forwards, like a funnel, into a shallow bowl painted red on the inside with a white rim. A bamboo cane with a red-dyed bunch of bast fibre 3½ cm wide projecting from it, is pushed into this tube. Both of these eyes, like a spool (cf. the eyes on the men’s loin cloth H.S.1854, Fig.16, p.75), are sewn to the face only by one stitch, and can therefore wobble about. The plaited nose is wide, and hollow inside. Only the lower edge of the nasal septum remains; it is decorated by a russet tuft of bast fibre and two lancet-shaped, slightly curved pieces of coconut shell. The mouth is represented by a rattan stave plaited onto the mask in the form of a transverse oval; a red-dyed, plaited pointed tongue, 8 cm long and 4 cm wide at the base, projects from the mouth. Of the rattan staves projecting over the face from behind, the upper ones form the base of the plaited forehead jutting a long way forwards, and the lower ones form the base of a long plaited plate attached below to the chin of the mask. The entire outer rim of the plaiting, both of the mask itself and the forehead and the chin process, is trimmed with cassowary feathers. The very end of the chin is dominated by a strong rattan stave, which is adorned by a filigree-plaited, round, wheel-shaped disc whose rim is decorated with feathers. The end of the jutting forehead is connected with the point of the chin by a cord decorated with tufts of bast fibre. The mask is painted red, white and black.

A specimen illustrated by Schlaginhaufen, (1910b, Plate 4, Fig.35), is similar to the preceding specimen, although damaged; the plaited mask is missing. The arch to go around the waist cannot be opened from the front.

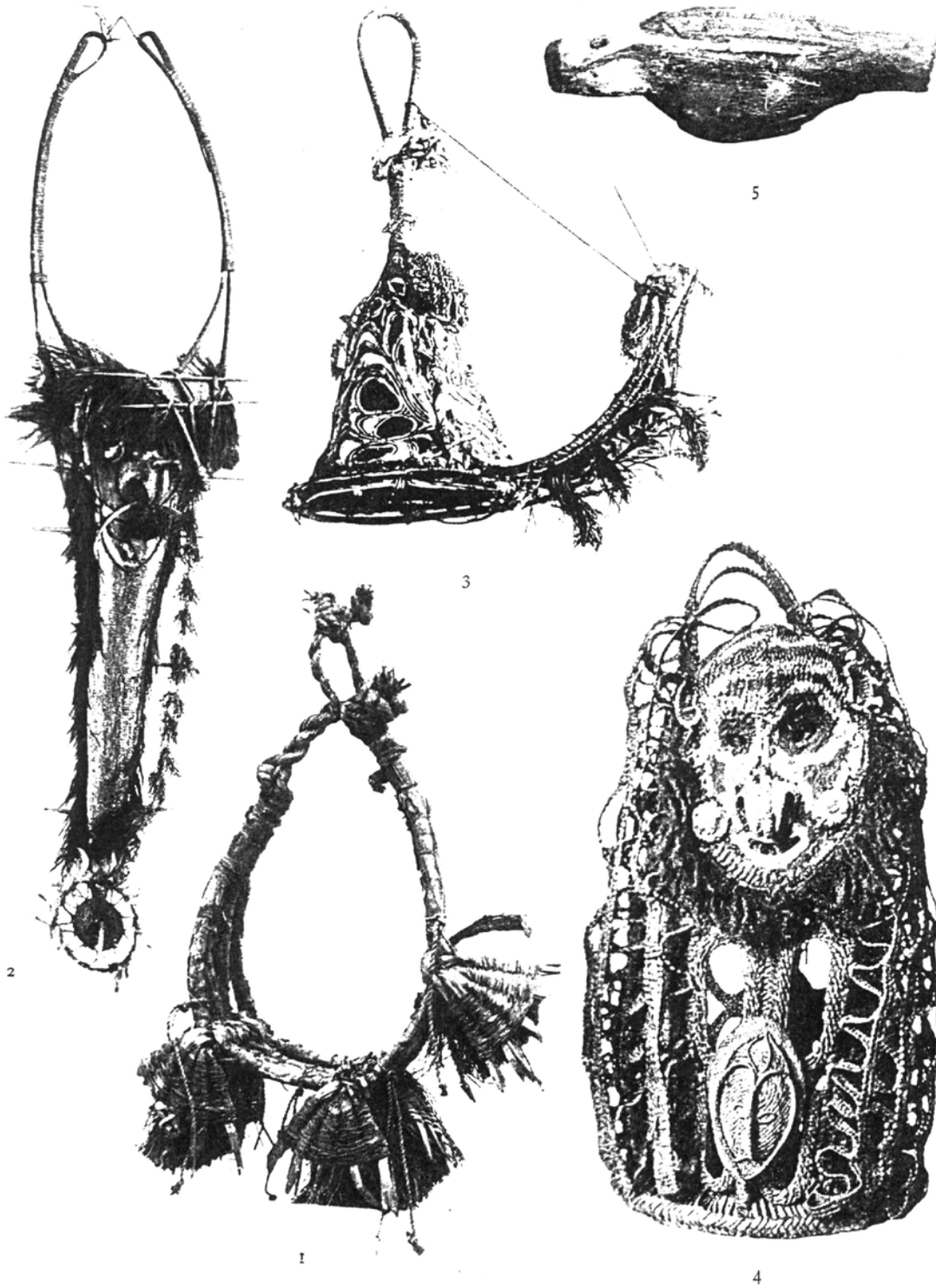
Dance headdress

In the corner of a ceremonial house in 293 km-village Müller found frames of basket-woven dance hats, one of which carried a fish figure. Another, sugar-cubed specimen was covered with unpainted bark; unfortunately he was unable to obtain the specimens. In a ceremonial house in 373 km-village lay two dance hats of painted bark; a third was surrounded by a ring that looked like a halo.

Schlaginhaufen obtained two dance hats, which he described in very great detail and illustrated, (1910b, Plate 4, Fig.38 and p.25).

One, (Plate LXXXIII,3), “is cone-shaped with a process in front.” A framework of rattan ribs gives the hat its shape and forms a big eyelet at the peak. The lowermost rib is decorated with a plaited “wavy band . . . The framework for the process consists of three lengthwise staves curving forwards and upwards, the middle one going off the basic rib (of the framework), while the other two go from the two uppermost ribs.” A plaited wheel decorated with feathers is attached both below the big eyelet and at the end of the process. The outside rim of the process also has a feather decoration. [417] “The framework of the cone is covered with bark material which also extends onto the process. It consists of several pieces sewn together with strips of bast fibre . . . The painting of the bark material is in black, red, and white. On the front of the cone is a representative human face with the outer angle of the eye again drawn upwards and outwards. Individual parts of the face are surrounded by several sweeping lines. Such contours also envelope the round and semilunar-shaped areas with which the rest of the cone is painted . . . The process is painted with transverse wavy lines.”

The second hat “resembles the previous one in all major features, although it is bigger . . . To the left, behind the plaiting, a small piece of the soft pith-like wood is fastened to the bast fibre material, appearing to imitate a penis in shape . . . Painting of the bast fibre material is generally restricted to ovals, surrounded by sweeping lines. A facial representation is missing.”



1. Dance hip ornament H.S.6654, 1/5 actual size. 2. Dance hip ornament St.Ha.61728, 1/10 actual size.
 3. Dance hat, after Schlaginhaufen. 4. Headdress, after von Luschan.
 5. Softwood fish figure, with H.S.6722, 1/3 actual size

Besides these two hats, Schlaginhaufen describes two further, though different head decorations, both originating from the section of river above Kāmbrīngī.

One (*loc. cit.*, Plate 4, Fig.36) has a rattan framework; it consists of a round rib, which “spans one strand in a transverse arc and three others in a lengthwise arc. The latter are markedly elongated and run forward together. As in the preceding specimen, they thus form a uniform process projecting beyond the rim of the actual headdress. They are closed in by a piece of bast fibre material and joined together. Little cross sticks, sharpened at both ends and decorated in places with feathers, are thrust between the bast material and the strands. A plaited wheel is pushed onto the peak of the process. . . Cord is used to fasten a chain of round discs of pith strung together, around the circular rib. Above this decoration is another: a plaited band onto which are sewn spiral snail shells carved out of the soft pith-like wood. . . Only the piece of bast fibre covering the upper surface of the process shows any painting: white lines on a red background.”

The second specimen, (*loc. cit.*, Plate 4, Fig.34), is “very similar” to the other. The rounded tip of the framework is covered here by a “strand of bast fibre rolled up into a longitudinal spiral. . . The piece of bast fibre taking part in the formation of the process is painted red, white, and black. There are transverse curves, convex towards the tip of the process. The latter supports a plaited wheel, and a bast fibre cord is fastened to this process. The cord is stretched, secured to the rear border of the head cap and thereby pulls up the front portion of the process.”

Von Luschan, (1911, Figs. 30 and 31), illustrates a quite remarkable plaited article gifted to the Berlin Museum by Administrator Heine, (Plate LXXXIII,4); it is possibly a top piece on a head; its use in ceremonials is probably indicated by the fact that several masks are added to it.

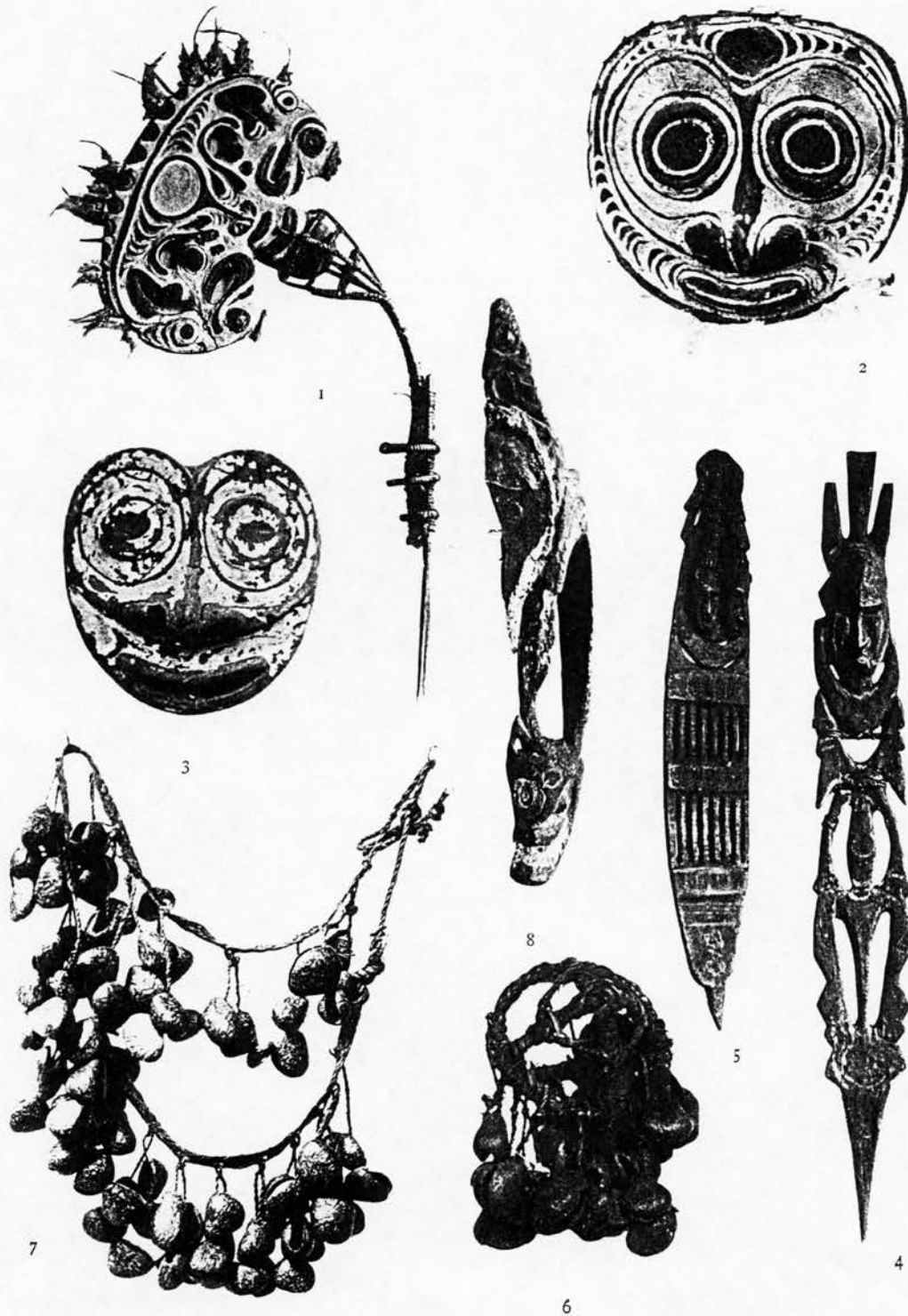
“The foundation of the whole thing is formed by a firm, strongly-plaited ring; on this sit two big lobes rising vertically, each consisting of three tightly-plaited, interconnecting frames. The foremost of these frames carries two similarly-plaited masks each. . . On both sides, the upper masks are much bigger, painted in places, and wear a long beard made from human hair; the lower masks are smaller, less like human faces than the upper masks, beardless and unpainted. Whether they are intended to represent human or perhaps animal faces, I would not venture to determine” The larger upper masks are very similar to the face masks described further above.

The following decorative pieces are probably also used only during dances and festivities; in any case, we never saw them used in daily life, and besides, the representations added to them hint at a connection with cult activities. [418]

H.S.6652, 293 km-village, **hair decoration** (maximum length 68 cm), Plate LXXXIV,1. Five curved sticks wrapped in rattan are bound to a big double-pronged comb, their upper ends diverging and forming a small basket supported internally by three rings. The basket firmly holds the lower end of a big decorative disc carved from soft wood. The upper end of the actual comb is surrounded by three hoops of various sizes, perpendicular to the long axis. The flat decorative disc is carved in filigree-style and has relatively the same representations on both sides. The centre of both sides is occupied by a human face whose forehead forms a large oval surface. The face on the side not illustrated is situated rather higher and is somewhat wider. Added to both sides of the disc is a bird figure with its head pointing downwards and inwards and an exaggeratedly curved beak. The depressions in the carving are limed, and the raised areas are black in some places and red in others. Thin wooden spines and small brown hen feathers are pushed into the outer rim of the discs.

A decorative comb described by Schlaginhaufen. (1910b, p.30), is very similar; the bird figures in it are clearly characterized as rhinoceros hornbills.

H.S.6651, 293 km-village, **hair ornament** (maximum length 33 cm). A thin rattan stick is bound to a short three-pronged comb, its upper end carrying a decorative disc made from soft wood. The carving on it is less carefully done and only in the major features does it resemble the representations just described. Two large raised circular areas to the sides probably represent the eyes of a face, a somewhat deeper oval area between them the nose, and a second oval the forehead. All four areas have black rims, with the eyes filled in white and the two oval raised areas in red. The rim of the decorative disc is densely packed with two rows of small white hen feathers. The upper end of the actual comb carries, in addition to the decorative disc, two small circular softwood discs (diameter 5.5 cm), pushed onto the rattan girdle, and on the back painted red, while the front displays a white star on a red background. The star figures resemble that of the spinning top H.S.6700, (see Fig.467, p.451), and have perhaps also originated from a facial representation. Finally, a large white hen feather is fastened to the top of the comb.



1. Hair ornament H.S.6652, 1/6 actual size. 2. Decorative disc H.S.6719, 1/3 actual size.
 3. Decorative disc H.S.9228, 1/3 actual size. 4. Dance staff H.S.6555, 1/6 actual size.
 5. Dance board St.Ha.61603, 1/10 actual size. 6. Dance rattle St.Ha.61634, 1/5 actual size.
 7. Dance rattle L.Me.9020, 1/5 actual size. 8. Carving H.S.9054, 1/5 actual size

H.S.6720, Pămúŋgrī, **decorative disc** of a hair ornament of the same type (maximum diameter 11.5 cm), made from softwood, the rim thickly covered with short soft fawn hen feathers. A long black feather, its fronds serrated by sections cut out on both sides, is pushed into the hole, which in the finished specimen contains the stick bearing the disc. The decorative disc shows two symmetrically-arranged spirals on front and back, with a big red area lying in the centre of both of them. Since a clearly recognizable nose is added between the two spirals, these are intended to be facial representations.

H.S.9121, Mándánām, **hair ornament** (*dřĩmbi*, Hellwig), Fig.429. A triple-pronged comb forms the foundation. In the upper part, the prongs are bound in by a layer of short transverse sticks plaited together in front and another layer at the back. Added to each narrow side is an extended-oval, slightly-hollowed, plaited decorative disk. Fastened to the upper end of the comb is a brown feather, and a long curved stick bearing a decorative disc made from soft wood. There are coloured designs on this disc: two sausage-shaped images arranged around an oval area (cf. the representations on many of the lime containers from the lower reaches, for example, Fig.256, p.253), possibly the representation of a mouth. The entire rim of the disc is densely lined with short white and brown feathers.

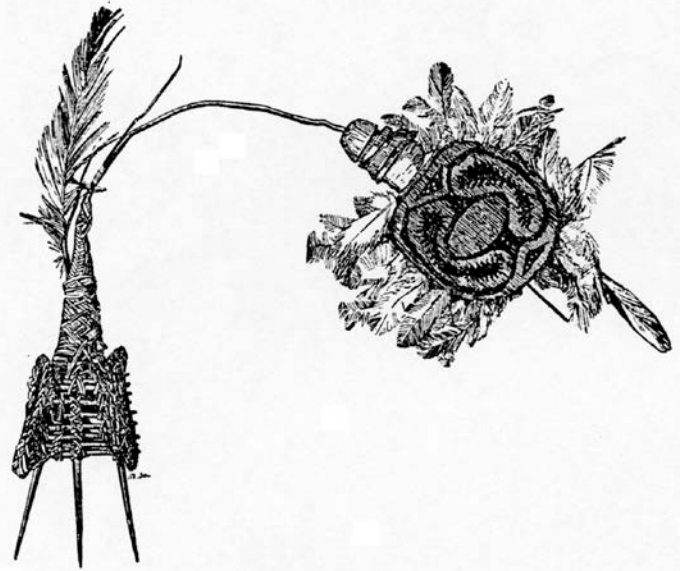


Fig.429. Hair ornament H.S.9121, 1/4 actual size

H.S.6719, Pămúŋgrī, **decorative disc** made from softwood (diameter 15 cm), Plate LXXXIV,2. The red-coloured reverse side is completely smooth; on the front is a facial representation. The eyes, the sides of the nose, and the mouth project somewhat, three-dimensionally. The painting [419] is done in white on a red background. The entire rim of the plate is densely packed with fairly long white hen feathers. On the back, a palm wood needle sticks out for 11 cm, and points obliquely downwards. It probably served for fastening the piece into the hair.

H.S.9228, 293 km-village, **decorative plate** made of softwood (maximum diameter 13 cm), Plate LXXXIV,3. The round eye regions, the nose, and the lips of the open mouth project three-dimensionally. From the very wide sides of the nose curved ridges run obliquely upwards and blend into the edges of the face. The painting is in black lines on a white background, and is rather damaged: the specimen is evidently quite old. On the red-painted reverse side, not decorated with representations, is a swelling in the upper section with a hole on the underside for the needle which used to be fastened here, but has been lost. The edge of the face has a large number of little holes, evidently for feathers.

St.Ha.61681, "Panguli", **decorative plate** (length 19 cm, maximum width 16 cm), made from softwood, representing an almost circular face. Eyes and nose project three-dimensionally. The sickle-shaped mouth goes through the plate. The outer rim of the lower half of the face is jagged, and painted red and white.

Four decorative discs illustrated by von Luschan, (1911, p.105), are similar; all of them represent a face. Schlaginhaufen too describes a whole number of specimens of a similar type.

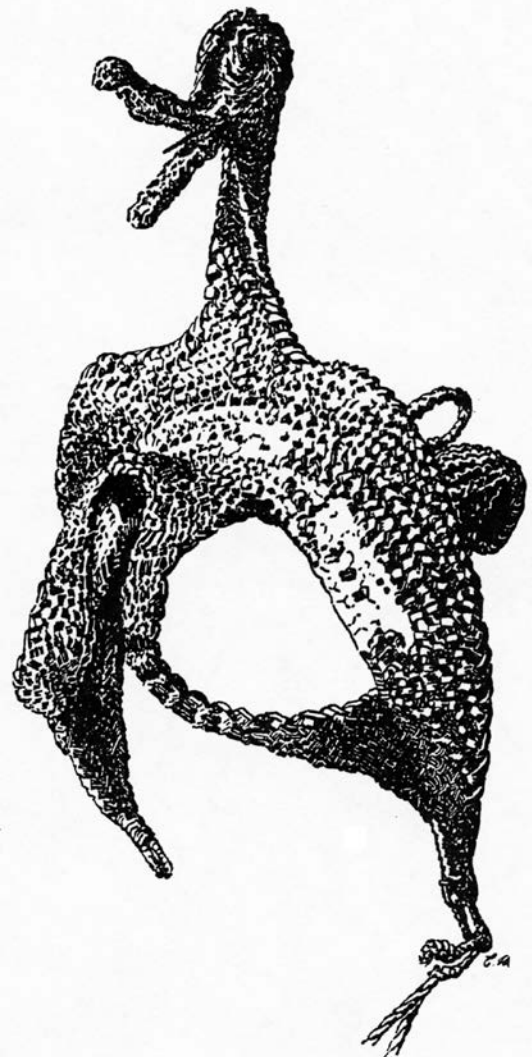


Fig.430. Head ornament H.S.9172, 1/2 actual size

The same author illustrates two small decorative pieces made from softwood, representing a figure in profile. “The head is disproportionately large and sits on a long neck. Gracile arms start out from the thin torso. The four-fingered hands hold an animal whose head points downwards — evidently a snake — which is being devoured by the figure” (*loc. cit.*, p.31). Wings rest on the figure’s back and, “the end of the trunk has the form of a bird’s tail.” The author regards the presentation as an “intermediate between quadruped (stylized human?) and bird.” Von Luschan (1911, Fig.17) too, illustrates a similar specimen.

H.S.9172, 252 km-village, plaited **head decoration** (maximum height about 28 cm), Fig.430. A solid double arch forms the base, enclosing the wearer’s head from above; on each side it ends in a loop, where the cord under the chin is fastened. On each loop is a plaited plate slanting upwards; both merge into an upright comb with a slightly wavy contour, parallel with the arches. This comb rises in the centre to a thin peg carrying on the tip a plaited bird’s head with a wide-open beak and visible tongue. The eyes are interconnected by a blank hole through the head. The head looks like that of a duck. The lateral parts of the comb are evidently to be regarded as the bird’s wings, and a wide, rounded, plaited process pointing backwards and alighting on the rear arch, as its tail. On this process is a strong rattan loop. Still to be mentioned are two narrow plaited bands, with both ends on the front arch. The plaiting style is, in part, that of the bird body H.S.7132 (see Fig.219), and partly that of mask. H.S.6628, (see Fig.222). [420]

Dance Implements

Dance staves

The following are designated by their collectors as ‘dance boards’ or ‘dance staves’. They have never been seen used as such, but since they could hardly be used for any other purpose the designation is probably correct, especially as their local name seems to reveal a connection with the spiritual cult. In two of them the characteristics are the same as in many of the death figures; it can therefore probably be assumed that the figures represented on the boards are the figures of deceased people.

H.S.6555, Kōpār, **dance board** (*kātēbōñ*, Müller; length 87 cm), Plate LXXXIV,4, carved out of wood in filigree style. The piece shows a certain similarity with the boards described in the chapter ‘Houses and Dwellings’ (p.123 *et seq.*) used for cladding the walls of the ceremonial houses in the lower reaches (cf. Plates XIX and XX). Depicted just below the upper end, is a three-dimensional true-to-life human head. Above it are three pegs, perhaps intended to represent the wings and tail of a bird figure. Beneath the head is a sickle-shaped disc: probably the representation of a mother-of-pearl neck ornament (cf. Plate XI,2); and below this are two peaks slanting downwards and outwards, and finally a body with clearly recognisable extremities and [421] a markedly enlarged penis extending right to the feet. The feet stand on the thick upper end of a peg, which tapers downwards, probably serving as a handgrip. On the right arm is a simply plaited narrow rattan armband. A rattan band is looped around the neck with a second band fastened above the downward-pointing peaks already mentioned. There are traces of red, white, and ochre paint on a dark-brown background all over the front of the carving. The back is undecorated and fairly roughly carved.

H.S.6554, Kōpār, **dance board** (*kātēbōñ*, Müller; length 102.5 cm), carved similarly to the preceding specimen in filigree-style, although somewhat more solid; the holes are only small. The humanoid head is somewhat flatter, and the arms and legs are more markedly stylized than in the preceding specimen; hands and feet are not represented. The penis is thick but short. Again there is a sickle-shaped neck ornament between head and trunk. Over the head is a long, wide peg tapering upward, with a single hole in the middle; its lowermost section sends out two wide peaks slanting downwards, each with a red fleck surrounded by several concentric circles. The front of the board shows traces of red, white, and ochre paint on a dark-brown background. The back is undecorated.

St.Ha.61603, “Sobando”, **dance board** (?), (length 94 cm, maximum width 15 cm), Plate LXXXIV,5. Up above are two three-dimensionally carved human heads, their foreheads projecting somewhat. The nose has thick sides, deep nostrils, and a pierced septum. The mouth consists only of a short narrow groove; the eyes are deep holes. Four birdlike figures are carved above the head, pointing upwards, with their tails resting on the head hair. The wings of the two middle birds each have two holes through them. Below the human heads the board has two sickle-shaped holes, one above the other, below this a broad ridge, and below this again a latticework of six vertical sticks. Further below is a second transverse ridge, a second latticework similar to the first, and a third transverse ridge. Then the board tapers gradually finally ending in a sharply-defined peg. The upper part of the board has red paint in its hollows. Both of the transverse ridges are embellished with red concentric ovals, the perpendicular sticks between them with horizontal red dashes. In front of the lower end lies a wide red line and then, alternating, three narrow white lines and

two narrow red lines.

H.S.1798, Kōpār, “**dance staff**”(??), (*tūkūmān*, Fülleborn; maximum length 47 cm), in the form of a bird’s head on a long neck. The somewhat forward-bulging eyes are each surrounded by two incised rings. The bill is straight, very long, and somewhat open. Behind the bill slit is a transverse hole bored through the head, with a red-dyed tuft of grass pulled through it. A ridge runs in the midline over the entire head and bill with a series of indentations behind the bill, forming small slanting scales. Just in front of the eyes the ridge has a transverse hole. The neck is bent sharply forward with its lower end slightly thickened. Only little remains of the painting: on the left side of the head the beak is red and the surrounds of the eyes are yellow; on the right it is the reverse, with the beak yellow and the surrounds of the eyes painted red and yellow; the colour is well preserved especially in the depressions of the circles around the eyes. On the left side the tip of the bill is white.

St.Ha.61714, “Simar”(??), **dance staff**, (length 114 cm, maximum width 8 cm), Fig.432, painted red, in the shape of a canoe paddle with a short handle. The wide part starts out on each side with a carved, highly stylized face, reminiscent of those of the death masks H.S.6730, H.S.1811, and others. The forehead juts out strongly over the nose; the eyes lie obliquely in a sunken area. From the tip of the nose along the midline of the paddle blade to the end, runs a ridge, filigree-carved in places, possibly representing the beard, or a snake.



Fig.431. Dance staff H.S.1798, 1/4 actual size



Fig.432. Dance staff
St.Ha.61714, 1/10 actual size

Dance Spears

The last-mentioned piece leads us in to the following: spears with often very wide blades like canoe paddles, designated to us as, “dance spears”. They all have a tip growing out of a human figure with which even more figures are amalgamated. The significance is probably this: the spirit itself is the tip, the effective part of the spear. The shaft of these dance spears consists either of cane or is carved from the same piece of wood as the tip; with

few exceptions it is usually richly adorned with feathers; they are protected from dirt and animal attack by a thick wrapping of leaves. All of them come from the river mouth area. [422]

H.S.6582, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 191 cm), Plate LXXXV,1, shows the simplest and probably the earliest form: a human face with the chin pointing forward and a short body beneath, with only the chest part and arms represented; the lower body, including the legs, is extended into a long flattened tip. The back of the human figure is completely smooth. Above, behind the head, are four peaks on each side, and a low sagittal bulge is added to the front.

H.S.6580, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 168 cm). Here the spirit face is very much less three-dimensional; neck, trunk and limbs merge with the tip. Just under the chin are three parallel, flat, raised areas angling forward in an arch, the foremost being drawn out into a long flat ridge running lengthwise right to the very tip. The front side of the completely smooth tip, bearing the face, is flat while the back is slightly curved. The coloured decoration is minimal: several groups of red transverse lines.

H.S.6581, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 202 cm). The spirit's head is very three-dimensional; the forehead juts forward, the eyes are tiny buttons, the prominent nose has wide, well-developed sides. The depressions are painted white, and each eye is enclosed by a red ring. Of the body only the part above the hips is represented; the arms are isolated by shallow white-painted grooves. The abdomen, bordered by an horizontal incision, together with the legs, is extended into a narrow, elongated smooth tip, with a fairly-strong, rounded longitudinal ridge on both sides. Transverse red and white stripes are the only decoration. The rich adornment of feathers decorating the shaft is particularly carefully wrapped in leaves.

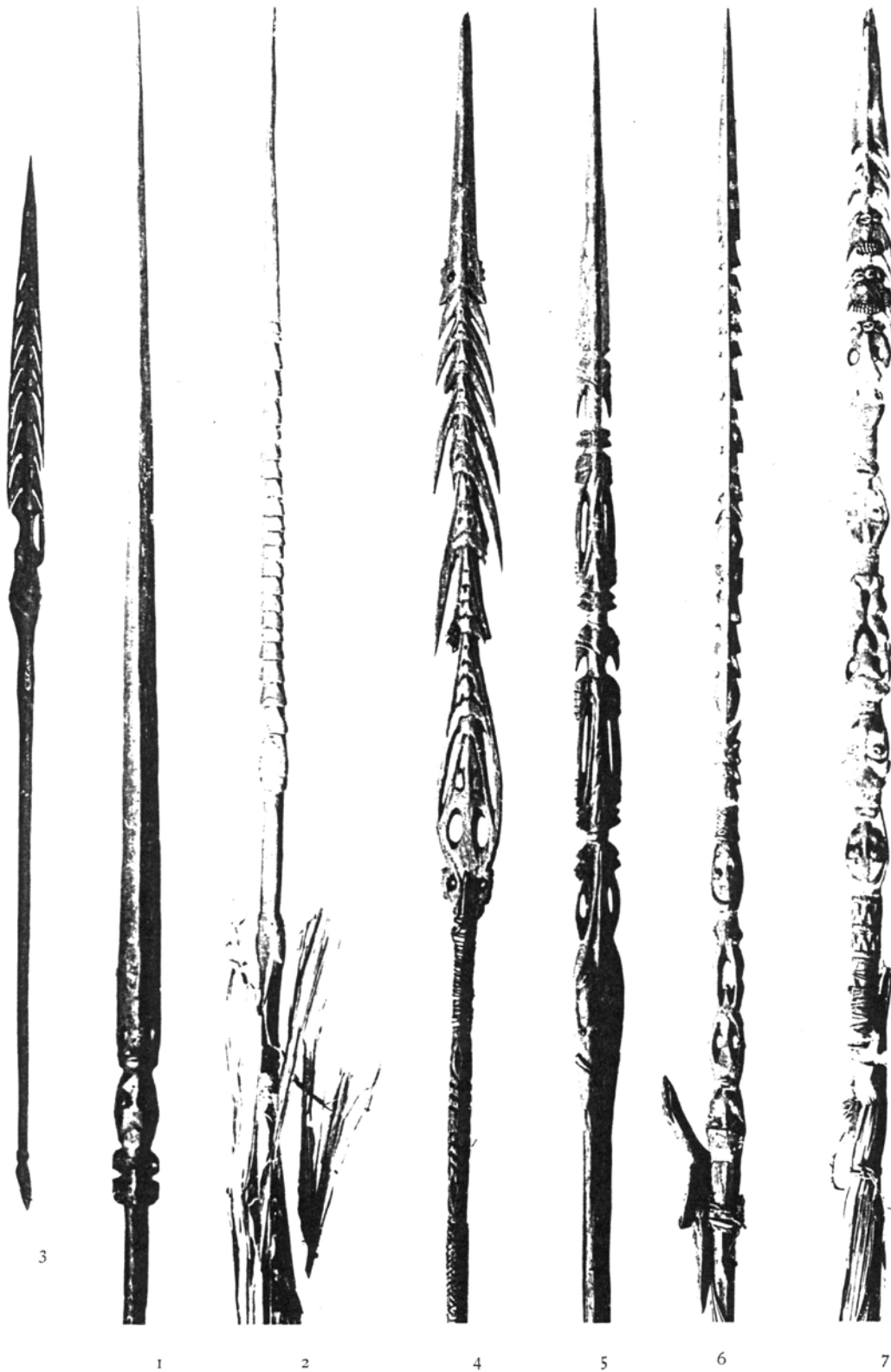
H.S.6595, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 178 cm), Plate LXXXV,2. The spirit face is only sketchily carved. The tip is beset with step-like indentations on the back and totally is smooth in front. The incisions of these peaks are painted red. Behind the head a slight thickening marks the division between tip and shaft. In this specimen too the rich feather decoration, consisting of black, white and brown feathers, is tightly wrapped in leaves.

H.S.6583, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 183 cm). The entire spirit figure is recognisable here. The face is fairly flat, the nose very broad; the depressions are painted red. The neck is missing. Recognizable on the chest are vestiges of a white-painted, semilunar area, a (mother-of-pearl?) ornamental plate. The arms are divided off by filigree, with hands on hips. The legs, calves turned outwards, lie close together and extend right to the flat tip of the spear. This starts out on each side with a blunt barb although the rest is completely rounded. Only the sagittal central ridge has shallow indentations repeating the form of legs and feet; added laterally to them are shallow grooves running obliquely backwards, probably representing barbs. On the fairly wide surfaces of the tip are red and white transverse bands.

St.Ha.61748, “Jaunda”(?), “**dance spear**” (length 198 cm), Plate LXXXV,3, similar to the previous specimen. Of the figure only head and thorax, including the arms, are represented; the rest blends with the tip. The latter resembles especially that of “dance staff” St.Ha.61714 (cf. Fig.432). It is very wide but pierced by incisions slanting downward; the barbs thus formed are long and strong, their tips merging. Along the midline of the spear tip runs a strong ridge decorated with indentations. The spirit face, as opposed to those described so far, is a double face: one side is carved in relief while the other is only shallowly carved; it has the form very common in the coastal region, with a long, beak-like nose. The downward elongation of the very sharp-edged bridge of the nose has a knotty thickening at the end, touching the middle of the belly of the figure. The nostrils are long, drawn-out grooves running alongside the bridge. From the widely-spread sides of the nose a strong narrow ridge runs laterally on each side, climbing upward alongside the eyes, and merging into the projecting forehead. The eyes are oblique, almond-shaped bulges projecting out of a sunken area. Behind, at the end of the shaft, is the roughly-carved head of an animal, possibly a crocodile.

H.S.6594, ǀmbántǀn, **dance spear** (*nǎngǎrō*, Müller; length 183 cm, length of the cane shaft 108 cm). The tip begins with an extremely thin spirit figure, represented in every detail. Eyes, nose and mouth are clearly recognizable in the narrow face. The upper arms point steeply downward with the forearms slanting upward so that the hands meet over the chest. Waist indentation and the start of the thigh are lightly marked, with the legs separated by a lengthwise slit, the feet merging onto a small round pedestal. Thus the actual tip is attached solely to this pedestal, the rear surface of the tip being furnished with two rows of blunt barbs while the front is completely smooth. On each side it shows a strong longitudinal ridge in the midline. Added above, behind the head, are a plaited band and a separate plaited ring. The cane shaft is [423] fastened on with a plaited rattan band; it does not have any feather decoration.

Reche, Empress Augusta River, Plate LXXXV



Dance spears. 1. H.S.6582, 1/5 actual size. 2. H.S.6595, 1/5 actual size. 3. St.Ha.61748, 1/10 actual size.
 4. H.S.6588, 1/5 actual size. 5. H.S.6591, 1/5 actual size. 6. H.S.6593, 1/5 actual size. 7. H.S.6590, 1/5 actual size

H.S.6588, Țmbântön, **dance spear** (*năngărō*, Müller; length 212 cm, length of the cane shaft 125 cm), Plate LXXXV,4. Here the face presented on both sides is heavily stylized. The eyes are oval bored holes. The body merges completely with the tip. The posterior, larger section of the tip is lined with very long thin barbs, a number of which have broken off. The weakly developed central ridge has transverse indentations. The tip is fastened to the shaft with an intermediate piece embellished with a deeply incised decoration. The shaft has a rich feather decoration wrapped in leaves.

H.S.6591, Țmbântön, **dance spear** (*năngărō*, Müller; length 200 cm), Plate LXXXV,5. Tip and shaft are carved in one piece. The spear markedly resembles the preceding spears; here too the spirit face is heavily stylized. The decoration of the tip is even more complex. The facial representation (the back is smooth) is three-dimensional. It is in the style of the bird-beak masks and has a markedly elongated beak-like nose and slanting eyes. The clasps added alongside the nose are probably the sides of the nose and the nostrils. There are two further human bodies in the rich filigree carving of the rest of the tip. Of the colours, they use red and dark brown; depressions all show vestiges of red. The shaft is surprisingly poorly carved, with only a roughly-treated, uneven surface; probably this was covered in feathers, but these have disappeared.

H.S.6592, Țmbântön, **dance spear** (*năngărō*, Müller; length 192 cm), strongly resembling the preceding piece. However, the figure, especially the face, is naturalistically presented, with clearly recognizable arms and legs appended to the torso.

In all the following dance spears, the facial representation is repeated in the carving of the actual tip.

H.S.6593, Țmbântön, **dance spear** (*năngărō*, Müller; length 195 cm), Plate LXXXV,6. Below a clearly recognizable human male figure, produced true-to-life in every detail, is a face of the same type, its neck adorned with a small plaited band; face and figure have a smooth back. The actual tip has short barbs, some pointing forward, others backward, with red and white transverse stripes and depressions painted in the same colours. The shaft is richly decorated with feathers and is wrapped in leaves. The most interesting feature of the spear is a wooden bird figure fastened with bast fibre to the point where the tip is attached. It has an outstretched neck with a small head and short beak, short wings, and a surprisingly wide, long tail decorated with two engraved, symmetrical spirals; these are painted red and look almost like representations of eyes. The underside of the body has a longitudinal step with a transverse hole, through which runs the attachment cord.

L.Me.8984, “Radja”, **carving** (length 30 cm), of unknown significance, Fig.433; resembles the bird figure added to the previous spear, and has perhaps been used in a similar manner. The beak is surprisingly strongly curved. The wings are formed from short, somewhat projecting oval areas decorated with a chiselled spiral. Between the wings, both on the back and on the breast, is a longitudinal 5 cm step with a hole through it. The bird’s tail is very long and wide.



Fig.433. Carving L.Me.8984,
1/5 actual size

H.S.6579, Țmbântön, **dance spear** (*năngărō*, Müller; length 182 cm), similar to the preceding spear. The spirit figure is even more carefully carved in every detail, although somewhat more slender and better proportioned than that of spear H.S.6590, (see below), which it otherwise strongly resembles. The face is flat. The nose has very plump, broad sides on the front of which are incised the large, deep, slanting nostrils. The figure’s feet stand on the forehead of a second face which is heavily stylized, with a long bird-beak nose which, (like H.S.6591, see Plate LXXXV,5) has lateral arches. Five pairs of barbs are added towards the front. The flat ridge running in the midline of the tip has several notches.

H.S.6590, Țmbântön, **dance spear** (*năngărō*, Müller; length 169 cm), Plate LXXXV,7. On both the upper and lower halves of the spirit figure is a realistically-produced, stylized face, with a third face below the latter, showing a bird-beak nose with arches added to the sides. Following this, towards the tip are two rows of short, curved barbs, painted alternately red and white. Fastened between them are small decorative bands consisting either of plaiting or little chains of *Nassa* shells. Above the face furthest to the rear are two circumferential, three-dimensional [424] zig-zag bands. The shaft is richly festooned in feathers and carefully wrapped in leaves.

H.S.6589, Țmbântön, **dance spear** (*năngărō*, Müller; length 183 cm). Beneath a spirit face sit two faces side-on, back-to-back. Otherwise the tip resembles that of the previous specimen. Two sites free of barbs are wrapped, one with a wide plaited band, the other with a cord of human hair.

H.S.6585, Țmbântön, **dance spear** (*năngărō*, Müller; length 167 cm). Here at the base of the tip is a complete male figure resembling that of spear H.S.6592 (see above), carved fairly shallowly and very long. Its feet are standing on a stylized face with a bird-beak nose. The actual tip shows three pairs of long, widely-separated barbs and red transverse stripes on a dark brown background. The faces are carved on one side only, the back is smooth.

H.S.6586, Īmbántōn, **dance spear** (*nāngārō*, Müller; length 187 cm). Of the figure, only head and trunk remain. The head is disproportionately large; on the front is a flat, realistically-carved facial representation with a bird-beak nose and slanted eyes; and on the back is a similar, stylized facial representation. The actual tip has two pairs of widely-separated long barbs. Between them is a markedly stylized face on a protuberance, with both front and reverse sides similarly carved. The shaft of the spear has an especially rich adornment of feathers.

H.S.6587, Īmbántōn, **dance spear** (*nāngārō*, Müller; length 174 cm); differs from the preceding specimen only in the three-dimensional representations being restricted to one side. Besides this, the reverse side is damaged; parts of it have split off. The left arm of the figure, and one barb have broken off. The shaft has no feather decoration.

H.S.6584, Īmbántōn, **dance spear** (*nāngārō*, Müller; length 156 cm, length of the cane shaft 96 cm). At the rear end of the tip sit two human faces, one closely behind the other, with a third face 2 cm to the front. All three are produced true-to-life in shallow three dimensions, and are of the same type. The furthest forward has a fairly wide rim with several holes; in these holes are fastened several small strings and a little chain of *Coix*. Originally the tip showed three pairs of long barbs, most of which have broken off, with only two remaining. The cane shaft, unadorned with feathers, is connected to the tip by an irregularly-plaited, wide rattan band.

Dance rattles

St.Ha.61634, “Jaunda”, **dance rattle**, Plate LXXXIV,6; probably held in the hand; a framework of several firm rattan arches bound together, from which a number of open nut shells hang on cords. The whole thing is dyed black.

L.Me.9020, “Empress Augusta River”, **dance rattle**, Plate LXXXIV,7. The same kind of nut shells hang by cords from a long plaited band. The item is designed to open and shut, and was probably worn as a girdle around the waist.

Items of baffling significance

Nothing could be found out about the use and significance of the following items. Only the faces and heads represented on them, their unique form which seems to exclude any kind of practical use, and the fact that one example was designated as *balāngu* (spirit?), induce me to include these pieces among the ceremonial instruments. The objects have a woodwind-like, completely hollowed-out body, which is, however, interrupted along almost its entire length by a very wide transverse split. No kind of sound could therefore be produced by these instruments. They always end in an animal head at the bottom, while they carry a facial representation at the top.

H.S.9054, Kāmbrīnūm (*balānu*, *balāngu*, Hellwig; length 52 cm), Plate LXXXIV,8; slightly curved tube with a wide cavity. Due to the wide slits on both sides, the upper and lower parts of the instrument are almost completely separated from each other; two wide arches, one in front and one behind, form the only connection. A triangular, slightly elevated area occupies the upper part of the posterior arch, and has [425] jagged edges. The central part of the back is smooth and polished in form, looking as if it had often been rubbed along; what is more, this was the only sign of use of the object. It is possible that by rubbing here, a sound is produced, but on my attempts I have at best produced only a squeak. The anterior arch is decorated on the front with three lengthwise parallel, three-dimensional wavy lines. On each of its edges — one is damaged — are three holes, probably for attaching decorations. Above it, is a large stylized face with a broad flat bird’s-beak nose. The edges of the nose are elongated upwards into a ridge, which transforms into a sharply-delineated border framing the whole face. This edge too has a row of holes in which are still, in places, short strands of rattan, probably remnants of an extensive decoration. Above this face is a transverse hole, and above that an indistinct animal head with two eyes, occupying the upper end of the instrument. The lower end is taken up by a



Fig.434. Carving
St.Ha.61696,
1/5 actual size

much more carefully produced animal head with a big tooth soaring upwards from each side of the lower jaw. On the back of the head is a small, totally three-dimensional hoop.

St.Ha.61696, Sīngrīn, (length 56 cm), Fig.434. At the upper end of the piece is a human face with lifelike features. The bridge of the nose is narrow, the sides wide, and the nostrils round and deep. The eyes consist of round buttons lying in a circular sunken area. The face rim has ten holes bored in it. With the exception of the mouth, the depressions are painted white. The front arch of the body is bedecked with white, incrustated carving in *bas-relief*. The rear arch has a few incised lines. The lower end of the instrument is occupied by a beautifully-carved cockatoo's head with the tongue visible inside the open beak.

Musical Instruments

Musical instruments in the true sense are very rare on the Empress Augusta River, just as everywhere else in German New Guinea. Most of them serve exclusively for sounding an alarm.

Blowing Instruments

Only a few tones can be achieved on the woodwind instruments found along the river.

Flutes. Of an instrument very widespread throughout the South Seas, the pan flute, only one specimen is known so far from the Empress Augusta River; Neuhauss (1911, p.384, Fig.306b) illustrates it. It consists of three tubes of different lengths, open at both ends and bound side by side in one plane.

All other flutes collected so far on the Augusta River seem to have served ceremonial purposes. We have never heard them used in this manner; indeed we never had an opportunity of being present at any sort of ceremony. However, since very similar instruments are used for religious celebrations by the Monúmbo, whose dances and ceremonies are related to those of the Augusta River, one can probably assume that, in our area, their use is roughly the same. This assumption is supported by the fact that, in the lower reaches of the Augusta River, flutes are designated by the same name as among the Monúmbo, [426] namely *murúp*. Vormann, (1911, p.419), writes quite extensively on the *murúpika* of the Monúmbo. This name covers long bamboo flutes, "by means of this, the men produce certain modulations which are represented to the women and children as the cry of the *murúp*. According to the men's comments, this *murúp* is a monster, which comes out of the ground, communes only with men, but kills women and children. (*Murúp* is therefore originally the designation for a spirit, and only secondarily transferred to the flute, cf. p.399). The flutes are played particularly at the completion of a chief's house (this means probably the houses of *toaránga*; there are no actual chiefs among the Monúmbo (see Pöch 1908, p.140)), at the first clothing of youths, and at the burial of a deceased male. They are extremely carefully concealed from women and children, and absolute secrecy is preserved extremely carefully." They are stored in men's- or youth's houses. Among the Monúmbo these flutes appear to have lost something of their original importance, because formerly they were played probably only at youths' initiations, where they served to keep women and the uninitiated away from the ceremonies. Thus the supposition that they are used for the latter purpose on the Augusta River is supported by the fact that the other noise-making instruments, the bull-roarers, usually used in initiation ceremonies, are also found, (see pp.349-351).

These types of ceremonial flutes seem to occur along the entire stretch of river that we travelled. They were always stored in the ceremonial houses. Among them, construction can be subdivided into two kinds: One is open at both ends and therefore does not belong among the flutes in the strict sense. These instruments are blown in such a way that the mouth is pressed gently over one end and then, as in blowing a trumpet, the pursed lips are allowed to vibrate while expelling a stream of air; this generates a muffled, roaring sound. As Vormann (1911) reports, the similar Monúmbo flutes are blown in the same manner, which is, moreover, the only way that the instruments emit any sound. The second kind of flute has a hole on the *side*, and is therefore played like a normal flute.

The following specimens belong to the first group. The first three of them were deliberately crushed, either in order to achieve the most inharmonic sound possible, or to render them completely unusable.

H.S.6559a, Kōpár, **ceremonial flute** (length 56 cm, diameter 3.5 cm), made from bamboo cane. The specimen has two kinds of decoration: added just beyond the mouth end is a wide ring plaited from rattan strips in six-stranded twill-style, resembling a wooden cotton reel in shape because a separate plaited wheel is situated at both ends. The entire space between the two plaited wheels is occupied by a thick, plush-like trim of knotted tufts of red-dyed grass; the upper plaited wheel is decorated with a row of *Nassa* snails extending onto two suspended tassels of cord plaited onto the rim. The entire section of the flute below this decorative ring was covered in paint, of which only small vestiges still remain.

H.S.6558a, Kōpár, **ceremonial flute** (length 53.5 cm, diameter 4 cm), Fig.435; made from bamboo cane, almost identical with the [427] former, except that on one side of the plaited ring (which, moreover, is not decorated with *Nassa* shells), is a long hanging fringe, and also, the painting on the lower part is very much clearer. The design is in white on a russet background, and arranged in two bands, one above the other; several parts between them seem to have been painted red.

H.S.6557a, Kōpár, **ceremonial flute** (length 55 cm, diameter 4 cm), made from bamboo cane similar to the preceding flute. Here the plush trim added to the plaited ring includes cream fibres and several feathers as well as the red bunches of grass; longer bunches of bast fibre hang down in two places. Only vestiges of the painting still remain; it appears that this consisted of ovals and spirals produced in white, red, and black.

H.S.6556a, Kōpár, **ceremonial flute** (length 56 cm, diameter 4 cm), made from bamboo. The plush trim of the plaited ring consists of four ring-shaped parts overlapping one another like roof slates. Fastened to one side is a long bast fibre hanging and four little chains consisting of strung *Coix* seeds with small feathers at the ends. This decorative hanging only comes into its own when the instrument is held almost horizontally; it can therefore be assumed that these flutes are played in this position. How this specimen was painted can no longer be ascertained; two broad bands, one above the other, are vaguely recognizable; and in addition, pale narrow crisscross lines can be seen on the surface, probably traces of a wrapping of thin cords.

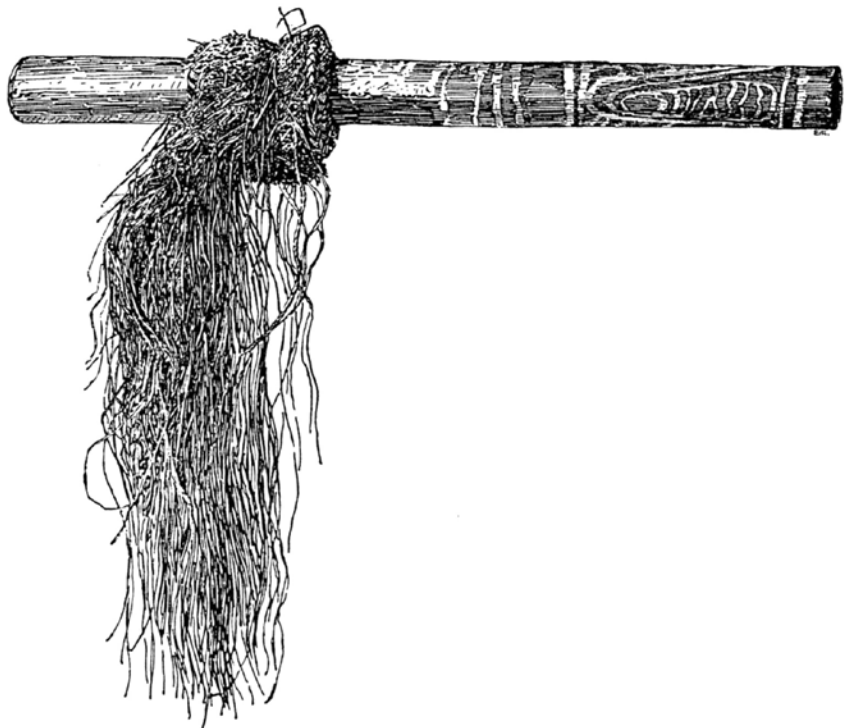


Fig.435. Flute H.S.6558a, 1/5 actual size

The following instruments belong to the second subgroup: they have an opening on the side, and are closed at the upper end but open at the lower end.

H.S.6546, Kōpār, **ceremonial flute** (*āinḡbōr*, Müller; length 73 cm, diameter 3.5 cm), Fig.436; made from bamboo. The end nearer the mouth is closed by a natural cross-wall of the bamboo; a piece of the next internode remains, and, together with an inserted soft-wood stopper, serves as the nucleus of a cap-shaped wrapping produced from strips of rattan, (triple-stranded twill-style), with a short hanger fastened to the end. The mouthpiece is oval, its long [428] axis at right angles to that of the flute. Loosely attached below with bast binding is a ring made from knotted-on bunches of bast fibre. Paint is absent; the whole thing is heavily blackened by smoke.

H.S.6548, Kōpār, **ceremonial flute** (*āinḡbōr*, Müller; length 65 cm, diameter 3.5 cm), made from bamboo, almost the same as the preceding specimen; it lacks only the decoration with tufts of grass.

Astonishingly, the following specimens were played for Hellwig. It is therefore possible that this was a type of flute used for other festivals and permitted to be seen by women; of course the local designation probably also allows the conclusion that its sound too is regarded as a spirit voice.

H.S.9071, Kāmbrīnūm, **ceremonial flute** (*barāñ*, Hellwig; length 147 cm, diameter 5.5 cm), Fig.437; includes three internodes of a huge bamboo tube. The cross-walls are removed down to one, which closes off the end next to the mouthpiece, so that a long tube arises, open below. The almost circular mouthpiece is burned into the wall; branded around it is a decoration of spirals and short curved lines (Fig.438). An ornamental band produced in the same manner runs around the middle internode (Fig.439). As additional decoration the flute carries two plaited bands made from strips of rattan: one produced in taffeta-style, the other in reversible, four-stranded twill-style; the latter surrounds the lower end of the flute. According to the collector, this, like the instrument immediately following, is played like a European flute, by placing it against the lower lip; thus several sounds can be produced.

Neuhaus, (1911, I, p.384), has dealt similarly with an instrument of this sort, regarding it as a ceremonial flute. He reports on its use: they are “played as a duet, with different sounds, and so the chord gives the impression that it is the howling of an animal”.

H.S.9072, Kāmbrīnūm, **ceremonial flute** (*barāñ*, Hellwig; length 167 cm, diameter 5 cm), almost the same as the former, similarly consisting of three internodes. The branding surrounding the mouthpiece is similar but simpler than in the previous specimen. Two wide rings plaited in taffeta- and twill-style surround the knot holes. A thick plug of soft wood is pressed into the remaining vestiges of the internode, thus closing off the mouth end.

St.Ha.61753, “Jaunda”, **ceremonial flute** (length 225 cm, diameter 15.6 cm), Fig.440, designated by the collector, Captain Haug, remarkably as a “dance staff”. The mouthpiece, about 2.5 cm in diameter, is burned into the wall; its surrounds are undecorated. At the mouth end, a wooden peg is let into the hollow of the tube. On its free end, it bears a carving of a human head, perhaps intended to represent the spirit whose voice is reproduced by the flute. The face has a thin form with slightly accentuated cheek bones, resembling the masks of St.Ha.61707 type. The eyes lie deeply and consist only of a slit-like incision; the bridge of the nose is sharp, its sides broad, and the septum is narrow and perforated. The mouth is a transverse bulge from which projects an indistinct tag-like object, probably the tongue; the chin is fairly pointed. The small ears are situated somewhat lower than the eyes on the side of the head, and each has a perforation. The head is surmounted by a short bung. The part inset into the bamboo tube has a transversely bored hole, through which is pulled a rattan loop, probably serving as a hanger. The flute is decorated with plaited bands; one, 8.5 cm wide, serves for fastening the wooden head, a second, measuring 1.5 cm, sits closely beneath; the other two (2 and 7 cm wide respectively) are at the other, open end of the flute; a narrow ring-shaped plaited strip is fastened to the wider band by means of several cross-braces running in zigzags.

We also saw similar, very simple flutes, about 1.5 metres long, decorated only with plaited rings, in the ceremonial houses in 252 and 293 km-villages.

Probably the following specimen served similarly ceremonial purposes, eliciting short, muffled, barking sounds.

H.S.9130, Māndānām, **pipe** (*wānk*, Hellwig; length 12 cm, maximum diameter 4.5 cm) Fig.441, made from a nut. The inside is hollowed out, the aperture, about 1.5 cm in diameter, is rather oblique; the [430] sound is produced only when the lower lip is laid against the deepest point of the circumference of the orifice. The lower tip of the nut is isolated by an incised, shallow, circumferential groove.



Fig.437. Flute
H.S.9071,
1/10 actual size

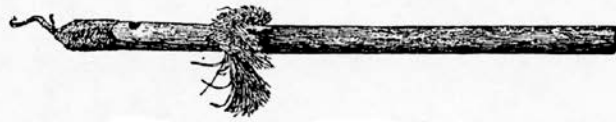


Fig.436. Flute H.S.6546, 1/5 actual size

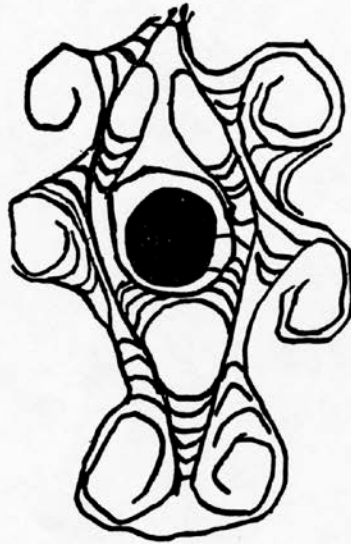


Fig.438. Decoration around the mouthpiece of flute
H.S.9071, 1/2 actual size



Fig.441. Pipe
H.S.9130, 1/4 actual size

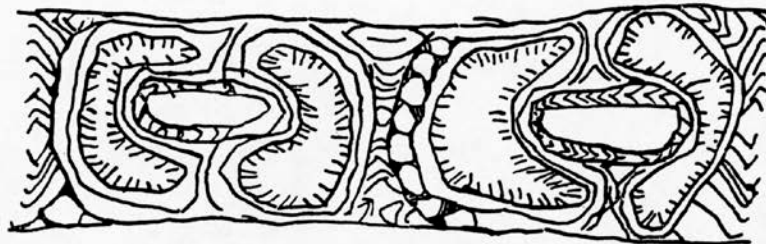


Fig.439. Decorative band of flute
H.S.9071, 1/2 actual size



Fig.440. Flute
St.Ha.61753,
1/10 actual size

Horns. Among the wind instruments, besides flutes there are also trumpets made from wood and having the shape of a slightly curved cattle horn. Schlaginhaufen (1910b, p.36) has already alluded to the extreme oddity of this fact, "This object carved out of wood resembles — the connection may seem far-fetched — certain African objects, and with its horn-like form is even more surprising when the animal world of New Guinea, at least as far as we know so far offers no basis for such a representation."

These horns are blown — Hellwig subjected himself to the attempt — by pressing the lips against the oval mouthpiece on the side and causing it to vibrate by blowing into it, thereby producing a long howling sound which, as I concluded from my experiments, is quite easy to modulate. The small horns produce relatively high-pitched sounds, the big horns deep muffled sounds. The sound of the horns carries an extraordinarily long distance. They seem to use the instrument only as signal- or war horns: in almost every village in the middle reaches, we heard the wails of the wooden horns as well as the sounds of the slit drums on our approach, as they evidently alerted the entire village.

H.S.1846, Ängöröm, horn (length 58 cm, maximum diameter of the mouthpiece 9 cm), Fig.442; carved from a solid piece of wood, almost straight in shape. The hollowing-out extends only as far as beneath the oval mouthpiece on the side; the pointed end of the horn is therefore solid. Just before the open end, the instrument is enveloped in a very markedly-projecting decorative band carved in relief, whose whole character resembles the decoration of the pots



Fig.442. Horn H.S.1846, 1/5 actual size

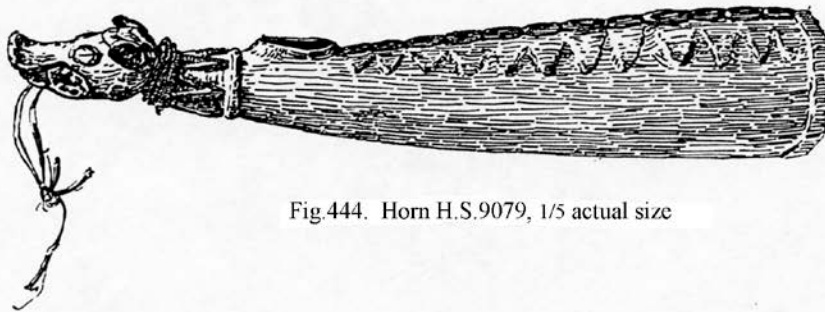


Fig.444. Horn H.S.9079, 1/5 actual size



Fig.443. Mouthpiece of H.S.9230, 1/2 actual size

with added sculpture; it consists of a chain of ring walls deepened in the middle and bordered on both sides by a narrow, very prominent edging strip. Just before the mouthpiece are several barely recognizable incised circular figures; furthermore, on the upper surface are several irregularly divided groups of short, slash-like indentations. The horn is almost uniformly circular in cross-section.

H.S.9230, 293 km-village, horn (length 67.5 cm, maximum diameter of the mouthpiece 12.5 cm), Plate LXXXVIII,1; wooden, slightly bowed lengthwise. On the upper side in the midline, that is, along the line of the mouthpiece, runs a sharply-pronounced edge. Also, the horn is somewhat flattened laterally, and so the cross-section is not round but rather sharply oval. The mouthpiece is spindle-shaped and is suitable in size for the mouth. The bell-mouth has a somewhat thickened rim, slightly detached from the rest of the surface, with triangularly recessed areas incised in it. The pointed end of the horn is fashioned into a beautifully-carved crocodile head, whose lower jaw has, for the most part, broken off a long time before we acquired it — the broken places are polished by use and have the same dark shade as the surrounding area. Just before the place where the head is, the solid tip of the horn has a transverse hole on the underside; a rattan loop is fastened in the eyelet thus formed. The piece has two further remarkable features: just beside the mouth aperture is incised an X-shaped figure (Fig.443), perhaps an ownership or maker's sign (cf. Fig.347), and on the underside is a slit, which probably rendered the instrument unusable, sealed by a dark layer of gum.

Two horns described by Schlaginhaufen, (1910b, pp. 35 and 36), are similar, and are also decorated by crocodile heads. One of them also shows the slightly compressed shape of the sides. In it the entire upper surface, “is covered in lightly chiselled linear decoration . . . Roundish-oval areas dominate the decoration”; in many places the decoration gives the impression of reptilian armour. In the second piece, from the mouthpiece, “a serpentine contour follows the line of symmetry, and ends 5 cm away. It is probably [431] a representation of a snake, the mouthpiece being regarded as its head.” Both specimens come from the “end village”.

H.S.9079, Kāmbrīnūm, **horn** (length 55 cm, maximum diameter of the bell-mouth 8 cm), Fig.444. The piece is more markedly curved longitudinally than the preceding specimens. It is almost circular in cross-section as the lateral flattening is absent. The oval mouthpiece shows a lip-like projecting rim, enabling the lips to be applied to it. The pointed end of the horn presents an extraordinarily lifelike and artistically carved dog’s head, with pointed ears directed somewhat forward, eyes inlaid with mother-of-pearl, and a slightly-open muzzle showing all the teeth. The two very long canines and the incisors of the lower jaw are produced particularly carefully. The underside of the muzzle is, surprisingly, carved in filigree-style, so that, to some extent, only the bones are represented, and one can conveniently grip the muzzle from below. At the same time the muzzle serves as the eyelet for the hanger, consisting of a rattan band, drawn between the teeth. The dog’s head is painted red. A double-stranded cord dyed russet brown is wound four times around the neck; behind this, a type of neck band is represented in solid relief carving: a zigzag line running round, accompanied by two prominent strips. On the upper side of the horn, from the mouthpiece right to the bell-mouth, is a row of progressively-larger, projecting, oval areas, depressed in the middle and accompanied on each side by a row of triangular, scale-like raised areas. The rim of the bell-mouth is enclosed by a slightly thickened rim somewhat detached from the bordering area. On the underside of the horn are eleven parallel, lightly chiselled short incisions; perhaps also a mark of ownership.

H.S.9058, Kāmbrīnūm, **horn** (*yūāfi* or *tūāi* — the latter probably an imitation of the sound? — Hellwig; length 58 cm, maximum diameter of the bell-mouth 9 cm). Very similar to the previous piece, and likewise decorated at the pointed end with a dog’s head and displaying a row of scales along the upper side, although the chain formed from oval areas is missing from between them. Instead there is a barely discernible strip with nine short notches, close together and transversely incised. In this specimen, damaged in transit, the wall thickness can easily be determined: just before the bell-mouth it is about 1 cm, gradually increasing towards the

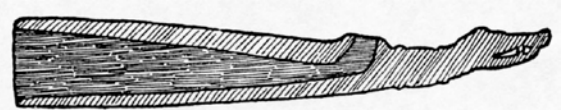


Fig. 445. Longitudinal section through H.S.9058, ca. 1/8 actual size

pointed end, and just before the mouthpiece on the underside it reaches 1.5 cm, and on the upper surface as much as 2.5 cm. Figure 445 shows a somewhat schematic longitudinal section through the instrument.

H.S.9211, 293 km-village, **horn** (*kūl*, Hellwig; [432] length 92 cm, maximum diameter of the bell-mouth 12 cm), Fig.446. Of the same type as the preceding horn, although lengthwise rather more distinctly curved. It is almost circular in cross-section. In the midline, along the upper surface, a slightly raised strip runs the entire length of the instrument. The oblong-oval mouthpiece is surrounded by a spindle-shaped, somewhat raised area. The pointed end of the horn presents a representation of a human head of the type found for example on the stool H.S.6027 (see Fig. 103 p.165) and on a number of masks. The eyes are formed by deep oval lines, the mouth by a strong bulge with a mouth slit. The nose rises only slightly above the surface of the face: its sides are broad, the nostrils very deep and the septum is perforated. The ears are bean-shaped and both have two bored holes. On the back of the head is a transversely-bored robust arch for the hanging cord. Through this hole runs a second stronger but shorter cord, which represents a neck band running beneath the chin around the horn. The bell-mouth has a reinforced rim with an incised pattern of notches.



Fig.446. End of the horn H.S.9211, 1/5 actual size

A horn illustrated by von Luschan, (1911, Fig.20), ends in a bird’s head. The back of the instrument is decorated with an engraved fish-like figure, which is interpreted by von Luschan as a “stylized representation of a saw fish”.

Drums

Of the percussion instruments, both types of drum widespread throughout the Pacific are familiar on the Augusta River: the hand drum and the slit drum. The latter occurs along the entire stretch of the river that we travelled, and also above the Hunstein Range, the former appears to be restricted to the lower reaches and the lower section of the middle

reaches (as far as Málu?), at least the specimens collected up till now on the river come exclusively from this region.

Hand drums. The hand drums are always covered only at one end, and indeed usually with monitor lizard skin, more rarely with a piece of intestine (a feature also mentioned by Schlaginhaufen, *loc. cit.*, p.67). As on the whole neighbouring coast, they appear to be used only for dances.

Among the specimens that I know, four subgroups can be differentiated: firstly drums of the common hour-glass shape, widespread along the New Guinea coast; in these the upper and lower halves of the drum are shaped essentially the same. There is only a single handle, which stands out a long way as a strong arch, and allows a convenient grip. This type of drum is, it appears, always made from a fairly soft wood. Its relief decoration arises from the incision of narrow, deep and very precisely indicated lines. These drums seem to occur exclusively in the river mouth area.

Instruments of the second type are asymmetrical, and no longer show the unique hour-glass shape: in these the lower half of the drum is slightly domed, somewhat bulbous, and significantly broader than the upper half. The decoration resembles that of the first subgroup. Handles always seem to be lacking in these drums. This second form has been likewise found only in the river mouth area so far, but I consider it likely that they are not made on site but [433] are imported from the neighbourhood; for example we found examples of this type of drum also on Bám (Lesson).

The third subgroup too is asymmetrical, and also the lower half is significantly wider than the upper half, but here there is no indication of a dome; usually this lower section is relatively long and occupies as much as two thirds of the total length of the drum. The handle, which is always present, is usually formed by a realistically-produced animal representation which runs along the drum over quite a significant length, and is often fairly clumsy to hold. The drums of this type are all carved from surprisingly hard wood, probably because in the region where they are made softer material is lacking; as a consequence of their considerable weight their use in long-lasting dances must cause major strain. In these specimens it is always only the lower section of the drum which is ornamented: the entire surface covered by a carved pattern which is immediately surprising in its coarse roughness; it often gives the impression of an unskilled imitation of the decoration found in the first two types of drum. The specimens of this type without exception come from the lower middle reaches.

The fourth type presents a totally different form: here, the upper part is long and slender while on the other hand the lower section is short and markedly bulbous, often almost spherical; thus resembling the "beer tankard shape" found by Neuhauss among the Kai in the hinterland beyond Finschhafen. The handle is very much reduced; it is formed only by a thin bar. The decoration reveals connections with the second type. The material is soft wood. The specimens belonging to this type of drum were collected in the region just above the estuarine swamps. This type does not appear to be common, for we obtained only two specimens, while the other expeditions did not obtain a single one.

The following items belong to the first subgroup:

H.S.6768, Kōpār, **hand drum** (length 47 cm, maximum diameter 12 cm), Fig.447; covered with monitor lizard skin, the actual stretching apparatus is missing. The pattern made by deeply incised lines runs like a band around the narrow middle part, and, from there out to the rim on each side, run two wider, tongue-shaped areas extending almost to the ends of the drum. The pattern consists essentially of two meandering bands, which resemble the decoration described by the Monúmbo as "parrot entrails", (Schmidt 1903, p.77). In the vicinity of the lower rim of the drum are two short, transversely-incised strips. The widely projecting handle has animal heads at the point of

attachment; what type of animal could not be established. Fastened to the handle are a short band of bast fibre and a loop of red European material. The drum shows vestiges of uniform red painting. The walls have an average thickness of about 1 cm.

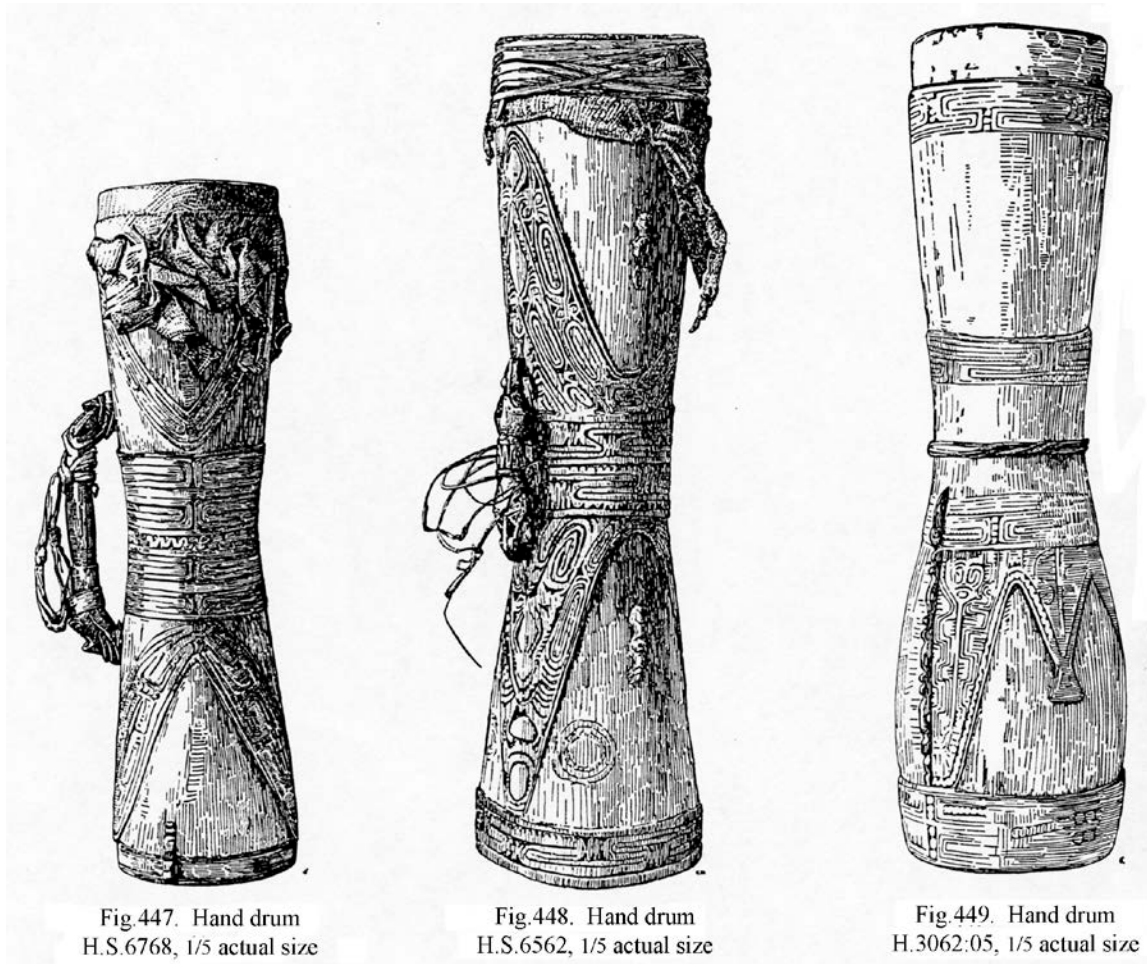


Fig. 447. Hand drum
H.S.6768, 1/5 actual size

Fig. 448. Hand drum
H.S.6562, 1/5 actual size

Fig. 449. Hand drum
H.3062:05, 1/5 actual size

H.S.6562, Mbīm, **hand drum** (*yǎngěn*, *yǒngěn*, Müller; length 54.5 cm, maximum diameter 15 cm), Fig. 448. The specimen is similar to the preceding specimen; the decoration too is much the same except that the whole surface of the regions stretching like a tongue to the ends is similarly decorated. On the surface free of decoration on the lower half of the drum is a row of concentric ovals on each side. Between the two tongue-shaped regions are four noticeably-projecting vertical decorative strips, each with three holes. A narrow decorative band runs around the lower rim of the drum. The handle is exceptionally short, and juts out only a short distance. It is formed by two human heads hanging back-to-back, united by a wide decorative band [434] and showing the style of the bird mask faces of the river mouth; several bast-fibre hanging cords are pulled through the handle. The drum is covered with monitor lizard skin; the stretching apparatus consists of a rattan band looped several times round the drum and held in place by bamboo wedges pushed in between. The thickness of the drum wall is on average about 1 cm.

H.S.1841, Sīngrín, **hand drum** (*nīngīdǐb*, “according to information from the Kōpár translator”, Fülleborn; length 56 cm, maximum diameter 14 cm). This item is somewhat slimmer than the preceding one. The decoration differs only in that, on each side in the middle of the tongue-shaped field, there runs a long strip with notches and holes, extending from the narrowest part of the drum almost to the end of the decorated area. The holes are adorned with tassels of red-dyed cord. A tassel of *Coix* seeds is fastened to one of the short decorative strips between the tongue-shaped areas. The drum handle, since it stands out quite a distance, forms a much more convenient handgrip than in the previous specimen. It is decorated at both ends with heads, which show the bird mask type more clearly and resemble *Buceros* heads. The smooth areas of the drum are painted pink, the raised areas are russet, and the depressions white. The average thickness of the wall is only about 7 mm.

St.Ha.61706, “Hostile village” (?), **hand drum** (length 57.5 cm), almost identical with the one before, in form and decoration. The handgrip does not stand out very far, it is flat, and at the ends displays two animal heads, impossible to define in greater detail; a strip of bark material is fastened on as a hanging cord. The middle strips of the

tongue-shaped areas are missing; the four small decorative strips in the undecorated zones are bored through and adorned with tufts of bast fibre in places. The monitor lizard skin is secured by a rattan band.

St.Ha.61628, “Simar”(?), **hand drum** (length 50 cm), covered with monitor lizard skin. Neither the shape of the drum [435] nor the carving show significant differences from the previous specimens. The handgrip stands out quite a distance and, at the ends, has two human heads of the bird mask type, with long pointed noses whose ends touch the drum surface.

St.Ha.61563, “Medam”, **hand drum** (length 56 cm), covered with monitor lizard skin. The handgrip is long and strong, decorated at either end with a stylized animal head. The two carved bands surrounding the middle part of the drum and decorated with the “entrails” pattern are widely separated, with an undecorated area between them. The four tongue-shaped areas above and below have no marginal strips such as on those of the specimens described so far; the decoration consists much more of two vertical “entrails” bands. The left-over triangles at the sides are filled in the lower section of the drum with spirals, and in the upper section with long wavy- and short curved lines.

Of the second type of drum only two specimens are available.

H.3062:05, *Wātām*, **hand drum** (length 55 cm, maximum diameter 16 cm), Fig.449. Made from not especially hard wood; the drum skin is missing. The lower half of the specimen is fairly bulbous. The decoration consists of very carefully carved, mostly straight lines often perpendicular to one another forming, however, a rather different pattern to that in the examples of the first type of drum. Around the narrow middle part runs a wide, undecorated band, bordered by two narrow meandering bands (“entrails” pattern). A band with the same pattern is added just below the upper opening of the drum. From the middle band, two large and two small tongue-shaped areas stretch downwards, filled with a pattern that may have developed from representations of eyes. On the tip of each of the two shorter areas sits a fairly upright, three-dimensional triangular area, connected with the decorative edge surrounding the lower rim of the drum by a meandering narrow vertical band. This decorative border seems to be a more complex variation of the “entrails” pattern. Along the midline of each of the two big tongue-shaped areas runs a notched strip with three holes, ending above in a small head; this has a face hidden by a bird mask. The entire drum has been thickly rubbed with a pink colouring. A string is looped around the narrowest part, probably replacing the missing handle.

H.S.9002, *Nāngīt*, **hand drum** (*wónkn*, Hellwig; length 47 cm, maximum diameter 13.5 cm), made from hard wood. The arrangement of the decoration is somewhat different from the previous specimen, and resembles that of the first type of drum. Two bands consisting of the meandering pattern run around the narrow middle part. From here, two tongue-shaped areas stretch upwards on the half of the drum that was undecorated in the previous specimen; they are filled with three pairs of carefully chiselled spirals. The lower half of the instrument likewise has two tongue-shaped areas of this kind, but oriented in such a way that their bases sit on the lower rim of the drum, and their rounded upper ends point upwards. Their entire area is covered with chiselled lines arranged in four concentric bands, forming a pattern that seems to have come from a facial representation. The bridge of the nose is occupied by a small, projecting, notched and bored strip, decorated with knotted tufts of grass. The depressions in the decoration show traces of painted white lime. A strong rattan loop replaces the missing handle, and is laid around the narrowest part of the drum. The drum skin consists of monitor lizard skin, and is secured in the usual way with rattan wrapping and small bamboo wedges.



Fig.450. Hand drum H.S.4519, 1/5 actual size

The following two drums form, in a sense, a connection between types I and III.

H.S.4519, Mändānām(?) (bought from a canoe), **hand drum** (length 90 cm, maximum diameter 24 cm), Fig.450; made from hard wood and covered with intestine. Fastening of the drum skin is achieved here in a two-fold manner: long bast-fibre strands are pulled through holes around the edge of the intestine and fastened to a fairly low rattan ring. Then a second, thicker, wrapped rattan ring is laid over the whole thing and a large number of bamboo wedges are inserted into it. The hour-glass-like form, the wide undecorated band surrounding the narrowest part, and, in particular, the two tongue-shaped decorated areas extending down from the middle band and covered with incised double spirals, are all reminiscent of Type I. These pairs of spirals again resemble facial representations, especially the lowest one, visible on the diagram, in which vestiges of nose and mouth are still recognizable. The lower rim of the drum is surrounded by a decorative band, which looks like a roughly-made [436] unskilled, mechanically-carved “entrails” pattern. It is bordered above by a three-dimensional, wavy band whose upwardly-concave curves are filled with white, and the convex with red. Above all, colour is used abundantly in the drum. All the raised areas of the decoration are kept dark-brown, and all depressions shiny red or white. The large areas between the ‘tongues’ are also red, and the upper part of the drum, and the handle, are dark brown. The latter represents a fully-three-dimensionally carved human figure, clearly characterized as a male; the back of his head, the back, buttocks, and feet (Fig.451) touch the drum. Eyes, nose and mouth are fashioned into raised areas on the entirely flat face. Neck, arms, and lower legs are decorated with twisted cords of grass. A bast fibre band for hanging is fastened to the neck and one leg.



Fig.451. Handle of drum H.S.4519, 1/5 actual size



Fig.452. Figure (Drum handle?) H.S.9033, 1/5 actual size

H.S.9033, Mǔǎngēm, **male figure** (*kandīnbañ*, Hellwig; length 31 cm), Fig.452; similar to the handle of the previous drum. It also seems to have served the same purpose, because at the top of the head, on the shoulders, buttocks, and feet are wide, fresh, cut surfaces where the figure must have been fastened to some kind of object. In form the piece strongly resembles the death figures of this region and, likewise, probably represents a deceased person, thus explaining the same, local [437] designation. The face is broad and flat, the nose short, wide and not very prominent, with the septum perforated. Of the arms, only short stumps remain at the shoulders, while below them are the hands resting on the hips. The shoulders and abdomen are decorated with hook-shaped bulges one inside the other. The feet are turned inwards. The figure shows distinct remnants of red and white paint.

St.Ha.61722, “Radja”, **hand drum** (length 55 cm, maximum diameter 18 cm), made from hard wood and covered with monitor lizard skin firmly held by three thick rattan bands. It is approximately hour-glass in form. The outside, and more especially the inside, have been worked quite roughly. The piece shows the patina of age through very long usage. Looped around the narrowest part is a three-dimensionally carved, snake-like, zigzag line. A narrow platform runs from it towards the skin-covered end; this platform is bored in two places and carries a two-part rattan loop as a hanger. A roughly-carved lizard is added as an extension of the platform, reaching almost to the drum skin. Thus a wooden handle is missing from this drum as well.

The following hand drums are typical representatives of the third type of drum, and are carved from very hard wood.

H.S.9150, 252 km-village, **hand drum** (*wágn*, Hellwig; length 53.5 cm, maximum diameter 19.5 cm), Fig.453; old, already somewhat damaged piece, whose skin covering has been lost. The upper rim intended for the skin is slightly detached, to increase the tightness of the covering. Decoration consists of relief representations developed through incision of wide lines and areas, their characteristics bearing an astonishing resemblance to the relief representations on the conical clay bowls. The patterns are also similar: here, too, ovals, circles, and spirals are added to the drum, their contours repeated by short, parallel, curved lines; they have evolved at least in part from facial

representations. They cover solely the lower half of the drum in a fairly irregular manner. A wide ornamental band filled with spirals, surrounding the narrowest part of the drum, forms the upper section. In depressions in the carving are vestiges of white paint. The lower rim of the drum is accompanied by large, jagged, chiselled areas. The drum handle is most artistically carved; it represents a very slender bird figure, which grips a markedly-projecting, triple-stepped, knob-like elevation on each side with its long claws. The bird has a strongly-curved, large solid beak, small ring walls as eyes and ears, a long and (as in the rooster figures of the lime calabashes of this area), a slightly bent neck, and narrow close-fitting wings with raised areas over the entire length of their upper surface, probably intended to represent the tips of the individual pinion feathers. Above the wing tips soars a long, broadening tail, which has a small bored hole. Beneath the end of the tail is a carved human face (Fig.454), with the chin pointing towards the middle of the drum, in a style very common in this region; it particularly resembles facial representations on the conical clay bowls.

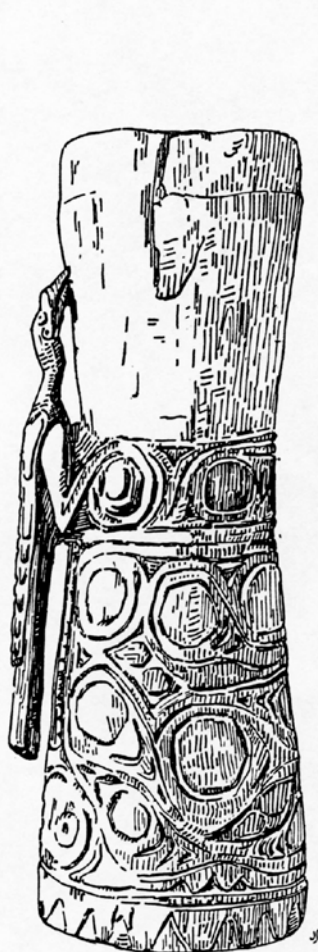


Fig.453. Hand drum
H.S.9150, 1/5 actual size



Fig.454. Facial representation
on H.S.9150,
1/5 actual size (rubbing)

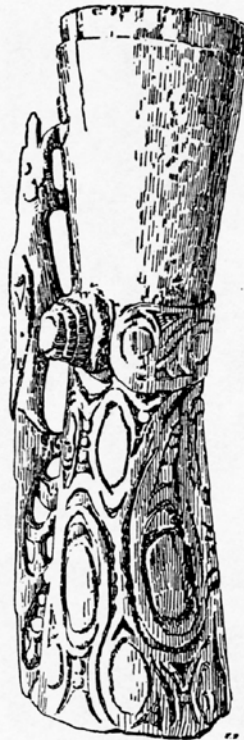


Fig.455. Hand drum
H.S.9160, 1/5 actual size



Fig.456. Hand drum H.S.9179, 1/5 actual size

H.S.9160, 252 km-village, **hand drum** (length 48.5 cm, maximum diameter 12.5 cm), Fig.455; also a very old, much-used piece, with pronounced beautiful patina of age. It is very similar to the preceding piece. The drum skin has been lost. The ornamentation shows very strongly carved depressions; again these consist mainly of spirals and ovals and cover only the lower half of the drum. The band surrounding the narrow middle of the instrument is somewhat elevated above the surroundings, and is decorated with three interconnected spirals. The lower rim of the drum is smooth. The handle consists of a slender bird representation which is, however, somewhat more markedly stylized than in the previous specimen: the bird's tail is merged with a prominent filigree-carved strip extending as far

as the lower rim of the instrument. The bird's feet are not represented; the claw enclosing the knob which projects very strongly (4 cm) above the surface, and sits to the side, has turned into an oval slightly-concave plate sitting on top of the knob. The bird's beak — it was apparently also big and greatly curved — is damaged: its tip broken off; it was, as can still be seen, displayed wide open. Eyes and ears are formed by small oval elevations.

A drum illustrated and described by Schlaginhaufen, (1910b, p.34, and Plate 3, Fig.32) is very similar. The bird figure forming its handgrip also has a long tail transformed into a filigree-carved ledge. The mostly-spiral relief representations of the lower half of the drum permit, in places, recognition of quite distinct faces.

H.S.9179, 252 km-village, **hand drum** (length 71.5 cm, maximum diameter 23 cm), Fig.456. The piece shows a surprisingly high and slender form. There are only remnants of the monitor lizard skin, on the rim of the drum; the stretching apparatus consists of two wrapped rattan rings with bamboo wedges inserted beneath them. The [438] decoration is very solidly and primitively carved; again it consists of spirals and ovals irregularly divided over the lower half of the drum, with short curved lines filling the gaps. In the depressions, extensive vestiges of pink colouring can be recognized. The ornamental band enclosing the middle section of the drum is decorated with quite clumsily carved spirals. A raised band, standing out from its surroundings, descends from this, serving firstly as the base of the drum handle and then, widening somewhat, transforming into the circumferential bulge of the lower rim of the drum. A face turned towards the handle is carved at this point, resembling that found on drum H.S.9150, although more roughly produced. The fairly short, arched handle sits obliquely at both ends, and is covered with rough, not very distinct carving; a rattan hanger is bound onto it.

A drum illustrated by Schlaginhaufen, (*loc. cit.*, Plate 3, Fig.31), is similar in form and handle structure, [439] but here the upper half is also covered in decoration. The handle ends above and below in an animal head. This piece almost gives the impression of a rather unskilled imitation of the unique hour-glass drums of Type I.

H.S.9161, 252 km-village, **hand drum** (length 54 cm, maximum diameter 17.5 cm). The drum shows virtually no narrowing in the middle. A thick patina bears witness to the age of the piece. The incised decoration, almost identical with that of the preceding specimen, covers only the lower half of the drum. A broad band standing out boldly against the surroundings, encases the middle of the instrument. The band is covered on only one side with a spiral decoration, while the pattern of the other side consists of two circular areas. The rim of the lower opening of the drum is thickened and adorned with a row of incised notches. The entire decoration covering the drum has been thickly rubbed with dye, which was formerly probably white, but now shows a brownish-yellow tone. Also, the upper half of the drum shows painting: with the exception of two naturally-coloured ovals, it is completely covered with the same yellowish dye. Of the drum skin, only the stretching apparatus, consisting of two strips of rattan and bamboo wedges, is present; the drum skin itself is missing. Instead of the grip, there is a carved snake figure, which is so long that it almost touches both ends of the drum. Its flat head, resembling that of snake figure H.S.6658, is turned towards the side of the drum skin. The snake's body lies directly on the drum, between it and the base are only two fairly wide transverse holes whose outer margins are bevelled and polished by use. A long twisted string is pulled through the upper hole, serving as a handgrip and a hanger. A laterally-wound spiral forms the tail end.

We also saw three hand drums belonging to the same type in 293 km-village; they were standing in a spirit house. Their handgrips consisted of lizards whose tails extended in places far beyond the ends of the drum.

The two following specimens belong to the fourth subgroup:

H.S.1845, Īmbántõn, **hand drum** (length 37 cm, maximum diameter 13 cm), Fig.457, with a spherical lower part and a slender tubular upper part. On the spherical section sit two tongue-shaped areas tapering [440] upwards, lying opposite each other and separated into two steps. Each seems to consist of two layers, to some extent lying one on top of the other. Each of the areas is covered with a pattern which appears to have originated as two faces; in both of them are indications of eyes and, in addition, the tips of the area pointing upwards resemble a nose in shape; three of these noses are even provided with a transverse perforation (of the septum). The noses of both faces in the deeper layer are markedly elongated; one forms a ledge extending a long way upwards, on the end of which a triangular plate, possibly a nose ornament, is recognizable on each side. From the other nose develops a flat but strong handle, onto which is fastened a



Fig.457. Hand drum H.S.1845, 1/5 actual size

rattan hanger. Carved just below the upper rim of the drum is a narrow, circumferential zigzag band.

H.S.9043, Mụ̃nggēm, **hand drum** (*wōnkn*, Hellwig; length 57.5 cm, diameter 17 cm), Fig.458. The instrument is covered with monitor lizard skin (*kurábi*, Hellwig). The bulbous part is not quite as noticeably rounded as in the preceding specimen, and is provided with several edges and incised circumferential lines. Between this part and the separated lower rim of the drum is a broad band, showing the “entrails” pattern in *bas-relief*. The triangular areas attached to the spherical part above bear facial representations (*barǎngǔ*, Hell.), one of them particularly clearly recognizable; its nose was formed by a handle, which, however, had evidently broken off a long time ago. Both points of attachment are still quite recognizable; one of them, the one on the face, had been smoothed by the natives themselves, to make the damage less visible. The missing handle has been replaced by a rattan arch fastened on by boring through two strips running in the long axis of the drum.

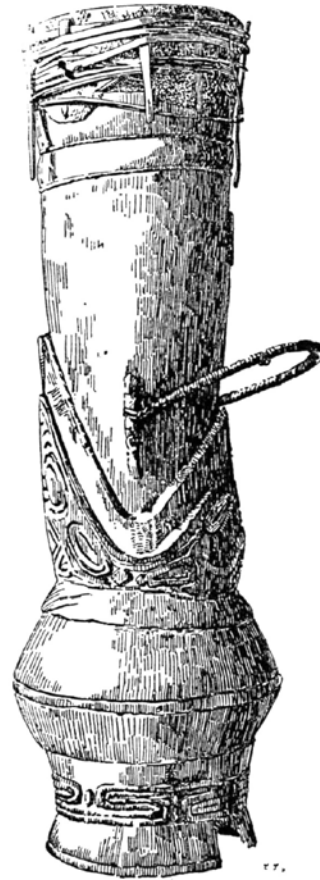


Fig.458. Hand drum H.S.9043, 1/5 actual size

Slit drums. The slit drums are made from a large, almost cylindrical piece of tree trunk, and are extensively hollowed out on the inside through a longitudinal slit on the upper surface. These drums are made to sound by striking them with a stick at a spot on the thin side wall in the vicinity of the slit, causing this spot to vibrate. These drums are used as alarm instruments and for signalling, but, as in Potsdamhafen, they are probably also as dance drums, keeping the beat during certain dances. Admittedly this type of use has not so far been observed on the Augusta River. In almost every village in the middle reaches, the whole district was warned of our approach with their assistance (and the blowing of the wooden horns), and we were able to establish that there is a well-developed drum language in the river mouth area. For example, from Sīngrín they summoned the interpreter we were seeking, (he was staying in a neighbouring village), and informed him that white people were there, wanting to speak with him; after a short while, the man we were seeking actually turned up, and was already fully prepared. In the river mouth area, just as, for example, in Potsdamhafen, the drums are placed on two low seats (see below). In the middle reaches, the slit drums usually stand in long rows on the ground floor of the big ceremonial houses; from this it can probably be concluded that they also play a role in some kinds of ceremonies. In addition, they were never concealed from the gaze of women. It has already been mentioned that the slit drum is also found in the section of river above the Hunstein Range. The German-Dutch border expedition reports (*Globus* 1910, II, p.377) that on their approach to villages in this region the drums were sounded; unfortunately no further details were given.

Among the slit drums that have so far become known on the Augusta River, [441] three types can be distinguished. Type I is most simply designated as the ‘coastal form’; it has been known for a long time, and is identical with the “drums of the Ramu district”. Matching pieces occur in Potsdamhafen where, moreover, specimens made in the Augusta River mouth region were imported. This coastal form has a rectangular longitudinal section, and an oval cross section; on both sides decorations consisting of carefully incised lines in the style of the river mouth region cover almost the entire surface. This decoration comprises mainly spirals, wavy lines, and meandering figures which all appear to have a definite purpose. So far we have more detail of this only from Potsdamhafen, where Father Vormann, (Schmidt, 1902,

pp.76–81), has questioned the natives about the meaning of each representation, (see the chapter, “Formative Art”). Where I occasionally use the meanings imparted by him, I do so only to indicate briefly the ornamentation, but in so doing I am not saying that they are indicated in the same way on the Augusta River. The drums of the coastal type always have two strong horizontal handles attached to the narrow sides, fashioned and decorated in essentially the same manner.

The second drum type also has a rectangular longitudinal section, but the cross section is elongated, more pear-shaped. The slit is usually much wider than in the coastal type. The lateral surfaces are covered with a decoration that indeed resembles that of the coastal form in its drawing but projects a completely different character: for a long time it has not been produced with the almost minute care characteristic of the former, but shows a certain spaciousness and primitive force: very wide lines and larger areas are incised into the drum wall, and thus a quite pronounced relief arises. We have seen this as yet unfamiliar type only in the region just above the estuarine swamps. It even seems as if the drums of this type are not produced on the river itself: both specimens whose origin we established (including the especially typical piece that we obtained) came from other villages. We discovered this type quite infrequently, and within a small area, whereas on the other hand we found many specimens of Types I and III.

The third subgroup is found throughout the middle reaches, at least as far as the Hunstein Range. Longitudinal and cross sections are roughly the same as in the preceding type, also, the slit is relatively wide. However, what immediately distinguishes this type from all the others on the river is a three-dimensional peg arising on the inside of one wall just below the slit and extending far into the drum cavity. Figure 459 shows a cross-section through the drum in the vicinity of the peg. Nothing could be learned from the natives about

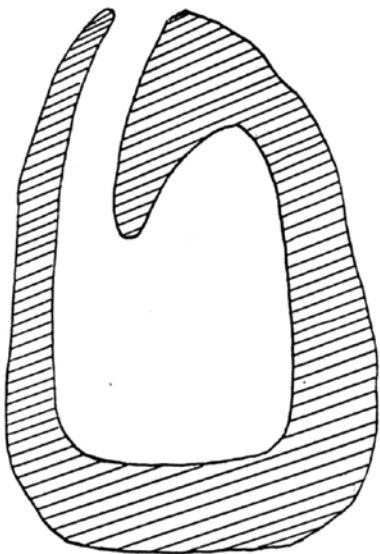


Fig.459. Cross-section through the slit-drum H.S.9087 (in the peg region)

the purpose of this remarkable peg. Perhaps it is intended to alter the tone level of the wall in question, but also in the drums of the river mouth region which do not have pegs of this sort, each of the two walls of the drum [442] give a different tone. It is also possible that it was originally nothing other than a reinforcement of the most frequently struck part of the drum: constant strikes with the drum stick must make the site in question steadily thinner and finally break it through. Such signs of use can be seen in all the older specimens. Now, if the wall is reinforced by a peg of this sort, the drum, which certainly represents an object of significant value, will last for very much longer. It is also noted that always, in drums of this third type, only the site on the outer side of the peg shows signs of use: they never seem to use the other surfaces, nor the other wall. Occasionally the site intended for striking is also recognizable by a lightly incised circular line or a roundish raised area, but a sign of this sort is never found on the other wall of the drum. In a similar way, the *garamut* drums of other regions, such as the Gazelle

Peninsula (Fig.460) and New Ireland, always have thickened side walls, and on Tench too we found a similar specimen. However, in all of these, both walls are thickened internally, and the reinforcement consists only of small swellings, never in the form of a peg extending a long way inside the drum.

In drum Type III it is furthermore characteristic that the two handles are markedly dissimilar and are of unequal quality. Here the drums, like, for example, the canoes and the little

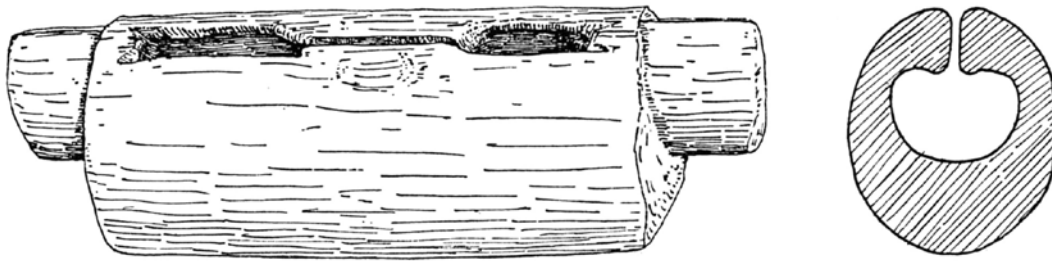


Fig.460. *Garamut* from the Gazelle Peninsula, with a cross-section through the middle section, 1/10 actual size

wooden bowls, are regarded as an animal, (and their sound as the voice of that animal?), and therefore one handle is always represented as the head and the other as the tail; the latter is usually rudimentary and transformed into an eyelet. The torso of the drum is therefore the animal's body and the external indication of the internally-directed peg is, perhaps, the navel, (which in this region must have a special ceremonial significance; see p.354). On the side walls there are [443] occasionally rudimentary representations of the four legs belonging to the body. Apart from that the walls are usually undecorated.

In the drums of the first type, two subgroups can be differentiated. In the first subgroup, apart from the lateral rim ridge, the decorated side surface is treated as a whole; in the second it is divided into two regions by a horizontal line. According to Vormann (*loc. cit.*, p.77), this dividing line is called *kalalang kuri* by the Monúmbo; *kuri* means 'path', but he could not ascertain the meaning of the word *kalalang*. Furthermore, this second subgroup does not appear to be found on the Empress Augusta River itself. As Schmidt, (1902, p.77), reports, this type is however made right in the territory of the Baroi people, "inland from the mouth of the Ramu"; the specimen that he illustrated comes from there.

The following specimens belong to the first type:

H.S.9001, Nǎngit, **slit drum** (length including handles 93 cm, length without handles 83 cm), Plate LXXXVI,1. Both ends are somewhat rounded off and the cross section is oval; thus the drum seems somewhat compressed laterally. The incised decoration consists of three parts: a horizontal middle section with a vertical band on either side. Thus, because the ornamented region forms a slight indentation above and below, it rather resembles an hour-glass in shape. The middle section is divided into four regions by a narrow band, which begins wide at the sides and ends in two peaks. The two smaller regions, lying between the peaks, each contain a representation resembling a face; on one side in particular, eyes and nose are still clearly recognizable. Both larger fields are filled with three pairs of 'butterfly wings', between which body and head of the animal always appear. The other side of the drum shows the same decoration, although presented in a somewhat different manner. Both handles are almost identical: they are two three-dimensionally carved heads (Fig.461) looking upwards, with the chins facing inwards, toward the drum. Its stability is increased by a double arch attached to the bottom. The drum is made from surprisingly hard wood.

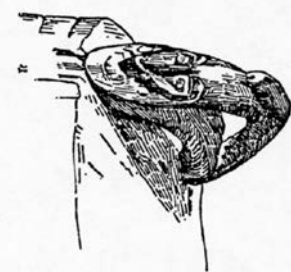


Fig.461. Handle of the drum H.S.9001, 1/4 actual size

H.S.9000, Nǎngit, **slit drum** (length including handles 91 cm, length without handles 78 cm), very similar to the preceding specimen. The middle section of the decorated area is even narrower. The facial representations in both end areas are very distinct. In two of the vertical side bands there is a short, three-dimensional platform, bored-through and decorated with several knotted tufts of bast fibre. The two handles resemble those of the previous specimen. This drum too is made from very hard wood.

H.S.8999, Nǎngit, **slit drum** (length including handles 92 cm, excluding handles 69 cm), of hardwood. The decorated area is even narrower, and occupies only a very small section of the side wall. The pattern is very similar to

that of the two preceding specimens: two wide lateral bands containing the “entrails” pattern, and a central part covering a limited area, comprising a facial representation in each of the small lateral areas and a ‘butterfly’ in each of the bigger longitudinal areas. The handles have the same form as that of the previous piece, but are somewhat bigger; one is carved surprisingly roughly.

The slit drum from “Pagem” described by Schlaginhaufen, (1910b, p.35), is included here. However, in this drum only the upper rim of the surface decoration shows an arch-shaped indentation. “A narrow zigzag band borders each of the two longitudinal sides, and a band of irregular ovals borders each of the lateral sides of a decorated area.” The vertical side bands contain an “entrails” decoration halved lengthwise, the middle part “of each side, three similar drawings under one another”, which the author considers to be “butterflies”. The handles of the drum each represent a human figure, “with a crocodile crawling onto his back. The hat like a crested helmet juts out over the head of the crocodile.”

St.Ha.61787, “Karau”, **slit drum** (length including [444] handles roughly 140 cm, length without them 95 cm), Plate LXXXVI,2. The decorated area of each side wall shows an arch-shaped indentation only on the upper rim. The two vertical side bands are missing. The side borders consist only of a row of slightly raised oval areas, with a zigzag line forming the upper border. Again, a number of spirals play the feature role in the pattern. Both handles are very similar to each other; they represent very carefully produced human faces with the chin part pointing outwards, different to those described so far. They resemble one of the more common types of mask in the river mouth region, (cf. St.Ha.61652, p.407). The arch lying on the underside of each handle, reinforcing it, has been transformed into a crawling animal figure with clearly recognizable legs, neck, and head. The body of this animal is relatively long, and looks almost like that of a bird. The drum rests, (see the illustration), on its special little drum seat: two solid pieces of wood, each with a facial representation on the end.

A specimen illustrated by Schmidt, (*loc. cit.*, p.80), is quite similar to the handle of this drum, except that there a small animal head is added to the chin of the mask, and the crawling animal figure is more roughly worked.

L.Me.8965, “Empress Augusta River”, is an isolated drum handle (length about 42 cm), Plate LXXXVI,3. A human figure is represented, standing with bent knee, supported on the back and underside respectively by a strong, undecorated double arch. The figure shows traces of white paint. If the totally different facial type is disregarded, it resembles the handle illustrated by Schmidt, (*loc. cit.* p.77, Fig.2).

Among drums of the second type belong:

H.S.8998, Nāngīt, **slit drum** (*nĩmbĩn*, *nĩmbėn*, *nĩmbũn*, or *nũmbũn*, Hellwig; length excluding handle 160 cm, length of the handle 50 cm), made in Sĩngārā (the location could not be determined) according to the natives, Plate LXXXVI,4. An already quite old, damaged piece. Of the two handles, only one is still present; it represents a human figure standing with bent knees, similar to the Leipzig specimen, supported by a strong, undecorated double arch, extending down a long way. The end of this arch merges with the funnel-shaped head-dress of the figure. Both side walls of the drum are decorated



Fig.462. Decoration of one side wall of the drum
H.S.8998



Fig.463. Ornamental band of a
slit-drum from Rāūtšin
(after sketches by Müller)

differently. One shows a band consisting of long pointed lobes (Fig.462), which is clearly recognizable only on the handle side, although it also seems to have accompanied the rest of the rim but has disappeared as a result of surface wear. The entire middle section of this side of the drum has probably not been decorated. The other side wall is covered with engraved designs over its entire surface, arranged in such a way that only when the drum is stood on its narrow side would they stand upright. At the extreme left of the illustration, (at the end whose handle has broken off),

the “butterfly” decoration is visible, with its big spirals; added to it is a clearly recognizable human face, lying on its side and of a different type to the facial representations found elsewhere along the river. Following this are two small, then two bigger spirals; the end is once again occupied by a face, of which [445] only the eyes and the wide-sided nose are distinguishable.

A natural-coloured drum seen by Müller in Mbīm but not obtained, showed a totally different decoration: it consisted only of a narrow, carved band (Fig.463) standing vertically, and bordering the sides of each wall of the drum; according to the natives, the drum came from a village in the bush, called Ráūtšīn.

We saw the first examples of the third type of drum in the villages of Āngöróm and Muǎngēm.

The handle of a specimen, (*kunakunápa*, Hellwig), found by Hellwig in Āngöróm — it was standing between the poles of a large house — represented a human head whose face was the flat, concave variety with the barely prominent bridge of the nose, which is no rarity here. The tip of the nose was elongated, and formed an arch whose end merged once more with the surface. There was an open mouth below, displaying the teeth. The eyes were projecting conical pegs surrounded by ring walls. The lifelike ears were perforated, and decorated with a long grass fringe. At the base of the handle, on the body of the drum, was a short strong arch flanked by two high conical pegs.

H.S.9065, Kāmbrínūm, **slit drum** (*b'ǝ̀n*, Hellwig; imitation of the sound? length including handle 193 cm, without handle 157 cm), Plate LXXXVII,1; very similar to the preceding specimen. Again, one handle represents a human head in the flat-concave style. The eyes are conical pegs; the forehead projects somewhat and transforms laterally into a sharp edge which, bordering the upper face, blends below with the sides of the nose. The very deep nostrils lie on the anterior surface of the sides of the nose; they are connected within, forming a canal traversing the nose. The mouth is wide open, exposing the teeth; a tongue carved in full relief hangs from it, (cf. mask H.S.6029, Plate LXXVII,4). The ears are presented fairly true-to-life and are perforated. The other handle of the drum forms a short, strong loop. The drum slit is very wide, the inward-projecting peg is narrow, sharp and quite long. The side walls have no kind of decoration.

A drum standing in the same house, (recognizable in the background on Plate LXXXVII,1), differs from those just described only by one handle representing the head of a crocodile.

We then saw several absolutely magnificent drums in Mándánām. In one, Plate LXXXVII,2 — sadly we were unable to obtain it, and had to be satisfied with photographing it — a handle represented a most remarkably shaped head, (Plate LXXXVI,5): between two round eyes inlaid with mother-of-pearl, sits a remarkably short, thick nose, its septum perforated and decorated with a tuft of grass. The circular mouth is open with the tongue visible; on each side are two long pointed pegs. In the space beneath, three further small facial representations are carved: two with long perforated noses in profile at the sides, and one above. The last of these is upside down, with the end of its chin touching the chin of the big head. It is similar to the latter in style. The eyes of the three small faces are formed by inlaid cowry shells. The entire handle, which has to be regarded probably as a modified crocodile head, is covered on the side with a crown of solid peaks (the teeth of the crocodile throat?), and is fenced off from the body of the drum by a chain, which is possibly intended to represent a necklace of *Conus* shells. Knotted cords are fastened in numerous holes drilled in the rim of the drum, as a decorative hanging. The other handle is again transformed into a strong, very wide eyelet, on which sits the three-dimensionally carved front half of a rooster figure. The slit in the drum body is wide, and rectangular inside; both its upper rims form a pointed arch at each end. The side walls are undecorated; the place where the peg sits on the inside, is recognizable on the outside by a low round elevation.

H.S.9087, Kāmbrínūm, **slit drum** (*b'ǝ̀n*, Hellwig; length excluding handle 170 cm, length including handle 290 cm, maximum height about 80 cm), Plate LXXXVIII,2. Very much more richly decorated than the previous specimen, which, however, it most strongly resembles in all other aspects. That the drum is regarded as an animal body is especially clearly recognizable in this specimen, since four legs are also present, as slightly-projecting carving on the side walls; and, as in several of the small wooden bowls, they consist of comma-like figures with a thick round upper part and a tapering curved lower section. The carving on them resembles that on the wings of several rooster figures (see for example the decoration of H.S.4559, Fig.263). The extremely [446] fantastic great handle (Plate LXXXVIII,3) which, incidentally, has a length of no less than 80 cm, represents a crocodile head in its entirety, resembling those of many canoes in style. On the side, a wide, somewhat deepened horizontal white strip runs almost to the tip of the snout: the mouth slit. It is bordered above by incised notches, and below by a close-packed row of long pointed tooth-like pegs; also, out of the mouth itself project peg-like structures, mostly in pairs, bent towards each other. The individual parts of the head are then fashioned further in an unique manner. The eyes are, at the same time, those from a human face, (*gǝ̀rě*, Hellwig), very much resembling that of the previous drum in style; its short knotted nose, (*nǎ̀im* or *wómbat* = colour? Hellwig), is perforated and adorned with a tuft of grass. The mouth, which is a three-dimensional projecting oval with the tongue visible between the lips but not hanging out, has two long pegs on

Reche, Empress Augusta River, Plate LXXXVI



1. Slit-drum H.S. 9001, 1/10 actual size.
2. Slit-drum St. Ha. 61787, 1/10 actual size.
3. Drum handle L. Mc. 8965, 1/5 actual size.
4. Slit-drum H.S. 8998, 1/10 actual size.
5. Handle of the drum illustrated in Plate LXXXVII, 2, seen from above.

either side. The nasal part, raised as always in the crocodile heads of this region, has become a small head, (*balángǔ*, Hellwig), with two human faces, one with the chin part pointing towards the large face while the other looks forwards in a perpendicular position. Between the nasal part and the big human face is an even smaller head, probably intended

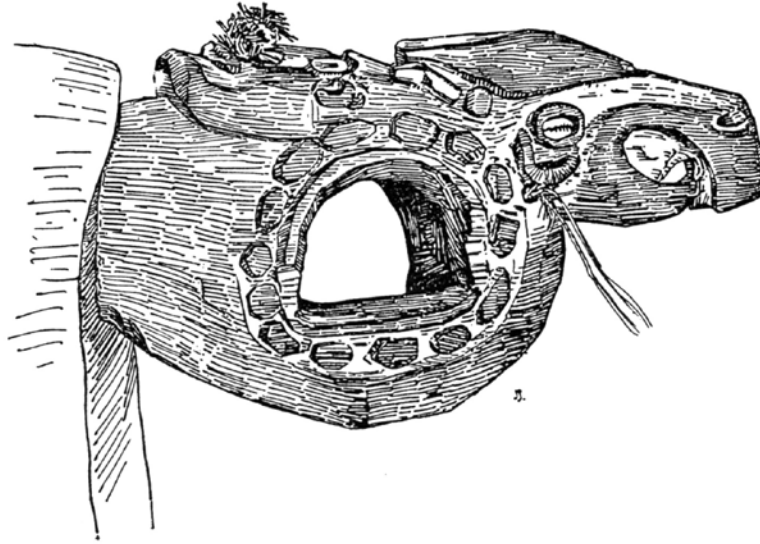


Fig.464. Smaller handle of slit-drum
H.S.9087, 1/5 actual size

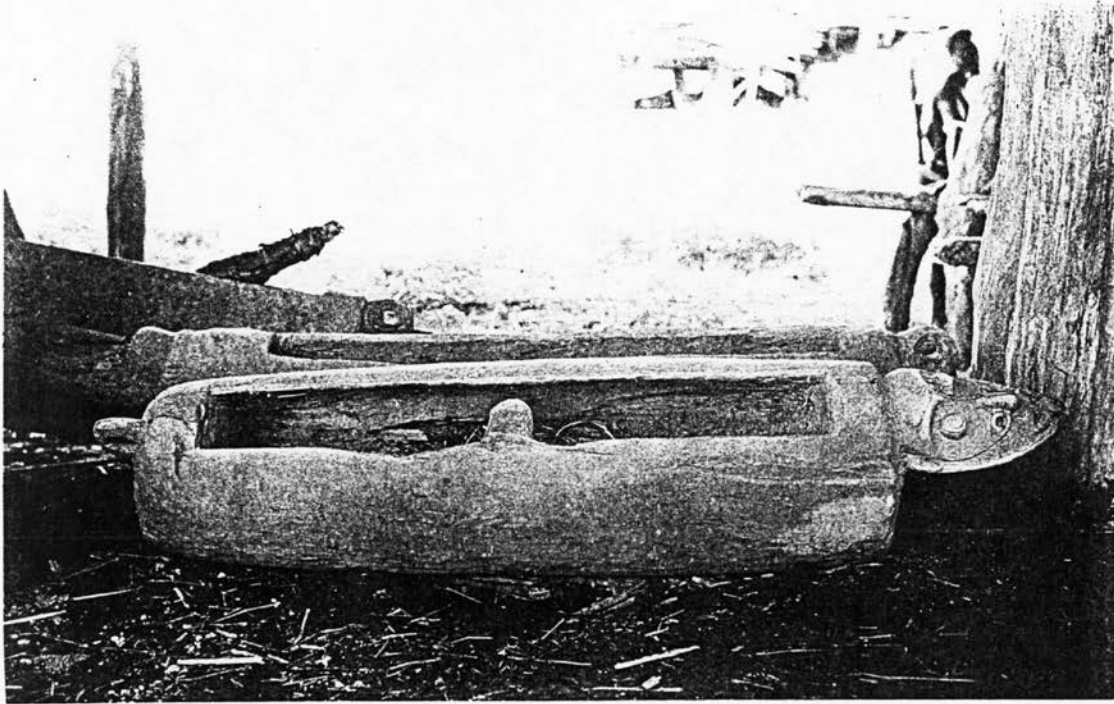
to represent that of a dog. The eyes of the small head are formed by inlaid *Nassa* snails. At the attachment point of the handle is primarily a three-dimensionally carved crown (*Conus* necklace?), but in addition there is a row of long, claw-shaped, slightly-curved wooden pegs, all turned towards the tip of the snout. Both limbs of the crocodile's lower jaw form ridges projecting downwards, with transverse holes at several points, by means of which a thick long grass fringe hangs on both sides, made in exactly the same way as the women's skirts of this region. Long cords hang from the perforated ears of the big human head.

The other handle of the drum (Fig.464) is a very strong peg with a wide circular transverse hole, the end of the peg being transformed into a marvelously carved bird's head, probably that of a parrot. The creature's strong curved beak is open, with the tongue recognizable; the eyes are formed by inlaid cowry shells. On the upper side, right by the handle attachment is a fairly primitively carved human face. A similar face, looking upwards, forms the end of the drum slit on either side. The whole drum shows traces of red paint; only several parts of the handle remain white.

Astonishingly, the people did not want to sell me the red-painted stick belonging to the drum; at the last moment it was replaced by a simpler stick. The latter is a rough, unworked branch, 145 cm long and irregularly curved.

H.S.9081, Kāmbrīnūm, **small slit drum** (*b'čñ*, Hellwig; length including handle 116 cm, provided with only one handle which, however, is disproportionately long, (36 cm). The piece shows the same style as the [447] preceding one, but is more roughly worked. The handle represents a crocodile head whose eyes and nose part are transformed into human faces in the same style as described so far.

Reche, Empress Augusta River, Plate LXXXVII



1. Slit-drum H.S.9065



2. Slit-drum from Mändánám.

String Instruments

So far only one example is known; it was collected and described by Schlaginhaufen, (1910b, p.36). It consists of the leaf rib of a sago palm. "I found the object in an open hut in the terminus village, lying on the cross beams beneath the roof ridge, and then had the owner of the item demonstrate how to use it". Unfortunately Schlaginhaufen does not illustrate the instrument, but he does give quite a detailed description which, given the importance of the object, I reproduce here *verbatim*:

"From the 'bark' of the underside of the leaf rib a longitudinal band is cut out but left connected at either end. Roughly in the middle of its length, the leaf rib is somewhat hollowed out below the cut-out band. A small stick is placed in this hollow and the band is stretched. The cut-out band is struck by a longer, more slender piece of wood and a sound is created."

Neuhauss, who also made the journey during which Schlaginhaufen obtained this item, mentions the same specimen and even gives a sketch of it, (1911, I, p.385). "The string is supported in the middle by a step, and is thereby divided into two unequal halves which, when struck by a little piece of wood, emit two different sounds. Since there is no sounding-board, the sounds are extremely weak."

Singing

As the Monúmbo say, (Pöch, 1905, p.233, and Vormann, 1911, p.414), not only their dances and masks, but also the songs that go with them come, for the most part, from "Koránduku", the river mouth region of the Empress Augusta River, and its hinterland, from a people "whom they had attacked and defeated. They had collected all their songs from there. However this had all taken place a long time ago, before their fathers' time. . ." Pöch turned from Potsdamhafen to Wátám, the big village on the river-mouth lagoon. As he began to prompt the Wátám people in order to test the accuracy of the information received from the Monúmbo about the Monúmbo songs, "they immediately started correctly, and knew the same melodies as the Monúmbo. The songs and the dancing figures had the same names as well. . ." Among the Monúmbo it had shocked Pöch that none of the people understood the meaning of the text, "the words of the songs had no meaning, this is *zinápotánga* (*zináp* = song, therefore: sung speech)", (*loc. cit.*, p.232). Then, when he inquired in Wátám, the alleged home of the songs, the meaning of the text "was just as little understood by the Wátám. . ." Pöch explains this remarkable situation, which, moreover, also occurs among other New Guinea tribes, as the language in which the lyrics were composed no longer being in existence. However, there is another possibility: the songs might not be local to Wátám either, and might have been imported there. In either case, whether we are dealing with an extinct language or a translated language, [448] frequent use of incomprehensible words and mechanical repetition down through generations will contribute to mangling and transforming the words.

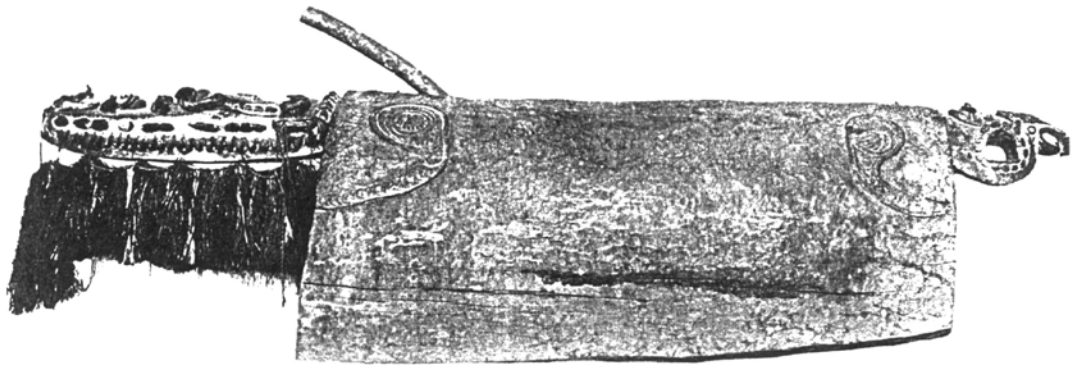
The text of one of the favourite songs, which Pöch expressly mentions as also known in Wátám, goes as follows:

Zié itiné taumbé rombenór
 taun taun tané
 kandímoge
 ozaó miránderē
 raraó miránore
 kandímoge
 taregó nakía (1905, p.233 and 1908, p.170).

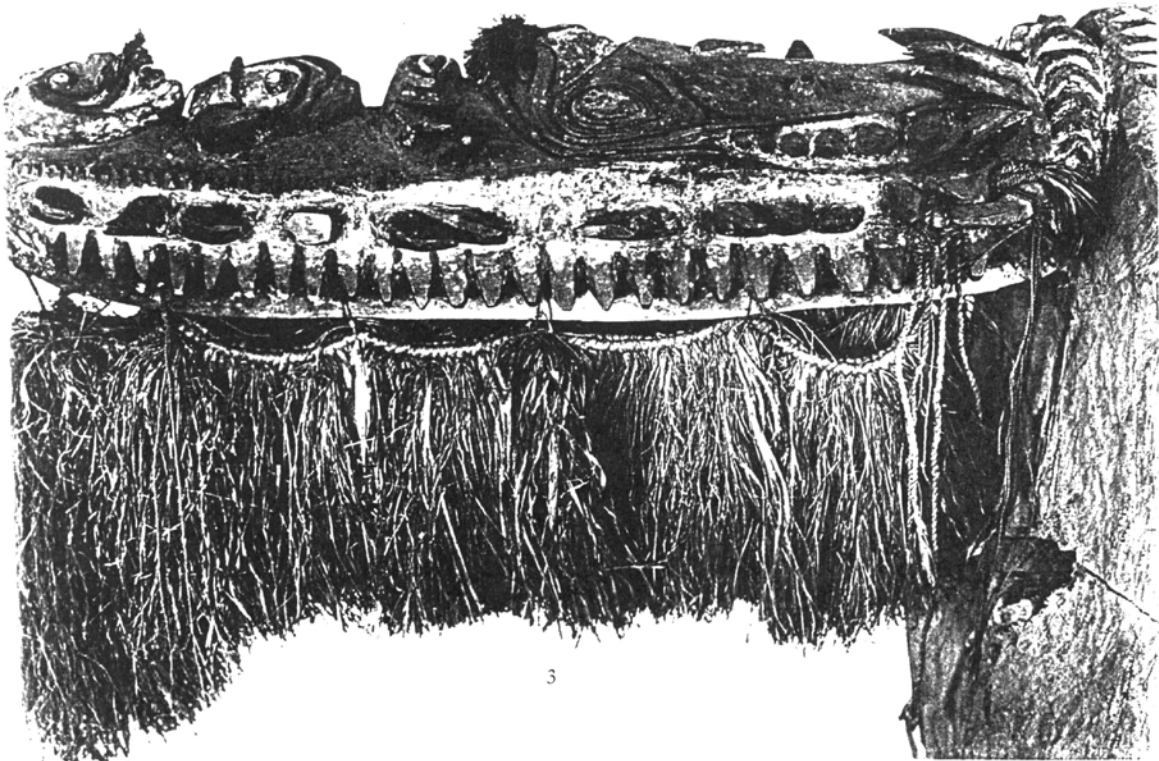
Reche, Empress Augusta River, Plate LXXXVIII



1



2



3

1. Horn H.S.9230, 1/5 actual size 2. Slit drum H.S.9087, 1/20 actual size.
 3. Handle of slit-drum H.S.9087, 1/5 actual size

Toys

Games have so far not been seen on the Augusta River; only a few toys could be obtained. Furthermore, the clay of the banks showed traces of skilled children's hands.

Spinning Tops

Strangely, it was only at Málu, the most distant village that we visited on the river, that we obtained several spinning tops, and in such great quantities that it can be assumed that they are a favourite toy in this area. The fact that they were not offered for us to buy further downstream is most probably a coincidence, for it goes without saying that the native would hardly think to offer a worthless toy in trade to the European. It cannot be assumed that they do not occur here, especially as the Leipzig Museum holds one specimen that apparently came from the river mouth area. Further evidence of their occurrence in the lower reaches is found in the fact that Müller obtained a cord in Kōpǎr which was described as a spinning-top whip; of course, what he traded at the same time as "spinning tops" (H.S.6534 a-d), appear to have been kava bowls; they are accordingly described among the household utensils (p.211).

All the other spinning tops that we obtained resemble the familiar specimens from Suein (the land near Berlinhafen), but seem, as evidenced by the occurrence of a spinning-top whip, to have been made to rotate by other means, at least in part. Erdweg, (1902, p.282), describes the manipulation of the Suein tops: "They either take the twisting disc between both hands, twirl it and then set the top in motion on the ground, or they grasp the little twisting stalk from below between thumb and index finger, twist it, and let the top go."

This latter method can hardly be applied to most of the Augusta River spinning tops, because the little twisting stalk is much too short to be able to be grasped properly; the only exception is the Leipzig specimen which has a long stalk. Thus, a whip is used on the others, as demonstrated by the fact that the twisting stalk below the spinning-top disc often has a smoothly polished surface, whose smoothness can be traced back to friction by the whip cord. Our experiments also showed that tops could be made to rotate preferably with a fairly thick [450] cord. Furthermore, several specimens are so small that they can be set in motion only by twirling the disc by hand.

The spinning-tops from Málu, like those from Suein, consist of a small circular piece of coconut shell with a little stick pushed through the centre, the stick always being a lot shorter than in the specimens illustrated by Erdweg. In decoration too, the spinning-tops from the Augusta River differ significantly from those of Suein. With one exception, all of our specimens and those illustrated by Preuss, (1898b), show one or more concentric star figures, made three-dimensional by chiselling out the spaces between them. As presumed by Preuss, these stars have arisen from stylized faces. The depressions are painted, usually red, white, or yellow.

They evidently play with their spinning-tops in the village square, which is often quite well levelled.

H.S.6701, Málu, **spinning-top** (maximum diameter of the disc 4.1 cm, maximum height 2.5 cm), the simplest example. The small, very flat coconut disc shows the three-dimensional arch-shaped contours of a four-pointed star on the upper surface; in each of the outer fields bounded by the points is a small knob, depressed in the centre: the remnants of the representation of an eye, according to Preuss. A small raised area accompanies the rim of the disc. All the prominent parts show the dark-brown colour of the coconut disc, while the depressions are painted red. The contours of the star are accompanied by a broad white strip on the outside.

H.S.6703, Málu, **spinning-top** (maximum diameter of the disc 3 cm, maximum height 1.9 cm). The

decoration differs from the preceding specimen only by the star's being five-pointed; the colour is the same. A very similar, although four-pointed, star is lightly scratched onto the outside of the coconut shell. The specimen is so small that it can probably only be set in motion by hand; the stem shows no polish of any sort.

H.S.4536, Málu, **spinning-top** (maximum diameter of the disc 5.1 cm, maximum height 2.5 cm), Fig.465. A six-pointed star adorns the upper surface. Again, between the points are small knobs with central depressions. A gear-wheel-like elevation with a jagged rim remains around the twisting stalk, which projects only very slightly above the centre point. All the figures stand out clearly in three dimensions. The depressions show traces of ochre-yellow. The section of the spinning stalk beneath the disc is heavily polished through use.

H.S.6699, Málu, **spinning-top** (maximum diameter of the disc 7 cm, maximum height 3.5 cm), Fig.466. The disc forms a deeply hollowed out bowl. The decoration is only lightly scratched in, and less carefully produced. It shows two concentric four-pointed stars, between each of whose points are two concentric circles, and along the edge a slight thickening with irregularly-carved zigzag lines. Two strips of bast fibre crossing over each other are laid over the end of the twisting stalk, which projects into the bowl from beneath; their ends run downward to where they jam together between stick and coconut shell, thus contributing to better securing of the stick. There is no painting.

H.S.4538, Málu, **spinning-top** (maximum diameter of the disc 5 cm, maximum height 2.3 cm). The less carefully carved decoration consists of two concentric five-pointed stars. In four of the five outer fields is an oval raised area with a central depression. The central area surrounding the twirling stem is pentagonal. The depression between it and the inner star is painted white, while the area between the two stars is red and the outer areas are ochre-yellow.

H.S.6700, Málu, **spinning-top** (maximum diameter of the disc 6.2 cm, maximum height 3.1 cm). The decoration again consists of two concentric five-pointed stars (Fig.467). The central area is roundish. In this specimen the outer side of the disc is also decorated, with three concentric, very lightly scratched, but fairly wide circular lines surrounding the twirling stick. This stick is only very slightly polished, although it is definitely a much-used item. The decorations are not coloured.

H.S.4539, Málu, **spinning-top** (maximum diameter of the disc 5 cm, maximum height 2.7 cm), an old, heavily-used specimen, polished through use. The pattern of the upper surface of the disc shows two concentric six-pointed stars: between every pair of points is a small, flat knob [451] and a round central area. The depressions show vestiges of red and white paint.

H.S.9300, Málu, **spinning-top** (maximum diameter of the disc 6.7 cm, maximum height 4 cm), Fig.468. The decoration consists of two concentric seven-pointed stars; between each pair of points is a small knob. The middle area is round while the slightly-raised outer rim is decorated on its inner side by notches close together. The depression between the central area and the inner star is painted white, all the others are pink. As usual, the raised areas have retained their natural colour, seeming only slightly darkened.

H.S.9301, Málu, **spinning-top** (maximum diameter of the disc 6.2 cm, maximum height 3 cm), Fig.469, displays the most complex decoration. The central area is almost swallowed up by a crown of four-sided teeth. Of the two star figures filling the rest of the surface, the inner star has seven points and the outer star twelve. Between every two points of both stars is a small knob, depressed in the centre. The depression between central area and inner star is painted white; the depression between the two stars shows only vestiges of white and, finally, the space between the outer star and the rim is red. The depressions in the knobs are mostly red but in places also white. The outside of the coconut disc and the twirling stick are polished by use. [452]

H.S.9299, Málu, **spinning-top** (maximum diameter of the disc 6.3 cm, maximum height 2.8 cm). The decoration, (Fig.470), shows two concentric four-pointed stars. From one point of the inner star a line runs to the centre of the disc. In contrast to those described so far, the outer surfaces are not depressed. The inside of the central star is painted white, the outer depression is red, and the outermost is painted white. The raised areas have retained their natural dark-brown colouration.

H.S.4537, Málu, **spinning-top** (maximum diameter of the disc 6.3 cm, maximum height 2.9 cm). The much less carefully produced pattern differs from all the others (Fig.471). Deeply incised notches are arranged around a circular central area, followed by a circular chiselled line, and finally a second circular line with attached grooves extending as far as the rim. The entire surface appears pale grey-brown, without any painting. On the outside is a roughly-chiselled, irregular seven-rayed star nestled in closely to the twirling stalk.

L.Me.7269, "Anjam" (in the river mouth region). **spinning top** (maximum diameter of the disc 6.3 cm, maximum height 14.6 cm), Fig.472, of a totally different type. A round, flat undecorated disc of bone is added to a long stick which increases downward in thickness and tapers at the end. In form, this spinning top resembles the top from Lae-Womba described by Neuhauss, (1911, I, Fig.288b); this is, "set in motion by a twirling movement with both hands."



Fig. 465. Decoration of the top H.S. 4536, 1/2 actual size (rubbing)



Fig. 466. Decoration of the top H.S. 6699, 1/2 actual size (rubbing)



Fig. 467. Decoration of the top H.S. 6700, 1/2 actual size (rubbing)



Fig. 468. Top H.S. 9300, 1/2 actual size



Fig. 469. Decoration of the top H.S. 9301, 1/2 actual size (rubbing)



Fig. 470. Decoration of the top H.S. 9299, 1/2 actual size (rubbing)



Fig. 471. Decoration of the top H.S. 4537, 1/2 actual size (rubbing)

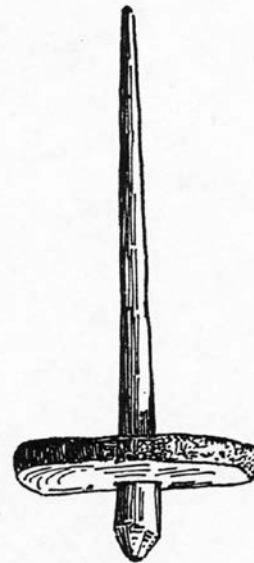


Fig. 472. Top L.Me. 7269, 1/2 actual size

H.S. 6535, Kōpār, **spinning top cord**(?) (*mbāpök*, Müller; total length about 160 cm). Three double-stranded cords, only two of which reach the end, are twisted into a thick string tapering steadily towards one end. A section of the thin end, about 55 cm long, shows distinct traces of smoothness and use; therefore only this piece was wrapped around some type of object, evidently the top-twirling stalk. The thick end is gathered up into a big finger knot, which is hidden by a plain bast fibre material tag. The three components of the whipping-top cord protrude from this knot as a thin, short, double-stranded little cord, whose ends again each form a knot concealed in bast fibre material. The large main knot is probably intended to prevent the hand from slipping.

Furthermore, I do not exclude the possibility that we are not dealing with a top whipping-cord at all, but a sling cord for hurling spears, like those found on the Admiralty Islands.

Toy Canoes

As for other toys, we know of only a play canoe, which was obtained and described by Schlaginhaufen (1910b, p.53). It is a 12.4 cm long model of a dugout and was bought in "Pagem" (= Muǎngĕm). The canoe prow displays a carved crocodile head. "The piece is old, and might have served as a child's toy." Sadly the author does not illustrate the specimen.

Clay Figures

Neuhauss, (1911, I, p.59), reports that he found all sorts of clay figures on the banks in the middle reaches, "Right on the beach we saw a model of their village made out of river bank clay by children", with great artistic skill. Besides this, there were numerous figures of turtles and the like, and a very lifelike female body modelled from clay. [453]

Visual Art

General

Plaiting, wood carving, three-dimensional modelling, and even construction skill on the Augusta River are, as we have seen, at an extraordinarily advanced level for New Guinea. Even items of everyday life display artistic forms, or are decorated with colour and ornamentation. All the exemplifications of art — especially in the river mouth area — bear witness to a very highly-characteristic, innate style, evidently the result of prolonged development.

Until now, it could not be determined whether each individual busies himself in artistic endeavours, or whether the artistic creations are, to some extent, the handiwork of specialists. Probably the latter is the case, and so there are professional artists. It is hardly likely that the artistic abilities of a wider circle of people would have attained such a high level of development; and also, many artistic works resemble one another so astonishingly, that one must probably assume that they were produced by the same hand.

As far as can be judged, the art of our region seems to have grown predominantly out of religious needs. As we have seen, the thoughts and feelings of the inhabitants of the Augusta River are, in all probability, influenced by humanistic presentations; it is little wonder that the traces of veneration of the dead are pursued in their art wherever you go. It is religious need that provided the impetus for carving human figures; coating the skulls of the deceased with clay, and giving them a face similar to their living face; carving and plaiting dance masks; and producing all kinds of artistic ceremonial instruments. We found heads and spirit faces incorporated everywhere: on spears and shields, as canoe decoration, arm bands, and even on the gables of ceremonial houses.

However, these representations are not purely idealistic in origin; they evidently serve a very practical purpose: the people want to exorcise the souls of the dead through this type of charm image, to render them harmless, and ultimately to urge them into rendering all kinds of assistance. Thus, art seems to have been brought forth on the Augusta River on the grounds of necessity, and not for the joy of artistry. To generalize it, to draw conclusions on the origins of art among other South Seas people, might be naturally inappropriate, it is highly likely that art in other regions [454] (cf. Stephan, *Südseekunst*, p.65) is of profane origin; the varied racial tendencies would play a major role in such matters.

Thus the original intent of the artistic activity pursued on the Augusta River was, probably, representational. With increasing skill and growing artistic experience, the desire to decorate developed quite independently, and so people began to transform the representations into ornamental forms.

Unfortunately, we still do not know whether the 'ornaments' are still regarded by the

natives as concrete representations or whether they are partially divested of their meaning, to become regarded purely as ornaments. A lot of things seem to indicate that most of the representations, in spite of strong stylization, have retained their original significance.

Motifs Used

Sculpted Representations

Above all, it is human figures and faces that are imitated, as we have seen. Almost always, only the face is formed true-to-life; apparently this alone interests the artist. The head, presumably the seat of the soul, is the main feature; trunk and limbs are only incidental and, with few exceptions, are kept totally conventional. It is, furthermore, remarkable that the sex of the figures is usually quite unequivocally recognizable, and that among the death figures there are also numerous women.

Besides humans, as far as current artwork indicates, only a few species of animal are represented, almost exclusively those that possibly are either soul creatures or have totem importance; there is therefore probably a connection with religious presentations. Especially common are rhinoceros hornbills and crocodiles, but there are also snakes, fish, lizards, turtles, roosters, frigate birds? marsupial bears, flying foxes? pigs, and dogs. The number of motifs is therefore relatively small.

Mud and clay modelling has developed to a particularly high level in the middle reaches, where the raw material is available in abundance in the alluvial deposits of the broad plain. Among the ceramics are magnificent richly decorated vessels. The decoration either covers the outside, as in the conical bowls, and usually consists of flattish facial representations, (see Figs 148–167), or is confined to the neck and upper rim of the vessel where there are three-dimensional human and animal faces, (see Plates XLV, 2-5 and XLVI,1).

The skulls of the deceased are covered with clay and their living features are restored, in many specimens astonishingly successfully. [455] In many cases, as I again want to point out specifically, a person has unmistakably tried to produce a lifelike portrait.

A human head in the Hamburg Collection (see Plate LXIX,2) and a small pig's head in the Berlin Museum (see Plate LXXIII,2) have been modelled exclusively from clay. As Schlaginhaufen and Neuhauss report, at one spot along the bank they found numerous figures, turtles in particular, modelled out of the exposed mud. "A particularly lifelike portrayal was given to a completely naked female body in which the rounded presentation of the vagina inspired the thought that the figure was used for masturbatory purposes", (Neuhauss, 1911, I, p.59). At another spot along the bank was "a number of mud buildings, evidently made by the hands of children. . . which exquisitely reproduced in miniature the characteristics of the spirit- and dwelling houses", (Schlaginhaufen, 1910a, p.8).

Very few representations are based on technical models; only a few ring bulges, three-dimensional zigzag bands, and ornamental stripes, which appear to coincide with the site of wrappings and plaited bands of spears in particular, are worth noting.

Representations of plants or even landscapes seem to be totally lacking; indeed they are also uncommon elsewhere in the South Seas.

Internal organs are reproduced only rarely. In the figure St.Ha.61627, (see Plate LXXII,2), a row of flat points directed downward and overlying one another like roofing tiles is found both on the front and on the back of the torso: perhaps an imitation of a vertebral column.

Whether the meandering bands frequently used in the decorations of the river mouth region are actually intended to represent “cockatoo intestines”, (according to Vormann (Schmidt, 1902, p.77) the Monúmbo gave this definition), does not yet seem certain, since the Monúmbo do not appear to be the manufacturers of the items adorned with this decoration.

I found only few undoubted examples of emulation of predecessors. The representation of a bird pursued by a crocodile, the motif of a legend widespread in Melanesia, is found in the decoration of many lime containers, (see for example Fig.278, p.263), and on several canoe prows, (see Fig.295, p.276).

In masks St.Ha.61602 and 61604, (see Plate LXXVII, 7 and 8), a bird is added to the chin, its tail merging with the tip of the nose of the human face. It almost gives the impression that the artist wanted to indicate that the bird was already in the process of leaving the head via the mouth or nose. In the gable mask H.Th.11,88:36, (see Plate XXXII,3), instead of the bird, a small human upper body is represented with clearly characterized head and two arms; also, it is connected with the tip of the nose of the face mask by a long bridge, with no sign of the ground. Perhaps in these carvings we are dealing with representations of dying: the soul is already in the process [456] of leaving the head of the dying person, in the form of a small person or a soul bird.

Then presumably at least some of the masks and figures from the river mouth region belong here, the tips of their noses elongated like snouts, and designated as bird masks both by the Monúmbo and on the Empress Augusta River without anybody so far knowing why. Originally, this elongation of the nose appears to have been no more than the head and bill of a bird; then most of the details have been lost, and the linear presentation sacrificed. The bird's head is still very clearly recognizable in several carved boards, especially H.Th.11,88:37 (see Fig.78); here the eyes are still represented, painted red with black-rimmed arches, and the beak is characterized by its shape, the downward-curved tip in particular, as that of a rhinoceros hornbill. The bird's head is also very clear in the hanging hook H.S.9366 (see Fig.112); on the nose of the face occupying the uppermost section of the hook, is an arch giving recognition of two eyes and a long solid beak. In figures H.S.9009 (Plate LXXV,4), H.S.9008, L.Me.9132 (Plate LXXV, 6 and 7) and others, the entire head, loosened into a spacious framework, seems to have become that of a bird.

These representations lead us to others, whose significance is still totally unknown. In these too, human and animal figures have been blended together, but in different ways. Thus, in many death figures and masks, there are lizards on the head (cf. for example H.S.6726, Plate LXXVIII,2) which Frobenius (1896a, p.82 et seq.) has already alluded to. They are often retained only as vestiges; thus the more frequently painted zigzag lines on the forehead seem to have evolved from the legs of lizards.

In other figures, masks, and house boards, a bird figure is added to the top of the head; it is especially large and clear in L.Me.9139 (see Plate LXXI,8), where it sits on the back of the head of the human figure. In house board H.S.1826 (see Plate XX,3) the facial representation usually found at the upper end of this carving, is replaced by a bird figure.

The large bird figures (see Plate XXXIV, 1 and 2) serving also as the gable peak, represent a type of blending of two forms: on their breast is the face, or the entire figure, of a person.

Snakes too find themselves united with human faces and forms, for example in H.Th.11,88:38 (see Plate XL,6), St.Ha.61611 (see Plate LXXVI,3) and H.S.6658.

Representations of Planar Art

Production Technique

The flat art works of our area are carved, painted, or a combination of both these decorative forms.

[457] In the villages just above the actual river mouth region are filigree carvings, which, to some extent, represent an intermediate stage between three-dimensional decoration and flat decoration. In part, these have come from human figures (see Plate XIX, 1-3 and pp.123-125), and in part they display a complex mass of vines, which seems to have developed from a series of representations of the rhinoceros hornbill (see Plate XX and pp.126-128). These are flat boards where the areas between the represented objects are always cut out.

In reality, planar decoration, produced by relatively shallow incisions, is found also on nut shells, bones, clay, and human skin, as well as on wood, the original material. It is painted onto wood, bark, leaf sheaths, and clay; and both forms may be used together on wood and clay.

It often looks as though they have been painted on, a much easier task than laborious carving. While for example in most 'carved boards' the human body is carved, in H.S.6577 (see Plate XIX,4) someone was content with representing it in coloured lines; and on the suspended hook St.Ha.61620, (see Plate XL,8), the face on the upper end is carved in front, but only painted on the back.

Attempts at Explanation

While typical three-dimensional works are usually produced so realistically that it is immediately obvious what they are intended to represent, superficial carving and painting often display quite extensive stylization, so that their meaning is not always easily recognizable. As yet, a full explanation of such cases remains impossible because of our still-inadequate knowledge of the culture, given especially that one avenue of understanding, local information, has so far been blocked almost completely. Thus, we are left with only an attempt to deduce the incomprehensible forms, by using those that are clearly recognizable. This path has already been followed in our region, admittedly with little success, by Preuss (1898a, pp.74-120, and 1898b), who attempted to explain a portion of the decoration found on the Empress Augusta River and on the neighbouring coast.

Neither path is without danger; in attempting deductions it is far too easy to slip into seeing things within the representations that have absolutely no connection. If the natives are questioned, there is the immediate danger of suggesting meanings to them. It probably did happen, and not only to us, that a native, asked about the meaning of a decoration promptly responded, "There isn't one", but after repeated questioning, came up with an answer. Through the questioning it had only just become clear to him that among those old time illustrations, which he had never given any thought to when looking at before, something might be being represented. He then looked for a point of reference and came up with an instantaneous explanation. [458] Also, the desire to please the white man may often play a role. In addition, on so many occasions, defective Pidgin is the cause of misunderstandings.

Yet another obstacle: you should only ask about the significance of a decoration when you are certain that the decorated object is of local origin and is not imported. Only then will

the meaning given by the natives usually be correct, otherwise it is quite likely that the native himself has no idea what original the representation refers to. He is therefore just as ignorant of the decoration as you are, and offers any sort of idea, or reiterates that possibly in his village they tend to put new meaning into the decoration. For example, when the Monúmbó answered Vormann's inquiry about the meandering pattern on a slit drum with "cockatoo intestines", and a spiral decoration as being "butterfly wings", (Schmidt, 1903, p.77), it is not to say that the artist had actually intended to depict these objects. The drums in question were not made by the Monúmbó, but by a tribe living on the Ramu; you should therefore ask them about the meaning.

It also happens that even the artist who carves the decoration cannot offer anything as to its significance, because he has only worked mechanically from a pattern. In such cases, often the old people of the village, the holders of the tribal traditions, are able to provide information.

Since as far as the natives are concerned, virtually no information is available about the meaning of decoration found on the Augusta River I restricted myself to seeking an explanation from that quarter only when the explanation was fairly close at hand, or where a complete developmental series could be established.

Facial representations. Stephan, (1907, p.115), quite justifiably warns against wanting to see faces everywhere in the decorations. However, they do not appear to be as rare as he assumes, especially in an area where humanism to all intents and purposes occupies such a high position as it does on the Empress Augusta River. We have already seen that three-dimensional facial representations are found on many weapons and implements. We should therefore not be surprised that this motif also recurs frequently in plane art — in part probably also in conjunction with humanistic presentations. In some cases, the faces are so clear that you can recognize immediately what they are. In others they are so heavily stylized that you would hardly expect to find them in the decoration if intermediate forms did not exist; and if the natives had not designated many of them as *barángu* or a related word probably meaning 'spirit'.

Preuss, (1898b), has attempted to demonstrate that the star-shaped figures found in many circles can be traced back to faces, and I do not deny that in this case he might be right. [459]

I am presenting a series of faces *en masse*, in order to demonstrate what transformations the motif can undergo in our region.

In Fig.286, (p.267), the faces are produced in a quite true-to-life form, but also show the widespread sides of the nose characteristic of facial representations in the region. In figures 454 (p.438), 473, and 139 (p.182), the sides of the nose are extended into long lines reaching far upwards and blending with the eye surrounds or the facial contours. The nostrils are indicated by two oblong depressions, (white in the illustrations). In Fig.454 the nose is continued as far as the upper border of the forehead.

The faces just described form the basic shape for a whole series of stylized reproductions. The nose can be omitted, giving rise to faces like the two on the outer bands of the clay bowl St.Ha.60628, (Fig.155, p.191), and like that of the decorative scar, Fig.76 (p.111). Or the sides of the nose may expand into big curved triangles, creating the type shown by the four inner faces on the same clay bowl, (Fig.155,



Fig.473. Facial representation from shield H.S.9361, 1/2 actual size (rubbing)

Fig.155,

p.191). If the representation is elongated owing to space considerations, then images like those on the clay bowl H.S.6638, (Fig.153, p.191), come into being, with the oversized nostrils filled out with short parallel curved lines repeating the contour of the upper border. Representations where the midline of the nose is replaced by a series of short curved lines mark the end point of this series.

Right beside the interior faces of the clay bowl St.Ha.60628 just discussed, (Fig.155, p.191), are the representations of the sword-club L.Me.9089, (Fig.383, p.344); here the eyes have become spirals. The very big nostrils are not filled out with curved lines, and the bridge of the nose is still clearly characterized. The faces found on the upper wide band of the decoration of spear H.S.4551, (Fig.349, p.322), are very similar, except that the closely-approximated eyes of every two faces are inverted to the eyes of a third face, whose nose has the same form as that of the representations right way up. The mouth is missing in all of them. In the small triangles between every two noses is a small face of the same type as the faces inside clay bowl St.Ha.60628, (see Fig.155, p.191).

Fairly commonly, the nostrils etched onto the sides of the nose, where they have a roundish shape, are reused as eyes. This is particularly clearly seen on shield H.S.4560, (Plate LX,3). This leads to representations [460] like those found on the upper wide decorative band of spear H.S.9363, (Fig.350, p.322). If several adjacent faces of the type just mentioned, (as seen on the spear decoration H.S.4551, (Fig.349, p.322)), merge in such a way that each pair of eyes becomes one, there arise figures like those in the lower decorative section of spear H.S.4550, (Fig.352, p.323), which you might initially take for a 'dancing manikin'. The end point of this series is probably found in the figures on the lowermost decorative band of spear H.S.9363, (Fig.350, p.322), where a face is added to the tip of each of several noses.

From the faces mentioned above in figures 454 and 139, the representations in the upper decorative band of spear H.S.6678, (Fig.353, p.325), can be seen straight away, while the big eyes of spear H.S.6667, (Fig.355, p.325), are probably related.

In the faces of the lower half of the decorative band of spear H.S.4551, (Fig.349, p.322), apparently, the highest point on the bridge of the nose is indicated by an oval area, and the tip of each nose is adorned with a small face.

It seems highly improbable that decorations of the type found on spear H.S.1772, (Fig.343, p.319), are derived from "flying foxes at rest", as Preuss, (1898a, Fig.121, pp. 95 and 98), maintains; the similarity with facial representations such as, for example, in Fig.353, p.352, is far too surprising.

The areas where the eyes are situated are often drawn out into long tails in facial representations which come from the middle reaches, (especially clearly seen on the clay-modelled skulls, for example Plate LXVIII,1; and see also the calabash decoration, Fig.287, p.268). These tails may merge, giving rise to faces that look as if they are wearing spectacles, (see Fig.289, p.270).

In many spears, for example H.S.91199, (Fig.345, p.319), the eyes of the faces have become spirals markedly extended lengthwise. If we compare these with the spirals found in the lower section of the decorative band of spear H.S.6678, (Fig.353, p.325), it does not seem impossible that they too have evolved from facial representations.

I would especially like to mention that a great number of the decorative scars found in the middle reaches seem to hark back to facial representations, (see Figs 71–76, p.111); in many of them the face is still clearly recognizable.

Eye representations. Eyes are usually presented as part of the whole face, and consist of concentric circles or spirals. We may find them in isolation, for example on several clay bowls, (Figs 162 and 163, p.195; Fig.156, p.193; and Fig.170, p.201), where, admittedly,

they can probably be considered as vestiges of facial representations that have disappeared. Perhaps, too, the crown of the oval raised areas on the rim of bowl H.S.9135, (Fig.147, p.188), is to be regarded as a row of eyes, (cf. Fig.124, p.177). [461]

Representations of the mouth. On almost all lime containers from the river mouth region, an unique design is burnt on in multiple repetitions: an oblong-oval area flanked by two curved, 'sausage-shaped' images, (Figs 252 and 256, p.253). I surmise that this design is intended to represent a mouth. With a container whose contents are delivered to the mouth countless times every day, such a thought comes easily. These figures quite astonishingly resemble the mouth framed with curved lines seen on many skulls with a modelled face, for example, St.Kr.61166, (see Plate LXVIII,1), St.Ha.61656, and H.Do.11,32:5 (Plate LXIX,2).

In ancestral figures, masks, and the like, the mouth is often reproduced as an oval elevation depressed in the centre. Thus the oval projections on the lid of lime box H.S.9061, (Fig.267, p.259), are probably meant to represent mouths.

Representations of the nose. On the painted pieces of bark covered with faces, from the river mouth region, (see pp.121_123 and Plates XVII and XVIII), the noses usually display quite wide sides tapering laterally, a bridge tapering upwards, with a fairly acute angle at the lower end. In several specimens, the four-pointed nose has become a star-shaped figure, (for example, in a specimen illustrated on Plate XVII,5). Both four-pointed stars seen isolated in the lower half of H.S.6556, (see Plate XIII,2), are also therefore probably to be regarded as nose representations.

"Flying fox at rest". Preuss, (1898a, p.24 *et seq.*), traces back the meandering band often found in the river mouth region, (seen for example in multiples on spears H.S. 9377, 9375, and 1772, (Figs 336, 340, and 343, pp. 316 and 319)), to "flying foxes at rest". As already mentioned, the Monúmbo, who do not, however, carve it themselves, designated it to Vormann, (Schmidt, 1903), as "cockatoo entrails". We are not aware of any other descriptions by the natives.

Preuss also believes that he can trace back two apparently closely-related decorations covering almost the entire carved area of many spears from the river mouth region, (for example, H.S.9377 and H.S.9375, (Figs 336 and 340, p.316)), to the same motif. Here, too, the maker's ideas are so far unavailable; the question of the meaning of this heavily stylized decoration must therefore remain open.

In the main, figures consisting of two large spirals, as found, for example, on the lateral parts of shield H.Do.11,32:6, (see Plate LIX,1), are, according to Preuss, to be regarded as, "flying foxes". The Monúmbo designated them as "butterflies". The latter meaning seems to be supported by the fact that, in one instance in the shield just mentioned, two large feathered butterfly antennae are added to the head of the body, between the two spirals. [462]

Other animal images. On several of the conical bowls, for example, H.S.6551, (see Fig.164, p.197), are figures displaying head, trunk, two wings and a segmented tail. Perhaps they represent birds, but possibly "flying foxes".

Almost-identical four-legged animals with a long tail are depicted on clay bowl H.S.9134, (Fig.148, p.190). These are probably representations of lizards; only the considerable breadth of the head is astonishing, giving the animals the appearance of salamanders.

Summary

Observations so far demonstrate that in actual fact, at least in a great number of the plane images found in our area, we are certainly not dealing with 'decorations' in the true sense: rather they have evolved from real representations. Very probably the natives are using them to present something real.

Now although the 'decorations' consist almost exclusively of images from nature, only rarely, and by no means in every village do people appear to work directly from nature. They usually seem to use models; without this assumption, the extraordinarily strong stylization of many representations would probably be hard to explain. They also appear to keep particularly good pieces for a long time, for the purpose of copying. We often found well-made canoe prows separated from the canoes and evidently serving only as models. This copying probably also explains why many pieces, sometimes quite complex specimens, appear extraordinarily similar. Occasionally, they also seem to reproduce, mechanically, decorations seen in neighbouring areas, without any insight into their significance. An example of this is probably the shields from the region just above the river mouth swamps, whose decoration often looks like a failed imitation of the local decoration from the river mouth area, (see H.S. 8988 and 6567, Plate LIX, 2 and 3).

Influence of the Raw Material

The raw material influences the artist, firstly through its peculiar characteristics: its plasticity, its hardness, and the like, and secondly through its form. Wooden objects, for example, always invite their surfaces to be decorated with chiselled- or shallowly-carved lines; clay, on the other hand, suggests the forming of three-dimensional shapes. Typical examples of the first situation are, especially, the spears of the river mouth region, with their decoration of rather flatly carved lines, almost completely covering the front section of the spear shaft. Typical examples of the second case are the facial urns, with their various highly three-dimensional additions, the modelled [463] skulls and the figures mentioned by Neuhauss, (1911, I, p.59), fashioned from river bank clay.

In one instance there is a decoration technique that actually goes against the nature of the material being used: the conical clay bowls are covered with a decoration consisting of shallowly-carved lines and areas. Here, the probably-older style of decoration of wood appears to have been transferred to clay, together with the fact that the decoration also usually contradicts the form of the bowl, an indication that the bowls possibly were originally made from wood, and were oval in shape, (cf. p.189).

Here are only a few examples of the influence of form: representations found on spears are usually markedly elongated; on the other hand, on wide surfaces, for example on clay bowls, ornamentation is distinguished by development in width.

The influence of form when it is suggested by the motif is particularly interesting: roundish protruding pegs or handles become heads, (for example in slit drums, see Plate LXXXVI); on the front part of canoes they carve crocodile figures and heads; bulbous dishes, slit drums, and the like become animal bodies, or additions (especially in clay vessels) to noses, to which eyes, mouth, and the like are often also added.

The evidently not uncommon reinterpretation of decorations can be traced back to this suggestive influence of form. If, for example, some group of lines reminds the artist of a

face, he actually turns it into one, by adding on a few elements. Thus, without a doubt, there is a connection between facial representations and the “butterfly” decoration of the Monúmbó. Representations where you actually do not know whether you are dealing with a face or a “butterfly” are not at all uncommon. The merging of a facial representation with a clearly-recognizable four-footed animal body, (see Plates XVII,6 and XVIII,3 and p.122), on several painted pieces of bark can probably be explained in a similar way. The shape of the nose has evidently reminded the artist of the body of the animal.

Style Provinces

If the artistic work of the stretches of river that we visited are compared with one another, it is quickly seen that different, clearly characteristic styles can be identified. This astonished Schlaginhaufen, (1910a, p.8), as well. He found that in the middle reaches “the three-dimensional representations are far more flatly produced — I would say more after the style of *bas-relief*,” than in the lower reaches, an observation that I can to a certain extent confirm. For example, if the death figures, the wooden masks, and the hanging hooks of the river mouth area are compared with those of the middle reaches, this difference is particularly clearly seen: the former [464] show a certain expansive three-dimensional form, the latter are almost without exception quite flattened dorsoventrally. A similar finding can be observed among the shields: the further upstream, the flatter they become. In the river mouth region they are markedly-rounded half tree trunks hollowed-out at the back, whereas in the vicinity of the Hunstein Range they are only flat boards. This is noticeable even in the house poles: in the middle reaches the entire circumference of the pole is never divided up to draw a figure, usually only one section displays a shallowly-produced form, (see Plate XXXIII,1). This wood sculpture of the middle reaches almost gives the impression of a more three-dimensional variant of surface art: it looks like a first shy attempt at developing real sculpture from this. Only the slit drums and wooden bowls of the region make an exception by presenting actual three-dimensional forms. However, I suspect that they have evolved under the influence of the villages further downstream, (from Îmbăntôn roughly as far as Ămním).

It is surprising that even in this region of *bas-relief*, clay sculpture has developed to an extraordinary level: it is here that we find the finest and biggest containers; here by far the most true-to-life remodelled skulls. The emerging skill of sculpting has probably seized upon the far more manageable material, while not yet venturing to tackle wood, which is more difficult to shape in three dimensions.

The style differences of the various regions come to be expressed in surface art even more clearly than in the sculpted works. This emphasizes that more than two style types can be differentiated.

For example, let us look at the decoration of the various types of shield, (Plates LVIII to LXI). In all of them a facial representation plays the principal role, but even here you can tell at a glance that the shields are different. In the ‘coastal form’ the face is presented quite three-dimensionally, and in contrast to the shallow ornamentation it is stylized relatively little, (see for example Plates LVIII and LIX,1). In the second type, (cf. Plate LIX, 2 and 3), it is usually only roughly incised; in all the rest, it is produced in shallow relief and heavily stylized at the same time, (cf. Plates LX and LXI). The difference between the actual decorations covering the rest of the shield is almost greater still. In the coastal form they show the narrow, very precisely incised, stylized, rigid lines, so characteristic of the river

mouth area, and usually combined with meandering bands and pairs of spirals. In the second type, they recall something of the coastal form, but are very much more widely, roughly, and more solidly produced, with greater embellishment, forming the framework for stylized rudimentary facial representations added below the main face. The decoration of the third type, (cf. Plates LX,1 and LXI,1), shows very heavily stylized and barely more recognizable facial representations, which appear three-dimensional due to the incising of lines and areas between them and their parts. In all the rest of the shield types, below the main face are similarly [465] stylized and, in places, rudimentary facial representations, although arranged in transverse bands across the surface of the shield. Here they show very little that is conventional, and a surprising variability in form; no two shields are alike. The specimens of the sixth type of shield, (see Plate LXI,3 and Fig.308, p.303), distinguish themselves by the lines of their decoration being very sharply and deeply incised.

Comparison of spear decoration gives the same result. In the lances of the river mouth region we find a somewhat rigid pattern, (cf. Figs 336–341, pp. 316, and Fig.343, p.319), made by narrow incisions extraordinarily carefully produced in every detail; in those of the middle reaches, (see Figs 348–352, p.322), we find very much freer production of lines, and wide, incised bands and surfaces; and, finally, in the lances from the vicinity of the Hunstein Range, (see Figs 353 and 355, p.325), large areas with deep, sharply incised lines. Furthermore, in the spears from the middle reaches, the meaning of the representation can be recognized almost every time, whereas in those from the river mouth region the stylization has progressed to the point of totally blotting out the original design.

To give a further example, we find the same thing with the slit drums. In those of the river mouth area, almost the entire surface is covered with a close series of narrow lines usually forming spirals or meandering patterns, (cf. Plate LXXXVI, 1 and 2); in those of the lower middle reaches, it is covered with a more three-dimensional decoration, (facial representations), which have been created by the elevation of wide lines and surfaces, (see Plate LXXXVI,4). The drums local to the actual middle reaches show, finally, although only on the sides, an insignificant decoration which has developed from the legs of the animal forming the drum, (see Plate LXXXVIII,2). Thus the representations here too, in those specimens from the lower reaches, are markedly stylized; while in the rest they are very much more realistic.

The result of these investigations is that on the Augusta River, in the section between the river mouth and the Hunstein Range, four stylistic provinces can be distinguished with some degree of accuracy.

The first comprises the river mouth area. Here, the sculpted wood showing usually fairly realistic forms is well developed, whereas sculpted clay is less so, (probably due to a lack of suitable raw material). The shallow decoration shows a tendency to cover the part to be ornamented as much as possible. It is composed of carefully-incised, narrow, rigid lines, and, (in contrast to the sculpted wood), shows marked stylization throughout. This has sacrificed the original form so far that the meaning of the representations can, as a rule, no longer be recognized at a glance. Here the decoration is remarkably strongly influenced by tradition: they no longer seem to carve the pattern directly from nature, but only from models. Then in general on [466] the Augusta River, surface decoration in this area has developed into 'decoration' in the true sense.

The second style province begins just above the river mouth swamps, roughly near ĪmbăntŃn, where a surprisingly dark-skinned, prognathic stamp of man occurs frequently, and extends roughly as far as Ămnĭm. Here the actual three-dimensional works are stylized only to a very small degree, and are distinguished much more by great realism. This is the

homeland of the marvellous, realistic canoe prows, (cf. Plate LV, 3, 4, and 5). In this area nothing has been added to an ornamental style; the less superficial decorations that are found here, (for example on the shields), appear to have been influenced by the neighbouring regions. A particular speciality of this area seems to be an intermediate stage between actual sculpture and shallow decoration: extremely artistic filigree carvings. Mainly house boards are produced in this manner, (see Plate XX, and pp. 126–128). The total impression is that here, in a certain sense, we are dealing with a primitive and relatively unassuming art, which is barely restricted by tradition and models, yet essentially copies Nature.

Then, roughly at Măndănă, the third province begins. Here clay sculpture flourishes at a particularly high level. In contrast, the three-dimensional works created from wood are normally surprisingly flat, produced in the bas-relief style, and almost appear to be just a somewhat more three-dimensional variant of surface decoration. It shows wide, deep lines and surfaces, and a fairly disconnected pattern of lines. Whereas in the river mouth area the incised lines generally form the pattern, here the depressions are only a means to an end: the decorations are produced from the remaining raised areas. Also, a marked effort toward stylization is already demonstrated in the art of this area, but as yet this has not progressed as far as it has in the river mouth region. The meaning of the presentations is, in most cases, still recognizable at a glance. While in the river mouth area there were numerous angularly-curved and blocked lines, production of lines in the third style province shows a different predilection: for rounded forms. The spiral occurs just as often as in the former area.

The fourth style form is found in the vicinity of the Hunstein Range. Clay work is not at an especially high level. Wood sculpture is very flat; surface decoration is quite three-dimensional. Here too the pattern is formed from the residual areas. The depressions are always sharply- and surprisingly deeply incised. The ornamentation shows a certain large-scale simplicity: each individual representation occupies a relatively large area, and consists of big surfaces and long curved lines. Here the stylization has progressed remarkably far, almost further than in the neighbouring style province. Thus, for example, the facial representations on the spear shafts are often barely still [467] recognizable as such. The spiral is found here relatively rarely, and then usually in altered form. In its place, wavy and zigzag lines form the dominant element. Also particular favourites are various forms of lattice-work, as found for example on the upper rim of shield H.S.6707, (see Fig.308, p.303), and in the lower section of the spear decoration of H.S.6678 and H.S.9330, (see Figs 353 and 356, p.325). [468]

Comparative Section

Cultural Regions

If you want to form an opinion about the ethnographic position of a region, you must first of all attempt to clarify what is of local origin in the area in question, and what is imported. In New Guinea this question is not always easy to answer, and only a few travellers have made the effort to inquire about the exact origin of each individual item.

Inquiries so far have revealed that the material possessions of the tribes of the interior of this island have, for the most part, been made by them, while the coastal people frequently obtain an astonishingly large proportion of theirs from the interior. As a result of the very extensive coastal trade in many areas, many items wander further, into far distant regions. Thus, the beautifully carved wooden bowls made on Tami are found not only on the neighbouring mainland coast but also as far as inland New Britain. Also, pottery items are often a coveted item, and are frequently traded over long distances. The beautifully-made arrows of the New Guinea coast travel especially far, and are not infrequently used as gifts of hospitality and friendship, (cf. for example, Hagen, 1899, p.176). Furthermore, trade routes must pass across the interior, along which so many cultural goods progress very gradually from tribe to tribe. At any rate, only by this assumption can the extraordinarily wide extent of many objects (for example the clubs with a stone knob) be explained, a point to which B. Hagen, (*loc. cit.*), and Foy, (1902), have already alluded. The influence of foreign goods is often quite significant. In many coastal areas the original cultural possessions seem almost to have been completely supplanted by the latter.

Fortunately, there was still virtually no trace of European influence in the area that we visited by the time that we were there. Only in the river mouth area are they familiar with iron and European material, owing to the trading post at Wātām. Further upstream, they have, for the most part, never seen iron for example, and at the outset they did not know where to begin with knives and axes. Therefore, all [469] foreign influences that could finally be determined, came from nearby.

Of the material cultural wealth of our area, it is for the moment certain that everything is of local origin, made on the river itself: everything connected with house construction and navigation for example, carved house poles, gables and tower decoration, canoes, and the like. The form and style of these objects can therefore be regarded as characteristic of our region, and, if other objects display the same style, one may conclude that these too were made at the same spot, or at least in the vicinity. Indeed, distinctive styles are always limited only to small areas in the South Seas. Thus we find that in the middle reaches, besides house poles, all kinds of other objects: hanging hooks, wooden gable masks and the like, are conspicuous in their unique, flat facial form; and these too are therefore made on the river itself.

Furthermore, all objects directly connected with the cult of the dead, in particular the death figures, death masks, and the decorated and modelled skulls, are undoubtedly of local origin. Many of the death figures (for example H.S.9046, Fig.407, p.383), and the masks, were carved only a short time ago. Indeed, the figure just mentioned was not completely finished; on the recently-carved pan flutes that Müller found in Kōpār hung small, newly-made amulet masks, still unpainted. A large number of carved heads and faces display exactly the same

painting as the skulls modelled over with clay. Thus, these too were unquestionably made on the river itself.

Most slit drums also appear to be of local origin. In front of a ceremonial house in the village of Măndănăm we came across an enclosed space containing a regular drum-manufacturing site. Even if we were not aware of this information, we would still have had to conclude that they are made on site from the fact that in most villages of the middle reaches these huge and, in places, barely-transportable drums are found in great numbers. Two smaller drums differed so remarkably both in form and style that we immediately asked about their origin. We learned that they had been imported. We saw them both in the lower reaches. We obtained one of them in the village of Năngiț, (see Plate LXXXVI,4). It was alleged to have come from a village called Sîngără, but we could not find out anything about its location, (see p.38). As for the other, Müller saw it in Mbîm, although a village called Răuțșîn was named as the place of manufacture. Furthermore, Neuhauss, (1911, I, p.326), writes that, according to his information, the river mouth region of the Empress Augusta River is a "main fabrication centre" for slit drums, whence they were traded over long distances. The veracity of this information is supported by the fact that slit drums traded from there are found among the Monúmbo.

Also, the majority of weapons, especially shields and spears, appear to be produced on the river itself. This can already be surmised, because they [470] display particularly clearly the decoration characteristic of each style province, and because, especially in the shields, each variant appears to be restricted to just a small area.

As far as plaiting is concerned, so far only from a simple arm band, (H.S.9039, see p.106), and the smooth woman's cap, (see Plate IX), can we establish with any certainty that they are locally made, because we only possess just-started samples of them. Yet by virtue of the same motif being used, it is however likely that the other type of cap, decorated with plaited little knots, is also produced on the river itself. It appears to be local to the upper section of the river.

Whether the items plaited from rattan, for example the dance masks from the middle reaches, are made right on the river or in the neighbouring interior cannot yet be determined. Their relative abundance, and the fact that there is actually no conceivable reason why they should not be made on the river, support their local origin. Furthermore, the raw material occurs right on the river: there are not infrequently patches of scrub on the bank itself, (see, for example, Plate II,3). Furthermore, rattan is used elsewhere on the river, and in definitely local objects: the skulls provided with rattan decoration are certainly not sent into the interior to be polished. Also the spiral bulge technique by which the masks are made, is familiar on the river itself; all clay vessels are made using the same technique.

At least a large part of the clay pottery obtained on the river is probably also made here. The raw material is available in large quantities. The skill of fashioning three-dimensional structures out of mud and clay has reached an extraordinarily high level, as is demonstrated by the mud structures and mud figures produced by skilled hands, seen by Neuhauss and Schlaginhaufen (see above) on the river bank, and by the marvellous recreated heads modelled over skulls. And finally, in the decoration of containers there is not the least inconsistency with the local style; by comparison, the images added to wooden containers are almost identical. It would also be surprising if a people with such a highly-developed gift for working in three dimensions were to acquire the relatively easily-made pots from outside the region. Even had pottery not been originally indigenous to such a region, people would very quickly have adapted to making the vessels for themselves, especially with the raw material available in such abundant quantity as it is on the Augusta River. One might assume

that, much earlier, clay vessel export took place from the middle reaches. While, for example, the flat, cone-shaped bowls are quite extraordinarily plentiful in the middle reaches, (which is also indicative of the probability that they had been produced there), and we were [471] able to trade very cheaply for them in bulk, they were quite rare in the lower reaches, and were sold only at a high price. This indicates that bowls in the river mouth area had come downstream. The same is true of the large, richly-decorated containers, the facial urns, and the like. I believe that they are of local manufacture and are not imported from the interior. They are, without doubt, nothing more than imitations of the normal cooking pots used in the middle reaches, to which they are extraordinarily close in general form, (cf. Plate XLV, 1 and 3, and Figs 177–180, see p.205), and also in the decoration technique. Both types of vessel are decorated with three-dimensionally projecting ridges, noses and processes, which have arisen either by pressing out or adding on material. Furthermore, the very large specimens, for example the facial urns, would hardly stand transport over long stretches, even when in the front of a canoe. With their great size and weight, they are fired only very unsatisfactorily, and they are easily breakable. That they are not found as often as the conical bowls and the cooking pots does not contradict their local origin: implements used for ceremonial purposes are similarly not mass-produced articles.

It could not be determined whether there were special 'pottery' villages. The fact that talent for sculpture seems to exist along the entire middle reaches indicates at least several pottery centres.

The overall impression is that almost the entire material cultural heritage found on the river appears to be of local origin. Only several slit drums are definitely of foreign culture; a number of decorative pieces made from sea shells and mussels are probably imported, (if they are not, which is also possible, made from material imported to the site); and several foreign-style objects, (such as skin shields, penis covers, and the like), found in the vicinity of the Hunstein Range, which probably came from the neighbouring mountains. In assessing the ethnographic relationships we will be able to take into account almost the entire cultural heritage.

With our still incomplete knowledge, it would naturally be premature to deliver a definitive judgment on the culture of the Empress Augusta River, especially when only a portion of the region has so far been visited. Ours and all the other journeys represent, to some extent, only a cross-section of this ethnographic province. We are therefore somewhat in the position of a geologist who is confronted with the task of formulating a statement on the deep layers traversed, from the disposition of a core sample. We can determine only the characteristic-, the general-, and the discontinuous moments of the points touched on, while we can only express an opinion about the neighbouring areas and the deeper contexts. In one respect we are of course in a more favourable position than the geologist: we can be certain that our area does touch on the most interesting features, and does allow us to throw a glance right into those areas where the culture [472] has blossomed into full flower, having experienced the enriching influence of the busy river. The villages off the beaten track, hidden in the lost corners among the swamps of the plain, would indeed offer much of interest, especially of antiquity, but on a cultural level they must unconditionally stand behind those on the river. In the eyes of the river inhabitants, only "bush kanakas" live there.

The contact engendered by the river will however have had the effect that the cultural boundaries existing along the riverbank have blurred somewhat; they will have become less distinct than in the hinterland, whose exploration will probably provide us with an explanation of many situations found on the river. Furthermore, culture found on the river will hardly have progressed very far inland; otherwise, it would be very much more uniform

right along the bank of the river. In general, I have the impression that relations along the Augusta River are exactly the same as virtually everywhere else along the New Guinea coast: on the shore, often on only narrow strips of coastline, is a population that immigrated a relatively short time before, and just beyond are the scarcely-influenced original inhabitants. In our case, however, the broad plain, accessible virtually only by boat, would have favoured a fairly broad spreading-out of the riverbank culture.

In any case, we are forced into the conclusion that if only quite major differences in cultural possessions or style occur on the river itself, these would be even more clearly expressed in the hinterland, which is less influenced by communication; but if they do indeed accumulate, one would be quite justified in differentiating different cultural areas.

We have already seen in the previous chapter that artistic works display such wide variations in style along the stretch of river that we visited, that four style-provinces can be clearly distinguished. One comprises the actual river mouth area; the second, a relatively short stretch of river above the first; and the third, the area roughly from Mändánăm to the Hunstein Range, where a fourth, possibly originating in the mountains, comes down to the river.

So, let us examine how the rest of the cultural heritage relates to these style provinces.

Among the houses, three clearly-recognizable forms of construction can be differentiated, (see p.116). All three are, admittedly, only variations of a house type widespread along the coasts of Kaiser Wilhelmsland; however there are differences in construction, and particularly in external appearance which are so great that the three styles can be distinguished at a glance, (see Plates XIV, XXI, XXIII, XXV, XXVI, XXIX). The regions for which each of the house styles is characteristic, coincides with the first three style provinces. The house of the fourth province is scarcely different from that of the third, at least on the riverbank. [473]

The dug-outs of the coastal region are usually fairly simple vessels, only rarely showing a few usually markedly-stylized decorations. In the second style province, people set great store on the artistic presentation of the canoe prow, frequently transforming it into marvellously-fashioned, true-to-life animal figures, (see Plate LV). In the area of the third province, the decorations are again very much simpler, but for this reason the canoes often attain a quite extraordinary length, (see Plate LIV,4).

While in the river mouth area, apart from the definitely non-local conical clay bowls, they appear to use only very simple, plain, clay vessels, the pots and bowls of the third style province display a wealth of forms and decoration. Then, in the vicinity of the Hunstein Range, pottery appears to be at a relatively low standard. Pots produced especially for gable decoration occur only in the third style province.

Fairly major differences can be observed in hairstyles. Plaited hair baskets and the belt constricting the waist, are found exclusively in the river mouth area. In the region of the second style province, the hair is usually worn in its natural form with a loose belt around the waist. In the middle reaches, hairstyles show more variation, (see p.85), with quite adventurous styles in some places. Here the men's clothing consists of a kilt imitating the penis or is lacking altogether, which appears to be the general rule for the fourth province.

While the slit drums of the river mouth region show the usual style of the nearby coast, the third is an asymmetrical drum form, with a peg extending inside, limited to the third- and the upper part of the second style province. In the latter, which does not seem to have brought itself to express an unique drum form, this is evidently a 'foreign import'.

The weapons of the different areas, especially the shields, show quite big differences, expressed mainly in the decoration, and have already been discussed in the previous chapter,

(see also pages 296 and 297). A major difference is found in distance weapons: along the entire stretch of the river roughly as far as the Hunstein Range, this is the catapult spear; throughout the upper reaches it is the bow. Those bows found occasionally alongside the catapult spear on the coast, and in the lower reaches, appear to be imports.

I have already alluded to differences in burial styles, (see p.352). As far as I could determine, there is underground burial in the coastal region and in the third style province with subsequent exhumation of the skull and several bones. In the intervening, second, province there is platform burial, (see Plate XXIV,1).

Also, the form of veneration of the dead appears to differ. While in the river mouth area they mainly produce death figures and the skull cult is in the background, [474] in the middle reaches, particularly in the area of the third style province, value is bestowed exclusively upon the skull.

With the differences in material culture are associated also those of language (see p.65), and anthropological type (see p.52). As we concluded from the vocabulary drawn upon, and the behaviour of our interpreters, we are probably dealing with three language zones, while from the anthropological perspective the population of each of the four provinces is assembled somewhat differently. In the first and third style provinces, the paler, more refined elements predominate; in the second and fourth, the darker, more solid, Baining type.

Besides the differences mentioned so far, we must naturally not overlook the common elements along the entire stretch of the river that we visited.

In the religious sphere, humanism seems to play the principal role throughout the lower and middle reaches: there is a universal need to exhume the remains of the dead, usually only the skull, and to produce figurines and flat representations of the deceased. Probably skull-hunting and cannibalism are also common to all four regions.

For recreation, betel and tobacco occurs throughout the region up to the Hunstein Range, (perhaps also beyond).

The canoes used on the river are, without exception, dug-outs: vessels without an outrigger, propelled forward by paddles. Their universal use can definitely be traced back in part to the geographical situation: outrigger canoes prove impractical on the river, and in any case, the narrow canals of our region are navigable only in these dug-outs.

It has already been mentioned that all the houses seen, right up to the Hunstein Range, are pole buildings with a rectangular floor area and essentially the same construction, likewise that all the clay containers are made using the spiral bulge technique.

Among their weapons, spear catapults, throwing spears, and wooden shields are common to the entire visited stretch of the river.

If we bring together everything said thus far, the result is that along the Empress Augusta River, from the mouth right to the Hunstein Range, there is a whole range of major common elements; the cultures appear to have, to some degree, a common base; but on the other hand, there are also very important differences which are probably much more clearly accentuated in the villages of the interior, off to the sides of the river. It is significant that these differences coincide with the established style provinces, and allow the characteristics and the borders of each of these regions to be brought out even more clearly.

When I was able to have access to far more extensive material than was available a year ago, I came essentially to the same conclusion as I did then, (Reche, 1911b): in spite of many common [475] features in the middle and lower reaches, four relatively sharply-defined regions can be recognized, showing such great differences, especially in style, that in most cases one can immediately distinguish from which section of the river an object came.

Neuhauss, who in August 1911 could still not state his agreement with my division into different cultural regions, (see *Korrespondenz-Blatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte* 1911, No. 8/12, p.127), has, in the meantime, firmly adopted my conclusion as his own. In his publication, (1911, I, p.330), which appeared several months after my exposition, he writes, of course without citing me, "However, industry and art bear no uniform character right along the Augusta River. Admittedly our knowledge is still far too limited to be able to deliver a definitive judgment, yet up to the middle reaches of the river (meaning that section of the river above the Hunstein Range) three cultural zones (In 1911 I had defined only three cultural areas, (Reche, 1911b), with less emphasis on the inland culture near the Hunstein Range where only a few outliers came down to the river) can be clearly distinguished. . ." and further on ". . .and the language boundaries appear to correspond with the cultural boundaries". Further on, he recapitulates basically the same reasoning that I put forward for this division, (cf. Reche, 1911b, p.124 *et seq.*, and Neuhauss, 1911, vol.I, p.330).

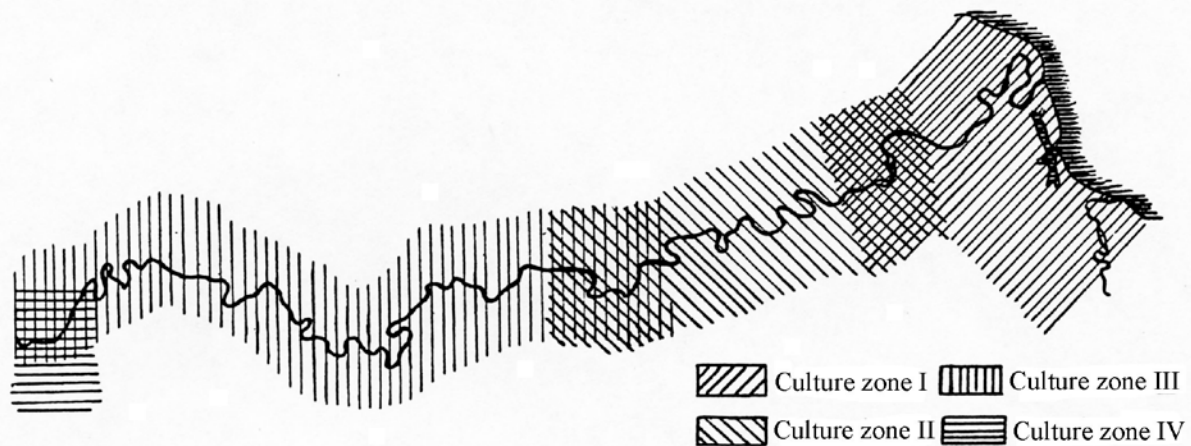


Fig.474. Cultural zones on the Empress Augusta River (from the mouth, as far as Málu).

The different cultural zones that I established are drawn on the small map, (Fig.474). The areas with a surprising intermingling of characteristics are indicated by intermingling lines.

Culture zone I comprises the estuary swamps, the surroundings of the great coastal lagoon, the river mouth area of the Ramu, and the adjacent coast; it extends upstream roughly as far as Mbīm.

Zone II begins relatively purely approximately at Āngöróm (Wolem), and stretches roughly as far as Āmnīm. [476]

The third culture zone extends roughly from Kāmbrīngī or Māndānām right to the Hunstein Range, where elements of the fourth zone come down to the river, probably from their home in the nearby mountains.

Only very little is known so far about the cultures upstream of the Hunstein Range; this area has experienced only four brief visits. We could be dealing with at least two cultural zones: one on the plain with a fairly highly developed culture, apparently influenced by the middle reaches below the Hunstein Range, (there are slit drums and large houses standing on poles; see Hollrung, 1888b, p.231, and *Globus* 1910, vol.XCVIII, p.377), and a second, more impoverished, region of the mountain dwellers. [477]

Ethnographic Situation

Connections with other regions

As yet a definitive judgment on the ethnographic position of the Empress Augusta River cannot be made. We will be unable to recognize external influences on these zones clearly, until we know more about the intellectual culture. For the moment, therefore, we have to restrict ourselves to seeking out connections with other areas from amongst those cultural zones so far studied.

It is unnecessary to go into the geographical extent of each individual element; the places other than the Augusta River where pole buildings, tree houses, slit drums, broad shields, skull cults and the like occur, can be found summarized in Gräbner, (1909). I want only to emphasize those things that are particularly relevant to the assessment of our area.

The river mouth region house (Type I) is found, with a few variations, along the entire neighbouring coast, in the east to beyond Potsdamhafen, and on several of the offshore islands. The Type II houses, with their sunken roof ridge and the bold, soaring gables, are similar in many aspects to the dwellings of Berlinhafen, although the gable shape is lacking. However, in addition and quite amazingly, they resemble those dwellings of a rather distant region: the houses of several Batak tribes on Sumatra. H.Frobenius, (1899), illustrates several Batak houses, (*loc. cit.*, Fig.2), that resemble the Type II houses of our area, even in their minor details. Finally, the houses of the Carolines can be drawn into the comparison: the buildings on Yap in particular resemble our Type II, in the form of the roof and gable.

The spear catapult, actually the 'female' form, extends along the entire neighbouring coast, is found on Bäm, and on the Hansa volcanic island. I cannot go along with Friederici's opinion, "that the throwing board comes from the interior of New Guinea and has penetrated along the stretch of river to the north coast", (1912, p.116); so far any evidence for such an assumption is lacking. First of all, according to every report to date, the spear catapult occurs only up to the Hunstein Range. It seems to be unknown further upstream, where it is replaced by bows and arrows. It therefore has certainly not migrated along the river; otherwise it would not be missing just in the more remote parts of the river, while being found in the busy middle- and lower reaches. Furthermore, until now, spear catapults have not been encountered anywhere in the interior [478] of New Guinea. On the other hand however, it does occur, and did occur, on several of the Caroline Islands: Pelau, Uleai, and Yap, (Gräbner, 1909, p.736, and von Luschan, 1896, pp. 133 and 152), and the catapult cord is used in the Admiralty Islands, as our expedition was able to establish. All of this seems, rather, to support the idea that this admittedly very antiquated instrument came over the sea to our area, and then migrated upriver.

W.Müller, (*Korrespondenz-Blatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte* und 1911, p.127), mentions that the Museum für Völkerkunde in Berlin holds "two forms of plaited mask that were collected eastward and westward of the mouth of the Augusta River, but do not occur typically at the river mouth itself." Also, in the Völkermuseum in Frankfurt am Main is a mask plaited from rattan, (Plate LXXX,2), strikingly resembling those from the middle reaches; it was collected in Dallmannhafen, west of the river mouth, opposite the island of Muschu. These findings show the possibility of a cultural connection existing between these stretches of coast and the middle reaches.

It is remarkable that the slit drum, as revealed by the experiences of the German-Dutch border expedition, also occurs on the plain above the Hunstein Range. The form

indigenous to the middle reaches, with a peg extending into the cavity, (see Fig.459, p.442), can possibly be aligned with the *garamut* of the Gazelle Peninsula and New Ireland; however the latter show a thickening that is only shallow on the inside of each wall, and does not project very far inwards. Similar forms also occur in central Africa, (museum material).

The form of hand drum that is spherically thickened in its lower half, (see Figs 457 and 458, p.439), which occurs occasionally in the lower reaches, has its nearest relatives in the “beer jug form”, (Neuhauss, 1911, I, p.327), of the Kai in the Rawlinson Range, and among the types of drum that we found in the eastern section of the south coast of New Britain, (Fig.475).

Skull masks are especially familiar on the Gazelle Peninsula, but occur also on the Fly River and on Canoe Island, (Frobenius, 1898a, p.163). On the Gazelle Peninsula and on the Fly River they have a modelled face, similar to those on the Augusta River. [479]

The sitting stool with legs, found along the middle reaches, has its (geographically) nearest relatives on the upper Markham River, from which we should not jump to the conclusion of a direct inland connection, because in the intervening regions, for example the upper Ramu, the stools do not occur, as far as is known. Besides, the Lae-Womba on the Markham are a Melanesian tribe, and have certainly migrated up river from the coast. Furthermore, the form of their stool is much too different from those on the Augusta River for a direct connection to be contemplated, (compare the figure shown by Neuhauss, 1911, I, p.80 with Figs 98–102, pp.162–163).

Nothing has yet been found elsewhere in New Guinea to compare with the unique hooked club occurring in the middle reaches. However, it might possibly be related to those indigenous to Wuvulu and Aua, (Hambruch, 1908, Plate XXX,19).

A fairly clear connection exists between the cultural zone encompassing the river mouth area and the Admiralty Islands. Gräbner (1902) has already considered it probable that the slit drums occurring in both areas are related. But there are even more connections and similarities. On the Admiralty Islands one frequently encounters hairstyles resembling hair baskets. On the Augusta River the spear catapult occurs; on the islands the catapult cord. The bone dagger is common to both places. The head support of the river mouth area finds its Admiralty Islands’ counterpart in the head ledge of the beds. The canoe prows both here and there often show the representation of a crocodile head, where in many cases there are often quite amazing similarities in style of presentation. As several of the skulls in the Leipzig Völkermuseum show, (Plate LXXIII, 3 and 4), the custom of filling out the face with a mass of resin is also known in the Admiralty Islands. Admittedly, the modelling is much more roughly done. Effectively the cavities are just filled in, the preparators have not brought it up to actual three-dimensional sculpture. A covering roof of a species of snail (*Turbo pethiolatus?*) is inlaid in each of the white-painted eyes. The face is painted red, with a transverse black stripe on the forehead. Also, similarities can be established between the spears of both places, particularly noticeable in form and decoration.

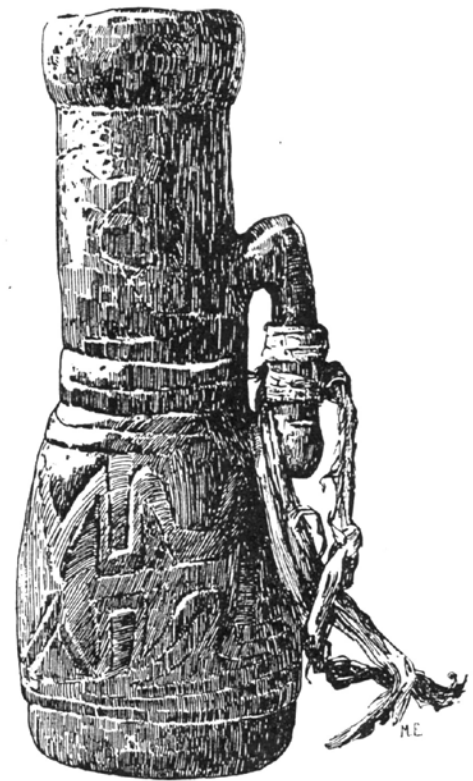


Fig.475. Hand drum from Cape Beechey, New Britain, H.S.6339, 1/5 actual size

B.Hagen, (1899), Foy, (1912), and Schmeltz, (1904), have already alluded to related features being found on the northern and southern coasts of New Guinea. However, it seems doubtful whether all the elements introduced by these authors can permit any conclusion about a direct trade connection. Many of the similarities are probably to be regarded as convergence occurrences, others as old, common cultural property, traceable back to ancient connections established before immigration. Thus on the Augusta River, among the Tugeri and Toro in southern Dutch New Guinea, (Schmeltz, 1904, p.214), and on the Fly River, (Preuss, 1898b, [480] p.147), rain- and mourning caps occur that are similar in form; but as they are very clearly different in material and decoration, we cannot assume any direct transfer. They certainly did not arrive in one of these regions by trade from the other; their occurrence relates much more to old cultural connections. If, to give another example, similar mask forms were found on both northern and southern coasts, one could conclude that the same idea was the basis of manufacture, which then led to a similar form, using the same or a similar raw material. In this case, we have original relationship and convergence. The transportation of these types of mask, ceremonial equipment, over such a great distance by trade, is obviously rejected.

When engraved skulls are found in the river mouth area of the Empress Augusta River; on the Gulf of Papua, (see for example Gräbner, 1909, p.767); in Borneo; and engraved skulls are found with inlaid, carved noses in the lower reaches on the lower Ramu; on the Fly River; and on Mount Scratchley, one would likewise have to draw the conclusion of old cultural relationships.

The surprising similarities occurring between the inhabitants of the Augusta River and the Tugeri in the south of Dutch New Guinea may be similarly explained, and not through direct connections. It has already been mentioned that the mourning cap worn by women is found in both places; but, in addition, tobacco cultivation, sago exploitation, enjoyment of betel, boring of the nasal septum, head-hunting, and spiral decoration, occur both here and there, (see Pöch, 1907, p.390 *et seq.*) and, according to Pöch, even the anthropological type shows an astonishing similarity.

On the middle reaches of the Augusta River the representation of a bird being pursued by a crocodile is quite often found. This is an extraordinarily widespread motif in Melanesia; through the myth at the base of this representation we have a bond that links our area to a large part of the rest of the South Seas.

The total impression gained after examining the individual cultural elements is therefore as follows: the culture zone of the river mouth region is, in the main, only a limb of the coastal culture extending roughly from Hatzfeldhafen to Berlinhafen. Perhaps, in a certain sense, it is even its centre and radiation point, for it seems to have markedly influenced the surrounding area, especially from a religious perspective, (cf. p.399).

Cultural zones II and III, particularly the latter, occupy a relatively self-supporting position. At least, any kind of closer connection with other regions cannot be established perfectly, so far, although it appears as though one did exist between zone II and the north coast west of the river mouth. Zone II may be relatively strongly influenced by the hinterland. Then in zone IV, as mentioned earlier, inland influences descend once more to the river.
[481]

Cultural Sphere

Even though the cultural circle theory created and built up by Ankermann, Foy, and Gräbner may still contain many loop holes if it has to satisfy all kinds of corrections and limitations, the idea on which it is based still offers us a good accessible route into the history of the people 'without a history', in addition to possible prehistoric finds and traditions.

Of all the elements which, according to Gräbner, belong to the two oldest layers of 'Australian culture', (divided by Foy, (1908, p.707), into "original history" and "boomerang culture"), there are basically two: spiral bulge plaiting, (in net purses and masks), and the flat club. The fact that the flat club has been relegated to a women's weapon and an agricultural implement, supports its characterization as a very old element.

From the components of "totemistic (West Papuan) culture, circumcision is most surprisingly missing, at least in the form of *circumcisio*. Nor do I believe that piercing of the penis occurs, at least not in the upper section of the river where, because the men usually go around naked, I would certainly have noticed. Youth initiation is customary; nothing could be learned about initiation of young women. Platform burial seems to happen only in culture zone II; in the other two, it has presumably been replaced by the more-modern earth burial. Nothing is yet known about the form of burial in the fourth cultural zone.

The spear catapult is quite surprisingly widespread. It seems to occur only in the river mouth area and in the middle reaches below the Hunstein Range, that is, right in the higher culture areas; whereas the inhabitants of the interior and the people of the upper reaches carry the bow, a more recent element. After its discovery on the Empress Augusta River one might, without knowledge of the situation in other regions, immediately regard the spear catapult as being more modern than the bow. But in the same area there is a whole range of elements belonging to the 'bow culture', although the bow itself is missing. Perhaps this "bow culture without bows" can be explained by the spear catapult, by virtue of the particularly favourable conditions for its use being met, (it can only be used successfully on the broad flats), and the bow is again supplanted. On the other hand there is another possibility. I have already mentioned that the spear catapult does not seem to be found anywhere in the interior of New Guinea, but it does occur sporadically on the offshore islands and right into Micronesia, and I do not discount the possibility that the spear catapult has penetrated upriver. Therefore, possibly on the Augusta River, through whatever circumstance, it is actually more recent than the bow, and arrived with a later wave of immigrants.

Among further elements of the 'totemistic culture' are head supports (only in the lower reaches?); pointed-oval wooden bowls; dug-out canoes (the river mouth region form [482] with their edges tucked in is reminiscent of bark canoes); bark belts, (only in the river mouth region); and occasionally penis sheaths, in the upper middle reaches.

The culture of the 'two-class system', (initially named "East Papuan" by Gräbner), is expressed in the mask dances, (both mask types are found: conical and wooden masks); in the particularly clearly pronounced death cult; the storage of skulls in particular; in the presence of tree houses; rectangular houses with gabled roofs; broad shields (with a diverging hand grip); pan pipes (only in the middle reaches?); simple stringed instruments; and the slit drum which, according to Gräbner, probably also belongs here. I believe that one ought to be able to distinguish two main types of slit drum, which possibly even belong to different cultural circles. The older form — found the furthest inland from the Augusta River — seems to be that with the peg on the inside; the more recent one extends along the coast, with smooth, unreinforced walls.

The elements included of the 'bow culture' are quite numerous, yet, as mentioned

several times already, only the bow is missing, virtually completely. On the Augusta River we have pole buildings, (possibly secondary developments of course); sago exploitation in great capacity; as well as pig rearing; recreational use of betel; axes with intermediate casing; bamboo combs (only at the river mouth?); head hunting; decorated skulls; spiral roll technique in pottery manufacture; crouching figurines; bridges constructed of staves, (in the middle reaches); and suspension bridges, (in the upper reaches); and finally, strongly-developed spiral decoration.

Among the skin drums found on the Augusta River two types can be differentiated, belonging undoubtedly to two different cultural levels. The older form is definitely the drum with the 'beer-jug shape', (see Neuhaus, 1911, I, p.326 and Fig.225), with a bulbous, enlarged lower section, (see Figs 457 and 458, p.439). This form still exists, apparently, only in backwater areas: among the Kai inland from Finschhafen, and in several regions of the eastern part of the south coast (and the interior?) of New Britain, (see Fig.475, p.478). The other form, the actual hour-glass drum, appears to be more recent, and to have replaced the older form on the coast.

Of the 'Polynesian culture', relatively few elements occur on the Augusta River, and are partially limited to the river mouth region. Boring drills, single outrigger canoes, pockets, and fly whisks, seem to be found only in the lower reaches; bark material preparation; combs assembled from little sticks; and transverse flutes are, on the other hand, found quite far upstream, at least as far as the Hunstein Range. The wooden horns with the mouthpiece on the side are probably also included in this cultural grouping. A whole range of elements characteristic of this cultural circle were not adopted, not assimilated, particularly corporate membership.

That the second wave of Polynesian culture has also [483] made its influence felt is probably given testimony by the presence of chairs, if these have not arrived somewhat later still, together with the four-sided sail of the river mouth area. I consider it out of the question for its immigration to have been achieved by land.

The skin shields (see p.304) that we discovered in Málu are quite singular, and are not organized into any of the cultural circles.

Thus, elements of all the cultural groupings constructed so far can be established on the Empress Augusta River. Repeated immigrations have taken place here, constantly overlying the older elements, suppressing them in part, but in their turn being partially suppressed by the older elements. A fairly high percentage of elements was not assimilated; evidently none of its blossoms found favourable soil here.

Because not only did the cultural elements stream in and slowly prevail over time by being passed on from tribe to tribe, but because they came with the bearers of these cultures, and thus several waves of population poured into the land, it follows that the populations reveal clearly different anthropological types (see p.52 *et seq.*). Right in the areas of higher cultures is an even higher-level race, admittedly no longer pure, probably the bearer of those cultures. Most, especially the more recent migrations, seem to have been directed upstream — the river, that marvellous road of communication, formally inviting people skilled in navigation to press inland here. [484]

Postscript

Only after the printing of the history chapter, (see p.7) did I obtain Jacobs' (1844) almost-forgotten description of his journey, cited previously by Wichmann, (1910, p.27). Dr Hambruch discovered it by chance in a local library. In addition to other voyages by Captain Benjamin Morrel, it recorded a journey along the north coast of Kaiser Wilhelmsland. In spite of the many improbabilities contained within the account, one should in more respects give greater credence to Jacobs than Wichmann does. For example, it is most remarkable that Jacobs has already described the spear catapult quite accurately, even illustrating it, (cf. p.305).

It is important for us that three days before he reached the islands of Fadān, Jarsun, and Anus in Dutch territory, Morrel, sailing westwards along the coast, came to a place where the seawater was discoloured for a long distance by river sediment: "The next day we saw coloured water ahead, and at first supposed it to be a shoal, but it proved to be the water from a large river that here emptied into the ocean, and coloured it for fifteen or twenty miles to seaward. We anchored at the mouth of the river, and the next day we explored it twenty miles in the squadron. We saw no natives or habitations. The country was low and alluvial, and covered with a stately growth of trees. We encountered much flood-wood, and upon the banks of the river were strewed the trunks of large trees. . ."

Since the place which Morrel had reached the day before, where he encountered hair baskets and spear catapults can, from the description, probably be identified as Hansa Bay, I consider it likely that Morrel had reached the mouth of the Ramu, or the Empress Augusta River, and that he is therefore the discoverer of one of the two rivers. The fact that he came from the east makes it more likely that it was the Ramu.

Completed mid-June 1912

Bibliography

- d'Albertis, L.M. *New Guinea: What I Did and What I Saw*. vols I and II. London: Sampson Low, Marston, Searle, & Rivington. 1880.
- Andree, R. *Ethnographische Parallelen und Vergleiche*. Stuttgart: J. Maier. 1878.
- Bamler, G. Tami. In: R. Neuhauss (ed.), *Deutsch Neu-Guinea*. vol. III: 489–566. Berlin: Dietrich Reimer. 1911.
- Bericht über eine Rekognoszierung auf dem Augusta-Fluß durch Kapitän Dallmann. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel* 2(2):67–69. 1886.
- Bericht des Herrn L. Kärnbach über die im Mai nach den Le Maire-Inseln ausgeführte Fahrt. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. pp. 43–44. 1893.
- Bericht des Landeshauptmanns über eine Fahrt der “Ysabel” nach der Nordwestküste behufs Arbeiteranwerbung. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. pp. 45–47. 1894.
- Bericht über die Fahrt der holländischen Grenzexpedition auf dem Kaiserin-Augusta-Fluß. *Globus* 98(24):376–377. 1910.
- Biró, L. *Beschreibender Katalog der ethnographischen Sammlung Ludwig Biró's aus Deutsch-Neu-Guinea (Berlinhafen)*. Összeállította Jankó János. *A Magyar Nemzeti Múzeum Néprajzi Gyűjteményei*. Budapest: Hornyánszky. 1899.
- *Beschreibender Catalog der ethnographischen Sammlung Ludwig Biró's aus Deutsch-Neu-Guinea (Astrolabe-Bai)*. Összeállította Semayer Vilibáld. *A Magyar Nemzeti Múzeum Néprajzi Gyűjteményei* 3. Budapest: Hornyánszky. 1901.
- Burney, J. *A Chronological History of the Discoveries in the South Sea or Pacific Ocean; illustrated with charts*. London: Printed by Luke Hansard. 1803.
- Chalmers, J., and Wyatt Gill, W. *Neu-Guinea: Reisen und Missionstätigkeit während der Jahre 1877 bis 1885*. [Übers.: Richard Lesser] Leipzig : Brockhaus. 1886.
- De Clercq, F.S.A., and Schmeltz, J.D.E. *Ethnographische beschrijving van de west- en noord-kust van Nederlandsch Nieuw-Guinea*. Leiden: P.W.M. Trap. 1893.
- Craandijd, C. De Kaart der Keizerin Augusta-Rivier. Met Kaart VII. Amsterdam: *Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap*, 2nd ser. 2:311–312. 1911.
- Deutsches Kolonialblatt*. Aus dem neuen Bezirk Eitapé, Bericht des Stationleiters (Rodatz) 19:15–20. 1908.

— Die Unruhen bei Potsdamhafen. (Bericht des Bezirksamtes Friedrich-Wilhelmshafen) 19:231–232. 1908.

— Die Expedition zur Erforschung des Kaiserin-Augusta-Flusses (Sepik). 23:547. 1912.

Edge-Partington, J. The ethnography of Matty Island. *Journal of the Royal Anthropological Institute of Great Britain and Ireland*. 25:288–295. 1896.

— and Heape, C. *An Album of the Weapons, Tools, Ornaments, Articles of Dress, etc. of the Natives of the Pacific Islands: Drawn and Described from Examples in Public and Private Collections in England*. Manchester: sine nomine. 1890, 1895, 1898.

Erdweg, M.J. Die Bewohner der Insel Tumleo, Berlinhafen, Deutsch-Neu-Guinea. *Mitteilungen der Anthropologischen Gesellschaft in Wien* 32:274–310, 317–399. 1902.

Finsch, O. Hausbau, Häuser und Siedelungen an der Südostküste von Neu-Guinea. *Mittheilungen der Anthropologischen Gesellschaft in Wien* 17:1–15. 1887.

— *Samoafahrten. Reisen in Kaiser-Wilhelms-Land und Englisch-Neu-Guinea in den Jahren 1884 und 1885 an bord des Deutschen Dampfers "Samoa"*. Leipzig: Ferdinand Hirt und Sohn. 1888a.

— *Ethnologische Erfahrungen und Belegstücke aus der Südsee: beschreibender Katalog einer Sammlung im k.k. naturhistorischen Hofmuseum in Wien*. 3: 293–364, 8:1–106. Vienna: A. Holder. 1888b and 1893.

Foy, W. Tanzobjekte vom Bismarckarchipel, Nissan und Buka. *Publikationen aus dem königlichen ethnographischen Museum zu Dresden* 13:1–40. 1900.

— Ethnographische Beziehungen zwischen Britisch- und Deutsch-Neu-Guinea. *Globus* 82:379–383. 1902.

— *Führer durch das Rautenstrauch-Joest-Museum der Stadt Cöln*. Second edition. Cologne: Kölner Verlagsanstalt AG. 1908.

— Australische Flachkeulen und Verwandte. *Ethnologica* I:245–262. 1909.

Friederici, G. Fahrt nach Neu-Guinea. *Deutsches Kolonialblatt*. 20:331–336. 1909.

— Wissenschaftliche Ergebnisse einer amtlichen Forschungsreise nach dem Bismarck-Archipel im Jahre 1908. *Mitteilungen aus den Deutschen Schutzgebieten*. Supplementary volume No. 5. 1912.

Frobenius, H. *Ozeanische Bautypen*. Berlin: Wilhelm Ernst & Sohn. 1899.

Frobenius, L. Über ozeanische Masken. *Internationales Archiv für Ethnographie* 10: 69,206, 1897; 11: 82,130,162, 1898a.

- Die Weltanschauung der Naturvölker. *Beiträge zur Volks- und Völkerkunde*, VI. Weimar: E. Felber. 1898b.
- Die Kulturformen Ozeaniens. *Petermanns geographische Mitteilungen*. 46: 204–215, 234–238, 262–271. 1900a.
- Die Schilde der Ozeanier. *Naturwissenschaftliche Wochenschrift*. 15: 49–55, 61–67. 1900b.
- Die Bogen der Oceanier. *Naturwissenschaftliche Abhandlungen* 28. Berlin: Ferd. Dümmlers Verlagsbuchhandlung. 1901.
- *Geographische Kulturkunde. Eine Darstellung der Beziehungen zwischen der Erde und der Kultur nach älteren und neueren Reiseberichten zur Belebung des geographischen Unterrichtes. Teil II. Ozeanien und die Ozeanier*. Leipzig: Friedrich Brandstetter. 1904.
- Full, A. Eine Fahrt auf dem Kaiserin-Augusta-Fluß. *Deutsches Kolonialblatt*, 20(15):739–741, 744–745. 1909.
- Grabowsky, F. Der Bezirk am Hatzfeldthafen und seine Bewohner. *Petermanns geographische Mitteilungen*. 41:186–189. 1895.
- Gräbner, F. Holtrommeln des Ramudistriktes auf Neu-Guinea. *Globus*. 82:299–305. 1902.
- Einige Speerformen des Bismarck-Archipels. *Globus*. 88(21):333–336. 1905a.
- Kultukreise und Kulturschichten in Ozeanien. *Zeitschrift für Ethnologie*. 37:28–53. 1905b.
- Die melanesische Bogenkultur und ihre Verwandten. *Anthropos*. 4:726–780, 998–1032. 1909.
- *Methode der Ethnologie*. Heidelberg: Winter. 1911.
- Haddon, A.C. *The Decorative Art of British New Guinea: a study in Papuan ethnography*. Dublin: Academy House. 1894.
- Hagen, B. *Unter den Papuas: Beobachtungen und Studien über Land und Leute, Thier- und Pflanzenwelt in Kaiser-Wilhelmsland*. Wiesbaden: C.W. Kreidel 1899.
- Hagen, K. Bericht für das Jahr 1900. (Museum für Völkerkunde in Hamburg). *Jahrbuch der hamburgischen wissenschaftlichen Anstalten* 18. 1901.
- Hager, C. *Kaiser Wilhelms-Land und der Bismarck-Archipel: nach den neuesten Quellen geschildert*. Leipzig: Greßner & Schramm. 1886.
- Hambrecht, P. Wuvulu und Aua (Maty und Durour Inseln) auf Grund der Sammlung F.E. Hellwig aus dem Jahre 1902 bis 1904. *Mitteilungen aus dem Museum für Völkerkunde zu Hamburg*. 2:1–154. 1908.

de Herrera y Tordesillas, A. *Descripción de las Indias Occidentales*. Madrid. 1601.

— *Historia general de los hechos de los castellanos en las Islas y Tierra Firme del mar Océano que llaman Indias Occidentales*. Madrid: Juan Flamenco & Juan de la Cuesta. 1601, 1615.

Hollrung, M. 1888. Über Kaiser-Wilhelmsland. *Mittheilungen des Deutschen Gesellschaft für Natur- und Völkerkunde Ostasiens in Tokio*. 4:447–456. 1888a.

— Kaiser-Wilhelms-Land und seine Bewohner. *Deutsche Kolonialzeitung* 29:230–231. 1888b.

— Expedition nach dem Kaiserin-Augusta-Fluß. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 4:23–32. 1888c.

— Über den Verlauf der Expedition der Neu-Guinea Co. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 4:183–237. 1888d.

Hunter, J., King, P.G., & Phillip, A. *An historical journal of the transactions at Port Jackson and Norfolk island: With the discoveries which have been made in New South Wales and in the Southern ocean, since the publication of Phillip's voyage, compiled from the official papers; including the journals of Governors Phillip and King, and of Lieut. Ball; and the voyages from the first sailing of the Sirius in 1787, to the return of that ship's company to England in 1792*. London: John Stockdale. 1793.

Jacobs, Thomas Jefferson. *Scenes, incidents, and adventures in the Pacific Ocean, or the islands of the Australian Seas, during the cruise of the clipper "Margaret Oakley", under Captain Benjamin Morrell*. New York: Harper & Brothers. 1844.

Keysser, Ch. Aus dem Leben der Kaileute. In: R. Neuhauss, *Deutsch Neu-Guinea* III:102. Berlin: D. Reimer. 1911.

Krieger, M. *Neu-Guinea*. Berlin: Alfred Schall Verlagsbuchhandlung. 1899.

Lauterbach, C.A.G. Eine Expedition zur Erforschung des Hinterlandes der Astolabe-Bai. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 7:31–62. 1891.

— Ergebnisse der Kaiser-Wilhelmsland-Expedition. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 12:36–44. 1896.

Lehmann, J. Systematik und geographische Verbreitung der Geflechtsarten. *Abhandlungen und Berichte des Königlichen Zoologischen und Anthropologischen-Ethnographischen Museums zu Dresden*. 11(3). 1907.

— Flechtwerke aus dem Malayischen Archipel. *Veröffentlichungen aus dem Städtischen Völker-Museum, Frankfurt am Main*. IV. 56 pp. 1912.

Luschan, F. von. 1896. Das Wurfholz in Neuholland und in Ozeanien. In: *Festschrift für A. Bastian*. pp. 131–155. Berlin: Dietrich Reimer. 1896

— Beiträge zur Völkerkunde der deutschen Schutzgebiete. In: *Deutschland und seine Kolonien im Jahre 1896*. Berlin: Dietrich Reimer. 1897.

— Beiträge zur Ethnographie von Neu-Guinea. In: Krieger, M. *Neu-Guinea*. Berlin: Alfred Schall Verlagsbuchhandlung. pp. 440-524. 1899.

— Zur Ethnographie des Kaiserin-Augusta-Flusses. In: *Bässler-Archiv* I: 103–117. 1911.

Mahler, R. Siedlungsgebiete und Siedlungslage in Ozeanien. *Supplement zum Internationalen Archiv für Ethnographie*. XI. 1898.

Neuhauss, R. *Deutsch-Neu-Guinea*. vols. I, II, and III. Berlin: D. Reimer. 1911.

Parkinson, R. Photographie: Eingeborene vom Kaiserin-Augusta-Fluß in Neu-Guinea. In: H. Zöller, *Deutsch-Neuguinea und meine Einsteigung des Finisterre-Gebirges*. Plate p.160. Stuttgart: Union deutscher Verlagsgesellschaft. 1891.

— Photographie: Eingeborene vom Kaiserin-Augusta-Fluß in Kaiser-Wilhelms-Land. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 1:1. 1892.

— Über das Durchbohren von Muschelplatten behufs Herstellung von Armringen etc. *Internationales Archiv für Ethnographie*. 7:89. 1894.

— Die Berlinhafen-Sektion. Ein Beitrag zur Ethnographie der Neu-Guinea-Küste. *Internationales Archiv für Ethnographie*. 13:18–54. 1900.

Penck, F.K.A. Die Erforschung des Kaiserin-Augusta-Flusses. *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*. 6:361–365. 1911.

Pfarrius, Kapitanleutnant. S.M.S. "Cormoran" im Kaiserin-Augusta-Fluß. *Marine-Rundschau*. 21: 386–389. 1910a.

— S.M.S. "Cormoran" im Kaiserin-Augusta-Fluß. *Deutsches Kolonialblatt*. 21: 236–238. 1910b.

Pöch, R. Geschnitzte Figuren aus Deutsch-Neu-Guinea. *Globus*. 79(22):352–354. 1901.

— Erster und zweiter Bericht von meiner Reise nach Neu-Guinea über die Zeit vom 6. Juni 1904 bis zum 25. März 1905 und vom 26. März 1905 bis 21. Juni 1905. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaft, Mathematische-naturwissenschaftliche Klasse*, 114(5):437–453. 1905a.

— Beobachtungen über Sprache, Gesänge und Tänze der Monúmbo anlässlich phonographischer Aufnahmen in Deutsch-Neu-Guinea. *Mitteilungen der Anthropologischen Gesellschaft in Wien*. 35(5):230–237. 1905b.

— Reisen in Neu-Guinea in den Jahren 1904–1906. *Zeitschrift für Ethnologie*. 34(3):382–400. 1907.

— Reise an der Nordküste von Kaiser-Wilhelms-Land. *Globus*. 93: 139–143, 149–155, and 169–173. 1908.

Preuss, Konrad Theodor. Künstlerische Darstellungen aus Kaiser-Wilhelms-Land in ihrer Bedeutung für die Ethnologie. *Zeitschrift für Ethnologie*. 29:77–139. 1897.

— Künstlerische Darstellungen aus Kaiser-Wilhelms-Land. *Zeitschrift für Ethnologie*. 30:74–120. 1898a.

— Über einige Ornamente vom Kaiserin-Augusta-Fluß in Deutsch-Neu-Guinea. *Internationales Archiv für Ethnographie*. 11:145–153. 1898b.

Reche, O.R. Eine Bereisung des Kaiserin-Augusta-Flusses (Neuguinea), with a map as a special supplement. *Globus*. 97(18):285–286. 1910.

— Längen-Breitenindex und Schädellänge. *Archiv für Anthropologie*. 38:74–90. 1911a.

— Ethnographische Beobachtungen am Kaiserin-Augusta-Fluß. *Korrespondenzblatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte*. 42:123–127. 1911b.

Roth, H.L. *The Natives of Sarawak and British North Borneo*. I and II. London: Truslove and Hanson. 1896.

Sachse, F.J.P. Übersichtskarte von Kaiser-Wilhelms-Land (Deutsch-Nord-Neuguinea) über die Reise der deutsch-niederländischen Grenzkommision vom 8. September bis 22. November 1910. *Petermanns Mitteilungen*. 57(April), Plate 41. 1911.

Schellong, O. 1889. Musik und Tanz der Papuas. *Globus*. 56(6):81–87. 1889.

— Die erste Befahrung des Kaiserin-Augusta-Flusses am 5. und 6. April 1886. *Zeitschrift für Kolonialpolitik, Kolonialrecht und Kolonialwirtschaft*. 13:932–937. 1911.

Schlaginhaufen, O. Reisen in Kaiser-Wilhelms-Land (Neuguinea). *Abhandlungen und Berichte des königlichen zoologischen und anthropologisch-ethnographischen Museums zu Dresden*. 13(1):3–19. 1910a.

— Eine ethnographische Sammlung vom Kaiserin-Augusta-Fluß in Neu-Guinea. *Abhandlungen und Berichte des königlichen zoologischen und anthropologisch-ethnographischen Museums zu Dresden*. 13(2):ii–iii, 1–74. 1910b.

— Verzierte Schädel aus Neuguinea und Neu-Mecklenburg. *Abhandlungen und Berichte des königlichen zoologischen und anthropologisch-ethnographischen Museums zu Dresden*. 13(4):3–16. 1910c.

Schleinitz, G. von. Erforschungsfahrt auf dem Augusta-Fluß. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 4:123–128. 1886.

— Bericht über eine Rekognoszierungsfahrt mit dem Dampfer "Otilie" von Fortifikation Point bis zur Mündung des Kaiserin Augusta-Flußes. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 2:32–66. 1887.

— Der Otilienfluß, beziehungsweise der Ramu in Neu-Guinea. *Deutsche Kolonialzeitung*. Illustrated supplement to No. 8:74–76. 1898.

Schmeltz, J.D.E. "Echidna" in der Ornamentik von Neu-Guinea. *Internationales Archiv für Ethnographie*. 8:165–168. 1895.

— Das Schwirrholtz: Versuch einer Monographie. *Verhandlungen des Vereins für naturwissenschaftlichen Unterhaltung zu Hamburg*. 9:92–128. 1896.

— Beiträge zur Ethnographie von Neu-Guinea. *Internationales Archiv für Ethnographie*. 16:194–244. 1904.

— Beiträge zur Ethnographie von Neu-Guinea. *Internationales Archiv für Ethnographie*. 17:194–220. 1905.

Schmidt, P.W. Beiträge zur Ethnographie des Gebietes von Potsdamhafen (Deutsch-Neu-Guinea). *Globus*. 84: 76–81, 110–113, and 123–127. 1903.

— Die geheime Jünglingsweihe der Karesau-Insulaner (Deutsch Neu-Guinea). *Anthropos*. 2:1029–1056. 1907.

Schrader, C. Expedition nach dem Kaiserin-Augusta-Fluß. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 3:189–196. 1887. **

Schultze, L.S. Von der deutsch-holländischen Grenzexpedition in Neu-Guinea. *Deutsches Kolonialblatt*. 21: 770, 836–837. 1910.

— 1911. Von der deutsch-holländischen Grenzexpedition in Neu-Guinea. *Deutsches Kolonialblatt*. 22(4):124–127. 1911.

— Deutsche Grenzexpedition in das Kaiser-Wilhelms-Land (Neu-Guinea), with map. *Mitteilungen der Gesellschaft für Erdkunde zu Leipzig für das Jahr 1911*. 23–35. 1912.

Schumann, K. and Hollrung, M. Die Flora von Kaiser-Wilhelms-Land. *Nachrichten über Kaiser Wilhelms-Land und den Bismarck-Archipel*. 5:1–137. (Suppl.) 1889.

Seligmann, C.G. *The Melanesians of British New Guinea*. Cambridge: Cambridge University Press. 1910.

Stephan, E. *Südseekunst. Beiträge zur Kunst des Bismarck-Archipels und zur Urgeschichte der Kunst überhaupt*. Berlin: Dietrich Reimer. 1907.

— und Gräbner, F. *Neu-Mecklenburg (Bismarck-Archipel): Die Küste von Umuddu bis Kap St. Georg*. Berlin: Dietrich Reimer. 1907.

Stolpe, H. Entwicklungserscheinungen in der Ornamentik der Naturvölker. *Mitteilungen der Anthropologischen Gesellschaft in Wien*. 22:19–62. 1892.

Tappenbeck, Ernst. Kurze Übersicht über den Verlauf der Kaiser-Wilhelms-Land Expedition. *Deutsche Kolonialzeitung*. Supplement No. 1 and 5. 1897.

— *Deutsch-Neu-Guinea*. Berlin: W. Süsserott. 1901.

Thilenius, G. 1902 and 1903. Ethnographische Ergebnisse aus Melanesien. *Nova Acta. Abhandlungen der Kaiser Leopold Carolingischen Deutschen Akademie der Naturforschung*. Halle.

Uhle, M. Holz- und Bambus-geräthe aus Nord West Neu Guinea (hauptsächlich gesammelt von A.B. Meyer) mit besonderer Berücksichtigung der Ornamentik. *Publikationen aus dem Königlichen Ethnographischen Museum zu Dresden*. 6. 1886.

Vormann, P.F. Dorf- und Hausanlage bei den Monumbo, Deutsch-Neu-Guinea. *Anthropos*. 4:660–668. 1909.

— Zur Psychologie, Religion, Soziologie und Geschichte der Monumbo-Papua, Deutsch Neu Guinea. *Anthropos*. 5:407–418. 1910.

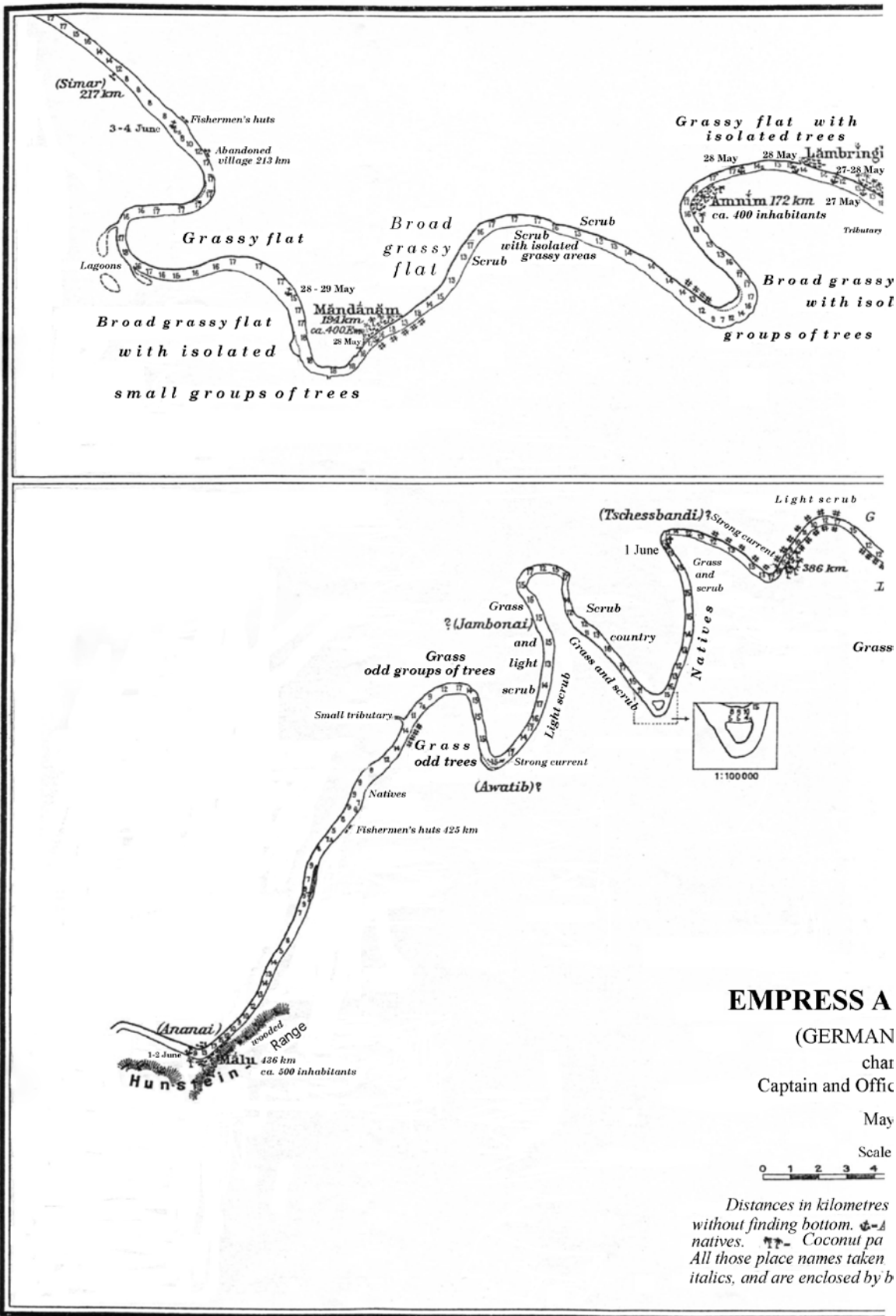
— Tänze und Tanzfestlichkeiten der Monumbo-Papua, (Deutsch-Neuguinea). *Anthropos*. 6:411–427. 1911.

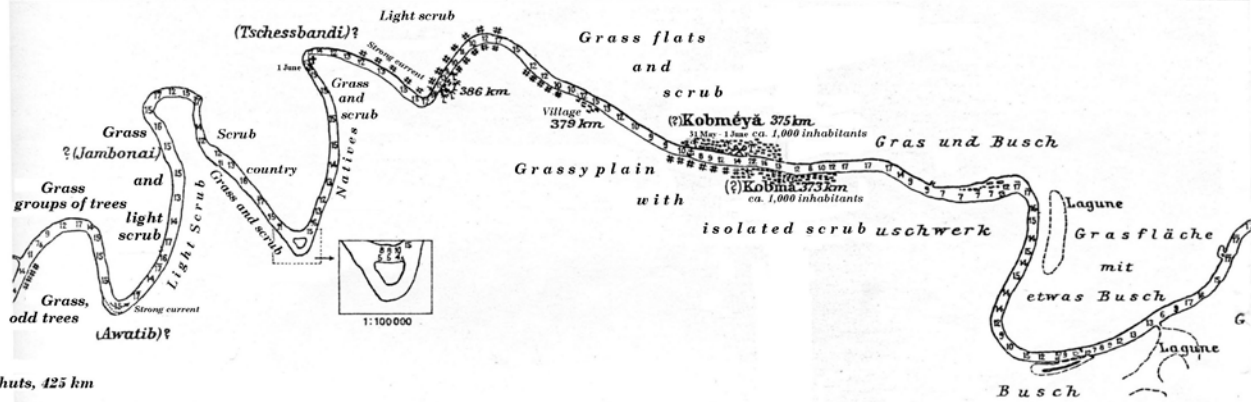
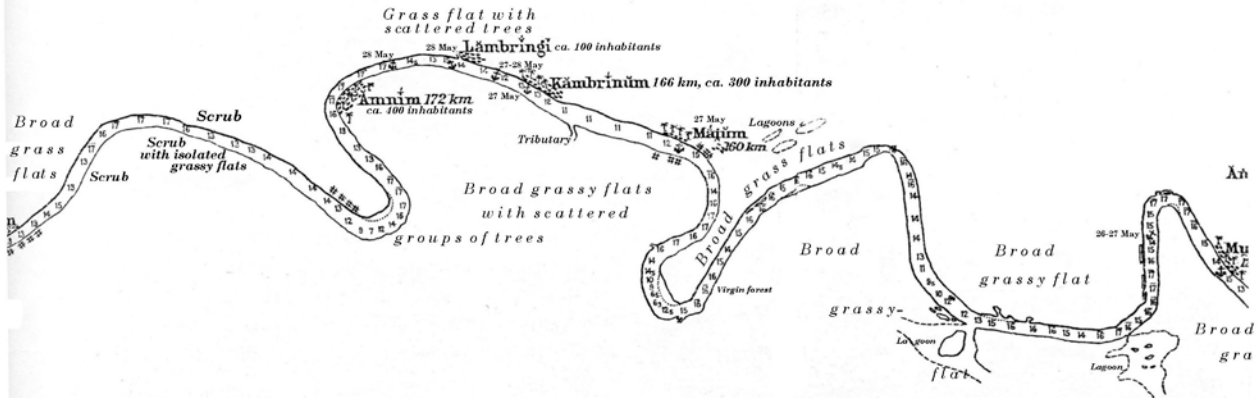
Wichmann, A. Entdeckungsgeschichte von Neu-Guinea. I and II. In: *Nova Guinea*. Leyden: E.J. Brill. 1909–1910.

Wichmann, H. Die deutsch-niederländische Grenzkommission in Neu-Guinea. *Dr A. Petermanns Mitteilungen aus Justus Perthes' Geographischer Anstalt*. 57(April):184–186. 1911.

Wundt, W.M. *Völkerpsychologie. Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythos und Sitte*. Leipzig: Kröner. 1900.

MAP 1: WESTERN TERMINUS





huts, 425 km

EMPRESS AUGUSTA RIVER

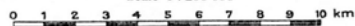
(GERMAN NEW GUINEA)

charted

by the captain and officers of the steamship *Peiho*

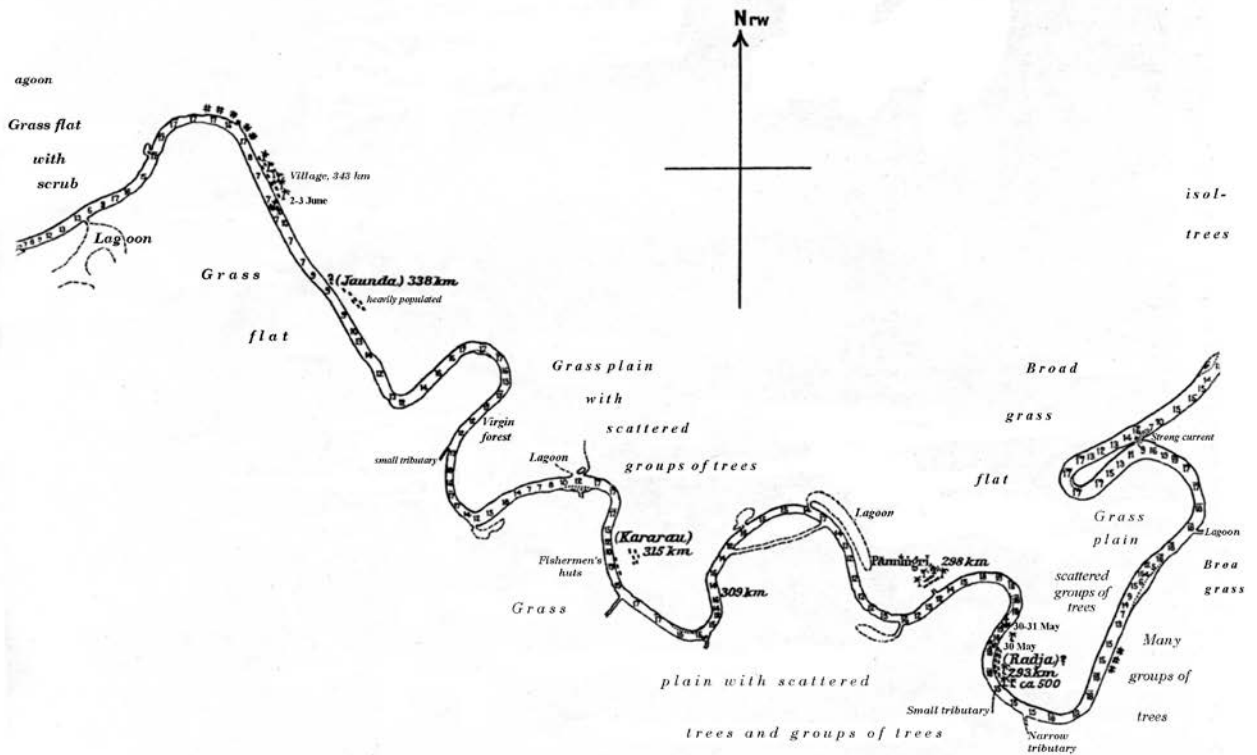
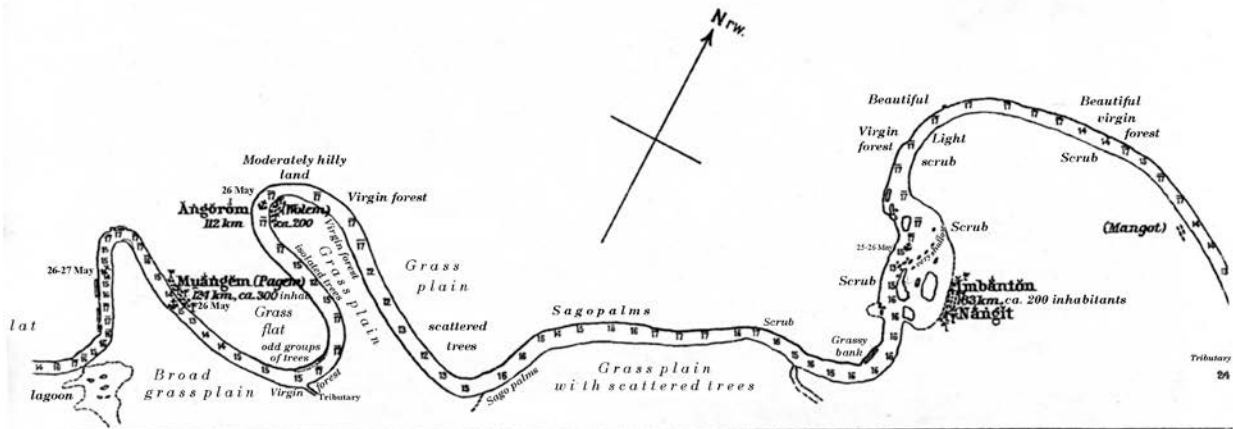
May - June 1909

Scale 1 : 200 000

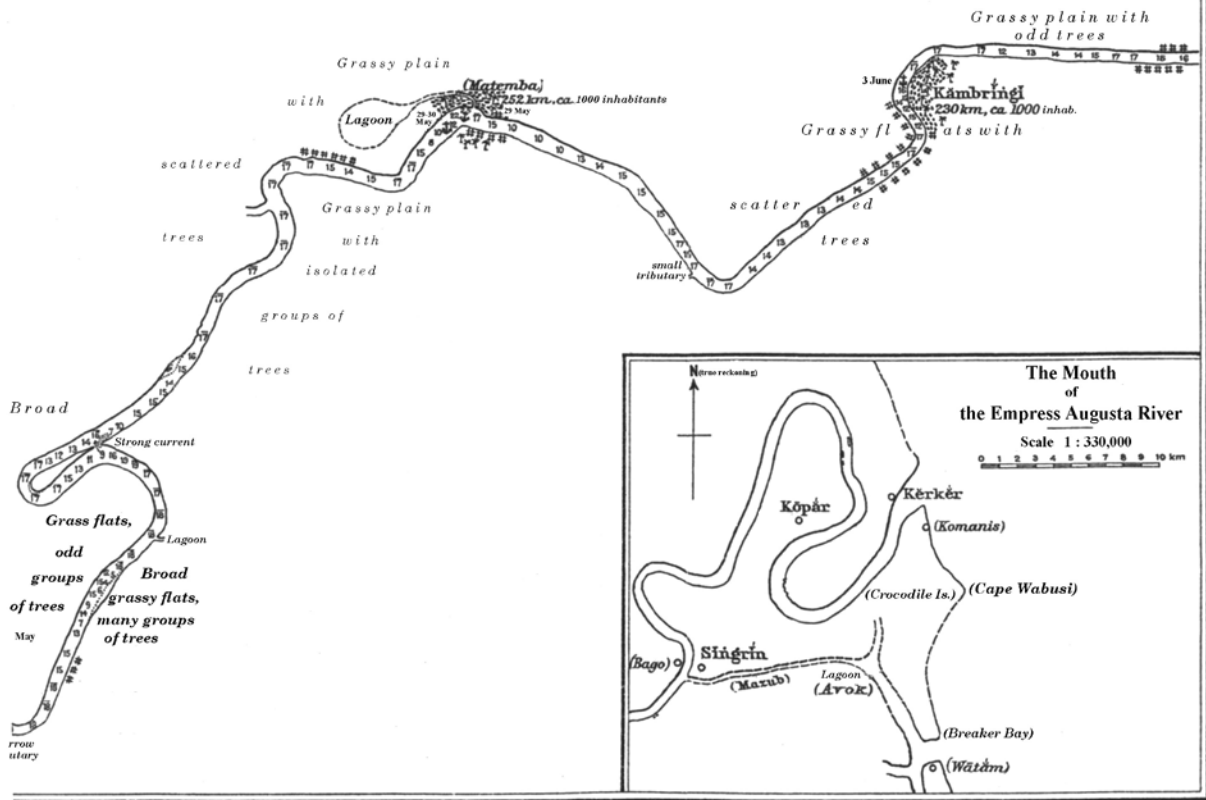
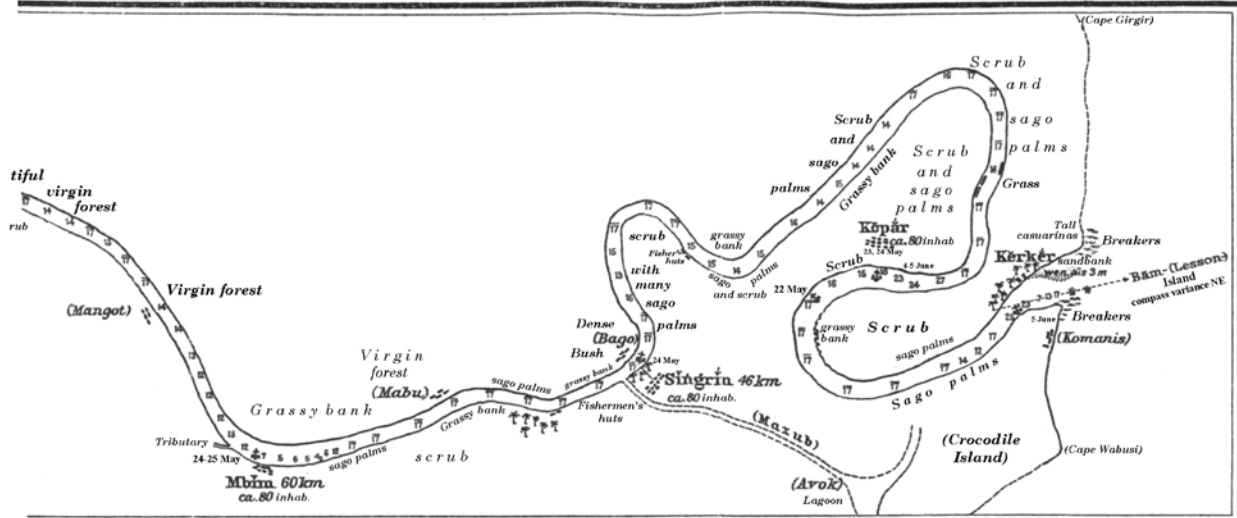


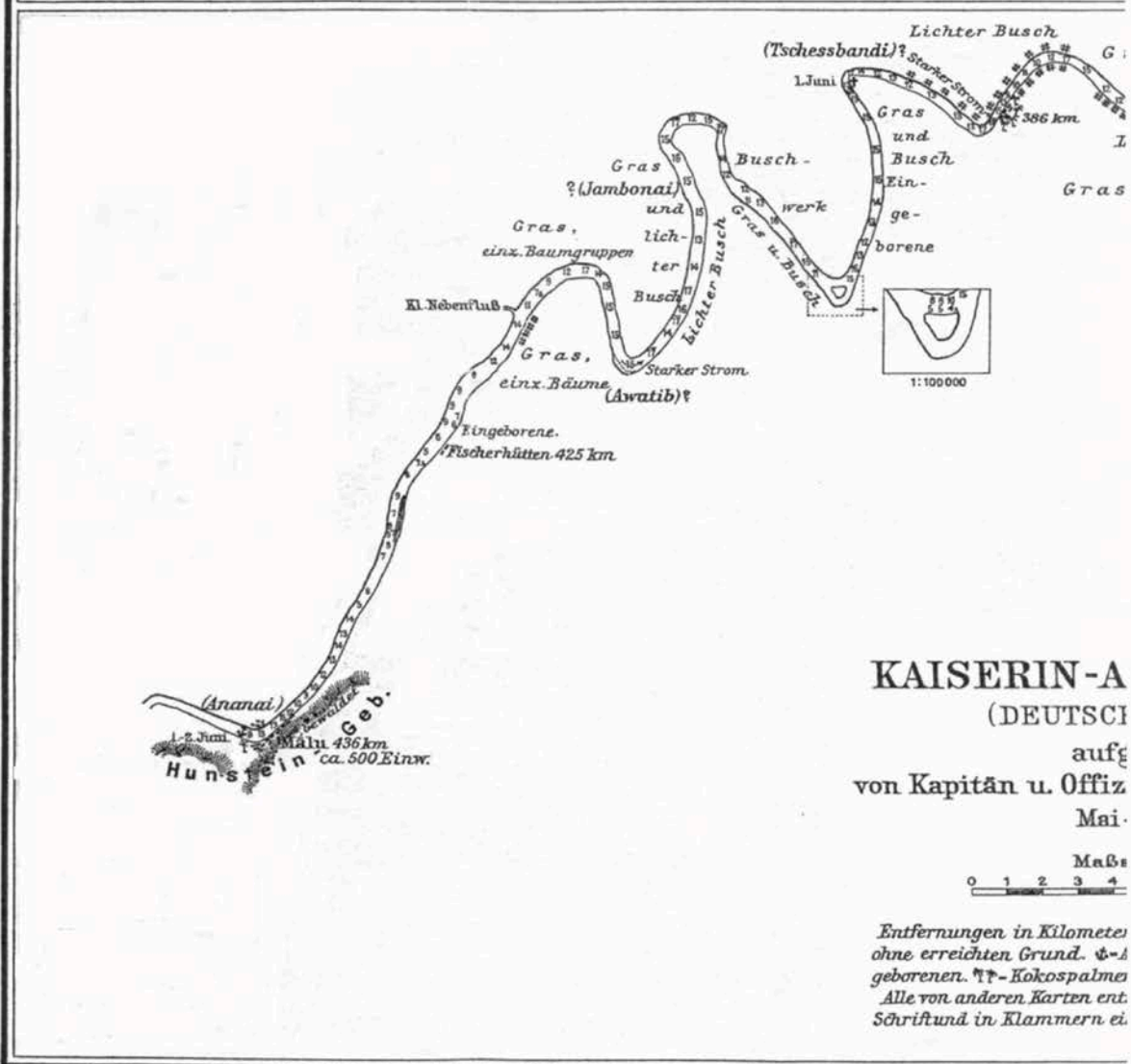
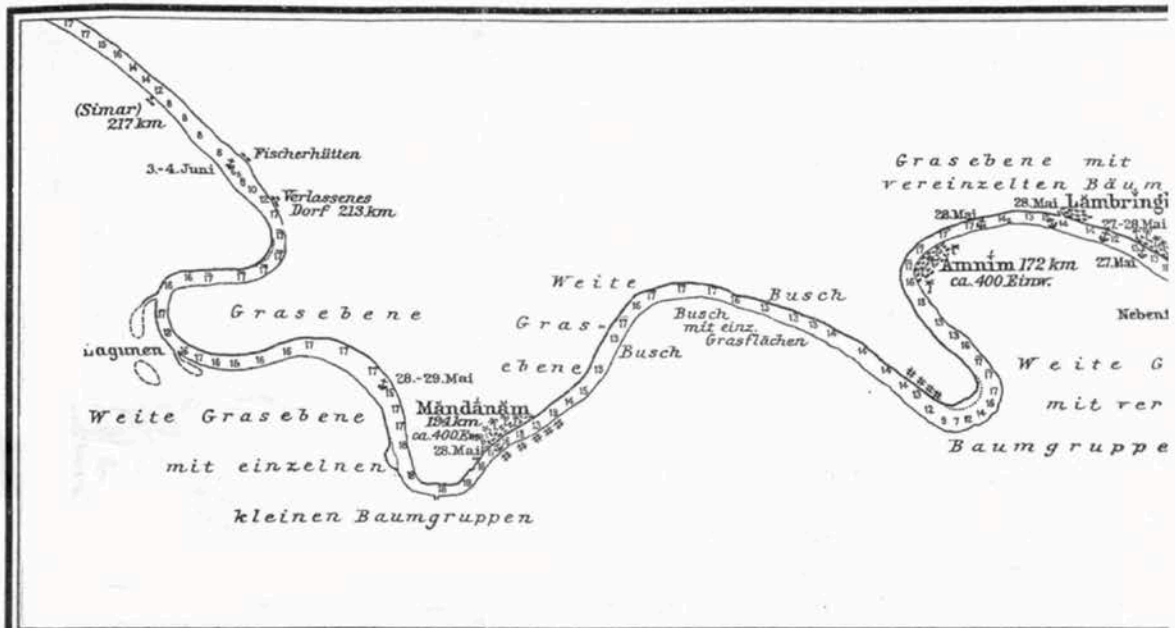
Distances in kilometres (km), depths in metres, ∇ - sounding without finding bottom \oplus - anchorage nn - gardens of the natives;
 p - coconut palms; mw - compass variance; rw - compass true.
 All those place names taken from other maps are in italics, and are enclosed by brackets.

EAST: MAP 3



EAST: MAP 4





Reche: Kaiserin-Augusta-FluB.

