

KWOMTARI SURVEY

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Preamble

The following document was written in 1983 and discusses the findings of a language survey done in what is now called Sandaun Province of Papua New Guinea. The survey was carried out in villages speaking a language belonging to the purported Kwomtari Phylum.

The results were a complete rearrangement of the language relationships, the discovery of a "new" language (Guriaso) and the realization that extensive borrowing may have taken place even from a Malay source.

The draft report was sent to SIL Ukarumpa, The Linguistics Department of the University of Papua New Guinea and the Australian National University (c/o Don Laycock). I had been hoping for some interaction with these parties, but that didn't materialize. As we had to relinquish the research program quite suddenly only a couple of years later, the document has lain unattended to for 20 years.

OCR had to be used to convert the paper version back into a searchable document. I only edited it to make it publishable on the Internet. To avoid any anachronistic changes, the document is presented as it was written, simply as a draft paper that could be used to further our understanding of the linguistic situation in that part of the world. Fas Phonology is quite complex especially in the high vowel region. This has resulted in a number of phonemic and orthographic proposals. See my [Overview of Fas Phonology](#) and [Orthographic Mismatches. Fas vs. Melanesian Pidgin](#) for more info. In this survey e and o, for instance, are used for Fas vowels that are elsewhere represented by i and u respectively.

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INTRODUCTION

This survey was undertaken between June 23 and 26, 1983 with the use of a helicopter. It was motivated by the need for more information on the Kwomtari Phylum, especially as indications had been received which would call for a fairly drastic restructuring ¹⁾.

The following chart indicates the languages surveyed, the villages contained in them, and the population figures derived from the 1979 census.

The villages in which wordlists were taken or checked are marked *. ²⁾

FAS	Resident	Absent	Total
Yo	82	13	95
Sumumini	119	4	123
Wara Mayu	57	20	77
Kilifas *	120	17	137
Fugumui	114	10	124
Fas 2	117	17	134
Fas 3	77	13	90
Finamui	30	8	38
Fugeri	128	8	136
Aiamina	68	5	73
Tamina 1	73	9	82
Nebike	132	4	136
Tamina 2	40	17	57
Utai	81	3	84
Mumuru	99	7	106
Savamui	32	18	50
Mori	78	9	87
Total	1447	182	1629

BAIBAI ³⁾	Resident	Absent	Total
Itomi *	65	15	80
Piemi	47	10	57
Baibai	60	16	76
Yebdibi *	70	1	71
Total	242	42	284

KWOMTARI ³⁾	Resident	Absent	Total
Mango *	64	1	65
Kwomtari	86	12	98
Baiberi *	79	23	102
Yenabi	109	41	150
Yau'uri	84	20	415
Wagroni	39	?	>39
Total	461	>97	>558

BIAKA	Resident	Absent	Total
Konabasi	146	6	152
Biaka *	200	9	209
Amini *	100	?	>100
Total	446	>15	>461

Guriaso ³⁾	Resident	Absent	Total
Guriaso *	111	28	139
Maragin	98	5	103
Mafuara *	61	22	83
Wurabai	43	16	59
Ekas *	34	3	37
Total	347	74	421

Grand total	2943	>410	>3353
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The items in the questionnaire were chosen such that they could be taken within the time available, would be potentially insightful (from a Fas perspective) and would possibly reveal some trade/contact routes. Inclusion of the latter might skew the results somewhat, but we have tried to take this into account in our cognate count. (cf. note 5)

To supplement our data, we also consulted Loving & Bass (1964) (L&B) plus their wordlists, which are filed with S.I.L at Ukarumpa PNG.

THE DATA

THE LEXICAL BASE.

No attempt was made to rectify spelling and other inconsistencies occurring between items in the following wordlists and those in the grammatical data. Such rectification would have required an arbitrary choice and create a false sense of complete accuracy.

ENGLISH	FAS	BAIBAI	KWOMTARI	BIAKA	GURIASO
1. man	yimε(ηj)	yimεni	lofway	doβwai	amεrim
2. woman	mo	mongo	inal i	inali	ayti
3. child	baso	fako (1)	ari	kapari	kεntapo
4. nose	sεBte	sεmōni	tipu	tōpokr i	apēdu
5. eye	koy	kore	(w)u	wo	mukatu
6. mouth	yεkεfo	bεse (2)	rango	ragabε	y ipo
7. ear	muεna	gōmō	futεne	f i nobu	mvtεnu
8. tongue	f onε	fεnεkyo	le	ribo	ayrεmu
9. breast.	fey	fεki	tote	toto	mam
18. milk	fey	fεki	nangvru	nagw i	aru
11. hand	key	rεg i	ame	ami	moto
12. leg	εsεfey	kuβo	kuri	amo	kōru
13. sore	kεbw	nεmbi	fofo	bōbwi	aom
14. skin	hao	(w)ōrōw	ndido	ri	yεrybo
15. corpse	mεkεtε	mεtεrε	tafi(du)	taβi	ao
16. pig	yεsoo	mbōro (3)	fōri	worie	kōney
17. dog	osu	wunε (4)	mau	mau	map
18. possum	onεbow	rinεbo	kapumu	asau	pasεp
19. rat	ōney	hatwe	uriay	worie	kōney
28. tail	nunya	Sεkwōw	kumuru	seqrile	farεpo
21. bird	si	warko	tato	tita	pup
22. wing	momo	rao	koro	kaurō	fatεmu
23. egg	hakō	haro	mayε	meyε	kunεmō
24. cassowary	tuε	wayε	gwaiyε	kōbwiε	piau
25. bird of paradise	aw i (5)	suyake	sεmōlε	somunuε	kayu

ENGLISH	FAS	BAIBAI	KWOMTARI	BIAKA	GURIASO
26. crocodile	səmoney	maməne	maməle	yɪβi	nmən i
27. fish	eɛ	nyas	rawe	akray	ftab
28. crab	wosɪ (6)	afwə	asəne	tɔru	agəsy
29. snake	tokwiβyɛ	mənya (7)	tiafwe	fagiɛ	mədip
38. mosquito	osy	gusi	yɛr i	yɛr i	autəm
31. louse	monbu	muni	yɛfe	yɪβi	manəm
32. tree	koɔ	re (8)	kau	kau	səm
33. leaf	abəkwo	kubɔw	lɛfo .	yamu	amo
34. iron wood	la	lɛwɔ	gɔrina	faku	uɛso
35. sago	u	funɛ	tambə	wi	ta
36. sago jelly	ɛsɪ (9)	gisi	yate	yati	nam
37. banana	aɪ	nəmɔni	ri	ri	ap
38. sweet potato	nəβesy	məsɛmbi (10)	masamb i	brɔgu	pukau
39. tobacco	kafəki	rərəfi	yɪβu	frabi	kəpau
46. betel nut	ɛmse	gɔməsa	sowa	Kwɔtai	taki
41. lime	aeβi	yipu	yere	yɛr i	nəsy
42. betelnut leaf	nuu	nəgwa	bhuai	ñauwe	paurəm
43. salt	fən	f ənɛ	mw i	(wi)namɛ (11)	yimi
44. sun	yon i	wɔsi (12)	--	Diyo	kamɛy
45. moon	uəs	wɔsi	wɔs i	dɔgu	funəmɔ
46. star	mɛβəkɛ	mɛmbəkɛ	limaβu	mɔfri	wɔpu
47. sky/heaven	kami	nagaimbi	rnway	yerioku	umtapɔ
48. ground	akwɔ	gɔrɛ	i nauga	blɛgi	tobu
49. garden	muɛkɛ	fumarɛ	bari	bar i	naom
50. water/river	fi	f i	wɔnɛ/mirɛ	wɔn i	ai

ENGLISH	FAS	BAI8AI	KWOMTARI	BIAKA	GURIASO
51. rain	nifɔ	f i	wɔne	rofati	ai
52. sea.	mɔya	arənas	aytapi (13)	-	mətapoai
53. stone	wonɛ	wonɛngrɛ	ti	bini	ti
54. road	kɔsy	usya	usɛli	aβwi	sək
55. mountain	akwo ɓofow	fukware	afunɛ	pɔpu	atrəm
56. wind	kofmiyɛ	fifiyas	fiβɛr i	pɔpru	afno
57. fire	kɔɔ	la	i	yɛi	sɛp
58. house	fək	fərə	ityɛ	itiɛ	inəm
59. axe	abɛ / tɔmakɔ	gambɛ / tɔmakwɔ	yasyɔmi / tɔmako	wɔmu I / tɔmago	fum
60. knife	pena	pena	kɔsi	pina	pena
61. bow	kəmas	rəmas	kwɔro	pirɛ	ataw
62. gourd	nɛβɛ	nɛmbɛ	lay	dawi	makrat
63. string bag	man	man	akafu	auwə	ənəm
64. mama (addr.)	meyɔw	me	meɛ	mi	rnekɔ
65. father (addr.)	ayɔw	ay	ayɛ	ayɛ	aykɔ
66. name	abow	ambu	bidu	buiɔ	niyu
67. who	ɓuɛ	biɛ	inɛ	ninano	yɛnɛ
68. what	bɛkuɛ	byɛnɛbɔ	gɛso	kara	mɛsɔuwe
69. big (house)	anɔw	anɔw (14)	rango	amaru	mɔru
70. small "	pɛto	rɛmbɛsu	tɛkwero	nɛkapwi	tɔkɛno
71. old "	mɛmɛnow	wagɛnay	bɛbriyɛβu	plɛgiro	pɛimo
72. new "	ɛkow	nao	ameru (tɔ)	amiaro	kamtɛrɔ
73. good "	ɛmso	yɛsau	wɔridu	dɔkwaru	masiyɔ
74. bad "	səkɛβow	mambotako	nɛmbɛru	kɔkwiro	payko
75. white (bird)	syɛbɔ	ngangɔ	kɔnɛmbɛru	dɔbɔkɔ.	krapo

ENGLISH	FAS	BAIḪAI	KWOMTARI	BIAKA	GURIASO
76. black ,,	soko	sungaro	amɔngiru	rɛgairo	tusəmo
77. red ,,	kəto	minyagɔ	wiru	wiro	tono
78. one	fasney	satu (15)	mamɔle	mwaime	mətɛnɛ
79. two	tyɛnəβɛm	nərobɛri	arɛ	aramə	asɛr-
88. three	2 ɛf	2 kɛsy	mangi fɛ	mwagubhe	amtər
81. four	2 2	2 2	yɛrifridu	amitai	nəsɔere
82. five	2 2 ɛf	2 2 satu	yareru	yaritu	akəmɔre
83. I	tɛ	ɛtyɛ	mɔro	nɔmbwire	nan
84. you	hay	angi	ɔno	wonɔ	waw
85. he	wɔ(β)	nɛfɛ / wɔ	ɛto	ɛni	amo
86. we (excl.)	yɛry	ɛtərnɛ	marai	monə	sin
87. we (incl.)	yɛrəbhow	ɛtəmbɛ rambɔ	marai	monə	səpau
88. you (pl.)	harɪ	atyɛ	wunayɔ	monɛ	kupau
89. they	nəb	anyɛ	topay	tɔmwɔ	amo
90. eat (1p.sg)	key	rinəmə (16)	fweo	fwina	məseo
91. drink "	key	rinəmə	fweo	fwina	məseo
92. come "	puən	wuntəmə	reo	dina	manɛɛ
93. go "	pən	pənəmə	wayo	wona	mɛni
94. see (17) "	ɔn	kwantɔɛ	fətayo	βɛtiɛ	fɔmto
95. marry "	nae	nanəmə	fareo	fariɛ	mənəkɛ
96. get "	nae	nanəmə	fare	fariɛ	mənəkɛ
97. shoot "	ney	nituɛ	prafeo	prəbhiə	təkemwɔy
98. cut "	oy	takanəmə	pukətɛ	toβotɛ	natəkɔ
99. talk to "	yɛyɛn	ɛngyanərnɛ	nafwe	takakaβa	-
100. sharpen " e.g knife	səʃɪ	kəsənəmə	nəneyo	yaβua	-

Dialect differences over the first fifty lexical items

ENGLISH	BAIBERI - KWOMTARI	MAFUARA - GURIASO
3. child		tɛpuo
5. eye		matuə
12. leg		wəɾəmuə
14. skin		atoə
16. pig		paɾə
17. dog	kriβu	
17. rat		wamnə
21. bird	kaureβo	
22. wing		fatəpu
23. egg		wənəmə
24. cassowary		piəuɾ
27. fish	rəre	
28. crab	tuβureə	
36. mosquito		auwətə
31. Louse		munimə
32. Tree	ka	
37. Banana	bɛni	
38. sweet potato		kakau (18)
46. betel nut		mtaom
41. lime		rɛso
42. betel nut leaf		marəmə
44. sun		məɾə
45. moon		yɛkoy
47. sky/heaven		məɾ
48. ground		pəɾə
49. garden		raomə
50. water/river		ariə

NOTES:

1. *fa* is also used in Fas -for "young".
2. Cf. Watape *məbete*.
3. Cf. Proto Oceanic *mpoRo*. (Grace < 1979)
4. Cf. Watape *wule*
5. *suyake* is also used in Fas.
6. Post consonantal, word final semi-vowels are realised as voiceless highvowels.
7. *məni* is a particular species of snake in Fas.
8. Cf. Watape *li*
9. Cf. Waris *yɛs*, Arnanab *yis*, Anggor *yas(i)* . The latter form may well provide a link with Kwomtari/Biaka *yati* .
10. Cf. Watape *məsempi* .
11. Traditional salt has a variety of sources. The *wi* specifies that it is derived from the sago palm.
12. Cf. Waris/Manem *wɛs*, *wəs*. In Baibai the expression is also used for "sun". The distinction is made by specifying :of the day/night.
13. Aitapi is a town on the North Coast.
14. Notice that for all languages, the cognate count is relatively low for adjectives compared to other lexical items.
15. The expression is clearly borrowed from Malay : *satu*. *kɛsy* may be the original term.
16. An attempt was made to elicit the generally less complex past/perfect tense forms. The forms in Baibai, however, are probably future tense.
17. The following forms are ones which take singular objects. In Fas and Baibai, but not or not to the same extent in the other languages, phonologically unrelated stems are used for forms taking plural objects.

Cf. Fas ney "I shot (sg.obj)" / *taty* "I shot (pl.obj.)"
 nae "I got/married (sq.obj.)" / *pon* "I got (pl.obj.)"
 / *un* "I married (pl.obj.)" ;

18. Accidental resemblance with MP "kaukau" ? Cf. Guriaso *pukau*.

COGNATE PERCENTAGE MATRIX ⁵⁾

	BAIBAI	KWOMTARI	BIAKA	GURIASO
FAS	33-44 6)	3	3	3
	BAIBAI	7-10	3	4
		KWOMTARI	38-48	3-13
			BIAKA	3

NOUN-NOUN RELATIONSHIPS

POSSESSION

			Possessive suffix	
FAS	Yɛtin-o fək / fək Yɛtin-o	"Yetin's house"	- o	
BAIBAI	Piti-o fərə (1)	"Piti's house"	-o	
KWOMTARI	Uba-ro ityɛ	"Uba's house"	-ro	(3)
BIAKA	Sakrami-lo itiɛ(lɛ) (2)	"Sakrami's house"	-lo	(3)
GURIASO	Səkay-no inəm(iyo) (2)	"Sekay's house"	-no	

Notes:

1. Whether Baibai also allows for the reverse order was not investigated.
2. The significance of the suffixes added to the nouns in Biaka and Guriaso is as yet unclear.
3. It is not unlikely that [j] and [r] represent the same phoneme.

CHARACTERISATION

FAS:

imɛ fɛy-BO " Man given to anger/fighting" -BO
man anger-CHAR

mo oso-BO " Woman who sleeps around"
woman copulation-CHAR

BAIBAI :

yimeh ye-mbwe " Man given to anger" -mbwe
man anger-CHAR

munou kusu-mbwe (1) (2) " Woman who sleeps around"
woman copulation-CHAR

KW OMTARI:

famɛ tɛfɔ lofway (3) " Man given to anger " tɛfɔ
anger CHAR man

tanɛri tɛfɔ inali " Woman who sleeps around"
copulation CHAR woman

BIAKA:

nagi toro dofway "Man given to anger " tore
anger CHAR man

kwɔsabru toro inari " Woman who sleeps around "
copulation CHAR woman

GURIASO:

famɔ soɔ "Something used in fighting " ZERO
fight something

tape ayte " Woman who sleeps around "
copulation woman

Notes:

1. /b/ and /mb/ are regular correlates in Fas and Baibai,
2. *kusu munou* ("copulation woman") is apparently also possible.
3. The connectors in Kwomtari and Biaka were perceived of as loose particles.

HABITUAL LOCATION (1)

FAS :	βεβεkow something	akwɔ-mo ground-HL	" Something of/on the earth "	-mo
BAIBAI	byεmbyεrgwa something	gwaro-we (2) ground-HL	" Something of/on the earth "	-(w)e
KWOMTARI	yεsɔ something	ambu-βu bush-HL	" Something of/in the bush "	-βu
BIAKA	imikau bush	takaro something	" Something of/in the bush "	ZERO
GURIASO	prɔ ground	sɔɔ something	" Something of/on the earth "	ZERO

Notes:

1. Eliciting the right expression proved somewhat difficult in that the distinction between, for instance, Fas -βo and -mo is not directly paralleled in the language of elicitation (Melanesian Pidgin).

e.g. βεβεkow akwɔ-mo " Something (living) on the ground "

βεβεkow akwɔ-bho " Something typical of the ground "

2. As [w] would probably be inserted between /o/ and /e/ by phonological rule, it is not clear whether it is part of the suffix.

SIMPLE NOMINAL PHRASE STRUCTURE

ADJECTIVE/NOUN

FAS :	fək house	anɛw big	" a big house "
BAIBAI :	fərə house	anɛw big	
KWOMTARI:	rangɛ big	ityɛ house	
BIAKA :	amaru big	itiɛ house	
GURIASO :	mɔru big	inəm house	

CASE SUFFIXATION

OBJECT

FAS:	imɛ yɛsoɔ-(m) man pig - OBJ	now (1) shot	" The man shot a/the pig"	-m
BAIBAI:	mborɔ-m pig -OBJ	nitɛ shot (I)	" I shot a pig "	-m
KWOMTARI :	Mirau Mirau	fɔri praforeo pig shot	" Mirau shot a pig "	Zero (2)
BIAKA:	Sakrami Sakrami	fɔri frɛβiɛ pig shot	"Sakrami shot a pig"	Zero (2)
GURIASO:	Tekəne Tekene	kənɛ fɛtəkenoɔ pig shot	"Tekene shot a pig"	Zero

Notes:

1. Object marking, in Fas at least, is functional in that the marker only occurs when the information is NEW. The device is utilized in discourse for backgrounding. In this case new but non-thematic information may be given without the suffix.

2. If the Object marker is identical to the Locative marker <-i>, as it is in Fas, it would probably not show up on -i final words. Unfortunately no other data was elicited.

LOCATIVE

FAS :	fək-m house-LOC	ata is	" He is in the house "	-m
BAIBAI :	won he	fərə-m house-LOC	kakwawe is	"He is in the house" -m
KWOMTARI:	ityɛ-y house-LOC	wurərəreo is	" He is in the house"	-i/y (1)
BIAKA:	itiɛ-y house-LOC	toruena is	" He is in the house"	-i/y (1)
GURIASO	inəm-e house-LOC	nənɔyɔ is	"He is in the house "	-e

Note:

1. We assume that the suffix in Kwomtari and Biaka has non-syllabic quality following a vowel and syllabic following a consonant.

DIRECTION

FAS :	fək-m house-DIR	pən went	"He went to the house "	-m
BAIBAI :	won he	fərə-m pəkowe house-DIR qoes	"He goes to the house "	-m
KWOMTARI :	Mirau Mirau	ityε-yde wareo (1) house-DIR qoes	"Mirau goes to the house "	-<y>de
BIAKA:	Sakrami Sakrami	itiε-ma βria house-DIR goes	"Sakrami goes to the house"	-ma
GURIASO:	inəm-io house-DIR	fεnənɔ. goes	"He goes to (into?) the house "	-io
	arəpi village	fεnənɔ (2) goes	"He goes to the village "	ZERO

Notes:

1. The suffix *-yde* in Kwomtari possibly incorporates *-i/y* for location and *-de* for direction.
2. It is not clear why *'arəpi'* is not suffixed.

INSTRUMENTAL

FAS:	pena-B knife-INS	tapwan cut	"He cut with a knife "	-B
BAIBAI:	pena-m knife-INS	pətεkayakoe (went and ?) cut ;	"He cut with a knife "	-m
KWOMTARI:	kɔsi-tu knife-INS	takarəreo cut	"He cut with a knife "	-tu
BIAKA:	pina-to knife-INS	toβotia cut	"He cut with a knife "	-to
GURIASO :	pena-re knife-INS	təkakoɔ cut	"He cut with a knife"	

Note : Temporals were not elicited during this survey. Fas has -B and it appears from L&B wordlists that Baibai has -mba.

NOMINAL SUFFIX (and particle) MATRIX

Grammatical Construct	FAS	BAIBAI	BIAKA	KWOMTARI	GURIASO
<i>POSSESSION</i>	-o	-o	-lo	-ro	-no
<i>CHARACTERIZATION</i>	-Bo	-mbwe	toro	təfo	ZERO
<i>HAB. LOCATION</i>	-mo	-(w)e	ZERO	-βu	ZERO
<i>OBJECT</i>	-m	-m	ZERO	ZERO	ZERO
<i>LOCATION</i>	-m	-m	-i	-i	-e
<i>DIRECTION</i>	-m	-m	-ma	-(i)de	-i/ZERO
<i>INSTRUMENTAL</i>	-B	-m	-to	-tu	-re

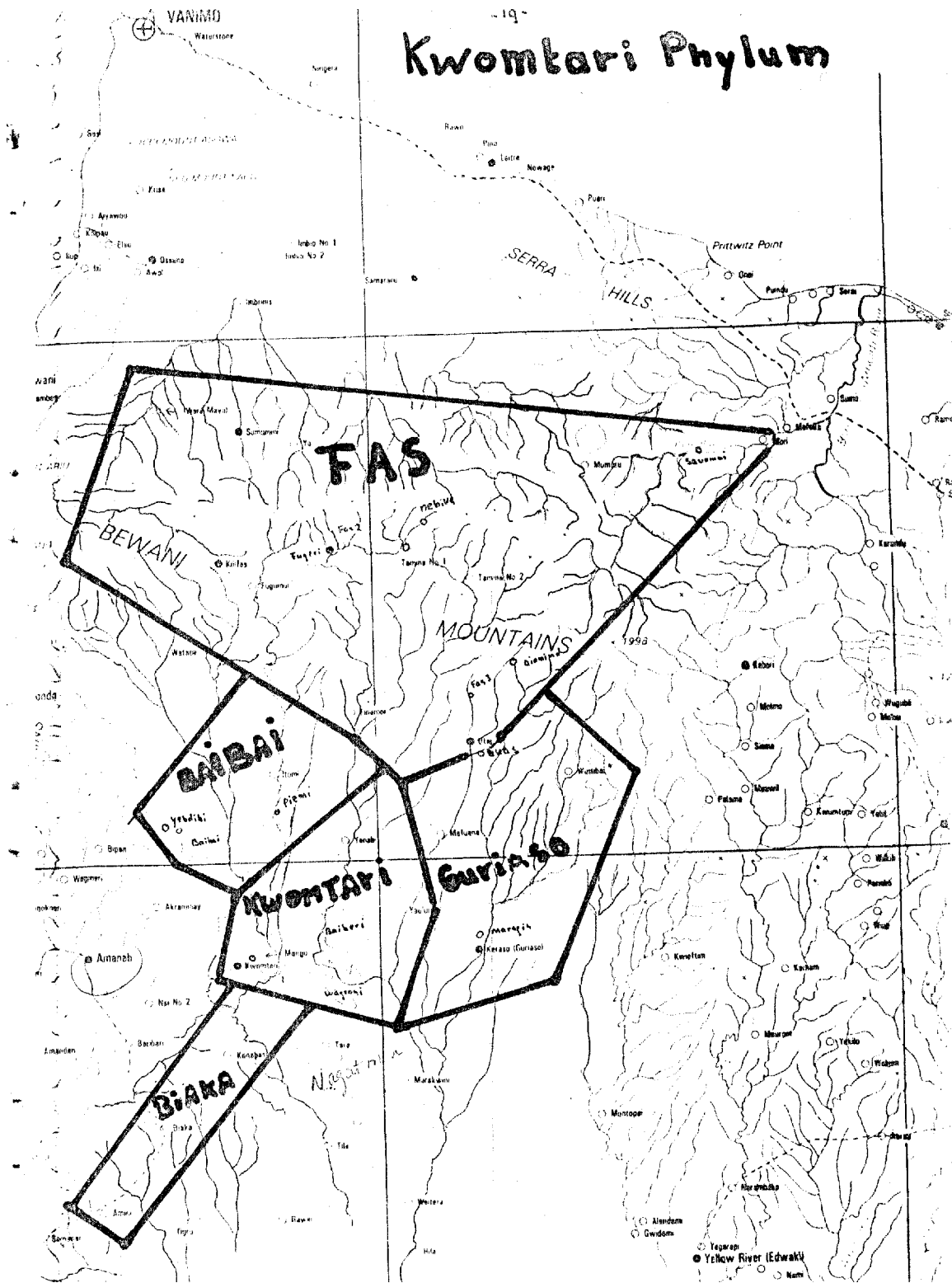
VERB MORPHOLOGY

	FAS	BA I BA I	KWOMTARI	BIAKA	GURIASO
	Go (perfect tense) ⁷⁾				
1 sg,	(now) pən	(pa) pvn(oe)	(may) wayc		(fə) tənɔ
2 sg,	pəf	pəf(oe)	ware		tɛnɔ
3 sg.	pən	pək(oe)	wareo		nɛnɔ
1 pl .	inat/r	pən(oe)	ware		tɛnəwunɔ
2pl .	inam	pəm(oe)	wamo		tɛnɔmeh
3pl .	inase	pəs(oe)	ware		mənɔwunɔ

	See (perf. tense) : F/B		Eat (perf. tense): K/Bi/G		
1sg.	(now) ɔn	(pa) kwənt(oe)	(may) fwɛo	fw iɛ	(feh) tɛsɔ
2sg,	ɔnəf	kwənəf(oe)	fɔro	fwiano	tɛsɔ
3sg.	ɔn	kwənək(oe)	fɔreo	fwie	nɛsɔ
ip] .	ɔnt	kwənt(oe)	fupɔre	fwiaro	sano
2pi .	ɔnəm	kwənəm(oe)	fupɔmo	fwiamo	saɔmɛ
3p] .	ɔnəse	kwənə(soe)	fupɔre	fwiana	məsano

	See (future) : F/B		Eat (future): K/Bi/G		
isg.	ɔnəmɛ	kwəntəmɛ	fɔrifɔ	fwɛbhra	məsɛkɛyo
2sg.	ɔnəfəmɛ	kwənəfo	fwɔ	fwi	kusɛkɛyɛ
3sg.	ɔnəmɛ	kwənəvkomɛ	fwɔpɔ	fwia	nsɛkɛyo
ipl.	ɔntəmɛ	kwəntəfe	fwɔpɔpitɔ	fwɛrifwɛra	məsənɛkeyo
2p1 .	ɔnəməmɛ	kwənəməfe	fɔpɔpuɔ	fwɛβu	kəsawekɛyo
3pl .	ɔnəsɛmɛ	kwənəsomɛ	fupuɔ	fwɛbinɛ	kəsənɛkeyo

Kwomtari Phylum Map



DISCUSSION

THE FAS FAMILY

The first Fas words appear in Capell (1954/62). Capell calls the language Bembi, which must be an outside designation since neither the prenasalised nor the voiced stop fit Fas phonological structure. Capell lists '*fi nabuana*' "Give me water" and '*fi nawo*' "give him water" as evidence that Fas exhibits object marking in the verb. His conclusion is right, although these particular forms don't show it:

fi *nε* - *puən - ε*
 water with-something - come-IMP
 "come and bring water!"

fi *nɔw - ε* ([nɔwɔ])
 water give-IMP
 "give (him) water!"

(2007 note: Given the term Bembi and the said phonological features, Capell may have encountered speakers of Baibai, a language closely related to Fas)

Laycock (1975a) tentatively concludes that Fas has no concordance in verbs with either subject or object. Fas has, in fact, a well developed concordance system with both objects and subjects:

SUBJECT SUFFIXES

	FAS	BAIBAI
1 st singular	ZERO	ZERO (n?)
2 nd singular	-f	-f
3 rd singular	ZERO (or rounding)	-k
1 st plural	-t / -r	ZERO (n?)
1 st dual	-tae	?
2 nd plural	-m	-m
2 nd dual	-me	?
3 rd plural	-se	-s
3 rd dual	-fe	?

Note: In the field notes the Baibai suffixes are followed by 'oe'. We tentatively assume that this has a separate function.

OBJECT AFFIXES (either infix or prefix)

	FAS
1 singular	(h)a
2 singular	wa
3 singular	ZERO
1 and 2 plural	ma
3 plural	nə(n)

Baibai is no doubt firmly related to Fas. The low cognate count in Loving & Bas (1964) (13 %) is probably due to a number of factors. An unfortunate one is that at least 28 items of their word list are incorrectly lined up with the English items. Another reason is the extensive k <—> r/t interchange and metathesis. As r (and t before r) in Baibai regularly corresponds with Fas k, but not the other way round, we will tentatively assume that the diachronic change is from r/t to k.

Cf.	FAS	BAIBAI	
	<i>hakɔ</i>	<i>harɔ</i>	"egg"
	<i>kəmas</i>	<i>rəmas</i>	"bow"
	<i>fək</i>	<i>fəɾə</i>	"house"

Given metathesis of s/f, k/f (which also operates synchronically in Fas) and probably s/m, operating diachronically, the following items are easily related:

Cf.	FAS	BAIBAI	
	<i>kafəki</i>	<i>rərəfl</i>	'tobacco'
	<i>kaməsɔ</i>	<i>dasmo</i>	'smoke'

Note: *d* in L&B appears to regularly correspond to *r* in our data. The actual sound probably is the alveolar flap.

The $r/t \rightarrow k$ rule gives an interesting clue to the probable origin of the name Kilifas. As both Fas no. 2, and Fas no. 3 exist, Kilifas may be thought of as Fas no. 1. I have been unable to find a cognate with 'kili' in any relevant language, meaning "one". Given this rule, it seems likely that the village was originally called "Three Fas" (MP: Tri Fas [trifas]) by early patrol officers. "Tri Fas" became "Krifas" in the local pronunciation (as it still is!) and later patrol officers registered it as 'Kilifas'. The number reference gone, "3 Fas/Fas 3" was subsequently used to name another village.

The Bilabial Trill

The bilabial trill / B / in Fas has /mb/ as its correlate in Baibai:

Cf.	FAS	BAIBAI
	mɛBəkɛ	mɛmbəkɛ "star"
	səBU	səmbu "fat"
	əBOW	ambu "name" ("your" ?) (L&B)

Velar plosive deletion

Furthermore, velar plosives appear to drop out frequently in certain environments. (If Baibai is like Fas in this respect it would only have one velar stop phoneme /k/ [g], [k]. The following vowel may also be relevant (cf. *korə* and *gusi*)

Cf.	FAS	BAIBAI
"hand"	kɛy	rɛgi (→ kɛgi → kɛy)
"breast"	fəy /fey/	fəki (→ fəi → fəy)
"eye"	kɔy	korə (→ kokə → koə → kɔy)
"mosquito"	osy	gusi
"sago jelly"	ɛsy	gisi
"copulation"	oso	kusu

Note:

Via a similar process Kwomtari *-'kɔnɛy'* is probably related to Fas *'ɔnehy'*. Anggor, War-is, Amanab and Ossima have *-yVs-* (V = a, ε or- i) for "sago jelly" (R.Brown, R.Litteral, and G. Graham, personal communication).

Finally, the stems of core verbs tend to be short in both Fas and Baibai and recognition of cognate relations is made more difficult when these stems occur with their suffixes and particles.

cf. FAS ;	now ε noa	<i>now</i>	<i>sehn</i>	<i>-oa</i>
		perf	die	emphatic
		"He has died"		

BAIBAI :	basəgawe (L&B)	<i>bas</i>	<i>sɛk</i>	<i>-awe</i>
		perf	die	emphatic
		"He has died"		

Although the basic forms in these elicited expressions are cognates, that is the verb *sɛn* "to die", it would have been impossible to connect them without the grammatical and morphological insights.

Note:

'g' in Baibai probably represents the (often only slightly) prenasalized *g*, which in turn is likely to have *(n)k* as one of its underlying forms (3 p sg. = *k*).

I conclude then that the cognate percentage is at least 33 % and probably as high as 44 %.. A fairly close relationship is confirmed by the syntax:

VERB SUBJECT MARKING

The following suffixes are shared:

2 sg	:	f
2 pl	:	m
3 pl	:	s (e)

Both Fas and Baibai have rounding for 3 sg where appropriate. Absence of *k* in Fas for these forms confirms the diachronic rule of velar stop deletion .

NOUN NOUN RELATIONSHIP

Fas and Baibai share at least two suffixes:

Possession :	-o
Characterization :	-BO/-mbwe

Note that the possessor-form precedes the possessed in Baibai in the elicited data. The reverse order may also be possible as it is in Fas. Including the Adjective-Noun order, both Fas and Baibai tend to have the Qualified preceding the Qualifier, whereas in the other languages the Qualifier precedes the Qualified. Qualifying nouns precede throughout if no overt marking is employed.

Fas:	<i>Krifas</i> <i>Basɔ</i> Kilifas child	"someone from Kilifas"
	<i>fək</i> <i>təku</i> house roof	"roof of the house"
Baibai:	<i>kusu mungu</i> alternative for : <i>mungu kusumbwe</i> " copulation woman "woman who sleeps around"	
Kwomtari:	<i>wɔku bidu</i> altern. for- : <i>wɔkuro bidu</i> (?) village name village name	"the name of the village"
Guriaso :	<i>tape</i> <i>ayte</i> copulation woman	"woman who sleeps around"

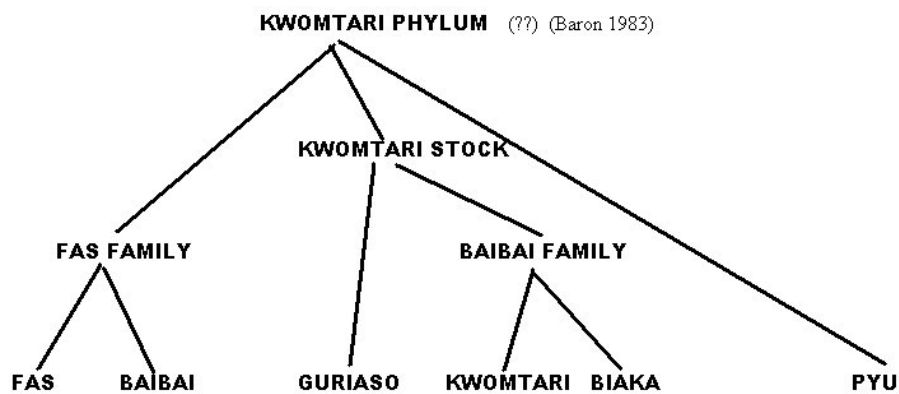
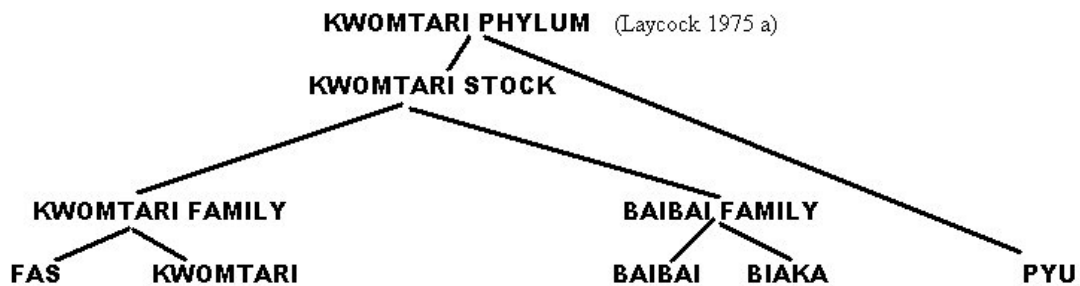
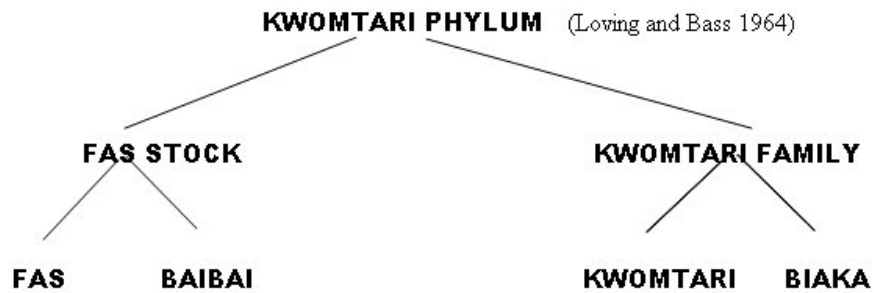
ORDER ADJECTIVE NOUN

The order of adjectives and nouns is identical in Fas and Baibai, namely;

ADJECTIVE + NOUN	cf. <i>fək</i> <i>anɛw</i> FAS house big
	<i>fɛrɛ</i> <i>anɛw</i> BAIBAI house big

THE KWOMTARI PHYLUM ?

The cognate count already indicates a close relationship between Kwomtari and Biaka. I postulate at least 38%, but this may go up as high as 48% with more diachronic changes taken into account. L&B also combined Kwomtari and Biaka into one family, a decision which was reversed by Laycock (1975a). Compare the relationship diagrams of both L&B (L&B '64), Laycock ('75a) and mine:



Dialect differentiation

Some dialectal differentiation occurs within the Kwomtari language. Mango and Baiberi share 90 % cognates and verb paradigms also showed some slight variations. Mango and Baiberi villagers grouped the dialects as follows:

Mango + Kwomtari
Baiberi + Yenabi
Wagrone + Yau-'uri

Wagrone was said to differ more from both Mango and Baiberi than those two differ from one another.

The close relationship between Biaka and Kwomtari is also clearly confirmed by the grammar. Compare the following approximated sets of subject suffixes:

	KWOMTARI	BIAKA
1 sg	eo	iε
2 sg	ro	no
3 sg	eo	iε
1 pl	re 10)	ro
2 pl	mo	mo
3 pl	re	na

Noun-noun relationships and case marking indicate the same conclusion.

The Kwomtari Stock

An important result of this survey is the registration of another language. The original "Kwomtari language" appears to consist of two entirely different languages. Although the words for "no" are extensively used locally for the languages (Guriaso: *munɔ*, Kwomtari: *ma*), it may be better for continuity's sake to continue using the name of a central village for the name of the language.

We will therefore call this "new" language: Guriaso.

Two questions at least need to be answered. One pertains to the relationship of Guriaso to the other languages and the other to the feasibility of positing a phylum relationship between all languages surveyed.

The Guriaso language is spoken by the following villages: Guriaso, Maragin, Wuraboi, Ekas and Mafuara. The village of Kwieftim (*Yɛftim*) is claimed as being in the process of switching over to Guriaso (from Ak (Abau family)). A similar process has been documented by Baron & Whitacre (forthcoming) for Mori, which is switching from the Onei language to Fas.

Some villagers at Mafuara still speak a dialect termed "ancestor talk", which shares 75-80 % with the main dialect. The main dialect appears to be fairly consistent in all other villages. (Ekas was checked against the Guriaso list).

Kwomtari and Guriaso share at least 3 % cognates, though the count could be brought up to about 13 % if some confidence could be generated on the basis of grammatical factors. Compare the following set of lexical items which may well be related;

Guriaso	Kwomtari	
map	mau	"dog"
mətɛnu	futɛne	"ear"
mɔmɛni	mamɛle	crocodile"
tambɛ	ta	"sago"
apɛdu	tipu	"nose"

The grammar appears to give a number of indications that the languages are distantly related:

1. The order of Adjec./Noun and Noun/Noun is solidly : QUALIFIER -QUALIFIED in

Guriaso as well as in the Kwomtari family. (Hab.Loc. in Kwomtari is an exception)

2. The possessive suffix shares the same vowel and an alveolar class consonant with Kwomtari/Biaka: no <—> (ro + lo).
3. The instrumental suffix shares Cv structure and an alveolar C with the Kwomtari family: re <—> <tu + to). Note that t and r frequently interchange <even within the same language) in Papuan languages.
4. The counting system in Guriaso/Kwomtari/Biaka is based on body parts (fingers, positions on the arm, breasts/shoulders) and in the Fas family it is binary.
5. Verb Person inflection, especially if an r <—> n interchange is assumed, appears to be similar, at least for the plural forms: 11)

	GURIASO	KWOMTARI
1 pl	-no	-re
2 pl	-mɛ	-mo
3 pl	-no	-re

6. The r(l) / t <—> n interchange which makes sense in the grammar, definitely raises the number of cognates: e.g *maməle* < — > *moməni* -"crocodile", *təkweero* < — > *təkəno* "small"

We are consequently suggesting a stock level relationship as-indicated on p.26.

A KWOMTARI PHYLUM ?

LEXICAL DIFFUSION

Allowing for chaining (links provided by intermediate languages), the four languages would just qualify as a phylum on the basis of Swadesh's 4-12% norm. The link between the Kwomtari stock and the Fas family would be provided by the Kwomtari/Baibai cognate count (7%). It is clear, however, that, at least in PNG, this norm is insufficient, largely because heavy borrowing may have skewed the picture; Sissano (an Austronesian language), for instance, shares at least 16% cognates with Warapu (Non-Austronesian) (Baron and Whitacre forthcoming).

All languages under consideration share the basic forms for father/mother (addressive) : ay(X) / me/i(X). Though I have no information on Guriaso the word for "(big) brother" also appears to be shared : ap(X) (where X includes a. non-round non-high vowel)

The significance of such cognates would decrease considerably if they are shared with languages in neighbouring phyla. The following list was drawn up from a variety of wordlists (the words for "knife" were also included):

Language	Father	Mother	(Older) brother	Knife
SKO	ai	ma		
MANEM		bai		
TAIKAT	aiwa	mama		
AWYI	ayu	mameə		
IMBINIS (PAGI)	ai	af	auwou / deki	fina
NINGERA	anga	apa	auweh / dvng	pina
WARIS	aya	bəhal	ɛtɛl	oβl a
WAINA	aya	aβa		
DERA	aya	rni		
SENG I	aya	apa		
YAFI	ap	iam		
SOWANDA	əyə	apə	nidi	
WATAPE	woteimo	yang	bukwi	Pene

	Father	Mother	(Older) brother	Knife
AMANAB	way	aɸay	ɛtey	piɸo
ANGGOR	mbau aya (S-W)	me	amongo	pisau
ABAU	ayo	ibei	ɔɸyay	
KARKAR/YURI	aiya	aiyɛi	nɛynɛp	asmaɔk
AMTO	aiya	ena	apɔ	mɛkeɑ
BUSA	aiya	mei	aβɑ	
NAGATMAN	aia	bei	a-a	
NAMIE (YELLOW R.) YELLOW R. WAK I AH	aiya aiyɛ	mo ami	hawa apɛ	
BIAKA	ayɛ	mi	apɛ	piɑ
KWOHTARI	ayɛ	mɛɛ	apɛ	kɔsi
GURIASO	aykɔ	mɛkɔ		penɑ .
BAIBAI	ay	me	apɛ	penɑ
FAS	ayɔw	me(y)ɔw	apɛ	penɑ
SAMARARU (ONEI)	aiyaka	elina	bowatane	
MORI <ONEI>	kɔɔro	wey	kɛpeynɛ	ɔkpise
MAFOKA (ONE)	ay	ama		
OLE	yai / aya	ama / ema	aba	
SISSAMO	aiya	aya	anak prum	maslef / takal
AROP	tatsya	aiyia	wanak porum / mama	takayl
RAMU (WARAPU)	tata	mo	pepana	aymumbiya
WARAPU	tyataita	mani	rai au	aymumbiyin

Notice that Busa (unclassified) also employs the Kwomtari cognate base for "father/mother/brother". If spirantization (and voicing) of the p and oralization of the m is allowed for, Nagatman (unclassified) would also join this group in this respect. Notice that the base form for "brother" also appears in Amto (unclassified) and Olo (Toricelli). The base form for "mother" also occurs in Dera and Anggor (Trans New Guinea) and possibly Abau (Trans New Guinea) and Mori (Onei) (Sko Phylum). The base form for 'father' appears to be wide spread. It may even be more wide spread than indicated by the chart as the item for 'father' as elicited in the regularly employed wordlists often is the reference term. This may be entirely different from the addressive. The Waris list, for instance, has 'əral' for father, but the addressive is 'aya' (R. Brown, personal communication). Fas has 'bha^fow' for '(his) father', but 'ay^ow' for the addressive.

One might hypothesize that the ay(X) forms were borrowed from Indonesian/Malay **aya** "father". In a language like Amanab where ay(X) does not occur, no other addressive occurs either. Parents are in fact addressed by their names. It is possible that addressives previously did not occur in the other languages as well, and that contact situations subsequently created a semantic gap which was then filled by an Indonesian loan ('aya'). Indonesian 'abang' for (older brother) is also likely to be the source of the aB(X) forms. Note that in Anggor 'ape' is used for "older respected mate" consequently also for "father", There is no obvious source term for "mother" in Indonesian, from which the (V)Be/i(X) terms can be derived, "ibu", "ma", "mak", "mam(a/i>)" occur, but one shared labial consonant is not much to go by, especially as labials may be universally typical in maternal addressives. More colloquial Indonesian may have employed forms that I am not aware of.

Notice that Sissano/Arop has 'a(i)y(i)a' for "mother". If a switch of terms could be assumed, the story recorded by Capell ('55/62) may gain some more credence: '*Waropu (Arop) is said to have been founded by migrants from Netherlands New Guinea.*' Note that Warapu and Arop are different villages, speaking different languages. An Arop informant (Paul Sariwe) seemed to believe that the story relates to Arop. An other story about settlers from Vanimo (?) relates to Warapu (Thomas 1942, quoted in Laycock '75b p. 850)

A further indication of loaning processes for kinship terms (especially addressives) is provided by the terms for "mother" in Sko, Taikat and Awyi: 'ma', 'mama' and 'mamε' resp.. These languages which are nearer Jayapura, seem to use a clear loan from Indonesian (which may, in turn, have been introduced into Indonesian via Dutch "mam/ma(ma)"). Also notice the use of this term for 'older brother' in Arop.

There is consequently some fairly strong evidence suggesting borrowing of addressives. This in turn reduces the value of these terms for an indication of linguistic relationship. Borrowing is not as clearly indicated for the term for "mother", unless some more informal Malay term lies at the root of it. On the other hand, the languages in the posited Kwomtari phylum are cohesive in that they share the complete set (also including Busa).

The terms for "knife" , "axe" and "tobacco" were included in the hope of finding some indication of trade routes or contact linkage. The typical term for "knife" used in the Kwomtari phylum is '*pena*'. It is also used outside the phylum in at least Anggor (now going out), Watape, Pagi and Ningera, but does not seem to be used outside the phylum in any other direction, nor are we familiar with any Malay/Indonesian source term. An added problem is that often more than one term exists. Fas, for instance, also uses '*popw*' and '*maβni*'. The latter and especially the last are associated with the older people's speech. Kwomtari has '*kɔs*', but it is probable that '*pena*' also exists (especially since it occurs in Biaka). Again, if not a linguistic relationship, a close contact relationship is indicated. It is interesting to note in this context that the word '*pisu*' occurs in a number of languages. It derives from the Indonesian word for "small knife '*pisau*', and is known to occur in Fas, Amanab and Anggor.

The word for "axe" is also suggestive of an interesting history. The word appears to be basically '*tɔmakɔ*' and is considered to be 'original language' (if Fas can be taken as indicative). It is distinct from Pidgin "tamiok", though clearly from the same root: "tomahawk" . Its introduction into four of the Kwomtari phylum languages must have taken place at an earlier stage, and it would be interesting to find out whether it was introduced by early Australian/British traders or used and introduced by the later German traders and settlers. Original terms for "stone axe" also exist and, at least in Fas, it appears that the original term "*αβε*' is increasingly also used for the modern axe. As there is little indication of the existence of this particular phonological form of the loan word in neighbouring languages, its occurrence in the Kwomtari phylum suggests some kind of closer contact, which in turn might be indicative of a genetic relationship.

The word for "tobacco" does not appear to be shared by all languages involved. It is interesting that the form '*sVG-*' which is spread throughout the Torricelii phylum (cf. Olo : -'saugeye", Bill Staley, personal communication) and also occurs in the Trans New Guinea border languages (cf. Waris : *səkhai*) and the Sko Phylum (cf. Manimo 'sagai' (Laycock '73), is not found here. The form is probably derived from Indonesian 'seg,' "shag" which may have been introduced into Indonesian via Dutch in which it is common [*syɛk*], Also note the very common Dutch diminutives [*syɛkyə* / *syɛki*]. It is, on the other hand, not unlikely that the Fas/Baibai terms are derived from Indonesian "tembakau" (originally American Indian). Although, diachronically, the Fas bilabial trill is related to Baibai '*mb*', Baibai speakers of Fas systematically replace it by [f]. This gives us the mb/f correlate. Also taking the t → k rule into consideration, such a derivation may well be envisaged: (Indonesian **tVmbVkv**) → **tVfVkv** --> Fas **kVfVkv** ('*kafəki*'). Note that this would require a rule k --> r(t) to have been operative in Baibai (*tVmbVkv* → *tVfVkv* → *tVkvfV* → *tVtVfV* → *rVrVfV* ('*rərəfi*')), which runs counter to the postulated direction of this rule (k → t). The isolated occurrence of the term also remains unexplained. (Notice, however, the use of 'kaveiki' in Warapu (Laycock '73). Alternatively Laycock ('73) may be right in

suggesting that all these terms are derived from Proto Oceanic *tabako . This would require t→s (common, but less so preceding a), b→ u (cf. Sissano: 'sauke') → ∅ and k → g. Some indication of when and how widely "shag" was used in Indonesian and also if a diminutive form was employed, would be helpful in settling the question.

In conclusion, the occurring cognates do not provide a very strong case for a phylum relationship. There is the suggestion of a closer contact relationship between the groups involved, which may or may not be based on a linguistic genetic relationship.

GRAMMAR

There is little in the grammar either which could indicate even a distant phylum relationship. All languages involved share an -m- as (part of) the second person plural marker. First person plurals share a consonant belonging to the alveolar set t/r/n (all of them known to interchange!). Alveolars are also part of the third plural marker in all languages involved.

The tense system has similarities in that the perfect tense marker is realized as a particle preceding the verb in at least four out of five:

Fas:	<i>now pən</i>	he has gone
Baibai	<i>pa pən</i>	"
Kwomtari	<i>may wareo</i>	"
Guriaso	<i>fɛ nɛnɔ</i>	"

The exact semantics of this particle is still under investigation. In Fas it can also be used with the present and future tense. Its meaning approximates English "already/ all ready" :

<i>now pən</i>	"he has already gone"
<i>now pəta</i>	"he is already going / on his way"
<i>now pəmo</i>	"he is all ready to go"

Future tense marking appears to be incorporated into the verbs, though the precise strategy for the Kwomtari stock languages is hard to abstract from the available paradigms.

Again taking Fas as the norm, future marking may well be somewhat complicated in the other languages also. Fas employs three suffixes, one of which is probably an abbreviated form of the other;

<i>tɛ pəmo</i>	"I will go"
<i>tɛ pəmə</i>	"
<i>tɛ pəməta</i>	"

The -mo form has specialized usage. It is used for certain "infinitives":

<i>tɛ beom pə-mo</i>	<i>*pəmə(ta)</i>	"I can't go, "
I can't go-FUT.		
<i>tɛ pəmo-m</i>	<i>ɔnəfa</i>	"I am not going "
I go-FUT-OBJ	not (-m ɔnəfa = Nominal Negation)	

It is also the only form allowed with 'now'. '*mɛ(ta)*' on the other hand is the only form which can be used in expressions conveying concern:

<i>to</i>	<i>-məta</i>	"(Take care), It may fall! "
fall 3sg	-FUT	

In other more ambiguous cases the difference seems to be largely in terms of certainty, '*mɛ(ta)*' allowing for some uncertainty on the part of the speaker, '*-mo*' may turn out to be better analyzed independently of the tense system.

As we have seen, the Qualifier/Qualified order, when overt markers are used, in the Fas family is the opposite of the one found in the Kwomtari stock. As such a difference apparently also occurs within clear phyla, it need not contradict a phylum relationship. (cf. Laycock '75b p. 771 on Torricelli)

A conclusion at this stage seems hardly possible. For the sake of the few features which are shared and for the sake of taxonomic continuity we will continue to refer to the group as the Kwomtari phylum till further-insights have been gained.

Further investigation would require a more thorough comparison of the languages in this group with the languages in the bordering phyla, especially Torricelli and the Border stock of the Trans Mew Guinea phylum. With work going on in Angkor, War is, Fas, Karkar and Olo, further insights are hopefully forthcoming.

NOTES

1) Special thanks goes to Robert Brown for his assistance during the survey, and helpful discussions afterwards. The following are thanked for reading and commenting on an earlier draft: Susan Harris, Ray Johnston, Robert Litteral, Dorothy Price, Bill Staley and Steve Whitacre. The project was funded by the Sepik region of the Summer Institute of Linguistics.

2) The author has been involved in an S.I.L type program, while living at Kilifas for periods from 1977 onwards. The wordlist represents the language as spoken in Kilifas. An initial probe has shown the Fas language to be fairly consistent throughout the area, cognate percentages remaining well over 98% even between extreme borders of the language.

3) Local migrations have made existing maps rather obsolete. Piemi is now also on the Yenebu river, Yebdibi has moved over to the Bapi river, Baibai is now located just East of the Bapi. Both Mango and Maragin have moved to within a few minutes walk from the airstrips in the area. Ekas is in the same geographic location as Utai, each village on either side of the river.

4) C.H. Borland in a squib in *Current Anthropology* June 1962, reports on his findings after comparing the results of cognate counts using the 100-word and the 288-word samples proposed by Swadesh along with two non-basic vocabularies of 2,235 and 555 words each in 28 Bantu languages. He concludes "*that there is in fact no marked difference in susceptibility to borrowing of basic and nonbasic vocabulary*". In our discussion of kinship terms, this conclusion is borne out. That is not to say that no constraints should be put on the kind of vocabulary employed. Though useful for other insights, vocabulary which is historically known to have been introduced, should be disregarded for the cognate count. Further constraints derive from the need to be as unambiguous as possible in the elicitation process. This brings out the need to compile vocabulary suitable to each particular area, taking account of as many area features as have come to be known. The lexical item "to cut", for instance, appeared to be rather unsuitable as "cutting", in a number of West Sepik languages at least, is far too generic. In Fas, for instance, entirely different stems are used depending on the particular type of cutting (e.g. length wise, in the middle, in little bits, etc.).

5) The total number of items taken into account for each pair was derived as follows: The words for "sea", "axe", "knife", "we excl.", and "cut" were disregarded throughout. Where two English items are semantically combined into one item in both languages compared (cf. milk/breast), the total number of items compared was reduced by one. When for one of the pair no information was available, the item was

disregarded.

6) Note that many cognates in Fas / Baibai were recognized on the basis of postulated diachronic changes. Further Knowledge of Biaka / Kwomtari might bring to light diachronic changes pertinent to these languages and consequently raise the cognate percentage. Note that in general the Biaka / Kwomtari cognates are phonologically closer than the Fas / Baibai ones, a fact which should somehow be taken into account in the linguistic taxonomy.

7) See 4.4.2 for a discussion of the semantics of these forms.

8) It might be worthwhile to investigate the extent to which this is a universal tendency. (If so, Melanesian Pidgin, at this stage, contains some marked structures (cf. 'haus boi' "house for unmarried males", 'bokis ais' "fridge/freezer".) Also notice that the NOUN Ø NOUN structure is more widely used in Baibai than in Fas, in which it is basically restricted to Whole-Part nominals. Baibai, in other words, appears to be in a process of grammatical assimilation to Guriaso. The possibility of grammatical assimilation further complicates the search for linguistic relationships.

9) Laycock ('75a) also includes the Pyu language in this phylum. As we only have the short wordlist on this language published in Laycock ('72), it is left out of this discussion. Items in the list corresponding with the ones employed for this survey are given below, the numbers corresponding to the item numbers on p.8/9. The number of cognates shared with the other languages appears to be rather low. Never the less, until more data have been collected, we will continue to classify it as a language of the Kwomtari phylum. (cf. p 38).

Note: underscore marks stress!

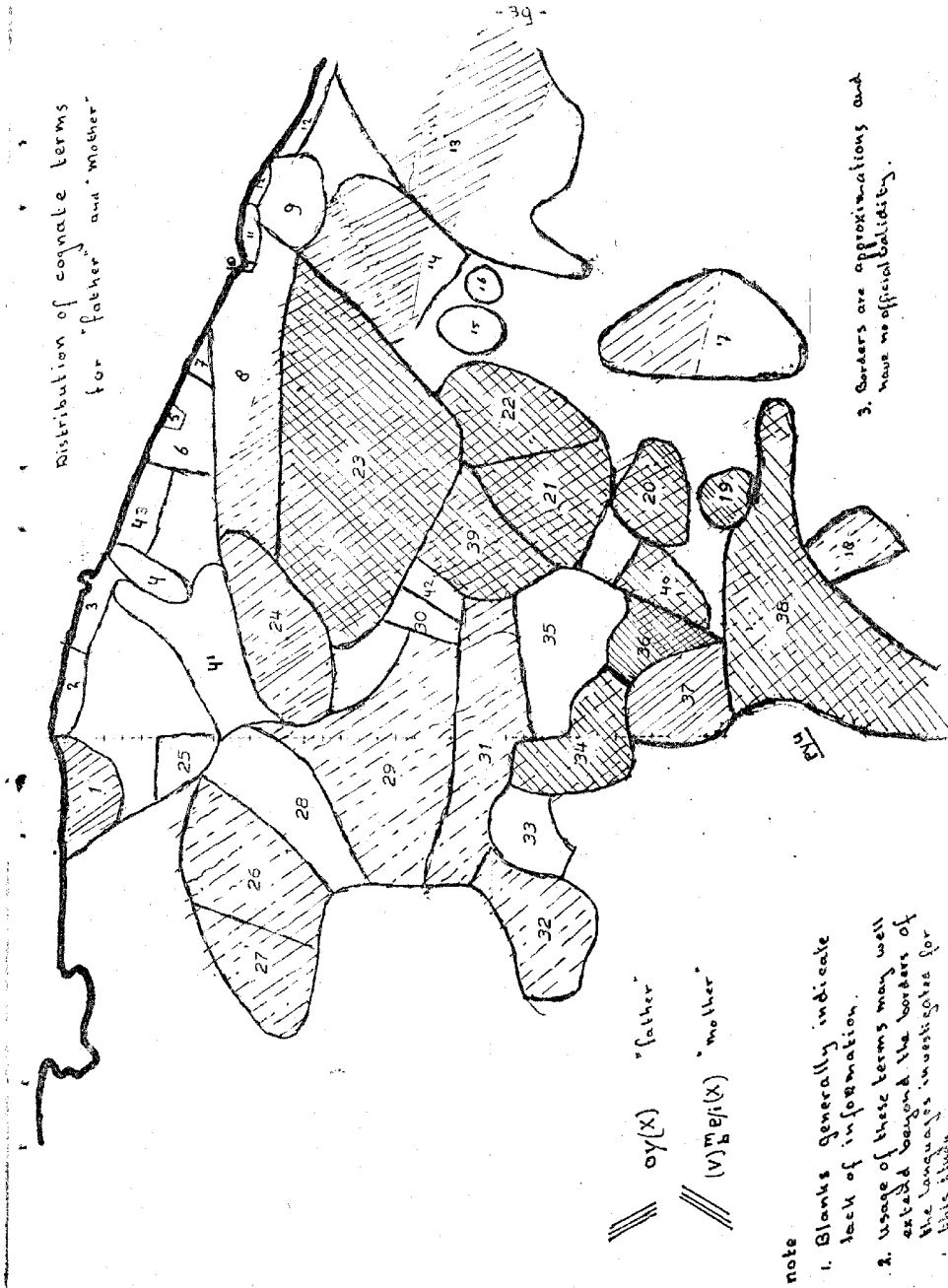
No.								
1	man	<u>tal</u> i	32	tree	ka	81	four	asubw i
2	woman	rumwa	44	sun	agwi	82	five	Kabra mǎn fɛ
3	child	nap <u>u</u>	45	moon	agiya	83	I	kwa
4	nose	təpl <u>i</u>	48	ground	kube	84	You (sg.)	No
5	eye	bə <u>rn</u> a	58	water	yi	85	He	Na
7	ear	kwə	53	stone	siri	86	We	rɲəla
9	breast	yibwi	57	fire	kamiɛ	88	You (pl.)	Mo
11	hand	kaby <u>i</u>	58	house	ma	89	they	Na
14	skin	kakə <u>l</u> ɛ	75	white	ka	92	come	tæ
16	pig	wɛ	76	black	kəlisi	93	go	ku
17	dog	nakwu	77	red	asitəki	94	see	ka
21	bird	maru	78	one	tɛfiye			
30	mosquito	ayi	79	two	kasi			
31	louse	ni	88	three	handankasi tɛfi			

18) The e <—> o interchange is also attested for the Angkor language <R. Litteral, pers. communication)

11) An l <—> n interchange is attested for Olo (Bill Staley, pers .communication).

Appendix

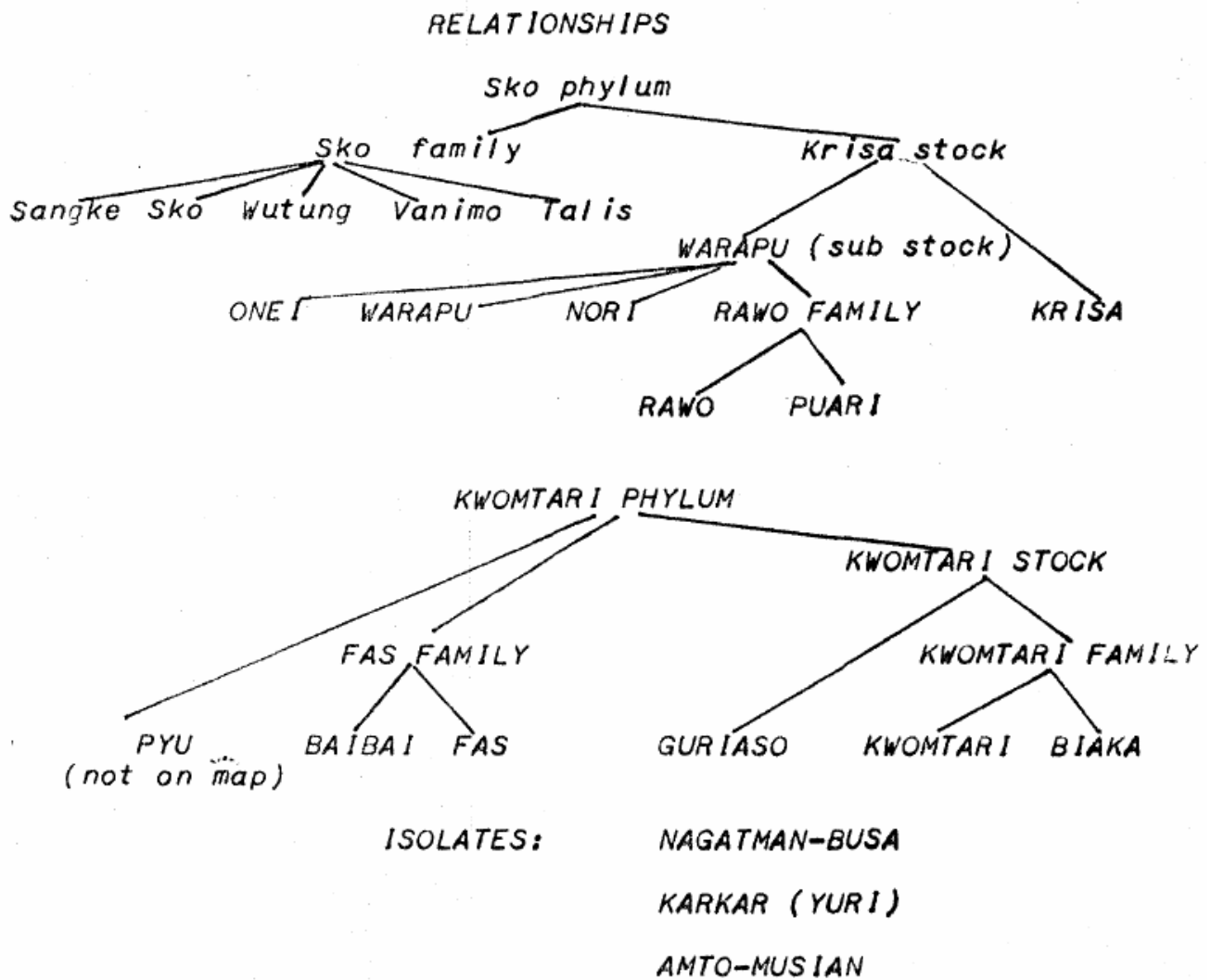
Distribution of cognate terms for "father" and "mother"



LANGUAGES

1. *Sko*
2. *Wutung*
3. *Vanimo*
4. *Krisa*
5. *Tal is*
6. *Rawo*
7. *Puar i*
8. *Onei*
9. *Warapu*
10. *Nori*
11. *Sera*
12. *Sissano*
13. *Olo*
14. *One*
15. *Seta*
16. *Seti*
17. *Namie*
18. *Amta*
19. *Busa*
20. *Nagatman*
21. *Kwomtari*
22. *Guriaso*
23. *Fas*
24. *Pagi*
25. *Sangke*
26. *Taikat*
27. *Awyi*
28. *Manem*
30. *Daonda*
31. *Waina*
32. *Sengi*
33. *Yafi*
34. *Dera*
35. *Amanab*
36. *Anggor*
37. *Yuri*
38. *Abau*
39. *Baibai*
40. *Biaka*
41. *Kilmeri*
42. *Simog*
43. *Nigera*

Relationships / Language trees

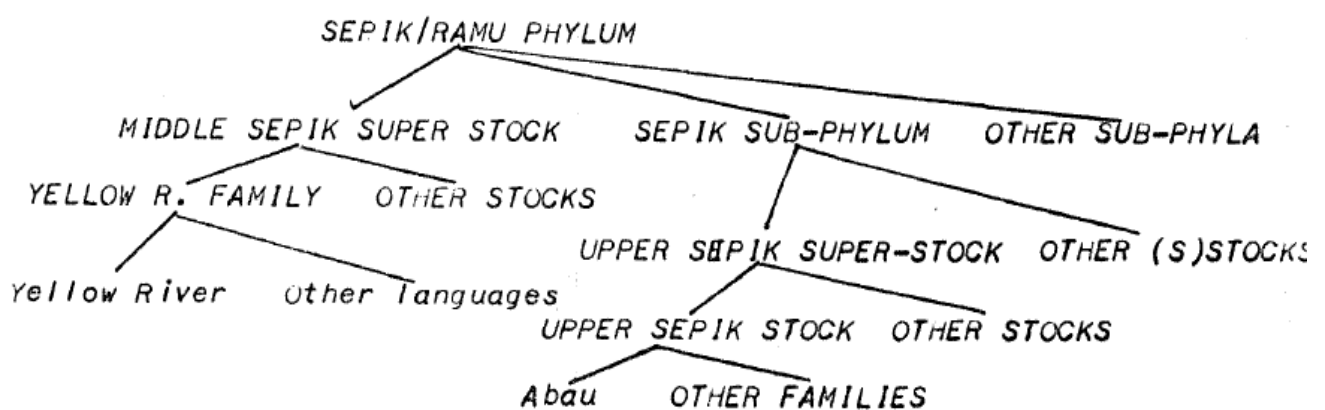
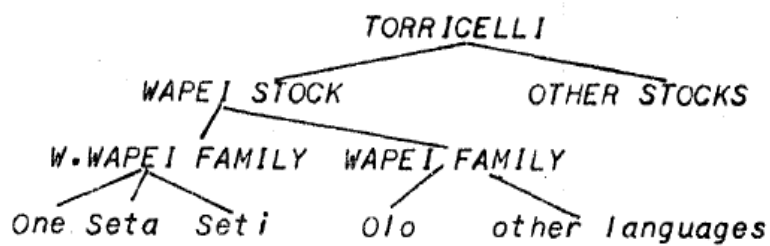


TRANS NEW GUINEA PHYLUM (BORDER STOCK)

In various relationships:

Awyi	Ningera	Amanab	
Taikat	Waris *	Yafi	
Manem	Daonda	Anggor	 Or SEPIK-RAMU (cf. Litteral '80 appendix B)
Kilmeri	Simog	Dera	
Pagi	Waina	Sengi	

* The language of Imonda village is probably sufficiently different from Waris to merit separate language status.



AUSTRONESIAN : *Sissano*

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