A NOTE ON THE ORIGIN OF THE MOTU TERM hiri

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During the course of research into the origin and history of Police Motu (now called Hiri Motu) I have come upon suggestions that run counter to the long-established ones of the origin of the hiri, the annual trading voyages made by the Motu to the Gulf of Papua, which involve folk observations on the origin of the word itself. Briefly these suggestions claim that the hiri was to all intents and purposes a Gulf, specifically Koriki (or Purari), invention, and not a Motu one, and that the word hiri and the idea of the lagatoi (trading vessel or canoe) used on those hiri are borrowings of Koriki words and ideas.

Normally one could easily refute or support such suggestions by appealing to other readily available evidence but, given the present rather rudimentary state of research into the origin of the hiri, this is not so in this case. Moreover, given that the suggestions do, on the surface at least, look credible from a linguistic point of view, as I will shortly show in more detail, they have to be taken seriously - at least until they have been inspected more closely. It is the purpose of this paper to carry out such an inspection. Let me begin by sketching in the background to the claims.

The recognised Motu tradition is that the hiri is a Motu invention. Edai Siabo, a man from Boera village was instructed by an underwater spirit or dirava, in how to make a lagatoi and in how to sail it to the west for sago (Barton, 1910:97-99). Some say that Edai Siabo or his forebears came from the Gulf and hence knew where to go. Others say that a descendant of Siabo's married a woman from the Koriki area (Ba'muru) and in that way obtained that knowledge (Oram, 1981:216).

From the Koriki point of view, although there is no one recognized legend attributing the hiri directly to Koriki inventiveness, there are a number of stories which do so indirectly. These stories all attribute contact with the Motu to Koriki men or women who left their homeland for various reasons and ended up in the Motu area where they married. Principal actors in these stories are Vaipa, Api, Kairi, Ke'a, I'a, and Aua. In one of these, Aua, the protagonist, was put on a raft like a lagatoi, bound up with birdlime as punishment for stealing, and sent down the Purari into the Gulf of Papua. He sang as he went and at each village he came to he tried to get the people to set him free but no one could or would. So he eventually ended up where Fisherman's Island (Daugo) is today. There the Motu found him and set him free. He stayed with them and told them about his village and sago. When they asked him how to get there he showed them, after demonstrating how to make the necessary sailing craft. He was welcomed home but because he had married a Motu woman he did

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not stay. That, according to the legend, is how Fisherman's Island came to be - it is Aua's petrified *iri va pea* or raft - and how the *hiri* began. It also explains how the Motu came by the word *hiri* and the idea of a *hiri lagatoi* - they did so by borrowing the Koriki word *iri* for 'tree' and transliterating their phrase *iri va pea* (lit. 'tree canoe') into their own form *hiri lagatoi*.

Now these "explanations" of the observed similarities between the Koriki word for 'tree' and the Motu word for 'trading voyage', and that between the (physical) nature of the *lagatoi* and an *iri va pea* are, as already noted, indeed attractive, especially given (a) the close social ties that evidently existed between the Motu and the Koriki and which provided an opportunity for linguistic borrowing, and (b) the linguistic arguments that can be advanced for deriving the Motu word *hiri* from the Koriki word *iri* and the Motu meaning 'trading voyage' from the Koriki meaning 'tree'.

The social ties are incontrovertible, being embodied as they are in oral tradition of the kind quoted above and also manifested by Motu use of a simplified form of the Koriki language for trade purposes with them (Dutton, 1979), as well as by the presence of at least one identifiable borrowing from Koriki in Motu and perhaps a second. The linguistic arguments involve explaining why there is an *h* in the Motu form (i.e., how it came to be there) and how, or why, the semantic change from 'tree' to 'trading voyage' could have occurred.

In the former case the *h* can be "explained" by claiming that it was added (to borrowed *iri*) by a particular group of speakers and subsequently (for some unexplained reason) adopted by others as the standard pronunciation. Support for the second part is never likely to be forthcoming given that the society never had a written tradition. However, support for the first part of such a claim is to be found in Taylor (1970:265-66) where some examples of words are given in which Kapakapa speakers use an *h* where others do not. Since at least one of those words, *hura 'lobster*', is a reflex of Proto-Oceanic (POC) *quda(n)* (Wurm and Wilson, 1975:123) which, by Motu sound laws should be *ura*, the form used in fact in other Motu villages, it is clear that the *h* has been added in Kapakapa rather than lost in other communities.

Similarly the semantic shift from 'tree' to 'trading voyage' can be "explained" by pointing to the fact that, universally, words do change their meanings by association, that is, by speakers transferring the name of one thing to another closely associated with it or by using the term for a part of something to refer to the whole etc. So in this case one could argue that 'tree' became 'trading voyage' through the association of 'tree' with 'log' with 'canoe' and finally with 'trading voyage'.

Now although these arguments are quite plausible and despite certain weaknesses in them (e.g., they involve a number of steps which
weaken the argument in proportion to the numbers of such steps involved), they are but one side of the coin; there are other possibilities that have to be considered before a proper decision can be made. These other possibilities have to do with the fact that Motu is an Austronesian language (AN), and that it was, and still is, surrounded by and in contact with other AN and non-Austronesian (NAN) languages. Thus there are, a priori, two other cases to consider. In one the question is: Did Motu inherit the word from some earlier stage in its history when it was part of some former proto-language? In the other, the question is: Did Motu borrow the word from some language other than Koriki that it was in contact with? However, as both these questions are mutually exclusive (i.e., both cannot be correct) it is not necessary to consider both cases equally thoroughly before making a decision: the second case need only be investigated if the former is non-productive, or vice versa. Let us begin with the first one.

Given that Motu is an AN language most closely related to languages in the immediate vicinity (Pawley, 1975) and thence to languages further east around the south-east tip of the mainland (Pawley, 1975; Ross, 1979) and thence most probably to languages in that sub-group of Oceanic that are often referred to as Eastern Oceanic (Biggs, 1965; Pawley, 1972; Grace, 1976), it is amongst these languages that one is most likely to find related, or cognate, forms that one needs to determine the case one way or the other, if such forms exist in any AN languages at all.

Actually there are two hiri words in Motu (excluding derived forms): one, hiri₁, can be either a noun or a verb and means 'trading voyage', and the other, hiri₂, is a verb meaning 'to fasten by twisting round and round etc' (Lister-Turner & Clark, n.d.). A survey of some of the relevant languages in the sub-groups just mentioned above is sufficient to show that both have cognates in most of them. The full list is given in Appendix 1 where it is pointed out that cognates have been established by appealing, for each language in turn, to sound laws for deriving present-day sounds in those languages from established POC ones. From this evidence it is clear that the two Motu forms are derived from one or two proto-forms of shape *pidi. Just how many, however, is not important to the discussion. What is important is that the Motu forms are reflexes of one or more POC forms so that they must be inherited words and not borrowed ones. Thus there is no way that Motu hiri 'trading voyage' can be a borrowing of Koriki iri 'tree' or of any similar word from any other language for that matter. But if that is true where does that leave Koriki iri? Is it to be seen, in reverse, as a borrowing from Motu or from some other language, or is it, like Motu hiri, also a reflex of some earlier proto-form?

If it is to be seen as a borrowing from Motu, then one has to explain not only the loss of h but also the meaning change from 'trade' to 'tree'. While the former is a plausible change given that there is no h in Koriki, the other is not nearly so. This is so because
for one thing 'tree' is an item of basic vocabulary, and, as such (by
definition), is not likely to have been borrowed as 'trade' to replace
an existing word for 'tree', especially when there is no evidence of
word taboo in Koriki which might have assisted such a process. An-
other, better, explanation of the origin of iri 'tree' that is based
on the observation that there appear to be cognates in Koararian and
other NAN language families of the area (see Appendix 2) is that it is
either a retention from some earlier NAN proto-language which has
Koriki and other NAN languages of Southern Papua New Guinea as daugh-
ter languages, or is a borrowing from one of them. Which of these two
latter possibilities (i.e., retention or borrowing) is the more prob-
able is impossible to say as there are insufficient lexical similari-
ties (i.e., apparent cognates) between Koriki and other NAN languages
(e.g., no more than 4%, or chance) for regular sound correspondences
to be established and used in making a principled decision.

That then leaves us with the iri vapea - hiri lagatoi relation-
ship. I have shown above that Motu hiri is derived from POC *pidi.
It is also clear that lagatoi is derived from the POC forms *wan\(ka\(n\)
'canoe' and *tou 'three' and so cannot be derived from vapea by any
set of other than arbitrary Koriki-to-Motu sound laws. Thus hiri
lagatoi cannot be a borrowing of Koriki iri vapea. It is also clear
that iri vapea is not a borrowing of hiri lagatoi for similar reasons.
Yet there is a connection between the two, notably a semantic one
based on the similarity in reference of the words for 'canoe', vapea
and lagatoi, in each. Given then that both Motu hiri and lagatoi de-
rive from POC forms and that the Koriki "see" (albeit mistakenly) a
connection between Motu hiri and their own iri, it must be the case
that the Koriki phrase is derived in some way from the Motu one and
not vice versa. The only possible explanation remaining is that the
Koriki phrase represents a loan translation, or calque, of the Motu
one which is based on the wrong premise that Koriki iri and Motu hiri
are formally and semantically related. That is, the Koriki once
having perceived a certain similarity between one of their own sailing
craft and a Motu one, and having made the connection between the Motu
word hiri and their own iri translated the idea contained in the Motu
phrase hiri lagatoi into their own iri vapea. That the two phrases
mean entirely different things (viz. that hiri lagatoi means 'a canoe
for going on a hiri' while iri vapea means 'a canoe made of logs') is
immaterial, since non-congruence of meaning is an expected feature,
ray, almost a defining feature, of such calques.

To conclude, let me draw together the results that have been
reached:

1. Motu hiri and Koriki iri are not related words but are chance correspondences;
2. Motu hiri lagatoi and Koriki iri vapea are not related formally although they are semantically related, the latter being a folk translation or calque of the former;
3. The origin of Koriki iri is unclear - it could be either a
retention from an earlier proto-language of which Koriki is one daughter language, or a borrowing from some neighbouring NAN language.

4. Motu hiri 'trading voyage' is a reflex of a previously unreconstructed POC word *pidi which had something to do with seeking help and paying penalties. This form in turn is probably related to, if it is not the same as, a previously reconstructed POC form *pidi meaning 'to plait, weave etc', which is also reflected in Motu as hiri 'to fasten by twisting round and round etc'. It remains to be seen what the relationship between these two reconstructions is.
NOTES

1. This is a revised version of a paper presented to the Thirteenth Annual Congress of the Linguistic Society of Papua New Guinea, Port Moresby, September, 1979. I should like to thank the Australian National University for the funds it has given me over the years to enable me to continue research work in Papua New Guinea. I should also like to thank the following colleagues for supplying additional information and/or making suggestions for improving the quality of this paper: Andrew Taylor, Malcolm Ross, John Lynch, Ray Johnston, Paul Brennan, Brian Cheetham, and Don Laycock.

2. Readers not familiar with the location of the Motu and the general nature of the hiri should see Barton (1910) and Groves (1972). More recent observations are to be found in Dutton (ed) (1982).

3. Compare this with Williams' comment (1924:124-7) that he did not find "any general legend concerning the origin of the traffic though the names Avaia and Kairi - obviously local Koriki names - have been given for the leaders of the first lagatoi to visit Koriki."

4. Although the Motu never use the phrase hiri lagatoi, the Koriki did in putting forward their claim that this paper examines and so it is used throughout this paper where relevant.

5. The identifiable one is nakimi 'brother-in-law' or 'sister-in-law' (Lister-Turner & Clarke, n.d.) which has long been recognised as a Koriki word (Chatterton, 1970:96) although the form as such is not an actual Koriki lexical item but a fusion of the Koriki possessive pronoun na 'my' and the noun kimi 'in-law' (Kairi and Kolia, 1977:24). This fusion is interesting since as Andrew Taylor has pointed out to me (pers.comm.) nakimi is the only Motu kinship term which does not take the normal Motu kinship possessive suffixes but is possessed like alienable nouns, e.g., (lau) egu nakimi 'my brother/sister-in-law'. The term of address 'my-in-law' was presumably borrowed as it was the most commonly heard. The na- would have meant 'my' to people who knew the trading language and this may explain why, when the term was initially borrowed by the Motu, no possessive suffix was added. Motu had, and still has, a word for 'in-law of the same generation', iha-na. Nakimi means 'in-law of the same generation' now in Motu, i.e., is narrower than 'in-law' but wider than 'brother-in-law' or 'sister-in-law'. Of less import, but of some interest, is the fact that nakimi is the only kin term in Motu with three syllables. It is also often shortened to naki and may be used as a verb as in idia be daika e naki-a-mu? (lit. they be who they call.
naki-singular object- present continuous) "Who are they calling naki?" in the sense of "Who do they think they are?"

The second possible borrowing is the suffix -bu (or as it is sometimes written, -pu) in Koitabu, the Motu name for the Koita, the Non-Austronesian speakers living in and around their own villages at the time of first European contact. In Koriki -pu indicates a group of people (Holmes, 1924:290) so that given again the Motu-Koriki contact it is possible (although difficult to tell how probable) that that contact is the source of the -bu suffix in Koitabu. Why the Motu would have done this, however, in this particular case and not in others is puzzling and seriously weakens the probability that this is indeed the source.

6. This hierarchy of relationships has yet to be determined conclusively but the present discussion does not depend on this. All that is needed here is a suggestion of where best to look for probable cognates.

7. There are two such derived forms: hirilou and hirihiiri. The former is a combination of hiri and lou (v.intrans. 'to return') and means to go on a short hiri and return quickly (Lister-Turner & Clark, n.d.); the latter is the name of a water game that children play in which players compete with each other to see how long they can hold their breath under water while spinning their arms around each other in a wool-winding kind of fashion (Andrew Taylor, pers.comm.). A similar game is referred to in Lister-Turner and Clark (n.d.) as kiririkiriri.

8. For full definitions see Appendix 1. Note, however, here that hiri is a specific cultural concept and as such cannot be defined so easily. To go on a hiri or to go hiri-ing involves not only the trading voyage itself but also all the supporting preparation, ritual, magic, politics, etc. that go with it.

9. I use Pawley's (1975:17, 19) orthography for reconstructed Proto-Oceanic forms, although Wurm and Wilson (1975), and references therein, were actually used as the checklist of presently available reconstructed forms.

10. The question is nevertheless interesting. Semantically, hiri seems to be derived from a hitherto unreconstructed proto-form *pidi having something to do with 'assistance, help, paying a debt etc' as evidenced by the data in the left-hand column of Appendix 1. Yet one cannot help feeling that there is a close semantic relation between this meaning and the 'twist, plait etc' meanings of the previously reconstructed form *pidi particularly, as Don Laycock (pers.comm.) has pointed out, that in plaiting Melanesians regard one strand as helping the others to form the plait. Note also that another
possible form *piRi (from which Motu hiri1 and hiri2 could equally well be derived by Motu sound Tawš) is blocked by the hiri form in Mangarevan (Tahitian). If this were to be a reflex of *piRi it should have had the form hii and since there is no form in the language with the relevant meaning *piRi cannot be the putative proto-form.

11. Actually it is not necessary to go beyond the Hula evidence in Appendix 1 for this (except for deciding between *piRi and *pidi as the "correct" reconstruction as already noted) for, as John Lynch (pers.comm.) pointed out to me, Motu hiri cannot be a borrowing of Hula vili, the most likely source since the Motu and Hula traded with each other quite extensively, because they both reflect POC *pidi in the right form for their respective languages.

12. Whereas note that 'trade' in the Motu case is not.

13. I should like to thank Andrew Taylor again for drawing my attention to this.
**APPENDIX 1**

Cognates of Motu hiri$_1$ and hiri$_2$ in some Oceanic Languages

In what follows forms have been established as cognates on the basis of their semantic similarity to the meanings of the Motu forms as well as on the basis of regular sound correspondences between the languages concerned and as summarized in established Proto-Oceanic reconstructions (Wurm and Wilson, 1975). Relevant Motu and Hula rules of derivation are to be found in Pawley (1975); Dobu and Molima in Cochran (1978) and Ross (1979); Fijian, Sa'a, Mota, Rotuman, Samoan, Tongan, and Tahitian in Cashmore (1969) and Biggs (1978). The rest were determined by me using Grace (1969) and available published materials in the individual languages.

In the listing the symbol ? is used to indicate that I could not find any evidence in the source consulted but that the search was limited by the nature of the source itself (e.g., because it was not very detailed or contained only English-to-vernacular entries); while the symbol # is used to indicate that the relevant form does not occur in the source and therefore probably does not occur in the language since the sources used were good-to-very good dictionaries.

<table>
<thead>
<tr>
<th>Language</th>
<th>hiri$_1$</th>
<th>hiri$_2$</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motu</td>
<td>hiri: a long</td>
<td>hiri: to fasten</td>
<td>Lister-Turner &amp;</td>
</tr>
<tr>
<td></td>
<td>trading voyage</td>
<td>by twisting round</td>
<td>Clark (n.d.)</td>
</tr>
<tr>
<td></td>
<td>to the west</td>
<td>and round; tie up</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a parcel or bundle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>by twisting string</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>all round it; to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kill (e.g., pig)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>for visitors</td>
<td></td>
</tr>
</tbody>
</table>

Hula        | vilipara: trading | ? | Short (1963) |

['Trade' as such is voivoi and 'voyage' is ravuravu.]

[There is, however, vavepinu 'to twist' and vepinu 'twisted' which have the right semantics but the wrong reflexes of POC *pidi. This suggests that they are either innovations or borrowings from a related language in which POC *p > p, *d > n, and]
Hula (con't)  *i > u finally, or they contain unexplained sound changes in these particular items in the language.]

Dobu  ?  2  ?  2  Bromilow (1904)

Tolai  #  3  Either pir 'to plait, as a basket or mat', Lanyon- Orgill (1960)
or wir 'to plait, weave; plait coconut leaves round trees to make them tapu' 4

Lau  firi: to help, assist  firi: to twist round, Fox (1974)
firi(t)a: penalty,  coil round; tie up [Also, firo 'to
tine  twist', and firu 'tangled, of hair; to
firisia: money given fight, dispute' but
after death the final vowels are unexplained.]

1 Compare this with the Muyuw form in the next footnote below.
2 The expected Dobuan reflex of *pidi is (φ,')i(r,l)i. Grant (1953) gives ili 'to mix or stir food in a pot' which is one possible right form but is of doubtful semantics. Malcolm Ross (pers.comm. 23.9.79) gives the following established cognates for hiri in other languages in the Dobu area, however: Suau: ta'i-ili, Misima tata-pil, Ubir matabir, Are msi-bira, Wedau mamai/ta-vire/i, Tavara (East Cape) lahugawile/a, Iduna havi-vila, Kilivila to-vila, Muyuw tou-vin, katu-vin 'to turn oneself around'. The prefixes are the classificatory ones described by Lithgow (1978:478-79) for languages of this area.
3 Various Nakanai dialects (on the north coast of New Britain) have avai or avahi for 'to make a journey in a canoe' where ava- is a combination of prefixes the second of which, va-, is a causative one (POC *pa(k)a-) leaving hi as the possible reflex of POC *pidi. The problem with accepting this as a reflex is, however, that the expected form is vi (Ray Johnston, pers.comm.).
4 According to Tolai sound laws both these forms are equally expected. Malcolm Ross (pers.comm. 23.9.79) also adds Tolai vila, likun and Lihir wir 'turn (oneself) around' as other possible candidates.
<table>
<thead>
<tr>
<th>Language</th>
<th>Hiri: pay a fine for, make atonement for, death by violence</th>
<th>Hiri: twist, twine round, coil (of a snake), wind a line around</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arosi</td>
<td>hiri'a: pay a fine</td>
<td>hiri'i-a: twist, entwine; tie bind, with a vine</td>
</tr>
<tr>
<td>'Are'Are</td>
<td>hiri'i hiri'a: make atonement for a death by violence, by poisoning, drowning, or otherwise</td>
<td></td>
</tr>
</tbody>
</table>

| Language | | |
|----------| | |
| Sa'a     | | # |
| Mota     | | # |
| Fijian   | | # |
| Samoan   | | # |
| Rotuman  | | # |
| Tongan   | | ? |

<table>
<thead>
<tr>
<th>Language</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mota</td>
<td>vir: twist, wring, squeeze with a twist; plait a cord; vivir: throw with a twist given to the stone</td>
</tr>
<tr>
<td>Fijian</td>
<td>[viri 'to throw' has the correct form but the wrong semantics; but compare with Mota vivir above]</td>
</tr>
<tr>
<td>Samoan</td>
<td>fili: plait, braid (of sennit, hair etc)</td>
</tr>
<tr>
<td>Rotuman</td>
<td>hiri: plait (three strands) of sennit, hair etc</td>
</tr>
<tr>
<td>Tongan</td>
<td>[There is, however,</td>
</tr>
</tbody>
</table>

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Tongan (con't) hilihili 'to seek fruit when only a few and scarce' which has the right semantics but the wrong form -- the expected form is filifili. This suggests that hili hili is either an innovation or a borrowing from a related language in which POC *p > h and *d > l, or the POC *p > h is an unexplained sound change in this particular word in the language.

Mangarevan (Tahitian) aka-hiri: to help hiri: to weave Tregear (1969)
a sick person; aka-hirihiri: to put the food all round the sides of the oven
APPENDIX 2

Words for 'Tree' in Some Non-Austronesian Languages and Language Families in Southern Papua New Guinea

In this listing probable cognates are underlined.

<table>
<thead>
<tr>
<th>Language/Language Family</th>
<th>'tree'</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiwaian</td>
<td>a) ota</td>
<td>Franklin (1973)</td>
</tr>
<tr>
<td></td>
<td>b) nu'a</td>
<td></td>
</tr>
<tr>
<td>Koriki (Purari)</td>
<td>iri</td>
<td>Dutton (1979)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Franklin (1973)</td>
</tr>
<tr>
<td>Ipiko</td>
<td>de</td>
<td>Franklin (1973)</td>
</tr>
<tr>
<td>Teberan and Pawaian</td>
<td>a) ni</td>
<td>Franklin (1973)</td>
</tr>
<tr>
<td></td>
<td>b) it</td>
<td></td>
</tr>
<tr>
<td>Huli</td>
<td>iria</td>
<td>Cheetham (pers.comm.)</td>
</tr>
<tr>
<td>Kewa</td>
<td>a) repona</td>
<td>Franklin et al. (1978)</td>
</tr>
<tr>
<td></td>
<td>b) repena</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) ri</td>
<td></td>
</tr>
<tr>
<td>Enga</td>
<td>ita</td>
<td>Lang (1973)</td>
</tr>
<tr>
<td>Eleman</td>
<td>a) kora</td>
<td>Franklin (1973)</td>
</tr>
<tr>
<td></td>
<td>b) tola</td>
<td></td>
</tr>
<tr>
<td>Koiarian</td>
<td>idi</td>
<td>Dutton (1969)</td>
</tr>
<tr>
<td>Manubaran</td>
<td>yabo</td>
<td>Dutton (1970)</td>
</tr>
<tr>
<td>Kwalean</td>
<td>a) ire</td>
<td>Dutton (1970)</td>
</tr>
<tr>
<td></td>
<td>b) ibado</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) tuba'a</td>
<td></td>
</tr>
<tr>
<td>Mailuan</td>
<td>ana</td>
<td>Dutton (1966-69)</td>
</tr>
<tr>
<td>Dagan</td>
<td>a) ano</td>
<td>Dutton (1966-69)</td>
</tr>
<tr>
<td></td>
<td>b) (y)oma</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) kaiyam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) itura</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) iro</td>
<td></td>
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<tr>
<td></td>
<td>f) iye</td>
<td></td>
</tr>
<tr>
<td>Binanderean</td>
<td>a) ri</td>
<td>Dutton (1966-69)</td>
</tr>
<tr>
<td></td>
<td>b) ik'a</td>
<td></td>
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<tr>
<td></td>
<td>c) i</td>
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<td>d) ita</td>
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