

RECENT DEVELOPMENTS IN LINGUISTIC STUDIES ON THE AUSTRALIAN NEW GUINEA MAINLAND¹

S. A. WURM

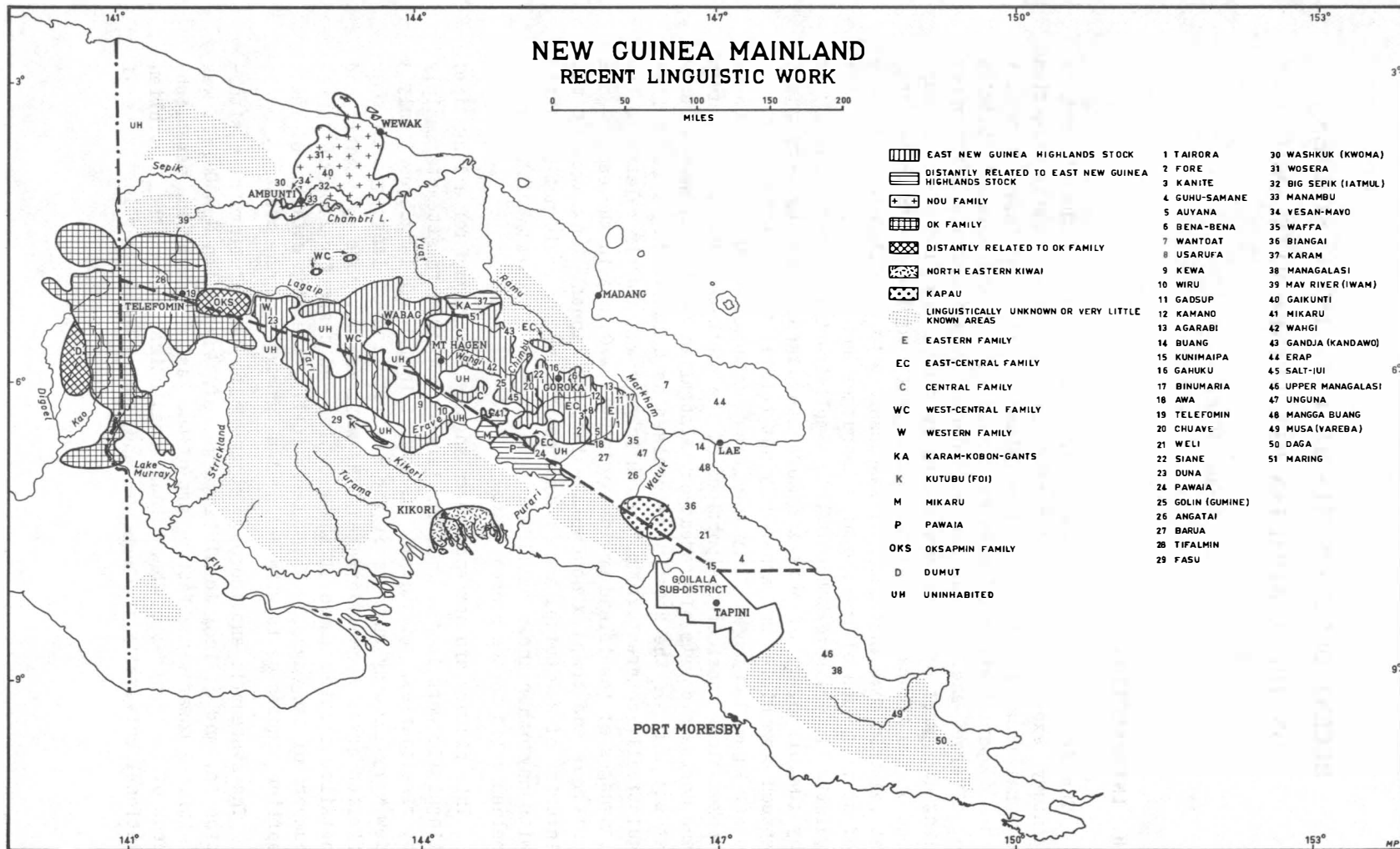
0. INTRODUCTION

The first experiences which, towards the end of the nineteenth century, explorers and missionaries had with the linguistic situation of what today is Australian New Guinea, created the impression that this comparatively small area was occupied by an enormous multiplicity of diverse, and, in many cases, unbelievably intricate and complex languages most of which were spoken by only a few hundred, or perhaps one or two thousand, speakers. Subsequent linguistic work showed that at least in some instances, it was possible to establish the existence of small groups of interrelated languages and thus simplify the linguistic picture somewhat, but this simplification was more than offset by the discovery of more and more languages spoken by very small speech communities and apparently not related to each other or to any other known language. Only the large number of Melanesian languages spoken along considerable portions of the south-eastern, north-eastern and northern coasts of present-day Australian New Guinea were already at the turn of the century recognised as constituting a large linguistically coherent group,² which in turn was closely related to the languages of the island world adjoining New Guinea in the east.³ The numerous and complex non-Melanesian, or Papuan, languages of the interior of New Guinea and of some coastal areas, could not be linked with any other known outside languages - a statement which has remained valid to the present day.

This picture did not encourage language study, and for a long time, linguistic work in the area was largely confined to attempts, mainly by missionaries, towards the mastery of individual languages. Only a few very sketchy surveys of the distribution of languages in some limited areas were undertaken,⁴ as well as four more systematic and detailed studies aimed at the grouping and classification of varied numbers of languages.⁵ Characteristically, the most detailed of these earlier studies deals with Melanesian Languages of the coast.

The systematic and thorough study of the general linguistic situation in, and of individual languages of, Australian New Guinea was initiated towards the latter part of the last decade by the establishment of two centres of New Guinea linguistics, one at the Australian National University in Canberra, and one at the Summer Institute of

NEW GUINEA MAINLAND RECENT LINGUISTIC WORK



- | | | | |
|------------|--|-------------------|-----------------------|
| | EAST NEW GUINEA HIGHLANDS STOCK | 1 TAIRORA | 30 WASHKUK (KWOMA) |
| | DISTANTLY RELATED TO EAST NEW GUINEA HIGHLANDS STOCK | 2 FORE | 31 WOSERA |
| | NOU FAMILY | 3 KANITE | 32 BIG SEPIK (IATMUL) |
| | OK FAMILY | 4 CUHU-SAMANE | 33 MANAMBU |
| | DISTANTLY RELATED TO OK FAMILY | 5 AUYANA | 34 VESAN-MAYO |
| | NORTH EASTERN KIWAI | 6 BENA-BENA | 35 WAFFA |
| | KAPAU | 7 WANTOAT | 36 BIANGAI |
| | LINGUISTICALLY UNKNOWN OR VERY LITTLE KNOWN AREAS | 8 USARUFA | 37 KARAM |
| E | EASTERN FAMILY | 9 KEWA | 38 MANAGALASI |
| EC | EAST-CENTRAL FAMILY | 10 WIRU | 39 MAY RIVER (IWAM) |
| C | CENTRAL FAMILY | 11 GADSUP | 40 GAIKUNTI |
| WC | WEST-CENTRAL FAMILY | 12 KAMANO | 41 MIKARU |
| W | WESTERN FAMILY | 13 AGARABI | 42 WAHGI |
| KA | KARAM-KOBON-GANTS | 14 BUANG | 43 GANDJA (KANDAWO) |
| K | KUTUBU (FOI) | 15 KUNHAIPA | 44 ERAP |
| M | MIKARU | 16 GAHUKU | 45 SALT-IUI |
| P | PAWAIA | 17 BINUHARIA | 46 UPPER MANAGALASI |
| OKS | OKSAPMIN FAMILY | 18 AWA | 47 UNGUNA |
| D | DUMUT | 19 TELEFMIN | 48 MANGGA BUANG |
| UH | UNINHABITED | 20 CHUAYE | 49 MUSA (YAREBA) |
| | | 21 WELI | 50 DAGA |
| | | 22 SIANE | 51 MARING |
| | | 23 DUNA | |
| | | 24 PAWAIA | |
| | | 25 GOLIN (GUMINE) | |
| | | 26 ANGATAI | |
| | | 27 BARUA | |
| | | 28 TIFALMIN | |
| | | 29 FASU | |

Linguistics, now at Ukarumpa in the Eastern Highlands District of New Guinea. The results of the work carried out under the auspices of these two centres has demonstrated that the linguistic picture of Australian New Guinea is, in essence, considerably simpler and clearer than it has been believed to be the case, and that very large groups of more or less closely interrelated non-Melanesian (or Papuan) languages exist in the area. Already before work had started at these centres, it had become known that there were some languages in Australian New Guinea which were spoken by many thousand speakers each, but the results arrived at by studies under the auspices of these centres made it clear that such languages were by no means uncommon there.

The purpose of this paper is to highlight some of the results achieved under the auspices of the two abovementioned centres of linguistic study in recent years on the Australian New Guinea Mainland, and it will also mention recent linguistic work undertaken in Australian New Guinea by people outside the two centres.

1. WORK BY LINGUISTS OF THE AUSTRALIAN NATIONAL UNIVERSITY

1.1. WORK BY S.A. WURM IN LANGUAGES OF THE HIGHLANDS DISTRICTS

After preliminary preparatory work, the first major piece of research in New Guinea linguistics at the Australian National University was undertaken by the author who, in 1958-9, carried out an extensive survey of the languages spoken in the three Highlands Districts. Large quantities of materials on paper and tape were collected in most of the sixty languages encountered by him in the area, and the preliminary assessment of these materials showed that forty-seven of them were more or less closely interrelated, and five further languages distantly related to these forty-seven. Some of the early results of this work have been published,⁶ and a detailed map of the distribution and grouping of the languages (forty-seven of which were recognized as constituting five interrelated language families) was issued by the Australian National University.⁷

Much additional work on these languages has since been done, on the grammatical, and typological and comparative, levels, and in some instances, the original groupings have been modified. Also, a few new languages have been discovered in the area. The latest picture of the linguistic situation in the three Highlands Districts is as follows: fifty of the languages found in the three Highlands Districts can be grouped into five language families, comprising nine, fourteen, fourteen, twelve languages, and one language, respectively. The five families are interrelated and can be combined into a larger group, or stock, which has been named the East New Guinea Highlands Stock. The composition of this Stock is as below (the figures indicate the number

of speakers, largely on the basis of the 1959-60 census, SF = sub-family or branch, a. = approximately, o. = over, e. = estimated):

EAST NEW GUINEA HIGHLANDS STOCK a. 735000

1) *Eastern Family* 30114

- | | |
|--|---|
| a) Gadsup SF 15227
Gadsup 6338, Agarabi 7958
Oyana 931 | c) Awa SF 1185
Awa 1185 |
| b) Auyana SF 5263
Auyana 4414, Usarufa 849 | d) Tairora SF 8439
Tairora 8181
Kambaira 135
Binumaria 123 |

2) *East-Central Family* o. 152000

- | | |
|---|---|
| a) Gende SF a. 8400
Gende a. 8000, Biyom a. 400 | d) Kamano SF 60651
Kamano 31342
Kanite 2584
Keigana 8443
Yate 3988
Yagararia 14294 |
| b) Siane SF 19800
Siane 15336, Yabiyufa 4464 | e) Fore SF 28756
Fore 12021
Gimi 16735 |
| c) Gahuku SF 34752
Gahuku 11390, Asaro 11597
Benabena 11765 | |

3) *Central Family* a. 286000

- | | |
|--|---|
| a) Hagen SF 90777
Hagen 59347, Aua 439
Gawigl 30991 | d) Chimbu SF 143905
Chimbu (Kuman) 60273,
Nagane a. 300 of the
Chimbu speakers, Dom
dialect 43376 (Dom proper
8857, Gumine 24713,
Nondiri 2338, Salt 7468),
Sinasina 15608, Chuave
5639, Elimbari 15328,
Nomane 3681 |
| b) Wahgi SF a. 33900
Wahgi a. 33900 | |
| c) Jimi SF 17141
Yoadabe-Watoare (Maring) 4241
Narak a. 6150
Kandawo (Gandja) a. 6750 | |

4) *West-Central Family* a. 253000

- | | |
|--|---|
| a) Enga SF a. 123500
Kyaka a. 9000, Enga a. 110000,
Ipili-Paiela e. 4500 | d) Mendi SF a. 63750
Mendi a. 33800,
Kewapi (Kewa) a. 18200,
Pole 6046,
Augu a. 3100,
Sau 2611 |
| b) Lemben SF a. 600-700
Lemben a. 600-700 | e) Wiru SF 11541
Wiru 11541 |
| c) Huli SF a. 54000
Huli a. 35900, Huliduna a. 18100 | |

5) *Western Family* a. 14000

- Duna a. 14000

The determination of the borderline between language and dialect is a very difficult matter in New Guinea linguistics, and if the languages of these five Families are looked at from a different linguistic point of view in this respect, it is possible to regard quite a few of them as dialects of one language, rather than as separate languages. This was discussed by the author and Laycock.⁸ When considering modifications brought about by additional information and increased knowledge since the appearance of their publication on the subject, the following of the languages listed above could be grouped together as dialects of one language: Gadsup-Agarabi-Oyana, Auyana-Usarufa, Gahuku-Asaro, Kamano-Kanite-Keigana-Yate-Yagarua, Hagen-Aua-Gawigl, Narak-Kandawo, Chimbu-Nagane-Dom-Sinasina, Chuave-Elimbari, Kyaka-Enga, Huli-Huliduna, Mendi-Kewapi-Augu-Pole-Sau. This would reduce the number of languages within the Stock from fifty to twenty-nine.

The following additional languages encountered in fringe areas of the Highlands Districts are distantly related to those of the East New Guinea Highlands Stock:

Karam, one of three languages (Karam, Kobon, Gants) which constitute a family and are spoken by approximately 10,000 speakers. Of the three languages only Karam has been studied so far.

Kutubu (or Foi) with 2584 speakers.

Mikaru with approximately 4000 speakers.

Pawaia with under 2000 speakers. The relationship of this language to the Stock is doubtful.

Apart from these languages, eleven further languages are known to be located in south-eastern, northern, north-western and south-western fringe areas of the Highlands Districts. The author has not undertaken studies in them apart from establishing that they most probably are not related to the other languages mentioned so far. They will not be discussed here, and are not shown on the map accompanying this paper.

The judgements on the existence and extent of interrelationship between the languages of the five Families and of that between these languages and the distantly related ones mentioned above, were based on comparisons on the lexical level, and it was found that languages belonging to the same sub-family within a family mostly shared more than 60% basic vocabulary cognates, whereas languages of different sub-families within the same family tended to share between 40% and 55%. Languages belonging to different families within the Stock largely showed between 15% and 25% agreement in basic vocabulary. Of the distantly related languages mentioned, the Karam Family and Kutubu shared, on average, 12% basic vocabulary cognates with those of the Stock, Mikaru 8% and Pawaia 4%. Comparisons of some grammatical

features carried out at the same time showed a fair amount of parallelism between the degrees of lexical agreement, and the similarities displayed by these grammatical features.

More detailed typological comparisons involving the study of the presence or absence, and the specific nature, of selected features of language structure in the languages of the five Families, were subsequently undertaken by the author, and these comparisons extended to the distantly related languages, and to some other New Guinea languages.⁹ The results of this work showed the existence of a reasonable level of agreement in the occurrence of lexical and typological similarities in the languages of the Stock,¹⁰ and also demonstrated that there were a few other languages in New Guinea which showed typological similarities to those of the Stock, though lexically they differed from them.

A new method designed to allow an objective assessment of the degree of typological diversity on the phonological level¹¹ was then applied by the author to the languages of the five Families.¹² The results of this work agreed almost entirely with the findings of the other typological comparisons mentioned above.

The author is at present continuing his work in the languages of the Highlands Districts and plans to undertake comparative work, and the study of specific grammatical features of individual languages. A detailed description and discussion of the individual families is also in hand.

1.2. WORK BY D. C. LAYCOCK IN LANGUAGES OF THE SEPIK DISTRICT

D. C. Laycock of the Australian National University undertook extensive linguistic fieldwork in the Sepik District in 1959-60, and collected large amounts of materials on paper and tape, in particular in the languages of the Middle Sepik area. Preliminary results of his work were published.¹³ Apart from gaining information on a considerable number of languages which had been poorly known or unknown, he established the existence of a large language family, which he called the Ndu Family, stretching along a large section of the Middle Sepik, and occupying much of the country between the latter and the coast. The composition of this family is as follows:

<i>Ndu Family</i>	57856
Abelam	29188
Boikin	17332
Iatmul	7887
Sawos	1804
Manambu	1448
Yelogu	63
Ngala	134

After assessing his materials in the languages of the Ndu Family, Laycock compiled a book on them in which he included a detailed description of Abelam and outline descriptions of the other languages of the Family except Sawos. He also gave detailed lexical comparisons whose results showed that the languages of the Family were rather closely interrelated, i. e. they shared mostly between 45% and 57% basic vocabulary cognates. Only Ngala was found to be more distantly related to the other languages of the Ndu Family: it shared only 31% to 35% basic vocabulary cognates with them. Typological comparisons of a number of features of the Ndu languages also formed part of the book, and a language map of the Sepik District was added.¹⁴

In addition to this work, Laycock wrote a paper on three Sepik languages which are characterised by noun-classification.¹⁵ He is preparing more of his material for publication, and is planning to undertake further work in the Sepik District.

1.3. WORK BY A. HEALEY AND P.M. HEALEY IN LANGUAGES IN AND AROUND THE TELEFOMIN AREA

A. Healey and P.M. Healey of the Australian National University worked in the field in the Telefomin area in the far central west of Australian New Guinea in 1961-3. They concentrated in the first place on the language around Telefomin, Telefol, but also studied the linguistic situation in the entire area which may aptly be described as the hub of the island of New Guinea, and established the existence of a family of fifteen languages in it which they named the Ok Family. A small family of five languages, the Oksapmin Family, is distantly related to it, and so may be another language, Dumut, as well as the language of the Goliath pygmies, further west in Indonesian New Guinea (it is not shown on the map). It may be possible to combine the Ok and Oksapmin Families into a stock whose composition would be as follows (the population figures are estimates by A. Healey):

OK - OKSAPMIN STOCK a. 55000

- 1) *Ok Family* a. 51000
 - a) Mountain - Ok S F a. 33000.
Telefol e. 4100, Tifal e. 3000, Faiwol e. 3000, Bimin e. 1000, Kawol e. 400, Iwoer e. 1500, Ngalum e. 15000, Mianmin e. 1500, Sibil e. 3000, and one as yet unnamed language e. 500.
 - b) Lowland - Ok S F a. 18000.
Southern (Metomka) Kati e. 4000, Northern (Ninatti) Kati e. 8000, Yonggom e. 2000, Kowan e. 500, Ninggrum e. 3500.
- 2) *Oksapmin Family* a. 4000
Tarangap, Gaugutianap, Tekin, Wengbit, Eriku.

A. Healey has completed work on linguistic aspects of Telefol kin-

ship terminology,¹⁶ written a detailed description of the phonology of Telefol,¹⁷ prepared papers on the distribution and classification of the languages in the hub area of New Guinea,¹⁸ and applied historical-reconstructive techniques to his material in the languages of the Ok Family.¹⁹ He is at present working on outline phonologies of other languages of the Ok and Oksapmin Families, and on grammatical descriptions. A large dictionary of the Telefol language is also in hand. P.M. Healey has been mainly concerned with grammatical, in particular syntactical, problems of the Telefol Language, and has prepared two papers on them.²⁰

1.4. WORK BY C. CRIPER IN THE CHIMBU LANGUAGE

C. Criper of the Australian National University has been working in the field in the Chimbu language area which is located in the north-eastern part of the territory occupied by the Central Family of the East New Guinea Highlands Stock. He spent a period in the field in 1962-3, and returned there late in 1963. Besides carrying out anthropological studies, he collected extensive materials in the Chimbu language with a view to producing a detailed description of the language, and established the nature of the Nagane language which he found to be spoken, in addition to Chimbu, by a portion of the adult male population, i.e. those aged thirty years or more, of two of the four clans of the Inaugl tribe living on the eastern bank of the Chimbu River in the upper third of the Upper Chimbu Valley.

1.5. WORK BY J. HARRIS IN NORTHERN KIWAI DIALECTS

J. Harris of the Australian National University spent several months in 1963-4 in the Northern Kiwai language area on the border of the Western and Gulf Districts collecting materials on paper and tape in several dialects of Northern Kiwai. He is at present assessing his materials with a view to compiling a descriptive and comparative study of Northern Kiwai.

1.6. RESEARCH INTO METHODS AND TECHNIQUES OF LINGUISTIC FIELDWORK

In addition to the work described, research has been carried out at the Australian National University into the methods and techniques of linguistic fieldwork in New Guinea. A. Healey wrote a paper on the subject of the handling of linguistic informants,²¹ and S. Wurm prepared a book on the techniques of collecting materials in New Guinea languages.²²

1.7. WORK IN TRADE LANGUAGES OF AUSTRALIAN NEW GUINEA

Work has also been carried out at the Australian National University in the trade languages of Australian New Guinea, and S. Wurm and J. Harris prepared an introduction to Police Motu.²³ Similar work

is being done in Pidgin (or Neo-Melanesian).

2. WORK BY MEMBERS OF THE SUMMER INSTITUTE OF LINGUISTICS, AND WORK UNDER THE MICRO-EVOLUTION PROJECT, UNIVERSITY OF WASHINGTON

2.1. GENERAL REMARKS, AND LANGUAGES UNDER STUDY

After a period of preparation, the Summer Institute of Linguistics, New Guinea Branch, began its work in languages of Australian New Guinea in 1957. This organisation is concerned with the thorough study of individual languages and the production of detailed descriptions of them, as well as with the preparation of literacy materials, with a view to translating the Scriptures into the languages studied by its members. Teams, usually consisting of two linguists, are allocated to given language areas, and live for a prolonged period with the tribes, studying their languages.

The allocations made to date have been indicated on the map by the figures 1-51. The results achieved in the study and description of the languages are varied, and depend to a great extent on how long ago a given allocation was made. A detailed description of the work of the Summer Institute of Linguistics, and the results of its linguistic work, was given by A. Pence,²⁴ but the following may serve as a guide:

The chronological order of the allocations has been as follows (the numbers refer to the map) -

1957: 1-6, 1958: 7-10, 1959: 11-20, 1960: 21-26, 1961: 27-30, 1962: 31-43, 1963: 44-51. Additional allocations are under way.

2.2. STUDIES BY S. I. L. MEMBERS, AND BY K. MCKAUGHAN OF THE MICRO-EVOLUTION STUDIES PROJECT IN CO-OPERATION WITH THE S. I. L.

A very considerable number of papers on various features of a good many of the languages listed on the map have been prepared, and several have been published under the auspices of the University of Sydney,²⁵ by the Linguistic Circle of Canberra,²⁶ and elsewhere.²⁷ Others ready for publication, notably papers on Awa (by R. Loving and K. McKaughan), Benabena (by R. A. Young), Gadsup (by Ch. Frantz and H. McKaughan), Kewapi (Kewa) (by K. Franklin), and Wantoat (by D. Davis), several of which were prepared with assistance from the Micro-Evolution Studies Project of the University of Washington which has been carried out since 1960 in the Eastern Highlands with J. B. Watson as chief investigator. This Project is amongst other objectives concerned with the thorough study and detailed description of Gadsup, Tairora, Auyana and Awa of the Eastern Family of the East New Guinea Highlands Stock in co-operation with members of the Summer Institute

of Linguistics. H. McKaughan has been in charge of the Linguistic side of the Project, and he has also independently prepared a paper on some of the results of his work.²⁸ Other papers by members of the Summer Institute of Linguistics which are in publishable form deal with Awa (two papers by R. and A. Loving), Usarufa (by D. Bee), Binumaria (by J. and J. Oatridge), Gahuku (by E. Deibler), Kamano (by A.M. Payne and D.E. Drew), Kanite (by G. Gibson and J. McCarthy), Fore (by R. Nicholson, and another paper by G.K. Scott), Chuave (by J. Swick), Wahgi (by D. Phillips), Kewa (by K. Franklin), Duna (by D. and N. Cochrane), Fasu (by E. Loeweke and J. May), Karam (by L. Scholtz), Wantoat (by D. Davis), Barua (by R. and J. Lloyd), Kunimaipa (by A. Pence), Wosera (by J. and L. Bass), Iatmul (by L. Straalsen), Yesan-Mayo (by V. Foreman and H. Marten), Iwam (by R. and J. Conrad), Tifal (by W. Steinkrauss), Guhu-Samane (by E. and M. Richert), Waffa (by J. Hotz and P. Hurd), Welli (by M. and H. Boxwell), Musa (by H. and N. Welmer), and Managalasi (by J. and J. Perlier).²⁹

2.3. LINGUISTIC SURVEYS, AND LANGUAGE COURSES

In addition to the work mentioned so far, members of the Summer Institute of Linguistics carried out linguistic surveys of the Mt. Hagen Sub-District of the Western Highlands District³⁰ (linguistically this embraces the western and northern portions of the Central Family of the East New Guinea Highlands Stock), and of the Chimbu Sub-District of the Eastern Highlands District³¹ (linguistically this comprises the eastern part of the Central Family, and small fringe areas of the central - or southern - part of that Family, of the East-Central Family and of Mikaru). Similar surveys were undertaken in the Maprik Sub-District of the Sepik District³² (linguistically this takes in the northern inland section of the Ndu Family, and a number of other languages adjoining this section on the western side) and in the Gollala Sub-District of the Central District³³ (see map). A survey of the use of Motu and Police Motu was also carried out.³⁴ A language course in Chimbu has been prepared,³⁵ and similar courses compiled in Pidgin³⁶ and in the Azera Language in the Markham Valley to the west of Lae.³⁷

2.4. LITERACY MATERIALS AND TRANSLATIONS

Literacy materials have been published by the Summer Institute of Linguistics at their print shop at Ukarumpa in Gadsup, Agarabi, Awa, Tairora, Kamano, Kanite, Gahuku, Golin, Kewa, Washkuk, Fasu and Guhu Samane, and translations of Scripture prepared in a number of languages.³⁸

2.5. WORK BY W. AND L. OATES IN THE KAPAU LANGUAGE

A major piece of work has been carried out by W. and L. Oates in the quite widespread Kapau language of the Upper Watut which has at least 10,000 speakers.³⁹

3. WORK BY OTHER LINGUISTS AND BY MISSIONARIES

Recent linguistic work undertaken on the Australian New Guinea Mainland by persons not working under the auspices of the Australian National University, The Summer Institute of Linguistics, or the Micro-Evolution Project of the University of Washington has been comparatively limited, except for that accomplished by A. Capell in revising his Linguistic Survey in which the Australian New Guinea Mainland has been included.⁴⁰ Most of the other work was done by missionaries, but a few university linguists and anthropologists were also engaged in work on the Australian New Guinea Mainland. B. Biggs of the University of Auckland, New Zealand, undertook studies in Karam⁴¹ (marked K on the map), A. E. Cook of Yale University worked in Narak of the Central Family of the East New Guinea Highlands Stock (Narak is situated immediately to the south-east of Maring which is marked 51 on the map), E. P. Hamp worked in Wahgi⁴² (Wahgi is marked 42 on the map), and C. A. Schmitz in Wantoat⁴³ (Wantoat is marked 7 on the map). Somewhat earlier R. F. Salisbury carried out work in Slane⁴⁴ (Slane is marked 22 on the map). Of the work done by missionaries in recent years resulting in manuscripts or the publication of descriptive linguistic materials, the following may be mentioned as examples: L. J. Luzbetak's work in Wahgi,⁴⁵ O. C. Hintze's in Enga⁴⁶ (Enga constitutes the major part of the northern portion of the West-Central Family of the East New Guinea Highlands Stock), P. Davidson's in Abelam of the Ndu Family as from 1958 (the Wosera dialect of Abelam is marked 31 on the map), J. E. and W. M. Rule's in Kyaka (Kyaka adjoins Enga in the east) and in Pole (Pole is located in the south-eastern part of the West-Central Family), A. H. Brown's in Toaripi (Toaripi is a coastal language located around the mouth of the Lakekamu, to the east of the Purari delta) and F. Mihalic' in Pidgin.⁴⁷ Amongst somewhat earlier work, the following may be referred to: P. A. McVinney's and L. J. Luzbetak's work in Sinasina⁴⁸ (Sinasina is in the eastern part of the Central Family), as well as S. A. M. Bus' work in Enga and W. M. Rule's in Mendi (Mendi is located in the central part of the West-Central Family).

4. WORK FOR THE FUTURE

Though the recent linguistic work reported in this paper is quite extensive, there are still large areas on the Australian New Guinea Mainland which are linguistically unknown, or almost unknown. As can be seen from the map, these areas are in particular, much of the country between the Upper Sepik and the coast; a broad region stretching between the Sepik in the north, and the Ok-Oksapmin Stock and the East New Guinea Highlands Stock in the south, and extending as far to the east as the Upper Ramu Valley; a small area in the Trans-Fly; most

of the country between the Strickland in the west, an area north of the Lower Fly and the coastal hinterland in the south, the lower Purari in the east and the East New Guinea Highlands Stock in the north; a region east of the Purari and stretching as far as the Lakekamu; as well as much of the interior of the narrow tail-end of New Guinea east of Port Moresby. In all these areas, initial pioneering linguistic survey work is needed for establishing the distribution and preliminary grouping of the languages located in them, and for providing basic information on the nature and characteristics of these languages.

However, it must be borne in mind that the areas left white on the map and which, in consequence, denote linguistically "known" areas (unless they are marked UH = uninhabited) are in most instances only very superficially known, with the information available on the languages spoken in them rarely exceeding short word lists and a few notes on grammar. Only a few individual languages are really well known. A large amount of depth study, i.e. additional detailed linguistic study encompassing all aspects of linguistic work, is still necessary in almost all parts of the Australian New Guinea Mainland in addition to the pioneering work required in the linguistically unknown areas, and there is ample work for hundreds of linguists there for many years to come. Unfortunately, only relatively very few linguists have so far been attracted to this linguists' paradise, by far fewer than for instance to the field of the American Indian Languages. The reasons for this are very probably the remoteness of the area, the physical difficulties encountered by the linguistic student in New Guinea which arise from factors like the forbidding nature of the country and the climate, and the comparatively very recent introduction of linguistics as a subject in Australian Universities, and the as yet underdeveloped state of the discipline in most of them.

The question may be asked why the study of the languages of New Guinea is being undertaken, and is regarded as most important by linguists. There are two major reasons for this: the study of these languages, and the clarification of the intricate linguistic picture of New Guinea, is necessary for the practical purpose of providing the means through which the full understanding of its native peoples can be achieved, and also for a very important scientific purpose: In spite of the simplification of the New Guinea linguistic picture in recent years, the fact remains that there are still very numerous highly complex and diverse languages in New Guinea to provide linguists with a wonderful opportunity for the study of the still not fully understood phenomenon of language as such. The study of these languages may well have a considerable influence upon general linguistic theory, and help us in our efforts towards achieving the final full understanding of the mystery of language in its multiple and varied manifestations.

NOTES

1. An abbreviated version of this paper has been published in *Australian Territories*, Vol. 4, No. 4, 1964.
2. S.H. Ray, *Reports of the Cambridge Anthropological Expedition to Torres Straits*, Vol. III, "Linguistics", Cambridge 1907. P.W. Schmidt, "Die sprachlichen Verhältnisse von Deutsch-Neuguinea", *Zeitschrift für Afrikanische und Ozeanische Sprachen*, Vols. V and VI, 1900-1901.
3. S.H. Ray, *op.cit.*; S.H. Ray, *The Melanesian Island Languages*, Cambridge 1926.
4. For a detailed discussion see S. Wurm, "The Changing Linguistic Picture of New Guinea", *Oceania*, Vol. XXXI, 1960-1, pp. 121-136.
5. A. Capell, *The Linguistic Position of South-Eastern Papua*, Sydney 1943; A. Capell, "Distribution of languages in the Central Highlands, New Guinea", *Oceania*, Vol. XIX, 1948-9, pp. 104-129, 234-253, 349-377; A. Capell, "Languages of the Bogia District, New Guinea", *Oceania*, Vol. XXII, 1951-2, pp. 130-147, 178-207; S.A. Wurm, "Studies in the Kiwai Languages, Fly Delta, Papua, New Guinea", *Acta Ethnologica et Linguistica*, No. 2, pp. vi + 126, 2 maps, Vienna 1951.
6. S.A. Wurm, "The Changing Linguistic Picture of New Guinea", *Oceania*, Vol. XXXI, 1960-1, pp. 121-136; "The Linguistic Situation in the Highlands Districts of Papua and New Guinea", *Australian Territories*, Vol. I, No. 2, 1961, pp. 14-23, 1 map; "Research Report, New Guinea Languages", *Current Anthropology*, Vol. 2, No. 2, 1961, pp. 114-116; "The Languages of the Eastern, Western and Southern Highlands, Territory of Papua and New Guinea", in A. Capell, *A Linguistic Survey of the South-Western Pacific*, new and revised edition, South Pacific Commission, Technical Paper No. 136, Noumea, New Caledonia, 1962, pp. 105-128, 1 map.
7. S.A. Wurm, *Languages: Eastern, Western and Southern Highlands, Territory of Papua and New Guinea*. Map in fourteen colours. The Australian National University, Canberra, 1961.
8. S.A. Wurm and D.C. Laycock, "The Question of Language and Dialect in New Guinea", *Oceania*, Vol. XXXII, 1961-2, pp. 128-143.
9. S.A. Wurm, "Australian New Guinea Highlands Languages and the Distribution of their Typological Features", to be published in *American Anthropologist*, in 1964.
10. S.A. Wurm, "Lexical and Typological Parallelisms and Contrasts in Australian New Guinea Highlands Languages", paper submitted to the

1964 Summer Meeting of the Linguistic Society of America.

11. Voegelin, C.F. and F.M., Stephen Wurm, Geoffrey O'Grady, and Tokuchiro Matsuda, "Obtaining an Index of Phonological Differentiation from the Construction of Non-existent Minimax Systems", *International Journal of American Linguistics*, Vol. 29, 1963, pp. 4-28.

12. S.A. Wurm, "Phonological Diversification in Australian New Guinea Highlands Languages", *Linguistic Circle of Canberra Publications, Series B: Monographs*, No. 2, 1964, 111 + 87 pp., 1 map.

13. D.C. Laycock, "The Sepik and its Languages", *Australian Territories*, Vol. I, No. 4, 1961, pp. 35-41.

14. D.C. Laycock, "The Ndu Language Family (Sepik District, New Guinea)", *Linguistic Circle of Canberra Publ.*
In the press.

15. D.C. Laycock, "Noun-Classification and World View in three languages of the Upper Sepik", to be published in *Anthropological Linguistics*.

16. A. Healey, "Linguistic Aspects of Telefomin Kinship Terminology", *Anthropological Linguistics*, Vol. 4, No. 7, 1962, pp. 14-29.

17. A. Healey, "Telefol Phonology", *Linguistic Circle of Canberra Publications, Series B: Monographs*, No. 3, 1964, 111 + 1 fig. + 53 pp. + 5 tables.

18. To be published in *Oceania* in 1964-5.

19. Presented at the Conference of the Linguistic Circle of Canberra, May 1964.

20. P.M. Healey, "Teleefool Quotative Clauses"; in "Papers in New Guinea Linguistics, No. 1", *Linguistic Circle of Canberra Publications, Series A: Occasional Papers*, No. 3, 1964, pp. 27-34. P.M. Healey, "Telefol Noun Phrases", to be published in the *Linguistic Circle of Canberra Publications*.

21. A. Healey, "Handling Unsophisticated Linguistic Informants", *Linguistic Circle of Canberra Publications, Series A: Occasional Papers*, No. 2, 1964, 111 + 30 pp.

22. S.A. Wurm, "A Manual for Eliciting and Recording New Guinea Linguistic Materials", to be published in the *Linguistic Circle of Canberra Publications, Series C: Books*.

23. S.A. Wurm and J. Harris, "Police Motu, An introduction to the Trade language of Papua (New Guinea) for Anthropologists and other fieldworkers", *Linguistic Circle of Canberra Publications, Series B: Monographs*, No. 1, 1963, iv + 81 pp.

24. Alan Pence, "The Summer Institute of Linguistics in New Guinea", *Oceanic Linguistics*, Vol.I, No.2, 1962, pp.42-56, 1 map.
25. "Studies in New Guinea Linguistics", *Oceania Linguistic Monographs*, No.6, 1962, 148 pp.; containing articles on the phonologies of Usarufa (by D. Bee and K.B.Glasgow) and Fore (by R. and R. Nicholson), on grammatical features of Tairora (by A. and L. Vincent), Awa (by R. and A. Loving), and Gadsup (by Ch.I. Frantz), a comparative study of the phonemes of Kanite, Kamano, Benabena and Gahuku (by R. Young), and a general article on the standardisation of a survey word list for Papua and New Guinea (by D. Bee and A. Pence) and one on punched card filing for linguists (by A. Pence); also: S.K. Scott, "The Dialects of Fore", *Oceania*, Vol.XXXIII, 1962-3, pp.280-286, and B.A. Hooley, "Transformations in Neo-Melanesian", *ibidem*, pp.116-127.
26. "Papers in New Guinea Linguistics, No.1" ; *Linguistic Circle of Canberra Publications, Series A: Occasional Papers*, No.3, 1964; iv + 42 pp. containing articles on a phonological feature of Kunimaipa (by A. Pence), on grammatical features of Gahuku and Buang (by E. Deibler and B.A. Hooley), and the article on Telefol by P.M. Healey mentioned in note 20.
27. K. and J. Franklin, "Kewa I: Phonological Assymetry", *Anthropological Linguistics*, Vol.4, No.7, 1962, pp.29-37; "The Kewa Counting Systems", *Journal of The Polynesian Society*, Vol.71, 1962, pp.188-191; "Kewa Ethnolinguistic Concepts of Body Parts", *Southwestern Journal of Anthropology*, Vol.19, 1963, pp.54-63. R. Lucht and D. James, "Phonemes of Siane", *Te Reo*, Vol.5, 1963, pp.12-16. K.L. Pike and G.K. Scott, "Pitch Accent and Non-Accented Phrases in Fore (New Guinea)", *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung*, Vol.16, 1963, pp.179-189. K.L. Pike, "Theoretical Implications of Matrix Permutation in Fore", *Anthropological Linguistics*, Vol.5, No.8, 1963, pp.1-23.
28. H. McKaughan, "A Study of Divergence in Four New Guinea Languages", to be published in *American Anthropologist* in 1964.
29. *Workshop Papers of The Summer Institute of Linguistics* (mimeo), Ukarumpa, Territory of New Guinea, 1961, 11 + 170 pp.; *Workshop Papers No.2. Grammar* (mimeo), Summer Institute of Linguistics, Ukarumpa, Territory of New Guinea, December 1963, 53 + 27 + 16 pp.; J. Dean, *Director's Report 1963* (mimeo), Summer Institute of Linguistics, New Guinea Branch, Ukarumpa, Territory of New Guinea, 1963, 10 pp., 1 map. Also see note 24.
30. G. Bunn and G. Scott, *Languages of the Mt. Hagen Sub-District*, Summer Institute of Linguistics, New Guinea, and Department of Information and Extension Services, Port Moresby, Territory of Papua and New Guinea, 1963, 8 pp., 1 map.

31. E. Deibler and D. Trefry, *Languages of the Chimbu Sub-District*, *ibidem*, 1963, 9 pp., 2 charts, 1 map.
32. D. Glasgow and R. Loving, *Languages of the Maprik Sub-District*, Summer Institute of Linguistics, New Guinea, to be published by the Department of Information and Extension Services, Port Moresby, Territory of Papua and New Guinea.
33. W. Steinkrauss and A. Pence, *Languages of the Goilala Sub-District*, as in note 32.
34. C.R. Brett, R. and R. Brown, V. Foreman, *A Survey of the Use of Motu and Police Motu, including a Dictionary of Police Motu*, as in note 32.
35. D. and J. Trefry, *Kuman Language Course*, as in note 32.
36. A. Pence, *Pidgin Language Course* (mimeo), Summer Institute of Linguistics, Ukarumpa, Territory of New Guinea.
37. R. Nicholson, *Introductory Azera Language Course (Awa Dialect)* (mimeo), as in note 36.
38. J. Dean, *Director's Report 1963*, see note 29.
39. W. and L. Oates, *An Outline Pedagogical Grammar of Kapau, a Kukukuku Dialect of the Upper Watut* (mimeo), 1961, 111 + 98 + 34 pp., to be published in the *Linguistic Circle of Canberra Publications, Series B: Monographs*.
40. A. Capell, *A Linguistic Survey of the South-Western Pacific*, new and revised edition, South Pacific Commission, Technical Paper No.136 (2nd ed. of Technical Paper No.70), Noumea, New Caledonia, 1962, xiv + 258 pp., 17 maps.
41. B. Biggs, "A Non-Phonemic Central Vowel Type in Karam, A 'Pygmy' Language of the Schrader Mountains, Central New Guinea", *Anthropological Linguistics*, Vol.5, No.4, 1963, pp.13-17.
42. E.P. Hamp, "Wahgi (New Guinea) Prosodic Phonemes", *Oceania*, Vol. XXIX, 1958-9, pp.62-64.
43. C.A. Schmitz, "Beiträge zur Ethnographie des Wantoat Tales, Nordost-Neuguinea", *Kölner Ethnologische Mitteilungen*, Vol.1, Köln, 1960, 226 pp.; 1 map (Linguistic Notes on pp.195-222).
44. R.F. Salisbury, "The Siane Language of the Western Highlands of New Guinea", *Anthropos*, Vol.51, 1956, pp.447-480; "Vocabulary of the Siane Language", *Micro-Bibliothica Anthropos*, No.24, 1956, xiv + 40 pp.; also "Notes on Bilingualism and Linguistic Change in New Guinea", *Anthropological Linguistics*, Vol.4, No.7, 1962, pp.1-13.

45. L.J. Luzbetak, "Middle Wahgi Phonology", *Oceania Linguistic Monographs*, No.2, 1956, 48 pp., which followed his earlier work *The Middle Wahgi Dialects Vol.1, Banz Grammar*, Catholic Mission, Banz, Territory of Papua and New Guinea, 1954, viii + 245 pp.
46. O.C. Hintze, *An Approach to the Problem of Stress, Vowel Length, and Pitch Significance in the Enga Language* (mimeo), New Guinea Lutheran Mission, Wabag, Western Highlands, 1958, 11 pp.; also a pedagogical grammar and a short introductory grammar of Enga.
47. F. Mihalic, *Grammar and Dictionary of Neo-Melanesian*, The Mission Press, S.V.D., Techny, Illinois, 1957, xxi + 318 pp.
48. P.A. McVinney and L.J. Luzbetak, *Tabare Dialect, Vol.I, Grammar (Sinasina, Eastern Highlands)*, Catholic Mission, Alexishafen, Territory of Papua and New Guinea, 1954, 255 pp.

17. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

18. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

19. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

20. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

21. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

22. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

23. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

24. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

25. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

26. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

27. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

28. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

29. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.

30. J. H. Greenberg, "The Languages of Africa", *Journal of African Languages* 1 (1963), pp. 51-91.