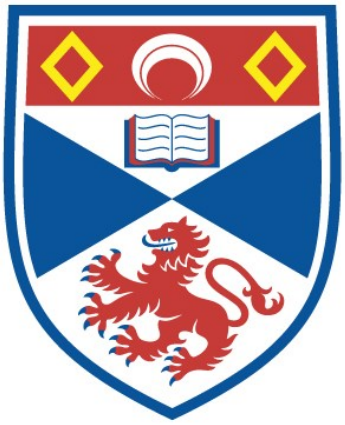
THE IMPLICATIONS OF MANIOC CULTIVATION IN THE CULTURE AND MYTHOLOGY OF THE MACHIGUENGA OF SOUTH EASTERN PERU

Anna Lewington

A Thesis Submitted for the Degree of MPhil
at the
University of St Andrews



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Anna Lewington, B.A.,

Thesis submitted in fulfilment of the requirements for the Degree of Master of Philosophy (Mode A) in the Faculty of Arts.

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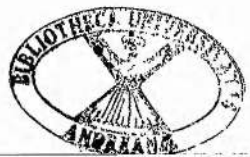

I Anna Lewington hereby certify that this thesis which is approximately 60,000 words in length has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

date 18th October 1985 signed .....

I was admitted as a research student under Ordinance No. 12 on 7th October 1979 and as a candidate for the degree of M.Phil. (Mode A) on 27th September 1983; the higher study for which this is a record was carried out in the University of St Andrews between 1979 and 1985.

date 18th October 1985 signed .....

I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate to the degree of M.Phil. (Mode A) of the University of St Andrews and that she is qualified to submit this thesis in application for that degree.

date 16 vii 85 signed .....
(supervisor)

A B S T R A C T

The aim of this thesis to to effect an introduction to the place of manioc (Manihot esculenta Crantz) in the culture of the Machiguenga Indians of the Peruvian rain forest. The main substance of my work finds its focus in a myth, the narrative of which was recorded during fieldwork on location in the Urubamba region of south east Peru. My thesis will attempt to examine the role of manioc and the justification of its description as a 'sacred plant'[1] to the Machiguenga.

The evidence I put forward to demonstrate the significance of manioc comes under the following headings:

a) manioc cultivation and dietary uses

b) manioc plant taxonomy

c) the manioc myth itself, which I have transcribed and translated from my recordings.

Whilst the anthropological structures of the myth are examined, no attempt will be made to deal in detail with the vocabulary and morphology of the Machiguenga language. While conceding that it is vital to show the connection between the material use of manioc and the belief structure surrounding it, material already collected would suggest a more ambitious piece of work than a Master of Philosophy degree would allow, and I hope in the future to undertake full-scale investigation into this largely

untouched aspect of Machiguenga social and religious organization. The present work aims only at an introduction to the people and their use of manioc, and the presentation of the manioc myth.

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1. The Dominican missionary, Padre José María Grain, described the manioc plant (in Spanish yuca) as 'la planta sagrada de los Machiguengas'. He went on to say 'es la única de la que nunca saben prescindir, la que acompaña todas sus comidas, y a menudo las suple. Tiene su leyenda especial. Casi a un mismo tiempo la cultivan y le rinden culto. No ven con buenos ojos que se la menosprecie, o que se la dé a comer a los animales que ellos no estimen. Es un regalo que les vino del cielo, y que cuidan con particular esmero. Su yucal siempre esta limpio como un niño mimado de la fortuna'. (Grain, 1943: 241).

D E D I C A T I O N

To my mother, father and Jane

A C K N O W L E D G E M E N T S

I would like to thank the following people for their valuable assistance with this work: my supervisor, Professor Douglas Gifford, for his enthusiastic guidance and support; Dr Gerhard Baer, for his encouragement and generous supply of much of the source material embodied in this thesis; my mother and father for their constant encouragement and understanding during the most difficult moments and for their practical advice and help, and Edward Parker for never losing his temper.

I should also like to thank the following people for their enthusiasm and their help: Professor Allan Johnson; Alejandro Camino; Dr Richard Fardon; Dr Michael Hogg; Dr Stephen Reicher; Jane Lewington; Carmel Brown; Kirby Watson; Mrs Carol Trelawney Ross; Peter Camp; Mr and Mrs Raymond Camp, and Natasha Barlowe.

Special thanks must finally go to Krysia Ochyra for her patience in typing this thesis and to the Machiguenga for their time and hospitality.

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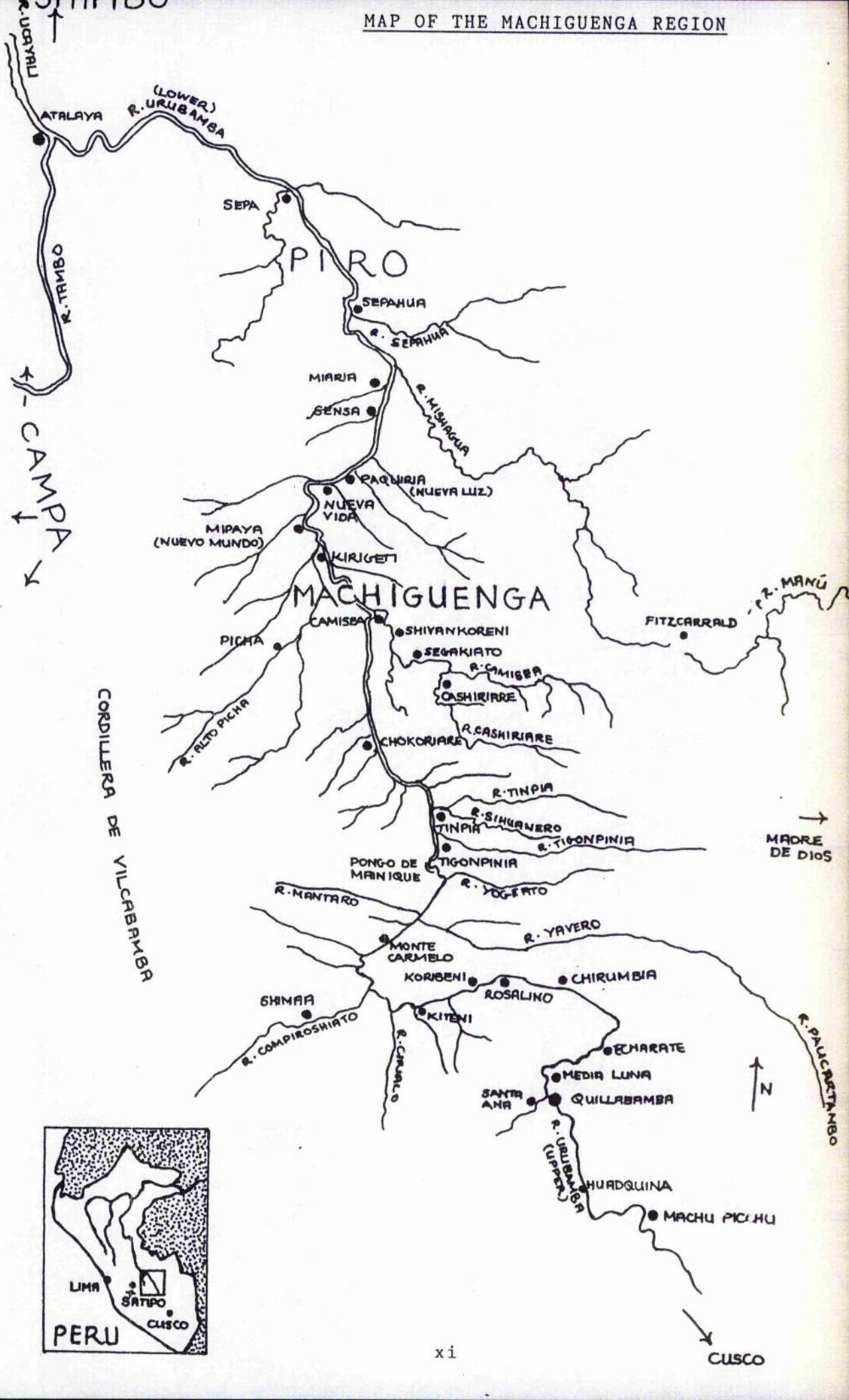

C H A P T E R 1

THE FIELDTRIP TO THE MACHIGUENGA

I) THE MACHIGUENGA

i) Location

The Machiguenga[1] are an enthno-linguistic group[2] of horticulturalist/hunter-gatherers who live in the mountainous and less elevated areas of tropical rain forest in south-eastern Peru.

Their language belongs to the Arawak linguistic family (Appendix 1) and is closely related to that of the Campa-Asháninka, their neighbours to the north-east.[3] Several other groups near the Machiguenga speak languages belonging to this linguistic family, notably the Piro to the north, the Mashco to the east, and the Amuesha to the north-west.

The Machiguenga inhabit a territorial area which lies between 11° 20' and 13° south and 70° and 73° 20' west. It consists principally of the drainage areas of the Upper Urubamba (including the upper reaches of the Yavero/Paucartambo rivers) with the Kiteni/Koribeni region forming the southern boundary,[4] part of the Lower Urubamba bounded to the north by the Piro territory beyond Miaria, and to the east, parts of the Upper Manú and Upper Madre de Dios rivers. This represents an area of approximately 30,000 square kilometres (Camino, 1973).

Various estimates (Camino, 1973; Ferrero, 1967; Varese, 1972) have placed the Machiguenga population at between 3,500 and 12,000 individuals, but more recent sources suggest that the real figure today is between 5,000 and 7,000 individuals (Baer, 1981a: 45).

This study concerns only Machiguenga communities[5] of the Urubamba river. These can be divided into two main groups: those inhabiting the upper and those inhabiting the lower reaches of the river. These groups are divided topographically by the Pongo de Mainique,[6] a dramatically narrow and steep-sided gorge forming the northernmost limit of the region known as the Upper Urubamba.[7] This region, dominated by the forest-covered foothills of the Andes, is known as 'ceja de montaña' (Hermoza, 1979: 241), a rugged landscape with altitudes ranging from 500 to 1,700 metres above sea level (Casevitz in Barbira-Scazzochio (Ed), 1980: 250) crosscut by a dense river system bordered by thin fringes of alluvial land.

Hermoza (op. cit.: 235) gives the upper limit of Machiguenga habitation as 1,000 metres above sea level; this being, he says the 'límite con los andinos'. Baer (1979: 103) however, sets the upper limit today at 1,200 metres above sea level.

On the other side of the Pongo de Mainique, along the Lower Urubamba, the landscape flattens out and becomes less rugged and more densely forested, as the river and its main tributaries widen. The elevation here above sea level (and in the region of the Upper Manú and Madre de Dios rivers) ranges between 200 and 300 metres (Baer, op. cit.: 103; Hermoza, op. cit.: 235).

In both upper and lower reaches of the Urubamba river, whilst some Machiguenga settlements are to be found along the banks of the main river, a considerable number are located along its tributaries or their 'quebradas',[8] at various elevations according to the features of the terrain. In this respect, with reference

to the classificatory terminology developed by Lathrap (1970), the Machiguenga could be labelled as an 'interriverine people'. By far the largest part of Machiguenga territory is covered by dense rain forest.

ii) Visit to the Machiguenga

The linguistic material presented in this thesis was obtained during what was initially intended to be a preliminary visit to the Machiguenga, and which took place between 18 November and 22 December 1981. The aim of the trip was to visit communities inhabiting both sections of the Urubamba river and its tributaries, in order to choose one community to return to at a later date for the systematic collection of data. Nine communities of the Lower Urubamba were visited in all.

Preparations were made in Lima during October of 1981 to enter the area with the help of two agronomists: Luis Román and Bruno Sanginetti who were employed by C.I.P.A. (Centro de Investigación y Promoción Amazónica). They intended to make a survey of the crops being grown by the Machiguenga and assess the future agricultural potential of the Urubamba area, visiting principally the larger and most easily accessible communities inhabiting both parts of the river.

It was agreed that I could accompany them, firstly to reach the Lower Urubamba by plane and secondly on their excursion upriver by small motor-boat (commonly referred to in the area as a 'Johnson'). Accordingly, I left Lima Airport on 18 November and flew by twin-engined Cessna aircraft to Satipo,[9] the mid-way

point between Lima and the Lower Urubamba area. At Satipo another smaller, single-engined Cessna was hired, and after a two-day delay, spent waiting for the low, ragged cloud cover to clear,[10] we flew to the agronomists' recently-erected base (a small timber-framed thatched hut) at Sepahua.

Sepahua, situated on the left bank of the Urubamba, in traditional Piro territory and now hosting a Dominican missionary base and an oil exploration team (plus paraphernalia), has a somewhat enigmatic, changing population, consisting not just of the more permanent Piro Indians, but also some Amahuaca and Yaminahua families, who appear and disappear from time to time (personal communication: Luis Román).

From Sepahua I accompanied the agronomists to Miaria, the next relatively traditional village (without the presence of missionaries), at an hour's distance upstream. This journey was undertaken by '<u>peke-peke</u>',[11] the long, narrow, native-made canoe with a small long-ruddered outboard motor attached to the stern.

At this point, after a three-day stay at Miaria, the two agronomists decided to return to Sepahua in order to continue their journey upstream by the more powerful 'Johnson' motorboat. It was decided that since they wanted to make the journey as quickly as possible to Kiteni (where the road running down the Urubamba valley from Cusco meets the '<u>selva</u>'), I should stay behind and travel on alone by '<u>peke-peke</u>' (with the help of local Indians also wishing to travel) to enable me to visit as many communities as possible.

Thus began the month-long voyage up the Lower Urubamba. By the time the stretch of the river immediately preceding the dangerous dividing point, the Pongo de Mainique had been reached, feared by the Indians and non-Indians alike for the ferocity of its rapids during the rainy season (November to March) and for the difficulties presented in crossing it during all but the driest weeks of the dry season (June to September), the river had become so rough and turbulent that it became clear that all hope of crossing it by 'peke-peke' was out of the question. Thus, this first field trip ended there, at the last village before the Pongo, Tinpia, from which I was eventually rescued by the Dominican missionary plane.

iii) The Machiguenga Communities of the Lower Urubamba

All the communities of the Lower and Upper Urubamba have been considerably influenced, not only by missionary activity dating back to the 17th century, but also by extractive activities (most notably the search for rubber between the end of the 19th and the beginning of the 20th centuries, during which time the Machiguenga were hunted and enslaved), by the raiding activities of the Piro, and by contact with traders and 'civilizados' of the present century. This is discussed in more detail in the following chapter.

The nine communities I visited[12] presented different stages of integration with and/or acceptance of the values and beliefs of the larger 'society' around them. Stefano Varese (1972: 6) has written 'The inter-ethnic relations of the tropical forest are at the same time class relations, and both kinds of relations are part of a network or system of relations which can only be

understood at the level of the total society, which in turn cannot be considered in itself, but only as part of a system of constellations of countries which are dominated by economic centres', and, he continues, 'In order to understand correctly the present condition of most of the native societies of the Peruvian tropical forest, one must realize that all of them, to a greater or lesser extent, directly or indirectly, have undergone a process of ecological deterioration and marginalization'.

The nine communities had, however, had considerably less contact with the outside world in the form of migrants from the Sierra, (particularly during the last 30 years) than their relatives of the Upper Urubamba, and were said to be the more traditional in terms of their beliefs and material culture.

All have, however, been affected by the presence of Catholic (Dominican) and Protestant (Summer Institute of Linguistics) missionaries who have set up operations in the area - in the case of the Dominicans, since 1900, and for the S.I.L., since 1950 - particularly through their policies of the 'extraction' (in the case of the S.I.L.), i.e., training and subsequent re-installation of native bilingual teachers. In most villages the teachers have been entrusted with the running of a small shop - equipped with new items such as bubble-gum, base-ball caps and tinned sardines - to enable the Indians thus to 'participar en la vida de la nación' (Prado Pastor, 1979: 63), and have been presented unequivocally with the unquestioned assumption of their need for cultural, physical and moral improvement. (Appendix 2).

It should perhaps be mentioned here that the Machiguenga

traditionally live in 'mobile' nuclear or extended, and at times polygamous family households, the typical settlement pattern varying from the individual household (nuclear family) of between five and seven members living along forest streams, to clusters of related households - perhaps two or three - comprising 20 to 30 members in total.

These individual households and large groupings were traditionally separated from each other by large expanses of tropical forest. The reorganizational principles of missionaries have resulted in a considerable breakdown of this pattern. The abolition of these traditional groupings has resulted in the construction of large, neatly laid-out, named 'villages'.

In some cases the power and status once enjoyed by the head man of the group,[13] where present before, has now been transferred to the school teacher/shop keeper, with an ensuing feeling of shame and inadequacy amongst other members of the group, and felt particularly by the ousted head man.

Thus, amongst all the groups visited, at least one person (the teacher/shopkeeper) spoke a kind of rudimentary Spanish and most communication was made through him. The majority of the Machiguenga that I encountered, though able to understand a few Spanish words (and utter even fewer) were, through a natural shyness and a reticence seeming to stem from an inculcated sense of inferiority, unable to speak openly or offer information.

II) DATA COLLECTING

i) Procedure

My procedure on arriving at the first and subsequent Machiguenga 'villages' (to which I was taken by any Indian or Indians wishing to travel to the next 'village'[14]) was to ask for the 'jefe' (only twice was this not the teacher/shop keeper) and ask him if I might stay a while in his 'village' as I was very interested in the manioc plants and would like to see what was grown.

I was received with much kindness by all the groups I visited, at times given a hut of my own (kept spare for visitors) or put up in the head man's house. If lucky and the rain permitted, I was taken, usually by children, to see a yucal (manioc garden) of one or more families, and it was in this way that informal conversations about the cultivation of manioc and beliefs about it could begin, and its importance be observed.

A very informal position was adopted in conducting inquiries, as the main purpose of this trip was to introduce myself to the Machiguenga and to get a general idea of the situation regarding manioc cultivation and its lore.

ii) Preliminary Observations

Through observation of the botanical characteristics of the plants themselves and from the many different names that were given for them it was discovered that many manioc varieties[15] could be grown within one man's chacra.[16]

The process of preparing manioc to eat and its importance as the staple food of the Machiguenga was also observed (served in similar ways at each of the two main meals of the day) and also that of masato, (in Machiguenga shi'tea or o'vuroki) the drink made from fermented boiled manioc, always to hand in every dwelling (or in the process of preparation) and offered by the women of the household to their returning men, their neighbours and visitors.

Masato has been described by M F Brown and M L Van Bolt (1980: 170) as 'The social lubricant of Aguaruna culture and supreme symbol of hospitality' and this certainly seemed to be true for the Machiguenga. The important role played by masato within both social and religious spheres of Machiguenga society is dealt with in Chapter 3.

III) DATA COLLECTED

The following material was collected during my field trip to the Machiguenga. It was not possible however, to incorporate all the material listed below into this thesis - specifically the twenty songs, and the drawings and notes describing the botanical characteristics of manioc plants - since this would have been to exceed the limits of the present work.

i) Linguistic Material Recorded on Portable Cassette Recorder

a) Two myths or myth fragments in Machiguenga:

The first from a male informant in Nueva Luz on 28 November (approx. 7 mins.), the second from a female informant in Chokoriare on 7 December (approx. 3 mins.). Both recount the

story of the origin of manioc, i.e., as a present to the Machiguenga from the moon.

The first recording, made in Nueva Luz, is followed by a much shortened and somewhat faltering translation in Spanish by the informant (approx. 2 mins.), and this again is followed by a series of questions concerning the myth which I put to the informant, and his answers (both in Spanish). The audible quality of the first recording is very good. It is the myth as recounted by this informant that is presented in Chapter 4.

The second recording from Chokoriare is, unfortunately, of much poorer audible quality than the first and the narrative is not included in this thesis. This informant was monolingual, and the recording is not followed by a translation in Spanish.

b) Twenty songs in Machiguenga, almost certainly referring to the consumption and inebriating qualities of masato, from nine informants:

an old female informant in Nueva Luz, 28 November: two songs; an old male informant in Segakiato, 2 December: three songs; seven children, ages 7 to 15 in Tinpia, between 8 and 16 December: fifteen songs.

ii) Linguistic Material Recorded in Written Form

a) Thirty-three different names for different manioc varieties, collected from six informants:

a male informant in Nueva Luz, 27 November: four names; a male informant from a small unnamed single family settlement isolated from, but in the vicinity of, Nueva Luz, 29 November: nine names; a male informant in Chokoriare, 6 December: four names; three boys, ages 12 to 15 in Tinpia, 8 December: eighteen names.

n.b. The disparity between the number of different names collected (thirty-three) and the overall total of thirty-five names, is explained by the fact that several informants in different areas used the same term. It is not yet known to what extent these names may overlap: that is, how many may be local or personal names for one 'variety', known by different names in different areas. (See p.53).

Of these different names, I was very interested by the discovery that the Machiguenga word for the manioc plant comprises two semantic units: the first denoting some bird, animal or quality in some way connected with the plant, the second identifying manioc generically as a species. An attempt to identify and record the meaning of the first units was made in the field and was completed as far as possible with the help of the very limited material available which deals with the Machiguenga language. The linguistic work of Baer and Hertle was used, much of it unpublished and the classificatory terminology dealing with plant and animal names found in Baer's latest work, 'Die Religion der Matsigenka' (1984). Baer's unpublished 'Alphabetisches Wörterverzeichnis: Deutsch - Matsigenka' was also very helpful in this task.

b) One partial account of manioc cultivation:

a male informant in Cashiriare, 2 December.

c) Drawings and notes of the botanical characteristics of four manioc varieties named by a male informant in Nueva Luz, 27 November.

d) Two partial accounts of how to make masato, from two female informants in Nueva Luz, 27 November.

e) One quotation demonstrating the importance of masato, from a female informant living alone with her husband at some distance from Nueva Luz. She evaluates her happiness in her new home by referring first to the good quality of the masato to be made there.

C H A P T E R 2

THE ETHNOHISTORY OF THE MACHIGUENGA

I) THE SOCIAL INTERACTION OF THE MACHIGUENGA AND OTHER INDIGENOUS AND NON-INDIGENOUS GROUPS - AN HISTORICAL PERSPECTIVE

i) Nomenclature

The many accounts which refer to the different indigenous and non-indigenous groups or individuals that have had contact with the Machiguenga in the past- contact which, in the case of the indigenous groups, may stretch back many hundreds, perhaps thousands of years - have left a confusing variety of names for this ethno-linguistic group.

Pío Aza, the Dominican missionary, who at the beginning of this century, worked amongst the Machiguenga for many years and who has written numerous works about them (including the only extensive Spanish-Machiguenga vocabulary: Aza, 1923) wrote (1924: 19):

> 'Diferentes nombres se les ha dado a los indios de esta tribu: se les ha llamado Shimpeñari, Pureñari, Chionchopahiri, o Chonchoite'.

Camino (1977: 124) referring to the different names that the Machiguenga have received during the last 400 years, and adding 'Antis, Chunchos, Tampas, Manariegui, Manaries, Opataries, and Matsigenkas' to Aza's list as:

> 'algunas de las denominaciones más usadas en el pasado'

suggests:

'muchos de éstas posiblemente se refieren a antiguos subdivisiones del mismo grupo etno-linguistico'.

Hermoza (1970: 232) notes that Captain Francisco Carrasco who accompanied Francis de Castenau on his journey through the area inhabited by the Machiguenga, 'le denominó Tampa' which according to Hermoza is 'una dicción viciosa de campa'. More recently Camino (op. cit.: 124) has written:

'el término campa ... ha sido usado indistintamente para designarlo a los actuales Machiguenga del Alto Urubamba'.

In connection with the confusion that has arisen concerning the correct appellation of the Machiguenga, Hermoza (op. cit.: 232) quotes Luis Pericot who wrote:

'los campas forman bastantes subtribus conocidas: Antis, Camaticos, Quimbaris, Pangoas, Catongos, Quirinaris, Machiguengas o Machigangas, Pucapacuris, Tampas, Ugonichiris, Ungononos ...'

and that apart from those underlined:

'cabe la sospecha que algunos términos sólo sean mención de Machiguengas que fueron localizados en ciertos puntos geográficos: Pangoa-Pangoas, y tan sólo obedeciá a un establecimiento temporal, pero no de una subtribu'.

Whilst we can agree that the above-mentioned names do not refer to subtribes of the Campa (or Machiguenga), special mention should

be made of five of them; Pangoas, Pucapacuris, Antis, Chunchos and Chonchoites.

a) Pangoas

To begin with the Pangoas: It appears that this name is indeed derived from the region that the group inhabits, that is the region of the Pangoa river, to the north west of the Urubamba river (see map p.xi). It should be added however, that the language of this group, according to Wise (1971: 231), is the fourth member of 'a closely related subgroup of pre-Andine Arawakan languages', which consists of Asháninka-campa, Pajonal Campa, Machiguenga and Nomatsiguenga: Nomatsiguenga being the language spoken by those living in the region of the Pangoa river. Since Nomatsiguenga speakers call themselves Campa when talking to 'outsiders' and their language is more closely related to Asháninka Campa than to Machiguenga in structure and vocabulary, ethnographers could perhaps be excused for thinking of them as a sub-group of the Campa, though as indicated (Chapter 1, note 3), the inhabitants of the Pangoa area call themselves 'Matsiguenga' when not in the presence of 'outsiders'.

b) Pucapacuris

The term Pucapacuris almost definitely refers to the group that are now known as Kugapakoris.

In a paper presented at the conference on the Development of Amazonia in Seven Countries (Cambridge, 1979) entitled:

'Contrasts Between Amerindian and Colonist Land Use in the Southern Peruvian Amazon (Matsiguenga Area)', Casevitz (1980: 250) divided the Machiguenga of the Urubamba valley into three categories, 'in function of their responses to the century-old extractive-agricultural colonist front'. The first of these categories is 'The Kugapakoris or Killers',[1] the second is 'The Traditionalists' and thirdly 'The Village Dwellers - those who have formed villages around teachers or missionaries'. To quote Casevitz (op. cit.: 250-252):

> 'The Kugapakoris ... are rebel Matsiguenga who oppose [sic] an armed resistance to intruders in their territory. This organised defence began during the rubber boom which in this area started late but lasted longer than in the north - private slave markets still existed in Atalaya and Pucallpa in 1954. The rubber boom decimated the Matsiguenga population: on the basis of the genealogical material I collected, I estimate the present population to be one fourth or less than the 1900 population. The Kugapakori live in the remote headwater area of the Timpia, Camisea and Mishagua rivers, together with other Amahuaca and Yaminahua Kugapakoris'.

(Here the author adds in a footnote that 'distinct ethno-linguistic groups traditionally settled in the hinterland between the Ucayali, Jurua and Purús headwaters'). She continues:

> 'They follow a traditional "terra firme"[2] mode of life based on swidden agriculture, hunting, fishing and

gathering of forest produce. Their material culture is still aboriginal to some extent: in 1973 (Appendix 3), a delegation of Kugapakoris arrived at the Timpia mission post with stone axes. The steel tools they took back with them were used for guerrilla activities on their return. A large number of Matsiguenga attached to Catholic and Protestant Missions express contempt for the Kugapakoris at least in the presence of whites. Others however, see in them the potential converts and I.L.V. (Instituto Linguístico de Verano or Summer Institute of Linguistics - see Appendix 2) trainees operate what can be called "schooling raids" on their children'.

Darcy Ribeiro and Mary Ruth Wise (1978) use the term Cogapacuri, giving Pucapacuri and Kogapakori as variations of this name for the group. They estimate their numbers to be 'several hundred',[3] organised into 'small isolated groups, each group consisting of an extended family', (familia extensa) and write that 'the other Machiguenga are frightened of them and don't dare to go into their territories unless they have kinship ties or unless they are known to them' (my translation). Explaining their classification of the Kugapakori as a 'subgroup' Ribeiro and Wise write:

'Hay indios que muestran que el habla de los Cogapacuri difiere en muchos aspectos del de la mayoría de los Machiguengas, por los que los podíamos considerar como un grupo distinto. Pero en vista de que los Machiguenga están incorporándolos a sus comunidades los incluímos

como un subgrupo'.

The Kugapakori are then, clearly distinct from their relatives of the Urubamba valley, with respect to aspects of their language, their material culture (their use of stone axes, wooden knives, bark cloth, facial jewellery for women, tree-climbing apparatus for men, for example) and their raiding activities which are not known to be found in any other Machiguenga area now.

c) Antis and Chunchos

The term Anti is of Quechua origin and its derivation has been explained by Hermoza (1970: 231) thus:

> 'En el emperio Incaico (1438-1532) los Quechuas para un mejor administración política y teniendo como centro el Cusco, establecen cuatro regiones o "suyos", dos de los cuales tenían su raíz toponómica en cuanto referencía a los puntos cardenales del movimiento solar: "cunti" oeste, y "anti" este. El antisuyo es la región que corresponde a la zona de la selva'.[4]

Baer (1981a: 47) corroborates that:

> 'Der Ausdruck "Anti" oder "Antis" ist von der quechua-sprachigen Inka bezeichnung antisuyo, "Nordöstliche Provinz des Inka reiches" abgeleitet'

and states that:

'Die von Marcoy (1869) veröffentlich Wörterliste der sog. "Antis" zeigt, dass die von ihm genannten "Antis" des Urubambatals mit den Matsigenka identisch gewesen sein müssen'.

('The wordlist published by Marcoy (1869) of the so-called "Antis" shows that the "Antis of the Urubamba", as he calls them, were identical with the Machiguenga' - my translation).

Hermoza (op. cit.: 231) writes that:

'Queda en suspenso cúales fueron aproximadamente los límites de este "suyo", los estudios arqueológicos avalarán en este tema puntos correctos, pero son escasos los trabajos realizados'.[5]

As for the term Chuncho, much used by Quechua speakers today for the inhabitants of the forest, Hermoza (op. cit.: 231) continues:

'los Quechuas, a los pobladores del Anti, le daban el nombre de Chunchos, pero como referencia genérica sin hacer mención de ningún grupo o tribu en especial'.

He adds:

'Todavía en el folklor actual de muchas regiones del Perú, se conserva un tipo de baile denominado la Chunchada, en donde se hace un remedo en especial de la vestimenta de los selvícolas'.

d) Chonchoite

This name, used by Pío Aza (1924: 19) as one of the names for the Machiguenga, does not in fact refer to them at all, but to their traditional enemies, the Piro.

Referring to Aza's mistake, twelve years later, a brother of the Dominican order declared:

> 'según referencias de los Machiguengas actuales, no pertenecen los Chonchoite a su tribu, más bien son un pueblo lejano de ellos (tres meses de viaje) que han dado muerte a algunos de sus Seripegari.[6] Ignoro el fundamento que tiene el P. Aza para atribuír esta denominación a los Machiguenga'. (Grain, 1938: 22-29)

Hermoza (op. cit.: 232) refers to the publication by Garcia (1936: 2-13) in which it is stated:

> '... los Chonchoite, tribus de salvajes antropófagos fueron creados por el demonio Kientibakori ...'

Hermoza continues:

> 'En verdad Chonchoite no es el nombre de los Machiguengas. Son espíritus que fueron creados por el demonio Kientibakori para hacer daño. Practican la antropofagia que es degradante para los Machiguengas. En tiempos pretéritos hipotéticamente y ubicadas idealmente "allá, lejos", tuvieron una acción que nunca olvidarán, a uno

o quizás a varios de sus buenos Seripegari ... lograron coger y, a pesar de los dones sobrenaturales que suelen tener, no pudo liberarse, sin contemplaciones lo mataron, y después de asado (sic) se lo comieron'.

ii) Social interaction

a) Machiguenga - Quechua - Piro

The historical interrelationship of the Machiguenga, the Piro and the Quechua speakers of the old Inca Empire is a complex and very interesting one, but one about which many things are still unknown. Baer (1981a: 47) states that:

'Da noch vor verhältnismässig kurzer zeit (18jh?) das Matsigenka-Territorium im süden bis in die Gegend von Machu Picchu gereicht haben soll, stellt sich die Frage, ob oder in welchem Ausmass die Matsigenka Kulturelle Impulse von den alten Hochkulturen bzw. vom Andenhochland empfangen haben'.[7]

Concerning this question of the southern boundary of Machiguenga territory, Hermoza (1970: 238) mentions that in 1846, when the expedition led by Francis de Castelnau visited the region, the:

'territorio de los Tampas (Machiguengas) comenzaba en Chaguaris'

He adds:

'El río Alto Urubamba era constantemente surcado por los Piros, que son diestros navegantes, quienes bajaban hasta Chaguaris, y eran enemigos declarados de los Machiguengas, de tal modo que se veían obligados a construir sus viviendas alejada de la ribera, para evitar el ataque y saqueo de estos'.

According to Baer (op. cit.: 47):

'Die Herren des Urubambatals waren damals eindeutig die Piro, die von den Matsigenka simi 'rinchi, in den historischen Quellen aber oft, "Chontaquiro" gennant werden'[8]

Chontaquiro, as Hermoza (op. cit.: 239) reveals, is a Quechua expression; 'wooden teeth'. Chonta is a kind of palm, native to the forest, known and used for its very hard wood, and Quiro is the Quechua word for 'tooth'. It seems most likely from this then, that the inhabitants of the Inca Empire invented and used the name Chontaquiro for the more warlike 'Antis' or 'Chunchos', the Piro.

A detailed study which investigates the economic exchanges and raiding activities that occurred between the Piro and Machiguenga and the highland Quechua speakers, has been undertaken by Alejandro Camino (Camino, 1977), and the work presents much valuable and interesting material concerning the high degree of interaction that existed between both lowland and highland groups, and as an outcome of this, between the two lowland groups.

In his article Camino (1977: 123) looks at the socioeconomic relations that have existed since pre-colonial times, and attempts to analyse the character of the interrelationships between different ethnic groups in order to show that these explain, to a large extent, some aspects of their present life styles.

But as Camino points out (op. cit.: 125), little is known about the exact character of the relationship between highland and lowland populations, in prehispanic times. Lathrap, who has minutely investigated the prehistory of Amazonian settlements (1970) has suggested in a more recent article (1973), the importance of exchange networks covering very large distances in South America, since 3,000 BC. The presence of materials of definite tropical origin found in archaeological remains on the Peruvian coast and in the highlands for example, are clear evidence of the existence of networks of some sort of exchange dating from pre-Inca times.[9]

He suggests too (1973: 181), that the commercial relations between the Central Andes and the forest reached a high level of intensity beneath the influence of the Tiahuanaco culture, but that the absence of more intensive studies covering the pre-historic period must limit any speculation about the precise nature of such relations.

Better documentation exists however, of the relationship between Quechua speakers and forest dwellers during the Inca period. It is clear from documentary sources (Camino, 1977: 125) that the Incas made repeated attempts to gain access to

Amazonian resources. The numerous imperial expeditions destined to conquer the immense Amazonian plains have been studied by White (1975), along with information about the roads and architectural remains in the Peruvian montaña. These remains seem to indicate the implementation of state colonization programmes of lands suitable for the cultivation of coca and the extraction of other forest resources.

It seems though, that the 'Chunchos', even though interested in the exchange of goods, were hostile to the Inca armies. As Camino (op. cit.: 125) has written:

> 'Los informes sobre el carácter hostil y conflictivo de las relaciones entre 'Chunchos' y Quechuas son numerosas desde la conquista. Invasiones a poblados y ataques sorpresivos tipo emboscada por parte de los 'Chunchos' fueron acontecimientos regulares entre los pobladores Andinos de las cadenas montañosas del este'.

In his exploration of the Vilcabamba region and during his excavations of Machu Picchu in 1912, Hiram Bingham found a large rock (in Maranyoc) covered with markings[10] which Bingham (1913) felt represented the history of an invasion 'from the Amazonian jungle to the heart of Inca territory'.[11]

Despite the aggressive nature of much of the contact between forest and highland regions, and the 'pago de tributos al Imperio por parte de los Antis o Chunchos', it seems likely that 'puertos de intercambio' were very active during the pre-hispanic past, especially, according to Lathrap (1973) during

the different horizons in which the trade in ceremonial and sumptuary goods took place.

The main rivers became effective routes for exchange, enabling Andean produce to reach the most remote Amazonian communities, and goods of tropical origin to reach the heart of the Inca Empire.

b) Piro - Quechua exchanges

The relationship between the more aggressive Piro and the Quechua speakers played a very important part in determining Machiguenga settlement pattern and life-style. According to Camino (op. cit.: 128):

> '... numerosos informes ... demuestran que en el pasado, los Piro-chontaquiros actuaban como intermedarios entre los Andinos y los distantes grupos Amazónicos. El Ucayali-Urubamba era una importante vía comercial por la que los Piro-chontaquiros se desplazaban de sur a norte'.

Unlike the livelihood and economy of the Machiguenga, that of the Piro was orientated towards the main river.

The mercantile activities of the Piro were most intense during the 17th, 18th and 19th centuries and possibly also in pre-hispanic times, and they had effective control over much territory bordering their own. To the south, they were faced with the Pongo de Mainique (see p.xi), an effective natural

barrier between the low jungle and the Andean zone, and which only the most skillfull Indian oarsmen could cross. Lying within the territory of the timid Machiguenga, however, this presented no problem. To the north, the Ucayali gave them access to the main commercial routes and the complex societies of the Shipibo, Conibo, and Omagua -- inhabitants of an area rich in natural resources. Access to the tributaries of the Urubamba and Purús rivers also enabled the Piro to take advantage of the extensive exchange opportunities that these rivers afforded.

In terms of their trade with the Incas, Chantre and Herrera (1901: 282) indicate that the Piros acquired gold objects from them in exchange for forest goods. Important trading activities, between the two groups took place in the form of ferias established for this purpose. These ferias were usually held after the harvest, which occurs in the Andes in the dry season, between June and September, and it is very probable that the Feria del Carmen, in the Machiguenga territory of the Upper Urubamba, where the Piros exchanged goods with the Quechua speakers, coincided with important agricultural and pastoral cycles in the Andes.

Since, for the Incas, the dry season was a lunar period and was regulated by the lunar calendar, it is perhaps significant that some of the villages along the Urubamba river near the sites of the annual ferias have names connected with the moon, such as 'Quillabamba' (of Quechua origin, meaning 'place of the moon') and 'Media-Luna'.

Long after the demise of the Incas, the first missionaries to establish mission stations among the Piro Chontaquiro in the middle of the 17th century were attacked for metal tools. Ecclesiastical documents dating from 1750 (Colin, 1966: 133) describe how the first missionaries in the Quillabamba/ Urubamba region gave out axes in an attempt to pacify the tribes there, receiving in exchange:

> 'niños y niñas que los mismos infieles sacan a vender siendo el precio de cada alma ... un hacha de Biscaya'.

The missionary Bousquet wrote as late as 1806 that the Piro were still travelling up river to Cocabambilla in many canoes in order to obtain metal tools (Raimondi, 1874: 3: 29). The Piros exchanged monkeys and parrots with the inhabitants of the hacienda Echarate for axes, knives and beads, for example. (Marcoy, 1875: 364).

The Piro's journey took approximately three months, during which time they travelled some 200 miles (Miller, 1836). They are also known to have traded cloth, cedar-wood canoes, wild cocoa, turtle oil, gums, resins, wild animals and women and children captured from other tribes, for machetes, clothes, pieces of mirror, beads, scissors, nails and salt. Amongst the more important articles of exchange brought by the Piro was the bark of the Chinchona tree, known as Cascarilla, (Chinchona pubescens) from which quinine was extracted (Tshudi, 1852: 279). There was a great demand for quinine from the French and English who, during the latter half of the 19th century, were trying to combat yellow fever encountered

during the colonization of Indochina and Africa, and the importance of the Cascarilla traded at the Feria del Carmen increased between 1870 and 1890.

The Feria del Carmen changed its location from Cocabambilla as the territory of the Chunchos began to shrink through colonization from the Cusco region. Towards the end of the last century it moved to Rosalino and the last ferias were held even further down the Urubamba valley at the mouth of the river Cirialo, until 1914.

c) Piro - Machiguenga conflict

On their journeys to the Feria del Carmen the Piro traders had to pass through the vast territory of the Machiguenga. On the way they engaged in robbing and pillaging activities for which they were feared and hated by the Machiguenga. The Piro stole Machiguenga women and children, plundered their chacras and stole their canoes - all would be exchanged several days later at the feria (Izaguirre, 1925: 10:99).

These attacks forced the Machiguenga to abandon their huts and chacras along the length of the Urubamba and construct their homes along the smaller quebradas or tributaries leading into the main river. If homes were built on the banks of the main river, great care was taken to hide them behind a curtain of trees. Chacras were also made some distance away (Marcoy, 1875: 48). This movement of the Machiguenga to the less accessible areas did not stop the Piro, however, making their annual incursions, and according

to Izaguirre (1925, 10: 90-91):

> 'no hacían más que llorar cuando se veían así robadas, sin atreverse a despegar sus labios ni hacer otra cosa alguna'.

Partly as an answer to the Piro threat, some extended Machiguenga families developed more complex forms of political organization which helped them to confront the attacks from the north. They mobilized the t'inkame, the 'hombres poderosos' of Machiguenga society (see note 13 chapter 1) to act as intermediaries between the warlike Piro and the Machiguenga people.

According to Camino (op. cit.: 134), these 'hombres poderosos' had never originally attained a significant differential status amongst the Machiguenga, and were only recognized as outstanding hunters or cultivators. They did have many more wives however, which gave them increased power and prestige, and sometimes held certain shamanistic powers. In these cases, their double roles gave them the ability to control and manipulate relations with both people and spirits foreign to the group. They were respected in Machiguenga society for their diplomacy and tact and their skill in the mediation of conflicts. These 'cacique-shamanes' as Camino calls them, also became known as Curacas (The Quechua word for leader or chief), occupying positions similar to those of their Andean counterparts, as organizers and spokesmen for a group.

An important part of the Machiguenga curaca's job in dealing with the Piro, was to ensure that large chacras were situated near the mouths of the tributaries, since they did not take provisions with them on their journey. This was done to provide the invaders with abundant food and masato, and to stop them going up the quebradas and tributaries. These large chacras were made by Machiguenga from the upper reaches of the smaller rivers who collaborated in the work beneath the curaca's direction.

The curacas received women and children from the groups of Machiguenga living away from the main river in order to trade them with the Piro, apparently without conflict, for metal tools and fine ceramics.

They came to enjoy privileges such as more wives and the unrestricted use of chacras prepared for the Piro, that were not accessible to other Machiguenga. They also received meat, resin and some of the goods meant for exchange. Many of these goods could be exchanged again with the populations of the interior for more women and children and regional products. Through these networks of exchange, metal tools in particular it seems, reached the remotest parts of Machiguenga territory.

Not all the curacas lived at the mouths of the tributaries, however, and some areas were therefore disorganized and open to attack. In others the Machiguenga fled to the most inaccessible regions. Where curacas did meet the Piro, exchanges were probably in the latter's favour and Machiguenga

intermediaries were obliged to learn to speak Piro, Quechua and later on, Spanish (Raimondi, 1879: 3: 189; Marcoy, 1875: 382).

Since it seems that the role of the Machiguenga curaca (developed as it was from that of the t'inkame) arose in direct response to attacks from outside, firstly from the Piro and later from agents of the rubber boom, the end to these threats also brought the end of the curaca. And as this central figure disappeared, Machiguenga settlements became dispersed and fragmented.

The institution of the curaca did persist, however, to a limited degree in special cases. Between 1930 and 1950 some survived beneath the protection of powerful 'patrones', such as the infamous Fidel Pereira. Pereira organized the production of cash crops and exploited a large number of Machiguenga families for his own gain (see note 13).

II) THE RUBBER BOOM

The period known as the 'rubber boom' which occurred between the end of the 19th century and the second decade of the 20th century in the Peruvian Amazon, brought disaster to the Machiguenga on a hitherto unprecedented scale. The Indians were hunted, enslaved and decimated through barbarically cruel treatment and through the epidemics of small-pox and measles which their oppressors introduced. Unprepared for such treatment, they offered their persecutors no organized resistance but fled into the surrounding forest, generally upstream in the direction of the headwaters of the rivers on which

they lived. (Baer, 1981a: 47).

With reference to the rubber boom and the interrelated effects of international trade on the Indian groups east of the Andes (including the Machiguenga) Varese has written (1972: 4):

> 'The social and cultural events which are taking place today among the tribal societies east of the Andes should be considered as the result in turn dynamic, of a process which has continually involved and continues to involve a chain of social, economic and political constellations which extends to Lima, the nerve centre of Peruvian society, and even further to the centres of international trade. These international centres have, during the course of history, changed their location; from Spain in the 16th, 17th and 18th centuries to England in the 19th century, and to the United States in the 20th century. This spatial shift of the economic centre has given rise to a shift of economic interests, so that there has been, in dialectical succession, more or less pressure on one or another sector of the total society, and thus on the jungle and its inhabitants. The rubber "boom", which occurred towards the end of last century, is perhaps the most eloquent example of this. From 1870 to 1915, the Peruvian tropical forest was transformed into one of the world's principal sources of crude rubber, which was collected almost exclusively by the native inhabitants of the areas surrounding the Amazon, Ucayali, Marañon and Madre de Dios rivers and their principal tributaries. Around 1910, rubber produced by the English in Borneo, Ceylon and India began to take the place of Peruvian rubber'.

In spite of its short duration, the Peruvian rubber "boom" had a fundamental repercussion on the tropical forest, anthropologically as

well as biologically'.

Varese gives the following figures to demonstrate his point:

> 'During the first decade of the 20th century, 80% of the native population of the Putumayo river was annihilated. At the same time, of the 28,000 rubber workers in the Loreto jungle, approximately 22,000 belonged to native groups '. (Varese, 1968: 14-15).

The human losses produced by mistreatment, epidemics and forced labour were augmented by raids during which members of tribal societies were captured and hideously tortured. W E Hardenburg published an account of how the Indian rubber gatherers of the Putumayo were treated. He wrote of:

> '... cruelty as horrible as anything that has been reported from the Congo. These affect an English limited liability company, with English directors and English share-holders ... The agents of the company force the pacific Indians of the Putumayo to work day and right at the extraction of rubber, without the slightest remuneration except the food necessary to keep them alive. They are robbed of their crops, their women, and their children, to satisfy the voracity, lasciviousness and avarice of this company and its employees, who live on their food and violate their women. They are flogged inhumanely until their bones are laid bare, and great sores cover them. They are given no medical treatment, but are left to die, eaten by maggots, when they service as food for the chiefs' dogs. They are castrated and mutilated, and their ears, fingers, arms and legs are cut off. They are tortured by means of fire and water, and by tying them up, crucified head down. Their houses and crops all burned and destroyed wantonly and for amusement. They are cut to pieces and dismembered with knives, axes and machetes.

Their children are grasped by the feet and their heads are dashed against trees and walls until their brains fly out. Their old folk are killed when they are no longer able to work for the company. Men, women and children are shot to provide amusement for the employees or to celebrate Easter Sunday, or in preference to this, they are burned with kerosene so that the employees may enjoy their desperate agony'. (Survival International Review, 1979: 28).

Some rubber planters came through the Lower Urubamba and others from Cusco, organizing raids to capture natives to work on the rubber plantations.[12] Although the end of the boom marked the abandonment of the region by these ruthless men, the effects on the native economies were long term.[13] Camino (1977: 136) describes the interrelationship of the Machiguenga curacas and the rubber tappers, or Caucheros thus:

'El sistema de Curacas se mantuvo en pleno funcionamiento hasta los finales de la "era de Caucho". Hacia entonces surgieron nuevos centros urbanos y comerciales en la selva baja peruana. Los Piro, que lograron sobrevivir a los maltratos de los patrones Caucheros empezaron a orientar su comercio en torno a las nuevas emergentes ciudades, y las expediciones anuales hasta las tierras altas pasaron a la historia'.

Por su parte la exploración del Caucho trajo fuertes cambios a la sociedad Machiguenga. Los Curacas locales pasaron a depender de los patrones Caucheros (aviados) al pasar a ser sus intermediarios. Los aviados exigieron a éstos que proporcionaran gente para el trabajo en las plantaciones. En tanto que las presiones sobre los Curacas crecían, los allegados de los afluentes empezaban a rebelarse contra sus Curacas. Los Curacas sin embargo incrementaron sus ofreciemientos hacia sus afluentes incluyendo en sus transacciones una mayor cantidad de

productos para el intercambio, proporcionados por los aviados. La "moral de reciprocidad" entre los Curacas y sus allegados se fue gradualmente erosionando. Hacia ese entonces los Curacas empezaron a recibir armas de fuego y a practicar correrías para esclavizar a la gente de los afluentes que anteriormente protegían. A lo largo de algunos afluentes realizaron un pillaje descontrolado y esclavizaron a sus paisanos. Algunos llegaron a poseer hasta diez mujeres en ese entonces. Gradualmente pasaron a convertirse en el terror del Alto Urubamba'.

Although Camino writes specifically of the Upper Urubamba - the region in which most of his research on the Machiguenga has been carried out - we can be relatively certain that the havoc and turmoil he describes there during this period was similarly experienced by communities of the Lower Urubamba.

By the end of the rubber boom, then, the Machiguenga were left disorganized and decimated in numbers. Those that could, fled to the headwaters of the Urubamba tributaries and returned to their traditional ways of life, but most were now at the mercy of new waves of aggressive entrepreneurs and/or missionaries.

III) MISSIONARY INFLUENCE

The advent of both Catholic and Protestant missionaries in Machiguenga territory has had a far-reaching effect on their beliefs and culture.

The first contact between these groups took place in the 17th century when Franciscan and Jesuit Orders compelled the foundation of 'reductions' along the Upper Urubamba to obtain converts. In 1798 Franciscan missionaries

interned 44 Machiguenga children at the mission school at Cocabambilla (Ribeiro and Wise, 1978), but it was not until the beginning of the 19th century that missionaries succeeded in establishing themselves along the Lower Urubamba. During this period the Jesuits established large haciendas in the Machiguenga area between Echarate and Palma Real (Camino, 1979: 405), and used Machiguenga labour to help finance the schools they had founded in the sierra. With the achievement of Peru's independence from Spain, however, in 1821 missions were forced to close down (Ferrero, 1967: 44-48). The 19th century was a relatively quiet and 'isolated' period for the Machiguenga.

Concerning the effect of the missionaries, Varese (1972: 8-9) has written that the process 'of ecological deterioration and marginalization' of most of the native societies of the Peruvian rain forest was aggravated in the 18th century by the intensification of missionary activity which, in some cases, developed into 'veritable mobilizations of native populations, organized by the Franciscans and Jesuits at the end of the 17th century'. This activity provoked native rebellions of different sorts at different times. The most famous of these was led by a campa Indian, Juan Santos Atahuallpa, in 1742. Atahuallpa objected to the presence of missionaries in the Gran Pajonal area of the central montaña and apparently reached the region (via the Machiguenga) from Cusco 'navegando por los rios en compañía de un Piro llamado Bisabequí' (Varese, 1973: 177).

The beginning of the 20th century saw the arrival of the Dominican missionaries. In 1900, the 'Prefectura Apostólica de Santo Domingo del Urubamba' was created and mission posts were subsequently established at Chirumbia, Koribeni, Tinpia and Carpintero. Baer (1981a: 47) describes the situation clearly:

'Die erste Schulung der indianischen Bevölkerung, so auch der

Matsigenka, erfolgt in den Schulen der genannten Missionen; sie geniessen z.T. staatliche Unterstützung. Die Einrichtung von Missionsschulen wirkt sich mit anderen, von aussen kommenden faktoren zusammen klar im Sinne einer Schwächung der traditionellen Normen und Werte die indianischen Gemeinschaft aus. Diese Schwächung bedeutet zugleich eine Schwächung und Verarmung des religiösen systems, das die Werte und Normen konstituiert, bündelt und festigt. Ohne den Halt der tradierten Religion zerfällt letzlich durch die indianische Gemeinschaft, denn diese erhält durch die Religion ihre Legitimation (Mythen u.a.)'.[14]

In 1952 The Summer Institute of Linguistics' missionaries entered the region (see Appendix 2) and today the majority of the Machiguenga live in S.I.L. 'managed' communities encompassing what are known as 'Centros Educativos Bilingües', (of which there are 11, with 19 teachers and approximately 250 children), and in Dominican mission villages.

As Ribeiro and Wise (1978) have noted:

'café cultivado en los centros misioneros y destinado al mercado exterior ha llevado al establecimiento parcial entre los Machiguenga de una economía basada en la moneda'.

They continue:

'... es todavia un concepto nuevo para los Machiguenga ... las transacciones de compra y venta por medio de la tienda cooperativa de la comunidad. Eligen a los líderes y toman la iniciativa en varios proyectos, tales como reunir fondos para establecer una tienda, para proyectos de cultivo de arroz y frejoles con fines comerciales y

algunos también han edificado postas médicas donde trabajan los Promotores Bilingües de Salud'.

This position of increased contact with missionary personnel, their ideology and material culture has left the Machiguenga today in a somewhat confused and precarious situation. With their traditional knowledge and practices threatened by a largely inappropriate and condescendingly applied system of Western values, the future of the Machiguenga as an ethnic group, whose existence has been determined by a close cultural and spiritual interaction with the forest for millenia, is very uncertain.[15]

CHAPTER 3

MACHIGUENGA SUBSISTENCE AND THE ROLE OF MANIOC

I) MACHIGUENGA SUBSISTENCE

The Machiguenga have traditionally supported themselves by means of 'slash and burn' or 'swidden' horticulture, combined with hunting, fishing and the gathering of a wide range of forest products. All these activities are vitally connected to the productivity of the Machiguenga garden, and this chapter will be concerned with Machiguenga horticulture and in particular, with the cultivation and uses of manioc.

i) The Machiguenga Garden

The many varieties of vegetables and fruits that provide the bulk of the calorie and carbohydrate intake of the Machiguenga, as well as numerous herbal and medicinal plants, are grown in the tsamai'rintsi, the Machiguenga garden, referred to commonly in Spanish by the Quechua term, chacra.

Each Machiguenga family has its own garden of approximately $\frac{1}{4}$ to $\frac{3}{4}$ of a hectare in size,[1] though this will vary according to the size of the family. The garden is cut out of the forest, traditionally in the close vicinity of the settlement. Selection of a good site with soil that will yield well is important. During his hunting expeditions, the Machiguenga man frequently inspects the land, digging up the earth with his machete and examining its texture and quality, whilst evaluating the slope and vegetation present. In this way, by the time he has to choose a garden site, he has a good knowledge of the surrounding area.

According to Camino (1979: 408), the Machiguenga of the Upper Urubamba distinguish three types of soil: black, sandy, (as found

along river banks) and red.

> 'The black earth of loose texture, with few stones and little slope is the best. The packed, stony, deeply sloping red soil is the worst, and is feared as being inhabited by evil gods (spirits). Sandy lands annually renewed with nutritional matter, are highly valued, even though the Machiguenga are afraid of sudden rises in the river'.

A new garden site will be cleared every three to four years due to the combined factors of soil impoverishment and weed infestation. It is now widely acknowledged by Western agricultural experts and ecologists, that the soils of the Amazon basin are very poor in nutrients[2] - most of the nutrients are in fact locked up in the plants themselves - and that they are unable to support intensive agriculture. The Machiguenga have evolved a highly efficient means of coping with this situation, both in terms of their own needs and the regenerative needs of the forest, such that permanent destruction of this highly complex ecosystem does not occur. Areas of secondary forest growth or purma are avoided for cultivation for as long as possible because of their low fertility.

Felling begins at the start of the dry season in May and is now done with metal axes and machetes which have replaced stone axes and knives. Clearing the chacra is a communal effort and as Baer (1984: 64) has recorded, this work is done by the adult males of a matrilocal[3] residence group, assisted by other male helpers from the circle of near relatives. An older male will lead the work, helped by sons-in-law, and any unmarried sons of the family.[4]

Preparation of the plot begins with the clearing of the smaller trees and low branches, then the largest trees (in elevated areas if possible) are selected so that in falling they will bring down other trees in their path. The whole process may take a month or more.

At the end of the dry season, during August, the burning of the felled trees begins. This is often a difficult process requiring several attempts to reach a satisfactory state of clearance. In any event the site is never fully burned and a tangled mass of half-charred trunks and branches results. Although this may look untidy, and prohibits cultivation in neat rows, the logs and branches will protect the soil (with its deposited layer of fertilizing ash) and the new plants from the ravages of the sun and rain. The logs are also used by the Machiguenga as paths across their gardens.

The new gardens are planted in September and October, immediately after burning has been completed. Thereafter, as certain crops are harvested, they will be replanted to keep the garden continuously productive for three to five years.[5]

The number of cultivated crops and other useful plants to be found in a Machiguenga garden is traditionally very high, and provides a varied and nutritious diet.[6] Johnson (1983: 39) has collected the names of 80 cultigens, not including different varieties of each plant, in different Machiguenga gardens, though he points out that 'the majority of these are occasional cultigens tended by the individuals in the vicinity of their homes'. Without doubt, the most important crop is manioc, then come maize,

yams, taro (Colocasia esculenta), bananas, dale-dale (Calathea allouia ?), sweet potato, beans, peppers, peanuts, guava, pine-apple, sugar cane, papaya and cotton, to name but a few. New additions are the cash crops such as coffee and cocoa, which have had a marked effect on traditional horticulture.

II) MANIOC CULTIVATION

i) Botanical Characteristics

The manioc with which this thesis is concerned and which forms the staple diet of the Machiguenga, is known scientifically as Manihot esculenta Crantz. It is a tuberous root crop, one of 75 species in the genus Manihot (a member of the Euphorbia family) which includes also a number of subspecific taxa.[7] In Brazil and Guyana this species is commonly known as cassava (casabé) or mandioca, and in South America as a whole, can be said to form the staple diet of practically all the lowland, forest-dwelling Indian groups.[8] Seigler and Pereira (1981) have estimated that manioc is the major food plant of approximately 300 million people and that production in the tropics is about 900 million tons annually.

All the species of Manihot are native to the neotropics and are distributed from southern Arizona to northern Argentina.[9] Manioc is essentially a lowland tropical crop but can be grown at elevations of up to 5,000 feet on the equator. It cannot stand cold or frost, and is grown in areas with rainfall of 20-200 inches per annum. The plant can stand long periods of drought,

except at planting, and it is therefore a valuable crop in regions with low or uncertain rainfall. It grows best on sandy loam soils of reasonable fertility, but can be grown on almost all soil types provided they are not waterlogged, too shallow or too stony. According to Purseglove, (1979) manioc will produce an 'economic crop' on exhausted soils unsuitable for others, and this versatility has led to its labelling - particularly in the case of the varieties found in Brazil - as 'the father of the poor' (Fittkau, 1968), 'el pan de cada día' (Cardona, 1964) and erroneously as the 'saviour' food sent to 'lazy' people (Wagley, 1964), since its cultivation is relatively easy.

The plant develops tubers as swellings on the adventitious roots, a short distance from the stem, by a process of secondary thickening. The number, shape, size and angle at which they penetrate the ground, plus the colour of the outer rind and internal tissue may vary considerably. The usual number of tubers per plant is 5-10 (Purseglove, 1979).

The tubers have a woody outer skin or periderm, either light or dark brown or pinkish red in colour. The thin rind or cortex beneath this containing the phelloderm is usually white, but may be tinged pink or brown, then comes the core or pith - the edible part of the tuber - which is either white, pale yellow or pale pink.

The plant grows to a height of about 2.5 metres and has a bushy appearance. The leaves are palmate in shape, deeply split with 5-7 individual lance-shaped divisions. Leaves and stem differ in shape, size and colouration according to variety. Stems and

leaf veins may be red or green and leaf edges serrated or smooth.

Though I can find no mention of nutritional uses for manioc leaves, Cenitagoya (1943: 63) observed that 'hojas de yuca cocidas y tibias las usan para dar fricciones en caso de dolor de estómago'. More recently Baer and Snell (1974) have recorded the use of bunches of manioc leaves by the Machiguenga shaman during his communications with the spirit world.

ii) The Classification of Manioc

Much confusion has arisen in the past over the correct classification of manioc, and according to Rogers and Appan (1970) at least 10 names are synonymous with Manihot esculenta and have been used erroneously at various times to indicate distinct species.[10]

Two major types of manioc however, have been distinguished and are commonly referred to by ethnographers and anthropologists as SWEET and BITTER manioc. This classification has been made because of the existence of a poison Hydrocyanic glucoside (HCN), which is present in the tubers of both types,[11] and which has determined the evolution of distinctive preparation methods of manioc as a food for each type.[12]

Purseglove (1979) feels that the distinction between 'sweet' and 'bitter' and the naming of the different types as such, is not really valid[13] since the two merge into each other and the toxicity of the clone varies from place to place. For practical purposes however, he agrees to a division of cultivars into:

i) 'sweet cassavas' which have a low HCN content, which is confined to the phelloderm within the outer skin of the tubers, and

ii) 'bitter cassavas' which have a high HCN content, which is generally distributed throughout the tubers, including the core.

The Machiguenga cultivate 'sweet manioc' exclusively, indeed, 'bitter manioc' seems to be associated more with eastern South America - Brazil, the Guyanas and Venezuela in particular, and is not found in Peru. 'Sweet manioc' tends to be found in Peru, Bolivia, Ecuador, Colombia and Paraguay.

During my own investigations, the Machiguenga generally used a simple method for classifying manioc, that is, by referring to the colour of the inner flesh, i.e. the core of the tuber, so that one was shown sékatsi kutari - white manioc, sékatsi kiteri - yellow manioc, or sékatsi kiraari - pink manioc. Whereas 'white' and 'yellow' refer to the flesh of the tuber, it was not certain whether the 'pink' classification was just an indication of tuber colouration or referred also to those varieties distinguished by pinkish red stems or leaf veins.

Variety, not only concerning manioc, but as a general horticultural principle, is extremely important to the Machiguenga.

> 'Appreciation of diversity is a most fundamental orientation among the Machiguenga ... it pervades their entire lives and outlook. In their gardens they plant many named varieties of

each of the crops ... varieties acknowledged to differ from one another in their flavour, texture, size and appearance'. (Johnson and Behrens, 1982: 185).

This principle is well demonstrated with the example of manioc.

My own research with the Machiguenga yielded 33 different names for manioc varieties. These names were collected from six informants in the communities of Nueva Luz, Chokoriare and Tinpia.

It is interesting to discover that the manioc plants are referred to not by the term sékatsi, used only for the tuber itself, but by names which comprise two distinct parts. The first part refers to either an animal, bird, plant or quality in some way connected with the plant, and the second to the plant itself, which is called ganire. The term ganire seems to be related semantically to the transitive verb root ga - to eat, (see p.103) itself a component of the intransitive sekata - to eat, since 'edible', when referring either to plants or animals is oga'gani (Baer, 1984: 151), literally, 'that which can be eaten'.[14] As shall be seen in Chapter 4, manioc (sékatsi) was in Machiguenga mythology the Machiguenga's first 'true' or 'real' food, brought down to them by the moon. The significance of this is reflected linguistically at a very basic level by the fact that sékatsi means not just manioc, but is synonymous with food in general.

The different names collected for the manioc plants, and where possible the meaning of these names is presented below:

OEGANIRE — oe is the Cock-of-the Rock (Rupicula,

Cock-of-the-Rock manioc

R. Peruviana) (Baer, 1984: 107), a bird much prized for its plumage by the Machiguenga.

My informant Jaime, from Chokoriare said, 'el pájaro se transformó en yuca', but this was all the explanation given.

SANKATIGANIRE

Guan manioc

sankati is believed to be a type of Guan, in Spanish the pucacunga, of the Cracidae family. (Baer, op. cit.: 138).

PERATSIGANIRE

Lazy (?) manioc

Jaime, from Chokoriare, explained this name by saying that it was for 'los vagos, si no sabes trabajar'.

Aza (1923: 194) gives 'lazy' as peranti, and Hertle (personal communication) has indicated that pi'ratsi also indicates 'something brought-up' or 'criado'.

TSIRESEPESHIARI

The meaning of this name is not clear, Jaime, from Chokoriare said only 'hoja no más'

CHONPARIGANIRE

Scarlet Ibis manioc

chonpari appears to be the Scarlet Ibis (Eudocimus ruber) (Baer, 1984:

YAWIROGANIRE

Jabiru manioc

yawiro or ya'viro (Baer, 1984: 137) is a member of the Stork family, the Jabiru (Jabiru mycteria). My informants from Tinpia said that this was a 'garza blanca'.

KINTAROGANIRE

Parrot manioc

kintaro seems to be a term indicating a type of parrot, but it is not certain which one. Aza (1923: 161) gives 'Loro - tienen gran variedad de nombres según el tamaño, color etc.'

My informants from Tinpia said that this was a 'loro grande, verde, azul'.

SHIRINDIGANIRE

Sunbittern manioc

shirindi or so'rinti (Baer, op. cit.: 138) is the Sunbittern (Eurypyga helias).

My informants from Tinpia said 'perdíz' for this bird.

PARETOGANIRE

Golden Plumed Parrot manioc

pareto is the Golden Plumed parrot (Leptosittica branickii) (Baer, ibid). Informants from Tinpia said 'Loreto verde' for this bird.

TSORITOGANIRE

Blue-headed Parrot manioc

tsorito is the Blue-headed parrot, (Pionus menstrus rubigularis) (Baer, ibid). Informants from Tinpia said that this was a 'loro verde, amarillo y rosado'.

PARIANTIGANIRE

Banana manioc

parianti is the Machiguenga for 'banana'.

YANIRIGANIRE

Red Howler Monkey manioc

yaniri is the Red Howler Monkey (Alouatta seniculus) (Baer, op. cit.: 135). Informants from Tinpia said that this was the 'coto mono grande, rojo'.

ATAWAGANIRE

Chicken manioc

atawa is the Machiguenga for 'chicken'. The chicken was introduced by the Spanish, and was not traditionally reared.

TSIRERIGANIRE

Tsireri Palm manioc

tsireri is a type of palm tree, (Baer, op. cit.: 63) (Euterpe oleraea), also known in Spanish as huasaí.

CHAKAMIGANIRE

Pale-winged Trumpeter manioc

chakami is the Pale-winged Trumpeter, (Psophia lencoptera) (Baer, op. cit.: 138).

KAONKARIGANIRE

Emerald Toucanet manioc

kaonkari or ka'onkari (Baer, op. cit.: 140) is the Emerald Toucanet

(Aulacorhynchus prasinus phaelolaemus). According to the informants from Tinpia, this was a 'carpintero ave'.

PAAROGANIRE
Oil Bird manioc

paaro is the Oil Bird (Steatornis caripensis) (Baer, op. cit.: 139).

ETARIGANIRE
Carachama manioc

etari is a fish of prehistoric appearance known in Spanish as the carachama (Chaetostoma sp.?) (Baer, op. cit.: 142).

VERANGOGANIRE
White (?) manioc

The meaning of this name is not clear. The informants from Tinpia said merely 'blanco!'

POTSTIAGANIRE
Dirty manioc

The informants from Tinpia said that potstia indicated 'sucio, negro'. Baer, in his unpublished Alphabetisches Wörterverzeichnis Deutsch - Matsigenka gives potsitaseri for 'dirty'.

KEPIGARIGANIRE
Poisonous manioc

kepigari means 'bitter' or 'poisonous'. Baer, 1979: 112 has written 'Dr Gisela Hertle ha señalado información a este respecto, que el término ke'pigari ('veneno') tiene una íntima union con el verbo pi'gata (envenenar)'.

OSHANTIGANIRE

The meaning of this name is unclear.

EPOYATIGANIRE

The meaning of this name is unclear.

SHINTORIGANIRE

Collared Peccary manioc

shintori is the Collared Peccary (Tayassu tajacu) (Baer, 1984: 133).

SHIMASATO

My informant Juan, from an isolated location in the vicinity of Nueva Luz, said 'rápido asa, da más grande'. But the meaning of the name is not clear.

TARIAGANIRE

The meaning of this name is unclear.

KONSTAROGANIRE

konstaro appears to be a type of Dove, but it is not clear which one. (Baer, op. cit.: 138).

ARONIGANIRE

Aroni bird manioc

aroni is some sort of bird, but it is not clear which one. Baer (op. cit.: 107) has written 'Die Bezeichnung "aroni" bezieht sich auf einen Waldvogel, der durch sein hässliches Geschrei auffällt und der im Gegensatz zu vielen anderen Vöglen von den Matsigenka nicht gegessen wird'.

KUERIGANIRE

The meaning of this name is unclear.

KORORoganire Kororo grub manioc	kororo is a type of grub which the Machiguenga eat and which lives 'between the stalks of the yucca'. (Camino, 1979: 412).
MAVATEGANIRE Three month manioc (?)	The meaning of this name is unclear, but it could indicate a cultivar maturing in three months, since mavate means 'three'.
CHARAVAGANIRE	The meaning of this name is unclear.
CHIRIPEGIARI Shaman manioc (?)	The meaning of this name is unclear. chiripegari seems most obviously to be seripigari, the Machiguenga shaman, but the name may be incomplete.

Of these names both oeganire and peratsiganire appeared in the lists of two informants, the former from Tinpia and Chokoriare and the latter from Nueva Luz and Chokoriare. All the other names appeared only once. More names for manioc plants have been recorded by different observers: Joaquín Barriales recorded 20 different names in 1973 from 16 informants from Tinpia, Coribeni, Kirigeti, Malanquiato and Camisea; Baer (1984: 68) mentions 6 and Camino (1979: 410) two.[15] Though Johnson (1983: 44) mentions that he collected the names of 15 different types he does not, unfortunately, list them by name. If we compare the above-mentioned lists of names for manioc, we find that oeganire appears most often, occurring four times; tsirerigantre and aroniganire occur three times and kepigariganire, kororoganire and peratsiganire

occur twice.

I was disappointed not to be able to find any trace or mention of cashiriganire - literally 'moon manioc', which according to Pereira (1942: 244) was the main manioc variety given to the Machiguenga by the moon. Though I travelled to the Cashiriare river in the hope that there may be some knowledge of it there, the Dominican trained school teacher with whom I spoke knew nothing of it, and I was not able to speak with any other Indians.

It was not possible to determine why the manioc plants have been given their names, that is, what the exact connection is between them and the birds and animals (mainly) whose names they have taken, but it is hoped to investigate this area more fully during further fieldwork with the Machiguenga.[16]

The other important question to be answered is whether these names represent different varieties of manioc, indeed what a variety constitutes in this sense. Johnson (1983: 16) believes that some of these names are 'common names for varieties appearing in every garden, but many others are unique names given by single farmers and are not recognized by others, even their neighbours'. Apart from what he gives as the common varieties, 'red', 'yellow' and 'white', and the 'several varieties named after particular plants or animals', Johnson explains that 'other names are apparently individual constructions such as kiratonkishiari, kira 'red' + tonki 'bone' + shi 'leaf', (red bone leaf), referring to the red boned leaf of this particular variety'. Johnson continues:

'As with named varieties of other cultigens like maize and

sedge, the Machiguenga are sometimes exploiting a shared typology and sometimes an idiosyncratic name based on the personal history of the plant or its immediate visual properties. Often when I asked an informant to name the manioc varieties in another man's garden, he would say 'I don't know that one - it came from upstream (or downstream)'.

Johnson and Behrens (1982: 185) wrote, with reference to this point:

'... in this sense plants are like people and their individuality is taken for granted. This attitude helps preserve the fund of varieties on which experimentation and crop improvement are based. Diversity also contributes to security by spreading the risk of failure'.

Camino, who also had difficulty identifying different 'varieties' of manioc, felt that 'it was not a question of varieties, properly speaking, but of "family plants" that is, certain superior plants have been repeatedly selected for reproduction, gradually giving rise to new varieties'. (1979: 410).

Baer (1984: 107) has written on this point:

'"Varietäten" ist mit Anfuhrungsstrichen versehen worden, weil unser botanischer Varietätenbegriff mit Sicherheit nicht mit dem Varietätenbegriff der Matsigenka ubereinstimmt. Es wäre botanisch zu untersuchen, wie weit "Varietäten" der Matsigenka, die unterschiedliche Namen tragen, botanischen Varietäten entsprechen'.[17]

iii) The Cultivation of Manioc

After the new garden area has been cleared and burnt, the sowing of manioc begins - usually in September or October, before the short rainy season (October to November). Manioc is generally the first crop to be planted in a new garden,[18] according to Johnson (1983: 42) 'setting up the framework within which other crops will be inter-planted'. Manioc is planted in a yucal (regional Spanish) of its own, (though fruit trees that were originally at the edge of the garden may become mixed in through the process of enlargement), but it is also interspersed with other plants in the garden using the available spaces between the trunks. Certain plants must not be grown next to manioc however, and according to Johnson (op. cit.: 44) 'certain non-food plants, kuro and a variety of ivenkiki are cultivated to protect the manioc'.

Much more manioc is planted than the Machiguenga are ever likely to consume, and it has been called in this sense the 'security plant' of the Machiguenga (Johnson, ibid). Though practices such as the above are believed to protect manioc and ensure its growth, it is such a reliable crop that these practices may not be taken as seriously as they would with maize, a much more delicate crop. To quote Johnson again:

> 'When manioc is young it is also liable to suffer if the gardener eats tabooed meats like Howler Monkey, but these bad effects are much less than those feared for maize, and as manioc is always being replanted when it is harvested, taboos regarding manioc are not taken too seriously. Indeed,

it is believed that if the planter eats tapir meat when the manioc plants have grown to about a meter high, the roots will be robust like the tapir'.[19]

Whereas harvesting is women's work - and manioc is seen as a woman's plant, as opposed to maize which is 'male' - planting the manioc, particularly in a new garden, is done by the Machiguenga men. Stems from manioc plants which have already been harvested are carefully selected,[20] and lengths of about 15-20 cms. of these will be cut for planting. Those stems that have many 'eyes' or nodes (the axillary buds), are best. According to Camino (1979: 410) they must have from four to eight of these nodes, from which the buds will emerge to form a new plant. Two or three stalks are placed diagonally into holes in the earth that have either been made with a type of digging stick of hard palm wood, or a spade or machete, with the nodes pointing upwards, to a depth of about 20 cms. with one end left uncovered. As the manioc is harvested in existing chacras new stems will be planted in the vacated holes.

Baer (1984: 290) observed that Machiguenga men seemed to blow on the shoots just before planting, apparently so that the sap would drip into the hole made for them. He also discovered that there seems to be a distinction made between left and right handedness. One informant told him that all domestic plants should be planted with the left hand to make them fruitful, and that use of the right hand would make them sterile.

I was, unfortunately, unable to witness the sowing or harvesting of manioc during my visits to the different Machiguenga

communities, but recorded the following account of manioc cultivation in Spanish, from the Machiguenga school teacher, José Prialé Cardenas, at Cashiriare:

> 'Primero tiene que rozar, en el mes de Mayo, o en Abril... tumbar árboles - se deja para secar así. En el mes de Junio, Julio lo quema. Hay que escarbar la tierra, hacer muchos huecos, entonces con los tallos de otra chacra se siembra tres tallos de cada hueco para tener bastante yuca. Yo siembro de dos metros distancia, inclinados los tallos. Se pone los (con) ojos para que produzcan hojas ... yuca ... en tres meses y un año'.

Johnson (1983: 43) observed, that only straight manioc stalks were planted, of about 2-3 cms. in diameter. Some men seem to prefer thicker stalks for planting and some thinner. 'If stalks are too thin they are thought to produce small roots, but if too thick, they are hard to cut' (ibid). Men with small gardens will plant more densely than usual,[21] but plants are usually about a metre apart. The direction in which cuttings are inserted into the ground and the distance between cuttings within the same hole, are both important. Differences in this respect may occur between different Machiguenga communities.[22]

As we have seen, a large variety of manioc types are planted. Johnson (op. cit.: 44) writes:

> 'When I asked men why they planted such a diversity, I got similar replies. One man said, "because we want to". This is a better answer than it appears at first, because the

> Machiguenga do enjoy diversity for its own sake. Another man gave this answer: "I plant these varieties because I am afraid otherwise they will die out". Differences in taste are taken as part of the variety of life and a Machiguenga would not disdain to eat any variety of manioc that was available'.

Certain plants are preferred to others however: tubers with white flesh are preferred to those with yellow flesh, and women, it appears, prefer short-rooted varieties to long ones, as they are easier to harvest. My informant in Nueva Luz, Jaime Ríos Corral said that 'el blanco es mejor para comer, también para masato ... mayormente se come el blanco y el amarillo'. It was difficult to get more detail than this concerning the specification of preferences for different types of manioc, but it was generally conceded that, 'blanco es más rico'.

Different varieties of manioc mature at different rates, depending on both the variety and type of soil in which they are grown. Camino (1979: 410) discovered that:

> 'Some such as kemariganire, mature after six to eight months, others require longer. The varieties most valued in Monte Carmelo are those whose growth takes longer, as for example oeganire[23]'.

It is interesting to find that oeganire is the cultigen occuring most frequently in the reports referred to - including my own report of manioc names - in this thesis.

Throughout the year, the manioc garden is kept weeded and in good order. Having reached maturity tubers may be harvested and new shoots sown, whenever required - even during the heaviest part of the rainy season. According to Camino (op. cit.: 411), the initial sowing of manioc takes from two to eight days and is carried out by the father and his oldest sons. Manioc is not normally sown more than three consecutive times in one garden, as this would produce small tubers with little flavour. A new manioc garden is usually begun after two years.

Harvesting manioc is women's work and this is done with a machete. First the stalks and side branches are cut from the plant and placed on one side, then the soil is loosened with the machete and the tubers carefully removed; the manioc is then transported home by the women, in baskets which are carried on the back, supported by a strap which passes round the forehead. Women often harvest manioc in groups of two or three and carry a load of perhaps 40 to 50 pounds each. (Johnson and Johnson, 1975).

The manioc garden may be protected around the outside with pine-apple plants of different varieties, since it is hoped that the spiny leaves will discourage the predations of animals. Peccaries seem to be the main threat to the manioc from the outside world, and an intricate network of beliefs links them to the manioc plants and further aspects of Machiguenga cosmology.[24]

The planting of an abundant supply of manioc however, ensures that the availability of tubers for consumption by the Machiguenga is never really at risk.

iv) The Nutritional Value of Manioc

Despite the prevalent conception of manioc by ethnographers as the food of the poor, as a second class food that is, fit only for consumption by those who cannot grow anything better, recent research has shown that far from being, as Price (1949: 273) wrote, with reference to manioc in Brazil 'that notorious cheatfood ... the nation's nutritional curse', it can, according to O'Reilly Sternberg (1973: 260) 'outrank most, if not all other food crops in the production of energy per unit area'.

Carneiro, who has studied the cultivation of manioc amongst the Kuikuru of Brazil writes (1961: 52-53):

> 'The belief that slash and burn cultivation with manioc as its principal crop is not especially productive, is ... quite erroneous ... manioc is such a high-yielding crop plant that even when indifferently cultivated it yields far more digestible matter than maize or any other grain crop grown under the most intensive cultivation. If conditions of cultivation are held constant it will also out yield any other root crop although not by as wide a margin'.

Though they lack protein, the tubers are an important source of carbohydrate in the tropics, and certainly, the most important source to the Machiguenga.

Chemical composition varies, but the typical percentage composition of the edible portion of the fresh tuber, which forms about 80% of the whole tuber, is 62% water, 35% carbohydrate, 1.0% protein,

0.3% fat, 1.0 mineral matter (Purseglove, 1979: 177).[25]

Though maize is the more valuable crop in terms of overall nutritional potential than manioc, containing more phosphorus, iron, vitamin A, thiamine, riboflavin and niacin (Cowgill, 1971: 54) manioc tubers are relatively rich in calcium and vitamin C,[26] and contain more in fact, than maize.

Manioc then, with its high carbohydrate content is, if poor in nutrients, rich in calories, and provides two thirds of the calories of food energy produced in Machiguenga gardens (Johnson, 1983: 42) as opposed to the figure of one fifth of the total calories provided by maize.[27]

Manioc leaves are also, according to Purseglove (ibid), rich in protein and Vitamin A, though they are not consumed by the Machiguenga and may contain HCN.

The amount of HCN present in the manioc tubers, albeit in the outer rind of the sweet varieties, seems to vary from type to type. The tubers with a firm yellow flesh usually contain more HCN than those with softer whiter flesh (Purseglove, 1979). As already noted (p58) the Machiguenga I spoke to expressed preference for white flesh over yellow. Johnson (op. cit.: 44) has recorded that this is because of their 'delicate taste and fine texture'. According to Purseglove (op. cit.: 179) early maturing cultivars are usually more palatable.

Once harvested, the tuber remains in a usable condition for 2 to 3 days but to delay deterioration, Camino (1979: 411) noted,

tubers were buried in a hole beside the house until required for use. Purseglove (op. cit.: 177) has determined that the tubers begin to rot within 48 hours of being taken from the ground.

As Johnson and Behrens (1982: 177) point out 'manioc, since it is the most abundant crop, accounts for the bulk of nutrients contributed by foods grown in Machiguenga gardens', but though they have shown that the production of manioc is very efficient in terms of energy expenditure, and that:

> 'by growing much manioc, enough of nearly all nutrients can be produced ... one cannot consume manioc in sufficient quantities to obtain scarce nutrients without gorging on calories at the same time. Indeed, over-consumption of manioc has often been associated with malnutrition'. (Jones, 1959: 280-284).

The Machiguenga do not eat all the manioc they produce, and as Johnson and Behrens (op. cit.: 183) have found, they acknowledge this indirectly when they refer to abandoned gardens as ashi shintori, 'belongs to the peccary' (see note 24) or itsonkatakero shintori 'peccary is finishing it', because abandoned gardens contain many edible manioc plants after other produce has been harvested. Johnson continues (ibid):

> '... this overproduction of calories, stored in abundant manioc tubers is substantial; more than twice as many calories are produced as are needed to match observed levels of energy expenditure, and this overproduction serves primarily as as security hedge against a number of disasters (injury, illness,

crop destruction by pests and weather) that can suddenly diminish the amount of food coming into the household. The Machiguenga feel uncomfortable when the surplus shrinks'.

Since important resources such as game, fish, wild fruits, palm wood and other products of the forest are widely dispersed,

'... this encourages independent families or extended family clusters to scatter throughout the region. Outside such tight-knit units kinship and political ties are fragmentary and weak. It is true that families in trouble can visit their kinsmen and obtain food, but this puts them in an inferior position that they dislike and avoid. Self-reliance of families is a strong cultural value, and the abundance of manioc helps maintain this independence'. (Johnson and Behrens op. cit.: 184).

v) The Use of Manioc as a Food

The Machiguenga have two main meals a day, in the morning, shortly after sunrise, and in the evening. At both meals manioc forms the bulk of the food eaten.

To prepare manioc for eating, the tubers are first washed, then peeled and cut into pieces with a machete. The Machiguenga woman then either boils or steams these in cooking pots, now made of aluminium and bought or traded from mestizos or missionaries. Banana leaves are used to wrap the manioc in for steaming, or pieces may be toasted over the embers of the fire. Left-overs from the previous day will not be wasted, and may be reheated for

eating. Cooked manioc has a soft, pasty consistency - rather more fibrous than a cooked potato. Machiguenga babies are given premasticated manioc before weaning.

Meat generally accompanies manioc, in some form or other, at the meal in the evening. Men may return from hunting at this time, and any meat, fish or wild food that has been obtained is immediately cleaned and cooked.

Though I visited 9 different Machiguenga communities, I did not see any meat eaten, or any evidence of this in the recent past. Fish was the sole form of protein that appeared to be available at the time. The hunting of game is traditionally of great importance to the Machiguenga, not only for the protein that it provides to balance the high carbohydrate content of manioc and other vegetable crops, but as part of the Machiguengas' 'religious' beliefs, their complex world view in which all the creatures of the forest play a part.[28]

The arrival of missionaries, who have encouraged the Machiguenga to form permanent villages has meant that the game in the surrounding areas has become very scarce and that hunters are forced to go further and further afield for a very small reward. The activities of other intruders into Machiguenga territory, such as oil exploration teams and Andean migrants has amplified this problem, (Appendix 4). The arrival of the shotgun, now a prestige item amongst the Machiguenga which has largely superseded the traditional bow and arrow in many areas, has also upset the fine balance of animal life in the forest and when fired has the effect of scaring off any other animals in the vicinity.

The Machiguenga have traditionally hunted tapirs, peccaries, bears, agutis, squirrels, capybaras, otters and tortoises and many sorts of monkeys, as well as a very wide variety of birds. Whilst out hunting, the Machiguenga may eat cooked manioc that they have brought with them. If they eat part of their catch, surplus meat may be smoked and brought home in little parcels or tanceas. Meat and fish are also smoked at home and hung up in the house until required. Though smoking preserves the flesh and helps protect it from flies, the humidity of the rain forest atmosphere means that nothing can be preserved for very long.

Numerous species of fish - both large and very small, are caught, by a variety of means. Camino (1979: 414), estimates that up to 30 varieties of fish may be caught, either by individuals fishing alone with nets or spears or by the communal activity of fish poisoning, during which the roots of the Barbasco bush (Lonchocarpus nicou) are crushed in the water so that the substances released will temporarily stun the fish, enabling them to be caught. Hooks and nylon lines are now also used by the Machiguenga, using cooked manioc or insects as bait, and Camino (1979: 423) has recorded that along the Upper Urubamba dynamite is thrown into the water to kill fish, mainly by mestizos, a practice highly destructive of riverine ecology.

As reflected by the large number of apparent manioc varieties, as we have seen, the Machiguenga enjoy a great variety and abundance of different foods and according to Johnson and Behrens (1982: 168) do not actually exploit all the foods available to them. Apart from the larger species of game, the small rodents and birds, they gather frogs, toads and more than forty varieties of

caterpillars and grubs - one of these, the kororo grub is raised between the stems of manioc plants and a manioc 'variety' has been named after it. Ants and snails are also eaten and wild honey, fruits, nuts, mushrooms and palm hearts gathered from the forest. These gathering activities, as well as fishing, with nets, and the collection of fish after poisoning, are shared by both men and women.

In addition to manioc and the dozen or so major crops that are cultivated in Machiguenga gardens, '... another seventy species are used in teas, relishes, medications and manufactures'. (Johnson and Behrens, ibid).

The meat and other wild foods gathered from the forest are not eaten in large quantities - though snacks will be eaten throughout the day - and are served mainly as an accompaniment to the vegetable staples. A nutritional balance, has however been maintained in the past. The scarcity of game means that the Machiguenga are now eating animals once considered to be taboo, such as deer and Howler Monkey, and chickens introduced by missionaries and traders are a common sight in most settlements.

As we will see in the following chapter, the myth which relates the origin of manioc specifies, in certain versions, exactly how manioc should be both treated and eaten. The manioc plants are living beings[29] and can complain to their father, the moon, about their treatment. They particularly like to be eaten with meat, and not alone or with the peppery ají which 'hurts' them.

vi) The Use of Manioc as a Drink

The offering and sharing of food is an extremely important aspect of Machiguenga social life, vital for purposes of social cohesion, and various complex rules have been developed in this respect.

Manioc occupies a central position in these activities, and is the first food to be offered to the visitors and guests of a Machiguenga household. The spirits too, eat cooked manioc (Baer and Snell, 1974: 70) and it is offered in Machiguenga myths as a food of conciliation (Baer and Hertle, 1974: 60).

More important than manioc however, for socializing purposes, is the drink made by the Machiguenga from boiled, fermented manioc, of varying alcoholic potency, known in Spanish as masato and by the Machiguenga as sh'itea or o'vuroke.[30] (Baer, 1984: 283).

Masato has been described by Brown and Van Bolt (1980: 176), who have studied the importance of manioc amongst the Aguaruna of north east Peru, as 'the social lubricant ... and supreme symbol of hospitality', and this observation describes the use of masato by the Machiguenga very well.

Whilst visiting Jaime and his wife, a Machiguenga couple who lived alone at some distance from Neuva Luz, and talking of the benefits of living away from the settlement with them, Jaime's wife said, adamant that the masato she made was infinitely preferable: 'en Nueva Luz, sucio el masato'. The masato that she

had been offered there was 'todo sucio', on account of the fact, she implied, that it came from the main Urubamba river - full of silt and sand particles. The fact that she could make good masato using the clear water of the quebrada near which they had settled, was given as the main reason for leaving Nueva Luz and living where they were.

The importance of masato seems to lie as much in its nutritional value,[31] as in the role it plays in social interaction. Wherever it was available (and I found that the making of masato is frowned upon by certain missionaries) I was offered a gourd (or metal cup) of this drink on arrival at the house of a Machiguenga family. It was polite to drink the entire contents of the gourd, after which it would be refilled by the woman who had first filled it - from a large pot kept for this purpose in the house. It was difficult to know just how much masato to drink on arrival, without either showing disdain by not drinking it, or greed by drinking too much.

Masato is drunk throughout the day, as an addition to regular meals and snacks, and at night time. Large quantities may be drunk by the Machiguenga men in particular, each day.

Johnson and Johnson (1975) estimate that masato-making, which is a time-consuming activity, represents about one third of the total time women spend in food preparation, and it is made once or twice a week.

In order to make masato, first raw peeled manioc is cut into small pieces and boiled. Then the boiled manioc is mashed to a

pulp and this pulp is traditionally chewed and spat out into a sieve, through which it is pushed into a bowl beneath. The saliva from the women's mouths would begin the fermentation process but, today 'maíz crecido', sprouted maize kernels which are crushed and added to the pulp, begin the fermentation, since the chewing of the manioc has been discouraged by missionaries. Water is added to the manioc and maize pulp (additions of camote or sweet potato may also be made) and this mixture is stirred with a large wooden, paddle-shaped implement and left to ferment for two to three days. It is then passed through a sieve once more and is ready for drinking.

In terms of the nutritional value of masato it is interesting to note that Rogers and Appan (1970) have found that fermentation processes may enhance the concentrations of protein in manioc, and that, with reference to the 'bitter' varieties, the higher the HCN content of the tubers, the more protein can be produced in the fermentation process.

Since, as we have seen, Purseglove has noted that the tubers with yellow flesh appear to contain more HCN than those with white, it may be significant that an informant in Nueva Luz, Anita, said of manioc with yellow flesh: 'solo es bueno para hacer masato'.[32]

Anita gave the following account of masato making:

> 'Después de cocinar se mezcla con maíz machucado, con camote machucado. Lo dejas por tres días. Si no hay camote o maíz se mezcla con azúcar. Después de tres días se cierne'.

It is interesting to find that sugar is mentioned, if maize or camote are unavailable, to begin fermentation. The effects of sugar on the nutritional content of the drink as a whole are yet to be determined. Indeed very little research has been done on the nutritional value of masato and it is hoped to investigate this aspect in the future. The use of sugar in masato is certainly not traditional.

When I asked my main informant in Nueva Luz, Bartolomé Ríos Corral, how masato could be made stronger, he said:

> 'Con maíz de este ... maíz. Ponen tierra y comienza crecer. Lo dejan ahí. Esto lo sacan, comienzan a machucar en piedra, hacen molida, ya comienza ... echan en olla, allí comienza fermentar, ya, ahí se lo toma, masato, o'vuroke'.

This commentary is interesting because the third person plural 'they' is used throughout. Since the making and drinking of masato particularly with the aim of getting drunk is frowned upon by missionaries, Bartolomé could have been referring to the women who make it but he was, it seemed, embarrassed about the whole idea and may have felt obliged to refer to someone else.

Great ethnocentricity and lack of understanding has been shown by missionaries in the past with reference to the drinking of masato. Centiagoya (1943: 132) for example, attributed the Machiguenga's apparent lack of memory to the:

> '... pésima costumbre que tienen sus madres de alimentarles desde su niñez con bebidas fermentadas ... no tiene pequeña

parte en la propogación de las enfermedades'.

and Pascual Alegre (1979) believed that intelligence itself was affected by this drink.[33] Apart from its regular use as a daily drink[34] and as a sign of hospitality offered to guests, masato has been drunk traditionally in large quantities for two main purposes:

a) to effect the social cohesion and harmony between family groups, and/or outsiders, and

b) to bring about and enhance the cohesion of the Machiguenga shaman (and other members of the group) and the spirit world.

Both these interactions have taken place traditionally at 'beer parties' (Johnson and Johnson, 1975) or masato feasts, though the shaman can communicate with the spirit world at any time on his own.

a) Beer Parties and Social Cohesion

Beer parties, to use Johnson and Johnson's term, have been classified by them into two types: The first is the 'regional beer party' hosted originally by the 'hombres poderosos' (see p.29), and the second is the 'extended family beer party'.

With reference to the regional beer party, Camino (1977: 134) has noted that much of the prestige held by the

hombres poderosos came from the fact that they could have several wives, and that these wives could therefore produce more masato:

> '... la poligamía además de constituir una fuente de prestigio por sí misma, proporciona un incremento en la mano de obra disponible para la preparación de masato de yuca, y éste a su vez, actúa como un lubricante de las relaciones sociales, ampliandose los lazos de reciprocidad'.[35]

Johnson and Johnson (ibid) maintain that these parties are held nowadays by local Machiguenga school teachers, but this depends, I would say, on the extent of manipulation experienced by the missionaries with whom they have contact. As previously stated, I did not find the drinking of masato, and certainly not the inebriating effects, anywhere encouraged.

Whereas the regional party would bring together people from unrelated households,[36] and take place about four times a year, extended family beer parties are, according to Johnson and Johnson (ibid), still common monthly.

Celebrations with masato would traditionally mark important occasions within the Machiguenga family such as the day of leaving confinement for Machiguenga girls. At puberty they would be secluded in a hut of their own in order to undergo various privations and, on leaving their huts, much masato would be drunk and festivities begin.

(This tradition is reflected in the manioc myth presented in the following Chapter). Weddings are celebrated today in a similar way, and in the past masato was drunk in large quantities by groups of men preparing for war.

On all these occasions an initial quantity of masato would be provided by the female head of the household, and additional gourds, or aluminium pots of masato contributed by visiting women.[37] Each woman would serve her own masato and decide how much each person should get.

Johnson and Johnson (op. cit.: 642) have seen these parties as 'providing a general festive atmosphere of singing and dancing' and only additionally as opportunities for 'reinforcing social relations as well as engaging in trade'.

Baer however (1984: 284) has seen them - principally as expressions of social harmony,[38] allowing tensions to be dispelled through music, singing and dancing and activities such as water-throwing games between men and women who would normally be respectful of one another.

Drunkenness is an important aspect of the beer party, particularly indulged in by the men, and the drinking of masato in large quantities allows a release or escape, (through drunkenness), from the normal constraints on behaviour in Machiguenga society. Teasing and joking

can be unrestrained and sexual adventures can take place that are not normally possible. This sexual abandon obviously contributed to the perception of these celebrations by outside observers in the past, as 'orgies'. Pereira, (1942: 244) for example wrote:

> 'Hasta hace pocos años celebraron lo que podría llamarse la fiesta de la yuca, y probablemente se celebra todavía entre los Machiguenga que viven lejos del contacto de los civilizados. La fiesta se reduce a grandes orgías, canciones, discursos y sobre todo a una especie de acertijo o charadas ... en el que cada cual y con más o menos habilidad o ingenio hacen alusiones al origen divino de la yuca, a sus bondades como principal sustento y por tanto a los cuidados y miramientos en que todos deben tenerla'.

Despite his perception of the masato feasts as orgies, Pereira did recognize the 'religious' aspect to these occasions, in his way, noting that an important part of the proceedings consisted of verbal allusions made to the 'divine' origin of manioc and the significance of this 'gift' to the Machiguenga.

Though I was not fortunate enough to witness a masato feast, I did record some twenty songs sung in Machiguenga which almost certainly refer to the inebriating qualities of masato, from a total of nine informants from the communities of Nueva Luz, Segakiato and Tinpia.

In Tinpia, the mother of Bartolomé Ríos Corral, Angelica, sang me two songs which definitely referred to masato. When I asked Bartolomé what the first song was about he said:

> 'Quiere decir este ... es de masato para que nos dé ollas ... lleno este masato, por eso ... se llama goyana'.

I asked him what else the song said and he responded:

> 'Eso no más dice. Cuando alguien te da masato lleno, hay ... con eso comienza dar y tomar dice ... comienza cantar ya. ¿Porqué nos da lleno el masato, cuando ya se marea y nos dé ahí ... tan marea ahí comienza a cantar ya ...¿porqué me has dado tanto? Está lleno ya'.

I asked Bartolomé what the second song was about and he said:

> 'para marear, este masato ... esto no más dice ... ¿porqué nos dé cuando nos marea el masato? ... ahí empieza a cantar'.

He was embarrassed it seemed, to give an explanation of the songs - in which drunkenness, the offering of more and more masato to the men by the women is the central element. Immediately before this interview I had asked Bartolomé and his mother if they knew any songs. The

first song that they sang was entitled 'número 37' a song obviously taken from the missionaries' hymn book of songs written in Machiguenga to foreign tunes. The words 'Jesú Kiristo' featured prominently throughout. It was Bartolomé's mother who, with little prompting, sang the two songs about masato, and then a song which her husband had apparently sung her 'para enamorarse'. It is interesting that two sets of beliefs representing life styles diametrically opposed could be presented in songs sung by the same informants, themselves a product of one set of beliefs, but compelled to demonstrate their adherence to another.

Masato feasts then, were, and are, where they can still be held, occasions for socializing, reinforcing bonds, hilarity and the release of tensions, continuing for several days, or as long as the supply of masato lasts. During them, items such as drums and feather headdresses are still made. Baer (1981b: 50) has written:

> '... the Matsigenka are particularly fond of using Crested Oropendola (katsari) feathers, to make festive ornaments to be worn by men during the popular and frequent manioc beer festivals ... The 'good' spirits (saanka'riite) are reported to have taken part invisibly in such festivities in the past. This shows us that manioc beer festivals have religious as well as social aspects: the sign of belonging together and of social harmony is sanctioned by the participation of the saanka'riite'.

This brings us to a consideration of masato as an element conducive to harmony with the spirit world.

b) Masato and the Spirit World

As Johnson (1980: 354) has observed, the Machiguenga:

> 'stand out as a very peaceful people that stress control over anger and aggressive behaviour in all aspects of social life'.

Harmonious relations with the spirit world that control key aspects of the Machiguengas' daily life are therefore extremely important. The shaman is the specialist in this respect, mediating between the two realms on behalf of his own group.

In order to enter into communication with the good spirits during a beer party, or on his own, it is believed that the shaman must be ritually pure (Baer and Snell, 1974). The preparations for this include sexual abstinence, the taking of tobacco juice and hallucinogenic drugs, and the drinking of masato. Though the shaman will cross into the spirit world, 'it is generally accepted that the saanka'riite' (spirits) mingle with those taking part in the masato feast'. The drinking of masato symbolizes social harmony which is the '... prerequisite for a successful séance which brings human beings into contact with extra-human persons'. (Baer, 1982: 6).

Beer is taken in large quantities and intoxication and vomiting are the desired effect. This is the aspect which appears to form the substance of the two songs mentioned in the preceeding section. A kind of mock refusal of the masato given the men by the women, seems to be important, since the excess is actually desired and inebriation maintained for as long as possible.[39] Weiss, (1974: 399) has found that for the Campa Indians whose territory borders that of the Machiguenga to the west, and who speak a very similar language, 'the ideal psychic state of the river Campa is one of inebriation'.

It is hoped to translate and study the remaining masato songs recorded, during visits planned to the Machiguenga in 1985 and 1986.

Baer, who has studied in great detail the role of the shaman in Machiguenga society (see Chapter 2, note 6) stresses the need for and desirability of peace and social harmony between people and the non-human beings that control their destiny.

Manioc was a gift from one such being, the moon, though he appeared to the Machiguenga in human form, and it is in relation to this 'gift', and its product masato that the Machiguenga may be distinguished at one level as an ethnic group, with a distinctive pattern of beliefs.

CHAPTER 4

THE ORIGIN OF MANIOC IN MYTH

I) THE MANIOC MYTH

As a central means of assessing the cultural importance of manioc for the Machiguenga today, and to illuminate and explain Grain's (1943: 24) description of it as 'planta sagrada', it was the existence of the myth about manioc - its 'leyenda especial' - that I was particularly keen to discover.

Though I learnt of the existence of four other versions of this 'leyenda', 'cuento' or 'historia' as it has been variously described, (Pereira, 1942; Garcia, 1943; Cenitagoya, 1943; Pascual Alegre, no date), before recording the version I present here, I did not know of the existence of two more recent versions until just before and just after recording my own.

Arriving at Sepahua on the 20 November 1981, I discovered that Padre Joachim Barriales had recorded and transcribed a version from a Machiguenga informant at Koribeni (Upper Urubamba) in 1971, and subsequently that Baer (1984: 423) recorded a version in 1968 in Pucallpa.

In part two of this chapter I compare and analyse these versions. A full breakdown of the content and sequence of events of each is presented in Appendix 5.

Having satisfied myself that the text adheres to certain general rules formulated in the attempt to distinguish myth from folktale (Propp, 1958: Lévi-Strauss, 1963; Kirk, 1971; Baer & Hertle, 1979) I regard the recording as a myth and not as a tale or folktale.

i) Recording the Myth

The myth presented here was recorded in the community of Nueva

Luz on the 28 November 1981. The narrator was an inhabitant of Nueva Luz, a man in his early 30's - Bartolomé Ríos Corral. Neither of Bartolomé's parents had been born in Nueva Luz. His father, he said, came from the headwaters of the Mantaro river, but he was taken as a young man to Atalaya by a mestizo and was forced to work there. He eventually escaped from Atalaya and worked on a cattle ranch in the vicinity, but after marrying Bartolomé's mother (birthplace unknown) they came to live at Nueva Luz. Bartolomé's father had died at Nueva Luz, but his mother was still living and present at the time of the recording. The only sister that Bartolomé mentioned had, he said, been interned at the Catholic Mission school at Sepahua.

Bartolomé agreed to relate the myth firstly in Machiguenga and then in Spanish. The narration is interesting in that the Machiguenga version - of approximately 7 minutes duration - is considerably longer than the Spanish equivalent (approximately 2 minutes) and this was probably due to the combined factors of Bartolomé's unfamiliarity with Spanish and his shyness at having to express and explain a much discouraged element of his Machiguenga ethnicity.

Since from my prior familiarity with the other versions of the manioc myth I was able to tell, when Bartolomé ended his account in Spanish, that what he had just told me was clearly only part of the entire myth, I prompted him to tell me more. In this way, through a series of questions and answers, I was able to get a much fuller account.

I present the myth then in three parts:

1) the original Machiguenga as spoken by Bartolomé, translated and transcribed by me,

2) Bartolomé's Spanish account of the same,

3) the dialogue between Bartolomé and me after the Spanish account, in which more of the myth is revealed.

ii) A Note on The Machiguenga Language

As indicated in Chapter 1 (p 1) the Machiguenga language belongs to the Arawak linguistic family; to date however, no accurate linguistic text has been published describing and presenting as an integrated whole the grammar, phonology, and semantic structure of the Machiguenga language.

The earliest attempts at linguistic definition by Farabee (1922: 21-48) are so inaccurate that they cannot be used, and the only major studies; Aza's 'Vocabulario Español-Machiguenga' (1923) and his 'Estudio sobre la Lengua Machiguenga' (1924) though impressive in many respects, do not meet the demands of today's linguistic analysis. Aza tried, for example, to fit Machiguenga grammar into the categories used to describe aspects of a typically European language, giving what he determined were the imperative, indicative and conjunctive forms of speech and similarly constructing present, perfect and imperfect tenses. Machiguenga, like other indigenous languages of the Americas however, does not represent the passage of time as do European languages but expresses rather an idea of actions or modes of behaviour that have either finished or continue into and beyond our 'present'. As Baer points out

(1984: 53) though extensive, Aza's Machiguenga vocabulary leaves out many expressions and concepts of cultural importance to the Machiguenga. Also, he provides only a Spanish-Machiguenga and not Machiguenga-Spanish vocabulary which means that many important semantic aspects of the language are not represented at all.

More recent studies by Summer Institute of Linguistics Missionaries, for example Snell and Wise (1949) and Snell (1978) only address certain aspects of the language.[1] To make matters worse, much linguistic material gathered by S.I.L. missionaries remains unpublished and inaccessible, stored in the S.I.L. library at Yarinacocha, Peru.

The transcription, linguistic analysis and translation of the myth below is the work of the author alone, but has drawn to some extent on the above-mentioned sources.

The work could not have been attempted however, without the unfailing and generous help of Dr Gerhard Baer and the advice of Dr Gisela Hertle. As a result of his many visits to the Machiguenga and his detailed observation and study of Machiguenga culture (including an inventory of myths and shamanistic songs), Baer has compiled with the help of Dr Hertle an extensive word list of his own which reflects the Machiguenga's multifaceted categories of animals, plants, geographical and astronomical appearances, material culture and kinship ordering.

Baer (1984: 51) has expounded a theory of the Machiguenga language as an 'orientierungsystem' (orientation system). The Machiguenga, he believes, 'in Kategorien denken' (think in categories) that

are passed on from mother to child and which form their concept of reality. Surrounded by Quechua and Spanish speakers, this system is now threatened by the introduction of new concepts alien to those represented in the Machiguenga language.

The linguistic material brought back by Dr Baer has gradually been indexed by Dr Hertle, who hopes to publish a book in the near future covering the phonology, semantics and/or grammar of the Machiguenga language.

I was kindly invited to visit Dr Hertle at her home in Germany in April of 1983 and am most grateful to her for the time she took to explain various aspects of the language and for making her card index available to me.

Dr Hertle did not help me, however, with the transcription or translation of the myth itself. The most useful aid to this work was the volume of Machiguenga myths recorded by Dr Baer, a number of which were made available to me in the original Machiguenga with their German and/or Spanish translations. Amongst these was Baer's version of the manioc myth, referred to by Baer as 'Mythe vom Mond' (1984: 423). A careful study of the linguistic structuring presented by this myth in particular and a process of cross-checking to identify form and meaning, enabled me to transcribe and translate a good deal of my own myth version.

Circumstances beyond my control unfortunately prevented me from either transcribing or translating the myth in the field. Both tasks were therefore undertaken in England.

The translation of the Machiguenga text is regrettably incomplete. This is due to my own unfamiliarity with the language itself and the inevitable problems presented by the lack of a reliable grammar or vocabulary from Machiguenga into any other language.

Though I have attempted to follow Baer's (1984: 52) notes, and the observations of Snell (1978), the transcription and subsequent translation of the myth are not necessarily accurate or, with regard to the Machiguenga language, consistent phonemically.

It is stressed that the analytical work was undertaken without the help of a Machiguenga informant (to whom it was impossible to return at the end of my first field trip), thus the thesis is concerned not to present an article of linguistic perfection, but rather to present the evidence of the myth itself, the lore surrounding manioc and all that this represents to the Machiguenga.

Transcription has followed the linguistic classification of Snell (1978) who has identified the following 17 consonants:

p, t, k, ty, ky, b, g, gy, ts, ch, s,sh, m, n, ny, r, h.

and 5 vowels:

i, e, a, o, u.

Baer (op. cit.) has tabulated these sounds as follows:

Consonants

Type of Sound	Articulation Point				
	bilabial	alveolar	alveopalatal	velar	glottal
Plosive					
unvoiced	p	t ty*		k ky	
Africate					
unvoiced		ts	ch		
Fricative					
voiced	b			g gy*	
unvoiced		s	sh		h
Nasal					
unvoiced	m	n	ny		
Vibrant					
voiced		r			

Vowels	Forward		Rear	
	unrounded	rounded	unrounded	rounded
closed	i		u	
high				
open				
closed	e			o
middle				
open				
closed				
low				
open	a			

* : these are labelled as 'palatalised' sounds of 'alveolar' or 'velar' articulation.

Following Baer, I have replaced the phoneme 'b' where it occurs with the sign 'v', and likewise have not necessarily differentiated between the sounds 't'/'ty', 'k'/'ky', or 'g'/'gy'.

In the Machiguenga language several changes in pronunciation occur according to the positioning of consonants and vowels in particular circumstances. Casevitz (1982: 109) for example, has indicated that in an intervocalic position 'p' becomes 'b' ('v') and 'k' becomes 'g', (e.g. 'kobiti' = a pot, but 'nogobite' = my pot). Similarly, after the nasal phonemes 'n' and 'm', 't' becomes 'd', (e.g. 'piteti' = two, but 'tinti' = paw paw, is pronounced 'tindi').

In the text below when the signs 'n' and 'k' appear together between two syllables, they represent the sound 'ŋg', but at the end of a word they represent the sound 'n'. The signs 'n' and 'p' together correspond to the sound 'mb'.

Baer (op. cit.: 54) indicates that, as Hertle has surmised, sounds and meaning are further differentiated by a system of 'mehrfachen Akzent' (multiple stress accents). Baer's use of accents differs from that of Snell, who has written (1978: 9):

> 'la actualización de un acento fonémico se comprueba por varios pares de palabras. Ej : /paníro/ "su sobrina (de Vd.)" y /pániro/ "uno"'.

She continues:

> 'También se aparecen acentos secundarios, los cuales, en

nuestro análisis, hasta el presente, no se consideran según la colocación del acento principal. Se necesita un estudio mas detallado antes de poder presentar un análisis adecuado de los acentos'.

Later she writes:

'El acento principal aparece con mas frecuencia en la sílaba penúltima o antepenúltima del grupo intensivo'.

[An 'intensive group' consists of between two and twenty syllables]

'Cae en la última, sólo en el vocativo enfático, como en /iná/ mamá!'.

Snell does in fact present a detailed study of Machiguenga phonology, which I have not attempted to reproduce here.

In terms of the grammatical structure of the Machiguenga language, the following simple classifications can be made:

VERBS: Verbs do not exist in the 'infinitive' form in Machiguenga, thus in order to indicate them various devices have been used. Aza (1923, 1924) presents as the infinitive rather haphazard conjugations in 1st, 2nd and 3rd persons, plural or singular. Snell (1978) is similarly inconsistent, though she admits that there is not an infinitive form. She uses instead 'las formas afirmativas más sencillas que comunmente se emplean', giving most often a conjugation of the verb in the 2nd person singular. Baer (unpublished

German-Machiguenga word list) has attempted to provide an equivalent infinitive form by separating the personal prefixes and suffixes and attaching 'ta' to the 'stem' of the verb. As an example of the above disparity, the verb 'to eat' is given:

by Äza as 'sekatempa : yo como = nosekata'
by Snell as 'pisekatáka' [pi = 2nd person singular subject prefix]
and by Baer as 'sekata'.

To mark the different 'persons', the following prefixes are placed in front of the verb 'stem':

1st person : 'no-' 'na-'
2nd person : 'pi-' 'pa-'/ 'po-'
3rd person : 'i-' ('y' or 'gy' before a vowel) masculine
'o-'/ 'a' feminine

To indicate the object of a verb, the following suffixes are used:

- ri : masculine object
- ro : feminine object

The following are an example of some of the morphemes that have been posited in Machiguenga verbs : (not necessarily represented in the myth text below)

- kye : suffix showing that verb is not reflexive (Snell,

1978)[also past tense marker?]

- ka : suffix showing reflexive (Snell, 1978)
  past tense marker

- o/inti : 'being'/'is'/'are' (Casevitz, 1982)

- na : suffix showing continuative/present participle (Casevitz, 1982)

- egyi : suffix showing plural (Snell and Wise, 1949)

- ga : suffix indicating causative action (Snell and Wise, 1949)

- gani : suffix indicating passive sense (Snell and Wise, 1949)

- ki/ka : suffix denoting place (Casevitz, 1982)

- ta : suffix acting as verbaliser (Snell and Wise, 1949)

Additional verbal suffixes could be added to this list, but much of this material must remain speculative until an accurate grammar is published.

NOUNS: Nouns are often discernible by the suffix of indefinite possession -'tsi' or -'ntsi', which is added to them e.g. :

'sékatsi' : manioc

'pítotsi' : canoe

Many nouns do not have this ending however e.g.:

'maniro' : deer

'seri' : tobacco

Possession is indicated by placing the following prefixes before the noun:

1st person : 'no-'/'na-'

2nd person : 'pi-'/'pa-'/'po-'

3rd person : 'i-' masculine

'o-'/'a-' feminine

In many cases the nouns with their possessive markers become apocopated in the following way:

'sékatsi' : manioc, becomes 'noseka' : my manioc

'pítotsi' : canoe, becomes 'novito' : my canoe (in this case the 'p' becomes 'v' since it is in an intervocalic position)

An important distinction is made between animate (usually masculine) objects and inanimate (usually feminine) ones, for example:

'oga' : that one who (referring to inanimate feminine object)

'i-oga'/'yoga' : that one who (referring to animate masculine object)

'patiro' : one (feminine)

'paniro' : one (masculine)

Use of the pronouns:

'iriro' : him

'iroro' : her

indicates that the subject referred to differs from that of the previous statement.

The text below shows (by means of notes, where possible, which are appended at the end of the myth) how the translation of and or transcription of a particular sound has been reached. The various sources used in this task have been coded for easier reference thus:

BCT : Baer (unpublished manuscript : 'Cuento del Tasorintsi', Machiguenga/German, 1968/1969?)

BCL : Baer (unpublished manuscript : 'Cuento de la Luna', Machiguenga/Spanish, 1968)

BW : Baer (unpublished 'Alphabetisches Wörterverzeichnis Deutsch-Matsigenka')

A : Aza (1923)

ES : Snell (1978)

iii) The Manioc Myth - Narrated in Machiguenga by Bartolomé Ríos Corral

MAIKA	NO/KENKISATAKIRI	PAIRANI	OGA	SANOKAROTSI
Now	I/tell[1]	a long time ago	this	?

I/TANAKARA	I/TIMA/KE	MATSIGENKA
it/began?[2]	it/to live (there lived)	people

PAIRANI	TEKYERA	NERO	SEKATSI
a long time ago	before[3]	there is/are (was)	manioc

ONTI	GYO/GUINDETA	SEKATSI	OGA	KIPATSI
being	they/ate[4]	food[5]	that is[6]	earth

KANYO	TAGAKE/RI	PO/GA/KE/RO
like[7]	was shown/him[8] them?	you/eat/ ? /it(feminine)[9] (you ate it)

ONTI	SEKATSI.	YO/GA/KE/RO	KIPATSI
being	manioc.	They/ate/ ? /it(feminine)	earth

ONTI	GYO/GUI/RA	TSIREI AGAGANIRI	ASH/KOBITI.
being	she/puts[10]	Type of manioc named after variety of palm tree?[11]	her/pots[12].

O/TIMAKI	O/SHINTO	ANTARONI	IRORO
She/lived	her/daughter	having reached puberty[13]	she

PI/KANTI	AINYO	ASHITAKOTA
you/say	there (she) is	was shut up (enclosed)[14]

OGA	TSONPO	IRORORI	O/KANTA/KE/RO	"MAIKA
this	inside[15]	she	she/said/ /her (to)	"Now

GARA	PI/KONTETI	ARIONAKE	GARA	TSONPOGI".
don't	you/go out[16]	thus ?	don't (not)	inside".

IRORORI	O/KANTA/NA/KE/RO	"MAIKA	NO/SHINTO
She	she/said/ / /her (to)	"Now	my/daughter

NO/ATA/NA/KE	SEKATSI".	INPOGINI	O/GU/TATETANAKERA
I/go out/ / (for)	food".	Then	she/(to) eat (in order to eat?)

O/ATA/NAKERA	O/TENTA/NAKERO	NO/JIME
she/went/(for it?)	she/with[17]/	my/husband (her?)

AGAIRA	SEKATSI	O/PEGA/KE/RO
for (to bring)[18]	food	she/to turn/ /it (i.e. food) (into?)

SEKATSI	KIPATSI.	MAIKA/RI	IRORO/NPO
manioc	earth.	Now/(and now?)	she/then[18+]

O/ATA/NAKE/RO	O/KANTO/NAKE/RO	"NO/SHINTO
she/went/ /it (for)	she/said/ /(to)her	"My/daughter

MA/PUKIA/VANA	NA/GUITERA	SEKATSI	ASKAGAKYENPA".
?/come/?	I/return[19]	food	you/we ?(will eat)?".[20]

INPOGINI	IRORORI	O/ATA/NA/KE	O/GONYETA
Then	she	she/went (out)/ / /	she/?

O/TIMA/KERA	KIPATSI.	ARIONE	O/PA/RO
it/lived/ (it was to be found)	earth.	Thus	she/gave/her

SEKATSI	A/GA/KYE	O/PEVITSAKE/RO	OKA/NATA/GAKYE/RO
food	(to) eat	she/made/her prepared (for)	this/ ? /found/it/her

SEKATSI	O/PUKA/TANAKERA.	INPOGINI	AMAKERO
food	she/came/ ? /.	Then	(she) brought

O/GONKITA	O/VANGOK.	ARIONI	O/PA/ RI/SHINTO
she/ ? her	her/house.[21]	Thus	she/gives/her/daughter

PI/RINITAKYE	O/KANTO	"PAIRO	AINYO".
you/sit down[22] (are sitting down)	she/said (the mother?)	"already again	there is/are". (masculine)

IRORORI	ONGOTA/PA/KYE/RO	KIPATSI	OGA	KOVITI
She	/(to) give/ /to her	earth	that	pot

AITYO	O/KOVITE	O/VETSIK/INGANIRO	KIPATSI.
there is/are (feminine)	her/pot	she/made/(it out of?)	earth.

INPOGINI	IRORORI	O/KANTI	"MAIKA	NO/SHINTO
Then	she	she/said	"Now	my/daughter

SEKATA	KEMA/RASHIA"	O/GA/KEMPARA
to eat	invite?"	she/to eat/in order to[23] ?

O/PA/KOTAKERA	SEKOTAKA.	IRORORI	O/KANTI/RO
she/gave/?	eat.	She	she/said/to her (her mother?)

"MAIKA	AGAKA	KUTA/GYITERI	I/POKA/KE
"Now	(he) appeared [24]	white[25]/ ?	he/came/ ?

KASHIRI.	I/MATSIGENKA	TAPAKE	I/MATSIGENKA
The moon.	He/(as) a person	?	he/(as) a person

HINAKI".	O/NEA/KE/RI	I/KYENA/PAKE/	I/KANTA	"PAIROTYE
?".	She/saw/ /him	him/ /come[26]	he/said	"Already?

O/GYENORA	PI/NIRO".	O/KANTI/RI
her/where?[27]	your/mother".	She/said/(to) him

"O/ATA/KYE	AGERA	SEKATSI".
"She/go/ (has gone)	for (to bring)[28]	food".

I/KANTI/RO	"TATA	MAIKA	SEKATSI"	O/KOTAGI/RI:
He/said/(to) her	"What (what is this)	now	food"	she/showed/him:

"NEROK"	I/KANTI/RO	"OGA	TERA
"Here it is"	he/said/(to) her	"That	(is) not

SEKATSI	ONTI	KIPATSI	PU/GA/VATAKA
food/manioc	being (it is)	earth	you/eat/ ? (that you are eating)

ONTI	KIPATSI	O/VETSIK/INGANIRA	OKA
being (it is)	earth	(she)/makes/ (that she makes)	this (these)

ASH/KOBITI	PO/VETSIK/AKE/RO	KOPANTAVANDAI
her/pots	you/make/ /them (i.e. pots)	?

MAKOBITI	IRORO/PA	IVOHOTANDAI	OMVARASE	OKA
pots?	her/?	?	?	this

ARIO.	OKA/NA	MAIKARI	SEKATSI
thus (in this way).	This/	now (here is)	manioc (food)

SANORIRA".	I/KANTA/KE/RO	"OKA	NEROKA".
proper (real)".[29]	He/said/ /(to) her	"This	here it is".

GYO/GUISHONGI/RO	TSAIGI/NEKE	Y/AMA/KTAKE/RO
He/to carry ?[30]/(to) her	bag[31]/ ?	he/brought/ ? /(to) her

GYI/ATA/KE/RO	O/NEA/KE/RI	IRORORI	O/GA/KE/RO
he/went/ ? /her	she/saw/ /him (it)	she	she/ate/ /it

O/KANTI	"ARIO	KAMETI	OKA	NO/GA/KA/RI
she/said	"So, well	it's good	this	I/eat/ /it (what I have eaten)

NARO	ONTI	KIPATSI	NO/GA/VATAGA
I	being	earth	I/eat (what I used to eat?)/

KIPATSI".	INPOGINI	I/KANTI/RO	"MAIKA/RI
earth".	Then	he/said/(to) her	"Now/

IMPOKARI	OGA/PI/NIRO	GARA	PI/KANTI/RO
come (when she comes?)	?/your/mother	don't	you/tell/her

AGAKEMPARO	MAVATI
eaten (you have eaten it?).[32]	(In) three (days)[33]

NO/PIGAPINTA	AIKIRO	PA/GA/RI/	O/PIGANTA
I/return[34]	again (also)	you/eat/it	she/returns (?)

KYERORA".	IRORORI	O/PUKA/KETA	O/GONGETAPAKO
?".	She	she/came/ ?	she/ ?

O/NEA/PAKE/RI	INIRO	PITANATSI	TSONPOGI
she/sees/ /him (saw)	her mother	?	inside

O/KANTI/RO	"MAIKA	O/PUKA	PISHTA
she/said/(to)her	"Now	she/comes (came)	(to you) ?

PAKE/RO	OKA	NO/SHINTO	SEKATAGA".
give/it (earth)	this	my/daughter	to eat".

O/KANTI/RI	"TERA	O/NEA	KEMISANTAKE,
She/said/(to) him	"Not	she/saw	?,

MAIKA	NO/SHINTO	NO/GUKA	PI/SEKATAKA/KEMPARA".
now	my/daughter	I/eat	you/eat/ ? (in order for you to eat)".[35]

O/PUKANTIKA/RI	O/KANTAKE/RO	IRORO	"TYERO GYE"
She/came ?/him (it)	she/said/(to) her	she	?

O/ATA	O/NEA	O/SAI	TEOTORI	KOANYO	TARENGYO
she/went	she/saw	?	?	?	?

O/GIREM	O/META/RI	ANTA	CHIVETAKI	I/KANTI/RO
?	she/ /(to) him	?	together?[36]	he/said/(to) her

"MAIKA	NO/SHINTO	MAI	PU/GA/KEMPARO
"Now	my/daughter	?	you/eat/ (in order for you to eat)

PI/TSUGAKERO	OGA	ASH/PINVOGANA		KINIPUMARA	PAITO/NARA
you/	that	her/?		?	then/?

PI/VATSA	IRORO/MBO	OKUTATA	TAPUKASHTARA	O/NEA/RO
your/meat[37]	she/?	? on the following day	?	she/saw/her

AITYO	SATIROTRONSONGYO.	O/KANTI/RO	"MAIKA
there was/ is	?	she/said/(to) her	"Now

HINA	OKA	I-OGA	AGAVATAKA	ONTI	KIPATSI".
?	this	that one who	?	being	earth".

MAIKA	GYOGA	I/POKA/KE	CHAPI	PANIRO	MATSIGENKA.
Now	he	he/came/?	again[38]	one	person.

I/KANTA/KENA	"NEROKA	SEKATSI	SANORIRA"
He/said/?	"Here is	manioc (food)	real"

Y/AMA/KE/RI	ASHI.	INPOGINI	O/GOTAGA/KE/RO
He/brought/ /it	(to) her. (for)	Then	she/showed/ /(it to) her

39

O/KANTYO	"NEROKA".	O/NEAKI	IRORORI
she/said	"Here it is".	she/saw (looked at ?)	she

I/NIRO	SEKATAKA	O/PA/KE/RO	SEKATAKA
her/mother	to eat (in order to)	she/gave/ /(to) her	to eat (in order to)

O/NEA/KE/RO	PO/OSHIN	O/KANTI	"AI	INTIO
she/saw/ /her (it)	your/daughter	she/said	?	?

O/GOKAVATAGA	KIPATSI	TERA	IRORO	ONTI TARI
?	earth	not (no)	she	being ?

ASHI O/GONTANTEMPARA. INPOGINI ORORORI O/KANTA/KE

her she/ ?. Then she she/said/

"MAIKA KAMETITAKE TSAME MAIKARI". IMPOGA/KERA

"Now it's good let's go now". Then/ ?

I/KANDA/KE/RO IRORORI "TSIRARI NO/N/POKA/KE

he/said/ /(to) her he " ? I/ /come/?

PI/KANTA/KE/RO PINIRO YAMA O/N/TIMAKE O'VUROKE

you/tell/ /her your mother ? she/ /lives masato

ASH/NAGAKYEMVIRA". IMPOGINI IRIRORI Y/AMAKE

her". Then he he/brought

SEKATSI I/PA/KE/RI I/(MPI)PA/KE/RI I/GOKINI

manioc he/gave/ / he/ /gave/ / / he/?

Y/AMAKE SEKATSI/GATE Y/AMA/KIPAKITAKE/RO

he/brought manioc/? he/brought/ /her

I/KANTA/KE/RO "AMARI/SHINTO PI/GA/NAKE/RO

he/said/ /(to) her " ? /daughter? you/eat/ /(it)

PI/RINPO/RO AGERA ASHI/NPANTAKE/RO SEKATSI".

you / /(it) for[40] her/ /(it)? manioc".
(her)

INPORORO	O/KANTA/KE/RO(RA?)	O/KANTA/KE/RO	
Then ? she[41]	she/said/ /(to) her	she/said/ /(to) her	

INIRO	"O(?)PANTAKERO	NOHIME	MAPINPOROAIKE
her mother	" ?	my husband	?

ASHI	ONTI	MONAIRA	SEKATSI"	GYNPO	IRIRORI
her	being	?	manioc (food)"	?	he

GY/AMA/KERA	O/GAKE	GYE/NAKE	I/POROAKERA/RI
he/brought/?	her/to eat?	he/?	he/cut down[42]/it (prepared)

I/TSAMAI	TAKERORA	GYO/TOGA/KERA[43]	GYO/MARONGAKERA	
his/chacra (garden plot)	?	he/cut/?	he/	?

I/TOGA/KERA.	INPOGINI	OKUTA	O/MATANAKERA
he/cut/?.	Then	on the following day?[44]	she/?

AIKERO	I/PANKITAKE/RO	INPOGINI	OSHIVOKAKI	I/POKAKE
again	he/sowed[45]/(it)	then	?	he/came

IRIRORI	O/ASHI	I/KANTA/KE/RO	"MAIKA
he	her/? (to)	he/said/ /(to) her	"Now

ONTIMAKERO	ASHI	IGAKERORA	IRORO/MPO	OTOVAIGA
she conceived?[46]	her	?	she/then?	many?[47]

VATANAKI	GARA	PI/TAITERI	AGAVAI	TANAKERA	ARI/POKA/KE".
?	don't	you/	?	?	come came?".

I/NEA/PAKE/RO	I/NEVITAKE/RI	IRI/SHINTO	OASHI
He/sees/ /her (saw)	he/ /he (it)	one/daughter[48]	her

PA/KE/RO	OASHI	O/GA/KE/RO.	MAIKA	IRORO
gave/ /(it) her?	her	she/ate/ /(it)?.	Now	she

OTARI	MAIKA	PU/NEA/NTAKARI	OGA	O/NEANDA	O/GA/NIRA
?	now	you/see /?	this	she/sees	she/eats/ ?

SEKATSI .	GAMERA	PAIRANI	O/TIME
manioc (food).	?	then, a long time ago	he/lived

KASHIRI	GAVIPOKI	Y/AM(E)A/NE/RO	SEKATSI.
the moon	?	he/brought/ /(to) her	manioc.

OROMI	MAIKA	AGYEMVA	KIPATSI	Y/AMA/TAKE/RO
?	now	?	earth	he/brought/ /her

PARIANTI.	MAIKARI	INTAGATI.
bananas.	Now (and now)	that's it (nothing more).

NOTES TO THE MANIOC MYTH

NARRATED IN MACHIGUENGA BY BARTOLOME RIOS CORRAL

1. BCT: KENKITSATAGANTSI - story

   ES : PIKYENGYITSATAKYE - to relate a history

2. BCT: p167 ITANAKA - he began

3. A : p53 TEKIARA - 'antes'

4. GYO = 3rd p prefix

   ?GU = from 'GA'-verb to eat used with a direct object

5. The myth demonstrates here and further on the significance of the word sékatsi. Not only does it mean 'manioc', but it is the term for food itself. The informant says that the people ate 'sékatsi' but he means food, as he goes on to say that this was in fact earth, 'kípatsi'. From the term 'sékatsi', two verbs meaning to eat are to be identified. These are 'sekata' used when the object being eaten is not referred to directly, and 'ga' - used when a direct object is mentioned in the same phrase.

   Compare: I/PA/KE/RO SEKATA/KA : he gave her (something) to eat

   i = 3rd p singular masculine subject prefix

   pa = to give

   ke = indicating past action?

   ro = 3rd p singular feminine direct object suffix

   sekata = to eat

   ka = past action?

and: O'KANTIRO POGAKERO SEKATSI: she says to her - have you eaten manioc?

o = 3rd p singular feminine subject prefix

kanti = to say

ro = 3rd p singular feminine direct object suffix

po = 2nd person object prefix

ga = to eat

ke = past action?

ro = 3rd p singular feminine object suffix

sékatsi = manioc

6. OGA: Refers to feminine object

7. A: p73 KAÑORIRA - 'como' (comp).

8. BW : GOTAGA - to show

9. BCL: p157 POGAKARO SEKATSI - 'ha comido la yuca'

10. A: p217 GAERO O YERO - 'poner (lo pongo - nóguiro)'

11. BW : TSIRERI - type of Palm (Palmen art)

GANIRE : term recorded in field indicating type of manioc plant (see p.46)

12. A: p251 ASHI - 'suya'

13. BCL: p153 ANTA'ROTAKE - 'llegó a la pubertad'.

BW : ANTARINI - 'Erwachsener' (grown up)

14. A: p129 SHITAKORERI - 'encierrale'.

15. A: p121 sómpoki: 'dentro'
BWL: TSONPOGI - inside ('drinnen')

16. BCL: GARA PI'KONTETI - 'no salgas afuera'

17. BWL: : ITENTA - with ('mit')

18. BCL: p153: A'GERA KIPATSI - 'para traer tierra'

18+ Barriales : 'Mitos de la Cultura Matsigenka' (no date)
p167 IMPO - 'y' (in the sense of 'then')
abbreviation of 'INPOGINI'

19. BWL: PIGA - to return ('zuruckkehren')
A: p294 - tiarakara pipuiguitaka? - 'de donde te has vuelto?'

20. A: p72 SEKATEMPA - 'comer' (taína piseka(ta) kiémpara - 'ven a comer'). Aza also adds,'muchas veces omiten la "e"', that is, the initial 'e' between 's' and 'k'.

21. PANGOTSI - hut: loses 'tsi' when object of possession and initial 'p' changes to 'b'(v) between vowels.

22. BW: PIRINITAKE - so sit down ('sich setzen')
A: p252 anta aiño PIRINITAKI 'allí está sentado'

23. BCL: p155 OSEKATAEMPARA - 'para que coma'

24. BW: NEAGAKA - to appear ('jdm. erscheinen')

25. ES: KUTARI - 'blanco'
BW: KUTA - to be white ('weiss sein')

26. BCL: p155: IKENA'PAAKE - 'venir'

27. BCL: p155 O'GARI - 'dónde está'

    A: p126 KIARA - 'dónde'

28. BCL: p155 A'GERA SEKATSI - 'traer yuca'

29. BCL: p159 SEKATSI SA'NORIRA - 'yuca verdadera'

30. BW: KIA (GUIA?) - to carry ('tragen')

31. BW: TSAGU/I - bag ('Tasche')

32. BCL: p159 NO'GEMPARO - 'he comido'

33. BW: MAVATA - 'drei Tage vergehen' (3 days pass)

34. A: p294 NOPIGAKA - 'volví'

35. BCL: OSEKATA'KEMPARA - 'para que coma'

36. A: p13 CHIBITATAKI - 'enmarañarse'

    A: p154 NOCHIBITAKIRO NAKO - 'he juntado las manos'

37. BW: VATSA - meat ('fleisch')

38. BW: CHAPI - newly, again ('neulich')

39. BW: GOTAGA - to show ('zeigen')

40. BCL: p153 A'GERA KIPATSI - 'para traer tierra'

41. Sounds like apocopation of 'INPOGINI' - then, to 'INPO', running into 'IRORORO' - she

42. BCL: p159 IPOROAKE ITSAMAIRE - 'rosó su chacra'

43. BW: p75 NOTOGAKIRO - 'Io he cortado'

TOGA(KE) - to cut ('schneiden')

44. BW: KUTAGITERI - day ('Tag')

45. ES: PIPANGYITAKE - 'sembrar'

A: p251 PANKITE - 'sembrar'

46. BCL: p161 INPOGINI I'TIMAKE - 'Ella le concibío'

47. BCL: p153 TOVAINI - many

48. BCL: p153 PANIRO IRISHINTO - 'una hija'

iv) Free Translation of the Manioc Myth

Now I'll tell you how it began, a long time ago.

A long time ago, before there was manioc, there were people.

They ate food (manioc) that is earth, (as it was shown) you eat manioc.

They ate earth - the earth she uses to make pots (that hold manioc).

Her daughter lived there, and having reached puberty she was enclosed inside (her hut).

Her mother said to her 'Now don't go out, (stay) inside'.

She said to her 'Now my daughter, I'm going out (for) food'.

Then (in order to eat) she went out with (her) husband to get food, that is, to make earth into food (manioc).

So she went out for it.

She said to her 'My daughter, I'll return with food to eat'.

Then she went out to where the earth was to be found (?).

Thus she gave her food to eat, she came and prepared the food she had found for her.

Then she brought it to her house (?).

She told her daughter to sit down (?).

She gave her earth, like the earth her pots are made of.

Then she said 'Now my daughter, (I invite you to eat)' (?).

She gave her food for her to eat.

She (her daughter) said to her (mother) 'The white moon appeared as a person'.

She saw him come.

He said 'Well, where is your mother?'.

She said to him 'She has gone to get food'.

He said to her 'What is this food then?'.

She showed him, saying 'Here it is'.

He said to her 'That is not food (manioc), it's earth - what you are eating is the earth that pots are made from (?) ...?... now here is real food (manioc)'.

He said to her 'Here it is'.

He carried (it in) his bag.

He took it to her.

She saw it and she ate it.

She said 'Well, it's good - what I have been eating is earth'.

Then he said to her 'Now when your mother comes, don't tell her what you have eaten (?).

In three days (?) I will return again.

You (will) eat it again (when I return)'.

Her mother returned.

She saw him ...?... inside.

She said to her 'Now I've come to give you this earth to eat, my daughter'.

She said to him 'She did not see ...?...'

'Now my daughter, I eat it, in order for you to eat ...?...'

She said to her '...?...'

She went, she saw ...?...

He said to her 'now my daughter, you eat ...?... your meat'.

On the following day (?) ...?... she saw her ...?...

She said to her 'Now ...?... the one who (showed us that this is earth?)'

Now he came again (as) a person.

He said 'Here is real food (manioc)'.

He brought it to her.

Then she showed it to her (mother?).

She said 'Here it is'.

She looked at it, she gave it to her (mother) to eat.

She saw it (your) daughter.

She said !...?... no (longer eating ?) earth'.

Then she said 'Now it's good, let's go now'.

Then (?) he said to her '...?... I have come, tell your mother (where?) she lives (how to make ??) masato ...?...'

Then he brought manioc (and) he gave it.

He ...?... brought manioc ...?... he brought ...?...

He said to her '...?... daughter ...?... eat ...?... manioc'.

Then she said to her mother '...?... my husband ...?... manioc'.

...?... he brought (it) for her to eat.

He cut down, prepared his chacra ...?...

He cut it ...?... he cut it.

Then, on the following day (?) he sowed it again.

Then ...?... he came (and) said to her 'Now (she conceived??) ...?... many ...?... don't ...?...'

He saw her ...?... a daughter (he gave it for her to eat?)

Now ...?... you see, she saw (and) she ate manioc (?).

...?... a long time ago the moon lived ...?... (and) he brought her manioc.

...?... now instead of (?) earth.

He brought her bananas.

Now, that's it, the end.

v) Machiguenga Informant's Narration of the Manioc Myth in Spanish

Voy contar este historia de ... antiguo ... antes había un hombre que vivía en ... las ... ellas comía tierra ... y su madre vivía con hijas y su padre.

Entonces cuando ha venido ... él le dijo 'Voy al ... traer yuca

para comer' ha dicho a su hija. Pero a vez ella se fue a traer yuca, pensar que es yuca, y total era tierra ... esa greda para hacer este ... este olla para hacer masato.

Y de ahí cuando ha venido un hombre le dijo 'Voy a traer este' ... ella ... le dijo 'Yo ... este es yuca para comer 'entonces él le dijo a ello [ella le dijo a él] 'Yo pensaba que es yuca ... total era tierra'.

Entonces ha traído palos yuca ... entonces le dijo a su madre 'Dígale a tu padre que haga chacra, entonces yo le voy a dar palos de yuca para sembrar, va a ver ahí yuca'.

Entonces le ha hecho caso [lo que] le ha dicho su madre, ha hecho su chacra y ha sembrado ... y ... con este ... ha venido ... y ese hombre ha venido del ... de la luna ... ya.

Pause in speech indicated by '...'
Clarifications of meaning inserted in brackets.

vi) <u>Dialogue with Informant Continuing Narration of Myth in Spanish</u>

eso no más?
ESO NO MAS SENORITA

pero ... la luna bajó con la yuca?
SI

y se la dio a la muchacha?
SE LA DIO A LA MUCHACHA AH ... 'ESTE LE VAS A DAR A TU PADRE

QUE SIEMBRA'

ya

AHA

y la muchacha, que hizo con la yuca, pues, lo ha sembrado?
LO HA SEMBRADO EN SU CHACRA

mmm, y después, ya no han comido la tierra?
YA NO HAN COMIDO YA, CUANDO YA HAN VISTO YUCA ES ... ELLA YA ... HA COMIDO YUCA YA ... YA ESE HOMBRE LO QUE HA VENIDO, LA LUNA ES YA COMO UN PERSONA YA ... AHA ... Y DE AHI SE HAN REUNIDO DONDE SU HIJA ... DICE ... ESE HOMBRE, LO QUE ESTABA AHI ... AHI VIVIA YA CON ELLA

ah, vivía con la hija?
CON LA HIJA YA, EL HA VENIDO DE LA LUNA ... HA TRAIDO PLATANO

también?
TAMBIEN HA TRAIDO Y'HA SEMBRADO CON ESO, POR ESO AHORA ... VEMOS YUCA YA, ES ... HA TRAIDO EL ... ESO NO MAS

y también, no le trajo otras plantas? Plátano y yuca no más?
PLATANO, ESO NO MAS HA TRAIDO, YUCA

maís, no?
NO ESO

shinki [Machiguenga word for maize] no trajo?
NO HA TRAIDO ESTE

no. ¿ Y vivía con la hija? ¿Cúanto tiempo vivían ...?
VIVIA YA HACE COMO ... YA CUANDO YA HA VENIDO CON ELLA ... O SEA YA VIVIAN CON MUCHOS TIEMPOS ... DE AHI TENIA SU HIJA YA

ah, una hija?
AHA, DEL ... DE ... YA LE HA DICHO 'BUENO ... ESE TU HIJA ... CUANDO VA A NACER ... TU LE VAS A ... LLEVAR ALLA ... EN MONTE LE VAS A DEJAR QUE VENGA ... ENTONCES ... VA A SER ESTE ... ANTES NO HABIA SOL ... SOLAMENTE HABIA ... NO HABIA ... SOLAMENTE ESTRELLAS NO MAS HABIA ... AHA ... ES ... CUANDO HA VENIDO ... ESTE LE HA DICHO PUES ... 'TU LE VAS A LLEVAR TU HIJA ... LE VAS A DEJAR EN MONTE' DE AHI ... CUANDO EL ... EL LE HA HECHO CASO ... EL HA LLEVADO ... LE HA ... PUESTO EN MONTE ... DE AHI ... CUANDO YA LE HA VISTO Y COMO ERA DE NOCHE ... LA ESTRELLA VENIA COMO MEDIO DOS HORA ... YA ... CERCA YA DE DIA YA ERA ... ASI ERA ANTES

aha
DE AHI ... HA HECHO CASO SU HIJA ENTONCES LE HA LLEVADO ... ENTONCES ... HA COMENZADO TENERSE ... PONER SOL YA ... ASI COMO ESTA MAYOR ... ES BEBITO, CHIQUITO ... CUANDO YA NACI, ENTONCES YA VEA ES SOL YA, 'ESTE VA SER SOL' DICE

se convirtió en sol?
SE CONVIRTIO EN SOL YA

y una hija no más?
UNA HIJA, Y DE AHI OTRA HIJA SE HA ... EL TAMBIEN HA TENIDO OTRA ... EL LE HA DICHO 'BUENO ESTO LE VAS A LLEVAR OTRA VEZ EN MONTE ES PARA HACER OTRA HIJA ... OTRA SOL ... YA LE HA LLEVADO, LE HA

PUESTO DE MONTE ... AHI HA VISTO LO QUE HA ... ALUMBRADO ... BIEN FUERTE ERA ... SOL ... YA NO PODIA ... MUCHO ... CALENTABA YA ... POR DE UNA VEZ. A VECES SE CHANCABA PIEDRAS CON TODO ESO ... CHANCABA PIEDRAS TODO ... CON EL CALENTURA ... Y DE AHI LE HA DICHO 'PUES MEJOR ES NO ... NO VALE ... ESO ... MEJOR HAY QUE BOTAR MAS ARRIBA' ... ES QUE VIVIA ... Y DE AHI LE HA BOTADO MAS ARRIBA LE HA DEJADO ... YA DE AHI HA VISTO OTRA ... MAS MENOR ... DE AHI LE HA PUESTO EL SOL AHORA LO QUE ESTA ... AHORA

aha, el sol

AHA

y otra hija?

OTRA HIJA, YA CUANDO YA LE HA DICHO SU ... PADRE ENTONCES ... HA VISTO ... ENTONCES ... YA AMARGA SU PADRE ... LE HA DICHO 'ESTE MI HIJA' ... NO QUIERE ... QUE SERA ESTE ... HA VISTO ... NO ESTE ENTE ... NO SE QUE ... SER COMO LE HACIA CONVERTIR EN SOL ... SUS HIJOS, DE AHI LE ... LE HA DICHO ESTE ... HAY UN ESTE ... LE HA DICHO 'MEJOR QUE SE VAYA' LE HA REÑIDO Y ... LE HA LLEVADO ... AHI SE HAN SEPARADO ... AHI

ahí no mas?

SI

pero, qué pasó con la luna y la muchacha? Han quedado en la tierra?

SI, HAN QUEDADO

la luna, no se fue al cielo?

LA LUNA ... OTRA VEZ SE HA ... SE FUE EN EL CIELO ... Y LA MUJER

DE LO QUE ESTABA AHI ... SE HA MUERTO

porque se murió la mujer?

PORQUE LE HA REÑIDO SU PADRE ... ENTONCES LE HA DICHO 'MEJOR' ... LE HA LLEVADO ... LE HA ... HA MUERTO SU HIJA HA TENIDO ... ESTABA EMBARAZADA OTRA ... CON ESTE SE HA MUERTO

ah, con la otra hija?

CON LA OTRA HIJA ... Y DE AHI LE HA DICHO 'MEJOR' ... EL LE HA DICHO SU PADRE 'NO LE VAS A TENER PENA TU HIJA ... DE ... VETE A DEJAR EN MONTE OTRA VEZ PARA VIVIR' ... NO LE HA HECHO CASO ... ENTONCES LE HA DICHO, EL PUES 'MEJOR LLEVALE ... COMELE ... COMO LE HAS MUERTO MI HIJA ... MEJOR ES MATALO Y COMELO ... COMELE ... COCINALE ...' LE HAN DICHO SU ... YERNO ... DE AHI SE AMARGA ... DEL ... LE DIJO 'BUENO, PUES ...' LE HA COMIDO ... LE HA COCINADO

la comió?

LE COMIO ... AHA ... LE COMIO SU MUJER ... Y DE AHI ... POR ESO AHORA ... LA LUNA COME GENTE

come gente,la luna?

SI

baja la luna para comer?

AHA ... NO VES ... CUANDO MUEREN LA GENTE

ah, cuando muere la gente!

SI, COME AHI

entonces, la gente va a la luna y alli la luna come la gente?

SI, A LA GENTE SE COME ... CUANDO MUEREN

sí, porque estaba pensando en las manchas que se ve en la luna, eso, qúe es?
ESO ES SU CABEZA LO QUE ... COME ... DE LO QUE VES ... MANCHAS ...
ESO ES CABEZA DE LA GENTE ... LO QUE COMIA ... ANTES

y si tu quieres que no te coma, la luna, que haces? No hay nada que hacer?
NO HAY NADA!

yo tendría miedo! ... y si te pintas con achiote, siempre te come?
SIEMPRE NOS COME, ASI ES

así es?
AHA

pues, alla se quedó en el cielo pero dejó la yuca?
DEJO, POR ESO AHORA HAY ... HAY YUCA, TODO, HAY PLATANO

pues, la luna es como papa de la yuca?
ESO PUES! ESO PUES! PAPA DE LA YUCA ES, AHA

y por eso, ha dicho la luna que hay que cuidar muy bien a la yuca?
SI, POR ESO PUES, HA DICHO, AHORA, POR ESO CUANDO ... EL ...
CUANDO SE AMARGA EL LE PUEDE LLE ... RECOGER ... OTRA VEZ ...
YUCA SE MUERE ... Y NO SE PUEDE YA SEMBRAR SI SE MUERA.

claro, ... por eso, qúé tienen que hacer, Vds, con la yuca para que no se amargue? Cuidarlo bien?

CUIDARLO BIEN ... NO SE ... DEPENDE ... PUES, NO SE SABE PUES ... MEDIANTE DE ...

ya, bueno, muchas gracias, muchas gracias por todo!

II) THE STORY OF THE MANIOC MYTH

i) Preliminary Method of Assessing the Myth

As indicated at the beginning of this chapter, six other versions of the manioc myth exist, though only two of these can be read exactly as they were spoken by the informants. It was these two versions of whose existence I was ignorant when I began fieldwork.

In order to try and get as complete an idea as possible of the myth for the purposes of analysis, I have attempted to tabulate all the myth versions, including my own, breaking down what I have distinguished as the nine major elements or parts into all the possible individual constituent features, actions or utterances within these parts (some 300) which I have then numbered in accordance with their appearance in each version. In this way the sequence of events and content of each version may be compared and all possible permutations assessed to aid construction of the 'complete' picture.

This table of the myth versions appears as Appendix 5.

ii) The Components of the Manioc Myth and the Story They Tell

a) To begin with all versions but one agree that what is

about to be related happened 'a long time ago', the exception specifies that this was in fact 'in the beginning'.

The first protagonists we meet are a Machiguenga family - all versions agree that there was a daughter and two state that she is beautiful, either living alone with her parents or as one of several offspring.

All versions agree that the family does not know manioc and that they eat earth.[2] 3 versions stress that this is the sort of earth that pots are made from, and 2 indicate that it is red[3] earth.

This earth is further described as being softened and cooked on the embers of a fire before being eaten. One version specifies that the family do not even know how to chew and are restricted to simply swallowing this earth.

We also find in 3 versions that besides not possessing manioc plants, the people do not possess any other cultivated plants. Bananas and maizé are given by name.

In all the versions it is specified that the Machiguenga girl has reached puberty and is, therefore secluded, according to custom in a hut on her own.[4]

The girl is ordered not to leave the hut, in 2 versions, and in one is given earth to eat whilst her parents go

to the 'monte' to get more.

b) After the parents have gone the moon appears as a person. He is either handsome, white, tall or appears with a crown of brilliant feathers.[5]

In two versions the moon's first action is to ask where the girl's mother is and he is told that she has gone for manioc. Here we have a linguistic demonstration of the importance of manioc since the word for food in Machiguenga is in fact synonymous with that for manioc (see note 5 of the manioc myth). Thus throughout Bartolomé's myth, the word sékatsi is used ambivalently, both as the word for food in general, which before the arrival of manioc is actually clay, and for the 'real' manioc that is eaten today. In response to the girl's statement that her mother has gone for food, the moon asks to be shown this sékatsi, and the girl brings him mud, in one version, cooked. In every version the moon's reaction is that this is not 'food' (i.e. sékatsi) but earth. In 3 cases he says that this earth is only fit for making pots. It is interesting that the versions of Bartolomé and Pascual Alegre further specify that these are the pots used for cooking or containing 'real' manioc.

At this point the moon shows the girl the 'real' manioc he has brought - taking it from his bag. Four versions specify that it is already cooked.

In one version, the moon immediately asks the girl to be his wife and fixes the day of her leaving confinement as their 'wedding' day - he then gives her cooked manioc.[6]

In the Garcia version the girl is actually shown how to chew and eat the food the moon has brought.

It is important that the girl accepts the manioc and likes it - both she and later on her parents, realize that they have been eating mud and that this is not good, not 'real' or 'proper' food.

The girl is now told in three cases not to tell anyone, and in two specifically, not to tell her parents what has happened.

c) The ordering of what happens next varies somewhat. In four cases the parents of the girl return with more earth. In one case they go away and the moon comes again leaving more manioc, but in the versions in which the parents leave earth, the girl does not eat it and her returning parents ask why. She either says that she is not hungry, or does not want to eat it, and then gives her parents the manioc the moon has left.

In 2 versions the girl is instructed by the moon to tell her parents why she does not eat the earth - in which case she tells them that they have been eating mud and not the real food 'sékatsi'.

The girl's parents try the manioc and like it and realize that they have been eating mud, (either by saying so or by throwing the mud away). From now on they will eat manioc and not earth. The parents are pleased with their gift of food and with the moon whom they will now be able to accept as their son-in-law.

In two versions (and possibly Bartolomé's) as part of the moon's attendance on the girl, he brings her raw manioc and shows her how to make masato.

Despite the changes in order of the various components, it is either stated or implied that the girl now leaves her confinement and will marry the moon.

In two versions great quantities of masato are drunk during the celebration that follows. The girl's parents are very pleased.

d) At this point (and before this in two versions) the moon brings manioc stems (referred to in four versions as seeds) and in every case, eventually, bananas also. There are interesting divergences from this where, in the Baer version, the moon also brings the sacha papa (sweet potato), dale dale (calathea allouia?) and maize, in the Pereira and Pascual Alegre versions where he brings not only maize but magona (Dioscorea trifida) and unkucha (?) and in the Garcia version where he brings the 'plantas comestibles que los Machiguengas cultivan hoy día'. Interestingly too, Bartolomé was emphatic

that the moon did not bring maize, whilst all other versions but one list that he did.

The general implication however, is that the moon brought the secret of cultivation itself and that it is thanks to him that the Machiguenga received and learnt how to grow the crops that they now cultivate.

Perhaps the most important element in this section of the myth is that the moon clears a chacra for the family and plants manioc, thus introducing the method of growing this vital food and other crops.[7]

e) The moon and Machiguenga girl now live together and the next incident to be related - though in different ways and with slightly different repercussions - is the birth of their offspring.

In four versions the moon and girl go to the river together, where in 2 cases the moon warns the girl not to mind if she feels something touch her in the water (for she is to be made pregnant by a fish).[8] When this does actually happen, and the girl does become angry, she spits out the leaves of a plant[9] that she is chewing and it is this action which gives the moon the characteristic blotches that we see on his surface today. In one version the girl throws mud at the moon in her anger and causes his blotches this way.

As yet another alternative, in 2 versions these markings

are caused by the moon's visiting the hut of another menstruating girl who asks him for manioc. When he refuses to give it, she either throws her own blood at him or mud from within the hut.

In the Baer version it is the blood of the moon's deceased wife (for she is to die) that is thrown by the moon's mother-in-law in her anger, that caused the moon's characteristic markings.

f) The next element in the myth - the birth of the offspring - is perhaps the most difficult to summarize as each version differs subtly from the other in sequence, number and significance of the births.

At most there are four offspring, and at the least, one. In all cases it is one or more of these offspring whose birth causes the death of their mother.

In two versions the 1st child causes the mother to die - as a punishment for her throwing mud at the moon's face, in another the second child causes the mother to die through a haemorrhage and heat, but in all other cases it is the fourth child which causes the death - either through being too large or being one of twins, and therefore causing death through size, or because the child is too hot and burns the mother to death.

The offspring will become important astrological beings, that is, suns of the various strata of the Machiguenga

cosmos, but versions vary as to which one becomes which. The suns are 1) 'our' sun (the sun of this world; Poreatsiri 2) Venus (or Saripoto) 3) Kientiampa the sun of the underworld (Gamaironi) and 4) Koriyenti, Kienti or Tabanti, who eventually illuminates other more 'privileged beings', the stars or spirits, who live higher up in the Meshiarene (Milky Way) and whom we cannot see.

Three versions indicate that with each child born the seeds of a special gourd Kiemi, are sown at the four cardinal points to provide food for the child. Two versions specify that of the seeds of a mysterious tree, only those sown in the east and west come up, and that this is to show the extremes of the sun's course.

All versions imply that before the coming of the moon there was no sun shining on the earth and three explain that everything lay in semi-darkness and was only lit weakly by the sun that now shines upon the world of the dead.

Of the moon and Machiguenga girl's offspring, all but one version mention that one child was too hot and shone all day burning up the rivers, trees and people. It therefore had to be moved higher up in the cosmos to light the more privileged beings or spirits.

One version explains that the heat of this son is due to his mother's death and that he had to be moved by the

moon at the request of a seripigari (shaman) who complained on behalf of the people. All but two versions state that it is the other son, Poreatsiri which lights us now.

g) The next element in the myth occurs because the Machiguenga girl has been killed by the birth of one of her offspring. At this point the girl's mother begins to berate the moon, blaming him for her daughter's death. In three versions it is the moon's lascivious nature that is responsible.[10]

The mother declares that since the moon has killed her daughter, he might as well eat her. In four versions the moon remonstrates and promises to resuscitate the girl, in one case bringing back not just his dead wife but another one too!

In two versions the moon actually does resuscitate his wife, but it is explained in one that the girl does not want to live on earth but in the underworld, which she prefers. The girl dies again and whilst her soul descends to Gamaironi her body stays on earth where, after painting her face red with achiote (Bixa orellana), it is eaten by the moon.

And this is the ultimate fate of the girl in all versions. The moon is so provoked by his mother-in-law's accusations that he does what she suggests, cooking his wife first.

An interesting variation is provided in the version recorded by Baer. In this case the moon gets a machete to cut up his dead wife, but as he does so she appears as two, that is carrying her baby. She is then referred to as a Tapir, attacked, killed, smoked and eaten as such.[11]

From now on the moon will eat human flesh - he has become a cannibal and as Bartolomé stresses, there is no escaping this, but it is important to emphasise that he was coerced into this action and became bitter after the malicious attack launched by his mother-in-law.

The moon was initially a good being (as will be shown by the next element). Just as he wanted to illuminate the world, and brought manioc to the Machiguenga, he did not want to eat his wife. This was the fault of human intervention.

The moon returns to the sky - tying up the smoked flesh of his wife and taking it with him, in one version.[12] Two versions state here that the moon's 'manchas' are in fact the heads of those humans he eats now.

h) The next element - though only present in three versions - explains that the moon, since he was originally beneficient, has made a fish trap on earth for the Machiguenga, from a special type of palm tree (placing it according to Garcia's version in the Tsungibeni river).

Since he is now angry with the people because of his mother-in-law, he breaks the fish trap in further retaliation and builds another one in the Milky Way, for the purpose, not of trapping fish, but human souls.

This net catches above all, the souls of women and children. Each of the 3 versions state that a guardian attends this net and that he can actually intervene out of pity, (since he was once human) by letting some of the people go that are caught in the trap. As he does this, those on earth about to die will suddenly get better. In two versions this 'helper' or 'guardian' is a toad, who croaks to the moon when there is a 'catch'. In one version the moon then comes running and kills the corpse with a stick. He cuts the hands and feet off his victim, which are then roasted and eaten. The other two versions specify that the meat of the moon's victims is smoked before being eaten.

The bodies of those whose hands and feet are cut off become tapirs whilst one of the other versions tells us that the 'souls' turn into fish. In either case these seem to be metaphorical allusions to human food par excellence.

The moon makes parcels of meat, to be eaten later.[13]

In one version the moon has his former wife in the sky with him, though very old and white-haired. He still eats the flesh of his wife however and when he stops

doing this - i.e. when his meat supply runs out - the Machiguenga will die.

Cenitagoya's version - which does not include the moon and fish trap element - adds, interestingly, that those who have been good in this life go and live with the moon, and so do those who have not, once they have expiated their sins by transformation into animal form.

He relates, that knowing where the souls of people go at death, a seripigari flies up and speaks to the wife of the moon (he has apparently another one, apart from the deceased) and asks her about them. He is told that the moon eats all the souls of those that die, and the seripigari notices that they are eaten in the form of Zúngaro fish. The seripigari also witnesses the moon choking on one of these fish when it gets stuck in his throat. At this point the moon's light is almost extinguished, but on spitting out the 'soul' his light shines once more.

i) Four versions, as a kind of addendum to the myth, add important information concerning the interrelationship of the moon, the Machiguenga, and manioc plants.

One version names the plants as part of the moon's family, still living on earth. He is said to have an intimate relationship with each plant.

The moon's daughters, it is stressed, must be treated

well, and the moon watches over them to see that this is so. If they are not treated well the plants can complain to their 'father' and the Machiguenga are aware that if this happens and the moon becomes angry or embittered he can withdraw his daughters - i.e. the plants will die, and the people will be forced to eat mud once again.

Treating the plants well comprises:

i) not wasting the manioc tubers
ii) not scattering the manioc rinds
iii) cleaning the tubers properly before eating them
iv) not eating the tubers on their own or with ají, or pimiento picante, as this will 'hurt' them
v) not treading on the plants or tubers
vi) not mixing tubers with refuse
vii) treating plants well in cultivation.

Pereira's versions add that the plants express their satisfaction and 'happiness' at being treated well by telling the moon when this occurs.

When the plants 'talk' to the moon, however, whether from pleasure or in anger, their voices are inaudible to the Machiguenga.

Manioc tubers 'like' to be eaten, but two versions tell us that what they most like, is to be chewed (after cooking) and fermented for 2-3 days and made into masato,

during which process they must be treated particularly well.

III) INTERPRETATION OF THE MANIOC MYTH

i) A Note on the Method of Analysis Used

Having aimed to present the 'story' of the myth, in its fullest form, I now attempt an analysis of the myth which will help us not only to understand this story within the context of Machiguenga culture, but appreciate a 'symbolic' meaning to be found in its form - that is with reference to the 'structuralist' critique.

Rather than finding meaning in Propp's[14] linear and chronological ordering of the elements in a text[15] (a method I have used to present the 'story' in full), Lévi-Strauss, the most famous exponent of structuralist myth analysis, seeks to describe the patterns - usually based on an a priori binary principle of opposition - which allegedly underlie the myth and which form his 'paradigmatic' models.

Lévi-Strauss's position is essentially that linear sequential structure is only the apparent or 'manifest' content, whereas the paradigmatic or schematic structure is the more important 'latent' content of the myth.

The task of the structural analyst, according to Lévi-Strauss, is to see past or through the superficial linear structure to the

'correct' or true paradigmatic pattern of organization beneath.[16] He writes 'if there is meaning to be found in mythology it cannot reside in the isolated elements which enter into the composition of a myth, but only in the way these elements are combined'.

But a knowledge of the cultural context of the myth must play an important part even in the paradigmatic assessment of myth, and Lévi-Strauss has attempted (though in a secondary sense) to relate the paradigms in myth to other aspects of culture such as cosmology and world view.

Combining these aspects of Lévi-Strauss's approach has helped develop the notion of myth as 'model' as opposed to Malinowski's (1954) 'diachronic' conception of myth as 'charter' for society.

As Lévi-Strauss has written:

> 'What gives myth an operational value is that the specific pattern described is timeless, it explains the present and the past, as well as the future'.[17]

Varese (1970: 166) has observed that whilst analysing different versions of the same myth, it is important to reveal, through the myth itself and anthropological observations 'the single axiological scheme which rules and defines the conduct of the group'.[18]

In this connection, and with reference to the analysis of the manioc myth, we should not be deterred by the differences of detail between versions (for Lévi-Strauss these should all be considered, to help us find 'the structural law of the myth'[19]) but look at

what can be distilled from these, as the central, significant actions, or more importantly, the conflicts underlying them.

With regard to this, my analysis will draw to some extent on Lévi-Strauss's paradigmatic matrix in which polar opposites (the binary principle of opposition) such as life/death, male/female are mediated.

Lévi-Strauss's comment that 'The purpose of myth is to provide a logical model capable of overcoming a contradiction',[20] can be understood better if we recognize, as has Baer (1974: 33) that instead of myths providing direct information about the modes of behaviour and the conditions of a particular society, they present, in fact, in pictorial, dramatic and discursive form, alternatives to the existing social and cultural structures of this group.[21]

As Baer (ibid) has further pointed out, the interest provided by a myth or story may often come from the element of the unusual or surprising that it contains, just as departures from the norm in any society are surprising and therefore noteworthy. The 'meaning' of a myth then, as a complement to paradigmatic analysis, must be based on what is already known at the time of the narrative analysis about the culture behind it, as it will be ultimately 'understandable' only through the cultural context.

One of the main features of myth, and which distinguishes and separates it from classification as a fairytale, is the departure of its characters from the particular expectations of individual roles and the lack, too, of a stratified society (i.e. into classes), in which an individual's behaviour reflects the behaviour of the

social group to which he belongs.

This element brings us to a consideration of the structure of Machiguenga myths.

ii) Some Distinguishing Features of Machiguenga Myths

It is important to note that the Machiguenga have an unstratified society, and in myth their characters often behave in unexpected and surprising ways.

As Baer (1974: 36) observes, these characters are much less strongly distinguished from one another in their actions, than is usually the case with characters of European or Russian folk tales:

> 'The actors in Machiguenga myths often behave ambivalently towards one another. A small misdemeanour, for example, may suffice to ruin a person and his environment, or incur the extreme hostility of his adversary, with no pardon being given. This adversary may be a member of the wrong-doer's immediate family.
>
> Since the misdemeanour is not absorbed, as might be expected, by the solidarity of the relatives, or relatives by marriage, it can be inferred that strong, latent tensions are present in the family relationships of the Machiguenga, tensions which find expression in sudden hostility and destructive actions'.[22] (My translation).

The ambivalence and unpredictability shown by the protagonists

of Machiguenga myths, means that it is difficult to nominate or assign the status of 'hero' or 'villain', to any particular character.

Baer (op. cit.: 36) suggests, that if the theoretical postulations of Lévi-Strauss, Greimas, Sebag and others are correct; that there are close reciprocal relationships between the ambivalence of characters and the obligatory transformation of their roles in the domain of myths, then the ambivalence displayed by the Machiguenga characters is not specific to Machiguenga culture, but would necessarily occur in the myths and stories of many 'natural', i.e. non-civilized, societies.

iii) The Manioc Myth Interpreted

As a means of reaching a viable interpretation of the manioc myth with respect both to its paradigmatic form and its cultural context (with which this interpretation will be mainly concerned) it seems to me useful to begin by looking at those 'binary oppositions' which are most saliént. For we seem to be dealing to a great extent with a series of transformations - with things as they were, and what these things become - particularly with respect to the actions of the main protagonists; the moon of 'divine' origin, his human Machiguenga wife, and her Machiguenga mother.

I have drawn up a table of these oppositions of altered states as they appear in roughly chronological order, (Fig. 1.) and a short synthesis. (Fig. 2.).

To begin with we find people, the Machiguenga, living in an

'uncivilized' and primitive state. They eat mud or earth. The moon, both male and divine, comes from above and brings food, manioc to the human, female below. The moon brings 'proper' food, food for people. The earth they had been eating before was fit only for making pots, and as a futher distinction, for making pots in which the proper food manioc should be cooked. Manioc, then is a humanizing food. Although my collected versions of the myth are divided as to whether the earth that the people were eating was cooked or raw, Baer (1984: 424) believing the earth to be uncooked, sees the presentation of cooked manioc as the all important humanizing criterion.

> 'Der Manioc wird als gekochte oder also geröstete Nahrung genossen; die Erde ist dagegen rohe Nahrung. Durch die gekochte Nahrung (Manioc) wird der Matsigenka zum Menschen; Vgl. Leach (1978: 76: 77)'.

We should mention here the interesting detail supplied by Garcia (1943: 230) concerning the humanizing effect of manioc whether cooked or not: relating the Machiguenga's beliefs about the Punaruna (Quechua speakers of the Andes) and Viracochas (whites), we read that the aforementioned were made by Kientibakori 'el demonio' in Gamaironi (the world of the dead). Originally there were no Punarunas or Viracochas. One day however, a Machiguenga boy who was digging in the earth was astonisned to see several Punarunas appear through the hole he had dug. Unable to stem the flow, more Punarunas appeared in a great flood. The Punarunas who in Garcia's story are also described as Inkakuna (literally Inca people, Quechua) were themselves digging for gold one day when Viracochas appeared through the hole they had made. When

the Inkakunas' efforts to stop the Viracochas from emerging failed, Tasorintsi (the all powerful creator spirit of the Machiguenga) killed most of them with a hail of arrows. Whilst those who died went back to Gamaironi, of those that lived:

> '... desde que comenzaron a comer yuca se hicieron gente, que aunque mala, ya no es kamagárini'.

I insert this detail - to support the contention that the mere eating of manioc - whether raw or cooked, radically changes or humanizes those who eat it. In addition to this Baer (1981a: 53) supplies a fascinating detail concerning a special soul that only those who eat manioc can acquire. This is the 'Augenseele' (eye soul) located in the pupil of the eye, and which instead of going 'below' at death, goes up to the levels of the other spirits:

> 'Sie soll sich nur bei den Menschen finden, deren Hauptspeise die göttliche Yuca, d.h. der vom Mond stammende ungiftige Maniok (manihot esculenta) ist'.

But it is the moon who is the primary civilizing agent. In one of the myth versions, he actually shows the Machiguenga girl how to chew. In two versions the earth which the people eat is red, a colour much feared and avoided by the Machiguenga, particularly in connection with horticulture (see note 3).

Already many oppositions have become apparent, through the changes initiated by the moon:

i) The moon, divine and male[23] and from 'above' comes to

a human, Machiguenga girl 'below'.

ii) Manioc (real food) is substituted for earth.

iii) The Machiguenga move from an uncivilized, unhuman state to a civilized, human one.

iv) They eat cooked food and can chew.

v) Mud/earth is relegated to its 'proper' position - that of providing the raw material for pots - pots which can cook or hold 'proper' food, manioc.

The moon puts things in their 'proper' places establishing, from a state of disorder, the fundamental order of things. In three of the myth versions the moon brings raw manioc and instructs the girl in the preparation of masato. As indicated in the previous chapter, the preparation and consumption of masato are of great importance to the Machiguenga household and the task of preparation is one of the main duties of the Machiguenga female.

This then is another cultural asset that is brought to an 'uncivilized' and 'unsocialized' people.

The next great gift of the moon is the knowledge and raw materials of cultivation. He not only brings manioc,[24] but other cultivatable plants too. Precisely which ones, varies from version to version, but the important point is that the act of cultivation which will become daily practice for the Machiguenga is introduced.

He cuts, cleans and sows the first chacra and thus demonstrates the horticultural method to supply the Machiguenga with their main vegetable needs.

It is stressed in the myth that it is only thanks to the moon that all these things have been given to the Machiguenga.

The moon in his benevolence, has built a fish-trap too, for the Machiguenga to enable them to catch large quantities of fish.[25] As with agriculture, he initiates another subsistence activity of traditional importance to the Machiguenga.

Through his various offspring, the moon now brings light from darkness - creating the sun which lights (and warms) the earth, bringing life in that sense, and creating day and night by setting the limit of the sun's course. He brings Venus, the sun of the upper heaven and the sun of the underworld, creating again an order, a stratified cosmos, central to Machiguenga belief.

All these things are the manifestations of the moon's goodness but through his coming he lays down elementary rules that are to be followed. It is the inability of the Machiguenga - and particularly Machiguenga women, to follow these rules that will have disastrous cosmological and cultural repercussions for all Machiguenga to come.

The myth will make clear the implications of human error and present the oppositions: human/ fallible and cosmological/ infallible, that is contrasting human 'badness', with 'divine' goodness. Within this scheme the 'female' is the crucially

erring element, opposing the 'male' which is not (though the moon is provoked into vengeful action, it is at female instigation).

The marriage of the moon and the Machiguenga girl, whilst representing an elementary liaison of male and female, is also a marriage of the divine with the human, which symbolizes a fecundity, a gift of fertility[26] - both to woman in terms of her offspring and to Machiguenga society in terms of the food and horticultural knowledge with which they are endowed in the process.

In coming together to create the (cosmological) offspring, humanity and divinity are equally responsible. The moon, however, though not susceptible to 'error' in the way that woman is, can feel the emotion of his human associates and be angered, and provoked into 'negative' action. Because of his divine origin, however, he will not be held responsible for his behaviour in the way that women henceforth will be.

It is human error then which appears as a cause of change in the cosmological ordering - the gifts of the moon are jeopardized and altered by human behaviour.

The first error, and explicit contradiction of the moon's orders, is committed by his wife, the Machiguenga girl when, in anger at the means of conception she experiences, she either spits or throws mud at his face, which will give him the characteristic 'manchas' seen on his face today. (As indicated in the preceding section, in one case it is menstrual blood that is thrown at the moon, and in another the blood of the deceased girl herself).

The girl has now participated in the ordering of things and her actions are irreversible.

The mother of the girl, however, is ultimately responsible for the incident which will alter the moon's mood of benevolence towards the people and result in the dreadful fate that will await them henceforward at death.

Through her admonitions of the moon's behaviour which she believes has killed her daugher, she forces him to eat the corpse - thus instigating his cannibalistic nature, with which he will now permanently be associated - and in particular his liking for the flesh of women and children.

In further retaliation at the woman's behaviour the moon withdraws, according to Pereira, the main 'yuca seed' that he had brought, though leaving others and, breaking his fish trap on earth, constructs a trap in the Milky Way in order to catch the souls of dead people which he will henceforth eat. Women and children, who will now be particularly prone to death at child-birth, will form a large part of this 'catch'.

Pereira (1942: 243) tells us:

> 'Los Machiguengas, cuando recuerdan estos episodios maldicen a aquella mala suegra porque si ella no hubiera ofendido a su yerno Cashiri, el milagro de la resurrección que ésta hubiera hecho en el cuerpo de su esposa, se habría extendido para siempre a todas las mujeres; es decir que se habría tenido la virtud o costumbre de resucitar a las mujeres que murieran

de mal parto'.

The mother's action then in refusing to let the moon resuscitate her daughter, and her vituperations, have forever robbed all women who die or are in danger of dying at childbirth of the chance to live again.

The moon's guardian <u>may</u> reprieve some souls, thus allowing those about to die on earth another chance - but the moon's cannibalistic nature is now fixed. The influence and finality of the moon's will towards mankind is particularly stressed.

To recap then, in terms of the 'oppositions' presented by the myth, the people have now:

i) become the recipients of the essential raw materials for, and art of, cultivation (from a 'cultivationless' state) and also an important means of fishing.

ii) learnt the art of making <u>masato</u> - regulator of social and cosmological interaction at many levels.

iii) been given the light of the sun, and other 'heavenly bodies' - forming a stratified cosmos, from presumably a state of dark confusion.

But through human error:

iv) the main manioc plant is withdrawn.

v) their fish trap is destroyed.

vi) all mankind (i.e. Machiguenga) and particularly women, must endure the fate of being eaten at death by the moon.

vii) women are prone to die in childbirth.

iv) The Myth's Salient Themes

The myth seems to me to demonstrate, or reflect the importance within Machiguenga society of certain important rules, all concerned with control.

Since reality, day to day life for the Machiguenga, is inextricably linked to their conception of the traditional cosmological scheme of things, the myth could perhaps be likened to a graphic, three dimensional, yet metaphorical projection of the rules to be followed for the maintenance of a well-ordered society.

Just as custom and belief which have become culture are 'justified' by the myth, it may serve not only to 'rationalize' or explain distinct patterns of behaviour, but project the consequences of a departure from those 'laws' that hold society together, showing us those 'alternatives' to existing social and cultural structures.

a) The Rules Regarding Manioc

Concerning the manioc plants that are left by the moon

for the Machiguenga, not only do we find that important rules are laid down by the moon for their treatment, but that they are seen as female and as daughters of the moon. By treating them well, the Machiguenga will maintain good relations with the moon.[27]

Garcia tells us (1943: 233) in his account of the 'cometa' myth (related with the manioc myth) 'en aquellos tiempos hablaban las plantas comestibles'. This idea is corroborated by three of the manioc myth versions in which the plants talk but are unheard by human ears.[28]

That they must still be cared for well, and that they are the moon's daughters was certainly emphasized by Bartolomé. In this and all other respects the myth, it seems, is still taken seriously today - if not as a 'charter' then at least as a 'guideline' which warns of the consequences of <u>not</u> adhering to particular rules.

Bartolomé made it clear that the moon must not be embittered by the maltreatment of his daughters. If this was the case the moon could withdraw the plants - that is they would die - and so too would the Machiguenga, for lack of food.

In this respect alone then, it appears that the manioc myth is still very real to the Machiguenga today and that its message is implicitly adhered to in everyday life.

b) The Symbolism of Food

To return to the domain of the symbolic 'paradigmatic' interpretation of this myth, the oppositions (or complementaries) of male and female are, it would seem to me, present also in the realms of food.

We have seen that manioc is eminently 'female' - not only by gender itself, but also through its association with women. Not only does a Machiguenga girl receive the first manioc in the myth, but it will be the job of women exclusively, henceforth to harvest and prepare manioc . The opposite or counterpart to female is male and the 'male' food, par excellence, is meat. The hunting and 'handling' of meat is the strict domain of the Machiguenga male, the Machiguenga hunter. By strength of association then, the substance of meat itself takes on an eminently 'male' symbolism.

The moon (male), eats human flesh at the end of the myth, which he roasts or smokes and takes up to the sky with him 'in little parcels' (just as the Machiguenga carry surplus meat with them today).

As already noted, in the Baer version of the manioc myth, the moon sees the girl once she is dead, as a Tapir - a much prized meat amongst the Machiguenga, and the Cenitagoya version has the moon eating the souls of the dead as types of fish. This metaphorical substitution of animal for human by name, as well as indicating that

these animals may function as 'soul bearers' or as the 'Alter-Ego-Beings of people' (see note 11), also indicates in a symbolic sense how the moon views people.[29]

Meat (male) which is eaten by the moon (above) contrasts with the staple food manioc, (female) which (though given by the moon) is grown in the gardens, in the earth (below) of the Machiguenga. Women spend much of their time in the manioc gardens and an even greater amount in work directly connected with the preparation and consumption of manioc as food.

The coming together of the moon and Machiguenga girl then, as well as symbolizing the liaison of male and female, could also present the complementarity of meat and manioc, indeed Pereira's version stresses that manioc does not like to be eaten 'on its own'.

c) The Importance of Control

Linked to the prevalent theme of consumption, both in the realms of food and sex within the myth, is the corresponding theme of control. It is the departure from the rules evolved for the smooth running of society in every sphere that causes disruption and disaster.

The Machiguenga girl does not obey her husband's command and initiates the provocation which will ultimately result in the moon's assuming a dangerously dual nature. From the benevolent provider of food and culture he becomes

a dangerous consumer himself. He is accused of being lascivious - of having killed the girl through his over-lecherous advances - his over active sexual appetite. It is his sexual gluttony which kills the girl.[30] There is a direct link here then between food and sex, and the emphasis or moral message underlying these events is the all-important need for control.

An important part of the Machiguenga's social 'etiquette' consists of not consuming too much food individually, and of sharing food according to recognized rules of social cohesion. A marriage for example, is taken to be valid - and consummated - when the food brought to a Machiguenga girl, by her husband-to-be, is prepared by the girl in the house of the parents, and they both eat it (see also note 6).

The eating of food, then, can be seen in certain respects as intrinsically related to the social cohesion born of sexual relationships, if not as a kind of sexual act itself. The moon's consumption of the girl's body is therefore a symbolically coherent and logical action within the context of Machiguenga belief - since it graphically represents his lecherous behaviour. Just as gluttonous behaviour is frowned upon in Machiguenga society, so too is an over active sex life. As Baer has pointed out (1981b: 51) 'sin' or 'committing a sin ... always refers to sexual transgressions, especially incest. Sexual misconduct is as much social as religious misconduct, the Matsigenka concept of sin thus not allowing

for a separation of the social from the religious aspect'.[31]

The explanation for this connection between sex and social misdemeanours may be related to that governing the beliefs of the Tukano Indians of Colombia in this respect.

For the Tukano Indians the biosphere, of which everything is a part, is controlled and determined by the amount of sexual energy or potential present at any one time. If a man has too much sex with his wife, he jeopardizes the delicate balance that exists in the natural environment around him i.e. he will kill more animals to feed more children, and so will be taking too much away from the biosphere - i.e. his environment - which must ultimately be replaced.[32]

Control then or the need for control in the sphere of inter-personal relations and the relationship that must exist between man and his natural environment, is one element that is graphically embodied in the moon myth.

Just as the Machiguenga's natural environment exists as an intrinsically fine balance of complex interrelationships, this balance too, is to be sought, or rather maintained in their social and religious spheres. That it is explicitly stated in the moon myth that manioc plants must be treated well, and that the Machiguenga believe this, is a perfect illustration of this principle, and demonstrates also the extent to which myth and 'reality' are intertwined and for practical purposes,

inseparable in everyday life.

d) Ambivalence and Change

Ambivalence is a characteristic trait of many of the characters to be found in Machiguenga myths. Ani, as we have seen, this is demonstrated very well by the moon. Initially a good character and bringer of gifts, his luminosity which symbolizes these attributes becomes marred and dulled by blotches, the graphic manifestation of his dangerous cannibalistic capacity. Henceforward he will be feared and respected.[33]

In this connection we should be aware that in Machiguenga belief, the world in its present form is the result of a series of transformations; everything at sometime or other has been the subject of some kind of change. Tasorintsi, the creator spirit made men from 'palos de balsa' and all animals were once Machiguenga, but were changed into these forms as a direct result of their 'sins'.

The Machiguenga then, constantly fear reprisals or changes of this kind. Just as this behaviour has changed or influenced the order of things in mythical times, so man must be careful now not to bring more hardship on himself.

Despite being left with many varieties of manioc and the secret of their cultivation, only the correct treatment

of these plants will ensure that the Machiguenga survive.

CONTRASTS AND TRANSFORMATIONS IN THE MANIOC MYTH

PRIMARY (& ALTERED STATE)	CONTRASTING (ALTERED) STATE
HUMAN	DIVINE
FEMALE	MALE
DOWN	UP
MACHIGUENGA	MOON
eat earth	brings manioc
not human food	human/proper food
raw food	cooked food
uncivilized/unhuman	civilized/(makes) human
lack of teeth	ability to chew/eat properly
lack of categorization between clay and manioc	clay is for making pots - in which manioc may be served
DISORDER	ORDER
LACK OF RULES/BROKEN RULES	RULES
no masato	masato (preparation techniques)
no cultivated plants	cultivation of manioc and other food plants
no fish net	fish net
DARKNESS	LIGHT (moon's face bright)
no sun or other constellations	the sun, Venus and others
ERROR	LACK OF ERROR (DIVINITY)
DEATH/FALLIBILITY (moon's face marred) particularly of women and children	LIFE cannibalism
fish net withdrawn	net to catch and eat Machiguenga
main yuca variety withdrawn	some yuca varieties left
rules must be followed for cultivation of manioc	
manioc female	meat male

Fig. 1

SYNTHESIS OF MYTH

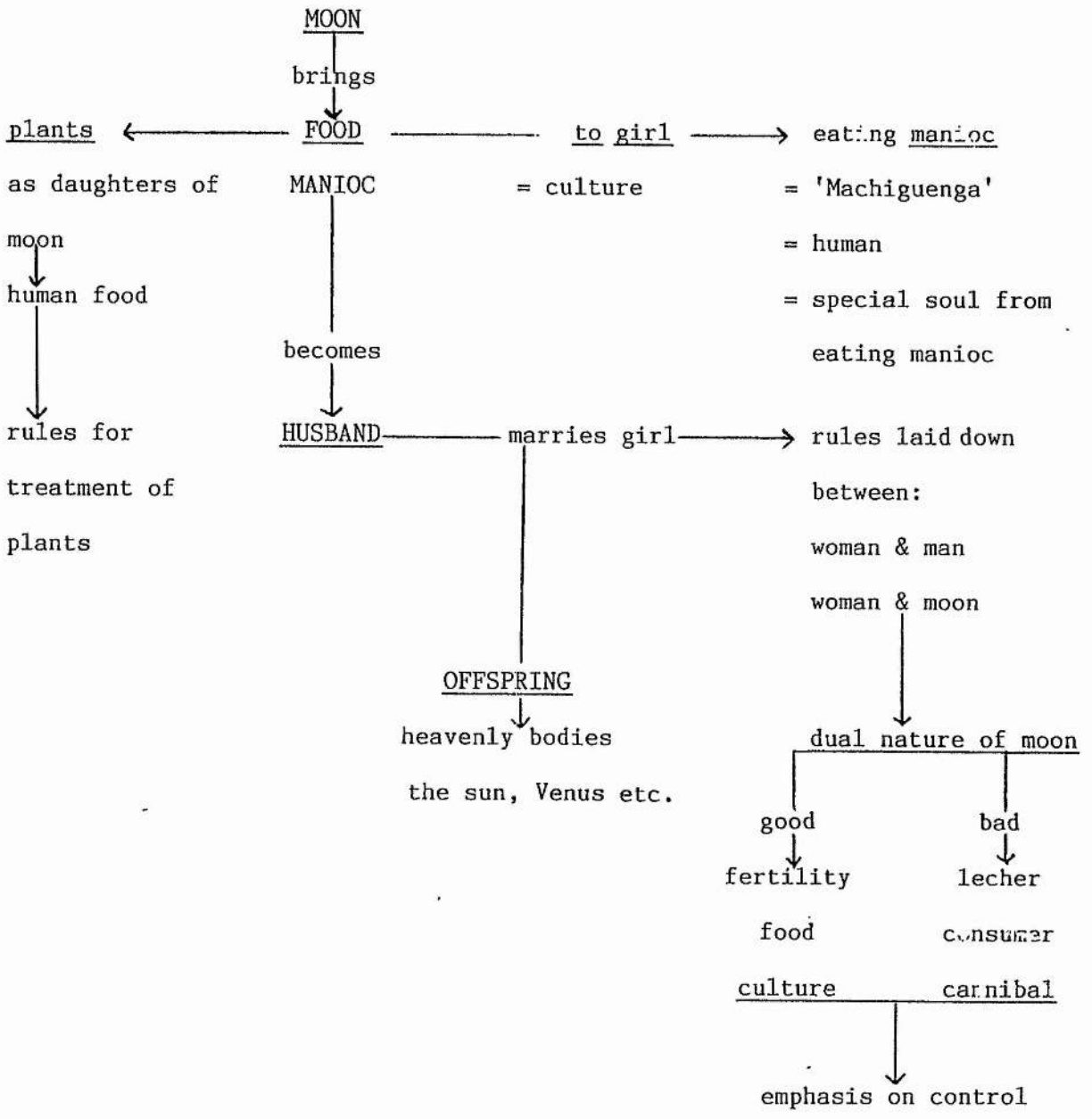

Fig. 2

C O N C L U S I O N

The aim of this thesis has been to investigate, as far as possible, the position of manioc in Machiguenga society, and the beliefs and cultural factors that prompted the missionary Grain to describe manioc as 'la planta sagrada' (Grain, 1943: 241).

Whilst Chapter two dealt with the ethnohistory of the Machiguenga, and aimed to indicate their position within a network of relations both with other tribal groups, and with the non-indigenous society that has shaped their present life style, Chapter three began an investigation into the cultural usage of manioc and the significance of its cultivation to the Machiguenga. It was revealed that the Machiguenga grow a large number of manioc 'varieties', and that manioc occupies the central position in their diet. Cooked manioc and its by-product masato, not only provide the essential calories that the Machiguenga need to sustain them, but both products are invested with an important social function. They are used to establish and cement important relationships between both different social groups, and the Machiguenga and their spirit counterparts, whom they believe inhabit the sky, and with whom peaceful and harmonious relations should be maintained in order to guarantee the secure existence of the group.

In Chapter four, after a brief introduction to the Machiguenga language, the main linguistic evidence indicating the way in which manioc is regarded by the Machiguenga was presented in the form of a myth relating the origin of manioc from the moon. Several versions of this myth were compared to give a fuller idea of the story. Since the moon comes down from the sky to the Machiguenga, manioc is in this sense a 'divine' gift, and the eating of it confers human status upon the Machiguenga. The moon leaves instructions for looking after the manioc plants, and we find that they are perceived to be feminine, to be living beings and daughters of the moon.

Conversation with the informant who narrated the myth to me, revealed that the Machiguenga still subscribe to these beliefs: manioc came from the moon and the plants must be treated well, otherwise they can be withdrawn by the moon and the Machiguenga will be hungry. We discover that the moon will also eat the Machiguenga at death. As such, and as provider not only of manioc but of the other nutritious staples used by the Machiguenga, the moon is a very important part of their world view. As with other Machiguenga, and the spirit world, harmonious relations with the moon should be maintained. The term 'sacred', as used by Grain, is understandable since it refers, it appears, to the divine origin of manioc and to the importance of the observances that surround it.

Manioc lies at the centre, I believe, of a complex set of beliefs and practices which unite the Machiguenga with their natural environment. It is of this environment that Machiguenga religion - if one can use this term - their belief in an animated world of plants and animals and spirits who control all these, is formed. The Machiguenga exist, and have existed as an ethnic group for a very long time, in an environment in which non-Indians find it hard to survive. Their existence has been due to a great extent, to an ability to adapt to their environment without destroying it, and through the practical application of beliefs such as those which surround manioc, and which acknowledge that the Machiguenga are not alone in the world and that they must respect their environment to survive. The attention shown to manioc, though on an elevated scale, is representative of the way in which the forest world is perceived in general.

Whether these beliefs will be sustained in the future seems unlikely. As indicated through this thesis, the Machiguenga are now faced with the spiritual and terrestrial invasions of a society which has shown very little understanding of them in the past, and with which, as an ethnic group, they are largely unable

to cope.

Missionaries, migrants and multinational companies have advanced into Machiguenga territory and since the government itself has agreed to 'develop' large areas, particularly in the region of the Manu National Park, it is unlikely that the legislation that does exist to protect these people will ever be enforced. The cultivation of manioc however, will probably increase in importance, with the increase in the population of the Latin American poor, but as with the Machiguenga, the knowledge of different varieties of manioc and of their 'divine' past may not survive so long.

NOTES TO CHAPTER 1

1. The term used by the Machiguenga when referring to themselves is 'Matsigenka' (Baer, 1981a). This term literally means 'people' but the sense implied is 'humankind'. I use the anglicized version of their name throughout, as have those authors who have written about the group in English and Spanish, cf. Camino, 1979; Johnson A, 1975; Johnson O, 1980; Davis & Snell, 1976; Pereira, 1942; Grain, 1943; Garcia, 1943; Rosell, 1916, etc...

2. Stefano Varese (1972: 11-12) has written 'The various ethnic groups of the Peruvian tropical forest present a great variety of social and cultural situations, with respect both to their traditional structures as well as the social and economic changes, modifications and restructuring which is produced by contact and interaction with various sectors of white society. This circumstance makes it difficult to set up a simplified classification ... In this sense even terms of common use in professional literature, such as 'tribe', should be questioned as to their applicability ... I think it is more correct then, to speak of an ... ethnolinguistic group, which in linguistic terms contains dialect areas, and in social, cultural and economic terms can be subdivided into sectors, above all, according to the degree of interaction which each sector (or micro-region) maintains with the white society'.

3. According to Wise (1971: 231), Machiguenga is a member of a closely related subgroup of pre-Andine Arawak languages which comprises:

   a) Asháninka Campa - which is spoken by persons living along the Apurimac, Ene, Tambo and Perené rivers.

b) Pajonal Campa - spoken 'in the uplands of the "Gran Pajonal" and on the Western slopes of the Cordillera de Vilcabamba' (Denevan, 1971) (see map p.xi)

c) Machiguenga.

d) Nomatsiguenga (currently spoken along the Pangoa river).

Wise (op. cit.: 321) writes: 'Nomatsiguenga is mutually unintelligible with all of the other languages in the group. Although most Nomatsiguenga men are bilingual speakers of Asháninka Campa and their own language, the converse is not true because of sociological factors. Speakers of Asháninka Campa and Pajonal Campa call themselves asháninka or ashánenka "people",* while speakers of Nomatsiguenga and Machiguenga call themselves Matsiguenga, "people". All except the Machiguenga, however, call themselves Campa when talking to outsiders.

Nomatasiguenga seems to be somewhat more closely related to Asháninka Campa than to Machiguenga in structure and vocabulary, but detailed comparative work may show that the greater degree of similarity should be attributed to geographical proximity to the Asháninka rather than to historical closeness'.

*Weiss (1972: 157) translates 'Asháninka' as 'our fellows'.

4. Baer (1981a: 47) writes that 'until comparatively recently (18thC?) the territory of the Machiguenga extended in the South to the region of Machu Picchu'. (My translation). This is also confirmed by Camino (1977) in a detailed study of the 'Trueque, Correrías e Intercambios entre los Quechuas Andinos y los Piros y Machiguenga de la Montaña Peruana'. (See Chapter 2, p.22).

5. Varese (op. cit.: 12) writes: "We can supplement the expression "ethnolinguistic group" with the term "native community". By this I mean the stable socio-economic unit, bound to a specific territory, with a type of settlement which can be either nuclear or dispersed, which recognizes itself as a community and which is distinguished from neighbouring socio-economic units, native or not'. See also note 2.

6. The name Pongo de Mainique seems to be derived partly from the Quechua and partly from the Machiguenga language. Hermoza (1970: 241) writes: 'Pongo deriva del quechua puncu, que significa puerta, y es realmente la puerta o entrada a la selva baja'. He goes on to say that the Pongo 'se conoce con el nombre de Tonquini o Mainique, lugar del oso Maeni'. Maeni is in fact the Machiguenga word for Tremarctos Ornatus, the spectacled bear, the only one of the seven true species of bear that lives in the Southern hemisphere. (Attenborough, 1979: 290). Interestingly this bear, according to Attenborough, is 'from the Andes', but must have included the lower and more forested areas in its territory. 'The spectacled bear gets its name from the yellowish rings circling each eye. It is almost entirely vegetarian, living on leaves, fruits and nuts. It is an excellent climber and not only feeds high up in the tree tops but also builds a nest in the branches and sleeps there'. (op. cit.: 290).

   According to Baer (1984: 133), the spectacled bear is considered 'edible' by the Machiguenga and was probably once widely hunted.

7. Hermoza (1970: 23) explains 'según su etimología, en runa simi (Quechua) uro significa serpiente y bamba procede de pampa, de acuerdo al nombre, este río verdaderamente tiene el aspecto de serpentear en un lecho accidentado, formando numerosas cascadas y rápidos: motivo para el cual

han sido y son los numerosos naufragios, e imposibilita la navegación en grandes sectores de su curso'.

8. 'Quebrada' here signifies a small brook or stream of clear water. The water of the Lower Urubamba is often turbulent and clouded with particles of silt and debris that has been pulled in from its banks, particularly during the rainy season (November to March). This is true of many of the main tributaries too, and since a supply of fresh clear water for the purposes of drinking and cooking is essential to the Machiguenga, settlements are traditionally placed near convenient supplies.

9. Satipo, lying within traditional Campa territory (see Weiss, 1972: 157) has rapidly become a sizeable 'frontier town' of the Montaña. It lies within a region encompassing the drainage areas of the Pichis/Palcazu and Ene/Apurimac rivers, which was visited by President Belaunde, shortly after taking office as president of Peru, on 28 July 1980. After his trip to the Central Forest area, the President announced that his government planned to turn the entire region into a food-producing zone for the capital, Lima. (See Survival International 'Information Pack' on Pichis/Palcazu A:I.D. Project Peru 1980/81).

An agreement was signed with the U.S.A's Agency for International Development (A.I.D.) to begin a project which 'far from guaranteeing Indian land rights (as demanded both by Peruvian and International legislation to which Peru is a signatory) would provide U.S. $20 million, to develop the area into a massive colonization zone where some 150,000 people would be settled'. (Survival International op. cit.).

Steward (1965) has written: 'The traditional "safety valve" for the surplus population of the highlands has been the irrigated oases of the

desert coast. In the last few decades, however, migration from the Sierra has far exceeded the absorptive capacity of the coastal plantation, and the stream of highland émigrés has been directed increasingly towards the coastal cities, particularly Lima'. Since, he writes, the 'barriadas' there are now 'equally incapable of accommodating the surplus ... attention has turned to Peru's part of the Amazon Selva, the Montaña, as a source of relief for the acute population pressure of the coast and the Sierra'. (op. cit.: 143). Steward's view is typical of those who, like President Belaunde, seem to see the answer to the problem of these migrations only through the occupation of 'empty' lands, and who are somewhat deaf to the rights of the native communities already occupying and gaining their living from those lands.

Steward writes, with respect to the land of the Ene/Apurimac Campa, where 'a spontaneous migration of highland Quechua ... has been going on for at least a generation', (op. cit.: 144) 'The tropical forest tribe of the region, the Campa, although only recently considered "pacified" offers little hindrance to the intensification of settlement. The Campa are few in number and appear to be decreasing rapidly* ... plans for the future development of the region purposely ignore the natives on the assumption that as population increases and wildlife becomes less abundant the Campa will voluntarily retreat further into the forest'. Steward (op. cit.: 147) concludes however, that since 'the Campa are neither numerically nor technologically capable of seriously contesting the advance of settlement, ... if such settlement can be encouraged and stabilized, Peru may yet win the struggle to accommodate its burgeoning population at an acceptable standard of living'. It is clear that Steward does not consider the Campa to be part of Peru's legitimate population.

*Denevan (1971) estimates 'the present Campa population to be between 24,000 and 26,000 making them probably the largest surviving tribe in the Amazon Basin'.

10. Cloud cover is often a serious obstacle to the pilots of light aircraft operating in the area, since, in the case of the twin and single-engined Cessnas in which I flew, they have radio contact with ground bases only at the beginning and end of their flights, that is for a very limited period, and rely solely on their compass, maps and eye-sight to direct them, once airborne.

11. Peke-peke is the local name - used by Machiguenga and mestizos alike - for the motorized native dug-out canoe. Of Machiguenga origin, the name is an onomatopoeic rendition of the sound of the engine.

12. The nine communities visited were - in chronological order, those of:

Nueva Luz (originally Paquiria)
Nueva Vida
Nuevo Mundo (originally Mipaya)
Carpintero (also known as Kirigeti)
Camisea
Segakiato
Cashiriare
Chokoriare
Tinpia

The last five names and the three that precede them in brackets are all of Machiguenga origin. Machiguenga settlements were not traditionally named: the present names derive from missionary presence in the area,

and refer to the names of local quebradas or particular animals or birds, which were given to newly-formed or expanded settlements with the idea of creating local communities which could easily be supervised by (visiting) missionaries. The first three names, not in brackets, are straightforward missionary inventions: the fourth, Carpintero, is local Peruvian Spanish for a type of woodpecker, belonging to the Toucan family (Aula Corhynchus Prasinus Phaeolaemus), in Machiguenga the Kaonkari (see Baer, 1984: 140). 'Kirigeti', according to Baer and Snell (1974: 67) 'is described as a "carpintero", i.e., as a member of the woodpecker family'.

13. Johnson and Johnson (1975: 637) have argued that no institutionalized forms of ceremony or leadership existed traditionally amongst the Machiguenga, but concede that 'dominant Shamans' emerged in the past 'as "big men" known as itinkame'. The itinkame, they say, had influence over many hundreds of people by virtue of their decisiveness, curative powers and skill at oratory, also providing moral leadership and an important social centre through the hosting of beer parties, and that this function is today filled by the new Machiguenga teachers.

Baer (1984: 91-95) corrects and clarifies this statement, demonstrating on one hand that the role of the t'inkami (Baer, op. cit.) - corresponding to our notion of 'Chief' - was quite distinct from the role of the Shaman, and on the other hand that the position of the t'inkami has not so much been filled today by the new school teachers as invalidated by them. Traditionally, and up until the first ten years of this century, Baer explains, the t'inkami had great political and economic power. Their role during the rubber boom and the predations of the extractive economy in general, became identified with that of the Quechua curaca (see p.29) but the t'inkami are now virtually extinct.

Amongst their most important functions were:

a) representing their people and protecting them from outsiders;

b) leading fishing and trading expeditions, particularly where much travel was involved;

c) mediating with other tribes, the Quechua speakers of the Andes, and whites;

d) entertaining visitors - providing hospitality in the form of manioc and masato;

e) the demonstration of exemplary speech and behaviour, and

f) ensuring the smooth running of communal tasks and solving disputes.

The t'inkami was traditionally a key figure in a strong kinship group, usually possessing two wives and thereby controlling larger food resources through increased garden areas. His position was not hereditary though his sons would find themselves in a favourable position for selection.

Today most of the 'Comunidades Nativas' and their 'jefes' or 'presidentes' are the work of missionary manipulation, and the author agrees with Baer's conclusion that the new missionary-trained teachers do not fulfil the role of the t'inkami since they are a devisive rather than cohesive influence. Installed by missionaries, paid by missionaries and the recipients of prestigious goods and money, they are the

agents of cultural change who, in living off and profiting by the livelihood of the Machiguenga, have distanced themselves from the cohesive traditions of Machiguenga society.

14. I was fortunate enough to arrive at Nueva Luz at the end of a 'reunión' of S.I.L. trained school-teachers (from communities situated all along the Lower Urubamba), and since several of them wished to return to their communities up-stream, they agreed to take me with them by peke-peke if I paid them for the petrol; an arrangement which suited both parties.

15. For an explanation of the term 'variety' in connection with the classification of what appear to be different types of manioc, see Chapter 3, p.53.

16. Chacra or chakra is a Quechua word which denotes a small area cultivated by one man or family, and which is now understood by the Machiguenga (though they use their own word tsamaĭrintsi among themselves) for a similarly small area of 'garden' or cultivated land. (See Chapter 3 p.39).

NOTES TO CHAPTER 2

1. Kugapakori: Baer (1984: 501) translates the name Koga'pakori as 'Wilder, wilder, kriegerischer Matsigenka', that is, 'wild men, wild warlike Machiguenga'. Though the precise etymology is not certain, the morpheme 'ga' certainly indicates the notion of eating and killing. (A brief analysis of the two Machiguenga verbs for eating 'ga' and 'sekata' and their connection with the Machiguenga word for manioc, sékatsi, is given on p.103).

2. Terra firme is the name given to the rain forest of the Amazon basin which lies below 1,000 metres above sea level, but above the reach of the seasonal flood waters which inundate the lower levels of the forest known as the varzea (Hegen, 1966; Meggers, 1971; Ayensu (Ed.), 1980).

3. The Atlas de Comunidades Nativas (A Chirif & C Mora, 1977), estimates the Kugapakori population to be 300. 'La Prensa-Suplemento Dominical' of the 24 November, 1981, however, referred to 'las 114 personas pertenecientes a la tribu'.

4. Hermoza (1970: 231) adds here: 'En ella hay que distinguir la selva alta o jahua yunga que en runa simi* significa encima de lo caliente, y la selva baja.

   * the Quechua language.

5. The question of the geographical limits of Quechua and Machiguenga territories has been consistently hard to answer. As Camino has written (1977: 127) 'Estos parecen haber variado constantemente a lo largo del tiempo. En líneas generales, y con exclusión del período

Tihuanaco e Inca en que hubo una áctiva colonización de las tierras bajas, los Quechuas han ocupado las tierras agrícolas y pastizales entre los 5,000 y los 2,000 metros. En el caso del Urubamba podríamos señalar el límite inferior de 2,000 metros como zona de ocupación permanente'.

6. Seripigari is the Machiguenga shaman. He is the mediator (usually male) between the supernatural powers that are believed to exist, and the people around him. His office enables him to maintain contact with the supernatural and he is considered by the Machiguenga to be the protector of the group, given the contact he has with the good spirits the saanka'riite (Baer, 1976a: 114), which is guaranteed by the taking of hallucinogenic drugs, principally Ayahuasca (Banisteriopsis) and Datura, and thickened tobacco juice. In this state the shaman can 'see' the 'extraordinary' reality.

The etymology of seripigari seems to be as follows: seri signifies tobacco, and the term ke'pigara, drug or poison, according to Dr Gisela Hertle (Baer, 1979: 112), is closely linked with the verb pigata to poison or become inebriated, which could therefore form the base of the expression seripigari. Baer (op. cit.: 112) postulates 'luego el seripigari es el "envenenado con tobaco" es decir, "el que se envenena/embriaga con tobaco"'.

As Baer's research has revealed, the abilities of the shaman include:

a) the protection of the group from the spirits of the dead and other 'demons' that cause death;

b) diagnosis and curing of illness caused by the influence of the

spirits of the dead, or 'demons' in the form of people or animals, or by man's enemies i.e., 'wizards' or 'witches' with the aid of the saanka'riite;

c) knowing, thanks to his visionary powers, the causes of illness and death and the other disturbances of the social equilibrium;

d) being able to ask the saanka'riite, who are the guardians of the game animals, for food in times of hunger;

e) 'seeing' beforehand the approach of disasters in dreams or trances and warning the group. The seripigari takes measures to prevent these and protect the group, influencing and leading them by means of his visionary skills, and

f) maintaining a ritual purity and looking for the means to extend it to members of the group. When this is achieved, the Machiguenga believe that the entire group is free to be 'embraced' ('acogido', Baer 1979: 113) by the saanka'riite. In this way the shaman and his people escape death, they become immortal by means of the saanka'riite.

For a detailed analysis of Machiguenga shamanism see also Baer 1976a; 1981; 1984, and Baer and Snell, 1974.

7. 'Since, comparatively recently (18th century?), the territory of the Machiguenga stretched in the South to the region of Machu Picchu, the question is raised whether, or to what extent, the Machiguenga received cultural impulses from the Andean highlands'. (My translation).

8. 'The rulers of the Urubamba valley were at that time, quite clearly the Piro, who were called simi'rinchi by the Machiguenga, but who are often referred to in historical documents as 'chontaquiro', (My translation).

9. Wassen (1972) has recorded finding amongst other things, in the Tihuancao tomb of Niño Corin in Bolivia, pipes in the shape of a 'Y' used for breathing in hallucinogenic powders and crushed tobacco leaves. As Camino has noted (1977: 128), it is important to recognise that tobacco as well as the 'willca' plant, which were drugs inhaled through the nose, were particularly important to groups of the Ucayali-Urubamba region, particularly the Piro and Machiguenga, and also to the inhabitants of the Andes. (Wassen, 1965; Safford, 1917; Uhle, 1898). It is also interesting to find that copper axes of Inca manufacture have been discovered along the Ucayali (Von Hassel, 1905: 657) and its tributaries the Pisqui (the Pichís ?) and the Pachitea. (Lathrap, 1973: 81).

Following on from his statement (1977: 128) that 'el uso del Urubamba-Ucayali como importante vía comercial posiblemente se remonta a períodos pre-Incas', Camino describes further discoveries in the tomb of Niño Corin, amongst which were 'un envoltorio de hojas identificadas ... como Ilex guayusa, una yerba mate estimulante cuyo uso se encuentra restringido a la montaña Ecuatoriana y nor Peruana, y entre otros, al grupo Cashibo de los afluentes izquierdos del Ucayali central'. (Schultes, 1972). Camino continues 'Es muy probable que este producto, si es que en el pasado no era cultivado debajo del paralelo 10º S llegaba hasta el altiplano Boliviano vía la ruta comercial del Ucayali-Urubamba. Esta ruta posiblemente se articulaba con las extensas y entrelazadas redes de intercambio descrito por Oberem (1974) para la Amazonia norte'.

10. Enormous stones bearing petroglyphs are found scattered throughout the Machiguenga region. I visited a site, at the confluence of the Sihuanero, Tinpia and Lower Urubamba rivers, where a large rock (now exposed by timber cutting) is clearly carved on its north and south faces with geometric patterns. Neither the precise origin or meaning of these engravings is known. For the most recent theories and discussion concerning petroglyphs of the Urubamba and Pantiacolla rivers see Baer, Ferstl and Dubelaar, (1984).

11. Durand (1923: 100) has recorded a legend that tells of the Piros and other groups engaged in 'correrías en torno al territorio cusqueño'. This legend also reveals that the 'poliándricos', i.e., Campa, 'invadieron por centésima vez en el año 1449, el valle de Huasquina, (today Huadquina) hasta llegar a las fortalezas de Ollantay. En todas estas invasiones destruyeron los pueblos Incas de la frontera oriental, se apoderaron de casi todas las mujeres, las que como esclavos fueron internadas a los bosques de Malanquiato'. (Today this is a small settlement near the Pongo de Mainique).

In response to these attacks, the 'Quechuas fronterizos a la región de los bosques desde Picho-Picho hasta Mantur (Mandor), se refugiaron entre las gargantas de Torontoy a Ollantay, formando un nuevo pueblo de muchos varones y pocas mujeres'.

Durand (1923: 58) also pointed out that the Incas constructed fortifications for the defence of Picho-Picho, Torontoy, Lares and Ollantaytambo, whilst the historian Means (1917), suggested that Machu Picchu was constructed in order to defend the empire against possible attacks from the jungle.

There are certainly many buildings of Inca origin to be found in the Urubamba-Vilcabamba region. The so-called Fortress of Tonquini is one of these. According to Camino (1977: 129) this is the remains of an ancient bridge built at the entrance to the Pongo de Mainique. Farabee (1922: 53) believed that this was actually built by the Incas in collaboration with the Piro. Perhaps it was indeed part of the 'camino del Inca' descending into the jungle, of which Ocampo (1955) wrote, and which, according to Bues (1942) 'partía de Ocobamba y llegaba hasta el Pongo de Mainique'.

12. The activities of one 'rubber baron', Germin Fitzcarrald, have become relatively well known through the film 'Fitzcarraldo', the name by which this man was known in the Peruvian Amazon. Directed by Werner Herzog and released in 1982, the film is a somewhat surreal interpretation of Fitzcarrald's dream, which he eventually accomplished, of dragging a boat across the Isthmus named after him - a stretch of rain forest situated between tributaries of the Urubamba and Manú rivers - to enable him to transport his rubber out of Peru via Bolivia. Unfortunately, in the making of the film Herzog used his actors, principally Machiguenga and Campa Indians, extremely badly; which resulted in the death of several of them. He eventually left the area amidst much animosity and resentment on the part of the Indians whom he had, ironically, abused in a way similar to that of the entrepreneur he sought to portray.

Herzog's treatment of the Indians has been described in a book by Manfred Schäfer: 'Weil Wir in Wirklichkeit Vergessen Sind' (1983) which also deals with the problems of commercial exploitation and the migrations of Quechua speakers facing the Machiguenga and Campa today.

13. The activities of Fidel Pereira, the son of a rubber planter and a Machiguenga mother, who remained in the area after the rubber boom had ended, are a good example of this. The importance of this man and his children in the history of the Upper Urubamba is so great that the explorer novelist Mathiesson called the area Pereira Country (1968: 186) after making a trip to this region in the 1960's.

Fidel Pereira who, to a large extent, belongs to the Machiguenga culture, lived in isolation for some decades, first breeding livestock and subsequently growing coca and coffee. He had up to 40 Machiguenga families in his service and took several wives at various times. The many children resulting from these marriages were essentially brought up within Machiguenga cultural patterns. (Camino, 1979: 46).

14. 'The first schooling for Indian populations, as for the Machiguenga, came about in the schools of the named missions; that is they enjoyed state support. The establishment of mission schools operated, quite clearly, with other connected factors, to weaken the traditional norms and values of Indian society. This weakening means at the same time, a weakening and impoverishment of the religious system that the values and norms constituted. Without the hold of the traditional religion, Indian society finally disintegrates, for this maintains its legitimacy through religion (myths etc..)' (My translation).

15. Through training their bilingual teachers, the north American missionaries tend to inculcate the Indians with, amongst other things, an overvaluation of the work ethic, rooted firmly in the American way of life. Tobacco, intoxicating drinks and drugs for ceremonial use are prohibited. Whilst staying at Nueva Luz, for example, the missionary/schoolteacher told me with great embarrassment that the 'jefe' could

not be visited because he was 'ill'. After persisting with my enquiry to find out what this 'illness' was, I was eventually told that the man was in fact drunk. This was considered a serious misdemeanour, and for this reason alone I was not allowed to speak with the man who had kindly allowed me to stay in the village. As at Nueva Luz, the Indians, encouraged by the Institute's missionaries, apply their energies to the growing of prestigious crops such as coffee and cocoa - to the detriment of other crops which are either neglected or no longer planted, (with the exception it seems of manioc, maize and the other more important root crops). The bilingual teacher usually has the largest coffee and cocoa plantations and works long hours to make them productive.

The profits from these crops may be used to buy the goods flown in from outside by the mission plane. These goods will include cheap clothing, machetes, tinned fish and milk. Whilst at Nueva Luz, I noticed a discarded drum rusting in the undergrowth with the following words printed on it: Anhydrous Milk Fat. Irish Dairy Board, Dublin 2. The Machiguenga are being 'introduced' to milk, even though they find it repulsive, in the mistaken belief that this is what they really need. The fact that many Indians are now malnourished is due to a very great extent to the fact that they are being coerced into living in permanent villages, such that all game in the area is quickly exhausted, and gardens too become much less productive. Cash crops usurp valuable space once occupied by nutritious food crops. (See Chapter 3).

Along the Upper Urubamba, Camino (1979: 418) believes that the Institute's missionaries set up 'shops' for protectionist motives, with regard to native economies. 'The swindle is characteristic of economic relations between mountain dwellers and the natives of the forests, to the detriment of the latter'. The Machiguenga are,

unfortunately, being subjected to a system of technological dependence by the creation of needs which they cannot justify with their own resources.

NOTES TO CHAPTER 3

1. According to Johnson (1983: 16) some gardens may be over a hectare in size, though Camino (1979: 409) gives $\frac{1}{4}$ - $\frac{1}{2}$ hectare as the average size per family.

2. See for example, Meggers, 1971; Geertz 1971, Ayensu (Ed), 1980; Myers, 1984, Curtenius Roosvelt, 1980; Carneiro, 1961.

3. A detailed discussion of the kinship system of the Machiguenga is beyond the scope of this thesis. This area has been explored in depth by Baer, (1984: 83-89); by Löffler and Baer, 1978; and studies have also been undertaken by O Johnson, 1978; D'Ans, 1974; and Casevitz, 1977.

4. 'Eine chacra (tsamai'rintsi) wird in der Regel von den männlichen Erwachsenen einer matrilokalen Residenzgruppe, u.U. unter Beizug weiterer männlicher Helfer aus dem Kreis der nahen Verwarnten, angelegt. Ein älterer Mann leitet die Arbeit der ihm helfenden Schwiegersöhne, der in seinem Haus lebenden unverheirateten Söhne und der allfälligen weiteren Helfer'. (Baer, 1984: 64).

5. As Baer (1984: 69) has pointed out, the time for abandoning gardens and beginning new ones may depend on several factors: the leaching by rain of nutrients from the soil; the incursions of weeds, especially after the third year, and also the decline in yield from hunting and fishing, and the availabilty of firewood.

6. For detailed studies of Machiguenga gardens, their cultigens and yields, see Johnson, 1977; Johnson, 1980; Johnson, 1983; and Baer, 1984.

7. See, Rogers and Appan, 1970.

8. As an example of the importance of manioc to other lowland groups, it is interesting to note that one group, the Wai Wai of Brazil has been given its name through its dependence upon manioc.

'Their name, Wai Wai, is the Wapisiana for tapioca, and the Brazilians call them 'Indios do Tapioca ... but their name for themselves is "Wé Wé" or "wood", and means people who live in the forest'. (Guppy, 1958: 41).

9. Purseglove (1979) notes that two geographical centres of speciation of the genus Manihot have been suggested: one in western and southern Mexico and parts of Guatemala, and the other in north eastern Brazil. Cultivars or Manihot Esculenta are found in both regions and by the time of Columbus, manioc had reached its present limit of cultivation in the New World. There is evidence that the crop was grown in Peru some 4,000 years ago (Sauer, 1951; Towle, 1961; Pickersgill, 1969) and in Mexico 2,000 years ago (MacNeish, 1958). Throughout the American Tropics, sweet manioc varieties are more widely distributed than the bitter, and are older in terms of their historical cultivation, having received more human selection. Bitter manioc varieties are thought to have been cultivated at a later date though, where they are grown, they form the dominant staple.

The work of Curtenius Roosvelt, 1980 (Parmana - Prehistoric Maize and Manioc subsistence along the Amazon and Orinoco) explores the history of manioc cultivation in great detail.

10. Rogers and Appan, (1970) give the following names of manioc 'varieties'

as synonymous with Manihot esculenta:

M. Multifida, M. Flexuosa, M. Janiphoides, M. Diffusa, M. Dulcis, M. Flabellifolia, M. Tweediana, M. Menalobasis, M. Aipi, M. Utilissima.

11. According to Purseglove (1979) the toxic Hydrocyanic acid is liberated when the enzyme Linase acts on the glucoside Linamarin. The activity of the enzyme is kept in check whilst the tuber is growing, but once the tuber is dug, the liberation of HCN proceeds actively. The staler the tubers, the more HCN is accummulated.

The amount of HCN varies, apparently, from 10-370 mgs. per kilogramme of fresh tuber. Less than 50 mgs. is considered to be innocuous, 50-100 mgs is moderately poisonous and over 100 mgs is highly poisonous. Toxicity is greatly influenced by the local soil and climatic conditions, and moving cultivars from one country to another can, according to Purseglove (op. cit.), change toxicity levels.

12. Whereas, according to Purseglove (1979: 179) 'sweet cassavas may be eaten raw after peeling' (though I have never come across this with the Machiguenga), the bitter cassavas need systematic processing by washing, squeezing and cooking to destroy the HCN content (Spath, 1973: 46, however, questions the accuracy of this widely held belief), producing a wide variety of end products including flour, flat cakes and starchy drinks and soups not made by the Machiguenga.

13. Seigler and Pereira (1981) have written on this point: 'although these terms have traditionally been used to signify low and high cyanide content respectively, several recent studies cast doubt on the validity of such a correlation (Gondwe, 1974; Coursey, 1973, Sinha and Nair, 1968)'.

Deboer (1975) agrees with this appraisal, quoting Rogers, 1963 and Rogers and Flemming, 1973.

14. The neighbouring Campa Indians call the manioc tuber kaníri (Weiss, 1975: 370) and this is connected morphologically with the Machiguenga term for the plant and the linguistic terminology for eating.

15. The list of names collected by Barriales is as follows:

Aronigániri
Kiraatákiri
Jeronimogánire
Kaníre
Kitepatsari
Kororogániri
Kyentsorigániri
Kyepigarigániri
Memerigániri
Manirogániri
Oshetogániri
Pananarogánire
Pararigániri
Potsityakiri
Samampogániri
Terorigániri
Tsirerigániri
Kyemarigániri
Perichaki
Oegániri

Baer (1984: 68) gives the following:

pamoro'ganire
kentsori'ganire
(')aroni'ganire
her(')oni'ganire
(')tsireri'ganire
(')poshiro'ganire

and Camino (1979: 410):

kemarigáneri
oegánire

16. Though Baer (1984: 151) has led the way, with his description of the different plant categories recognized by the Machiguenga - principally the division between edible and non edible plants, and between 'good' (i.e. useful) and 'bad' (not useful) plants , Machiguenga ethnobotanical classification still leaves much to be discovered.

By way of comparison it is useful to look at the work of Berlin (1977) who has studied the classificatory system of the Aguaruna with particular reference to manioc.

Berlin has described how what he has deduced to be the biological principles on which Aguaruna classification is based, originate in their recognition of related organisms determined by broad similarities and morphological differences. In contrast to Baer classification, he has found, is rarely based on a consideration of the function of a particular plant, thatis, its cultural use. 30% of the generic taxa

classified, did not apparently have any cultural utility that Berlin could distinguish. He concludes that plants are distinguished therefore by morphology and not by function.

Berlin stresses that the Aguaruna have an interest similar to that of the Western scientist in classifying their environment and feels that though their classification may be different it is objectively systematic in the same way.

He found that manioc types were classified morphologically according to the characteristics of stalks and leaves and not by the tuber produced, but that certain 'varieties' could only be recognized by people that had grown them.

17. '"Variety" has now come to be placed in inverted commas, since our concept of a botanical variety does not necessarily correspond to that of the Machiguenga. It is yet to be determined by botanists, how far the 'varieties' of the Machiguenga which have different names, match our botanical varieties'. (My translation).

18. Johnson (op. cit.: 45) has added: 'Despite the universal belief that manioc should be planted first or in a new garden, my notes record several instances where maize was the first crop in the ground, and this makes sense because maize grows faster than manioc and produces seed while the manioc is still only about two or three feet tall'. Together with maize, Johnson estimates, manioc constitutes about 85% of all the plants to be found in a first year garden.

19. It is interesting to note that in Paraguay (Service & Service, 1954) maize is believed to be 'hot' and that manioc must be protected from it.

In cultivation, three rows of manioc should be interspersed with only two rows of maize. The Sirionó of Bolivia (Holmberg, 1969) believe that if a double manioc tuber is eaten in pregnancy, twins will be born. The Machiguenga's observances regarding the treatment of manioc plants and tubers is given in Chapter 4.

20. Camino (1979: 410) writes of this process amongst the Machigeunga of Monte Carmelo (Upper Urubamba): 'I did not have the opportunity to see the selection of stalks for reproduction, but it is recognized generally that in Monte Carmelo many varieties of yucca known to the "old Machiguenga" are being lost. The selection of stalks at present, especially in the Pereira area, seems completely haphazard, but the interest and knowledge shown by a more traditional settler, when asked about varieties of yucca, makes one suspect that stalk selection is still carried out among these more traditional members'.

21. Johnson's data (1983: 39) shows that the average number of plants sown in a chacra larger than one hectare in size is about 2,500 per hectare, whereas, the plants in a chacra of less than a hectare number around 3,500, per hectare.

22. The number of manioc stalks planted in any one hole depends, according to Camino (1979: 410), on '1) The quality of the soil, 2) The quality of the stalk and the number of its nodes, and 3) The variety of the plant. A single well-noded stalk is sufficient in black, fertile soil with few stones, but risks increase as the quality of the land decreases. Thus two to three stalks will be used in red and stony lands. The second criterion, i.e., the quality of the stalk and the number of its nodes, is of secondary importance. A thick well-noded stalk reduces risks and under good conditions may be sown alone. Thin stalks with few

nodes are sown in pairs or in groups of three'.

23. Purseglove (1979: 173) explains that cultivars: '... can be classified into i) short term cvs, which mature as early as 6 months* after planting and [which] cannot be left in the ground for longer than 9-11 months without serious deterioration; these are often sweet cassavas, and ii) long season cvs, which take at least a year or more to mature as a crop ... some may be left in the ground for up to 3-4 years without serious deterioration; these tend to be the bitter sorts'.
* I was told of cultivars maturing in 3 months.

24. The peccary is probably the most prized of game animals to the Machiguenga, but it is regarded in a special way because, in the case of the Collared Peccary, it travels in groups. It is in this respect, as Baer (1981a: 53) has pointed out, categorized with the good spirits, the saanka'riite and the Machiguenga themselves, because both spirits and people form social groups, as do peccaries. The peccary is a common predator in gardens and its preference for manioc tubers enables it to be caught there, from time to time, by the Machiguenga.

Carneiro (1961: 48) who has investigated horticulture amongst the Kuikuru of Brazil, writes: 'According to the natives' account, the amount of damage that peccaries do to the manioc crop is considerable'. He continues (op. cit.: 64); with reference to the poisonous varieties of manioc, 'some writers have the mistaken idea that because of the prussic acid in bitter manioc, "animals do not eat the ... roots of this plant". (Gourou, 1953: 28). Actually, as long as it is growing undisturbed the manioc tuber does not contain any prussic acid as such, but only a cyanogenetic glucoside (manihotoxine). It is only after the tubers are pulled out of the ground and exposed to the air that the enzyme in the

roots begins to act on the cyanogenetic glucoside in such a way as to liberate the prussic acid. (Watt, 1908: 767). Thus, since peccaries go after the roots while they are still growing underground, they can eat them with impunity'.

According to Zerries (1969: 106), the Waura Indians, have been recorded by Schultz (1965/1966: 68) to believe that it was originally only the wild pigs (peccaries) that possessed manioc. The sun and moon decided to steal it from them, so that all the Indians could be fed.

25. Starch is also an important attribute of manioc - extracted principally from the bitter varieties and processed in a variety of ways. Tapioca is produced from the starch extracted from bitter varieties grown in Brazil, in particular. Excessive vegetative growth of manioc plants is not encouraged as this is thought to affect tuber and starch formation.

26. Cowgill (1971) states that vitamin C is only found in the rind of the tuber and that if this is not eaten, then vitamin C will be lacking.

27. From his study of the mythology representing the acquisition of cultivated plants by South American Indians, Zerries (1969: 67) ranks manioc cultivation before maize in terms of importance.

Carneiro (1961: 52) who has been interested in the comparative productivity of the Andean cultures and those of the tropical forests, believes that: 'Tropical forest horticulture [as practised by the Kuikuru] is considerably more productive than horticulture as practised by the Incas. This is true if we compare the food productivity of the two societies, in terms of food yield per acre or food yield per man hour of labour'. He feels that whatever enabled the Central Andes to

'outstrip the tropical forest in cultural development', greater food production per unit of land or per unit of labour was not one of them.

28. See Baer (1984: 61, 70, 129, 244, 261-268) for a detailed description of hunting practices and the beliefs about game animals, which form part of the Machiguengas' 'religious' interpretation of their environment.

29. Baer (1984: 153) has shown that plants are regarded as living beings, through references made to the existence of souls of particular trees. References also to the Species Mother of forest trees and plants have contributed to this deduction. Baer notes too, that 'Die Pflanzen sind allgemein weiblich vorgestellt' - 'plants are generally presented as feminine'. (My translation).

30. Whilst visiting the Machiguenga, it was impossible to discover the significance of these two terms and where the supposed differences lie. It may be that one term refers to masato at a particular stage of preparation, or that different ingredients are used. I generally heard masato referred to as o'vuroke.

31. Though little work has been done on the exact nutritional content of masato it seems obvious that, as Espinoza Perez (1955: 511) noted, '... es bebida de indiscutible valor alimenticio y refrescante'.

32. Camino (1979: 410) discovered that those families '... who consume large quantities of masato ... know which varieties lend themselves best for the preparation of this drink. These families still basically retain the traditional Machiguenga diet'.

33. 'La inteligencia de los niños hasta los 12 años más o menos se desarrolla

mutuamente, pero en cuanto comienza la pubertad, se atrofiá a causa de los excesos y uso matrimonial antes del tiempo debido así como por las borracheras y exceso de mashato, en las fiestas que periodicamente celebran en donde chicos y grandes se emborrachan'.

34. The Aguaruna's use of masato in their daily activities may also be found amongst the Machiguenga: "While engaged in gardening tasks, women do not drink water when thirsty, as this is believed to bring bad luck to the manioc crop, instead a woman should drink manioc beer ... water is a liquid drunk by the Aguaruna only when manioc beer is not available, that is when they are in a state of temporary poverty. The gardener therefore avoids drinking water during planting, lest the poverty symbolized by the water be transmitted to her plants, stunting their development'. (Brown and Van Bolt, 1980: 183-185).

35. Dan Rosengren (1979) has studied the importance of masato as a means of acquiring power and prestige by Machiguenga men. His article 'Pilsner och Politik', written in Swedish has not yet been translated into English.

36. O Johnson (1980) who has studied aspects of Machiguenga social interaction, has written: 'The purpose of the regional beer feasts is to bring together people living at a distance. The feast generates feelings of solidarity by linking people with other members in a close-knit social network'.

37. Johnson and Johnson (1975: 643) have written that for large gatherings: '... women from several households co-operate. It is a festive occasion; often there are more women than there is work, and so work is alternated with story telling, gossiping and general socializing'.

38. This idea is expressed too, by Baer (1981b: 51), thus: ' .. they are primarily important social events, manifestations of gaiety and of belonging together'.

39. Brown and Van Bolt (1980: 174) have discovered that amongst the Aguaruna: 'There are also songs for the preparation of manioc beer so that when it ferments it will be sweet yet intoxicating'. This is a possible function of Machiguenga masato songs also.

NOTES TO CHAPTER 4

1. Certain aspects of the Machiguenga language are illuminated in Mary Ruth Wise : 'Representación Pronominal en Nomatsiguenga' (Oklahoma 1969) and Lee D Kindberg 'Independent and Dependent Sentence Types in Campa (Arawak)' (In Kindberg W : Campa Morphology, Mexico, 1961).

2. The belief that in an earlier or more primitive time people ate earth in some form seems to be common to several other Amerindian groups. The Campa Asháninka (see map p.xi) who share a similar myth with the Machiguenga (in which the moon brings all manner of wild plants but not the cultivatable manioc) are also said to have eaten earth initially. According to Varese (1979: 169) the Campa still know where to find this earth. According to Weiss (1975: 370) the mud that the Campa chewed was taken from the nests of termites and chewed to a 'gummy mass'.

   Zerries (1969: 20) tells us that the Witotos, in one of their myths, ate white soil, amongst other things, before the first manioc plant was made available to them - born of the liaison between a Witoto girl and the moon.

   The Makiritare also of Guiana, ate earth too, (op. cit.: 29) before being given manioc by the mythical monkey Kushu. According to Cromack (1975) the Cashinahua, in Peru, were eating a 'masacote de tierra' as recently as 50 years ago, gathered from certain parts of the jungle then roasted or diluted.

   Interestingly, Cenitagoya (1943: 151) refers to contemporary earth-eating by the Machiguenga: 'Es un vicio arraigadísimo en la inmensa mayoría de los hijos de la selva, el comer tierra, ceniza, pona, etc...

una de las causas der ser estos de abultado abdomen es este detestable vicio que conduce a muchos a la tumba. Pues bien los Machiguengas castigan con ortigas a sus tiernos hijos a fin de que se corrijan de esta aberración'. The Aguaruna, on the other hand (Guallart, 1958) ate 'la corteza de la huahua-topa o balsa, la liviana madera del ochromo lagops'.

3. The Machiguenga manifest a generalized fear of the colour red. In horticulture for example, they show a reticence, as Camino (1979: 408) has demonstrated, of using or planting anything in red soil or slopes, refusing to go to places in which there has been a land-slide of red soil, for fear that it is 'habitada por dioses malignos'.

4. According to Pereira (1942: 240) this period of confinement lasts traditionally 30 to 40 days, commencing with the girl's first menstruation. During this period the mother will, according to Pereira, initiate the girl in terms of the domestic knowledge - cooking, preparing masato, weaving, raising children etc ... that will enable her to become a good wife and mother ('para que salgan buenas esposas, madres amorosas').

   Barriales (Mitos de la Cultura Matsigenka, no date: 179), adds that the girl's seclusion begins: 'Mediante unos ritos especiales' and includes 'incomunicación, corte de pelo, prohibición de ciertas comidas'.

5. Baer (1981b:51) explains the significance of feathers, particularly yellow ones, as an integral part of the Machiguenga's religious system and belief in the spirit world. Yellow would symbolize light, purity and brightness, and as such, communication with ones fellows and with

the spirit world. The light of the heavenly bodies is believed to be generated by feathers or feather crowns. Certain feathers are thought to be particularly luminous and are worn at shamanistic meetings and on social occasions. (See also note 30).

6. The offering of food has very important social repercussions amongst the Machiguenga. As Pereira (1942: 241) pointed out: 'entre los Machiguengas, la buena hospitalidad se muestra al recién llegado proporcionándoseles la estera para sentarse y alguna cosa de comer'.

Baer (1984: 424) has written in his commentary to the manioc, or as he calls it Kashiri (moon) myth, 'Dadurch, dass die Tochter von der Nahrung, die ihr ein Fremder Mann (Mond) anbietet, isst, gibt sie zu erkennen, dass sie bereit ist, mit ihm geschlechtlich zu verkehren; vgl, Baer (1976b: 191)'.

Here Baer notes that the girl's acceptance of food from a stranger tells us that she is ready to engage in sexual relations.

Johnson and Johnson (1975) and Johnson, O (1974, 1980) have studied the customs and significance of Machiguenga food use in detail, stressing the importance of food exchange as a social bond, defining social boundaries and determining a sense of solidarity, co-operation and security between giver and recipient.

Orna Johnson, (1974: 10) writes 'no exchanges take place between those standing in a sexually ambiguous position' and more recently (1980: 354) has shown how different kinds of eating arrangements based on the size and social composition of groups correspond to different patterns of sexual integration and avoidance: 'food exchange and the partaking

of common meals are universally regarded as means of maintaining and reinforcing social bonds. Food exchange defines social boundaries. Food is often overtly associated with sex ... eating arrangements are identified with sexual relations, but this sexual connotation is implicit rather than explicit. Marriages are initiated and sexual liaisons begun when a man provides a woman with meat. Marriage is symbolically consummated when a woman cooks the meat a man has brought her and the food is shared in a common meal'.

This practice is of great importance to the Sharanahua tribe of Eastern Peru, and is described in detail by Siskind (1973: 87-110).

7. Baer (1984: 424) explains 'Das Anlegen einer Pflanzung durch vorheriges Roden des Waldes und weitere Arbeiten in der Pflanzung (Jäten, Einpflanzen, Ernten bestimmter Pflanzen) gehören zu den Aufgaben eines (zukünftigen) Ehemannes bzw. Schwiegersohnes': 'The sowing of a chacra after clearance and the working of this chacra (weeding, planting, harvesting of certain plants) are tasks that accrue to a (future) husband, that is son in law of the family'.

8. Pereira (1942: 241) names this fish as a materí, a type of edible cat fish (Baer 1984: 142), Astroblepus sp.

It is known that in some parts of the Amazon a fish does exist which is apparently capable of swimming into the female vagina and depositing its eggs there. It is possible that this fact gave rise to this element in the myth.

9. According to Pereira (1942: 242); 'Las mujeres núbiles, después de salir del encierro, usan como masticatorio las hojas de un árbol llamado

Amanquerichi para fortificar las encías y la dentadura'.

10. Pereira (1942: 242) notes, 'así suelen increpar algunas malas matronas Machiguengas a sus yernos en casos iguales o parecidos'.

11. Baer (1984: 424) writes concerning this transformation, that the association of tapirs or peccaries with people, has led to a perception of these animals as 'soul-bearers' or as the 'Alter-Ego-Beings' of people: 'Zur Vorstellung, wonach Tapire oder Wildschweine assoziativ mit Menschen gleich gleichgesetzt werden, bzw. diese Tiere als Seelentrager oder als Alter-Ego-Wesen der Menschen gelten'. (See also note 29).

12. After fishing or hunting, the Machiguenga smoke and then bundle up their surplus meat into small packets or tanceas.

13. The Campa Asháninka, who relate a myth structurally similar to the Machiguengas' manioc myth believe, according to Weiss (1972: 164), that the waxing of the moon is in fact the moon's body filling with the souls of the dead he has captured.

As for the Machiguenga, Pereira (1942: 243) has written: 'Los Machiguengas más supersticiosos suelen observar o divisar, a veces, en la luna o en sus manchas, algo así como que una persona carga un cesto o fardo: "Allá va con su carga de carne humana", dicen, y con esto auguran de que alguna epidemia se va a declarar entre ellos; lo que desgraciadamente muchos veces suele suceder'.

14. V Propp: Morphology of the Folktale (2nd Edition) University of Texas Press, Austin & London, 1971. (English translation 1958, original

publication 1928).

15. This is what Lévi-Strauss (1964: 312) treats as syntagmatic structural analysis.

16. Lévi-Strauss: Structural Anthropology. Allen Lane, The Penguin Press (1963: 210).

17. Lévi-Strauss op. cit.: 209.

18. 'Un solo esquema axiológico que fundamenta y convalida la acción de la sociedad'.

19. Lévi-Strauss, 1963: 217.

20. Lévi-Strauss, op. cit.: 229.

21. 'sie viel eher Alternativen zu den bestehenden gesellschaftlichen und Kulturellen Ordnungen dieser Gruppe in bildlicher, dramatischer und diskursiver Weise zugleich behandeln'.

22. 'Davon abgesehen scheinen sich die Akteure der Matsigenka-Mythen unter einander häufig ambivalent zu verhalten. Oft reicht eine kleine Verfehlung einer Person, um diese und ihre Umgebung ins Verderben zu stürzen, bzw. um ihr eine aufsäusserste gehende Feindschaft des Gegenspielers zuzuziehen (man gibt keinen pardon); eines Gegenspielers übrigens, der in der Regel zur engeren Verwandtschaft des Fehlbaren gehört, so dass man zunächst annehmen möchte, die Verfehlung werde durch die Solidarität der Verwandten oder Verschwägerten abgefedert. Da

Verwandtschaftsbeziehunger der Matsigenka starke latente Spannungen angelegt sind, die sich in plötzlicher Feindschaft und in destruktivem Handeln Luft machen'.

23. Cenitagoya (1943: 163) points out that just as the moon is male, so all 'astros' are of the masculine sex.

24. There seems to be a fairly widespread connection in South American mythology between the moon and the origin of manioc.

Zerries (1969) has written extensively on the subject of the acquisition of cultivated plants in the mythology of South American Indians. He divides the numerous myths he has assembled into different types and categories according to the plants featured and the nature of their origin, and has undertaken a detailed analysis and comparison of these. From Zerries (op. cit.: 81) we learn that the Sherente of Brazil believe that sweet manioc originated from the milk of the moon's mother, that the Baniwa (ibid) believe that manioc shoots were first produced by the moon, and that the Yupa (op. cit.: 89) believe that a hunter was first given manioc shoots by the moon, along with instructions on how to cultivate them.

This connection of the moon and the manioc plant is found in other Amerindian cultures, specifically concerning strictures placed on the sowing or planting of tubers.

According to Milina Muñoz (1963), the Huilla Indians of Colombia believe that manioc tubers should not be planted in the new moon and that if this does happen, then the tubers will not thicken. The earth should not be turned either, during the new moon.

Similar beliefs are reported to be held by certain Guaraní speaking Indians of Paraguay (Cadogan, 1963: 103) who apparently believe that tubers planted at this time will subsequently rot.

25. Pascual Alegre's version of the myth actually names the location of this trap, apparently constructed 'más arriba de la desembocadura del río Kiteni en el Urubamba'. According to him the remains of the subsequently dismantled trap are still to be seen here.

26. Torre Lopez (1968: 24) has written: 'En primer lugar aparecen las relaciones que siempre han existido entre la luna y la fecundidad; y esto vale ante todo para la fecundidad de la tierra, por ello vemos que la luna trae el fruto básico para la vida y alimentación ...: la yuca; pero al mismo tiempo la luna es agente de fecundidad sexual, y ejerce dicho poder de manera eminente al tener por hijo al sol, de la mujer ... mientras está pasando el rito de la pubertad; lo cual indica una clara relación con el ciclo menstrual femenino. En este mito se encuentra la trilogiá universal de la fecundidad: luna-mujer-fruto de la tierra'.

27. According to Weiss (1975: 258) the Campa are careful not to urinate on their manioc plants 'because they are people'. If this should occur, the soul of the manioc flies weeping to the moon. If a manioc garden is not tended, the soul of the manioc flies to the sun complaining that it is being molested by snakes (vines) and that it wants to leave the earth. It will also complain to the sun of a broken back if its roots are broken when they are taken from the ground. Weiss was also told that if one gets drunk on masato and causes trouble Kaniri (the moon) will become angry and the manioc plants will die.

Garcia's version of the manioc myth (1943: 232) tells us that if eaten

in the wrong way the manioc plant complains: 'No me dan nada, me dejan sola, y todavía se les ocurre a veces darme ají, cuyo picor no puedo resistir'. If treated well, the plant says 'Me tratan bien; me dan cuanto quiero'.

28. Baer (1984: 154) has recorded that manioc plants are still seen as living beings and that whilst all plants could speak originally, manioc plants still can. Pereira's myth version (1942: 244) gives us an interesting detail about a plant intimately connected with the cultivated and most esteemed varieties. This is the chori plant and it is said to act as a kind of intermediary between the manioc plants and the moon, monitoring and reporting (to the moon) the plants' behaviour themselves, and the way they are treated - another form of control, but within the plant world. My own research revealed no knowledge of or information about this plant.

Pereira's version of the manioc myth (op. cit.: 244) also reveals that though the moon withdrew 'la principal simiente de la yuca que antes él había traído', he left many varieties, one of which was of outstanding quality, and still cultivated in Pereira's time at the headwaters of the Compiroshiato, Mantaro and Pichá rivers. This variety was called Cashiriganire, and was supposed to have come directly from the first manioc that the moon brought down, as its name would indicate - (literally 'moon manioc'). Pereira says that he could not find this plant 'no obstante mis buenos deseos'. Despite travelling along the Cashiriare river with the express purpose of asking after this variety, I could find no trace of it either. (See also p.53,Chapter 3).

29. This metaphorical representation or substitution of one thing for another is a significant feature of Machiguenga culture in terms of

cultural or cosmological etiquette.

The peccary (either 'Collared', Tayassu Tajacu or 'White Lipped', Tayassu Albirostris), for example, a much sought after food by the Machiguenga themselves, becomes a metaphor for meat or game in general. Since the Machiguenga fear the jaguar for its ability to kill and eat men, they believe that men are in fact peccaries to the jaguar.

As Baer (1981a: 53) has pointed out, peccaries are futher likened to people because of their social groupings (see note 11). The White Lipped peccary is unusual in this respect amongst the Amazonian mammals since it travels in small herds. Generally, the larger the mammal the more dispersed they are and the fewer of them appear per square kilometre.

This grouping activity is therefore highly significant to the Machiguenga and hence their conceptualization of the animals as people. Similarly Baer has intimated (by personal communication) that the master spirit of measles, sees humans as shintori (peccaries) to be hunted.

These metaphorical transformations also appear in shamanistic and/or masato songs - illicit lovers for example, may be alluded to as 'little birds living up river' (Baer, 1984: 285).

30. The moon's sexual gluttony and desire for human flesh is graphically represented and symbolized by his 'manchas' the bundles of human flesh (or heads). The marks also represent his impurity.

It is important to remember here that for the Machiguenga the concepts of purity, whiteness, brilliance and goodness are all interconnected and

symbolic of one another. The moon's 'manchas' mar his former brilliance - he is no longer pure and good. The saanka'riite, the good spirits of Machiguenga cosmology, are an example of the form that goodness or purity may take. Like the saanka'riite, the ine'tsaane or shaman's guardian spirit, though normally invisible, may sometimes resemble lamps, (Baer and Snell, 1974: 71). For the related Campa Asháninka, 'lightning flashes mark the passage through the air of good spirits or the souls of shamans travelling to and from distant places'. The Campa also hate drabness, as for them this is identified with decay. According to Baer (1981b: 52): 'light is an expression of communication both in the social and religious spheres: ultimately light is powerful i.e. potentiated communication with the feather as its symbol ... The light of heavenly bodies is generated by feathers or feather crowns, worn as headdresses by the respective cosmological beings. At shamanistic meetings feathers also give light. Thus feathers are symbols of light'.

31. Baer (1979: 109) also points out that sexual abstinence is an important prerequisite for establishing connections with the saanka'riite, themselves pure, brilliant and good.

32. Baer (1976b: 191) has shown that Machiguenga myths often contain food/sex orientated conflicts between relatives of a certain category. In his analysis of two myths: 'The Vulture People' and 'Pareni' (one of the great culture-bearers), the theme of the relationship between food and sex is salient. As in the manioc myth, there is an ambivalent tension between sexual intercourse and the devouring of food.

33. Zerries' research (1969) demonstrates that there is an interesting ambivalence to many of the 'bad' characters that he has discovered in myths, particularly concerning the origin of food. From his series of

'Hainuwele' myths, we find that 'bad' characters; monsters, giants, hags etc., often through their own self destruction, create the foods, particularly cereals and tubers, that are to become the staple diet of the indigenous groups to whom the myths belong.

APPENDIX 1

With reference to the question of the origin and movement of those languages which have come under the general heading of Arawakan, Sorensen (D R Gross (Ed.), 1973: 316) refers us firstly to G Kingsley Noble's survey of Arawakan languages (1965) which 'pointed to the remotest headwaters of the Amazon in the Montaña of Ecuador and Peru as the area from which the Proto Arawakan had spread because it was where the most divergent (reflecting hence the longest isolation and concomitant development of evolution) of the Arawakan language occurs'. As Sorensen tells us, other anthropologists and linguists have held different theories - some have felt that the montaña represents only and 'outlying remnant of a much larger original area of prototype Arawakan languages'. (op. cit.: 316).

Steward (1948: 507) believed that: 'culturally the Chunchos (the Indians of the montaña) ... appear to represent a series of migratory waves that had spent their force against the barrier of the Andes' but which 'as representatives of many widely distributed linguistic families ... subsided into comparative isolation'.

Lathrap, however (D R Gross (Ed.) 1973: 92) following on from Steward, wrote that 'a series of waves of migration basically in an upstream direction is also suggested by the distribution of languages in two of the more fully studied South American linguistic stocks, Macro-Arawak and Tupí Guaraní ... one might say that the more divergent and presumably more anciently dispersed branches of Macro-Arawak tend to be near the headwaters of the major Western tributaries of the Amazon - while the more closely related Maipuran languages within Arawak tend to dominate the mainstream of the Western segment of the Amazon, the Río

Negro and the Orinoco'.

Lathrap concluded that the 'proto-languages of the two stocks occupied adjacent stretches of the central Amazon, between 3,000 and 2,000 B.C. with the Proto-Arawakan on the upstream side'. (op. cit.: 92).

Using his own first-hand archaeological knowledge obtained in the Amazon to reinterpret Noble (1965), Lathrap (1970) has suggested that the Arawakan languages spread from the region of the confluence of the Río Negro and the Amazon near present-day Manaus, when the Caribs, whom he thinks came from farther down river, began to attack them.

Much earlier, Brinton (1891), who had heard accounts of the peaceful Arawak-speaking Indians (whom Columbus encountered) being encroached upon and eaten by the Caribs, suggested that the attacks must have forced them to take refuge not only in the Lesser Antilles but to retreat into the remoter refuge areas of the continent as well.

Casevitz, who has been concerned with the ethnohistory of the Arawak linguistic family (see Casevitz 1969), has written (1972: 215) that along with the Machiguenga, 'les Campa Asháninka, les Amuesha, ethnie aujourd'hui disparue, les Piro et les Mashco, ils forment le groupe proto-arawak constitué par les descendants d'un rameau archaïque de cette famille et séparé très tôt des groupes dont les scissions ultérieures devaient donner naissance aux parlers arawak des côtes atlantiques et de l'Amazone'. Casevitz goes on to mention the division of opinion concerning the origin of these ethnic groups, noting that Steward and Métraux claim that 'ce vaste groupe est issu du premier grand mouvement migratoire parti du berceau vénézuélian d'où auraient peu à peu essaimé tous les Arawak', (op. cit.: 215) and that for

others, and she names Meggers (no date given) the proto-arawak group are 'descendants du noyau originel situé non plus au Vénézuéla mais près du Marañon (Amazone péruvian), c'est-à-dire presqu'aux confins septentrionaux de leurs territoires actuels'.

APPENDIX 2

The S.I.L. is the biggest protestant missionary organisation in the world (see 'Is God an American - An anthropological perspective on the missionary work of the Summer Institute of Linguistics', Hvalkof and Aaby (Eds), 1981) and since 1950 it has received the official authorization of successive Peruvian governments to 'educate' the inhabitants of the Peruvian Amazon. In the words of Prado Pastor (1979: 25) 'Durante los últimos 28 años el Gobierno del Perú viene patrocinando un experimento de educación bilingue único en su género. Este programa se dedica a preparar materiales educativos y capacitar maestros nativos de numerosas lenguas, en forma simultánea. ... Para realizar el programa el Ministerio de Educacíon solicitó el asesoramiento del I.L.V. (Instituto Lingüístico de Verano)'. He continues (op. cit.: 63) 'El programa se basa en la filosofía que reconoce la capacidad de los nativos de la selva para participar en la vida de la nación y hacer una contribución valiosa a su progreso, sin perder la riqueza de su patrimonio lingüístico y cultural'.

But it is the nature of this education, its basic premises and unambiguous reliance on the mores of Evangelical Christianity to provide the 'moral' infrastructure of such teaching, which has radically interfered with the traditional beliefs, customs and self esteem of those groups that have had contact with S.I.L. missionaries and which has caused alarm amongst those genuinely concerned with the welfare of indigenous groups. S.I.L. publication 'El Cambio Cultural y el desarollo integral de la persona: Exposición de la filosofía y los métodos del I.L.V. en el Perú' by Eugene E Loos, Patricia Davis and Mary Ruth Wise (no date) clarifies the standpoint of the S.I.L. concerning the indigenous minorities.

An interesting first premise is that all cultures have good and bad aspects

and that the S.I.L. has the moral right to help eliminate the bad and introduce the good - that is, it sees itself as arbiter of what is good and what is bad in any society. This presupposes a blindness to the values of native systems which have supported native populations, it seems, for thousands of years and which intrinsically have no need of the proselytizing invasions of members of the S.I.L.

Secondly, natives are seen as 'unfree' to evaluate their own culture and to develop 'individually' (my quotes), and it is espoused that they should be given the opportunity to: 'better themselves' with regard to their social organization and medical knowledge, become familiar with the concept of literacy through bilingual education and, all importantly, be given the chance to 'know God'.

In an extract from Prado Pastor (op. cit.: 63) we read that the Indian should be taught the 'normas básicas de la vida civilizada, el concepto de nacionalidad, y prácticas higiénico-sanitarias'. The immediate idea of the 'dirty savage' springs to mind and it is clear that members of the S.I.L. have difficulty understanding the validity of indigenous practices.

S.I.L. members perceive then, a necessity of freeing the inhabitants of the Peruvian Amazon from their 'estado primordial' (Loos, Davis & Wise, op. cit.: 4) which they seem to see as a dark, a-cultural, a-moral, pre-Christian chaos and believe it their right to eradicate these elements which '... llevan a la auto-destrucción de la cultura y/o al detrimento físico o psico-social de su pueblo, o que conducen a injusticias contra individuos dentro o fuera de esa cultura'. (op. cit.: 8).

They are keen to emphasise that: 'todo ser humano necesita ... una oportunidad para realizarse ejerciendo consciente y libremente el derecho de

"decisión personal", frente a distintas alternativas'. (op. cit.: 11).

Collective group-behaviour or behaviour in which small family units exchange or unite their labour for the benefit of those groups or the tribe in general is then, in some way inferior to a 'privatization' of means and resources - which will of course have a fragmentary, disruptive effect on traditional methods of subsistence - their horticulturalist, hunter-gatherer practices and perhaps more importantly, on the beliefs and traditional customs that have accompanied them.

Showing particular ignorance and insensitivity towards traditional customs and their raison d'être, S.I.L. feels (op. cit.: 11): 'Es justo que el investigador de campo haga una intervención para mejorar la situación', particularly since the natives do not recognize 'los elementos positivos de su propia cultura'. To disguise this ethnocentric observation, Loos, Davis and Wise state that such 'intervention' should not of course destroy the traditional systems of social organization and belief but work within them: a practice which has shown itself to be impossible.

To come to the crux of the matter then, and to reveal the motivating beliefs underlying the presence of the S.I.L. in Peru, we should know that, for them 'las sagradas escrituras ofrecen al hombre que los acepta una base moral y una esperanza capaces de transformar su vida, dándole la motivación y fuerza espiritual necesario para la realización de sus anhelos y los de la sociedad a la que pertenece'. (op. cit.: 12).

The 'mensaje bíblico' and its morality must then be the educational base line for the natives, tipping the scales most heavily, not towards an understanding of the problems, contradictions and suffering to be found in the society which espouses them, but towards the acceptance of an incontrovertible

idea that God, Jesus, Christianity, Christians and civilization are good and naturally 'right' and that all else is bad, profane, mistaken and 'wrong'.

Because of the 'pocos recursos disponibles' then (op. cit.: 14) and 'la imposibilidad de proveer todas las necesidades de las sociedades nativas, sería necesario limitarse a lo principal:

- traducir pasajes bíblicos para que los grupos étnicos puedan valerse de sus enseñanzas si desean

- promover el estudio y revaluación de las lenguas vernaculares

- abrir canales de comunicación e intercambio cultural

- servir sin discriminaciones con obras humanitarias y prácticas'.

It is quite clear what takes top priority in the S.I.L. teaching philosophy in Peru. Since we are all 'humanos falibles' (op. cit.: 15) we should look to God for the rectification of our sins and be calmed by a 'saludable, positiva, alentadora y refrescante fuente espiritual' (op. cit.: 19) which should be demonstrated outwardly by, for example, the wearing of non-native, Western clothes. Loos, Davis and Wise concede that in order to 'reinforce native culture' the Indians (i) should be allowed 'from time to time' to put on typical clothing and (ii) that mothers should be stimulated 'from time to time' to use their native language when addressing their children.

These attitudes are very reminiscent of those held by the first Dominican missionaries who came into contact with the Machiguenga at the beginning of this century, in the regions of the Manú river and the Upper Urubamba.

In edition No. 19 of the three-monthly review 'Misiones Dominicanas Del Perú', (1923: 676), the Fr. Padre Jose Pío Aza, who worked amongst the Machiguenga from his base of Santa Ana at present-day Koribeni, and who believed, incidentally that the Incas were descendants of the Machiguenga, we read that the Machiguenga live: 'en completo ateísmo y con escasas nociones de moralidad; que viven ... sin más regla de conducta que los depravados instintos de la naturaleza corrompida ... se puede comprender que la vida de estas pobres gentes tiene que semejarse mucho a la de las fieras, que pueblan sus mismos bosques'. The Machiguenga were ... 'ya no sólo despojado de los celestiales destellos que pudieran iluminar su figura, sino reducido a la triste condición de un paría de la naturaleza y sepultuda en el estado más lastimoso de abyección, abatimiento e ignorancia, llegando hasta perder la idea tan conatural al hombre de la existencia de un primer principio y como consecuencia inevitable con la idea de Dios, ha perdido también la conciencia de su propia dignidad y la noción de sus altos destinos'.

Even for Fr. Vicente de Centigoya (1943: 4) the Indians lived: 'Sin más aspiraciones que el satisfacer sus necesidades animales', and he believed that only ... 'cuando hayan pasado varias generaciones ilustradas y se les limpie el cerebro de las telarañas que han ido acumulándose a través de los siglos alcanzarán sus inteligencias normal desarrollo'.

To return, finally to the activities and ideology of S.I.L. members amongst the Machiguenga today (see: Hvalkof and Aaby, 1980: 145-162) what is perhaps most difficult for the anthropologist or ethnologist to accept, is the notion (a) of self-sacrifice, with reference to the fact that S.I.L. teachers should have had to come to the jungle, in the first place, a deed requiring them to spend (M R Wise, 1969: 5) 'long hours of patient work which detracted from the time which could be devoted to linguistic analysis' and (b) the notion of their own vulnerability and need for protection: 'Isolation among a group of

Indians who until a few years ago practised head-shrinking and still have not entirely given up revenge killing would subject the teacher to severe culture shock'. (op. cit.: 4).

This has led to the practice of S.I.L. members of extracting natives for instruction at the S.I.L. base at Yarinacocha such that they will be able to: 'read books about hygiene, new agricultural techniques and other practical aids for improving their standard of living'. M R Wise (op. cit.: 5) admits that S.I.L. schools have 'profoundly affected the way of life of minority groups'.

Whilst it is not denied that the Machiguenga should indeed be able to participate in the life of the more dominant society around them, and have the opportunity to avail themselves of western medicine and the vital skills of reading and writing, an education appropriate to their situation as an ethnic minority with a right to the land they inhabit, and which recognizes their native skills and need for protection from outside, would surely be more to their advantage.

APPENDIX 3

It is unfortunate that Casevitz (1980: 252) does not give the exact date in 1973 on which the 'delegation of Kugapakoris' arrived at the Tinpia mission post. Articles which appeared in the Peruvian newspapers 'El Comercio' in late August and early September 1973 and later in 'La Prensa' of November and December 1974 relate only to a visit made to the Kugapakori from the Tinpia mission post, led by Padre Adolofo Torralba (Dominican missionary). 'El Comercio' of 28 August 1973 carried an article in which it was stated that a Dominican missionary expedition made contact with 'un grupo humano aislado de la civilización y que ignoraba la existencia del hombre blanco ... en las selvas vírgenes de Madre de Dios ... ubicado en las cabeceras del Alto Timpia, afluente del río Urubamba' on the 19 July 1973.

Though the 'tribe' was 'similar a la de los Machiguengas', the Machiguenga guides who formed part of the expedition only 'con gran dificultad lograron entender el lenguaje de la tribu descubierta'. The group encountered comprised, the article continues, 37 people who were living in three 'rústicas chozas, hechas con hojas de palmeras. Todos los hombres aparecieron desnudos, algunos con los cabellos cortados al rape; las mujeres por su parte usaban pampanillas o faldas tejidas con fibre del monte. No conocen algodón'.

An article in the 'Suplemento Dominical' of 'La Prensa', 24 November 1974, added further details to this description: the men of the 'tribe' it was revealed 'llevan un manojo de cuerdas atadas al cuello que colocadas en los pies, les sirven para subir a los árboles ... las mujeres ... usan el tabique nasal perforado con un escama colgante ... utilizan cortezas de árboles para cubrirse en caso de frío ... no poseen utensilios de hierro,

usan cuchillos de madera ...'.

'El Comercio' of the 29 August 1973, quoted Padre Torralba as saying that the oldest man encountered had told them that the Kugapakoris were 'refugiados temiendo el ataque de paisanos que mataron a sus antepasados y robaron sus mujeres', (it would seem from the article published in 'La Prensa' (op. cit.) the following year, that the attackers were in fact Campas), but that fortunately 'el contacto fue pacífico ya que nosotros tenemos la consigna de no atacar y de replegarnos en caso de ser agredidos'. The same article continues: 'Por su parte, los guías Machiguengas hicieron comprender a los aborígenes que la visita de la expedición era pacífica y no debían tener miedo. Los miembros de la tribu se mostraron luego amigables, ofreciendo alimentos y desocupando una de las chozas para el Padre Torralba y sus acompañantes'. Torralba later explained to 'El Comercio', 'que no es conveniente atemorizar a los aborígenes con las costumbres de los blancos. La colonización tendrá que hacerse poco a poco, respetando sus tradiciones'. This statement, however, did not stop Padre Torralba photographing the Kugapakoris - who did not speak to the expedition for two days - using a flash bulb, and telling them that 'ellos venían de una tribu de vista muy débil y que los iba a iluminar para mirarlos mejor'. (La Prensa: op. cit.).

The assumptions and patronising nature of Padre Torralba's statements, published in 'El Comercio' of 29 August 1973, provoked an angry reply from the anthropologist André-Marcel D'Ans, which was published in the same newspaper on 2 September of that year. Under the heading: 'No hay más tribus a descubrir pero sí a comprender', the first point made by D'Ans, was that though the newspaper had announced on the 29 August 1973 that a 'new tribe' had been discovered, in February of 1970, three years previously, the Dominicans had published that they had then discovered 'una tribu de Cugapacuris, de habla Machiguenga, en las cabeceras del río Ticompinia'.

D'Ans pointed out that since the headwaters of the Tinpia are contiguous with those of the Ticompinia, it was most likely that the very group 'discovered' in 1970 had merely been 'rediscovered' in 1973.

Speaking on behalf of other anthropologists, the article condemns 'el sensacionalismo con que se rodea siempre cualquier información relativa a las tribus amazónicas', and laments that each 'descubrimiento' can only cause 'confusión en el público no especializado y oscurecer el conocimiento que se debe tener acerca de las minorías étnicas nacionales'.

D'Ans believes it is the 'tarea de antropólogos esclarecer ... las consecuencias del contacto con el mundo occidental tal como se ha efectuado hasta ahora' and finally asserts: 'no podemos sino discrepar con la aservación del misionero descubridor cuando dice que la colonización tendrá que hacerse poco a poco respetando sus tradiciones ... es lamentable que historicamente la evangelización siempre procediera a la colonización, abriéndole el camino. La misma historia demuestra que ninguna colonización puede hacerse respetando la identidad cultural de los dominados'.

With reference to the history of missionary contact with the Kugapakori and the expedition that began on the 19 July 1973, 'La Prensa' of 24 November 1974 revealed that around 1750 the Franciscan missionaries in the area had heard of 'la posible existencia de un grupo llamado Kugapakori', but for the Dominicans the 'necesidad de realizar una expedición' was not perceived until 1970. The Dominicans, however, did not attempt their expedition until 1971 and then again in 1972 but in both cases they met with 'poca fortuna'.

Torralba's excuse for the 1973 expedition as published in 'La Prensa' of 1 December 1974 was that 'mientras en la ciudad quién necesite un sacerdote sabe dónde puede encontrarlo, en el caso de los hombres selváticos éstos no

saben cómo hallarlo'.

APPENDIX 4

Today, of the forest areas north and east of Cusco, the land occupied by the Machiguenga, Campa, and Amuesha groups is subject to the greatest population pressure from migrants from the Andes, looking for land to occupy in a spontaneous manner.

Unfortunately, the attempts at agrarian reform initiated in Peru under the governments of Manuel Prado and, from 1963-1968, Belaunde Terry, did not aim at the elimination of coastal or Andean latifundios (large estates) but promoted, ideologically and technically the colonization of the tropical forest areas. This colonization became synonymous however with agrarian reform and entailed various advantages for the small ruling sector of the country. The image was fostered of the forest as a rich fertile land, uninhabited and open to men of initiative. This image of the forest has been the most pervasive one in historical terms.

Since the 16th century the prevalent conception has been that the forest should be tamed, colonized and exploited. In the first centuries of contact the forest was much more densely populated than it is today and large numbers of Indians were grouped on the banks of the larger rivers. The occupation of these areas by Europeans caused the displacement and resettlement of ethnic groups, which had wide repercussions on the ecological, economic and social equilibrium of tribal societies. Similarly, after the decree issued by Simón Bolívar in 1824 which had the effect of dissolving many of the indigenous communities of the Andes, many migrants from these communities settled in the Machiguenga area. Since then, large plantations of cash crops (such as coffee, cocoa, coca and citrus fruits) have been established by mestizos using this Andean (and Machiguenga) labour on traditional Machiguenga land, and many Indians have been transformed into wage-earning agricultural

labourers or have been forced to more distant areas.

In the 1950's and 60's Peru initiated a series of improvements to the road infrastructure to enable migrants and entrepreneurs to reach the forest more easily. According to the 1961 census (Varese, 1972: 16) more than 20% of the population of the tropical forest areas of Cusco were at that time, immigrants from other parts of the country. The original Machiguenga inhabitants of this area had no declared policy protecting their rights, and this figure has probably now more than doubled. Under the government of President Velasco Alvarado (1968-1975), however an Agrarian Reform Law was passed on 24 June 1969. The object of this law was to give the land to those who cultivated it. It applied to the lands of the Andes and coast but included the highland forest only down to 700 metres above sea level. Following this however, the Ministry of Agriculture presented the government in 1971 with a Forest Native Communities Bill (FNC) (Varese, op. cit.: 20). This Bill established the legal existence of these societies (which had not been recognized by previous legislation) and guaranteed their territorial rights, protecting common and collective property and assigning technical assistance from the State. This legislation covered those tribal groups, such as the Machiguenga of the Lower Urubamba not included in the Agrarian Reform Law.

Despite the aim of this Bill to 'make the rights of the native minorities compatible with the general needs of the country, through the support of their local organizations or communities by means of their representative institutionalization in the eyes of the State' (Varese, ibid), the Bill was never properly implemented or its aims upheld, and today, some 14 years later, the Machiguenga, along with most other groups of the forest, are still without effective land titles or access to the tools, land or resources to which they are legally entitled.

To summarize, three main causes of social and ecological change have been outstanding in the last 80 years along the Urubamba river:

1) The rubber boom.

2) The arrival of Dominican and Summer Institute of Linguistics missionaries.

3) Migrations principally from the Andes.

The role of individual patrones has been considerable, along with that of the missionaries in altering the traditional hunting and gathering existence of the Machiguenga. Migrants tend to have little or no knowledge of the ecology or edaphic conditions of the land they work and the attempts at intensive agriculture practised is not prospering, since tropical forest soils decline rapidly in fertility after three years. As more and more land is used and abandoned, vast stretches of the forest have been laid waste, with serious ecological repercussions. Scarcity of land then, and the inability to protect the land that they still have, is perhaps now the most serious threat to the Machiguenga, as an ethnic group.

In 1984 President Belaunde Terry announced plans to begin to develop part of the Manu National Park, an area decreed a conservation zone in 1973 and recognized by UNESCO as a unique area in its 'Man and the Biosphere Programme'. This Park is home to many Machiguenga and at least three different Indian groups. The Shell Oil Company has been given permission to prospect for oil within the Park and serious clashes with Indians have resulted. There appears to be little that the Machiguenga can do to protect their rights.

As Gerhard Baer (1981a: 48) has written: 'Indian society is ... also

threatened by laws and practices of the Peruvian authorities, as well as by the mestizos who are in collaboration with them, and who, as the new settlers in the eastern Peruvian rain forest, as in Machiguenga territory, have usurped the land and any trade for themselves. The breaking up and disintegration of what has been until now the traditional settlement area of the Machiguenga through the penetration of new settlers and traders with no scruples (today cocaine dealers in particular) seems to be only a matter of time'.[1] (My translation).

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[1]'Die indianischen Gemeinschaft werden ... durch die Gesetzgebung und die Praktiken der Peruanischen Behörden sowie der mit ihnen zusammen arbeitenden Bevölkerungsteile (Mestizos), die sich als Neusiedler im Ostperuanischen Tiefland und so auch in Matsigenka - Territorium festsetzen, das Land und den Handel an sich reissen, bedroht. Die Aufspaltung und Zerstetzung des bisherigen traditionellen siedlungsgebietes der Matsigenka durch die eindringenden Neusiedler und durch skrupellose Händler (heute insbesondere die Kokain-Händler) scheint nur eine Frage der Zeit zu sein'.

APPENDIX 5

THE MOON MYTH

Table of the different myth versions and their constituent elements, numbered to show order of appearance.

KEY: A = Lewington (1981)
B = Baer (1968)
C = Barriales (1971)
D = Pereira (1942)
E = Garcia (1943)
F = Pascual Alegre (?)
G = Cenitagoya (1943)

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							WHEN
1	1	1	1	1	1		a long time ago
						1	in the beginning
							GIRL & FAMILY
	2						husband and wife
							husband
6			3	8		2	daughter
	3						several offspring
		11	4				daughter beautiful
2			2		5		family

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							HOW THEY LIVE
3	4	2	7	2	2	3	not knowing manioc
4	5	3	8	4	3		eating earth
5		5		6			earth for making pots
		4		5			red earth
		6	9		4		softened and cooked
				7			cannot chew, only swallow
		2		3		4	no maize or bananas
							ACTION
10	8			10		8	parents for earth
8	7			6	10	6 6	enclosed by parents
							enclosed by mother
		7			7		enclosed by father
7	6			5	9	5	girl has reached puberty
9	9						girl told to stay inside
11						7	given earth to eat
							APPEARANCE OF MOON
				11		9	as handsome man
13	10				11	8	as a person
12					12		white
		8			13		tall/big man
						10	with feather crown
							MOON'S SPEECH/ACTION
14	11						asks where are parents
			11	12			asks for girl (as wife)

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							GIRL'S SPEECH
15							says parents gone for food
	12						says mother gone for food
							MOON'S SPEECH
16	13						asks to see it
							GIRL'S ACTION
17	14			11			shows/offers earth
			14				offers cooked earth
							MOON'S SPEECH/ACTION
18	15	12	15		12	9	says do not eat this, not food but earth
19			16				says it is earth for pot making
				13			in which to put manioc
20	17	13					says this is real manioc
22	16						shows real manioc
21			17				takes manioc from bag
23	18					10	gives girl real manioc to eat
		9	18	14	14		gives girl cooked manioc
				16			says do not eat mud
				15			shows girl how to chew
26		14	20		16	11	says do not tell parents (anyone)
				17			says tell parents
24			19			12	girl says manioc is good
25				18			girl realizes she has been eating mud
	19						moon goes away
			21				moon seduces girl with manioc
			25				says tell parents of proposed marriage

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOON'S SPEECH/ACTION contd.
						13	shows girl how to sow manioc 'por estaca'
		19		22			moon returns
							PARENTS RETURN - RESPONSE OF GIRL/MOON
	20						mother returns
						18	parents return, ask where plants from & how to sow
	21						mother asks have you been out
	22						girl says no
27	23	15		19			parents bring earth
		18		21			girl does not want to eat, she says
28		16					girl does not eat earth
29		17		20		15	parents ask why
	24						parents go for mud again next day
					15		moon says will bring other plants too if marry
		20		23			says tell parents why not eating earth
		21					says will give cooked manioc via girl
		24					says parents will no longer like earth
31		22		24			girl gives parents manioc
		23					moon tells girl he wants her
					17		parents won over by gifts of manioc
32							parents realize they have eaten earth
				26			parents say manioc is good
	25						moon returns on 2nd day with manioc & goes
	26						mother returns on 2nd day, asks if eaten earth
30	27					16	girl says earth not for eating
	28					17	girls shows mother manioc

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							PARENTS RETURN - RESPONSE OF GIRL/MOON contd.
	29			25			mud thrown away, parents pleased.
							MOON BRINGS PLANTS
	30					22	girl leaves hut on following day
			27		19		celebration with masato
	31						girl sees moon as man on following day
		25		27			moon appears again
			13	33			moon fixes day of leaving hut for wedding
							moon brings:
36		26	22	28			manioc stems (seeds)
37	38						bananas
	35						sacha papa
	36						dale dale
			31		22		magona
			32		23		unkucha
	37		29	29	21	20	maize
38		28					does not bring maize
	34			31			brings everything
39			28				thanks to moon now have these things
			33				thanks to moon have cultivation
34	32						moon clears chacra
				32			girl gives father plants from moon to sow
35	33		23		20	19	moon plants manioc
33			24		18		moon brings raw manioc for masato making
							MOON AND GIRL
40						21	moon and girl live together

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOON AND GIRL contd.
		29	26	33			moon and girl marry
			34	37	24	23	moon and girl to river
			35	38			moon says if feel something, do not mind
			36				girl feels fish and does not like it
					25		girl spits juice of leaves at moon
			37		26		spitting juice gives moon blotches
						24	girl throws mud at moon
	44						mother throws girl's blood
	45						throwing blood gives moon blotches
				39			four sons conceived
		30		34			moon to another hut
		31		35			another girl asks for manioc
		32					this girl throws mud
				36			this girl throws blood
					27		moon and girl have various offspring
							MOON AND SEEDS
			39				moon plants seeds in 4 cardinal points
			40		35		only east/west seeds come up
				44			seed of calabaza sown with each birth
				45			for 4th son seeds dry up
42						32	before moon no sun, only stars
							1st OFFSPRING
			38			25	girl dies in childbirth as punishment
	38			40		33	1st son becomes a sun
43							1st offspring a daughter, becomes a sun

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							1st OFFSPRING contd.
			41				sun lives in the east
			42		34		burns rivers and people, moved higher up
	64						this is sun that lights us now
			43				this is sun that never sets
41							girl told to take sun to forest
	39						the sun grows
				39			1st offspring replaces 4th, moved by moon
							2nd OFFSPRING
	40		44				also becomes a sun
44							a daughter becomes a sun
48			45				this is the sun that lights us now
			46				this sun follows immutable laws
				41			this is Venus
	41						this sun causes haemorrhage & mother dies
	42						mother loses much blood
	62						sun shines all day
	60						taken up to be placed as sun
46							this sun very hot, stones burst
47	68						this sun put higher up
45							daughter taken to forest
	61						sun hot with anger at mother's death
	63						this sun placed next to 1st, now not so hot
							3rd OFFSPRING
				42			becomes sun of underworld
48							unclear

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							3rd OFFSPRING contd.
				59			does not heat much but makes it rain
							4th OFFSPRING
				43			called Inkite
					36		put at extremes of earth
				63	37		very hot at midday, burns earth & people
				64			moon places this sun higher up
					38		illuminates more privileged beings
51							this last son kills mother
			47				last two sons (twins) kill mother
					28		last child kills mother as too big
				46			last child kills mother as too hot
49							father angry that daughters are suns
							THE MOON'S ACTION
					34		moon wanted to replace darkness with light
		59					moon takes son with him to sky
50							moon returns to sky
							moon takes resuscitated wife to sky
				61			moon takes all sons except 3rd one to sky
				62			moon's sons all become suns
				65			only Venus and our sun live with moon
					40		wife and other sons made into stars
		70					there are two heavens above
		71					when one heaven falls another is there
		59			33		the world was lit by weak sun before (of underworld)
		68					a shaman tells moon sun's position is all right

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOTHER-IN-LAW v MOON
	43		48	47	29	26	mother-in-law berates moon
52						27	father berates moon
				48			mother calls moon devil
	46						mother says throw daughter away somewhere
			49		30		parents say too much sex kills girl
54	49		52	49		28	parents tell moon to eat girl now
	48		50	50	31		moon says will resuscitate girl
			51				moon says will bring back two girls
	50						moon gets machete to kill girl
				51		29	moon resuscitates girl
				52			girl wants to live in underworld
				53			girl dies, soul to underworld, body stays
	47						moon throws corpse on other side of river
				54			moon paints girl's face with achiote
53							moon told by father to take girl to forest
55							father says cook girl
56			53	55	32	30	moon eats girl's body, becomes bitter
57			54	56			from now on moon will eat human flesh
58							when people die the moon eats them
59						31	moon's blotches are human heads
	51						girl appears as two with baby
	52						moon wants to kill a tapir
	53						girl killed as tapir
	54						girl's daughter watches
	55						moon says cook the tapir

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOTHER-IN-LAW v MOON contd.
				58			moon so angry changes residence
							MOON'S NATURE
							if moon had not come there would be no manioc
			56				moon now accompanied by one of sons or wife
				59			moon blames mother for girl's death
55				60			moon is good person really
56							moon ties up meat after eating
57	35	55					moon returns to sky
64							moon has former wife now very old with white hair
65							moon still eats flesh of wife
67							when moon stops eating people will die
							MOON'S RETALIATION
			57	66	41		moon had made fish net
			58				moon breaks fish net
			59		42		moon makes net in sky to catch people
			60		43		moon eats women and children above all
			61	68	45		moon has a guardian at net (a toad)
				67			net used to catch bodies floating down river
			64		48		guardian frees some of those caught in trap
				68			moon cuts off hands and feet of victims to eat
			62		46		moon smokes meat of victims
				69	44		rest of body becomes a tapir/or fish
			65		49		people recover when guardian lets them go
			63		47		moon makes bundles of smoked meat

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOON AND MANIOC
			66				moon withdraws main manioc (seed) Cashiriganire
			76				moon leaves *chori* plant (as watchdog)
60		33	67	71			manioc plants are moon's daughters
		34		72			other plants also call moon father
61							moon must not be angered, he gets bitter
							moon says:
			72	74			must not waste manioc
				75			must not throw manioc rinds
				76			must not eat it alone
			70				must clean manioc properly
			71	78			must not eat manioc with *ají* or *pimiento*
			73				must not tread on manioc or mix it with rubbish
		37					moon watches to see that plants are well treated
		38	68	77			manioc complains to moon at ill treatment
63							manioc will die if ill treated
				79			manioc is happy if treated well
			74				must treat manioc well
62		42		84			moon takes back manioc if ill treated
		43		85			people will eat mud again if plants die
		36					moon watches over daughters
		39					manioc likes to be eaten
		40					manioc likes to be chewed and fermented
		41					moon angry if daughters ill treated
			69				manioc can ask moon to take it back
			75				must be cared for well in making of *masato*
			77				manioc festival celebrated until recently

VERSIONS							MYTH ELEMENTS
A	B	C	D	E	F	G	
							MOON AND MANIOC contd.
						70	manioc is part of moon's family on earth
						73	moon has relationship with each plant
						78	manioc goes up to the moon to complain
						81	other plants also complain at ill treatment
						80	manioc most likes to be made into masato
						82	people cannot hear plants complain
						83	people know they must treat plants well
							EXTRA INFORMATION FROM CENITAGOYA
						30	those people who have been good in this life go to live with the moon, the bad go too, but changed into animals
						35	a shaman asks moon's wife where souls go at death
						36	wife of moon says moon eats all souls of the dead
						37	shaman says souls eaten in form of zúngaro fish
						38	moon gets bone stuck in throat, light fades on earth (an eclipse) but bone freed.

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