

2.9. SOUTH-EASTERN TRANS-NEW GUINEA PHYLUM LANGUAGES

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2.9.1. INTRODUCTION

South-Eastern Trans-New Guinea Phylum languages occupy (or in the case of Mulaha (or Iaibu) that is now extinct, once occupied) the tail section of Papua New Guinea between the town of Wau in the north-west and Milne Bay in the south-east, except for small areas around the coast east of Cape Possession where Austronesian and several "mixed" languages are now to be found.¹

There are forty-nine presently identified such languages (although one of these - Binahari - may later turn out to be better regarded as two languages) which belong to the following families and stocks:

FAMILY/STOCK	LANGUAGE	POPULATION ²	SOURCE
1. Gailalan Family ³	1. Biangai	1100	Healey 900 (1973:2)
	2. Werl	4200	Healey 3500 (1973:10)
	3. Kunimaipa	8000	Healey (1973:6)
	4. Tauade	8619	Steinkraus and Pence (1964:1)
	5. Flyuge	9615	Steinkraus and Pence (1964:1)
2. Kolarian Family	1. Koita	2260?	Dutton (1969a:82)
	2. Koiari	1176?	Dutton (1969a:82)
	3. Mountain Koiari	3734?	Dutton (1969a:82)
	4. Barai	3008?	Dutton (1969a:82)
	5. Ömie (or Aomie)	1100	Healey (1973:7)
	6. Managalasi	4000	Healey (1973:6)
3. Kwalean Family	1. Humene	438	Dutton (1970:882)
	2. Kwale	719	Dutton (1970:882)
	3. Mulaha	(Extinct)	Dutton (1970:889-90)

FAMILY/STOCK	LANGUAGE	POPULATION	SOURCE
4. Manubaran Family	1. Doromu	841	Dutton (1970:882)
	2. Maria	2105?	Dutton (1970:882)
5. Mailuan Family	1. Domu	482	Dutton (1971a:20)
	2. Morawa	755	Dutton (1971a:20)
	3. Binahari	770	Dutton (1971a:20)
	4. Bauwaki	378	Dutton (1971a:20)
	5. Magi (or Mailu)	4662	Dutton (1971a:20)
6. Dagan Family	6. Labu	51?	Dutton (1971a:22;Thomson 1975b)
	1. Daga (or Dimuga)	5326?	Dutton (1971a:15)
	2. Mapena	274	Dutton (1971a:15)
	3. Gwedena	2161?	Dutton (1971a:15)
	4. Ginuman (or Dime)	775	Dutton (1971a:15)
	5. Sona	1661?	Dutton (1971a:15)
	6. Jimajima	542?	Dutton (1971a:15)
	7. Maiwa	1298?	Dutton (1971a:15)
	8. Onjob	160	Dutton (1971a:15)
	7. Yareban Family	1. Abia	579?
2. Doriri		571? ⁴	Dutton (1971a:37)
3. Sirio		363?	Parlier (1974:Personal Com.)
4. Yareba		750	Dutton 1100? ⁴ (1971a:36-7)
5. Bariji		256	Dutton (1971a:12)
8. Binanderean Stock	1. Guhu-Samane	4000	Dutton 5000 (1973:5)
	2. Suena	2000	Wilson 1400 (1969a:66)
	3. Yekora	300	Wilson (1969a:66)
	4. Zia	3300	Wilson (1969a:66)
	5. Binandere	3000	Wilson (1969a:66)
	6. Ambasi	1200?	Estimated
	7. Aeka	2000?	Estimated
	8. Orokaiva	25000	Wilson (1969a:66)
	9. Hunjara	4265?	Dutton (1973:5)
	10. Notu (or Ewage)	10000	Wilson (1969a:66)
	11. Yega	900	Wilson (1969a:66)
	12. Gaina	128?	Dutton (1971a:33)
	13. Baruga	1051?	Dutton (1971a:34)
	14. Dogoro	119	Dutton (1971a:35)
15. Korafe	4194?	Dutton (1971a:35-6)	

Central to this grouping (given above under 1.-8.) geographically is the Koiarian Family which stretches across the mainland from around Port Moresby on the southern coast almost to the sea on the northern coast at the eastern end of the Hydrographers Range.

Neighbouring this to the north-west is the Gailalan Family, the major part of which is to be found in the very mountainous area in the north-west corner of the Central District but with smaller portions on the northern side of the main range in the southern corner of the Morobe District and western corner of the Northern District.

The Kwalean and Manubaran Families are small families on the southern side of the Owen Stanley Range in the Rigo Subdistrict of the Central District. These two families share common borders with the Koiarian Family.

Further west are the Yareban, Mailuan and Dagan Families in that order. The Yareban Family is not large and is basically a Middle-Musa River family but member languages are widely spread and found around the southern tributaries of the Bariji River in the north and both sides of the main range inland of Cape Rodney in the south.

The Mailuan Family stretches along the south coast between Cape Rodney and mid-Orangerie Bay and inland of Cloudy Bay. It has common borders with the Yareban Family already mentioned and the Dagan Family which is the most easterly of all the families.

The latter family also stretches across the mainland - between Table Bay and Orangerie Bay on the south coast and Collingwood Bay in the north. It is the largest family except for the Binanderean Family which is the major part of the Binanderean Stock. This family occupies much of the Northern District and stretches from around Cape Nelson in the east to the Malama River in the Morobe District to the west. Together with the Guhu-Samane language of the Waria River area this family makes up the Binanderean Stock.

LEGEND TO MAP 1

A) NON-AUSTRONESIAN (OR PAPUAN) LANGUAGES

The various stocks (mostly stock-level families) indicated on the map by different hatchings are identified in the legend on the map itself. The languages within the individual families are referred to by numbers which correspond to those used in the list of languages given towards the beginning of 2.9.1.

B) AUSTRONESIAN AND UNCLASSIFIED LANGUAGES

On the map, also the locations of Austronesian and unclassified languages are shown. The Austronesian languages are as follows:

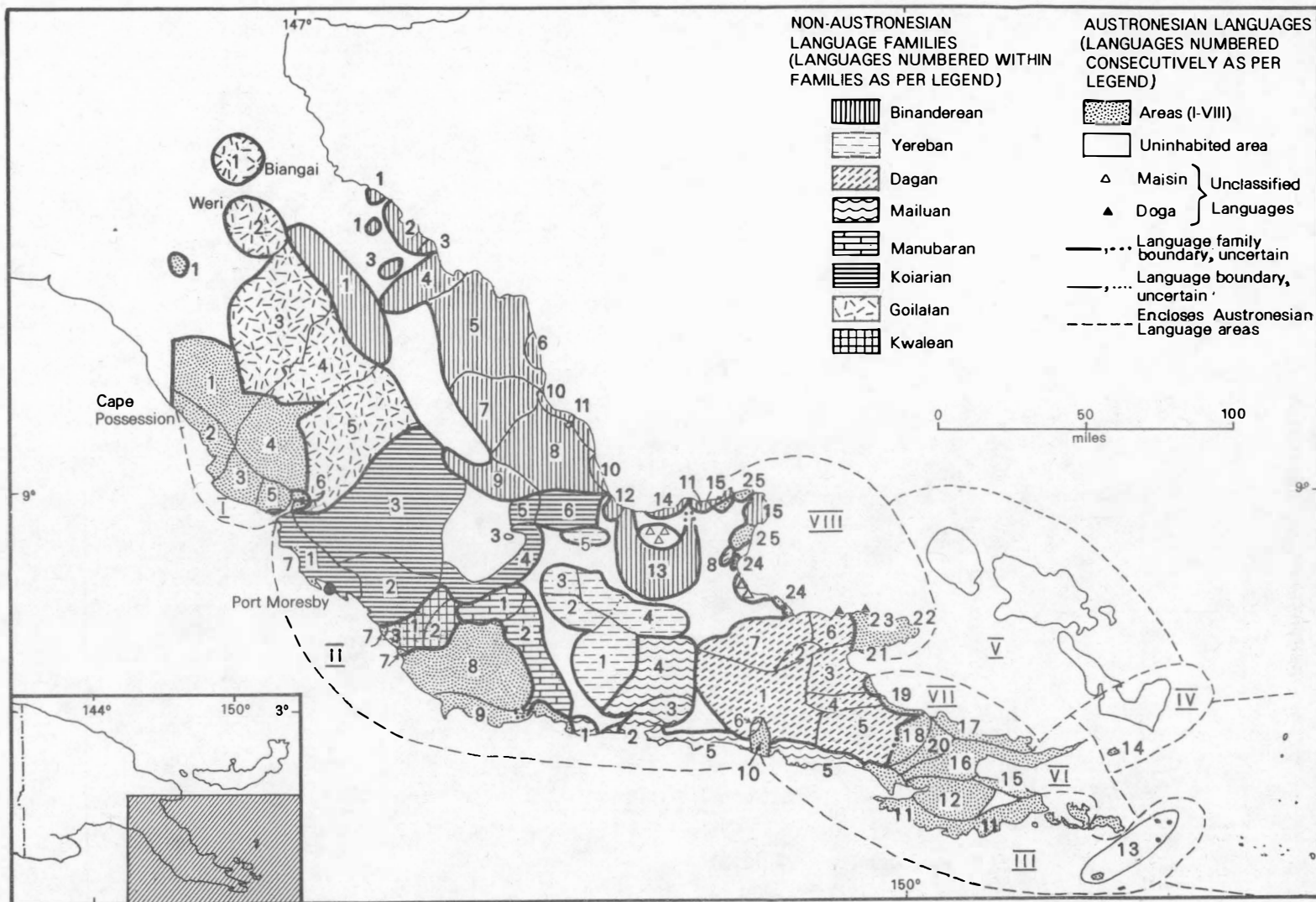
Group I	1. Mekeo	6000?	Estimated
	2. Roro (or Waima)	7000?	Estimated
	3. Nara (or Pokau)	7627	Bluhme (1970:867)
	4. Kuni	1700?	Estimated
	5. Kabadi (or Gabadi)	1400?	Estimated
	6. Doura	800?	Estimated
II	7. Motu	13000+	Taylor (1970:1)
	8. Sinagoro	12026	Dutton (1970:882)
	9. Keapara	16423?	Dutton (1970:882)
III	10. Magori	194	Dutton (1971a:9; 1971b)
	11. Suau	6795	Lithgow in (II)4.4.10.1.3.
	12. Buhutu	1065	Lithgow in (II)4.4.10.1.3.
IV	13. Tubetube	1190	Lithgow in (II)4.4.10.1.3.
	14. Nuakata	935	Lithgow in (II)4.4.10.1.3.
VI	15. Wagawaga	1020	Lithgow in (II)4.4.10.1.3.
	16. Kehelala (or Basilaki)	7990	Lithgow in (II)4.4.10.1.3.
VII	17. Wedau	1228+?	Dutton (1971a:32)
	18. Dawawa	1627?	Dutton (1971a:32)
	19. Boianaki (or Galavi)	1175	Dutton (1971a:32)
VIII	20. Igora	449?	Dutton (1971a:33)
	21. Paiwa (or Gapapaiwa)	1321	Dutton (1971a:33)
	22. Mukawa (or Are)	1231	Dutton (1971a:33)
	23. Gabobora (or Anuki)	532	Dutton (1971a:33)
	24. Ubir	912	Dutton (1971a:33)
	25. Arifama-Miniafla	2147?	Dutton (1971a:30-31)

Unclassified Austronesian: Doga ? Dutton (1971a:7-8). Population figures included in Gobobora (or Anuki) figures given above.

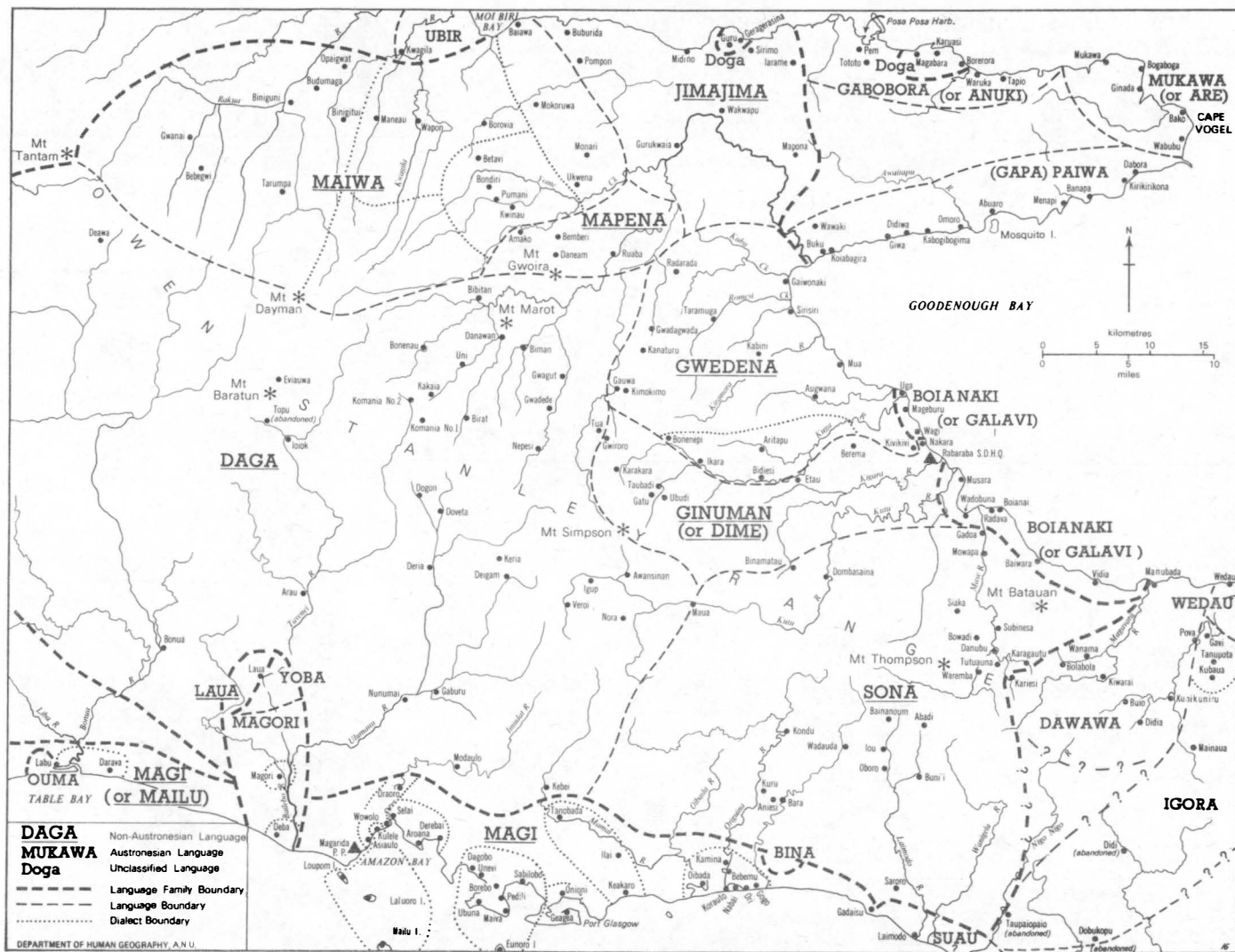
For information on Austronesian languages of the area see (II) 4.4.2. and (II) 4.4.3.

Unclassified: Maisin 1773? Dutton (1971a:29).

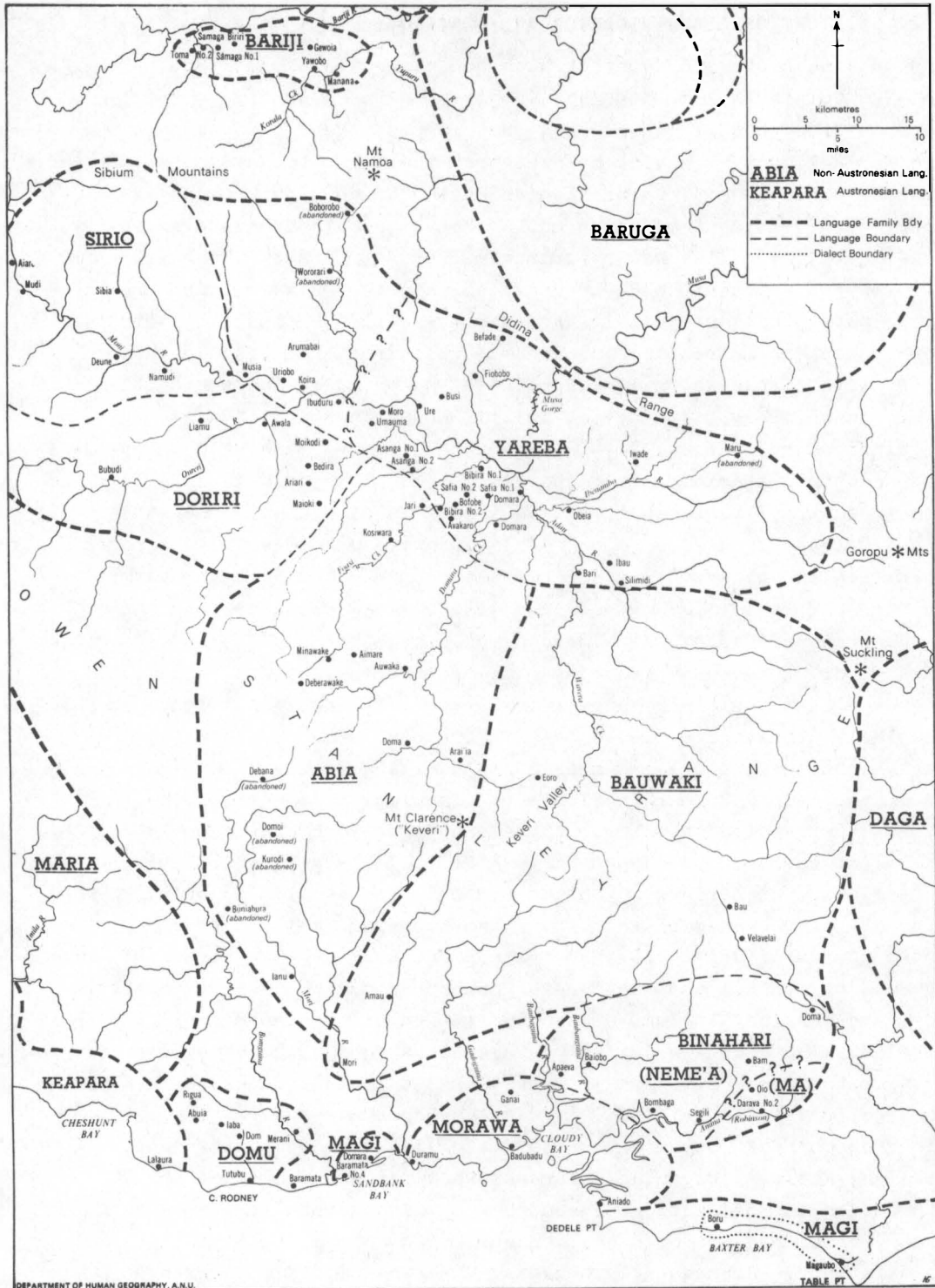
Maisin is an Austronesian-Papuan "mixed" language of doubtful status (see (II) 4.5.1.).



MAP 1: SKETCH MAP OF LANGUAGES OF CENTRAL AND SOUTH-EAST MAINLAND PAPUA



MAP 2: MAP SHOWING LOCATION OF RECENTLY DEFINED LANGUAGES AND DIALECTS ON THE SOUTH COAST OF PAPUA (AFTER DUTTON (1971a))



MAP 3: MAP SHOWING LOCATION OF SIRIO LANGUAGES (AFTER DUTTON (1971a))

2.9.2. HISTORY OF CLASSIFICATION AND DESCRIPTION

An outline history of contact with and classification of South-East Trans-New Guinea Phylum languages is given in the Appendix to this chapter. From this it can be seen that many of the languages have been known for a long time having been amongst the first to have been contacted by Europeans. Yet for reasons having to do with the particular history of development of Papua most of these remained unstudied (except for isolated cases like Mailu (or Magi), Fuyuge, Tauade, Binandere) and their interrelationship unclear until the nineteen sixties when the Summer Institute of Linguistics and the Australian National University began showing an increasing interest in this area. Since then many of the hitherto little-known languages have been studied in some depth (e.g., Biangai, Weri, Kunimaipa, Koiari, Mountain Koiari, Barai, Ömie, Managalasi, Daga, Yareba, Korafe, Suena, and Guhu-Samane) and the whole area has been systematically resurveyed.

The results of this research have shown, in particular, that the various "groups" and "subgroups" of languages and "dialects" described by S.H. Ray and others had wider connections than had been thought at that time and really belong to a number of families and a stock, the names and membership of which have already been set out above.

The first of these suggestions came from Steinkraus and Pence (1964) who showed that the three languages - Fuyuge, Tauade, Kunimaipa - in the Gailala Subdistrict of the Central District were sufficiently closely related to be regarded as constituting a family. Soon afterwards Pence (1966:66) (a Summer Institute of Linguistics member working in Kunimaipa) suggested that these three languages were also closely related to Wele (or Weri) in the Upper Waria River and Biangai (near Wau) over the ranges to the north-west, and so the Gailalan Family was born.

In 1969 I published an account of the Koiarian Family. In the process I noted that my research at that stage suggested that most of the Papuan languages of central and south-east Papua probably belonged to "a common stock, and possibly Phylum, distantly related to the languages of the Central Highlands of New Guinea" (p.3), although it had been known for some time that some of these languages showed lexical connections with languages (particularly Kiwai) in western Papua - see Wurm (1951:120-23).

In subsequent surveys (Dutton 1970, 1971) I defined the Kwalean, Manubaran, Mailuan, Dagan, and Yareban Families and clarified the distribution and definition of a number of Binanderean languages that Wilson (1969a) had not been able to survey for his account of that family in 1969. Subsequently Hooley and McElhanon (1970) suggested that Guhu-Samane was most closely related to the Binanderean languages

and suggested the existence of a Binanderean Stock.

At about this time there was tremendous interest in the classification of Papuan languages and the changing linguistic picture that was emerging, and Wurm (1971), acting on suggestions made by me during a preliminary analysis of some of the materials collected in 1969, grouped the Koiarian, Manubaran, and Yareban Families together provisionally as a stock, and these and other families (there was no Binanderean Stock at that time) together as the South-East New Guinea Phylum within his Central New Guinea Macro-Phylum. Subsequently, following other suggestions made by McElhanon and Voorhoeve (1970), the Macro-Phylum was converted into the Trans-New Guinea Phylum and the South-East New Guinea Phylum lost its identity as such, although (for reasons to be outlined below) it is still seen as a separate or distinct section of that Phylum.

Since then I have had the opportunity of looking more closely at the relationship between these languages and families and come to the conclusion (for reasons also outlined below) that although these languages can certainly be regarded as Trans-New Guinea Phylum ones there is no clear-cut evidence for subgrouping them in any one particular way above the family level. The Kwalean Family, however, seems to have least in common with all other families and may therefore represent a sub-phylum-level Isolate, although it is difficult to be sure at this stage because of all the families it (and the Manubaran) are the ones about which least is known. Of particular import also, is the fact that there is little evidence (apart from some lexical correspondences which have to be interpreted in a wider context) for the existence of a Koiarian-Manubaran-Yareban Stock as previously suggested.

At this point then the number, distribution, size (except for a few isolated cases), and interrelationship of Trans-New Guinea Phylum languages in south-east Papua New Guinea is fairly clear. What is needed now is more detailed descriptive and comparative work in as many languages and families as possible. Much information is already available and much more has become so in the very recent past with the publication of a series of grammatical sketches of many of the now best studied languages by members of the Summer Institute of Linguistics and others in a volume edited by the present author.⁵ At the same time there are still families such as the Kwalean and Manubaran which are virtually unknown and should be given top priority in future research programmes.

2.9.3. GENERAL CHARACTERISTICS OF SOUTH-EAST TRANS-NEW GUINEA PHYLUM LANGUAGES

In what follows I outline some of the general characteristics of the South-East Trans-New Guinea Phylum languages abstracted from sources

currently available, but especially Wilson (1969a), Capell (1969), Healey *et al.* (1969) (on the Binanderean language Family or Stock), Dutton (1969a, 1970) (on the Koiarian, Kwalean, and Manubaran Families), Ray (1912a,b), Pence (1964, 1966, 1968), Pence *et al.* (1970) (on the Gailalan Family), Saville (1912) (on Magi of the Mailuan Family), Murane, J. and E. (1967) (on Daga of the Dagan Family), and Weimer, H. and N. (1970, 1972) (on Yareba of the Yareban Family), and on the unpublished field notes collected by me in 1969. In the process no attempt will be made to distinguish characteristics of individual families as such. This is a task for the future on the basis of the series of sketch grammars referred to in the last paragraph of the previous subsection 2.9.2. which not only provides a more reliable basis for such a description but also serves as published illustrative examples. The following discussion will proceed from a consideration of phonological, morphological and syntactic features of the languages concerned to a brief résumé of their lexical similarities.

2.9.3.1. PHONOLOGICAL ASPECTS

On the phonological level all South-East Trans-New Guinea Phylum languages usually have two series of stops, some fricatives, two nasals (m and n), a vibrant r or a lateral l, and two semi-consonants w and y. In each case the series of stops is distinguished by voicing, or lack of it, and made at three or four points of articulation (bilabial, alveolar, velar, glottal). Where there are fricatives, f usually has no corresponding p in the series of stops, but p occurs as a positional variant of f. Vibrants and laterals also usually have laterals and vibrants as allophones respectively and these are usually flapped. Vowel systems are simple and based on five vowels (i, e, a, o, u). Some languages are tonal but stress is generally important and related to intonation which may be quite complex. Many languages also have complex morphophonemic rules.

2.9.3.2. MORPHOLOGICAL FEATURES

On the morphological level the following features are common:

1. Pronouns belong generally to Wurm's (1972) suggested Set I type (see 2.3.3.2.) in both form and system. That is, most languages have some forms related to ones like the following for first and second person:

	Sg	Pl
1	na	ni
2	ka	ki/te

- see for example those given for *I* in the comparative vocabulary below - although the agreement is never total so that the area tends to present a rather mixed appearance in this feature. Furthermore no male-female distinction is made and few languages make inclusive-exclusive distinctions in their first person forms. Dual forms of pronouns are regularly formed from other forms (except in some languages of the Koiarian, Yareban and Binanderean families). Finally, in most languages special forms of the pronoun (or pronoun + suffix) are used to indicate possession.

2. Verb forms are morphologically complex with tense, aspect, mood, person and/or number of the object and/or subject indicated by suffixes rather than prefixes. Special medial-verb forms also occur to indicate subordination of the first of two verbs, usually with different forms denoting the identity or non-identity of the subjects of those verbs. In some areas (e.g. Koiarian) these are relatively simple but in others (e.g. Binanderean) much more complicated. Finally verb stems may change (usually for a select subset of verbs) to indicate that more than one object is involved (e.g. the verb form for *to carry one object* may be different from that used for *to carry more than one object*).

3. Plurality is not signalled morphologically in most nouns though some languages have small subset exceptions which are usually kinship terms, or they distinguish collectivity from plurality by reduplication (either partial or complete). Noun classes are rare and generally restricted to the alienable-inalienable type.

4. Counting systems are based on two or three (e.g. 1, 2, 2+1, 2+2, 1 hand, or 1, 2, 3, 2+2, 1 hand). More complicated systems using body parts have also been reported (Ray (1907:364)) for certain languages in the Lower Musa River area of the Northern District but the extent of this is not known.

2.9.3.3. SYNTACTIC FEATURES

On the syntactic level the most important features are:

1. a subject-object-verb word order;
2. subordination indicated by medial-verb forms with the subordinate clause coming before the main clause and an absence of conjunctions;
3. no passive voice.

Thus typologically these languages can be seen to possess many of the features characteristic of those of other Trans-New Guinea Phylum languages described in preceding sections of this volume. There are, however, a number of features which set these languages off as a group from the main body of Trans-New Guinea Phylum languages and which lead to their being regarded as aberrant in some ways. One of these is, as

already noted, that the pronoun forms do not consistently belong to one of the sets suggested by Wurm (1972) but appear rather as mixed sets. Other features are that one does not find the complex consonants (e.g., laterally released, labio-velar, pre-glottalized) that characterize many of the Trans-New Guinea Phylum languages elsewhere. Nor are there the complex syllable patterns or wide ranges of allophonic variation in phonemes that are found elsewhere. Perhaps more importantly noun class systems based on classificatory or existential verbs are only very weakly in evidence. There are, however, different forms for negatives depending on the sentence type (e.g. verbal vs. non-verbal). Finally, there are generally no changes in the verb form or affixes added to indicate interrogative sentences. This is usually achieved by intonation although there are morphologically marked elements in interrogative sentences.

2.9.3.4. LEXICAL CORRESPONDENCES

Lexically South-East Trans-New Guinea Phylum languages contain apparent cognates for between 10% and 40% of the 53 items of basic vocabulary found by McElhanon and Voorhoeve (1970) to yield interphylic series of apparent cognates elsewhere and which they used to suggest the existence of the Trans-New Guinea Phylum. Space does not allow the publication of the complete set of forms but the following sample will illustrate the kinds of correspondences that have been observed. (See also 2.4.1.5.5.3. in this volume). Note that Binanderean languages (symbolized BIN) score highest with around 40% correspondence, Goilalan, Koilarian, Mailuan, Dagan, and Yareban languages (symbolized GOI, KOI, MAI, DAG, and YAR) respectively) next with around 20%, and Kwalean and Manubaran languages (symbolized KWA and MAN respectively) lowest with around 10%. The list follows:

English	Trans-New Guinea Phylum Series and Selected Examples	Evidence from South-East New Guinea Languages
<i>breast</i>	Series I: <i>ome, am, muk, mo, omo, amo, mum, mame, namu</i>	KOI: <i>amu, mosu, musa</i> MAI: <i>'ama, ama, yama</i> DAG: <i>ama(nawa), amu</i> YAR: <i>'ama, ama</i> BIN: <i>ami, emi</i>

English	Trans-New Guinea Phylum Series and Selected Examples	Evidence from South-East New Guinea Languages
<i>eat</i>	Series I: ne, e, na, en, ane, ine, da, ni, no	GOI: ni, yɛn, naro, nai, ne KOI: i KWA: anɛ, ina MAN: iri MAI: isi, isa, hiso, gihi DAG: na YAR: ine, 'i'i, ia, isi BIN: na, ni, inde, unde
<i>eye</i>	Series Ia: ki, ti, ko, i, ta, da, de, te, dza, dze, si, se	GOI: wire, itu, ita, ʔ: KOI: ni, nio, nia, nuni MAN: ne, <u>neuna</u> MAI: ni, <u>ni</u> (gaba), <u>ni</u> ('aba), ini DAG: <u>nangawa</u> YAR: naisa, <u>ni</u> 'aba, na, diti BIN: diti, tihi, tiri, kiti, dzisi
<i>fire</i>	Series I: doe, de, ne, doro, dau, daru, dit, ti, te, dere, dze, dzi, dzo', da'	GCI: yetitik, iziradi, iti KOI: idi (<i>tree</i>), idzə, idu, itʃa KWA: ire(roga) MAN: ita DAG: iya su'a YAR: ina'a, ina BIN: niau, dzi, ʔ:, zi
<i>I</i>	Series I: noro, no, nu, ne, na, ano, nɔk, nok, ni, nane	GOI: ne, na KOI: da, di, na MAN: na MAI: ina (in one language only) DAG: ne, na, nau YAR: na BIN: na, namo nane (emphatic)

English	Trans-New Guinea Phylum Series and Selected Examples	Evidence from South-East New Guinea Languages
<i>moon</i>	Series II: meso, maso, mosa	KOI: manərə, masape MAI: manbe YAR: manabe BIN: manabe
<p>(Note: These forms are only doubtfully related to the TNGP series given. They are also found only in one or two languages in their respective families and are distributed in such a way that they very probably represent borrowings.)</p>		
<i>mother</i>	Series I: enea, enew, naŋ, ena, mɛ, ama, amu, maramu, mo, mom, na, name, men, miŋ, mi, naga, namo, momo, maŋgo'	GOI: panu, ma: KOI: neina, sei, mamō KWA: noka, nanu MAN: ame'e MAI: aba'i, naina, adei, mama'ai DAG: ina(nawa), hinae YAR: ama'e BIN: ambia, mia
<p>(Note: There appear to be two series here - an n and an m - which link up with combined forms given in the TNGP series opposite. In the listing the n series is given before the m series.)</p>		
<i>sun</i>	Series I: yaw, yowi, sawe, sowo, toe, <u>kadɛpa</u> , qawɛ, <u>yanɛp</u> , sep, iyep, yep, sep, <u>kaiwe</u> , <u>karip</u> , <u>kasu</u> , dzaŋ, dzoaŋ, sual	GOI: <u>kitip</u> , <u>kita</u> BIN: idzi, izi, iyi, iri
<i>tongue</i>	Series I: mare, <u>omane</u> , <u>komen</u> , <u>meremai</u> , <u>mɛlepila</u> , <u>mələ</u> , <u>mɛlepi</u> , <u>mipi</u> , <u>mepu</u> , <u>mombir</u> , mel, <u>mimbi</u> , <u>mabim</u>	KOI: meina, neme KWA: manane, mazane MAI: maena DAG: meri(nawa) YAR: meana

English	Trans-New Guinea Phylum Series and Selected Examples	Evidence from South-East New Guinea Languages
<i>tooth</i>	Series I: titi, hi, sis, ηet, nesar, ezet, ezet, dzet, dzot, dzit, dot, sot	GOI: kili, kl.t, kitira, usi BIN: dzi, ti, di, diaka, dika (Perhaps also KWA: gate, gade; DAG: note)
	Series II: ninambo, niŋi, gen, ŋgen	YAR: ni'o, nio
	Series III: pɛrɛ, marɛ, pes, poso, mɛn, mi, mai, mati, miti, maha, me, ma, mi'	MAI: ma'a DAG: moana

2.9.4. SUB-GROUPS ABOVE THE FAMILY-LEVEL

In the previous subsection it was noted that South-East Trans-New Guinea Phylum languages contain apparent cognates for between 10% and 40% of the 53 items of basic vocabulary found by McElhanon and Voorhoeve to yield interphylic series of apparent cognates elsewhere. Note, however, that although these percentages suggest subgroups of families somewhat different from those suggested tentatively in Wurm 1971 and referred to in subsection 2.9.2. above, they cannot be taken to indicate such subgroups because other factors have to be taken into account. For one thing there are different interphylic series involved - see *tooth* in the comparative list given above - and families do not necessarily have apparent cognates related to the same series. Moreover, families may contain other apparent cognates which do not belong to any of the series established by McElhanon and Voorhoeve (1970) which were not taken into account. On the other hand these percentages do suggest that Binanderean languages are more closely related to those elsewhere and act as a link between them and the remaining South-East Trans-New Guinea Phylum languages.

To solve the question of internal subgrouping then let us begin by looking again at the 53 items from McElhanon and Voorhoeve (1970) to see how many of these families share with each other. The following chart summarizes the results obtained by comparing families two at a time for these items:

	GOI	KOI	KWA	MAN	MAI	DAG	YAR	BIN
GOI	X	20%	10%	12%	8%	12%	8%	14%
KOI	20%	X	12%	18%	24%	22%	26%	20%
KWA	10%	12%	X	8%	12%	12%	12%	8%
MAN	12%	18%	8%	X	10%	12%	16%	12%
MAI	8%	24%	12%	10%	X	16%	26%	14%
DAG	12%	22%	12%	12%	16%	X	14%	16%
YAR	8%	26%	12%	16%	26%	14%	X	18%
BIN	14%	20%	8%	12%	14%	16%	18%	X

Without placing any emphasis on the exact values given but more on their relative values relevant observations on these figures are:

1. GOI scores highest with its nearest neighbour KOI and evenly low with the remainder, but decreasing somewhat over distance.
2. KOI scores high with all families except KWA.
3. KWA scores evenly low with all families.
4. MAN scores evenly low with all families except KOI and YAR.
5. MAI scores highest with neighbouring YAR but also high with KOI and then in decreasing order corresponding fairly well to increasing distance.
6. DAG scores high with KOI and evenly low with the remainder except the nearer MAI and BIN.
7. YAR scores highest with KOI and neighbouring MAI and evenly low with the remainder except BIN which is also its northern neighbour.
8. BIN scores highest with KOI and then in descending order corresponding with distance.

The only significant points which seem to emerge from this are that the Koiarian languages seem to act as a link between all others. However, if one looks closer at the distribution of languages one will find that Koiarian Family languages are in contact with more other families than any other family is (notably Gailalan on the west, Binanderean on the north, Kwalean and Manubaran to the east, and Yareban in the north-east). Consequently this linking position is to be suspected of being the result of undetected borrowings rather than of genetic relationship, especially when in the other evidence four out of the remaining seven cases (1, 5, 7, 8) score highest with their neighbours.

If this is true then there is little evidence lexically (at least as far as this sample illustrates) for any kind of subgrouping above the family-level, although there is the suggestion that Kwalean languages,

being uniformly "distant" from all languages, should perhaps be regarded as some kind of isolate. Note also that these figures, while giving some support to the 1971 suggestion that Koiarian, Manubaran, and Yareban languages constitute a stock, show that that suggestion was based on insufficient evidence taken out of context of the total set of families in this area which were still under consideration at that time.

Now if we take into account typological features (wherever there is adequate evidence available) we find that the picture is further confused by a series of cross-cutting classifications. Take, for example, the following five structural features extracted from a larger set covering most of those discussed in subsection 2.9.3. above as indicative of the Trans-New Guinea Phylum status of these languages, which are in some ways indicative of subgroups:

1. The Presence or Absence of Subject Markers

Here we find that excluding Goilalan languages (for which there is insufficient evidence), Kwalean, Manubaran, Mailuan, and Koiarian languages have these as against Dagan, Yareban, and Binanderean ones which do not.

2. Presence and Nature of Object Referents (OR's) in the Verb

Here, except for the Goilalan Family (for which again there is inadequate evidence), Koiarian, Yareban, and Binanderean Families group together in distinguishing number in OR's, as against Kwalean, Manubaran, Mailuan, and Dagan which have individual forms of OR's corresponding to differences in person and number of the object.

3. Relative Order of Object Referent (OR) and Tense, Aspect, and Subject Markers (TAS) in Verbs

Because of (2) above this test acts as a subclassifier of the results of (2) except where some languages (e.g. Koiarian) have both. Bearing this in mind it seems to be the case that Kwalean, Manubaran, and Mailuan Families group together with order TAS-OR, Koiarian and Dagan with OR-TAS, and Yareban and Binanderean as having no formally marked OR although the number of the object may be indicated by reduplication of the verb stem.

4. Stem Changes for Different Number of Object

Excluding Kwalean, Manubaran, and Mailuan languages (for which there is no evidence presently available), Koiarian, and Dagan languages group

together as having these as against Gollalan, Yareban, and Binanderean ones which do not.

5. Form of Negative in Verbal Sentences

Gollalan, Koiarian, and Kwalean languages seem to have related forms (me, bebe, and meme respectively) which are distinct from Manubaran, Mailuan, Dagan, and Yareban ones which also have related but different forms (ide, da, da/ya, and da respectively). Binanderean languages are alone in having ae.

Now if these five cases are plotted together graphically we get something like the following grouping:

	GOI	KOI	KWA	MAN	MAI	DAG	YAR	BIN	
1.	-	<u>KOI</u>	<u>KWA</u>	<u>MAN</u>	<u>MAI</u>	<u>DAG</u>	<u>YAR</u>	<u>BIN</u>	
2.	{	<u>KOI</u>	-----				<u>YAR</u>	<u>BIN</u>	
			<u>KWA</u>	<u>MAN</u>	<u>MAI</u>	<u>DAG</u>			
3.	{	<u>KOI</u>	-----				<u>DAG</u>	<u>YAR</u>	<u>BIN</u>
				<u>KWA</u>	<u>MAN</u>	<u>MAI</u>			
4.	{	<u>GOI</u>	-----				<u>YAR</u>	<u>BIN</u>	
			<u>KOI</u>	-----				<u>DAG</u>	
			-	-	-				
5.	<u>GOI</u>	<u>KOI</u>	<u>KWA</u>	<u>MAN</u>	<u>MAI</u>	<u>DAG</u>	<u>YAR</u>	<u>BIN</u>	

From this it appears that there is just a tendency for Kwalean, Manubaran and Mailuan languages on the one hand and Yareban and Binanderean on the other to group regularly together, with Koiarian and Dagan showing some connections but generally marginal to the other groupings. The position of Gollalan languages is uncertain.

Now if we compare this with the lexical picture discussed above we shall see that whereas the Kwalean Family appeared to be rather isolated lexically it seems to group fairly well with the Manubaran and Mailuan Families typologically. Similarly the Koiarian Family does not show up as a linking family as it seemed to lexically but tends to have more in common with the Dagan Family than any other, though without further evidence from Gollalan languages this cannot be pressed too far. Finally the Yareban Family seems to have more in common with Binanderean languages than the lexical evidence seemed to predict. In short there is a conflicting pattern of relationship evident at different levels of structure

in South-East Trans-New Guinea Phylum languages which does not allow for them being subgrouped further in any one way on the present evidence.

2.9.5. THE INDIVIDUAL FAMILIES AND THE BINANDEREAN STOCK

2.9.5.1. GOILALAN LANGUAGES

The Goilalan Family consists of five languages - Biangai, Weri, Kunimaipa, Tauade, and Fuyuge - spoken in the mountainous area in the north-west corner of the Central District and the southern and western corners of the Morobe and Northern Districts respectively.

2.9.5.1.1. Weri and Biangai

These are two small languages in the Morobe District. Weri is spoken by approximately 4200 people living in the headwaters of the Biar, Waria, and Ono Rivers. Biangai (1100) is spoken further north in a number of villages around Wau in the headwaters of the Bulolo River. Both consist of two dialects (Hooley and McElhanon 1970:1076). According to Boxwell (quoted in Hooley and McElhanon (1970:1076)) the two languages share approximately 36% basic vocabulary.

Detailed studies of Weri and Biangai have been carried out by members of the Summer Institute of Linguistics who have been working in them since 1960 and 1962 respectively although much of the linguistic information gathered on them is still unpublished except for M. and H. Boxwell 1966 and M. Boxwell 1967, and R. and M. Dubert 1973. A listing of literacy materials prepared in both by Summer Institute of Linguistics members is given in Healey 1973:41-4; 60-1.

2.9.5.1.2. Kunimaipa

This is a bridge language, geographically and genetically speaking, between Tauade and Fuyuge on the southern side of the main range and Weri and Biangai on the northern. It is spoken mainly in the upper reaches of the Kunimaipa and Biar Rivers in the Central District and in the upper reaches of the Ono and Bubu Rivers in the Northern and Morobe Districts. The language is often referred to as Gajili (or Gazili, Ghazili) but strictly speaking this is the name of the dialect spoken in the Bubu River area of the Morobe District and the one studied by members of the Summer Institute of Linguistics. French Missionaries of the Sacred Heart have also studied Kunimaipa (particularly as spoken on the southern side of the main range) and have prepared grammatical sketches of it though these again are still in manuscript form.

Both the Summer Institute of Linguistics and the French Missionaries

have, however, prepared literacy materials in the language. Lists of these can be found in Steinkraus and Pence 1964:7-8, and Healey 1973:52-3. Various linguistic sketches of parts of the languages have been published by Pence (1964, 1966, 1968, 1971) and A. Pence, E. Geary and D. Bjorkman (1970), but a number of manuscripts are also in the hands of the Summer Institute of Linguistics, New Guinea Branch.

According to Boxwell (quoted in Hooley and McElhanon 1970:1076) Kunimaipa shares 37% basic vocabulary with Weri and 33% with Biangai.

2.9.5.1.3. Tauade

This is the second largest language of the family and is spoken in the headwaters and tributary valleys of the Angabunga (or St. Joseph's) River. It is most closely related to Kunimaipa with which it shares 44% basic vocabulary. Like Fuyuge and Kunimaipa it is dialectally diverse and has long been studied by French Missionaries of the Sacred Heart but no grammars of it have been published. However, teaching and literacy materials have been prepared in it and a listing of these to 1964 is given in Steinkraus and Pence 1964:7.

2.9.5.1.4. Fuyuge

This is the largest language of the family, and is spoken mainly in the valleys of the Vanapa, Dilava, and Auga Rivers on the southern side of the main range and in the Chirima River valley on the northern side of the same range. According to Steinkraus and Pence (1964:3) Fuyuge is dialectally quite diverse with notable variation between speakers from each of the river valleys. The language is also lexically quite divergent from its nearest relatives, Tauade and Kunimaipa, sharing only 27% and 28% of basic vocabulary with each respectively.

Fuyuge is well known by the French Missionaries of the Sacred Heart who have been in the area since the late 1880's and Father Egedi's grammar of the language was translated and published by S.H. Ray (1912a). Steinkraus and Pence (1964:6-7) give a listing of printed materials available in Fuyuge to 1964.

Village lists and old names used to refer to parts of Fuyuge, Tauade, and Kunimaipa are to be found in Dutton 1973.

2.9.5.2. KOIARIAN LANGUAGES

These stretch across Papua from the coast around Port Moresby almost to the sea on the north coast at the eastern end of the Hydrographers Range. The Koiarian language family was established by the present author in 1969. In that study (Dutton 1969a) I showed that the family consisted

of six languages - Koita, Koiari, Mountain Koiari, Barai, Ömie (formerly Aomie), and Managalasi - which fall into two sub-families of three languages each - the Koiaric and Baraic. Generally speaking, Koiaric languages are to be found on the southern slopes of the Owen Stanley Range and the Baraic on the northern side but there are representative groups of each on both sides of the range.

2.9.5.2.1. Koiaric Sub-Family

The greater part of this sub-family is located in the Central District stretching east and west from Port Moresby along the coast and inland to the Owen Stanley Range along the valleys of the Laloki, Goldie, Brown and Vanapa River systems. A much smaller section is located in the Northern District in a thin strip between the Yodda River (Upper Mambare) and the dividing range and in three villages in the headwaters of the Kumusi River. The area is sparsely populated by speakers of the three languages Koita (between the Laloki River and the coast), Koiari (on the Sogerl Plateau and the foothills of the Astrolabe Range) and Mountain Koiari (elsewhere).

2.9.5.2.1.1. *Koita and Koiari*

Koita and Koiari are closely related in all aspects of their structure. Both are represented by two dialects each, though the Koita dialects are less divergent than the Koiari ones. The division between east and west Koita occurs roughly with the inland 'end' of Fairfax Harbour. East Koita thus includes Baruni and Kilakila while West Koita includes Roku and Gorohu. These dialects share approximately 87% basic vocabulary with each other.

The Koiari dialects are also eastern and western. East Koiari is spoken in a small arc around the eastern end of Sogerl Plateau from Kailakinum village through Ogotana, Futinum, Agitana, Senunu to Seme and Dagota on the coastal side of this plateau. This dialect shares approximately 82% (average) basic vocabulary with the western Koiari dialect which occupies the remainder of the Sogerl Plateau (around Fakonama and Vesilogo), the southern foothills of the Astrolabe Range (around Labuka) and part of the middle Laloki Valley (around Mesime). The eastern dialect is more diverse than the western and the lexical evidence suggests a splitting of this dialect into two sub-dialects: north-eastern and south-eastern.

2.9.5.2.1.2. *Mountain Koiari*

Mountain Koiari consists of six dialects - southern, central, western, northern, eastern and lesser-eastern. The southern dialect covers an elongated area down the Goldie River from Naoro across to Motumotu on the Brown River. It is a buffer dialect between other Mountain Koiari dialects and Koiari to the south, and its vocabulary shows the result of this contact. It includes the tribes of Varagadi, Uberi, Moroka, Herei and Eava. The southern dialect is markedly different from its northern counterparts and bears the least cognatic correspondence with any of them. Phonologically it is divergent within itself so that at Naoro one finds that peoples living on opposite sides of the village 'street' speak apparently quite different dialects. This is so because Herei has a glottal stop corresponding to the voiceless stops t and k in Eava speech. The central dialect is the largest and occupies the small river valleys of the Brown River, stretching from Madilogo north to Efogi and Kagi and west to Manumu and possibly Biniga. It is most closely related to the eastern and northern dialects and not quite as closely to the lesser-eastern and western dialects. This latter occupies the Vanapa River valley from Boine and Suku to Kerea, Fodu and Badiloho. The northern dialect occupies the southern bank of the Yodda River valley in the foothills of the Owen Stanley Range in the Northern District. It stretches from Kanga in the west through Koveloo (near Kokoda) to Alola and Isurava in the Yora River valley just north of the Gap. This dialect shares only 73-75% basic vocabulary with the eastern dialect which is spoken in the villages of Awoma and Tetebe in the headwaters of the Kumusi River. This latter dialect shares 82-85% basic vocabulary with the last and smallest of the Mountain Koiari dialects, lesser-eastern, around Kovio further up the same river valley.

2.9.5.2.2. *Baraic Sub-Family*

The greater part of this sub-family is to be found in the Northern District south and west of the Hydrographers Range to the Owen Stanley Divide. Part of the sub-family extends across this range into the Central District in the north-west of the Rigo Sub-District.

2.9.5.2.2.1. *Managalasi*

The largest of the languages is Managalasi which is spoken in a relatively densely populated basin around the headwaters of the Pongani and Bariji Rivers. This language apparently consists of a large number of lexical dialects (10?) of which only five have been surveyed. In the east it abuts on to the Baruga language (Binanderean Family) and the

dialect around Ondoro shows considerable lexical borrowing from this language suggesting long contact with or dominance by the Baruga. In the south-west it has a common border with Barai between the villages of Tahama and Kwarue.

2.9.5.2.2.2. *Barai*

The Barai language extends southwards from the Managalasi border in a large arc through the headwaters of the Moni River (Upper Musa) across the Owen Stanley Range into the Mimai Valley (Upper Kemp Welch) and thence westward up the Laba (or Adai) tributary of the same stream. In the west it has a common border with Koiari at Doe village, and in the south with the Kwalean language family and to the east with the Manubaran and Yareban Families. It is also represented at the two villages of Emo River and Ejaro (and part of Ujilo) in the Kumusi valley. The Barai language also consists of a large number of dialects (eight) and at least two more were known to have existed until the early twentieth century - Seramina and Uala. At first contact Barai speakers from south of the Barai-Managalasi border were reported to be able to understand the Managalasi language from much further east around Numba.

2.9.5.2.2.3. *Ömie (or Aomie)*

The Ömie (or Aomie) inhabit the Kumusi valley at Namanadza immediately north of the Barai village of Emo River, and the Mamama valley which is an east bank tributary of the Kumusi south-west of Mt Lamington. There are at least two dialects - one in the Kumusi and one around Asapa. A third probably exists around Gora and Bomahouji but no linguistic material has been collected from this area.

Summer Institute of Linguistics teams are now located in four of the languages of this family - Barai, Ömie, Managalasi, and Mountain Koiari. A fifth team was located in Koiari but has since left the Institute. These teams have published two papers on Ömie and Managalasi (see Austing 1974 and Parlier 1964 respectively). Descriptive sketches of Mountain Koiari, Barai, Ömie, and Koita are in Dutton, ed. 1975b. Koiari is described by me in Dutton 1969b. For Barai see also Olson 1973.

Healey (1973:53-4) gives a listing of literacy materials published in Managalasi. Other manuscripts are in the hands of the Summer Institute of Linguistics, New Guinea Branch.

Village lists and old names used to refer to parts or wholes of the Koiarian languages are given in Dutton 1969a; 1973.

2.9.5.3. KWALEAN LANGUAGES

The Kwalean Family consists of two small languages, Humene and Kwale and probably also once included a third, Mulaha (or Iaibu) that is now extinct.

Humene and Kwale are closely related, sharing between 65% and 74% of basic vocabulary. Humene is spoken around the eastern lower slopes of the Sogeri Plateau and adjacent coastal plain between the Motu villages of Gaire and Kapakapa. It consists of two dialects: Lagume (around Gobula) and Humene (around Manugoro). The principal village of Humene is Manugoro, which is a composite village of Zareba, Muzaha and Humene groups. The former two are remnants of groups of people who once controlled the land around where Manugoro is now situated and once spoke Mulaha (or Iaibu), short vocabularies and some sentences of which were published by English (1901) and Ray (1907:387-412). These represent slightly different variants of the same language which is generally referred to as Mulaha. Ray's material was in the Mulaha variant and English's in the Iaibu. About 28% and 22% of the basic vocabulary of present-day Manugoro and Kwale villages respectively is cognate with Mulaha vocabulary provided by English (1901).

Kwale is a small language occupying the area around the lower reaches of the Hunter and Musgrave Rivers. It consists of two dialects: Garia (around Geresi) and Kwale (around the village of the same name).

Not much is known about the grammar of either Kwale or Humene except for the notes I published in Dutton 1970. According to Ray (1929:71) a grammar of Kwale was compiled by Dr Strong from notes collected by Rev. H.P. Schlenker, but as far as is known this has not been published. No literature has been published in the Kwalean languages.

Village lists and old names used to refer to parts or wholes of the Kwalean languages are given in Dutton 1970; 1973.

2.9.5.4. MANUBARAN LANGUAGES

The Manubaran Family also consists of two closely related languages - Doromu and Maria. These share about 60% basic vocabulary. Very little is known about the structure of the Manubaran languages, except for the notes I published in Dutton 1970, and nothing has been published in any of them.

2.9.5.4.1. Doromu

Doromu is spoken by a small scattered population living in the headwaters of the Uma or Margaret (tributary of the Kemp Welch) and Ormond Rivers west of Mt Brown. It consists of three dialects: Kokila (around Bareika), Doromu (around Aramaika) and Koiriko (around Lofaika).

2.9.5.4.2. Maria

Maria is a relatively large non-Austronesian language for this part of Papua. It is spoken by a scattered population along the mountainous southern slopes of the Owen Stanley Range from Mt Brown to Marshall Lagoon on the coast in the Abau Sub-district, in the tributary valleys of the Ormond and Imila Rivers. A few speakers also live on the northern slopes of Mt Brown in the village of Imuruwake in the upper Musa (or Moni) River valley. Around Marshall Lagoon Maria speakers seem to have controlled land on both sides of the lagoon. On the east this territory extended down the western side of the range of hills forming the watershed of the Bomguina River to a point in the hills just inland of Kapari-Hula. Maiagolo is now the principal village in this area. It is marked as Imila on some maps and is situated about ten miles inland up the river of the same name on a hill overlooking Marshall Lagoon. Two other small hamlets of Kani'aba (about two hours' walk south of Maiagolo where the old village of Ani'aba was marked on some maps) and Wounaba (in the hills behind Maiagolo about three hours' walk inland) are censused with Maiagolo. These three villages claim to speak be'anivia. On the western side of Marshall Lagoon Maria speakers are to be found at Uderi, a small hamlet south-west of Paili Plantation on the lower reaches of the Gonema Oru River. In this village Maria is being replaced by Sinagoro and Keapara as villagers marry into Bukuku and Kelerakwa villages nearby. A wordlist described by me in Dutton 1969a shows that the Uderi spoke a slightly different variant of Maria from other groups. It is possible that Keagolo (and perhaps the old village of Thaibogo marked on some maps) is also an ex-Maria village. None of my informants really knew what was spoken there though some claimed it was Sinagoro. It has therefore been temporarily listed among the Sinagoro villages. I estimate that Maria consists of seven dialects: Didigaru (centred around Maranomu No.1), Maria (centred around Maria), Gebi (centred around Ora'ia), Oibu (?) (centred around Nenemakomana), Amota (?) (centred around Kakiakomana), Imila (centred around Maiagolo), Uderi (centred around Uderi).

Village lists and old names used to refer to parts or wholes of the Manubaran languages are given in Dutton 1970; 1973.

2.9.5.5. MAILUAN LANGUAGES

These form a family which is located wholly on the southern side of the Owen Stanley Range except for the small section of the Bauwaki language in the north-west corner around Mt Clarence. There are six member languages: Magi (or Mailu), Domu, Morawa, Binahari, Bauwaki and Labu. These include Ray's (1938:157-59) Domu, Binahari and Bauwaki Groups but

not his Magori Group which is a "mixed" language but basically Austronesian - see chapter (II) 4.5.2.

Mailuan languages share around 50% basic vocabulary with each other, though they have also borrowed from neighbouring Yareban and Austronesian languages. Grammatically they appear to be very close, except Bauwaki which seems to have mixed Mailuan and Yareban features. None of the languages except Magi (or Mailu) has been studied or recorded in any detail.

Village lists and population figures for Mailuan languages are given in Dutton 1971a; 1973.

2.9.5.5.1. Magi (or Mailu)

This is one of the best known non-Austronesian, i.e. Papuan, languages of the south-eastern part of Papua.⁷ It is spoken in villages along the coast from Baramata No.4 in Sandbank Bay in the west to Gadaisu in mid-Orangerie Bay in the east, except where interrupted by the Morawa and Magori languages. Today the language is variously referred to as Magi or Mailu. Originally Magi was the more inclusive term which referred to the people as a group with Mailu limited to the island of the same name. Today, however, the term Mailu is being extended in meaning to cover the whole area especially amongst the United Church villages.⁸

There are nine dialects of Magi which are defined and discussed in Thomson 1975b - See Map 2. The language has been most thoroughly studied by missionaries of the former London Missionary Society (now part of the United Church) and grammars of the language have been published by Saville (1912) and Thomson (1975a). There are also some quite extensive vocabularies by Saville (1935a,b) who also prepared a translation of the New Testament which has recently been revised by Thomson and Lioro but not yet published.

2.9.5.5.2. Domu

This small language is spoken in the census villages of Dom, Merani and Tutubu on the south coast between Cape Rodney and Baramata (excluding Otomata) and inland in the foothills drained by the Auro and lower reaches of the Bomguina Rivers. Dom includes the lesser villages of Rigua, Unau, Gonubu and Abua. Rigua is said to be originally from the hills north-west of its present location but south of Kani'aba and is said to have spoken Lamagu, a dialect of Maria - see subsection 2.9.5.4.1. above. Merani includes the old villages of Kaura and Iaba (or Eaba).

Domu is most closely related to Bauwaki to the north-east but also shows connections with Abia (of the Yareban Family) immediately

to the north. This language covers Ray's (1938:157) Domu and Merani subdivisions of his Domu Group.

2.9.5.5.3. Morawa

This language occupies the coastal territory east from Sandbank Bay around Cloudy Bay almost to Dedele Point. It is spoken in the four present-day villages of Badubadu, Duramu, Manaua (= new Ganai), and Si'ini (= new Aniado). It covers Ray's (1938:157) Morawa and Lauuna subdivisions of his Domu Group.

2.9.5.5.4. Binahari

This language is to be found on both sides of a range of hills running inland from Cloudy Bay in a north-easterly direction towards the mountains country between Mounts Suckling and Dayman in the main range as far as the headwaters of the Liba River. This range separates the Baubauguina (guina = river) River basin on the west from that of the Amina (or Robinson) River on the east. In Dutton 1971a:24 I suggested that Binahari consists of two dialects: (1) Neme (from *nemeda'a neme speech* but usually spelled Nemea) spoken by 172 villagers in the two villages of Oio (or Oi'o) and Darava No.2 immediately inland of Robinson River Plantation and a few others who have married into Magaubu village on the coast and (2) Ma (from *mada'a ma speech* - which is more extensive (population 598) and covers the following present-day villages: (a) Apaeva (in the Baubauguina River plantation area); (b) Bam and Segili on the east side of the range; and (c) Doma (which includes earlier villages of Orumani, Mada, Uihaia (or Wahea) and Basiabaga) in the Liba valley at the northern end of the range. Dr Thomson thinks, however, - see Thomson 1975b - that these two dialects may be better regarded as separate languages since they are quite diverse lexically. However, without further evidence obtained by visiting the area it is difficult to say. Note, however, that the name Binahari used for the language by me is that used by Ray (1938:159), although informants were puzzled by it and could not identify it as being either a group or dialect name.

2.9.5.5.5. Bauwaki

Formerly this language was spoken in small hamlets scattered across an area extending from the Mori River through the headwaters of the Gadoguina (or Eau) and Liba Rivers into the Keveri Valley along the Adau River on the northern side of Mt Clarence as far as the gorge and northern wall of the main range eastwards along the Owen Stanleys to the vicinity of Mt Suckling. Now, however, the population is concentrated at Amau on

a tributary of the Mori on the southern side of the main range. A minority still live in the Keveri Valley at Paiwi and at Bau and Velavelai in the headwaters of the Liba River. A few have also moved to Mori from Amau.

Bauwaki is a kind of bridge language between the Mailuan and Yareban Families. It shows just slightly greater basic vocabulary agreements with Domu (66%), of the former, than with Abia (54-59%), of the latter. Grammatically it appears to be a mixture of both Mailuan and Yareban elements. This was true also of their pre-European-contact culture generally which seems to have been a combination of elements from cultures on both sides of the range.⁹ According to informants at Amau the language is pronounced *bavake* meaning *true* (ba) *speech* (vake).

Village lists and old names used to refer to parts or wholes of Mailuan languages are given in Dutton 1971a; 1973.

2.9.5.5.6. Labu

This is a very small language spoken only in the village of the same name about ten miles inland up the valley of the Bailebo River - see Map 2. It has previously been suspected of being either Magi or Magori (see Dutton (1973:45)) but Thomson (1975b) has recently collected further data on it which suggest that it is a separate language most closely related to Magi.

2.9.5.6. DAGAN LANGUAGES

There are eight Dagan languages which constitute a large family stretching across the very mountainous south-east corner of lower mainland Papua. From north to south these languages are: Onjob (160), Maiwa (1298?), Jimajima (542?), Daga (or Dimuga) (5326?), Mapena (274), Gwedena (or Gwede) (2161?), Ginuman (or Dime) (775?), Sona (1661?).

Lexically this family is quite diverse - more diverse in fact than the languages appear to be grammatically. The family embraces Ray's (1938:160-62) Dimuga, Gwoira, and Maneao Groups. None of the languages has been recorded or studied in any depth except Daga (or Dimuga). Village lists and population figures for Dagan languages are given in Dutton 1971a; 1973.

2.9.5.6.1. Onjob

Onjob is the smallest of the languages of the Dagan Family and is well separated from the rest of them. It is spoken in only two small villages, Koreaf and Naukwate, a few miles inland of Wanigela Anglican Mission station in Collingwood Bay. According to Medaris (1969) these

two villages belong to two social groups, Onjob and Aiso respectively. The latter is said to have originated from near Karisoa, migrated to Kereroa, thence to Waijug and Naukwate. They are said to have spoken a "language" called Aisoro, different from that spoken by the Onjob group who came from the Kwin River area and were given land by the Wanigela. If there once was a language (as distinct from dialect) difference between these two groups it is no longer extant though there are nevertheless slight phonological differences between the two communalects which may or may not be related to a previous language difference.

2.9.5.6.2. Maiwa

Parts of this language have previously been referred to as Maneao, Pumani, Kwateva and Pue.¹⁰ It covers the northern slopes and foothills of the Maneao Range eastwards from Mt Tantam around to the valley of the Ruaba River and reaches the coast at Baiawa in Moi Biri Bay. Maiwa consists of at least four dialects (from west to east): (a) one around Biniguni including villages in the upper reaches of the Rakua and the western tributaries of the Kwagila. Daga speakers are also known to be living in the Biniguni area. The village of Budumaga is said to speak slightly differently from other Biniguni but was not surveyed; (b) a second around Wapon including villages at the foot of the Maneao Range and in the eastern tributaries of the Kwagila River; (c) a third one around Pumani which includes villages in the valleys of Yome Creek around Kwinau Mission and Pumani airstrip marked on some maps; and (d) a fourth one which stretches from the coast at Baiawa inland in a thin strip to the Ruaba River.

2.9.5.6.3. Jimajima

This small language extends along the coast from just east of Moi Biri Bay almost to Posa Posa Harbour on the Cape Vogel Peninsula and inland across the butt of the peninsula down the lower reaches of the Ruaba River. It does not include the two would-be Doga language speaking villages of Guru and Geragerasina. The western Jimajima villages are often mixed with Maiwa speakers nearby. This probably accounts for the fact that informants recognize two varieties of Jimajima speech - one in the coastal western section; the other elsewhere. Insufficient material has been collected to verify this felt distinction.

2.9.5.6.4. Daga (or Dimuga)¹¹

This is one of the largest non-Austronesian languages in South-East Papua. It is spoken by villages living on both sides of the Main Range

south of a line joining Mounts Tantam, Dayman, Gwoira and Simpson. This area is drained by three main streams - the Bouna (which rises near Mt Tantam and drains into Table Bay on the south coast); the Bailebo (whose two main tributaries the Tavenei and Ulumanu rise under Mt Baratun and also drain south into Table Bay); and the Ruaba (which drains the northern slopes of a basin formed by Mounts Dayman, Baratun and Simpson and eventually reaches the sea in the heel of Goodenough Bay). Most of the Daga population is to be found concentrated in the latter basin especially in the valley of the Agaun, one of the principal tributaries of the Ruaba. Lesser populations live in the upper reaches of the Tavenei, Ulumanu and Bouna Rivers. A few villages are also to be found in the headwaters of the Kutu River which rises under Mt Simpson and flows eastwards into Goodenough Bay near the Government station at Rabaraba.

Villages in the Tavenei valley are often referred to as the Nunu villages, and those in the Ulumanu as the Kenei. The former are most closely related to those in the Agaun valley across the range.

The Daga language apparently consists of several dialects whose boundaries are not yet clear but which it is hoped Mr and Mrs J. Murane of the Summer Institute of Linguistics, who have been studying the language since 1963, will be describing in some detail later.

Linguistic studies of the language have been published by the members of the Summer Institute of Linguistics just mentioned - see J. and E. Murane 1967; 1972 and E. Murane 1974 - and considerable literacy materials (see Healey 1973:44) have also been prepared in it. Other unpublished materials are held by the Summer Institute of Linguistics, New Guinea Branch.

2.9.5.6.5. Mapena

This is another small linguistic group around Mt Gwoira. On present evidence it is most closely related to Daga lexically although informants seem to regard it as belonging to Maiwa. It shows borrowing from the surrounding languages of Daga, Maiwa, Jimajima and Gwedena. Incomplete linguistic material was collected from only one informant from Ruabo village. The following villages are said to belong to the Mapena or Gwoira group: Bemberi, Kwabu, Amako, Girim, Daneam and Ruabo. Cf. Ray 1938:160. These are censused at Bemberi. The population is given as 274.

2.9.5.6.6. Gwedena (or Gwede)

This language is spoken in villages located along the coast in the heel of Goodenough Bay and inland amongst the impressively broken, steep,

knife-edged eastern slopes of the high country between Mounts Gwoira and Simpson. This area is drained by several short swift rivers and creeks, notably the Kubu, Romesi, Kiromara and Ugu.

There are two dialects of Gwedena - one in the upper reaches of the Ugu and the other spoken over the remainder of the area. No material has been published in the Gwedena language. The area is served by the Anglican Mission but the language of the church is Wedau. Gwedena appears to be the language referred to as Umanakaina in Capell (1962:164 and Map XIII).

2.9.5.6.7. Ginuman (or Dime)

This small language stretches in a narrow strip from Mt Simpson to the coast at Naraka and occupies the valley of the river of the same name. The language has not previously been identified.

2.9.5.6.8. Sona

This language is spoken on both sides of the Main Range in river valleys radiating from Mt Thomson. No material was collected from villages on the southern side of the range. Information on them was obtained from informants on the northern side and from Dr N. Thomson.¹² Parts of Sona have previously been referred to as Puduwana and Wadewinda by earlier writers.

Village lists and old names used to refer to parts or wholes of Dagan languages are given in Dutton 1971a; 1973.

2.9.5.7. YAREBAN LANGUAGES

The Yareban Language Family stretches from the southern side of the middle Bariji River in the north, down through the upper and middle reaches of the Musa (or Moni) River, across the Owen Stanley Range into the valleys of the Mori River on the southern slopes of the same range. Its constituent languages are (from north to south): Bariji (256), Yareba (750), Sirio (363?), Doriri (571?), and Abia (579?).

The relationship (in terms of shared basic vocabulary) between these languages and various village communalects within them varies between about 44% and 70%. The family includes Ray's (1938:155-56) Abia and Upper Musa Groups except for his Saroa subsection (p.157) which is partly Baruga and partly Dogoro.

None of the languages has been recorded or studied in any depth except Yareba.

2.9.5.7.1. Bariji

This is spoken in the following small villages along the southern bank of the river of the same name: Biriri, Gewoia, Manana, Samaga No.1, Samaga No.2, Toma, and Yawobo. The language corresponds to Ray's (1938:156) Kororo subsection of his Upper Musa Group. It should not be confused with Wilson's (1969a:66,68) Bareji language of the Binanderean Family.

2.9.5.7.2. Yareba

This is spoken around the upper and middle sections of the Musa River down as far as the gorge through which it passes in the Didina (or Didana) Range. Latest evidence (Weimer 1974: Personal Communication) is that it is a single dialect language which covers Ray's (1938:156) Dibogi and Bori subsections of his Upper Musa Group but excludes his Kororo subsection as just noted in subsection 2.9.5.7.1. above. It is spoken in the following villages: Bibira No.1, Bibira No.2, Domara, Gobera, Moro, Obeia, and Safia No.1.

The language has been studied by members of the Summer Institute of Linguistics since 1963 - see Weimer (1972; 1975) and Weimer, H. and N. (1970; 1972; 1975) - who have also prepared literacy materials in it - see Healey (1973:62).

2.9.5.7.3. Doriri

This is a small language spoken in the northern slopes of the Owen Stanley Range around Mt Brown down to the Moni River west of Foasi Creek. According to Mr J. Parlier (1974: Personal Communication) of the Summer Institute of Linguistics who collected further information from the area in 1973, it is spoken in villages associated with the following census points: Awala, Avakaro, and Safia No.1. The language is very closely related to Abia to the west and south. It covers Ray's (1938:156) Moikoidi (Doriri) subsection of his Abia Group. The location of Doriri is shown on Map 3.

2.9.5.7.4. Sirio

This is a small previously unreported language spoken in the headwaters of the Musa (or Moni) River in the villages of Namudi and Sibia. It has been reported and defined by Mr J. Parlier (1974: Personal Communication) of the Summer Institute of Linguistics who collected some information on the area in 1973. The location of Sirio is shown on Map 3.

2.9.5.7.5. Abia

This small language is spoken on both sides of the Owen Stanleys - on the northern side in small villages on ridges and in valleys of the Foasi and Domara Creeks running down to the Moni; on the southern side most speakers are to be found in the village of Ianu on the middle Mori where a Roman Catholic mission station was established eight years ago. Previously (until about twenty years ago) most were living further east at Amau as a section of the Kwato Extension Mission station. There they occupied a site on the western bank of the Amau, a tributary of the Mori, until several of their number died suddenly. The remainder fled fearing foul play. Some are still living in scattered houses, or return regularly for short periods to former villages (e.g. Debana, Domoï, Lalai etc.) in the headwaters of the Mori.

Abia consists of at least three dialects, and probably as many as five. Two are spoken at Ianu - one by those from the former villages in the headwaters of the Mori; the other (showing closer contact with Domu and Bauwaki languages of the Mailuan Family south and east) by those from the old village of Buniabura to the north-west of Amau. A third is represented on the northern side by the village of Auwaka. Others are probably to be found at Jari and related villages where informants say the Buari and Oiwa groups are now mainly living, and at Doma and Arai'ia in the headwaters of Domara Creek.

Abia corresponds to Ray's (1938:156) Buari, Okaudi, Doriviata (Doriaidi), and Oiwa subsections of his Abia Group.

Village lists and old names used to refer to parts or wholes of Yareban languages are given in Dutton 1971a; 1973.

2.9.5.8. BINANDEREAN LANGUAGES

The Binanderean Language Family was set up and defined by Wilson (1969a) and was extended to a stock through the inclusion of the Guhu-Samane family-level Isolate by Hooley and McElhanon (1970). Further information on many of the languages in the eastern half of the family was provided by Dutton (1969a, 1971a, 1973). The existence of the family had been indicated earlier by several authors, e.g. Strong (1911a), Ray (1938), Capell (1962) without its full extent being known at that time.

The Binanderean Stock (61,500)¹³ is composed of the following languages and language groups:

1. Guhu-Samane family-level Isolate	4000
2. Binanderean Family	57000
Suena	2000
Yekora	300
Zia	3300
Binandere	3000
Ambasi	1200?
Aeka	2000
Orokaiva dialects	25000
Hunjara	4265?
Notu(Ewage)	10000
Yega (Okeina)	900
Gaina	128?
Baruga	1051?
Dogoro	119
Korafe	4194?

These languages extend along the northern coast and immediate hinterland area from the Malama River in the south-eastern corner of the Morobe District in the west to around Cape Nelson in the east. They are generally very closely related except that between the Family and the Isolate, Guhu-Samane, which is in the middle range of stock-level relationship.

Detailed studies of member languages of the Stock have been carried out by King (1927), Ray (1907), Capell (1969), Healey *et al.* (1969), and members of the Summer Institute of Linguistics who have been located in five of its member languages.

2.9.5.8.1. Guhu-Samane

This is spoken by some 4000 villagers around the census points of Aihasa, Gimini, Iariva, Juwera, Kakeipo, Kiro, Oibo, Sedema and Upupuro in the upper reaches of the Waria River near Garaina. There are two villages - Eipa and Zinaba - down near the coast on the Malama River and another - Paewa - at the mouth of the river of the same name. The dialectal situation is unknown but according to Hooley and McElhanon (1970: 1076) Paewa villagers speak slightly differently from the remainder.

Guhu-Samane has been well studied by members of the Summer Institute of Linguistics - see Richert, E. 1975 and Richert, E. and M. 1972 - who have also produced literacy materials in the language - see Healey 1973:48.

2.9.5.8.2. Suena, Yekora, Zia

These are three small languages located in the south-eastern corner of the Morobe District.

2.9.5.8.2.1. Suená is the only language that has been studied in any depth. Members of the Summer Institute of Linguistics have been located in this language since 1964 and have produced linguistic sketches of various aspects of it - see Wilson (1969b; 1969c), a grammar (Wilson 1974), as well as various literacy booklets - see Healey (1973:57).

The language itself is spoken in nine (mainly coastal) villages (Amao, Bosadi, Eware, Gori, Kobio, Maiama, Mo and Wabazeira) between the mouth of the Maiama River in the west and the village of Eware just east of the Morobe Patrol Post in the east.

2.9.5.8.2.2. Yekora is spoken in three villages - Sapa on the coast just east of Eware, and Ana and Posei in the headwaters of the Mo River.

2.9.5.8.2.3. Zia is the largest of the three languages and consists of at least two dialects - Zia Proper and Mawai. The former is spoken in a number of villages around Hercules Bay between Kobo village at the mouth of the Waria River and Eia village at the mouth of the river of the same name and inland up the lower reaches of the Waria River as far as Pena village. The Mawai dialect is spoken in several villages around the census points of Iema, Gobe, and Agutami in the middle reaches of the Waria River.

2.9.5.8.3. Binandere, Aeka, Ambasi

These three languages occupy the north-western corner of the Northern District.

2.9.5.8.3.1. Binandere is the largest and is spoken around the lower reaches of the Eia, Aikora, and Mambare Rivers and in the village of Kureredá at the mouth of the Kumusi River. This language has also been well studied - see King (1927), Ray (1907:365-75) and Capell (1969).

2.9.5.8.3.2. Immediately south of Binandere is Aeka which is spoken in a collection of villages along the middle and lower reaches of the Opi and Kumusi Rivers.

2.9.5.8.3.3. East of Aeka and Binandere is Ambasi which is spoken in coastal or near-coastal villages clustered around the mouth of the Opi River between Bekabari in the west and Katuna in the east just short of the mouth of the Kumusi River.

Village lists for these languages are given in Dutton 1973.

2.9.5.8.4. Orokaiva

Orokaiva is the name given to the large language spoken in numerous inland villages around Popondetta. It has never been properly surveyed but is known to consist of a number of tribal groups or sections, chief amongst which are Waseda, Sohe, and Dobuduru. Orokaiva culture has been well described by Williams (1928; 1930) and Healey *et al.* (1969) have sketched some aspects of Orokaiva grammar. The language is presently being studied by members of the Summer Institute of Linguistics who entered the language in 1971.

A suggested village list is given in Dutton 1973.

2.9.5.8.5. Hunjara

Inland of Orokaiva is Hunjara which is spoken in a large number of villages in the headwaters of the Kumusi and Mambare Rivers. The language extends inland as far as Kokoda and has a common border with Mountain Koiari of the Koiarian Language Family.

A suggested village list is given in Dutton 1973.

2.9.5.8.6. Notu (or Ewage)

This is the second largest Binanderean language. It is spoken in a long series of mainly coastal villages between the mouth of the Kumusi River in the west and the Pongani River in the east except for several Yega and Orokaiva villages around Cape Killerton and Cape Sudest respectively. Notu has been spread across Dyke Ackland Bay by emigrants from Oro Bay (west of the Pongani River) settling around Porlock Harbour in Gobe.

This language is also being studied by members of the Summer Institute of Linguistics who entered the language in 1973.

A suggested village list is given in Dutton 1973.

2.9.5.8.7. Yega (or Okeina)

This is a small language which is apparently represented by two different sections - one around Cape Killerton in the west and another around Porlock Harbour near Tufi in the east. Both are said to be related but no one has established this linguistically. Those around Cape Killerton are generally referred to as Yega and those around Porlock Harbour as Okena or Okeina. Okeina is or was spoken in Ako and associated smaller villages, Mafuia and Oreia (now abandoned). Yega is said to be spoken in Beporo and Surira.

2.9.5.8.8. Gaina, Baruga, Dogoro

These are three small languages spoken around and inland of Dyke Ackland Bay.

2.9.5.8.8.1. Gaina is spoken in the villages of Iwugi, Nembadi, Orala, Sasaru, Wai'ie on the west bank of the Lower Bariji River between Managalasi of the Koiarian Family in the west and the Baruga in the east. This latter is still of uncertain extent but for present purposes is taken to include all villages along the lower Musi River right down to its mouth. These villages include Dove, Embessa, Foru No.1, Foru No.2, Gombara, Gugumu, Guruguru, Kakasa, Karaisa (part only), Karisoa, Kinjaki, Korala, Ovesa, Sanada, Sariri, Songadi, Taruma.

2.9.5.8.8.2. Baruga speakers surround the Kosirava dialect of Maisin spoken in the swamps of the lower Foaru River except in the north where the two Dogoro villages Bendorada and Sebaga are found on the coast in mid-Dyke Ackland Bay.

2.9.5.8.9. Korafe

This is spoken by some 4200 villagers scattered around the rugged coast of Cape Nelson. It consists of two dialects - Yega (or Mokorua) and Korafe Proper. The former occupies two sections of coast, one around Cape Nelson and including the villages of Gavida, Kanaweto, Koruwe, Sinei, Teniaru, and Tumina, and one along the coast east of Porlock Harbour which includes the villages of Angorogo, Bambiti, Foroma, Ilamaroro, and Kaparuru. Separating these two sections is a group of Austronesian-speaking Arifama-Miniafia villages. Some Mokorua speakers are also said to reside at Siu mentioned below.

Korafe Proper is spoken in villages south of Cape Nelson as far as Siu where again it has a common border with Arifama-Miniafia.

Korafe Proper is at present being studied by members of the Summer Institute of Linguistics who entered the language in 1972. Some of the results of this work have already been published or been drawn up for publication - see Farr, J. and C. 1974; 1975.

Village lists are given in Dutton 1971a; 1973.

APPENDIX

Outline History of Contact with and Recording of Papuan
Languages in South-Eastern Papua New Guinea

- 1874 London Missionary Society missionary Rev. W.G. Lawes arrives in Port Moresby to supervise the development of the young mission.
- 1877 Rev. J. Chalmers arrives. Remains to do wide pioneering and exploratory work up and down the coast from Port Moresby and inland. Records local Papuan languages. First specimens are of Koita, Koiari, Mountain Koiari, Humene, and Fuyuge dialects, but most of these not published till 1888 and 1907.
- 1880 O. Stone publishes first Koita and Koiari vocabularies.
- 1885 \ The French Missionaries of the Sacred Heart (M.S.C.) arrive in Papua and establish a head station at Yule Island. In the following years the mission extends inland and establishes out-stations amongst Fuyuge, Tauade, and Kunimaipa-speaking groups. Missionaries learn the local languages and prepare materials in them for mission and education purposes. Grammars also prepared but most of these are still in manuscript form. Father Egidi's grammar of Fuyuge translated, edited and published by Ray in 1912. Some anthropological notes also published by Fr. Egedi (or Egidi).
- 1888 R. Cust collects together and publishes a selection of the vocabularies gathered by Chalmers from Kabana (Fuyuge), Favele, Maiari, Eikiri (all Koiari), Meroka, Kupele (both Mountain Koiari) and Manukolu (Humene).
- 1890 T. Bevan publishes map showing distribution of the following Papuan dialects: Koitapu, Sogerri, Favere, Koiari, Kubere, Meroka, Iovi, Keremu, and Mailu.

- Vocabulary lists collected by Government Officers and others begin to appear in the *Annual Reports for British New Guinea*. First specimens are of the "language of the Upper St. Joseph's River", Koiari Goto, and Koita Ga. By 1900 all presently identified language families have been sampled but publication continues as new areas are contacted and brought under Government control.
- 1891 Anglican Mission establishes mission station at Wedau. Rev. Copland King begins work on Wedau and later on Binandere as the mission extends its work along the north coast.
- 1892 S.H. Ray suggests a classification of languages of British New Guinea based on published materials. Divides languages into Melanesian and Papuan with a mixed type, Melano-Papuan in the islands east of the mainland. The communalects then recorded are divided into the following groups: Koiari (Koiari, Eikiri, Koita, Maiari, Favere, Kupele, Meroka), Kabana, Manukolu, and Domara (Domara, Mailu). A short comparative vocabulary is included. This account reprinted in 1895.
- 1895 S.H. Ray publishes an extensive Comparative Vocabulary of dialects of South-East Papua using the Melanesian-Papuan distinction and groups made in 1892.
- 1907 S.H. Ray published surveys of Papuan languages in Central, South-East and North-East Papua, in which he begins to classify dialects into languages and to comment on their relationships. These surveys include the first grammatical notes of Koita and Binandere, and comparative wordlists for 31 reported "dialects" obtained from published wordlists already referred to and some unpublished lists collected by himself, Rev. Chalmers, Rev. Lawes, Rev. King, and a Mr Walsh.
- 1911 Dr W.M. Strong surveys languages of the North-East and adjoining divisions. Includes new information on inland languages and recognizes relationship between many of these languages and those in other parts of Papua. Suggests groupings which approximate to family-level ones today. These languages resurveyed by Wilson (1969a) and Dutton (1969; 1971).
- 1912 S.H. Ray translates, edits and publishes Fr. Egidio's grammar of Fuyuge in Williamson 1912. Also includes notes on the classification and distribution of Fuyuge, Afoa (= Tauade), and Kovio (= Kunimaipa). Dr W.M. Strong adds further notes on Afoa and Kovio.

- London Missionary Society missionary W.J. Saville publishes a grammar of Mailu (= Magi). Prepares vocabulary and other materials which were never published but which survive in mimeographed form - see Saville 1935a,b.
- 1926 R.W. Grist surveys languages in the Abau area of the Central District. Provides new information of Mailuan and Yareban languages.
P.W. Schmidt surveys literature to date and draws up atlas of languages.
- 1929 S.H. Ray surveys available materials again and classifies languages of the Central District into groups and sub-groups which correspond largely to present-day languages and dialects. These languages restudied by Dutton (1969, 1970).
- 1930 S.H. Ray surveys available materials on languages in the Eastern and South-Eastern Divisions of Papua and classifies them into groups and sub-groups which correspond largely to present-day languages and dialects. These languages restudied by Dutton (1971a).
- 1942 Japanese invade Papua.
- 1943 A. Capell publishes his Ph.D. study of the linguistic situation of South-East Papua which includes some observations on Papuan languages and family groupings.
- 1946 Return of civil administration to Papua. Heightened Australian (and world) interest in Papua New Guinea leading to increased activity in language study.
- 1951 S.A. Wurm recognizes connection between Kiwai and languages of Central and South-East Papua.
- 1954 A. Capell surveys literature for all districts of Papua New Guinea and points out areas for further research. Revised edition issued 1962.
- 1957 Summer Institute of Linguistics team enters Guhu-Samane.
- 1959-64 Summer Institute of Linguistics teams enter Kunimaipa (1959), Weri (1960), Biangai, Managalasi (1962), Ömie (= Aomie), Daga, Yareba (1963), and Suena (1964).
- 1964 W. Steinkraus and A. Pence survey languages of the Gailala Sub-District for the Administration. Suggest that these languages belong to one family.

- 1966-67 T.E. Dutton of the Australian National University studies Koiari and surveys surrounding languages. Determines Koiarian, Kwalean and Manubaran Language Families. Results published 1969 and 1970.
- 1969 D. Wilson establishes the Binanderean Language Family and together with others (Capell, Healey *et al.*) illustrates aspects of the structure of various member languages.
T.E. Dutton surveys remaining areas of South-East Papua and establishes Mailuan, Dagan, and Yareban Language Families and adds to the Binanderean Family. Results published 1971.
- 1969-72 Summer Institute of Linguistics teams enter Barai and Koiari (1969), Mountain Koiari (1970), Orokaiva (1971), and Korafe (1972).
- 1970 B. Hooley and K. McElhanon suggest Guhu-Samane is most closely related to Binanderean languages and establish the Binanderean Stock.
- 1971 S.A. Wurm of the Australian National University proposes that Papuan languages of South-Eastern Papua constitute the South-East New Guinea Phylum.
- 1973 T.E. Dutton publishes checklist of all present-day villages and languages in Central and South-East (mainland) Papua.
Summer Institute of Linguistics team enters Notu on the north-east coast.
- 1974 Sketch grammars of Koita, Mountain Koiari, Ömie, Barai, Magi (or Mailu), Yareba, Korafe, Guhu-Samane, prepared for publication - see Dutton 1975a.
- 1974 Dr N. Thomson prepares account of the dialects of Magi for publication - see Thomson 1975b.

N O T E S

1. See parts (II) 4.1. and (II) 4.5. for further details.
2. These figures are taken from the latest sources except where, as is sometimes the case in Healey 1973, which lists languages in which members of the Summer Institute of Linguistics are currently working, the figures given refer only to parts of the total language (e.g. Barai, Korafe, Mountain Koiari).
3. This is sometimes referred to as the Kunimaipa(n) Family.
4. These figures obtained by adjusting figures in Dutton 1971a to accommodate Sirio and the reclassification of certain other villages. See subsection 2.9.5.7. below for further details.
5. See Austing and Upia 1975, Dutton 1975b, Farr 1975, Garland 1975, Olson 1975, Richert 1975, Thomson 1975a, and Weimer 1975.
6. See Garland 1975, Olson 1975, Austing and Upia 1975, and Dutton 1975b.
7. See Ray 1938:158 for an account of earlier studies on this language. Other, relevant studies have been made by Abbi (1964), Firth (1952), Hogbin and Wedgewood (1954), and Malinowski (1915; 1967).
8. I am indebted to Dr Thomson for this information.
9. See Williams 1944:92-95.
10. See Ray 1938:161.

11. "Dimuga" is said to be a pejorative Mailu term for the Daga. It means something like *bushy*, *dim witted* or *dumb*.
12. I am indebted to Dr Thomson for this and other information on some of the languages of the south coast.
13. Sources for the number of speakers are given in subsection 2.9.1. above.

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