Bulletin de la Société des D'Etudes Océaniennes, 17 : 12 : 211 (1980).

Les autres archipels du Pacifique sont également bien représentés. Voici, des îles Marquises, des modèles de tatouage dont l'un, un bras grandeur naturelle, a été rapporté par Robert-Louis Stevenson. Voici naturellement de très belles massures aux têtes ornementées de multiples visages, des pédales d'échasses, des bols, des tikis doubles, ainsi que des ornements d'oreille en ivoire marin, de très belles couronnes en vannerie avec des motifs en coquillage et écaillée de tortue. Les manches d'éventail sont également bien représentés. Voici enfin un ornement de canot figurant un homme assis, une pièce admirable, qui a mérité un agrandissement en couleur sur la première page du catalogue.

Une excellente introduction nous apporte une vue d'ensemble sur l'art des Mers du Sud avec un excursus intéressant concernant l'influence de la culture lapita.

Un ouvrage pouvant servir de livre de référence dans une bibliothèque océanienne.

D3

Patrick O'REILLY

EMORY Kenneth P. et MAUDE Honor, **String Figures of the Tuamotus.** The Homa Press - Canberra 1979 - (150 pages et nombreuses illustrations)

Les jeux de ficelle sont un aspect original et méconnu de la culture paumotu. Utilisés depuis les temps les plus anciens - Bligh en fait déjà mention lors de son passage à Tahiti en 1789 - ces figures appelées "fai" tantôt représentent un moyen de communication entre les hommes ou simplement celui d'établir une amitié tout en prouvant son habileté, tantôt illustrent un épisode de la vie des héros mythiques ; dans ce cas l'élaboration de la figure est accompagnée d'un chant bref résumant le symbole qu'elle est censée contenir. Le "fai" de Maui piégeant le soleil et celui de Turi sont les figures les plus célèbres aux Tuamotu et l'on se doit de les reproduire parfaitement si l'on veut maîtriser l'art des jeux de ficelles.

Les "fai" ne sont pas seulement considérés comme une occupation enfantine et certains adultes y excellent, parfois simplement pour tromper la monotonie quotidienne des atolls. Une lanière sèche de pandanus suffit pour réaliser les figures les plus compliquées. La technique des jeux de ficelle se transmet par la simple observation de leur élaboration qui, à partir de complications diverses, peut aboutir à un très grand nombre de figures possibles.

Loin d'être particuliers aux Tuamotu, puisqu'on les retrouve un peu partout dans le triangle polynésien, les "fai" présentent un intérêt spécial dans la mesure où la comparaison des différentes figures ou de leurs appellations, parfois différentes selon les atolls, et l'étude des structures communes que l'on retrouve à des milliers de kilomètres, éclairent leur itinéraire de diffusion et par là, celle de la culture polynésienne en déterminant des aires culturelles homogènes.

Le Professeur K. Emory, spécialiste de la culture matérielle des Tuamotu, a observé l'élaboration de ces jeux de ficelles et a recueilli les chants qui l'accompagnaient auprès d'informateurs locaux à travers une quinzaine d'atolls de l'archipel des Tuamotu. Ainsi 83 figures sont-elles reproduites et décrites dans le détail. Avec beaucoup de patience le lecteur pourra alors exécuter "la tortue

blanche", "la chaetodon", "la caverne aux requins" ou encore "le marae de Maui".

L'introduction de Honor Maude éclaire, par la comparaison de ces figures dans les différentes aires culturelles polynésiennes, leur diffusion dans le Pacifique Sud et fait ressortir l'originalité des "fai" paumotu par rapport aux autres "fai" polynésiens.

C. LANGEVIN-DUVAL

National Library of Australia

ref:
date: 26 October 1979
contact:

Canberra ACT 2600 Telephone 621111
Telegraphic Code Address: Natlibaust Canberra
Telex Code No. 62100

Mrs H.C. Maude
77 Arthur Circuit
FORREST. ACT 2603

Dear Mrs Maude

The Cataloguing-in-Publication entry for String figures of the Tuamotus by Kenneth P. Emory and Honor Maude is as follows:

Emory, Kenneth Pike, 1897-
String figures of the Tuamotus.

(String figures monographs; no.2)
Bibliography.
ISBN 0 9596111 1 8

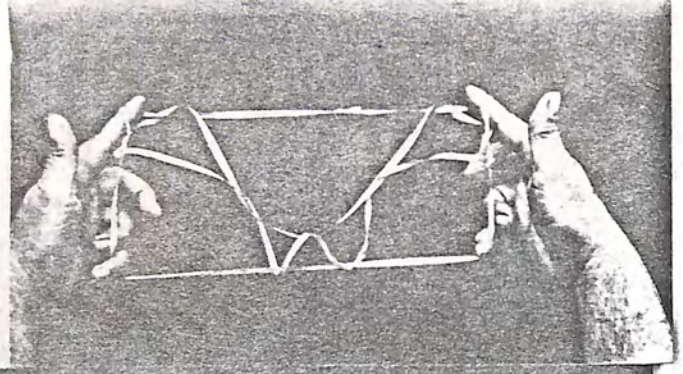
1. String figures - Tuamotu Islands.
I. Maude, Honor Courtney, joint author.
II. Title. (Series).

793'.9

Yours sincerely

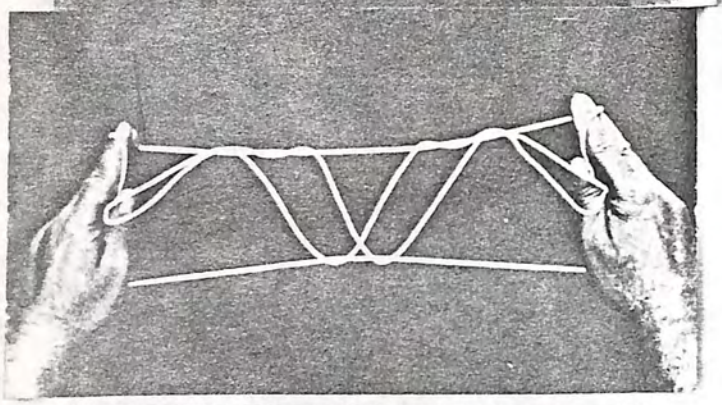
Diana B. Dack

Diana B. Dack
for
Principal Librarian
Cataloguing

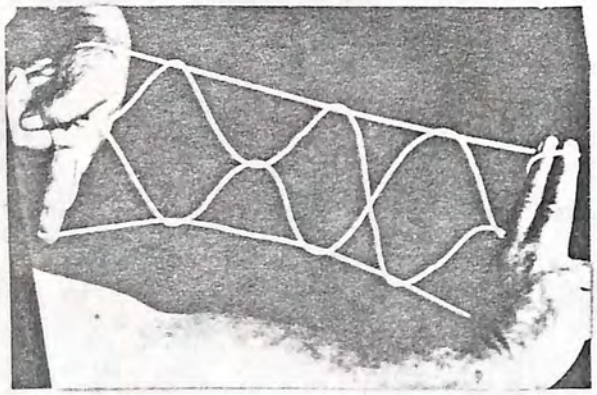


#53 in m.s.
(Neg. 14d)

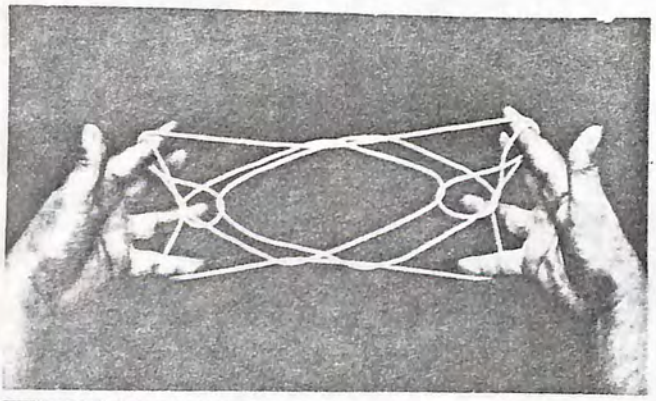
Kopena Hiro



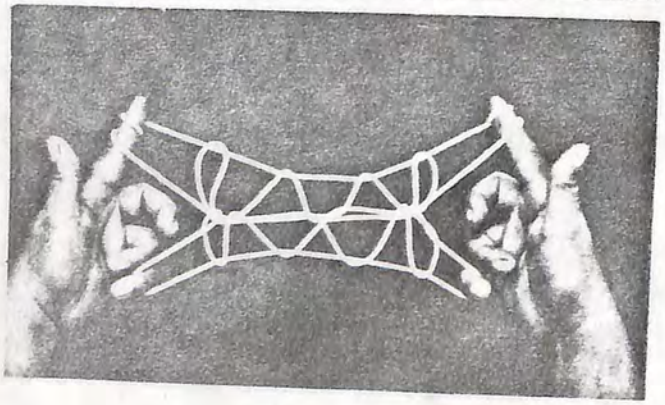
#56(b) in m.s.
Koviri roto
[Neg 20(b)]



#56(c) in m.s. Koviri fakaoti
[Neg. 20(c)]

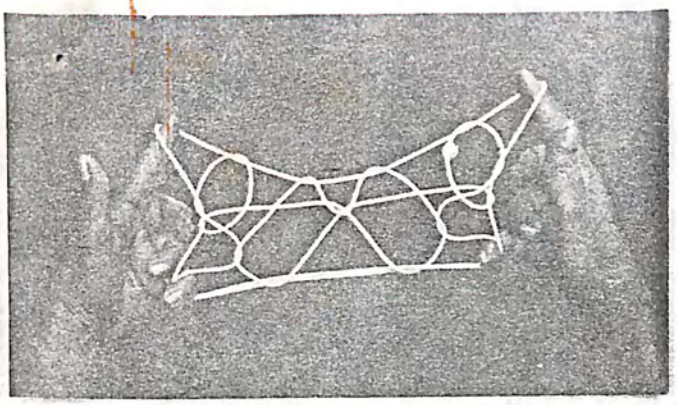


28(b) in m.s.
(Neg 33(2) Matuarere

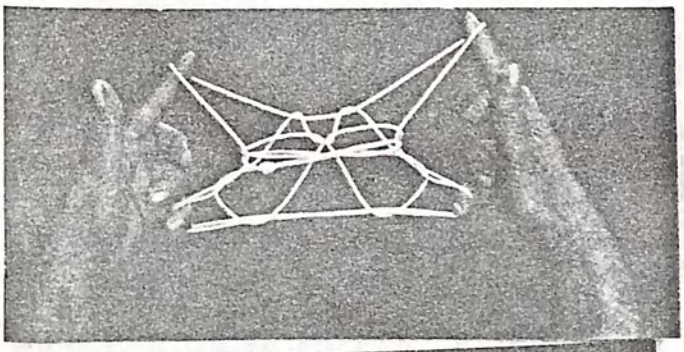


37 – Keiga o Tuna
(Neg. 43)

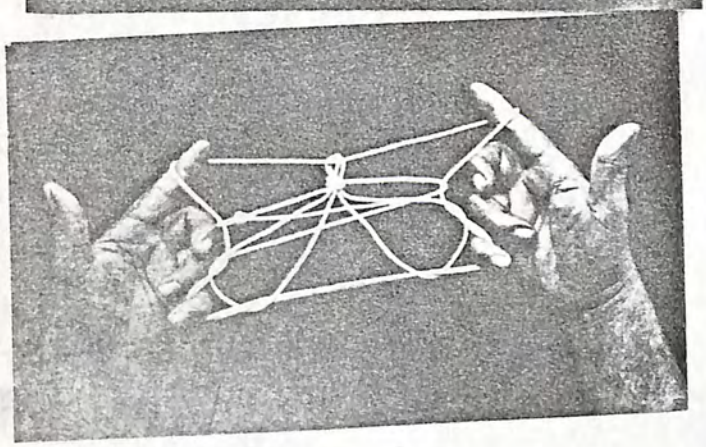
MAUI



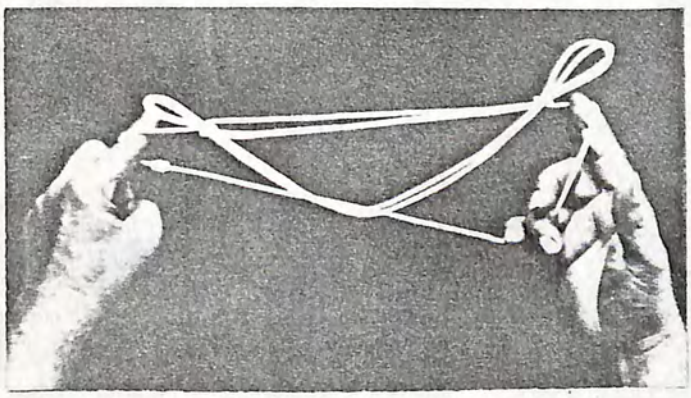
51(e) in m.s.
(Neg 55e)



51(f) in m.s.
(Neg. 55f)



51(g) in m.s.
(Neg 55g)



Moko horohoro
48c in m.s.
(Neg 56c)

Tahiti, Tuna Rico (Handy p 88-9)
Manua - (Hornell p 81-2)

TUAM: Paranuku

Put in Rapa #7 photo and movie photo No.136 Inga matu or Iga matu.

Same as:

Book p.65 Paul mus New Zealand, komore N.Z. Jour. of Sc. & Tech. vol.3 No.4 p.204

Natik, Carolines "catch" Jayne p.142

Goodenough Island, Papua, Nima dabadabana (cutting the hand) Jenness, D. Papuan cat's cradles: Jour. of Roy. Anth. Inst. vol.36 p.314 No.24

Put in New Caledonia, nameless Compton, R.H., String figures from New Caled nia and the Loyalty Islands Jour. of Roy. Anth. Inst. vol.44 p.212 No.5

Put in Solomon Islands unnamed Hornell p.85

It is practically the same as the following which use almost the same methods but with different fingers, middle or ring ~~fx~~ fingers in place of indexes:

Put in Samoa Mata apenga (meshes of a net) Hornell p.74

½ in Society Islands Manua (squares) Hornell ~~p.74~~ 81-2 and Tunaririo (eel is lost) Handy p.88 add Hornell to fn. 16

Marquesas Kamo (thief) Handy p.~~51~~ 51

TUAM: Mahara Taravao

Rapa #9 movie ph. 103-114 Ngamotu a ka vaka.

Same figure as Society Islands A mahara Taravao (Handy p.59 but made somewhat differently:

1.- Opening A.

2.- Pass thumb, middle, ring and little fingers of each hand from proximal side into index loops so that index loops become wrist loops.

3.- Thumbs pick up radial little finger strings. Release little fingers.

4.- Mouth picks up proximal right thumb loop and takes it off thumb. Right thumb passes into mouth loop from above and picks it up. Release mouth loop from mouth.

5.- Repeat with mouth and proximal left thumb loop.

6 and 7.- Repeat 4 and 5.

8 and 9 Repeat 4 and 5.

10 and 11. Repeat 4 and 5.

12.- Pass all fingers from distal side into thumb loops. Release thumbs and wrist loops and extend.

not in Tuamotus?

Rurutu movie ph. 5-9 ?Itauri (There are two photos of this name)

Made thus:

1.- Opening A

2.- Pass indexes from distal side into little finger loops; then toward you, around little finger string and index strings and back to position. Release little fingers.

NO

3.- Thumbs pick up radial index strings. Release indexes.

4.- Little fingers pick up two distal ulnar index strings.

5.- Extend, turning backs of hands toward you, holding little fingers high and thumbs low. (Thumbs point down on radial side of radial thumb strings.)

Rim unnumbered ph. check mark for identification on back in left lower corner.

Part of maui?

Same figure as:

Society Is. Apoo tioo (hole for storing breadfruit paste. Handy p.90

What to do about maui. See Fn 33 "well"

Rim. photos of string on heads of two persons. Not in Tuamotus?

Same as opening movements of:

Society Is. Ma'ō (shark) and Upo'o (head) Handy p.35

Marquesas Is. Vaipaee Handy p.47

Palau, Carolines Chamang ra Cholouch (crab of Cholouch) Raymund, P. Die faden und abnehmespiele auf Palau Anthropos vol.6 p.46

NO
my illustration

Goodenough Is. Papua Labia (sago palm) Jenness Jo. Roy. Anth. Inst. vol. 50 p.324

Ikiki in wrong place - against Na Tifai

8.- Pass indexes from distal side into little finger loops, thence from distal side into thumb loops. Then, reversing direction of movement, pick up ulnar thumb strings and return to position.

9.- Drop little finger loops. Pass little fingers from distal side into index loops and release indexes. Extend.

10. The ulnar thumb string of each hand crosses the other near the center of the figure. With each index pick up both of these strings, hooking up first with each index near its own palmar string the string that is the ulnar thumb string of the opposite hand; then hooking up the ulnar thumb string of its own hand, and stmaightening to position.

11.- Release thumbs. Each thumb then picks up near its index ~~ikm~~ finger, the proximal radial index string, the one that runs from index to index. Extend. Thumbs and indexes high, little fingers low.

no? Na fare turu?

Rurutu Te are matui movie ph. 10-30
Rim. Mututoi
Tup. Te tumu o te papa

The photo at end of the movie film differs in appearance from the one backed Rurutu, Rim, etc. but this is merely because the maker (in movie film) did not pull apart some loops in center of figure which crossed each other.

Same, with some variation of movement at beginning at end that causes final figure to be held on different figures as:

Society Is. Te fare no Oro (house of Oro) Handy p. 91 TUAM: Na fare turu

also very similar to:

Marquesas Is. Te fa'e no Tonahei (house of Tonahei) Handy p.54

1.- Position 1. Same as Gilbert's

Rurutu Te are matui?

2.- Bring hands near each other. Pass right hand in ulnar direction past ulnar little finger string, then in proximal direction and around this string. Similarly pass left hand around right ulnar little finger string. Extend.

You should have on each hand a dorsal and a palmar string; ~~xxxxxxxx~~ and a wrist string. Above two movements accomplish the same result as movements 1-3 of Handy p.91.

3.- Pick up palmar strings as in opening A.

4.- Thrust each hand from proximal side into its index loop, so that index loops become wrist loops.

5.- Pass indexes from distal side into little finger loops, then from distal side into thumb loops, pick up ulnar loops, turning in ulnar direction and st raightening up to position.

6.- Release thumbs. Pass thumbs from proximal side into index loops and release indexes.

7.- With mouth lift left dirsal (radial?) wrist strings off left hand; then from proximal side pass left thumb and left little finger into mouth loop and release mouth loop from mouth, so that the strings picked up by mouth are in left hand in first position. Repeat with left dorsal wrist strings.

(In Society Isl the mouth is not used in this movement.)

Rapa (unnumbered ph.) Utani
Tai a utu Marama
Rim otani
Tup. utani

Method is not shown for making this, and can only be guessed at. It can be made thus, though this may not be the native way:

1.- Opening A

2.- Indexes pick up ~~th~~ ulnar thumb strings. Release thumbs.

NO

3.- Pass thumbs on proximal side of index loops and from proximal side into little finger loops. Release little fimgers. Thumbs return to position.

Fn only?

4.- Thumbs pick up radial index strings. Release indexes.

5.- Pass all four fingers from distal side into thumb loops and with their palms pick up distal thumb string and hook it down toward palms.

6.- Pass all four fingers from proximal side into thumb loops near thumbs.

8.- Turn hands so that palms are toward each other, fingers pointing away. Pull thumbs to and fro.

TUAM!
Matuarere

Rapa #27 Matariki movie ph. ~~xxxxxx~~ 206-211
ALBUM 20, p.151, Neg. 8559H

Same as:

Victoria, Australia Crayfish Haddon, Kathleen, Some Australian string figures. Proceedings of the Royal Society of Victoria, vol.30 (N.S.) Part 2 1918 p.134

Fiji Lalakea (wicker food basket) Hornell p.47

New Hebrides No.6 Stage in making Kilikia leaves. Dickey

Pentin New Caledonia, stage in making Sugar cane Compton, Jo. of Roy. Anth. Inst. vol. 44 p.223

Society Is. Stage in Tuare (bravado) Handy p.83
Money

28? MA'A EI MAIHAKA RA
ALBUM 20, p152 8559K

Rapa #23 movie ph. 199-205 Tuera (iraro) TUAM: Horahora

same as:

Society Is. Rurutu Handy p.57

Marquesas Is. Tukii kea (Stone pounder) Handy p.11

Fiji Mataka levu (full morning) Hornell p.49

~~Similar but not the same as:~~

New Zealand Ikiiki N.Z. Jo. of Sc. & Te. vol.4 p.145

Rapa #25 movie ph. 45-51 Utami maia or Utami ~~onabaru~~ matara

TUAM: Kanaundu

Same as:

Society Is. U tami Handy p.81

except that in movement 5 "all fingers" should be substituted for "index fingers" and in movement 6 the first sentence should be omitted. next page

---

TUAM: Kanaundu ALBUM 20, p151 Neg. 8559g.

Rapa 26 a and b movie ph. 37-44 2/2 Utami fifi

A variant of ~~Xxxxxx~~ Society Is. u tami Handy p.81, made thus:

1.- Opening A.

2.- Release thumbs. Right thumb from distal side into index loop, then in radial direction, around radial index string and back to position..

3.- With mouth pull out small dorsal right thumb loop; pass left thumb from proximal side into mouth loop; release mouth loop and extend. (A simple method of accomplishing the same thing would be to pass left thumb from proximal side into right proximal thumb loop and extend.)

4.- Pass thumbs on proximal side of index strings and into little finger loops from proximal side. Release little fingers.

5.- Pass thumbs from proximal side into index loops. Release indexes.

Rapa 26 a and b Utami fifi continued.

6.- Pass all four fingers from distal side into thumb loops and with their palms pick up distal ulnar thumb string and hook down toward palms.

7.- Pass all four fingers from proximal side into thumb loops near thumbs.

8.- Turn hands so that palms are toward each other, fingers pointing away. By pulling thumbs from and toward each other, the central diamond opens and shuts.

This is the figure Rapa 26 a

9.- Release thumbs.

This is the figure Rapa 26 b Kanaunau (c)

ALBUM 20 p.152 neg. 8559 g KINOKIRORA (a) (26)

Rurutu movie photos 31-36

The same as:

Society Islands U tami paoti Handy p.82

Rapa (unnumbered photo) Utami
Rim Puaanaho taanaunau
Tup. Utani

The same as:

Society Islands U tami paoti Handy p.82 with same exceptions as in Rapa #25 as to last movements.

xxxxxx ----------

Rapa #17 movie ph. 71-77 Raupaka tatai

TUAM. Magorgeo

Rurutu movie ph. 1-4 Iirauape

Rim. Iriirirauape
Tup "
Tubuai Hiirauape

ALBUM 20, p.158
PO'IKI 15 Neg. 8559C

Same as:

Society Is. Firi rau anani (plait of orange leaves) Handy p.67

Marquesas Is. Koukape (membrane between intestines) Handy p.29

Fiji Imbi (mat) Hornell p.45

Caroline Is. Ten men Jayne p.150

Goodenough Is. Papua Naba Jenness, Jo. Roy. Anth. Inst. vol.50 p.306

Put in New Caledonia unnamed Compton, Roy. Anth. Inst. vol.49 p.218 Bulletin?

and is same figure as:

? New Zealand Tonga-Raurape — Synonym for Takapau. N.Z. Jour. of Sc. & Tech. vol.3 p.142

NO Australia Turtle Jayne p.379 fig. 7 illust. only.

the method of making which has not been published. See footnote 5

Cannot put Raurape for Tonga - only Koukape

None for TUAM

Rapa #18-20 ph. 52-70 and four single photos. Rapa e, Hei Ingamatu Tirui, (Tehei a Matora), Te are o te moku (?Mauke),

Rurutu Taimaitiiti

ALBUM 20 p.150
Neg. 8559F

Tup. E amo, Tahiritapae

NO Rim. Mahinaumate

Delete

Tokelau Tai(miti)

Wanganui Papaka (fresh w. crab), Papaka tai (sea)

Tub. Amo

Same as:

Loyalty Is. Sardines Compton, Jour. Roy. Anth. Inst. p.224

Nauru E mor (flying fishes) Each pair of diamonds is a flying fish. Hambruch, Paul, Nauru, faden und orakelspiel. Ergebnisse der Sudse Expedition 1908-1910. Ethnographie Mikrosien vol. 1 p.347

Any even number of diamonds in a line can be made. The four diamond stage is the same but made by a different method as:

New Zealand Kaha-kuranui N.Z. Jo. of Sc. & Te. vol.8 p.184

Fiji Tevora (the devil) Hornell p.34

Caroline Is. Jayne p.260

Ellice, Tokelau and Gilberts Hornell p.78

TUAMOI
Komo ke ariki

Rapa #11 Nga roki
Rurutu Viiarepo

Pere name in general

Same as:
No.114
Hawaii ~~26X~~ Kauhale a Limaloa (Village of Limaloa)

New Zealand Moutohora (whale) N.Z. Jour. of Sc. & Tech. vol.3 p.197)

Uap and Palaux Caroline Is. as plan of house Jayne p.200; Raymund, von P. Die faden und abnehmenspiele auf Palau, Anthropos vol.6 No.1

NO

NO North Queensland as canoe or fishnet Jayne p.385 illustration only.

NO New Britain Po na benabene (nest) Bogershausen, P.G., Fadenspiele in Matupit, Neu Pommern, Anthropos vol.10-11 p.912 ill. only

Marquesas Hahaua (Great Ray fish) Handy p.48
or I'a (fish)

TUAMOI
Moko

Rapa #13 movie ph. 91-102 Ga ure

ALBUM 20, p.149
Neg. 8559D
NUUHIVA

Same as:

Hawaii No.25 A Punawai o Makena (spring of Makena) or Moo-iki
NO
(little lizard)

Society Islands Moo (lizard) Handy p.66

Tonga Tailless lizard Hornell p.61

Fiji Whale's teeth Hornell p.26

New Zealand Mouti N.Z. Jour. of Sc. & Tech. vol.3 p.89
and New Zealand
In Hawaii there is a motion at the end that is absent in Rapa

If no instructions does not go on comparative table which is only for identical figures. Similar ones are mentioned in foot notes.

TUAM: Kotikotika I

Rurutu ? Itauri (unnumbered photo. Three diamond figure)

Same as:

Society Is. Ioio (fish) Handy p.86-7

Marquesas Tohiau Handy p.44

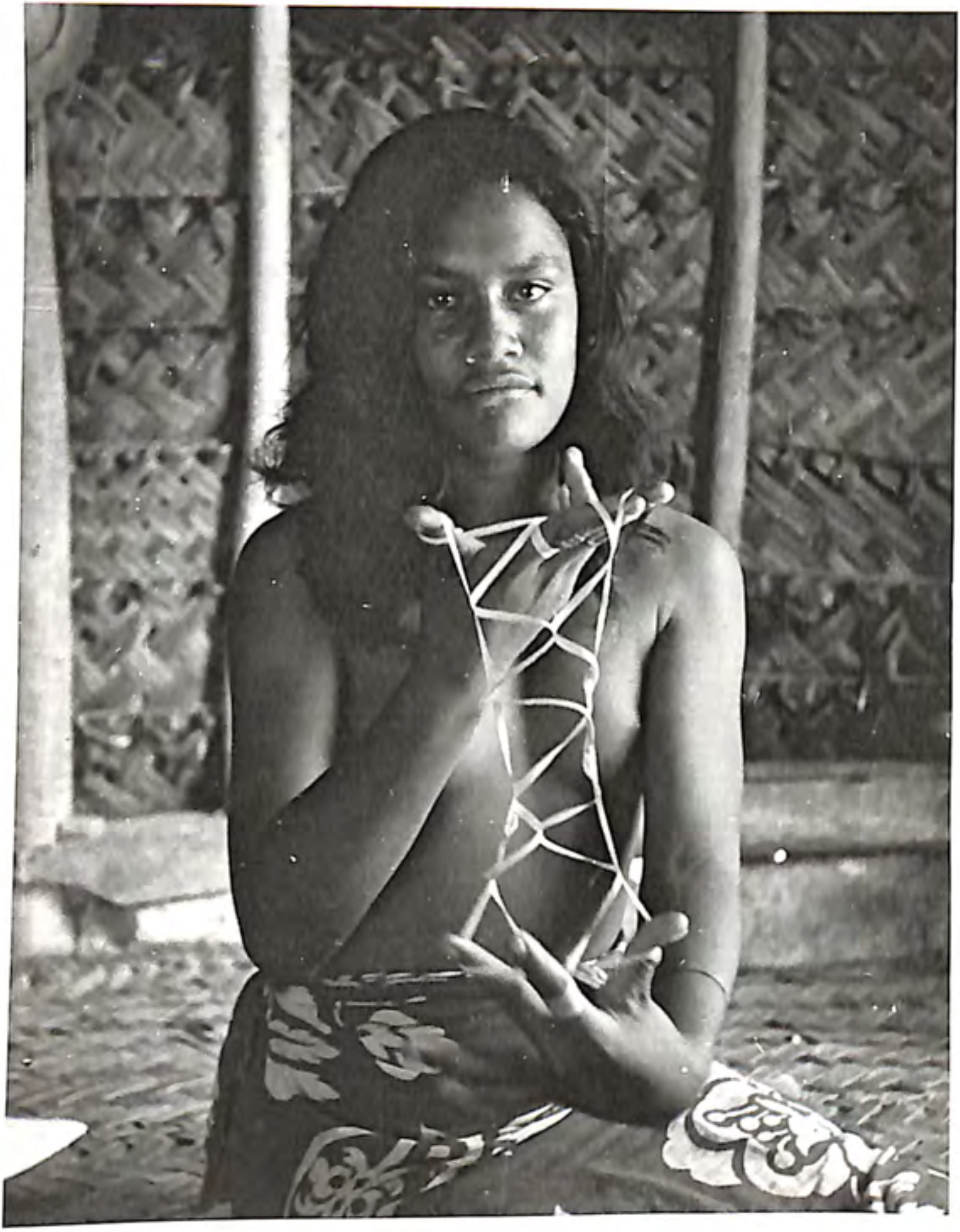
Tonga Matamata kupenga (spider's web) Hornell p.66

Tokelau Tafa Hornell p.79

Samoa Moenga (bed) Hornell p.75

Fiji Is. Suviauto (breadfruit cut open) Hornell p.50

Philippine Is. Bagobo diamonds Jayne p.43 fig. 94



Puna Tahe Tahe

no. 34 p. 84

TUKUA OF NAPUKA

String Figures from the Tuamotus

1. No. 28 I cannot do but feel there is only a little wrong with it.

2. No. 41 is missing.

3. Nos. 22 and 25 "conversions"not done.

4. Could you put in a note in your introduction about Paea giving you the Anaa figures. I have put at the top of each page the of the island the figure was found.

5. No. 25; I have given this Paea's name for it as the chant and interpretation of the name are his. You may not agree.

6. Spelling of names needs checking as they vary.

7. I think each illustration should have Fig. - under it as the printer of Oceania moved all my illustrations and there is nothing to show where they belong; it would also have to be put in the text of course, which I have not done yet.

8. I have pinned Pearl Beaglehole's comparisons on the appropriate pages; I cannot make the comparisons as I haven't a copy of the figures. Margaret, I think, has the manuscript but I do not remember seeing it.

9. I suggest the comparisons come after the illustrations and before the chants.

10. I have put footnotes instead of a long comparison naming places and their figures. Do you agree?

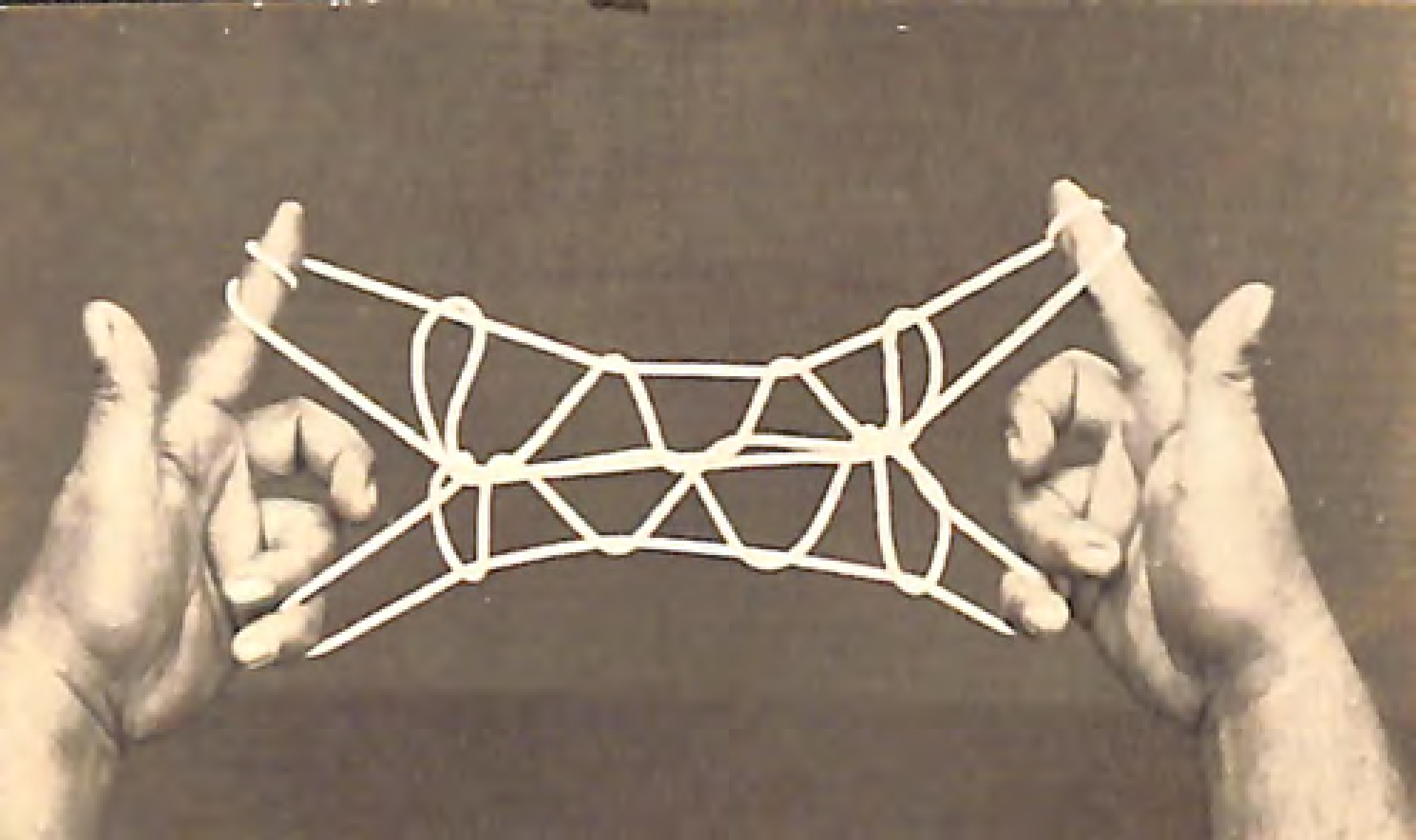
11. No. 16. Your note about Vahitahi is not clear. Surely by making Te Rua o te Marama then movements 13 and 14, i.e. Te Mouga o Hiro one gets the same figure? described in movement 11?

12. I have put in comparisons with Dr Laade's unpublished figures, with Raymond Firth's unpublished figures, and with one I got from two Solomon Islands girls here in Canberra but you may not agree with this.

13. I have changed the order of some of the figures to get similar ones together. I see now I haven't got all the tricks together, nor all the series together, does this matter? I have put the old order as in your manuscript in pencil on my new list.

14.

14. My version of Potaga Purago No.4 is not the same as the photographs but I remember doing the other version, I suppose in Honolulu; have you got it and can we add it? You mention two methods for beginning it.



Section 12

Str_ _g figures from the Tuamotus

✓ No. 1. Tifai manania and tifai kaofa .....

✓ ✓ a. Tifai manania, methods 1, 2, and 3 .....

✓ yes ✓ b. Tifai kaofa .....

✓ ✓ No. 2. Tifai koa from Anaa

✓ ✓ No. 3. Tifai koa from Vahitahi — no illustration

✓ No. 4. ~~Gogo i hakoro~~ Potaka puraga — 4 (p) not quite eight

a. Kokiri pago

b B. Kokiri nakoko

c. Te ana o na kokiri

d. Te fanauhaga o te haga kokiri 3 ◇s

c e. Te horiheri haga o te haga kokiri

d f. Fakoakoa

e g. Kukiri o kokiri kaha

f h. Kokiri kaha

i. Gogo i hakoro

g j. Te hopega o te gogo i hakoro

✓ yes No. 5. Mago } almost identical

✓ yes No. 6. Pana i te ora }

✓ yes No. 7. Motutakanoa

✓ yes No. 8. Hua — 2 figs — no illustration

✓ yes No. 9. Na mutu karaoa — 4 ◇s separated — no illustration

✓ yes No. 10. Pape ri'iri'i

✓ a. Six wells — no illustration

✓ b. Eight wells — no illustration

✓ yes No. 11. Kokikokiko - three diamonds hands twisted. — no illustration

✓ yes No. 12. Kokikokiko - one diamond " " — no illustration

✓ yes No. 13. Koraipai — Extension impossible to describe & not always possible to do. Blurred illustration.

No. 14. Kopena Hiro

✓ yes a. Te roki o Hiro

✓ yes b. Te popouga o Hiro

✓ ✓ yes c. Na pofaki o Hiro

✓ yes d. Tahora o Hiro

✓ yes e. Te mouga o Hiro

✓ yes f. Te pora o Hiro

✓ yes g. Te kopena o Hiro negative missing. 4 Qs

✓ yes h. Te piti o te mauga o Hiro no illustration. Bird like figure

✓ yes No. 15. Te vaka o Hiro no illustration.

✓ yes No. 16. Papani o te rua o te marama no illustration.

✓ YES No. 17. Ku tavia describe atauani at movement. 11 p. 31

✓ yes No. 18. Haveke tiraga write in full NP TO

✓ yes No. 19. Haveke tipapa try again. NP TO

✓ yes No. 20. Koviri

✓ yes a. Koviri mua

✓ yes b. Koviri roto

✓ yes c. Koviri fakaoti

✓ yes d. Conversion of Koviri mua into Merogao 4 Qs no illustration

TO

✓ No. 21. Kotukurero

✓ yes a. Kotukurero ki tua

✓ yes b. Kotukurero ki aro

✗ NO c. Nau paki

✓ yes d. Taioropua

✓ yes e. Marae Tefano

✓ yes No. 22. Patanuku.

✓ yes No. 23. Patiki

✓ yes No. 24. Te ava raro + conversion no illustration

✓ yes No. 25. Puhaga toto write in Pagga Dahelahe

✓ yes No. 26. Na fai peka

yes a. Open no illustrations.

yes b. Locked

✓Yes No. 27. Tupa rikiriki Tapa rikiriki, TO. (Tatakoto)

NoNo. 28. Na fai a te ariki

✓Yes No. 29. Uira as described by Handy

✓ No. 30. Kanaunau , p. 62 TO

✓ yes a. Open

✓ yes b. Locked

✓yes No. 31. Kotuku rere

✓yes✓ No. 32. Mageogeo as Handy, reverse 6 8

yes✓ No. 33. Matuarere as Handy, different at end reverse

✓ No. 34. Korava Hiti

✓yes a. Methods ✓1,✓2,✓3,✗4 queries

✓yes. b. Conversion of Korava into Tifai Manania do with 2nd person.

✓yes No. 35. Horahora no illustration

✓yes No. 36. Puriri " "

✓YES No. 37. Na pureore

✓YES No. 38. Kahuri fara makes a figure but no illustration

✓YES No. 39. Keri kanoe ditto

✓YES No. 40. Kaki TO. ditto not as Handy p. 62

notgiven No. 41. Mou'a Puta

✓yes No. 42. Tuna

✓yes No. 43. Keiga o Tuna as Handy reverse

✓yes No. 44. Ure o Niro

✓ yes No. 45. Na paraoa not second version

✓ yes No. 46. Fafarua not continuation

✓ yes No. 47. Rori

✓ yes No. 48. Komo ko te ariki Handy reverse

✓ yes No. 49. ~~Arere o Tavaka~~ Fai Tahemo. [Eventually place it at last, K.S.]

✓ yes No. 50. Taura o Tavaka.

Yes No. 51. Kutami Nei ni Kauki

Yes No. 52. Ki fari ditto on nei hand

Yes No. 53. Kopeka Yam Thief.

Yes No. 54. Te ana o te mago illustration needed

No. 55. Maui TO. NP.

a. Te popuga o Maui

b. Te Marae o Maui

c. Na konao turukiga o Maui

d. Te haga taura ki here ki ai te hana

Yes. e. Ko Maui raua ko Ri

f. Te puniga ko Maui generation

g. Te keta haga o te hana

h. Hana o Maui

i. Kavake o Maui

j. Conversion of Maui into Puhaga toto.

No. 56. Moko methods 1.2.3 TO. 3 not clear.

Yes a. Moko puna Query

Yes b. Te nohohaga o na moko

Yes c. Moko horohoro

Yes No. 57. ~~Tariga Moko~~ ~~Moko kopu torea~~ Moko Tariga 109

No. 58. Turi Query.

Yes a. Te popouga o Turi

Yes b. Na pofaki o Turi

Yes c. Te nohoraga o Turi

Yes d. Te marae o Turi

Difficult f. Ko Turi e o Moehau

Difficult g. Mou'a o Turi e Moehau

No. 59. Kahegahaga Hemo?

Yes a. Open

Yes b. Locked

Yes No. 60. Haveke tinihi

Yes No. 61. Na fare turu — Gilbert's Canoe Shed. 1.117

Yes No. 62. Kotuku —

No. 63. Marama hiti i ruga

Yes a. Short method

Yes b. Long method

YES No. 64. Marama hiti i raro

NO No. 65. Kohiti

Yes? No. 66. Na vahine totea no illustration. comes undone

YES No. 67. Matariki with toes & midrib.

Yes No. 68. Te tipi haga o te kahea

No. 69. Mahara Taravao No illustration

Yes a. Open 6 ⟨s. one twist.

Yes b. Locked

Yes No. 70. Na Turatura o Puga no illustration.

Yes No. 71. Moe Hora Hia ditto 4 ⟨s & straight string across.

Yes No. 72. Hihi o Toga reva ditto

YES No. 73. Toga Ia Maui ditto

YES No. 74. Koperu

Yes No. 75. Tuporokura ditto

Yes No. 76. Maroariki ditto

Yes No. 77. Fai Taamu called Tiare, TO. similar to Handy.

Yes No 78 Te Pito o Maui. Te Matikuteno Tahaki from Mangareva?

Yes No. 79. Vero o Tavake

Yes No 80 Tauck

Yes No. 81 'Aka Uia

Sec. 12

No. 1

Na Tifai (The Turtle)

a. Tifai Manamania (Female Turtle)

Method 1

This figure is Identical with the Society Islands figure Honu Vahine and Honu Tane (Handy, B.P. Bishop Mus. Bull. 18, pp. 72, 73). It is Known throughout the Tuamotus and Society Islands. Called kokiri at Takoto.

Compare with Maori figure Vahine (Andersen, vol. 3, p. 104); p. 20. Marquesan figure Ipu Ava Akani (Handy, made from Kuakapa B.P. Bishop Mus. Bull. 18, p. 31); Tongan figure Humu (Coal Hole) (Hornell, ditto B.P. Bishop Mus. Bull. 17, p. 69); Fijian figure Tavola (Hornell, B.P. Bishop ditto Mus. Bull. 17, p. 47); Hawaiian figure Ka Wahine Opu Laalaau (The Hairy Woman); and Uwene (Dickey, after complicated figure. B.P. Bishop Mus. Bull. 54, pp. 61, 62).

Method 2

Hom.

~~We saw this method, by far the most ingenious,~~ Seen at Vahitahi only.

1. Opening A.

2. On back of indexes pick up both little finger strings, then from distal direction entering thumb loops + pick up radial thumb strings. Release thumbs.

NZ. p. 20

3. Thrust thumbs into proximal index loops from prox. side and to ulnar side of distal

ulnar string. Pinching tips of index fingers and thumbs together, turn indexes down through own loops towards body and up, withdrawing the thumbs as old radial strings of the indexes slip off. Extend. Fig 1a?

Method 3 H.M.

See Handy p. 67. (Ba ni mai)

Seen only at Vahitahi.

Follow exactly as if making Mageogeo (No. 32) up to and including operation 8, then release little fingers. 9? Fig 1 a?

b. Conversion of "Female Turtle" into Male Turtle" (Tifaõ Kaefa)

1. Lay Tifai Manamania on lap, withdrawing all fingers, or let another person do operation 2 and 3 following.

2. Insert right index into right thumb loop near diamond, and right thumb into left thumb loop; left index into ~~left~~ right index loop and left thumb into left index loop. Work tips of these fingers under double strings of diamond, and up into center of the diamond and extend. (See Hawaiian fig. 29 f, which is identical).

3. Turn tips of thumbs and indexes back into diamond from the distal side and extend. The resulting long and narrow double-sided diamond is "Tifaõ Kaefa". Fig 1b (See fig. 2, which is identical with Dickey's Hawaiian

fig. 29 g). By laying this figure on the lap or letting another person take it, and repeating again operations 2 and 3, the figure can be reconverted into Tifai Manania, the only difference being the elimination of the half-twist in each index loop.

No. 2 H.G.M.

Tifai Kea from Anaa

A tifai kea (white turtle) is a large turtle that will attack and kill a man.

1. Double loop.

2. Grasp each end of loop with fore, middle, ring, and little fingers of each ~~in palms of~~ hands, - palms turned towards body, and thumbs outside of loop.

3. Spread fingers as wide as possible. Then turn fingers outward in such a way that radial strings fall between index and middle fingers, and ulnar strings between ring and little fingers. The palmar strings now run from the ulnar side of the little fingers to the radial side of the indexes and then takes a turn around the inside of these fingers.

4. Insert right thumb under that part of the left palmar string which is wrapped around the left index, and draw it out on the back of the thumb.

5. Pass left thumb from proximal direction through right thumb loop and pick up the right palmar string. Return with it through right thumb loop to extended position.

Pass thumbs via index strings and

6. On backs of thumbs pick up radial little finger strings from proximal direction. Release little fingers.

7. Navaho thumbs.

For the resulting figure, see fig. 2, ~~Resulting figure~~ which is identical with the Hawaiian figure Piko o Kahoalii (Dickey, B.P. Bishop Mus. Bull. 54, p. 35), except for the insertion of fingers at corners. Method of making is quite different, however.

No. 3 H.O.M.

Tifai Kea from Vahitahi

1. Place loop over left thumb and index and right thumb.

2. On ball of right index pick up left index-thumb string from distal direction, turning index outward and upward.

3. Insert ring, middle, and little fingers from proximal direction into index loops and pull down radial string.

4. Thrust thumbs behind index-little-finger strings and pull them through thumb loops by turning thumbs back into own loops.

fig. 1

5. With right thumb pick up and take off left thumb loop from proximal direction.

6. With left thumb pick up and carefully take off proximal right thumb loop. (Right and left thumb loops are thus exchanged). Extend.

7. Laying figure distal face down, taking out thumbs and index on lap, thrust thumbs ~~from proximal direction~~ into vertical central loop, and extend. ~~Release indexes and gently extend.~~

Unless the figure is extended evenly, so that it comes out symmetrically, it will be a complete failure.

pages 58 - e.

~~No. 4~~

Gogo i Hakoro

The series of figures under the head of Gogo i Hakoto (Umbilicus hanging down) is described as given by Paea of Anaa. At Amanu and Vahitahi the

a. Kokiri pago

1. Place loop over right thumb and left thumb and index finger.

2. On back of right index pick up left index-thumb string.

3. Pass right little finger into right index loop from below and

(string figures)

No. 4

H.M.

Potaka puraga

Potaka puraga is the Tatakoto name ~~of~~ for this figure. It was also seen at Vahitahi. At Anaa the figure is commenced differently but ends the same. It is there called Goio i Hakoro (Dangling Umbillicus Cord).

1. Make the figure Patanuku(no. 22).
Lay figure across lap, and then proximal side hom
2. Withdraw right hand. Insert right ~~index~~ from the proximal, & ulnar side into inverted triangle to the right and to ulnar side of the left diamond, and insert right thumb into triangle to right and to radial side of the same diamond, and extend. This makes a simple large diamond. ~~Substitute left index for left middle finger to make the figure symetrical and to facilitate the next step.~~

3. Thrust little fingers into thumb corners from proximal direction and then down into large diamond. Now, on balls of little fingers, pick up the upper bounding strings of the diamond and ~~pull~~ hook them down on palms. Pass index fingers distally to near side of radial thumb string and carry it through ~~middle finger~~ index? loops. Withdraw thumbs and extend. ~~See fig. 8.~~ This makes a three diamond figure. ?

Clarify index & middle fingers

4. From proximal direction pass thumbs into index loops. Take hold of upper outer bounding strings of lateral diamonds with balls of thumbs and pull towards body. Pass thumbs into little finger loops. Rotating indexes towards body and up. Pinch tips of thumbs and index fingers together. Slip thumb loops on to indexes and extend.

5. Pass thumbs into little finger loops and on backs of thumbs bring towards body the string immediately above each thumb. Release little fingers and extend. Substitute little fingers for thumbs, inserting from opposite direction. See fig. 4, f.

6. Insert right thumb into little right triangle and lift out on its back its the left side bounding string. Insert left thumb into right thumb loop and ~~release~~ withdraw right thumb.

7. With left thumb pick up left index-little finger string below (ulnar side of) attachment of left triangle, and bring it back through left thumb loop.

8. Release left index and replace left thumb by left index. See fig. 4, g.

9. On balls of thumbs pull out sides of ~~this loop~~ upper central loop, pass thumbs behind ~~index-little-finger~~ radial strings above radial side of attachment of medial horizontal strings of figure, then ~~inserting thumbs from proximal side into index loops, pick up~~ and bring back this string thumb loops ~~the radial index strings~~, releas~~ing~~e index fingers.

10. Insert indexes under ulnar thumb string and take off thumb loop on to indexes. ~~See fig. 4, h.~~

11. On backs of thumbs pick up proximal of two median, horizontal strings.

12. Insert thumbs proximal side into index loops and then back into thumb loops, carrying the radial index strings with them. Release index fingers, and substitute index fingers for thumbs. See fig. 4, i.

At the end of movement 11, the natives of Tatakoto chant:

Rokoi na Tu
Na potaka o puraga
Te revareva ara i te vahi tana tohe
Tuere tuere takerchiti au e.

The Vahitahi chant is:

Potaka aku e, potaka aku e,
Naku iho taku potaka.

sting-ray

the three diamond figure at the end of

At Anaa the figure is commenced as follows: movement 3 is derived as shown below. From there on the movements are identical.

1. Place loop over right thumb and left thumb and index finger.

2. On back of right index pick up left index-thumb string. (as in op 4)

3. Pass right little finger into right index loop from below and pull down on palm the radial index string.

4. Pick up right palmar string with right thumb and pull it through the right thumb loop by turning thumb back into loop.

5. Release right index. Pass right index into right thumb loop from proximal side and take off on to index.

6. Extend figure by turning the left thumb down, substituting left little finger for left thumb, inserting little finger from opposite direction. See fig. 4, a. Hom.

Paea of Anaa calls this figure Kokiri Pago, and gives the following chant with it:

Kokiri e, kokiri e,	Oh little kokiri fish
Kokiri kumukumu,	Kokiri, who makes a clucking sound,
Kokiri pagppago.	Kokiri, who is of yellow hue.

7. Take out left index and insert into own loop from opposite direction. Substitute thumbs for little fingers by insertion from opposite direction(from distal side).

8. Insert ~~right~~ little finger into ~~right~~ thumb loop from ~~proximal~~ side. Then thrust it into ~~right~~ corner of diamond from distal side, and on palmar side of little finger hook down on palms ~~upper~~ right boundary string of diamond.

9. With left little finger hook down ulnar thumb string.

10. Pass index fingers over radial thumb string and on sides of index fingers carry this string through the index loops. Release thumbs and extend. See fig. 4, d.

Paea calls this, Te Fanau Haga o Te Haga Kokiri (the Birth of the Kokiri).

Now proceed as from movement 4 on, in Potaka Puraga. The figure at the end of this movement, Paea calls, Te Heriheri Haga o te Haga Kokiri (The Spawning of the Kokiri). The figure at the end of movement 5 is called, Fakeakea, the name of a small fish. The figure at the end of movement 8 is called, Te Kukiri o Kokiri Kaha. The kokiri is a fish of the Balistapus family.

Paea of Anaa continued the figure one stage further, in the following manner:

[note: omit pp.6-10 of original text - and insert lower half of 5, and upper half of 11.

Also omit commentary & Potamuka info. Gregorio Lopez. (4-23-54) K.S.

pull down on palm the radial index string.

4. Pick up right palmar string with right thumb and pull it through the right thumb loop by turning thumb back into loop.

5. Release right index. Pass right index into right thumb loop from proximal side and take off on to index.

6. Extend figure by turning the left thumb down, substituting left little finger for left thumb, inserting little finger from opposite direction. See fig. 4 a.

Kokiri e, Kokiri e,	Oh, little kokiri fish,
Kokiri kumukumu,	Kokiri, who makes a clucking sound,
Kokiri pagopago	Kokiri, who is of yellow hue.

b. Kokiri Maheko

1. Proceed from Kohiri Pago.

2. With left thumb pick up lower left side of large central diamond. Releast left little finger. Transfer left thumb string to left little finger. Fig. 5. See fig. 4, b.

Kokiri e, kokiri e,	Oh, little kokiri fish,
Kokiri hekoheko,	Kokiri of pinkish hue,
Kumukumu, pakakina.	Clucking, and gritting your teeth.

c. Te Ana o Na Kokiri

Te ana o na kokiri (the cave of the kokiri fish).

1 and 2 are the same as 1 and 2 of Kokiri Pago.

3. Twist right index loop over by bending right index finger outward and down.

4. Insert right thumb into right index loop from below. On back of right index finger pick up ulnar thumb string and in drawing it back hold down with the right little and ring ringers what is now the ulnar thumb string. Turn right thumb under and right thumb-index string string and outward, allowing proximal index string to slip off. Release little and ring fingers.

This is Pana te oreore

5. Repeat 3 and 4.

6. Repeat 3 and 4.

7. Insert right thumb into right index loop. Release right index. Insert rest of fingers of right hand into right thumb loops from distal side.

8. Insert left little finger from proximal side into left index loop and pull down on palm radial index string. Release thumb and extend. See fig. 4,c. Called Karevareva at Reao.

Reao (Same as Pana te oreore)

d. Te Fanau Haga o Te Haga Kokiri (The birth of the kokiri)

1. Proceed from Kokiri Pago.

2. Take out left index and insert into own loop from opposite direction.

3. Substitute thumb for little fingers by insertion from distal side (very important that thumb be inserted from distal side).

4. Insert right little finger into right thumb loop from proximal side. Then thrust it into right corner of diamond from distal side, and on palmar side of little finger hook down on palms upper right boundary string of diamond.

5. With left little finger hook down ulnar thumb string.

6. Pass index fingers over radial thumb string and on sides of index fingers carry this string through the index loops. This makes a ~~three~~ diamond figure

7. Release thumbs and extend. See fig. 4, d.

e. Te Heriheri Haga o Te Haga Kokiri (the spawning of the kokiri)

Heriheri means digging about to make room for the eggs.

1. Proceed from Fanau Haga o Te Haga Kokiri.

2. From proximal direction pass thumbs into index loops.

Take hold of upper outer bounding strings of lateral diamonds with balls

of thumbs and pull towards the body. Pass thumbs into little finger loops. Pinch tips of thumbs and index fingers together. Slip thumb loops on to indexes and extend.

f. Fakeakea

Fakeakea is the name of a fish which seems identical with that called Dactyloptera Orientalis.

1. Proceed from Te Heriheri Haga o Te Haga Kokiri.

2. Pass thumbs into little finger loops and on backs of thumbs bring towards the body the string immediately above each thumb. Release little fingers and extend. Substitute little fingers for thumbs, inserting from opposite direction. See fig. 4,f.

g. Te Kukiri o Kokiri Kaha

Te kukiri o kokiri kaha: a ~~certain~~ fish of the Balistapus family.

1. Proceed from Fakeakea.

2. Insert right thumb into right triangle and lift out on its back the left side bounding string. Insert left thumb into right thumb loop and release right thumb.

3. With left thumb pick up left index-little finger string below

(ulnar side of) attachment of left triangle, and bring it back through left thumb loop.

4. Release left index and replace left thumb by left index. See fig. 4,g.

h. Ko Kiri Kaha

Ko kiri kaha: the kiri kaha is the little fish Balistapus Rectangulus.

1. Proceed from Te Kukiri o Kokiri Kaha.

2. Insert thumbs into vertical central loop of figure from proximal direction.

3. On balls of thumbs pull out sides of this loop, pass thumbs behind ulnar-little finger strings above radial side of attachment of medial horizontal string of figure, then inserting thumbs from proximal side into index loops, pick up and bring back through thumb loops the radial index strings, releasing index fingers.

4. Insert indexes under ulnar thumb string and take off thumb loop on to indexes. See fig. 4,h.

i. Gogo i Hakoro

Gogo i hakoro: the hanging umbilicus cord.

1. Proceed from Ko Kiri Kaha.

2. On backs of thumbs pick up proximal of two median, horizontal strings.

3. Insert thumbs proximal side into index loops and then back into thumb loops, carrying the radial index strings with them. Release index fingers.

4. Substitute index fingers for thumbs. See fig. 4,i.

Chant for this at Vahitahi:

Potaka aku e,	My little potaka fish,
" " ",	" " " " ,
Naku iho taku potaka.	For me alone is my potaka.

j. Te Hopega o Te Gogo i Hakoro

Te hopega o te gogo i hakoro: the end of the figure Gogo i Hakoro.

1. Proceed from Gogo i Hakoro.

11 2. Substitute thumbs for little fingers by insertion from distal direction.

12 3. Pass little fingers into thumb loops, then into lateral corners of central diamond and under upper bounding strings of central diamond, grasping this string on balls of little fingers and pulling them down on the palms.

13

4. Pass index fingers over radial thumb strings, and on index fingers carry these strings into index loop, releasing thumbs and extending. See fig. 4.j.

5

No. 5

Mago (Shark)

Demonstrated by Paea of Anaa.

1. Place loop over right thumb and left thumb and index.

Pass over to dorsal side of and pick it up

fig 2. ~~On ball~~ of right index ~~pick up~~ left index-thumb string ~~from dis-~~

on the ball of the index

~~tal direction~~, rotating index in ulnar direction. See fig.

Rotating in ulnar direction invert its loop

3. ~~Twist~~ right index loop ~~partly on itself (invert it), by bending~~

~~right index finger outward and down.~~ Thrust right thumb from proximal

See figure

fig direction into this inverted right index loop, Pick up on back of right

and return index to position

index, ulnar thumb string, Turn right thumb under right thumb-index string.

allowing proximal radial thumb string to slip off. This amounts to exchang

an inverted index loop for a thumb loop

4-5. In each repeat movement 3.

6. Again invert right index loop by bending index outward and down.

Insert right thumb into right index loop and take it off on to thumb.

Insert all other fingers of right hand into right thumb loop from distal

direction and withdraw thumb.

7. Release left thumb.

8. Replace left index by left hand, inserting left hand from distal direction and extend figure. See fig. 5.

No. 6

Pana i Te Ora (Lift the life)

This is the name by which this fai is known at Vahitahi. The allusion is to the motion in copulation. At Amanu it is called Pono Tiare (Joint of the Tiare), or Tatahoto A Tahi pond te oreore.

1. Place loop around right thumb and left thumb and index.

2. Pass right index over to dorsal side of left thumb-index string and pick it up on the ball of the index, ~~turning~~ rotating index ~~towards body and up.~~ in radial direction.

3. ~~Rotating right index in ulnar direction,~~ invert its loop. Then, on ~~back of right index pick up the ulnar thumb string. Rotate right thumb under right thumb-index string,~~ allowing proximal radial thumb string to ~~slip off. This amounts to exchanging an inverted index loop for a thumb loop.~~ ~~It is the~~ same movement as movement 3 in fig. 5. and also in fig. 73.

4-6. In each repeat movement 3. Count a tahi, a piti, a toru, a ope pana i te ora (one, two three, four pana i te ora) as ~~movements 3 to 6~~ each time movement 3 is made.

are made.

7. Release left index finger and insert left hand from distal direction into thumb loop, withdrawing thumb. Thrust right thumb from proximal direction into index loop and take off on to thumb, then insert right hand from distal direction into thumb loop and withdraw thumb. Extend by gentle tugging.

The figure comes out the same as the ~~Marquesan~~ Tahitian figure Ua te Tiare (Handy, Bul. 15, p. 65, fig. 34) and except for the start, is ~~ident~~ made in identically the same way.

No. 7 Extension different two showing ½ dozen.

Item.

Motutakanoa

Motutakanoa: a bare, open spot (tahuna) where Anaa chiefs lived; also a mythical place explained in the legends about Fagataufa, an island near Mangareva. This figure was given by Paea of Anaa.

1. Opening A.

2. Release little fingers.

3. Insert thumbs from proximal direction into index loops and take off on to thumbs.

4. On backs of indexes pick up distal radial thumb string and slip distal thumb loop to index fingers.

5. Twist thumb loops completely once on themselves by rotating thumbs

in ulnar direction one complete revolution.

6. Same as movement 3 in Mago (No. 5). Right hand only.

7-10. In each repeat 6.

11. Rotating ~~Twist~~ right index loop ~~partly on itself again by bending the index outward and down, and again~~ in ulnar direction, invert its loop insert right thumb into right index loop. ~~But this time,~~ transfer index loop to thumb by withdrawing index, then insert all other fingers of right hand into thumb loop from distal direction, and release right thumb.

11. Release left thumb

~~11-12. Same as movements 6 and 7 in fig. 5.~~

12. ~~13~~. Insert left middle, ring, and little fingers from proximal direction into left index loop and pull radial index string down on palm. Extend figure by tugging gently with right hand. See fig. 7.

Motutakanoa	Motutakanoa
Ki te nohoga ariki;	At the seat of the chief,
E taka i mua, e taka i roto,	Understanding in front, between,
E taka ki taku kopu vanaga.	Understanding my wisdom.

No. 8

Hua

The following method of making this figure was demonstrated at Vahitahi.

Hcm

1. Opening A.

2. Thumbs pass over index strings and pick up radial little finger string. Release little fingers.

3. Little fingers pass over index strings and to body side of distal ulnar thumb string and pick up proximal ulnar thumb string.

4. Indexes pass over thumb-little finger string and pick up on their backs the ulnar thumb strings running to center of figure. Withdraw thumbs.

5. Thumbs take off distal index loops.

6. Thumbs pass over index strings and take off little finger loops.

7. Withdraw indexes.

8. Insert other fingers of hand from proximal side (will work just as well from distal side) into thumb loops and, widening them, extend the figure. See fig. .

The right half of fig. 6 (Te Ana o Nakokiri) is an exact replica of the right half of this figure. The left half is the reverse of the right half. The resulting figure is exactly the same as the Tahitian <u>fai</u>, A Mahara Raiatea, as described by Handy (B.P. Bishop Mus. Bull. 18, no. 58), but the method of making is somewhat different and more efficient.

Chant with this figure:

Pororo noa iho,

Na te poro,

Tahetahe noa iho na hukai,

Te hua'kera kao.

At Reao the figure was called Tematagi Tau Mutu and was made somewhat differently.

1. Opening A.

2. Thumbs pass over index strings and pick up radial little finger string. Release little fingers.

3. Little fingers pass over all strings, and pressing lightly on distal radial thumb string, enter proximal thumb loops and pick up on back of little fingers, the proximal radial thumb string, lifting it over the thumbs.

4. Repeat 2.

5. Repeat 3.

6. Take off little finger loops on to thumbs.

7. Withdraw index fingers and let loops hang.

8. With other fingers of hand enter thumb loops from distal direction and extend by gentle tugging.

N.Om.

No. 9

8 ◇s separated

Na Mutu Karaea

Learned at Anaa; at Hikueru it is called Tamutu Kaheahea.

1. Position 1.

2. With right index pick up (from distal direction) left palmar string, rotating right index towards body. With left index pick up in right index loop (from distal direction) right palmar string, rotating index towards body.

3. Twist all loops once on themselves by rotating fingers in ulnar direction.

4. Passing thumbs over intervening strings, enter little finger loops from proximal direction and take them off on to thumbs. Pass little fingers over all strings, and pressing slightly on distal radial thumb string, enter proximal thumb loops and pick up, on backs of little fingers, the proximal radial thumb string, lifting it over the thumbs.

5-7. In each repeat movement 4.

8 5. Passing thumbs over index strings, enter little finger loops from proximal direction and take them off on to thumbs.

9 6. Withdraw indexes, letting their loops hang.

10 ~~7~~. Substitute all other fingers for thumbs, inserting them from the distal direction, and extend the figure by widening these loops and gently tugging. The figure opens with difficulty and often has to be attempted several times to succeed.

No. 10

Pape ~~Ri'iri'i~~ Ri'iri'i (Tiny ~~W~~ells) N cm.

a. Six Wells

These two Pape Ri'iri'i figures were learned at Vahitahi. The fact that they bear a Tahitian name may or may not be significant as to their origin.

To make the figure it is first necessary to have a loop for every finger. This is accomplished in the following manner (movements 1-5):

1. Opening A.

2. Take off index loop on to ring fingers, inserting them from proximal direction.

3. Take off thumb loop on to middle fingers, inserting them from proximal direction.

4. With right index enter middle-finger loop from distal direction and on palmar side pick up radial string by turning the index towards the

body and up. Thrust left index into loop wrapped around right index, from proximal direction, and extend.

~~No. 10 a~~

5. With right thumb enter index loop from distal direction and pick up radial string by twisting the thumb towards body and up. Thrust left thumb into right thumb loop (wrapped around thumb) from proximal direction, and extend.

6. Pass thumbs over intervening strings and entering little finger loops from proximal direction, take them off on to thumbs. With thumb and forefinger of opposite hand lift off proximal thumb loops and, inserting them, put them on little fingers, beginning with left thumb loop.

7-9. In each repeat movement 6.

10. Pass thumbs over intervening strings and, entering little finger loops from proximal direction, take them off on to thumbs.

11. Withdraw all fingers except thumbs. Insert these fingers into thumb loop from distal direction and tug gently until the figure of six diamonds ~~eyes~~ emerges.

This figure is like Ava'e Kahuna Keta, except that the strings of the lateral diamonds are twisted at the outer corners.

fig

~~No. 10,b~~

b. Eight Wells

1. ~~Opening A.~~ Position 1.

2. On palm of right index pick up left palmar string from distal direction, rotating index towards body and up; with left index enter right index loop from distal direction and pick jp the right palmar string, rotating index in radial direction.

3. Same as movement 2 of fig. 10,a.

4. Same as movement ~~2~~ 3 of fig. 10,a.

5. Same as movement 4 of fig. 10,a.

6. Same as movement 5 of fig. 10,a.

7. Twist all loops once on themselves by rotating them in ulnar direction.

8. Same as movement 6 of fig. 10,a.

9-11. In each repeat movement 8.

12. Same as movement 10 of fig. 10,a.

13. Same as movement 11 of fig. 10,a, but resulting in a figure of eight diamonds.

H.Cm.

No. 11

Kokikokiko (Warbler) - Three diamonds

Identical with Marquesan figure tohiau, as described by Handy (Handy, (B.P. Bishop Mus. Bull. 18, p. 44)except that the final movement, as shown to me by the Tuamotuans, is much smoother. At Amanu, Anaa, Vahitahi, and Reao this figure is called Kokikokiko; at Takapoto it is called Kotiotio, which is another name for the same bird. The figure is also known in the Society Islands (as Ioio) in Toga, New Zealand, Pukapuka, the Tokelaus, Fiji, and Gilberts, Uvea

Chant at Vahitahi: Ka rare i te reo o te kokiko, kiko e,
E himene mai ra.

Chant at Anaa: Kokiko, kokiko poro turituri,
Ka hana kauina;
Goio goio tohe rehurehu.

1. Opening A.

2. Release little fingers.

3. Indexes pick up thumb loops from proximal direction.

4. With thumbs enter proximal index loop from distal direction and pick up the proximal ulnar index string.

5. Thumbs enter distal index loop from distal direction and pick up distal ulnar index string.

6. Pass middle fingers over to near side of distal radial index string and pick up the proximal index string.

7. Navaho thumbs.

8. Turn the palm of the left hand towards the body.

The figure has three diamonds. See fig. .

The figure may be continued by two players exactly as described by Handy for the Marquesas fai, tohiau (Handy, B.P. Bishop Mus. Bull. 18, p. 46, operations 10-17 inclusive, fig. 21).

(fig)

No. 12

Kokikokiko (Warbler) - Single diamond

Known throughout the western Tuamotus.

1. Position 1.

2. On ball of right index pick up left palmar string from distal direction and, rotating index towards the body in a radial direction, return to position.

3. On back of right thumb pick up from distal side into index loop ulnar index string. On back of left thumb pick up radial little finger string.

4. With right middle finger pick up radial index string. With left middle finger pick up ulnar thumb string.

5. Navaho thumbs.

6. Release little fingers.

7. Turn right hand palm outward and up.

This makes a single diamond.

The chief of Raroia, in making this figure, began with the following chant; and as he ended it, he completed the figure.

Kopega a Hiro
Ki ravarava ra e
Kokikokiko.

No. 13

2 ◊s ?

Korairai (Chaetodon fish)

Known throughout the Tuamotus. Called Papaka at Takoto, and Patiki at Reao. Movements are the same as in Kokikokiko, single diamond (fig. 12), except that in the third movement, the right thumb picks up the radial index string instead of the ulnar; and in the final movement the right hand is not only turned outward and upward, but the left hand is turned inward and upward. See fig. 13.

and in the fourth movement, the right middle finger picks up the right index ulnar string and the left middle-finger picks up the left thumb ulnar string.

Hands crossed?

An old woman of Hikueru called this figure Kokikokiko and gave the following chant for it:

Poke ga gahoro,

Namunamu,

Kakara hitohito

I ta ra'i kokikokiko.

Her daughter rendered the last two lines differently:

Kakara i toetoe,

Karaia kokiriko.

Our informant, Fariua of Fangatau and Hikueru, gave still a third version:

Pokiga i horo, poki ga ihoro,

Nam, nam,[1] fakarai[2] toitoi[3]

Karaea,[4] karaea, kokiri ko.

---

[1] nam, nam: feebly

[2] fakarai: to swim on side

[3] toitoi: a fish like a korari

[4] karaea: a certain fish

No. 14

Kopena Hiro (Net of Hiro)

This is Hiro's net by which he caught spirits. Paea of Tana was informant for this series of eight figures. Known at Vahitahi under the name Raparapa and at Amanu under the name Kohiti.

a. Te Roki o Hiro

Te roki o Hiro: Hiro's reclining seat.

1. Position 1.

2. With right index finger, from distal direction pick up left palmar string and, rotating index in radial direction, return to position.

3. With right thumb pick up radial index string; with left thumb pick up radial little-finger string.

4. On back of left index pick up ulnar thumb string.

5. Navaho thumbs.

6. Take out little fingers and re-insert from opposite direction.

Arrange the figure to correspond to the illustration, fig. 17. 14a

E Hiro e, to roki takuekue,	Oh, Hiro, this is your sliding seat,
E Hiro e, to roki takuekue,	It is above, it is below,
Koi ruga, koi raro, koi taua roki.	it is our reclining seat.

b. Tepopouoga o Hiro

Te popouoga o Hiro: the house of Hiro.

Continuing from No. 14, a

7. Release little fingers.

8. Insert little fingers from proximal ~~and, at the same time,~~ radial

direction between median double strings and pull down the distal string on palms.

9. Release thumbs and extend. See fig. 18. 14b

Te popouoga te popouoga,	The house, the house
No Hiro a no Hiro,	Of Hiro, of Hiro;
Te popouga te popouga,	The house, the house
Ka piko a no Hiro.	Where Hiro slept.

Continue for No. 19.

c. Na Pofaki o Hiro 14cm.

Na pofaki o Hiro: the marae stones of Hiro.

Continue from No. 14,b.

10. Insert thumbs into little finger loops (or triangles) from proximal direction. (distal or away) With thumbs pick up upper-inner bounding string of each triangle.

11. Bring index fingers over radial thumb string and pull it through index loop, releasing thumbs, and extending. See fig. 19. 14c

Aku pofaki keokeo turukiga,	My sharp leaning stone,
Ka keokeo ki te maoake fakaritorito.	Piercing the mild maoake wind.
Toga haumi te matagi hau makariri.	Toga haumi is the chilling wind.

d. Tahora o Hiro

Tahora o Hiro: swing of Hiro.

Continue from fig. 14,c.

12. Insert thumbs into index loops (radial corners of figure) and on their palmar sides pull the diagonal string immediately below towards the body. Then insert thumbs under horizontal median string from the proximal direction. Pinch tips of thumb and index fingers together and, rotating indexes toward the body and upward, pass them through thumb loops. See fig. 20. 14d.

At Vahitahi this figure made in exactly the same way is called Te Rua o te Marama (the pit of the moon). The chant is:

E mea, e mea e tamai,
Te ruki, ruki ake,
Ka tika, ka tika,
Haere a tuki,
Marama ta hiti ruga, e raro.

e. Te Mouga o Hiro

Te mouga o Hiro: Hiro's mountain or grove of trees.

Continue from fig. 14,d.

13. Insert thumbs from proximal direction into lateral triangles of

figure (not into radial corners) and hold base string of each triangle between thumbs and ring fingers (as an aid) while rotating indexes radially through lateral triangles from proximal direction. Extend, withdrawing thumbs and ring fingers, and dropping ulnar index string. This operation changes the figure back to No. 14,c.

string that runs straight across.

no.? Yes, but not well described

14. With thumbs pick up and draw out the base string of each lateral triangle. Release little fingers, and extend. See fig. 21. 14e

15. Substitute little fingers for thumbs, inserting little fingers from opposite direction.

Mouga tapu e,	Sacred Mountain!
Ko Hiti taku henua,	Hiti (Tahiti) is my land.
Mouga tapu e,	
Ko Hiti taku henua,	
Eke atu te vaka o Hiro,	The canoe of Hiro passes over the sea,
Matauku utuhi i varo tahi e.	Grounds on the sand.

f. Te Pora o Hiro 14-cm

Te pora o Hiro: the canoe cabin of Hiro.

Continue from fig. 14,e. e?

16. Inserting left thumb into left diamond, right thumb into right diamond, pinch tips of thumbs and index fingers together, rotate in ulnar radial

direction and slip off thumb loops on to index fingers. Extend figure. See fig. 22.

g. Kopena Hiro

Kopena Hiro: Hiro's net.

Continue from No. 14, f.

17. Insert thumbs into radial corners of figure. Carry the string just below (the string ulnar to the thumbs) towards body on balls of thumbs. Then insert thumbs into little finger triangles from proximal direction and pick up the inner diagonal string.

18. Release index fingers and insert them from distal direction into thumb loops, taking them off thumbs. Extend. See fig. 23.

Kopena Hiro, ki ravarava e,
Kopena Hiro, ki ravarava e;
Koi ruga, koi raro, koi te puta i tana kope.

h. Te Piti o te Mauga o Hiro

This additional figure our informant was made upon a later demonstration of this Hiro series. When asked the name he hesitated as if he did not know, and then said it was the Mouga o Hiro. When I pointed out that this name had already been given for one of the figures, he replied that

this was "Te Piti o te Mouga o Hiro." It sounded like an invention on his part.

Continue from fig. 14,g.

19. Insert thumbs into index triangles, from proximal direction (i.e., insert thumbs into radial corners of figure). On balls of thumbs carry string ulnar to thumbs towards the body. Then on backs of thumbs pick up lower outer bounding strings of lateral triangles.

20. Release index fingers and insert into thumb loop from distal direction, taking off the loop on to the index fingers.

No. 15

Te Vaka o Hiro

Te vaka o Hiro: the canoe of Hiro. Our informant was Paea of Anaa.

1-8 are exactly the same as in Kopena Hiro (No. 14).

9. Pick up left half of medial string with mouth. Release left index finger and insert it into mouth loop from far side, taking the loop off on to the index. Do likewise for the right side of the figure.

10. Pull laterally on the thumb loops with the thumbs.

// No vai te vaka i eke mai tua?	Whose canoe is it coming over the ocean?
No Hiro. Tupere perepere.	Hiro's,- rocking, rocking,

No vai te vaka i eke mai tua?	Whose canoe is coming from the ocean?
No Hiro, tuperepere;	Hiro's,- gently rocking;
No Hiro, tuperepere.	Hiro's,- gently rocking. //

No. 16

Papani o te Rua o te Marama

Papani o te rua o te marama: door of the pit of the moon.

Known at Vahitahi. This is made after Te Rua o te Marama, fig. 14,d, and can be made from this figure by following operations 13 and 14 of figure and then continuing with operation 2 here.

1. Make fig. 14,e (Te Mouga o Hiro). This can be accomplished quickly by going through, consecutively, the following operations of fig. 14 (Kopena Hiro): 1-5, 7, 8, 11, 14.

2. Substitute little fingers for thumbs, inserting little fingers from same direction.

3. Thrust thumbs from near side into index corners and on balls of thumbs press gently down and pull towards the body the upper outer boundary string of each diamond. Then thrust thumbs into little finger corners from the near side and under the lower outer boundary string of each diamond. Pinch tips of indexes and thumbs together, turn indexes towards body

and up, withdrawing thumbs.

4. Thrust thumbs from near side into little finger corners and pick up the diagonal string just above, releasing little fingers.

5. Substitute little fingers for thumbs.

6. Thrust thumbs into flat loops across each index corner, and pull out towards body the near string. Then thrust thumbs under little finger string, picking it up in releasing the little fingers. See fig. .

No. 17

Ku Tavia

A fai closely related to Kopena Hiro (No. 14), Potaka (No.), and Koviri (No.). Our informant was Tapahi of Hikueru, a woman 80 years old.

1. Stretch loop around left thumb and index and right thumb.

2. Pass right index over left index-thumb string and on ball of index pick it up, turning index away and up.

3. Thrust little fingers up into thumb loop and up into index loops, hook down on palms the radial index string. Release thumbs.

4. Thrust right thumb distally into right index loop and lift up on

re-written

~~its back the ulnar string. Withdraw right index and insert it distally~~ into right thumb loop. There is now a large triangle, the base string of which runs across midway between the index and little finger string, and which string takes a turn around the left bounding string and a complete twist around the right bounding string. Substitute thumbs for little fingers, inserting them from the same direction (distally). actually proximally

5. Little fingers hook down base string of triangle. Indexes pass from distal side over near side of thumb string and carry it through index loop. There are now two triangles.

6. Pinching index-little finger string between thumbs and middle fingers, withdraw indexes and re-insert them in their loops from opposite direction. Substitute thumbs for little fingers, inserting them from the same direction.

7. Little fingers hook down base string of triangles. Indexes from proximal direction pass over to near side of thumb string, pick it up, and carry it through index? thumb loops.

8. Thrust thumbs into index corners, from proximal direction. On balls of thumbs press down and pull slightly towards the body the string just below thumbs. Then thrust thumbs under the base string of the small outer

triangles. Pinch tips of indexes and thumbs together and turn index towards body and up, converting the radial thumb string into an ulnar index string.

towards you; bring round with palm facing towards you

9. Swing ~~the~~ left hand down, ~~swing~~ right hand ~~over to left, turn~~ Bring

Continue movement until arms are crossed

~~palm towards body, at the same time crossing right forearm under left forearm.~~

Cannot do this action

This makes Ku Tavia. The chant with this figure is:

Ku tavia, ku tava,

Te fakariki, e matematea.

10. Swing left hand back to its position at the end of movement 8. Substitute thumbs for little fingers. With little fingers hook down the proximal of the two strings running from the middle of each index-thumb bounding string towards center.

11. Pass index fingers over to near side of thumb string and carry it through index loops. This makes ?

Te ivi tu tarau, te ivi o Mere.

12. On backs of thumbs pick up base string of each upper lateral triangle. Withdraw indexes and placing their tips against the tips of the thumbs, turn indexes towards body and up, converting the radial thumb string into an ulnar index string. This makes Kamake te Uru o Toga (iden-

tical with Kopena Hiro, (No. 14).

13. Thrust thumbs into little finger corners and pick up lower outer bounding string of each lateral diamond. Withdraw indexes and placing their tips against the tips of the thumbs, turn indexes towards body and up. This makes O te Kohiti (identical with Te Mouga o Hiro, No. 14, e).

14. Holding left hand up, palm towards body, slip out the right hand. From proximal direction insert right index in the space to the right of the right upper bounding string of the left diamond, insert right thumb into space to the right of the lower bounding string, and extend. Substitute left thumb for left little finger, inserting thumb from distal direction.

15. Thrust little fingers from proximal direction up into thumb corners then distal into corners of large central diamond, picking up upper (ulnar strings) of the diamond, and pulling them towards body and down on palms.

16. Indexes pass over to near side of thumb string and carry it through index loops. This makes Putanuku (No. 22). See fig. 22.

Patanuku, hura riki ka tutu, ka tutu, ka rapa, te igoa o taua fai nei, e, patanuku.

17. Thrust thumbs from proximal direction into index corners. Press down on them and pull out towards body the upper outer bounding string of the lateral diamonds. Then thrust thumbs under outer lower bounding strings.

18. Pinch tips of indexes and thumbs together, turn indexes towards body and up. Thrust middle fingers proximally into lateral slanting triangles and pull down the base string on palms. Release ~~thumbs~~ little fingers and extend the figure well. This is practically identical with the figure Putanuku, differing only by the number of twists of the string around each lateral bounding string of the figure. The chant with this is:

Hua puta te korohihi, te kiri a tai.

Maori Canoe.
Gilbert's "

No. 18 Item.

Haveke Tiraga (Upright Canoe)

Learned at Vahitahi.

1. Position 1.

2. Left little finger picks up right palmar string from proximal direction. Right little finger picks up left palmar string. through left l. f. loop

3. Holding figure high, fingers pointing away, reach in with mouth, pick up the ulnar little finger string which runs straight from little

finger to little finger. Now hold figure out from body.

4. Insert index fingers from distal side into mouth loop, then out to the side and up, release mouth loop, thus transferring mouth loop to indexes.

5. Reach in with mouth under ~~the~~ ulnar index string and pick up and draw out the strings which cross from thumb to little finger at the point where they cross. Release indexes. There is now a string running from the mouth to each side of each little finger, and two transverse strings near the mouth, one of them a radial thumb string which must be kept to the ulnar side of the other string.

6. This is a most difficult move to execute. The indexes pass distally to the far side of the little finger strings, under these, then (slacking figure) from the proximal direction they come up between the two transverse strings and at the same time between the two mouth-little finger strings (the radial little-finger-mouth string on the inner side). Now the indexes carry down on their backs the nearer transverse string which is not the radial thumb string; the indexes carry this string down, under all other strings and up. The figure is now worked a few times by pulling outward the hands, then slacking them and at the same time stretching

thumbs and indexes as far apart as possible. Then turn fingers upward and palms toward each other, release mouth loops, and extend. This makes Vaka Tiraga. See fig. .

No. 19

Haveke Tipapa (Overturned Canoe)

Learned at Vahitahi.

Made the reverse of Haveke Tiraga (No. 18).

1. Position 1.

2. Left thumb picks up right palmar string from proximal direction. Right thumb picks up left palmar string.

3. Rotate indexes outward, down and around, under all strings save radial thumb strings, and up into thumb loop. Insert indexes between two radial thumbs strings and carry the proximal string down under all strings and up as an ulnar index string.

4. Pull out ulnar-thumb-radial-little fingers strings at the point where they cross, to the distal side of ulnar little finger string and place on a big toe. (The pulling may be done with middle fingers). Release indexes, and be sure that the transverse string which then falls upon the figure, near the toe, is kept to the ulnar side of the ulnar

little finger string.

5. Rotate indexes towards body, down and around radial thumb strings and up into little finger loops and at the same time between thumb loops, catching on balls of indexes the transverse string nearest toe, and carrying this string on indexes under all strings radial to it and up.

6. Saw the figure a few times by spreading indexes and little fingers apart and relaxing pressure from thumbs and then reversing the pressure. Then withdraw toe and extend the figure.

No. 20

Koviri (Twist)

a. Koviri Mua (First twist). Nem

This and Koviri Roto, Koviri Fakaoti, and conversion of Koviri Mua learned from Paea of Anaa.

1. Stretch string around dorsal side of left thumb and index and right thumb.

2. Pass right index from distal side over left index-thumb string and pick this string up with palmar side of the index, turning it away (in ulnar direction) and upward. Return to position.

3. Pass middle, ring, and little finger of each hand into index loop from proximal side and press radial string down on palms.

4. Thrust thumbs into index loops from proximal side and bring radial index string on backs of thumbs through the thumb loop from the distal side. Turn thumbs upward.

5. With palmar side of each index, from the distal side, pick up the distal upnar thumb string and pass it under the ulnar index string, turning the index fingers outward and upward.

6. Release thumbs, middle and ring fingers, and extend. The resulting figure consists of two diamonds. See fig. // The pataku is:

Koviri aiho iko

Koviri aiho muri

Koviri mua, koviri roto, koviri faka otioti.

The above figure was called Taimana at Reao.

b. Koviri Roto

Continue from a, Koviri Mua. Yes

1. Thrust thumbs into little finger loops and on back of left thumb pick up left lower side of left diamond, and on back of right thumb pick up lower right side of right diamond. Release indexes and extend.

Turn l.fs inwards & up.

2. With indexes enter thumb loops from the ~~distal~~ proximal side ~~and take~~ them off on to indexes.

3. ~~With~~ Pass thumbs proximal to index loops, enter little finger loops from proximal side ~~and~~ take them off on to thumbs.

4. Twist index loops over in ulnar direction? by bending index fingers outward and down.

5. Pass thumb loops up through index loops.

6. With palmar side of little fingers pass over ulnar index string from the distal side and press it down on palms. Withdraw index fingers.

7. Pass index fingers into thumb loops from ~~proximal~~ distal side and widen the loop by extending the indexes away from the thumbs. Now clasp the index-thumb string against the side of the index finger with the thumb, and extend the figure by turning the hands outward. The figure is a double-sided "M." See fig.

c. Koviri Fakaoti (last twist)

Continue from b, Koviri Roto.

1. Release ~~distal~~ radial ~~thumb~~ index strings from thumbs.

2. ~~Release middle, ring, and little fingers from thumb loop. Extend so strings are taut.~~ Turn little fingers downwards & up.

3-5 Repeat operations ~~10-12~~. 3-7.

6. Insert index fingers into thumb loop from proximal side and take off ulnar, distal radial thumb string on to index fingers.

7. Slip out middle, ring, and little finger strings from thumb loop and stretch this loop taut on thumbs.

8-9. Repeat operations 10 - 12.

10. Insert index fingers into thumb loop from proximal side and widen loop by extending indexes and thumbs apart. Hold index-thumb string against radial side of index fingers with thumbs.

11. Turn left hand palm inward. The resulting figure has three diamonds. See fig. .

No. 20

d. Heregao

Item

The figure comes out the same as Uira (No. 29).

Make Koviri Mua (No. 20, a)

1. Lay the figure on lap.

2. Place tips of little finger and thumbs together and insert from distal direction into lower corners (former little finger loops). Now work thumbs under former ulnar little finger string, ready to pick it up,

and work little fingers under diamonds and up into inverted triangle between them. Rotating little finger around former radial index string, pick it up on the balls of little fingers and carry it up into former little finger loops, at the same time pick up former ulnar little finger string on thumbs, and extend.

3. With thumbs pick up radial little finger string.

Carolina Extension

4. Insert index fingers proximally into thumb loop and pick up on backs of index fingers the ulnar thumb string.

5. Clasping radial index strings against index fingers with the thumbs, extend the figure by turning hands palm outward. See fig. 29.

The <u>putakutaku</u> is:

Ko heregao[1] ki te vaiga areare, nohoraga tavake[2].
Ka tagi hoahoa te tagi o te kena[3].

---

[1] heregao: a certain fish
[2] tavake: the tropic bird
[3] kena: a bird

No. 21 NO yes

Kotuku Rere (Flying heron)

a. Kotuku Rere ki Tua

Learned from Paea of Anaa.

1. Position 1.

2. Form another loop, which will be a wrist loop, by allowing the loop to hang slack, passing left hand over ulnar little finger string in about the middle, then down and up into loop from below, and extend. Then thrust right hand under left proximal palmar string from proximal direction and, allowing it to slip down on back of right wrist, extend.

3. On backs of index, middle, and ring fingers pick up palmar string and slip it on to the backs of the hands. This makes a distal and proximal wrist loop.

Release thumb?

4. Turn hands palm outward, letting thumbs pass between distal and proximal ulnar strings. Rotate thumbs downward, towards the body, and up, carrying the proximal ulnar string, and so converting it into an ulnar thumb string. At the same time grasp the distal ulnar string with the rest of the fingers (the string in crotch between thumb and index fingers), carry this string under the radial strings and then, by extending the index fingers to an upright position and by releasing the middle, ring, and little fingers, convert the former distal ulnar string into an index loop, and extend.

5. Twist index loops on themselves by bending index fingers outward

and down. Insert thumbs into these inverted index loops and withdraw indexes. Pass little fingers into distal thumb loop from distal direction and pull down distal ulnar thumb string on palms.

6. Pass index fingers from distal-far side between distal and proximal radial thumb strings and, picking up the proximal radial thumb string on side of index, carry it back and up on back of indexes. Extend. See fig. 21,a.

Kotuku rere ki tua, kotuku rere ki tua,
Hipahipa ana ki tana kokorohua,
Hipahipa ana ki tana kokorohua.
Kokorohua te taverevere, kokorohua te taverevere.

Kokorohua is oopu in Tahitian, a fish (Salarias poptae). Taverevere means eel-like. Kokorohua te taverevere is the full name of fish called taverevere on account of its tail.

The chant as given by Tetumu of Faite is:

Kotukuere ki tua, ki tua,
Kotukuere ki aro, ki aro,
Naupaki, naupaki,
Tapiga kore, aore tavega.

At Vahitahi the last line is rendered "Na'u te pake."

Hom

b. Kotuku Rere Ki Aro

Kotuku rere ki aro: heron flying over the lagoon.

Identical with No. 21 (Kotuku Rere Ki Tua) except that at the completion of the 4th movement, the thumb loops are twisted one complete revolution by rotating the thumbs in an ulnar radial direction before going on to the 5th movement. See fig. 21,b.

Kotuku rere ki aro, kotuku rere ki aro,
Hipahipa ana ki tana kokumu,
Hipahipa ana ki tana kokumu, e,
Kokumu kai tutae.

Heron flying over the ocean,
Looking at his kokumu,
Kokumu eating feces.

Kokumu is the fish aua in Tahitian. It is a tiny fish swimming in large schools. Informant, Paea of Anaa.

c. Nau Paki

Continue from fig. 21,b (Kotuku Rere ki Tua).

7. Release thumbs.

8. Substitute thumbs for little fingers, inserting thumbs from proximal

direction, fingers outward and down. Insert thumbs part way into index loops. With little fingers, from distal direction take firm hold of ulnar index string. On back of index fingers pick up ulnar thumb string and, clasping thumbs to sides of index fingers, extend. See fig. 21,c.

Naupaki, naupaki,
Tapiga kore, kaore a tavega,
Koia te ogeoge.

Nest, nest,
Loose, worthless,
There are the starved ones.

d. Taioropua

Taioropua is a place name.

1-4. Exactly as in No. 21,a (Kotuku Rere ki Tua).

5. Insert thumbs into index loop from proximal direction and, releasing index fingers, take off index loop on to thumbs.

6. Little fingers from distal direction take firm hold of distal ulnar thumb string and pull it outward.

7. Insert index fingers into thumb loop from proximal direction and pick up ulnar thumb string.

8. Release little fingers, turn thumbs outward, and extend.

9. Twist index loops on themselves by bending index fingers outward and down. Insert thumbs into these inverted index loops. release indicio Little fingers from distal direction take firm hold of distal ulnar thumb string and pull it outward. Passing the index fingers from distal-far side between proximal and radial thumb strings, carry the proximal radial thumb string through the thumb loop and upward on the index fingers. Extend. See fig. .

(four diamonds).

e. Maraetefano JCM

Maraetefano: a place name. Identical with No. 21,d (Taioropua) except that at the completion of the 4th movement, the thumb loops are twisted one complete revolution by rotating the thumbs in an ulnar direction before going on to the 5th movement. As a result, the base of each of the two central diamonds is wrapped twice around base string.

Hem.

No. 22

Pitanuku

Known throughout the Tuamotus, but under different names. At Anaa, Faite, and Fangatau it is called Pitanuku; at Vahitahi, Mata-hio-ragi; at Reao, Matagi-nui o Roke; at Hikueru, Manioraka; at Takoto, Tamaka-no-niho-raka; at Hao, Kahune; at Napuka, Mariko-iō-kōkō, at Mangareva, 'aka-MANGAREVA

It is identical with the Tahitian figure Tuna Riro (Handy, B.P. Bishop Mus. Bull. 18, pp. 88-89, fig. 45) except for the trick at the end. The figure is undoubtedly ancient at Napuka, at least. Do not type

1. Opening A.

2. Release all fingers of right hand.

3. Pressing tips of right thumb and little finger together, with these lift off the index loop from the left index finger and extend.

4. With the right index finger pick up left palmar string, entering from the proximal side and return to position.

5. Pass right thumb over radial index string and on dorsal side pick up ulnar index string. With left thumb pick up radial little finger string.

6. On dorsal side of right middle finger pick up radial index string in front of it. With the dorsal side of left middle finger pick up

ulnar thumb string.

7. Navaho thumbs.

8. Release little fingers, turn palms outward, and extend figure. See fig. 22 .

not clear

The figure may be taken by another person, using the same movements as in movement 1, in the continuation of Kokikokiko (fig. 11). The resulting figure is still three diamonds, however.

This figure is identical with an unnamed Maori figure described by Anderson (Maori String Games, vol. 3, N. Z. Jr. Sc., p. 205) except that for position A the right index takes the left palmar string on its back, as is usual for this position, and in New Zealand the left hand is slipped out of the noose instead of the right. Patanuku is identical with the Marquesan figure Kamo, as described by Handy ([illegible], B.P. Bishop Mus. Bull. 18, p. 51, fig. 25), except that the Marquesan figure is reversed like the Maori, and the continuation of the figure was not known by my Tuamotuan informants.

The Anaa chant is:

// Patanuku, te patanuku,
Te aragaraga, te aragaraga,
(Repeat above).

The Raroia chant is:

Patanuku i te hiti kava e,
Puhipuhi ~~e~~ manei.

The Faite chant is:

Puhi e, tuki matanuku,
Te hiti kava puhi e.

The Fangatau chant is:

Patanuku, patanuku,
Hauraria ra,
Te igoa taua fai nei
Ko patanuku.

The Hikueru chant is:

Manioraka, manioraka,
Te fai a tane tamahine nei, nei e,
Ko Manioraka.

The Takoto chant is:

Tamaka ra korokoro
No niho raka huti huti
No te ta kere e mea puta kohia,
Ia hoto.

Same as no. 4a.

Conversion of Patanuku into itself

NO

This conversion is described as shown at Vahitahi.

1. A second person, facing the maker of the figure, passes his index fingers over the ulnar middle finger string, down into middle finger corners, and then out into lateral diamonds, picking up on their backs the outer upper bounding strings of the lateral diamonds.

2. The second person then reaches into thumb corners with little fingers and hooks fingers over the lower outer bounding strings of lateral triangles. Extend figure.

The figure Kokikokiko (No. 11) is converted into itself in the same way.

For continuation of Patanuku into Potaka Puraga (no. 4), see that figure.

Continuation ~~Conversion~~ of Patanuku into Potaka puraga ~~Gogoihakoro~~

1. Withdraw right hand.

2. Insert ~~right index~~ from proximal side into inverted triangle to right and ulnar side of left diamond, and insert right thumb into triangle to right and radial side of left diamond, and extend. This makes a simple figure of one large diamond.

3. Thrust ~~thumbs~~ little fingers into ~~little finger~~ Thumb corners from proximal side and then ~~down~~ into large diamond. Now pick up the upper bounding strings of the diamond and pull them down on palms. ~~Middle~~ Index fingers pass distally to

near side of radial thumb string and carry it through middle finger loops. Withdraw thumbs, and extend. See fig. 8.

Gogoihakoro

4. Continue ~~on with operations 9-11 of that figure (No. 4,i)~~ exactly as in making Te heriheri haga o te haga kokiri (No. 4, e), and keep on with

No. 23

Hem

Patiki

Seen only at Reao. Exactly like Paranuku (No. 22) except that in 4th operation the right index picks up the left palmar string from the distal direction, rotating the index towards the body and up. And in the final movement, in place of operation 8, after releasing little fingers, turn left palm towards body, and the two diamonds appear. See fig.

No. 24

Hem

Te Ava Raro

Seen only at Reao.

1-3, as in Patanuku (No. 31). 22?

4. Take left little finger loop off little finger, take the loop out of it, and put the string back over little finger.

From now to end exactly as in operations 4 to 8 in Patanuku.

Conversion (kohiko haga) of this figure

With indexes lift up the straight string that runs across center of figure. Release middle fingers.

No. 25

Puhaga Toto

Puhaga meaning ? , and toto, to knock or to pull on a taut rope. This is the name given at Vahitahi. At Takoto it was called Takama. This figure was called Puhaga Tautau at Amanu, and Puga Tahetahe by Paea of Anaa, who gave the meaning of this name as "Overflowing Spring." His chant is:

Puga horohoro ki tai, horohoro ki uta;
Ko horohoro ki te vai ganuku[1], ko horohoro ki te vaiga kore.

---

[1] ganuku: flowing

Identical with Hawaiian figure Four Eyes, A , method 2 (B.P. Dickey Bishop Mus. Bull. 54, p. 28). See fig. 23.

Paea says right and left diamonds represent springs; the two central diamonds, the flowing water.

Conversion of Puhagatoto into Uira (Lightning) NO

The conversion is accomplished in exactly the same way as the conversion of Koviri Mua into Heregao (fig. No. 20), except that thumbs and little finger are inserted into triangles on either side of two central diamonds instead of into lower corners. The new figure has the same number of diamonds. See fig. 28.

The figure Puhagatoto may be kept on the hands and a second person perform the motions, converting it into Uira.

No. 26 Hem.

Na Fai Peka

(The crossed string figure)

This is the Vahitahi name; Kavake Kahuna is the Hikueru name and is also their term for the half of the year from July to December. The figure was taught me by Tekuravehe of Hikueru, who is 80 years old.

a. Open

1. Opening A.

2. Twist all loops once on themselves by rotating fingers in ulnar direction.

3. Thumbs pass over intervening strings and from proximal side pick up little finger radial string. Release little fingers.

4. Pass little fingers over intervening strings and pick up proximal radial thumb string, lifting it over distal string and off thumb.

5. Repeat 3 and 4.

6. Repeat 3.

7. Withdraw index fingers from their loops, insert other fingers of hand distally into thumb loops, and extend by gentle tugging.

This makes a figure of six eyes separated by a gap in the middle.

b. Locked

1. Opening A.

2. Transfer index loop to ring fingers and thumb loop to middle fingers, picking them up from proximal side.

3. Make a new index and thumb loop by inserting right finger into the loop ulnar to it and picking up the radial string by a turn in the radial direction. The index loop must be made first, of course.

4. Twist all loops once on themselves by rotating fingers in ulnar direction.

5. Repeat movements described in 3-6 in Na Fai Peka (No. 26,a).

6. Withdraw all fingers save thumbs from their loops. Insert these fingers into thumb loop from distal side, and extend by gentle tugging. This makes a figure of 6 dismonds in which the two central diamonds are locked at the sides.

No. 27

Tupa Rikiriki

Tupa rikiriki: little hermit crab. Given by Hikueru man, aged 80 years.

1. Opening A.

2. Transfer index loop to middle fingers and thumb loop to indexes, picking them up from proximal direction.

3. Make a thumb loop by inserting right thumb distally into index loop and picking up the radial string by a radial twist, then inserting left thumb proximally into loop around right thumb, and extending.

4. Twist all loops once on themselves by rotating each finger in ulnar direction.

5. Pass thumbs over intervening strings and pick up radial little finger string from proximal direction. Release little fingers. Little fingers pass over all strings and pick up,on their backs from distal side,

the proximal radial thumb string. release string from thumb?

6. Repeat 4, 5?

7. Thumbs pass over intervening strings and take off little finger loop from proximal direction.

8. Remove from fingers all loops save thumb loops. Insert these fingers into thumb loop from distal side, and extend figure by gentle tugging. The figure has six eyes and no wrapped strings. This is different from the Six Eyes figure of Hawaii. It is made exactly like Na Fai Peka (No. 26,a), except that there is one extra finger loop and all loops are twisted on themselves.

No. 28 No. all end

Na Fai a Te Ariki (The String Figure of the Chief)

1. Place loop around left thumb and index and right thumb.

2. Pass right index over to distal, dorsal side of thumb-index string and pick it up from the proximal direction by hooking the index over it and pulling it out about 3 inches, then turning index towards body and up.

3. Make two complete twists by rotating indexes in ulnar direction.

4. Thrust left thumb from proximal side into left index loop and close to left index.

5. Lift up (in any convenient manner) the radial thumb string and let it fall between left thumb and index finger.

6. Insert right thumb into right index loop from proximal direction.

7. Lift up the radial thumb string and let it fall between right thumb and index.

8. Toss loop hanging on radial side over to the ulnar side.

9. Holding base of two right end loops firmly by left hand, withdraw right thumb and index and place their loops (which are separated by the end of the loop formed by the hanging strings) on a thigh. Then, between thumb and indexes, take firm hold of the transverse, bisecting loop, as of the handle of a key, and make three radial twists. Then insert right index into ulnar lobe and right thumb into radial lobe of key.

10. Holding with right hand (in any feasible manner) the base of the two left end loops, withdraw left thumb and index and lay loops on thigh. Holding the transverse, bisecting loop firmly between left thumb and index, give it three ulnar twists. Now insert right index into ulnar lobe from the distal side, but right thumb into radial lobe from proximal direction; then down into transverse loop from the distal side, catching on ball of thumb

the distal string of the transverse loop, and extend figure. Thumbs may be substituted by little fingers, inserting them from opposite direction.

The resulting figure has six diamonds.

No. 29

New.

Uira (Lightning)

Shown by Tetumu of Faite. Called Uira at Totokoto, Amanu, Hikeru, and Raroia; Hiro at Napuka, Tukamo (~~Chew Gum~~) at Vahitahi. It is identical with the Marquesan figure Kooi Ui'a (Handy, Bull. 18, p. 43; fig. 20)

1. Form a double loop, and place it over the hands, and allow it to fall down as far as the wrists. the crossing of the strings should lie on radial side of wrists.

2. Thrust thumbs between two ulnar strings. Rotating thumbs downward towards the body, and up, carrying proximal string on to the backs of the thumbs. At the same time catch up the distal string on the palmar side of little fingers and, slipping off the two radial wrist strings, straighten the fingers upright. There is now a little finger loop and a crossed thumb loop.

3. Take off little finger loop on to thumbs, then take off thumb loops on to wrists.

4. Repeat operation 2.

5. The rest is exactly the same as from operation 4 on in Heregao (no. 20, d)

of this fai.

At Amanu the fai is called Uira and is worked by turning palms inwards and outwards to the accompaniment of bursts of laughter. At Hikueru the chant is:

at Tatakoto, the chant is:
uira, uira,
Kamo, kamo.

Te uira, te napa, te napa,

Totoro, totoro, pū.

at Napuka the wrist loops are formed by first slipping a single loop over wrists, then allowing it to sag, passing left hand from radial and proximal direction into loop near right hand and picking up on back the radial string. Now lifting left hand high, bring right hand up into distal left hand loop and extend.

Known at Napuka, Tatakoto, and Reao by the same name as at Anaa; universal in the Tuamotus.

ulnar and from pleo x side

No. 30

Kanaunau

It is identical with the Society Islands figure U Tami, as described by Handy (, B.P. Bishop Mus. Bull. 18, p. 81, figs. a, b) except at operation 4 and the outward position of the little fingers in the 5th movement. The Tuamotuan figure is carried a stage further than the Society Islands figure.

a. Open

HCM.

1. Opening A.

2. Pass thumbs under index finger loop and up into the little finger loop from the proximal direction; take off the little finger loop on to

thumbs and carry them back under the index finger loop.

3. Thrust thumbs up into the index finger loops from the proximal direction and take this loop off on to thumbs.

4. Bend little fingers over distal ulnar thumb string, pulling it slightly towards the palms. Then thrust little fingers under two remaining ulnar thumb strings and up into thumb strings and up into thumb loop, and extend.

5. Thrust indexes under palmar strings and, turning palms outward, extend. See fig. 30,a, (1).

// The chant now begins. At the end of each line one plays the figure by pulling with the thumbs. This is the Takaroan chant:

Kainaunau
Patia hua
Tuhakarere
Porohiti porohi a minomino.
Te raho te kaveti
Ka motu, ka motu tahiti
E memea tutu pahua
Ki te raho gutu e.
Kiri motu.

The Anaa chant, as given by Paea, is:

Ka naunau

Te patia hua

Tufakarere

Porohiti poro a miomio.

Ka motu, ka motu tahiti.

Tutu pahu

Ki te raho nui e.

Kiri hemo.

Paea's brother chanted the last four lines as follows:

A mutu te raheo te kaveu

A mutu tahiti

Tutu pahua i te raho nuku e,

Kiri hemo.

6. The thumbs are now slipped out and the figure extended. ~~See~~ 2 inches ~~fig. 30,a~~ (2).

7. The thumbs are then passed into the proximal side of the two inner loops and extended towards the operator. The figure is now worked by bending the thumbs towards the palms and spreading the other fingers of the hand, then returning to the former position. This opening and shutting movement is accompanied by chanting:

Ki poru, ki faru,

Ki poru, ki faru, etc.

The Napuka chant for Kanaunau is as follows:

Ka naunau

Te patia hua

Tuhakarere,

Hora porohiti

Poro a meamea

Te mea o te kaveu

Tiaru e.

Paina, paina i te fare tia,

E motu ta hiti, e motu to vaevae.

A chant for this fai heard at Vahitahi is:

Ka naunau ka naunau patia hua, hua rere;

Porohiti, poro a meamea, te mea of te vahine; ?

Heru e, heru e, panapana, tuauou hia, 'a uouo hia,

A mua titi, tutu pahua e te rahonui e,

Kere motu.

p. 652 and p. 65a

b. Closed

H.CM

This is identical with no. 30, a except that in the sixth movement, when the thumbs are slipped out and the figure extended, the resulting figure shows the two diamonds locked. See fig. 30, b. The result is accomplished in this manner.

1. Opening A.

2. Release thumbs.

3. Pass right thumb from distal side into index loop and bring back radial index string by rotating thumb on back of thumb.

4. Pass left thumb from proximal side into right thumb loop and bring back to position.

5. Proceed as with no. 30, a, beginning with movement 2.

N.C.M.

No. 31

Kotuku Rere (Flying Heron)

Given by a native who had learned it at Fakarava.

1. Opening A.

2. Release thumbs.

3. Pass thumbs under index strings and pick up on backs of thumbs the ulnar little finger string, carrying in back under index strings.

4. Pass thumbs over radial index string and pick up ulnar index string.

5. Release little fingers.

6. Pass little fingers over radial index string and pick up ulnar thumb string.

7. Release thumbs.

8. Pass middle fingers from distal side into index loops and pick up radial string on their backs. Hold middle fingers and index fingers tightly against each other and then extend figure by turning palms outward.

9. Withdraw middle fingers.

10. Pass thumbs into index loop from the distal side and pick up ulnar string.

11. With middle fingers pick up radial index string and holding middle

fingers and indexes tightly against each other, extend by turning palms outward. The chant with this figure is:

Kotu kurere ki aro, ki aro;

Kotu kurere ki tua, ki tua.

12. Withdraw middle fingers.

13. Pass thumbs over index strings and pick up radial little finger string, carrying it back over index strings.

14. Using the tips of index and thumb of opposite hand as aid, pick up the radial index string at index finger and, pulling it out, slip it over thumb.

15. Navaho thumbs.

16. Release little fingers.

17. Pass little fingers over ulnar index string and pick up ulnar thumb string that runs straight from thumb to thumb.

18. Release thumbs.

19. Pass thumbs under index strings and into little finger loops and pick up radial little finger string, carrying it back under index strings.

20. Pass middle fingers from distal side into index loops and pick up radial index string. Hold middle fingers and indexes tightly against each

and extend by turning palms outward. This makes Na Ruga o Maui.

21. Withdraw middle fingers and thumbs.

22. Pass thumbs over index strings and into little finger loops and pick up radial little finger string, carrying it back over index strings.

23. Repeat operation 20. This makes Na Ruga Tinirau.

24. Withdraw middle fingers and thumbs.

25. Thrust thumbs into index loops from distal direction and, picking up radial little finger string on backs of thumbs, carry this string back through index loops.

26. Repeat operation 20. This makes Tapena kore, akore kavega.

" " 21 ?

27. Pass thumbs under index strings, and pick up ulnar little finger string, and carry it back under index strings.

28. Repeat operation 20. This makes Naupaki.

No. 32 See Handy p 67.

Mageogeo

Seen at Takaroa, ~~Takapoto~~, Raroia, Napuka, Hao, Tatakoto, mangareva. Identical with Fifi Rau Anani of the Society Islands (Handy, B.P. Bishop Mus. Bull. , p. 67, fig. 36 a,c,d). See fig. 32. Has change to Ipu Tiare and to Honu Tane

and Vahine. Names of these changes were not heard. Identical also with Koukape and Ipu Ava Akaui in the Marquesas (Handy, B.P. Bishop Mus. Bull. , pp. 29-32, figs. 12 a-d). The Anaa chant is:

Mageogeo, te mageogeo,

Aragaraga, te aragaraga,

Kohihiroa te kohihiroa.

The Vahitahi chant is:

Mageogeo, mageogeo,

Hi toto ka rapa,

Te igoa taua fai nei e,

Fai no Hihi.

TATAKOTO

The Tatoto chant, given by aged Te Rava, is:

Hirau, hirau, kapeka, kapeka,

Mageogeo, koi to tohe,
Ka tu, ka rapa,
Te igoa taua fai nei e, ko hirau kapeka.

Mageogeo, Paea of Anaa says, was a person who was caught in the web of Tukutukurahonui, the spider. As The spider, refusing to let him go, Mageogeo broke the net in his anger and freed himself. He took with him some of the broken strands with which he made this fai, called Mageogeo in memory of him.

The figure is called Hirau kava at Napuka and was known there by a woman 75 years of age who said her parents had taught her. It is known as Hirau at Takoto and as Rua-ka-peiti at Mangareva.

No. 33

Matuarere

as known at most islands (seen at Napuka and Tatakoto)

Identical with Tuare in the Society Islands, as given by Handy

(, B.P. Bishop Mus. Bull. 18, pp. 83, 84, fig. 41), except that at

the end the thumbs are released and the string pulled taut with a jerk.

The Mangarevan name is 'Aka-ka'a ka'a.

See figs. 33 (1),(2),(3). The Takaroa chant with this figure is:

Na vahine tete

E noho ana i te pae ava

Tuare tuare takere hiti

Kereponaio.

A Takapoto chant is:

Te noho ra Matuarere

I te pae ava, etc.

An Anaa chant is:

Rokohiatu Matuarere

Ki te pae ava

Tuare tuare takere hiti

Takurumaga kereponio.

Paea of Anaa explains that Matuarere was a person who went to the side

of the lagoon pass to look for the arrival of canoes. When one came he

ran and dived into the pass, swam under water, and emerged beside the canoe.

at Napuka the fai is called Haguru, and the last series of movements is not known. The diamond is continued?

At Vahitahi we heard the following chant:

Reko hia'tu Matuarere

E noho ana i te pae keka,

Tuarei, tuarei, takerehiti, tau!

It is said, Matuarere

Sits by the side of the path,

.....

At Reao the first figure is called Tapaka Nui. The stage where the lower sides of the diamond are pulled down is called Mataratara, and the second figure is called Mamae. The figure is not worked before releasing into the last figure, which is called Te-tuarere-toku-tika. The last series of movements is not known at Napuka.

No. 34

Korava Hiti

Method 1

This figure is called Korava Hiti at Vahitahi, Horahora at Anaa, and Gigiti at Takoto, and Toreareа (a small turtle), at Napuka.

1. Opening A.

2. Pass thumbs over index loop and under little finger loop and pick up on the back of the thumbs the little finger strings, bringing them over the index loop.

3. Insert index fingers from distal direction into thumb loops and

rotating the index fingers in an ulnar direction, pick up all strings ulnar to them and release thumbs.

4. Work thumbs from proximal direction up into lowest index loop and extend this loop between thumbs and indexes. Then thrust thumbs up through all index loops except the distal loop and pass thumbs under the distal ulnar index string. Now pinch tips of thumbs and indexes together and rotate indexes in a ulnar radial direction (towards body) down through its own loops and into the thumb loops and up, allowing all index loops and thumb loops to fall away. Extend the figure lightly. See fig. 34.

The Anaa chant with this figure is:

Hora hia ki tai,
Te uru moe ga Vahieroa,
Ka tamaku, Kapue-huehue,
Kotia te fara kura.

In this chant, hora means to die, uru is a group of stones, Vahieroa is the chant form of Vahivero, Kapuehuehue is the mother of Vahieroa, Te-fare-kura is where Vahieroa's navel string was cut.

Two years later Paea said that Horahora, his name for the figure, was the name of a bare piece of land (tahuna) where games were played, and the figure was named after this place.

Method 2 NCm

Demonstrated at Vahitahi and called Korava twice twisted (haviri piti).

1. Opening A.

2. Thumbs pick up from distal direction the ulnar index and then the ulnar little finger string and then continue exactly as in Method 1, 3-4, to complete the figure.

at Napuka, Torearea Paito (Torearea twice twisted) is made differently:

732

Method 3 NCm

Shown at Vahitahi and called Korava once twisted.

1. Opening A.

2. Thrust thumbs into index loops from proximal direction, then pass them over ulnar index string and under the little finger strings, picking them up. Then continue exactly as in Method 1, 3-4, to complete the figure.

Conversion of Korava into Tifai Manania 423

Korava may be converted into (kohiko hia) Manania in the following manner.

1. A second person, facing the maker, conceives of the central diamond as one bounded by a double string, and with his ~~indexes~~ indices he pushes inward (from the point marked by arrow on the figure) the outer string until his

Rem.

(Korava Hiti, method ~~2~~ 4, -- known as Torearea paite at Napuka).

1-3. Same as 1-3, Korava Hiti, Method 1.

4. Thrust thumbs from proximal direction up into proximal index loop and to ulnar side of ulnar index string. Press tips of thumbs and indexes together. Rotate indexes down through index loops, toward body and up, - - as in operation 4 of Korava Hiti, ~~but allow no loops~~ to ~~fall away~~.

5. Repeat operation 4. For resulting figure see figure

(Lica roll , no.)

conception is clearly apparent. Then he inserts his indexes into the inverted triangles on either side of the upper half of the central diamond bounded by a double string, and he inserts his thumbs into the triangles on either side of the lower half of the diamond.

5. The original maker then lets go his hold, and the new player turns the tips of his indexes and thumbs from the proximal side up into the central diamond and extends. There is now a large central diamond framed in a double-sided rectangle.

6. The thumbs and indexes are now turned back into the new central diamond from the distal side, and the figure extended. This makes Tifai Manania.

No. 35

Horahora

Learned at Vahitahi. The start is the same as for Matuarere (no. 33).

1. Opening A.

2. Thumbs pass under index loop and up into little finger loop, taking it off by rotating thumbs down towards body and up.

3. Little fingers hook down ulnar thumb strings. Middle fingers hook down slightly the radial index string. Index pass over to near side of

radial thumb strings and carry them through index loops, releasing middle fingers and thumbs. The resulting figure has 9 diamonds.

The fai is identical with the Tahitian fai Rurutu, as described by Handy (, B.P. Bishop Mus. Bull. 18, pp. 57-58, fig. 27), but the method taught me is much simpler. The resulting figure is exactly like the resulting figure of the Hawaiian figure Thirteen Eyes (, B.P. Bishop Mus. Bull. 54, p. 81, fig. 39), though the method of making each differs. (Note: fig. 39, of the Hawaiian fai, is incorrectly drawn). The chant is:

Horahora hia mai te puta o Fatukore
Aue paneke paha vau ki te puta e Kuporu.

No. 36

Item

Puriri

Learned at Vahitahi; called Te-ure-o-Tiki at Fangatau.

1. Opening A.

2. Transfer index loop to ring fingers and thumb loop to middle fingers. Make a new index loop by turning right index into middle finger loop from above and taking a downward, radial twist, then picking up with left index and extending the loop around right index.

3. Using the opposite hand to assist, pick up index loop and slip it

around both middle finger and ring finger. Do the same with the little finger loop.

4. With the opposite hand pick up the proximal radial middle finger string near middle finger and drop it between middle finger and ring finger.

5. With opposite hand pick up the proximal ulnar ring finger string and drop it between middle finger and ring finger.

6. Of the strings stretched from hand to hand there is a proximal double uncrossed string between ring and middle fingers; pick this up from proximal direction and draw it out with mouth. Push hands away from mouth and let them come together. Now draw out all fingers and pinch the bundle of four double loops at their stem, with the right hand, and hold the mouth loop in left hand.

No?

No. 37

Na Puroro

First learned at Vahitahi, where by some it is called Peketu. The figure, as it is at the end of operation 6, is known as Kahui (Pandanus Food) or Kahuri Fara (Bunch of Pandanus drupes) and Kahuri Fara at Manihi at Reao, It is as far as they go with this figure.

1-5. Exactly as in 1-5 of Puriri (no. 36), except in 2, where a new

thumb loop may be made in place of a new index loop.

6. Insert indexes from distal direction into middle finger loops, and little fingers from distal direction into ring finger loops and, removing middle and ring fingers, extend. The double string running across the proximal side of the figure and bisecting it is pulled up by the mouth, at Reao, and is called a stem (tariga).

7. Rotate indexes towards body then from proximal direction between two crossing strings which bisect the figure longitudinally, and pick up the uppermost string in continuing the rotation to an upright position.

X 8. (Thumbs take lower string and little fingers are released. The resulting figure is like a four-leafed clover. This last movement was not recorded in sufficient detail to make). X The chant is:

// Na puroro,
Hiaki ana te hi vavae,
Tuku iho ana te hi vavae;
Na puroro te numiga,
Tu iho te tohe,
Numinumi te vae roha. //

OK I think

No. 38

Kahuri Fara

Seen only at Reao: kahuri, bunch, drupe; fara, Pandanus; kahuri fara, Pandanus fruit. Made in the same way as Na Puroro, as far as operation 6, but with one extra finger of each hand brought into action. It is called Kahuri Fara, double (parua) by the natives of Reao to distinguish it from the other.

1. Opening A.

2. Transfer index loop to ring fingers, thumb loop to middle fingers. Make a new index loop and then a new thumb loop by inserting right digit into loop ulnar to it, pick up the radial string by a downward and up twist (towards body), inserting left digit into this loop wrapped around the right, and extending.

3. Transfer thumb loops to index, middle, and ring fingers, then transfer little finger loop to the same fingers.

4. With opposite hand lift up and over index and off between index and middle finger, the lowest string; do likewise with ring finger and then middle finger. There is a loop now over the dorsal two strings, between index and middle finger and middle finger and ring finger.

5. With opposite hand pull out the palmar middle finger string, then

grasp all loops near fingers and slip the three different loops off, give them a half ulnar twist and insert the thumb, index, and middle finger into the loops, beginning with thumb and inserting it into former ~~index~~ ring finger loop.

6. The figure has a double string running between thumb and index fingers and another between index and middle fingers. Pull these strings out with mouth, making the two taringa (bunch stems of the bunch of Pandanus fruit). Just before pulling out strings say "Kahui puku" (green Pandanus fruit); then on pulling out say "Kanakana" (ripening), then "Wawa" (ripe).

?

No. 39

Keri Kanoe (Squid Hole)

1. Opening A.

2. Twist left hand outward, down, towards body, and up, palm upward. With left index finger pick up from distal side and take off on to left index the right index loop.

3. Return left hand to original position. The chant Anaa with this figure is:

Na te kanoe,

Ka teka noa mai,

E hapai atu ra vau u i e.

Oh, squid, glide out,

I will carry you.

at Tatakoto the figure is called Fare Tinarima and is made with the opposite hand.

Insert p. 802

No. 40

N.C.M.

Kaki

1. Double loop and place it around neck.

2. With right hand pull out one loop and place ~~the outer end over~~ it ~~the thumb and little finger of left~~ hand in Position 1 on left hand ~~so that it runs from the dorsal side of these fingers across the palm.~~

3. With right hand take the ulnar little finger-~~neck~~ string and wrap it a number of times around left thumb and little finger.

4. Then with right hand take hold of the remaining neck loop and thread the end of it through the thumb-little finger loop from the distal side. Withdraw left thumb and little finger, ~~and~~ extend and arrange diamonds.

This is made exactly like the Tahitian Moua Puta (No , B.P. Bishop Mus. Bull. 18, pp. 62-63, fig. 32) referring to the mountain of that name. This figure ~~It~~ is probably an introduction from Tahiti, though it is known from one end of the Tuamotus to the other. 2 inches The chant at Vahitahi is:

Moua Puta haapii te reo fafaru; or

Tare mai to mou'a puta

Haapii mai te reo farani.

Let your pierced mountain come,

Teaching the French Language.

No. 42 H.C.M.

Tuna

This is the mythical eel, Tuna, figuring in so many tales.

The figure is made almost exactly like the Society Islands figure, Moua Puta, as described by Handy (, B.P. Bishop Mus. Bull. 18, p. 63) except that in the third movement the thumbs pass over the index loop to pick up the little finger string, instead of under, as in the Society Islands figure. The figure was shown me by Paea of Anaa. At Reao it was called Hiwe.

1. Opening A.

2. Twist each loop once by rotating the digits in the ulnar direction.

3. Pass thumbs over index loop, pick up on their dorsal sides the radial little finger string and carry it back over to position.

4. Pass index fingers over distal radial thumb string and into proximal thumb loop and lift up on the backs of index fingers the proximal radial thumb string, slipping off the thumbs the proximal thumb loops (but taking care to leave the distal loops on). Rotate indexes in ulnar direction once

around ulnar index string. This last movement is simply to anchor the string firmly to the index fingers.

5. Withdraw the thumbs and little fingers gently, leaving their loops hanging. From the near side reach in through the thumb loops with little fingers, and on their palmar sides pick up the little finger loops and pull them through the pendant thumb loops.

6. Lift proximal index loops (with mouth or in any convenient way) over distal loop and ~~off on to this loop~~ over tips of indices. Extend figure. See fig. 42.

The Anaa chant is:

Ko tuna ki te pepenu ko roaroa,
Ka horo tipukupuku ki te mahiga haga.

O Tuna of long head,
Wriggling along with curved tail.

The Faite chant is:

Kai hemo ia ko tuna ia,
Keria mai te keri hakari
Ki eri poa.
Ninanina hia, takataka hia,
Kikiri tia mai te gaere moka iraro.

No. 43

Keiga o Tuna (Bones of Tuna)

As shown me by Paea of Anaa, this figure is identical with Te Ivi o Tuna as recorded by Handy (, B.P. Bishop Mus. Bull. 18, p. 64). See fig. 43. At Vahitahi it was called Keiga Tarava. Tetumu of Faite gave me this chant for the figure:

Peka hia te ivi no Tuna, e ri,
E kua oti hia, peka hia.

No. 44

Ure o Hiro

Shown by Paea of Anaa.

1. Form single or double loop around a big toe and backs of both hands.

2. Between thumb and forefinger of each hand pick up string running to toe.

3. Slip dorsal-hand strings over hands on to strings between hands and toes. Arrange to represent the Ure o Hiro (The Penus of Hiro).

The chant with this figure is

Ko te ure roa ki aragaraga ka taea te hutu kio togotogo.
Ka mau ai te rereka.

At Vahitahi a very elaborate figure was made and called Te Ure o Tonga, in which the male sexual organ was represented realistically.

No. 45

Na Paraoa (Two Whales)

Shown by Paea of Anaa. It is called Repo Toro (Toro, Potch) known throughout Tuamotus and at Mangareva, where This is made exactly like the Fijian figure, Fiji Canoe, recorded by Hornell (, B.P. Bishop Mus. Bull. 39, p. 22) and also exactly like the first part of Ipu Sioata, of Tonga, as recorded by Hornell (, B.P. Bishop Mus. Bull. 39, p. 64); but it is continued to Te Nohohaga o Na Paraoa (The Habitat of the Two Whales) in the following manner.

4 ~~1~~. Replace ~~indexes~~ indices by thumbs, inserting thumbs from proximal ~~direction~~ side.

5 ~~2~~. Insert little fingers from proximal ~~direction~~ side into small lateral triangles, then, carrying the ulnar transverse string on their backs, insert little fingers down into long loop and under outside string.

6 ~~3~~. Slip out toe and extend figure. ~~(Two diamonds)~~.

Is this fig. 45 or 46? — Paea says this figure is made in commemoration of the two whales which carried Hina to the land of Tinirau, and Kae to his home. An interesting version of the figure, shown me by Paea, was made as follows.

1. Put one end of loop over big toes.

2. Holding other end of loop in one hand, twist it on itself.

3. Insert hands from proximal direction into the end of the loop near body.

4. Rotate hands outward and down so that the string is wrapped almost completely around the wrist.

5. Pass hands into toe loop from proximal ~~direction~~ side and between thumbs and index fingers pick up toe strings and pull ~~it~~ them through wrist loops as these are slipped off. Extend. ~~See fig. 46.~~

No. 46

Fafarua (Devil Fish)

As shown by Paea of Anaa this is made in identically the same way as Umeke Ai o Hina, a Hawaiian figure, as described by Dickey (, B.P. Bishop Mus. Bull. 43, pp. 142-143). The Tuamotuan chant, as given by Paea of Anaa, is:

Fafarua te fafarua, karearea te karearea.
(Repeated once).

This figure is continued to Nohohaga Fafarua (Dwelling Place of the Devil Fish).

1. Replace index fingers by thumbs, inserting thumbs from proximal direction.

2. Insert little fingers from proximal direction into small lateral triangles, then, carrying the ulnar transverse string on their backs, turn

little fingers down into long loops and under the outside string.

3. Slip out toe and extend. Let little finger loops fall off. ~~and hand~~.

4. Insert all fingers into thumb loop from distal direction and, turning hands with palms towards each other, extend gently. The resulting figure consists of two central loops. ~~See fig.~~

2 inches

Yes

No. 47

Rori (Sea Slug)

Shown by Paea of Anaa.

1. Place loop around toe and over left hand ~~on~~ to wrist.

2. Wrap a loop once around the toe.

3. Insert right hand from proximal ~~direction~~ side into hand-toe loop and rotate to right in a complete revolution, wrapping the string around the wrist.

4. Pass right hand over the left string, down around it, and up into main loop from proximal direction.

5. Pick up with index finger and thumb of right hand, the string wrapped around the toe and pull it out towards the body.

6. Withdraw left hand, allowing left hand loop to slip down towards toe. Let dorsal right hand string slip over the hand and on to the hand-toe

loop. Arrange the figure to form the two loops, fig. 50. The chant is:

Ko rori houhou gaere, ki te rehega,
Ka garo ki te varoga ko Havaiki.

Oh, Rori, buried in the sand at the edge of the sand bank,
Loose yourself in the ooze of Havaiki.

No. 48

Komo Ko Te Ariki (The King's Well)

Identical with the Marquesan figure, Hahaua, as recorded by Handy (, B.P. Bishop Mus. Bull. 18, pp. 48-50); therefore identical with I'a (The Fish) from Maupiti (Handy, B.P. Bishop Mus. Bull. 18, p. 49); Tohora (The Whale) as recorded by Andersen for New Zealand (, N.Z. Jour. Sci. vol. 3, pp. 197-199), and Hale o Pele (House of Pele) for Hawaii. In Napuka and Raroia the figure is known by the name Paraoa. In Raroia it is also known as Komo Hekeheke. Komo ko Te Ariki is the name given by Paea of Anaa, who demonstrated it for me. Paea of Anaa He says the large central square area represents the spring of the chief, and the four triangles formed in the corners, the komo hekeheke, for commoners.

At Anaa I showed this figure to a group of natives, who declared that the name Komo Ko Te Ariki belonged to fai no. 46, and that the correct

name for this figure was Na Fare (The Houses). Paea also called the figure Komo Rikiriki, saying that it was so called because the four little wells in the corners represented the bathing pools of the commoners (tagata rikiriki).

No. 49

Fai Tahemo

~~No. 49~~

~~Arero o Tavaka (Tongue of Tavaka)~~

~~This is the name in Anaa.~~ (~~Tavaka is a~~ character in the legend of Rata.) Called ~~simply~~ Fai Tahemo (Slip Figure) at Amanu, and Tatakoto. Paea of Anaa gives it the name Arero o Tavaka (Tongue of Tavaka).

1. Double the loop, and hold in both hands with hands back to back, fingers pointing down and thumbs free.

~~2. Grasp the loop in each hand, inserting the fingers from the distal side, but leaving the thumbs free.~~

2 ~~3~~. Spread fingers of left hand as wide apart as possible, then turn them upright, allowing the radial strings to fall between the index and middle fingers, the ulnar strings between the ring and little fingers.

3 4. Turn palm of left hand away from body. Pass thumb proximal to index and little finger ~~Pick up~~ ~~and~~ strings then bring them back ~~index strings~~ on back of thumb and turn palm again inward.

4 ~~5~~. With left little finger pick up proximal left thumb strings (the two that run from dorsal side of little finger and around the dorsal side of thumb).

5 ~~6~~. Twist loop between hands by turning right hand towards you palm up. then draw hands together and slip right hand loop over left index

~~7. With right hand put right hand loop over left index finger and let loop fall from right hand on to back of left hand.~~

6 ~~8~~. Lift off left thumb loops with the right thumb and index finger. ~~by picking off the left thumb loops between these two fingers of the right hand.~~ Pull the loop out to the right and let it fall so as to appear as in fig. ~~52~~ 49. This is the tongue of Tavaka.

7 ~~9~~. Carry the "tongue" up over to the back of the left hand, between index and middle fingers, and let it fall free.

8 ~~10~~. ~~Between~~ With index and thumb of right hand, pick up double palmar strings and pull out to right. This unravels all strings from left hand.

The tongue is the bait thrown out to take a certain demon-shark. When the line is pulled in (operation ~~10~~ 8), behold, the tongue has been taken.

The Anaa chant with this figure is! over page

This <u>fai</u> is really the same as the "trick figure" described by Handy (, B.P. Bishop Mus. Bull. 18, p. 52) for the Marquesas, and the "hand slip trick "", described by Dickey (, B.P. Bishop Mus. Bull. 54, p. 150) for Hawaii. However, the conception of making it, as conveyed to me by Paea of Anaa, seems to me much simpler. According to

Dickey (, B.P. Bishop Mus. Bull. 54, p. 150), the figure is known by the Eskimos of Point Hope, in Goodenough Island, Papua, as "sago palm"; and in New Zealand.

The Anaa chant is:

Ko te arero nui o Tavaka, ei tanoka ki te mago Roaiheikapu;
E ka te neki ki Maugatefara.

The tongue of Tavaka is a bait for the shark Roaiheikapu.
The oven is heated at Maugatefara.

The story: Hitihiti and Rekareka go to spear this shark. The first spear thrown is broken; the second wounded the shark, which now lies on its side in the heavens (this shark is now the Milky Way) with the spear in its side (the spear is represented by stars). Chagrined at their lack of success, they ~~themselves~~ go to the oven prepared for the shark and throw themselves upon it. The tongue of Tavaka was the only bait which would attract this shark near enough to be speared.

Hem.

No. 50

Taura o Tavaka (Rope of Tavaka)

Taura o Tavaka is the name known at Anaa; Na Raho Tava (The Testicles of Tava) is the name known at Vahitahi. It is called Hamore at Reao. It is here described as shown by Paea.

1. Opening A.

2. Transfer index loops to ring fingers, by inserting ring fingers from proximal direction into index loops and withdrawing indexes.

3. Transfer thumb loops to middle fingers by inserting middle fingers from proximal direction into thumb loops and withdrawing thumbs.

4. Make a new index loop by inserting right index from distal direction into middle finger loop and picking up radial middle finger string by rotating index down, towards body, and up. Thrust left index from proximal side into loop wrapped around right index, and extend.

5. Pass thumbs under intervening strings and pick up ulnar little finger string, bringing it back under intervening strings.

6. Insert thumbs into index loops from distal direction and pick up ulnar index strings.

7. Pass thumbs over index strings and, inserting them into middle finger loops from distal direction, pick up ulnar middle finger strings.

8. Pass thumbs over intervening strings and pick up radial little finger strings.

9. Insert indexes from distal direction into thumb corners and behind palmar strings. Pick up palmar string on backs of indexes. Release thumbs.

10. Thrust thumbs from proximal direction into distal index loops and take them off on to thumbs.

11. With the aid of the tips of the index finger and thumb of the opposite hand, pick up radial index string at index and, pulling it out, drop it over thumb.

12. Navaho thumbs.

13. Insert indexes from distal direction into small triangles in thumb corners and, slipping out middle, ring, and little fingers, extend figure by rotating indexes outward and up. The two inner "diamonds" have a double string (forming a loop) tucked under their upper corner. Pull these out and, letting them hang, arrange them to correspond to the illustration, fig. 50?.

No. 51 NCM

Ku Tami

Shown by Paea of Anaa. Identical up to, and including, the 4th movement, with Okole-Amo, method C, of Hawaii (, B.P. Bishop Mus. Bull. 54, p. 119).

1. Position 1.

2. Index fingers pick up on dorsal sides the ulnar little finger string.

3. Pass thumbs over radial index string (on distal side) and pick up from proximal direction the little-finger-index-finger palmar string.

4. Navaho thumbs. This resulting figure can be worked by spreading and closing fingers.

5. Insert right thumb from proximal direction into left thumb loop and withdraw left thumb. Insert left thumb from proximal direction into proximal thumb loop and, drawing it out a little, pass distal right thumb loop through left thumb loop by turning right thumb down through left loop. This results in exchanging thumb loops.

6. Point hands outward and, placing thumbs midway between index fingers and thumbs; work figure by lateral pressure and release of pressure on the part of the thumbs. The aim is the opening and shutting movement of the central diamond. See fig. ~~54~~ 51. The Anaa chant is:

Kutami e kutami te hika o te vahine,
Kia mau mai hoki te reka ki tana hutu.
Kauehe, kua reka!

The Vahitahi chant is:

Aore to tohe koromiko.

2 m dies

No. 52

Ki Faru

This is made exactly like Kutami (no. 51) up to and including the 4th movement, but it is made on one hand only. See fig. 55. It is worked by spreading and closing the figures to the chant:

Ki farufaru[1] te tupoupou,[2]
ki farufaru te tupoupou,
e ê ka kapi[3] ra, ka kapi ra.

---

1 open up
2 buttocks
3 fill

No. 53

Ko Peka (Crossed)

Shown by Paea of Anaa. See fig. 53. Identical with the slip trick, Keleopa, of Hawaii, described by Dickey (, B.P. Bishop Mus. Bull. 54, p. 151). This trick is now made all over the world. It is known at Vahitahi, where it is simply called a fai taheme (slip trick).

No. 54

Te Ana o Te Mago (Cave of the Sharks).

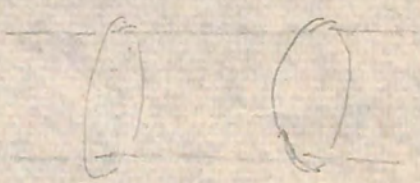
Shown by Paea of Anaa.

1. Grasp loop in left hand.

2. With right hand take either left or right string and form a loop about three inches in diameter.

3. Grasping the juncture of the loop between thumb and index of left hand, to free right hand, with thumb and index of right hand make a complete twist of the string running to the right around the string running to the left. Reach into the loop with the right hand from the opposite side and, taking hold of the string leading off to the right, pull it through the loop until the loop is suspended between (and around) the upper and lower string of one end of the main loop.

4. In the same manner form a loop on the other end of the main loop. See fig. 54.



Ko mago koe ki te rua koveoveo,
Mihiga o Hina-tepipiro.

You shark in the cave
stinking with the urine of Hina-tepoporo.

Marama Hiti Iruga is converted into this figure. See fai no. 63.

No. 55

Maui

This fai, with fai Turi, is to be counted among the classical

string figures of the Tuamotus. No one was considered skilled in the making of string figures unless he could make these. I saw this figure as far east as Vahitahi; but nowhere did I hear the names given for each stage by Paea of Anaa, who demonstrated the figure for me, and I did not hear elsewhere the chants he gave.

a. Te Popouga o Maui (The House of Maui).

1. Opening A.

2. Insert indexes from distal side into little finger loop and, rotating them down towards the body, and up, carry the radial little finger string? on their palmar sides under the index loop and up, releasing little fingers. The ~~little finger loop is now converted into a distal index loop~~.

3. Insert little fingers from distal direction side into index loop, then from proximal direction into thumb loop. ? Hold down radial thumb string again palms and release thumb. ~~Release thumbs and extend fig-ure.~~ The central field of the figure consists of two diamonds. See fig. 55,a. The chant with this figure is:

Ka tika kio turu,

Ka tika kio maragi,

Kaore te tika ko te popouoga o Maui

E rakorako hia.

b. Te Marae o Maui (Maui's Marae)

4. This next move results in wrapping the strings forming the outer corner of each of the two diamonds around each other.

Insert thumbs from proximal direction into each little finger loop, then from the distal side into each diamond (the left thumb into left diamond, the right thumb into right diamond). Extend thumbs towards body and slip off from the little fingers the single radial string running fron one to the other. Insert little fingers from proximal side into thumb loops and take thumb loops off on to them. The result is the two-diamond figure. See fig. 55,b.

c. Na Konao Turukiga o Maui (The back rest stones of Maui)

5. Insert thumbs again into little finger triangles and pull off the proximal little finger loops on to the thumbs by pressing outward with balls of thumbs and then bringing the thumbs backward towards the body.

6. Insert thumbs from proximal direction behind the double radial index-~~little-finger~~ strings and bring these strings through the thumb loop by turning thumbs back into the thumb loop. Release indexes. See fig 55 c (1)

7. Insert index fingers near thumbs between proximal and distal ulnar

thumb strings. Release thumbs and extend. See fig. 55,c.(2)

d. Te Haga Taura Ki Here Kiai Te Hana (The Ropes which Noosed the Neck of the Sun)

8. From center of figure a string runs horizontally to each side. With thumbs push this string up towards indexes so that the resulting figure consists of two central diamonds held out at each side by a lateral triangle, whose base is the side bounding string of the figure. See fig. 55,c (2). The figure in this shape is called Opahi in Tahiti (Handy, B.P. Bishop Mus. Bull. 18, pp. 60-61, fig. 30. In Aitutaki it is called Rau Nape (Buck, B.P. Bishop Mus. Bull. , p. 330, fig. 286).

9. Insert thumbs into lateral triangles above referred to (at 1, fig. 55,c (2), pick up ulnar (or upper) bounding string (2, fig. 55,c (2)) of the lateral triangles on dorsal side of thumbs, and extend thumbs towards body.

10. Exchange thumb loops in this manner: insert right thumb from proximal side into left thumb loop and take off on to right thumb. Insert left thumb into proximal right thumb loop and take this loop only off on to left thumb. Extend

11. Insert thumbs from proximal side into index loops and bring radial

index string through thumb loops by turning thumbs towards body, back into thumb loops. Release index fingers. Insert index fingers from proximal side into thumb loops, and extend. See fig. 55,d.

e. Ko Maui Raua Ko Ri (Maui and Ri)

12. On back of left thumb pick and bring back the string marked 1, fig. 55,d (the left end of the radial little finger string that runs from right little finger across to left side of figure). With right thumb pick up corresponding string on right side of figure, the string marked 2, in fig. 55,d.

13. Insert left thumb from proximal side into right thumb loop and take off on to left thumb. Insert right thumb from proximal direction into left thumb loops and extend thumbs.

14. Repeat operation 11. This figure is like fig. 55,c, except for the two loops around the index loop.

Ri was a friend and assistant of Maui. Ri failed to do his part; and Maui, in anger, grabbed him first by the nose, pulling it out, then by the ears, pulling them out, then by the posteriors, pulling out a tail. Thus was formed the first dog, u-ri.

f. Te Puniga o Maui (The Hiding of Maui)

15. Insert thumbs from proximal side into upper lateral loops around the index loops (see fig. 62,a) and bring the inner strings of the loops back on the thumbs.

16. Repeat operation 10.

17. Repeat operation 11. See fig. 55, f.

g. Te Keta Haga o te Hana (The Securing of the Sun)

18. On back of right thumb pick up and bring back the string marked 1 in fig. 55,b (the string running from central upper "V" to right side of the figure). On back of left thumb pick up and bring back the string marked 2 in figure 55,b (the corresponding string on left side of figure).

19. Repeat operation 11. See fig. 55,g.

This is the chant with it:

Taku taura nei ra ko takai marama ki here kia te nohi ka o Atea.

To unravel the figure at this point insert thumbs into the lateral triangles above little finger loops, release index fingers, and extend.

h. Hana o Maui (Sun of Maui)

20. Insert left thumb from proximal side into triangle 1 of fig. 55,g (the triangle to the right of central inverted "V") and on the ball of thumb pick up the string marked 2 in the figure (the right side of the central inverted "V"). Pull this string outward towards the left and a little towards the body. Now reach in with the right thumb and, inserting this thumb into triangle 3 (to the left of the central inverted "V"), pick up string 4 on ball of thumb and pull it towards the right and a little towards the body (these are very difficult movements). Turn thumbs upward so that each bears a twisted loop.

21. Repeat operation 11. See fig. 55,h.

i. Kavake o Maui (Moon of Maui)

22. Insert thumbs from proximal side into place marked 1 in fig. 55,h, that is, between the bounding strings of the lower half of the central diamond. On backs of thumbs pick up and bring towards the body the upper strings, 2 in the figure.

23. Repeat operation 13.

24. Repeat operation 11.

To unravel the figure insert thumbs from ~~proximal~~ distal side into little finger loops and, releasing indexes, pull sideways with gentle agitation.

Conversion of Maui into Puhaga Toto

HCM.

At Amanu and Vahitahi, and also at Anaa, I saw a variant of the figure Maui which, at Vahitahi, was convertible into Puhaga Toto, fai no. 25. In this variant the stages from 1 to 19, as shown by Paea, are followed. The figure which has then emerged is called "The Noosing of Maui's Neck." Beginning with this figure, 55.g, the movements are as follows:

20. Insert thumbs into little triangles just above little finger loops and pick up and pull out on backs of thumbs the upper inner bounding string of triangles.

21. Repeat operation 10.

22. Repeat operation 11.

23. Repeat operation 12. ?

24. Repeat operation 13.

25. Repeat operation 11.

The upright loops on either side of Maui are the "tiai" of Maui,

the "soldiers" who tied the neck of Maui.

The figure is converted into Puhaga Toto (no. 25) in the following manner:

Gentley H.M.

1. Lay hands on lap, palms upward. Withdraw indexes ~~and~~ insert ~~them~~ back of eight index under string no. 4 in fig. 55g & return to right; insert left index under ~~from opposite direction into lateral triangles to ulnar side of little~~ string no. 2 (inside eight index loop) & return to left. Extend until knots are ~~finger loops. Extend.~~ unravelled.

2. Rotate little fingers towards body and up. This makes a little finger and an index loop.

3. Pass thumbs proximally to all strings and with backs of thumbs from ulnar side pick up ulnar little finger string and bring it back with thumbs proximal to all strings.

4. Continue now as from operation 3 on in Puhaga Toto (fai, no. 25), i.e., as in the Hawaiian figure Four Eyes A, Method no. 2 (Dickey, B.P. Bishop Mus. Bull. 54, p. 28).

No. 56 H.M.

a. Moko (Lizzard)

Called moko in west, kuoni at Tatakoto, 'aka Torea at Mangareva.

Method 1

This method was shown me by Paea of Anaa.

1. Opening A.

2. Insert index fingers from ~~proximal~~ distal direction into little finger loop and pick up ulnar little finger string.

2 3. Insert index fingers from ~~proximal~~ distal side into thumb loops and take them off on to indexes.

3 4. Rotating the index fingers in ulnar direction, pick up on their palmar sides the radial little finger strings and continue the full rotation to position.

5. Insert thumbs into index loops from distal side and taken them

4 off on to thumbs. See fig. 56,a.

b. Te Nohohaga o na Moku (Dwelling Place of the Lizzard) Hom.

6. Rotate index fingers in ulnar direction, pick up on their palmar sides the ulnar little finger string; carry the index fingers over and

5 into thumb loops from distal side; rotate index fingers outward and upward, picking up on their dorsal sides the double ulnar thumb strings, and withdrawing thumbs.

7. Rotating the index fingers in an ulnar direction, insert them

6 into little finger loops from the distal side and, picking up the radial little finger strings on the palmar sides of indexes, rotate indexes

towards the body and upward. Withdraw little fingers. Insert thumbs from proximal direction into index loops, then spread thumbs and indexes as wide apart as possible. See fig. 56,b.

c. Moko Horohoro (Running Lizzard)

8. Insert little fingers from proximal side into central "V", and on their palmar side pull down the strings which form the sides of the "V" (the left little finger the left side string, the right, the right side string. Withdraw index fingers and extend. See fig. 56,c. It is called Kuoni at Amanu and Vahitahi; Te Tohe a Kuriri (The Bobbing of the Tail of the Kuriri Bird) at Takoto.

Up to this point the formation of the figure is exactly like the Mo'o of the Society Islands, as recorded by Handy (, B.P. Bishop Mus. Bull. 18, p. 66) and the figure Mo'o-iki, Method 2, of Hawaii, recorded by Dickey (, B.P. Bishop Mus. Bull. 54, pp. 47-49) and the figure Moti or Mouti of New Zealand, as recorded by Andersen (, Jour. of Sci. and Tec., vol. 3, pp. 88, 89).

9. The figure is put into action by inserting the left index finger from the proximal direction into left lower corner of figure and running

the outer boundary of the string in a counter-clockwise direction by inserting the right hand into the right side of the figure from the distal direction and pulling with the little finger. After the left double loop has passed over the left index, it is run back to its original position by pulling with the right index and right thumb. The right loop represents the head, and the left loop, the testicles of the lizzard. This is called Moko Horohoro (Running Lizzard). See fig. 70. It is pulled back and forth to the accompaniment of the chant:

A horohoro ra mo'o;
Te tatuketuke ra moko;
Kua reka, kua reka no moko e.

The Takaroa chant is:

A horohoro raa moo;
Te a'ua'u mo'o;
A horo rate, a horo rate,
A horo ra mo'o.

The Takoto chant is:

E upoko ti, e upoko ta,
Te raro mai to te pahi, tena,
Tirotiro anai oe.

Method 2

A less adroit method of making the figure was taught me by an old lady of Takaroa and was shown me again at Vahitahi. Up to the ~~7th~~ 6th operation the movements are the same, but at the 7th the index loop is

twisted on itself by rotating completely the index fingers in an ulnar direction. Then:

8. Insert thumbs into little finger loops from proximal direction and return with radial little finger string on their backs.

9. Insert little fingers from proximal direction into index loops and press radial index strings down on palms. Release thumbs and extend.

10. Substitute thumbs for little fingers by thrusting thumbs through from proximal side.

11. Continue as in operation 8 of Moko (no. 56,c) and all following operations to the end.

The woman who demonstrated it slid the figure with the left hand instead of the right.

// When in the ~~7th~~ 6th movement, the index loops, instead of being twisted in an ulnar direction as in the above fai, are twisted in the radial direction to continue on to Komo Rikiriki and the Turi. Then all steps in the above fai, as made by the old Takaroa woman, must be followed to continue the figure. No short-cuts are possible. Hence this method is probably the original way of making Moko, the short-cut known everywhere else in Polynesia being of later adoption. On the other hand, the influence of

the Turi fai may well have caused the woman to forget the short-cut. She was an hour trying to remember the fai, Moko Horohoro.

Method 3

At Vahitahi I was told of three methods of making this figure. Two of them proved to be the two methods so far described. In the third the operations are exactly the same as in Method 1, except that in operation 2, index fingers pick up on backs both little finger strings. In the ~~4th~~ 3rd movement it is only necessary to rotate the index fingers in the ulnar direction one complete revolution. In the 8th movement insert little fingers from radial side between the proximal and distal index string, which runs from indexes to center of opposite side of figure; then pull down between the proximal and distal index strings with the palmar sides of little fingers, the strings which form the side of the central "V", just as in operation 8.

AFM.

No. 57

~~Tariga~~ Moko Tariga

~~Moko Kopu Toreu (Lizzard with Big Stomach)~~.

The figure is known as Tariga Moko, or Moko Tariga at Vahitahi and Takoto, as Moko Kopu Toreu at Anaa, as Moko simply, at Mangareva.

Demonstrated by Paea of Anaa.

Rat's Ears

1-6. Exactly as 1 to 6 in Moko (no. 56).

7. Rotate the index fingers radially, making a complete revolution, thus twisting the index loops once on themselves.

8. With thumbs, proximal to axis, pick up radial little finger strings.

9. Insert little fingers from proximal direction into index loops and with palmar side of little fingers pull the radial index strings down on the palms, releasing the thumbs and extending the figure. Paea called this Komo Rikiriki (little waters or springs). See fig. 57 (1).

10. Replace little fingers by thumbs. Insert little fingers from proximal direction into the left and right of the two upper central diamonds of Komo Rikiriki. See 1, fig. 57 (1). On their palmar sides pull down outer radial strings (see 2 in the fig.) on the palms and, releasing index fingers, extend.

11. With index fingers pick up ulnar thumb string which runs straight from thumb to thumb and, releasing thumbs, extend. See fig. 57 (2). Called Na Tariga Moko (Lizzard Ears) at Vahitahi.

To continue this figure into the Turi series, revert to Moko Puna (no. ~~67~~ 56, a) by inserting thumbs in the corners of the large diamond and pulling out the loops at each side corner by tugging laterally and relaasing the index fingers and by withdrawing little fingers and re-inserting from opposite direction. Now continue as explained in the Turi series, no. game ~~35~~ 58.

The Takoto chant is:
E moko, e moko, e kaki,
E moko, e moko, e kaki.

No. 58

Turi

This stands at the head of the Tuamotuan classical fai known today in the western part of the Tuamotus. It was not known at Vahitahi but I saw it at Hao. It can be made a continuation of Moko (no. 56) or Moku ~~Kopu Tereu~~ Tariga (no. 57) by reverting these to Moko Puna (no. 56, a). This revision is done simply by reinserting little fingers in the lower corners of the figures from the opposite, the proximal, direction and by inserting thumbs into the corners of the large central diamond or triangle and then pulling out the loops at the side by lateral tugging and by withdrawing index fingers.

As shown by Paea of Anaa, Turi is made in the following manner:

1-5. As in 1 to 5 in Moko Puna, (no. 56,a) and resulting in this figure.

6-9. As in 6 to 9 in Moko ~~Mapu~~ Tariga Poreu (no. 57) and resulting in the figure, Komo Rikiriki. Fig. 57 (1)

a. Te Poupouoga o Turi (The Canoe Shed of Turi) Hom

9 10. Insert thumbs from proximal direction into central diamond (1, fig. 57 [1]). Bending first joint of thumbs outward towards the sides, pick up on the palmar side of thumbs the upper (radial) bounding strings of the diamond; the left thumb picking up the left string and right thumb, the right string. With the thumbs pull these strings outward towards the sides. 10 Now insert thumbs into index loops from proximal direction. On backs of thumbs carry radial index strings into thumb loops by turning thumbs back into loops. Release index fingers. Insert index fingers into thumb loops from the distal (prox.) side, taking thumb loops off on to them. See fig. 58,a. The chant is:

Taku popouoga ra, ko te puniga ia o Turi.
Ka puagiagi [1] na matagi Putagirua.

---

[1] puagiagi: to cool

b. Na Pofaki o Turi (The Marae Stones of Turi)

11. Insert thumbs up between the two base strings (at 1, fig. 58,a) of the two upright triangles, so that near string lies on radial side of thumb; pull out this near string.

11. 12. Thrust left thumb from proximal side into right thumb loop and take off on to left thumb. Insert right thumb from proximal side into left thumb loops and extend thumbs.

12. 13. Insert thumbs into index loops from proximal direction and on backs of thumbs carry radial index strings into thumb loop by turning thumbs back into their loops. Release index fingers and extend. Insert index fingers from proximal direction into thumb loops and take them off on to indexes.

13 14. Insert thumbs from proximal direction into central "V", and on balls of thumbs pick up the sides of the "V" and pull them out to the sides of the figure.

14 15. Repeat operation 13. See fig. 58,b. The chant is:

Ko te marae pofaki ki te turaga[1] o Turi,
Ki te matagi Putagirua.

---

[1] turaga: dwelling place.

c. Te Nohoraga o Turi (The Dwelling Place of Turi)

16. Wrapped around the base of each of the two representations of an upright stone of a marae, and at the same time wrapped around the little finger loops, is a loop. Between thumb and middle finger of the right hand reach over and pull outward the left loop by its far side, at point marked 1 in fig. 58,b. Slip this loop over left thumb. Now, between thumb and middle finger of the left hand, reach over and pull outward the right loop by its far side, at the point marked 2, in the figure. Slip this loop over right thumb.

17. Exchange thumb loops in this manner; insert right thumb from proximal side into left thumb loop and take off on to right thumb. Insert left thumb into proximal right thumb loop and take this loop only off the right thumb on to the left.

18. Withdraw left index finger from upper left (radial) corner of figure and, dropping the loop extending between little finger and index finger, reinsert the index finger into corner. Do likewise with right index and upper right corner of figure.

19. Repeat operation 13. See fig. 58,c. The chant is:

Nohoraga tuturu mau ko Turi,
Ki te haka mauga ki na kaho.

d. Te Marae o Turi (Marae of Turi)

19 20. The lower sides of the large diamond are bounded by three strings. With thumbs pick up, from distal direction, one of these three strings (see a, fig. 75) nearest the operator.

19 21. Insert left thumb from proximal direction into right thumb loop and take this loops off on to left thumb. Insert right thumb from proximal side into left thumb loop and extend thumbs.

22. Repeat operation 13. See fig. 58,d. The chant is:

Taku marae numinumi, kahaea[1] ki ruga i hae ragi,
Nohoraga o Turi.

---

[1] kahaea: looking upward

---

e. Turi e Moehau (Turi and Moehau)

21 23. With thumbs pick up lower bounding string (1, fig. 58,d) of large central diamond.

24. Repeat operation 13.

25. The upper half of original large central diamond is formed by a double string (see 2, fig. 58,d). With left thumb pick up the left near boundary string near the point where it crosses over to the far side of ulnar index string. With right thumb now pick up the right near boundary string.

24 26. Repeat operation 13. Turi and Moehau are represented by the two upright loops. See fig. 58,e.

Turi e Tona Noe, Moehau e Tona Noe

(Shadows of Turi and Moehau)

25 27. Insert thumbs from proximal direction into horizontal loops to left and right of two vertical loops (1, fig.). Pull out the near string on backs of thumbs.

26 28. Repeat operation 17.

27 29. Repeat operation 13.

28 30. There is now a smaller central diamond bisected by two upright loops and bounded by a double string. Insert left thumb from proximal direction between lower left pair of boundary strings, and right thumb between right. Pull out near string.

29 31. Repeat operation 11 12.

30 32. Repeat operation 10 13. See fig. 58,f.

The two upright loops on the left represent Turi and his shadow; those on the right, Moehau and his shadow.

g. Mou's o Turi e Moehau (Mountains of Turi and Moehau)

33. Insert thumbs into small inverted triangles (1, fig. 58,f) near little fingers and, withdrawing index fingers, replace the thumbs by them. Extend figure by tugging gently at the sides. See fig. 58,g.

34. To unravel figure pick up index string between the lips at the point between the two mountain peaks. Slip out all fingers and let loop hang. Insert hands from side into loop near mouth. Unravel the tangle by pulling laterally.

No.59

Kahegahega

Seen at Vahitahi.

a. Open

This is made exactly like the Tahitian fai, Te Tumu o Te Papa, and Vahia, as described by Handy (, B.P. Bishop Mus. Bull. 18, pp. 73-75, figs. 37, a, b).

b. Locked

1. Opening A.

2. Release thumbs. Insert right thumb from ~~distal~~ proX direction into

index loop and take a radial twist. Insert left thumb into loop wrapped around right thumb and extend. This makes a new thumb loop, differing from the first in having a twist in it.

8. Now continue exactly as in Kahegahega Hemo, after opening A.

No. 60

Haveke Tinihi

Seen at Anaa.

Make the Tahitian fai, Te Tumu o Te Papa, as described by Handy (, B.P. Bishop Mus. Bull. 18, pp. 73-75, fig. 37,a). In each index corner of the figure is a small triangle. Reach in with the thumbs, pick up and pull out base string of these triangles. This makes the canoe.

No. 61 Hem.

Na Fare Turu

This fai is identical with the figure Te Fare of the Society Islands, as described by Handy (, B.P. Bishop Mus. Bull. 18, p. 91) except for very minor variations and a continuation of the fai to Fare Mutu (House Cut Apart) by one further movement. It seems to be known everywhere in the Tuamotus. I first saw it at Vahitahi. at Napuka it is called Ko Hare Turu, and seems to be ancient there. at Takoto it is called Karuru (Shed), and at Mangareva 'Are-kura.

1. Position 1.

2. Form another loop, which will be a wrist loop, by allowing the present loop to hang slack, passing left hand over ulnar little finger string down, and up into the loop from proximal direction. Now thrust right hand up into proximal left palmar loop hanging from left hand.

3-13. Exactly as described by Handy in operations 4 to 14 (, B.P. Bishop Mus. Bull. 18, p. 91).

14. With backs of thumbs catch up radial little finger string and pull it out. This string now forms the roof of the house.

15. Fare Mutu is formed by releasing thumbs and working the two halves of the figure well apart.

The chant with this figure is:

Ara turu au ra i to hare ki te kau harega.[1]
Ka ara turu atu ki te moae, e,
Hura koe iaku ki te puta o Orovaru!

---

[1] kauparega: place where waves deflected by a small islet meet on the other side and break against each other.

No. 62

Kotuku (Heron)

This is a figure known everywhere in the Tuamotus.

1. Position 1 with the loop turned a half-twist; i.e., with strings crossing in middle.

2. Index fingers pick up palmar strings as in proceeding to opening A.

3. A second person inserts, from distal side, a stick about the size of a pencil into the center of the index loop and against the crossing strings at the point where they cross.

4. Release index fingers and allow loops to catch and hold the stick at right angles while its butt rests against the crossing strings.

The chant with this figure ~~for this~~ learned at learnt? Ta Takoto, is ~~goes~~:

Te noho mai ra te kotuku i te pae aria,
Kai tana kokoroue,
Kai tana ririhau.

No. 63

Item -

Marama Hiti ki Ruga (Rising Moon)

Recorded at Vahitahi.

a. Short Method

This short method is called Marama Hiti ki Ruga Poto (poto: short).

1. Opening A.

2. Pass thumbs over index strings and pick up radial little finger string. from proximal direction

3. Indexes pick up ulnar thumb string. Withdraw thumbs.

// 4. ~~Thrust~~ Insert thumbs from proximal ~~direction~~ side into distal index loops and, releasing little fingers, extend figure by spreading thumbs and index fingers apart. //

See fig.

b. Long Method

1-~~4~~3. Exactly like 1 to ~~4~~3 of a.

~~5~~4. Thrust thumbs into distal index loops from proximal direction and take them off on to thumbs.

~~6~~5. With three outer figners, inserting them into index loops from proximal direction, hook down radial index string and ulnar thumb string. Pass indexes over radial thumb string and, picking it up on sides of indexes, pass it through index loops, withdrawing thumbs.

6. Thrust thumbs into little finger loops in the direction opposed to the little fingers and on their backs pick up the radial little finger string (the one running straight from little finger to little finger).

7. Drop index loops from index fingers. Put tips of indexes and thumbs together and transfer thumb loop to indexes.

8. Pick up ulnar index string in middle with mouth, then turn indexes inward, then into lateral triangles (there are two triangles) and outward, picking up on backs of indexes the outside bounding strings of the triangles.

9. Withdraw little fingers and reinsert them and other outer fingers of hand into index loop from ~~proximal~~ distal direction and extend. See fig. Drop cord from mouth and let it hang.

See fig.

No. 64

Yes.

Mara ma Hiti ki Raro (Setting Moon)

1. Opening A.

2. Index fingers enter thumb loops from proximal direction and take them off on to indexes.

3. Thumbs pass under index loops and pick up radial little finger string.

4. Thumbs then pick up distal radial index string.

5. Navaho thumbs.

6. Release distal index loops.

7-9. Repeat movements 2, 3, and 4, respectively.

10. Allow distal loops of indexes to slip off.

11. With middle ring, and little fingers enter index loops from proximal direction and, pressing down radial string and ulnar string, pass index fingers over the distal radial thumb string and pick it up on sides of indexes, carrying it through the index loops, withdrawing thumbs.

12. Withdrawing middle and ring fingers, stretch figure taut and then thrust thumbs into index corners. On balls of thumbs press on string immediately below each thumb and draw it towards body. Then thrust thumbs into small inverted triangles adjacent to little finger loops and pick up the upper bounding string (the one that runs straight fron one little-finger-index string to the other) on backs of thumbs. Press tips of thumbs and indexes together and, by revolving indexes towards body and upward, transfer thumb loops to indexes.

13. Pick up middle of index string with mouth, withdrawing indexes, and insert fingers of hands from distal direction into little finger loops and extend.

(2) Compare this figure with Hawaiian figure He Kanaka (Dickey, pp. 104-107). Nothing like

(1) To unravel, lay figure on lap, pick up one of the two inner strings of ~~upper corner~~ of the central triangle in ~~one~~ each hand ~~and one in the other hand~~, and pull apart.

No. 65 No

Kohiti

Seen only at Vahitahi.

1. Opening A.

2. Thumbs pass over index strings and pick up radial little finger strings.

3. Indexes pass over palmar strings and pick up radial ulnar thumb strings.

4. Release thumbs.

5. Thumbs take off proximal distal index loops.

6. Thumbs take off remaining index loops.

7. Indexes pass over to body side of distal ulnar thumb strings and pick up proximal ulnar thumb strings.

8. Turn thumbs into index loops and under index-thumb strings and let these strings slip off. thumbs.

9. Repeat operations 2 to 5 inclusive.

10. Insert indexes from distal direction into thumb loops and take off on to indexes.

11. From proximal direction insert other fingers of hand into index loops and extend by widening them with gentle tugging.

12. The figure is reconverted into itself by the thumbs picking up on their balls the string on each side of the double-lined "M", (the string which goes into the formation of the loop above the "M",) and then inserting thumbs behind (from proximal direction) the index little finger string and then turning them back into thumb loops. Withdraw indexes.

13. With mouth pick up the straight single string which runs from thumb to thumb, and withdraw thumbs.

14. From proximal direction insert other fingers of hand into little finger loops and, widening loop, extend. The resulting figure is the same as that at the end of operation 11.

The chant for this fai, Kohiti, is:

Ko hiti, ko putu, te manu,
Te manu na vei?
Na vei aue uta,
E heke ra te anei ie.

No. 66

Na Vahine Tetea

Item.

Seen at Vahitahi and at Anaa. The loop should be about 18 inches long or, if a long loop, it should be doubled.

1. Place loop around thumb and index of one hand and thumb of other hand.

2. Pass index of opposite hand over thumb-index string and pick it up by hooking the index over the string and rotating it outward and upward in returning to position.

3. Thrust little fingers from proximal direction into index loops and hook down radial string on palms.

4. Thrust thumbs from proximal side into index loops and carry radial index string into thumb loops by turning thumbs inward towards body. Do not withdraw indexes.

5. The ulnar radial index strings cross each other, forming two sides of a small triangle, the base of which is formed by the little finger string. With middle fingers, reach into this triangle from the far side and on balls of middle fingers pick up the lateral bounding strings. Now thrust middle fingers from proximal direction into thumb corners and pick up on dorsal side the string which runs diagonally across thumb corners, turning middle fingers outward and away from body, through central part of the figure (a large triangle), and up.

6. Insert indexes from proximal direction into middle finger loops and take off this loop on to indexes.

7. Navaho indexes and stretch resulting figure taut on thumbs,

indexes, and little fingers.

8. Withdraw little fingers and indexes and, inserting all other fingers of hand into thumb loops, extend by widening these loops. See fig.

The Vahitahi chant is:

Na vahine tetea,
Pepe i uta, a rari orua ohure
I te miti tetea.

The Tatakoto chant is:

Na vahine tetea,
Na vahine pipio,
A pehe, a pehe orua, ohure
I te miti tetea.

The Anaa chant is:

Na vahine pipio,
Oioi orua avae,
A rari te miti tete.

No. 67 HCM.

Matariki

This figure used to be made at Anaa and Amanu, but it was only at Vahitahi and Reao that I found they could make it today. It is a very odd figure, being extended on a coconut leaflet midrib.

1. Double the loop and put one end over a big toe. At the other end separate the two loops and put one over the left index, one over the left thumb.

2. Insert right index into thumb loop from proximal direction and

pull down ulnar thumb string. Pull it under radial thumb string and well out towards body. Now, holding this string for a moment on the back of the thumb, withdraw the index and reinsert it so that this former ulnar thumb string now rests on back of right index. Thumb cannot be taken away.

3. Insert right index from distal direction into left index loop and on ball of right index pull radial index string towards body between string along back of right index and radial thumb-toe string. Holding this string for a moment on back of thumb, take away right index and insert it under the string so that the string now lies along the back of right index.

4. Pass right index over ulnar left index thumb-toe string and, catching it on ball of right index, carry this string through between strings on either side of the index. Pull the string well out towards body, then lift it up and slip it over left index, withdrawing right index.

5. Repeat the above operations, coming back to the thumb side from radial side in this manner: with right thumb and index [near toe] reach in under distal ulnar index string and take hold of the next string radial to it. Pull this string out to ulnar side and then up over distal ulnar index string, and well towards body.

6. Hold string pinched between right thumb and index with right little finger by hooking it over this string. Then take away right thumb and index, and between them pick up the middle of the three strings running straight from left hand to toe. Release little finger and pull string between right thumb and index, well over the left thumb-toe string and towards the body.

7. Hold string between right thumb and index with right little finger by hooking it over this string. Then take away right thumb and index and between them pick up left thumb-toe string, lift it up over thumb, and drop it.

8. Now keep repeating operations 2 to 7 until there is no string left to continue.

9. Take a coconut leaflet midrib and insert from distal side through all left thumb loops, then curve it backwards and run the tip through all right index loops, from proximal ~~direction~~ side. Withdraw index and thumb and arrange on stick so that the figure looks like a snow shoe. The figure is intended to represent the net of Matariki, or the constellation Matariki (the Pleiades) which, in turn, represents this net of food.

No. 68 Ham.

Te Tipi Haga o te Kahea (The Waxing of the Moon)

Noticed only at Vahitahi.

1. String around left thumb and index and right thumb.

2. Right index picks up on ball left index thumb string from distal far side, rotating index outward.

3. Middle, ring, and little fingers enter index loop from proximal direction and hook down radial index string.

4. Thrust thumbs up into index loops from proximal direction, then turn them back into thumb loops, carrying index little finger strings through thumb loops, and releasing indexes.

5. Missing? no

6. Substitute indexes for thumbs, inserting indexes into thumb loops from proximal side.

7. Thrust thumbs into little finger loops and pick up proximal diagonal string just above, pulling the string out, releasing little fingers, and extending.

8. Operation 3.

9. Indexes enter thumb loops from distal direction and carry ulnar string through index loops, releasing thumbs.

10. Thrust thumbs into little finger loops and pick up sides of double-sided "V", releasing indexes.

11. Insert indexes into thumb loops from distal side and take off on to indexes.

12. Thrust thumbs into little finger corners and pick up from proximal direction the radial string that runs from index to index. Release little fingers and extend.

No. 69

Mahara Taravao

a. Open

This figure is identical with the Society Islands figure, Mahara Taravao, as described by Handy (, B.P. Bishop Mus. Bull. 18, p. 59, fig. 29); and I have given it this name, as the Tuamotuan sailor from one of the western islands, who showed it to me, did not know the name.

b. Locked

In this figure the series of three loops on each side of ~~fig.~~ Pai 69,a are locked together.

1. Opening A.

2. Release little fingers and then make a new little finger loop, ~~with a twist in it,~~ by ~~thrusting~~ inserting right little finger, from distal ~~direction down~~ side, into right index loop and then rotating it outward and upward, carrying the ulnar index string on to it; ~~Then~~ insert left little finger from proximal direction up into loop wrapped around right little finger, and extend.

3. Continue exactly as if to make no. 69,a after opening A.

No. 70

Na Turatura o Puga

Item.

From Vahitahi.

1-7. Exactly like 1 to 7 in the string figure, Maui (no. 55).

8. Insert thumbs into upright triangle between two diamonds (see fig. 55,d (2) and on balls of thumbs pick up and pull towards body the side strings of this triangle.

9. Insert thumbs from proximal direction into index loops and then turn back into thumb loops. Release indexes and substitute them for thumbs. See fig. .

Item

No. 71

Moe Hora Hia

1. Opening A.

2. Insert indexes from distal side into little finger loop and, rotating them downward towards body, and up, carry the radial little finger strings on their palmar sides under the index strings and up, releasing little fingers. The little finger loop is now converted into distal loops. (To this point like the fai, Maui).

3. Insert little fingers from proximal direction into index loops and hook down radial index strings.

4. Insert thumbs from proximal direction into index loops; then turn them back into thumb loops, carrying the double string stretched from indexes to little fingers through this loop.

5. Release little fingers.

6. Substitute little fingers for thumbs, inserting them from the same direction.

7. Insert thumbs into little finger corners and on back pick up and pull towards body the diagonal string across the corner.

8. Insert thumbs from proximal direction into index loops and then

turn them back into thumb loops, carrying through the double string that runs from little fingers to indexes.

9. Release indexes and substitute them for thumbs, inserting them from the sake direction.

10. Thrust thumbs into little finger corners, then towards the body between little finger strings forming the lower border of the figure. Thrust them between these strings at a point near the little fingers.

11. Bring thumbs towards body, then thrust them under the remaining little finger string and up into little finger corners, releasing little fingers.

12. Substitute little fingers for thumbs and extend.

Taku moe kaviria,
Ki roto Katuu
E vava te tai o Pekahi,
E rere te Mahoe te tai o Rauagi.

Mahoe is a ghost, and his path is represented by the straight string running in and out among the four diamonds.

No. 72

Hihi o Togareva

From Vahitahi.

1. Opening A.

2. Pass thumbs ~~over~~ distal to index ~~strings~~ loops and ~~pick up~~ retrieve with radial little finger strings.

3. Pass indexes distal to over little finger-thumb string and on back of indexes pick up ulnar thumb string.

4. Release little fingers.

5. Pass little fingers over all intervening strings and pick up ulnar thumb strings that run to center of figure.

6. Release thumbs.

7. Thumbs pick up distal index loops.

8. Insert index fingers from distal direction into thumb loops and take these loops off on to indexes. Release little fingers. Insert ring, middle, and little fingers proximally into index loops and extend by widening loops.

The chant with this figure is:

Hihi o Togareva, ka ka i ake,

Ki raro te tai nui,

Na maua te ma kei.

Conversion of Hihi o Togareva into itself

9. Insert thumbs into lower part of two central lobes; right thumb into right lobe, left thumb into left lobe.

10. On balls of thumbs pull out to sides and towards body the lateral bounding strings of lobes.

11. Thrust thumbs proximally into index loops and turn back into thumb loops, releasing indexes.

12. Insert indexes into little finger corners from same direction as little fingers, and extend.

No. 73

Toga Ia Maui

~~Seen only~~ At Tatakoto, called Toga-ia-Maui, at Napuka called Hem Tipoka.

1. Opening A.

2. Pass thumbs under index loop and then on backs of thumbs pick up ulnar index string, carrying this string under radial index string.

3. Rotating indexes in ulnar direction, pick up ulnar thumb string, and as it is raised allowing radial index string to slip off indexes, forming a ulnar thumb string ~~4. Disengage thumbs from thumb index strings by turning thumbs under these strings.~~ which must be held down by the thumbs which the index, in lifting the ~~dist~~ proximal ulnar thumb string pulls off also the proximal radial thumb string.

The operation is exactly comparable to that in figure ~~4~~, 5 and also in figure 6, movement 3, but there confined to one ~~side~~ hand.

~~4~~. Repeat operations 2, 3 ~~and~~ and 4, twice.

~~5~~. Thrust thumbs into index loops from proximal direction and take off.

6~~7~~. Thrust other fingers of hand into thumb loops from proximal direction and extend ~~finger~~ figure by widening these loops. This makes a figure with three triangles.

Insert 137d

No. 7~~8~~ 4

Koperu

Hom.

Koperu at Amanu; Taura o Te Ura at Anaa.

1. Opening A.

2. Rotate indexes in ~~radial~~ ulnar direction around little finger strings, then bring indexes towards body, peax to make loops and insert from distal side into thumb loops. Take off thumb loops by returning indexes in ulnar direction to original position and releasing thumbs.

3. With little fingers hook ulnar index strings well down on palms.

4. Rotating indexes in ulnar direction, insert them into little finger loops and pick up radial little finger string. Continue rotation back to position.

5. Reach into little finger loops with thumbs and on backs of thumbs pick up the string touching the radial side. Carry this string out towards the body, then thrust thumbs under double little finger string and up into

Figure 73 A

A.M.

Tipoka (Paddle)

Seen only at Napuka.

Exactly like Toga ia Maui, fig. 73 as afr as and including operation 4. Then, instead of thrusting thumbs into index loops and taking off index loops, thrust thumbs into index loop and extend by releasing little finger loop and widening the distance between thumbs and indexes. This makes a four-triangle figure.

space on other side. Turn thumbs in towards body and release little fingers.

6. Extend by turning palms outward.

Note: This figure should come after Moehia (no. 92) to which it is closely related.

No. ~~74~~ 75 New

Tuporokura

Seen at Vahitahi only.

1. Opening A.

2. Thrust thumbs from distal side through into index loops and, picking up on their backs the little finger strings, carry little finger strings through index loops.

3. With indexes pick up ulnar thumb string.

4. Release thumbs.

5. Pass thumbs under all strings and pick up ulnar little finger string, bringing it back under all strings.

6. With thumbs pick up distal radial index string.

7. Navaho thumbs.

8. Release little fingers.

9. Substitute little fingers for thumbs, and extend. See fig. .

Moki, moka,

Horoatea, haroagiagi,

Tupotokura.

76

No. ~~75~~

Maroariki

Seen at Vahitahi only.

1. Opening A.

2. Pass thumbs over index strings and pick up radial little finger strings.

3. With indexes pick up ulnar thumb strings. Release little fingers.

4. With little fingers passing distally to all intervening strings, pick up ~~all~~ ulnar thumb strings running to center of figure. Release thumbs.

5. From proximal direction, with thumbs take off distal index loop and then little finger loop.

6. Withdraw indexes and insert all other fingers of hand, except thumb, into thumb loops from proximal side and widen these loops. A loop now hangs from each hand.

7. On backs of thumbs pick up loop hanging from opposite hand.

8. Thrust thumbs from proximal side into index loops and carry radial index strings through thumb loops by turning thumbs back into their loops.

9. Release indexes and then substitute indexes for thumbs. See fig. .

Marcariki i te poipoi e,
kiha taga, ki.

(Kohiko as in tifai kaefa)
to make tifae Mamania

No. ~~76~~ 77

Fai Taamu (Slip Trick)

This trick was seen only at Vahitahi. It is similar to the Tahitian trick, A Matara, described by Handy (, B.P. Bishop Mus. Bull. 18, p. 90). (Note: If in 3d movement, as described by Handy, right index instead of thumb picks up left palmar strings, and if, in the 5th movement, mouth lifts radial index double string over thumbs, the figure is more likely to succeed).

Te Pito o Maui and Te Matikuku o Tahaki

Among the figures made by their ancestors, the elder Mangarevans mentioned Te Pito o Maui, The Navel of Maui, and Te Matikuku o Tahaki, The Fingernails of Tahaki, as amongst the finest. I have not encountered ~~this~~ the former figure in the Tuamotus. It is the same as the Marquesan figure named Te Mahai Vero, although made in quite a different manner from that described by Handy (, bull. 18, fig. 7, p.19). The completed figure is also practically the same as Te Kuri Ruaragi of the Maoris (Andersen, Myths and Legends of the Polynesians, 1928, p. 229), the only difference being that the thumbs retain a hold of the strings at the sides.

The Mangareva chant (kapa rama), accompanying the figure, Te Pito o Maui, goes: Te kotiga, te kotiga te pito o Maui. The cutting, the severing of the umbilicus of Maui.

Mackinnon's Well. H.C.M.

1. Opening A

2. Twist the loops on all fingers once in an ulnar direction by rotating the fingers.

3. Take off thumb loops onto indexes.

4. Pass thumbs over proximal radial index strings, under the ulnar strings, and pick up and bring back under the ulnar strings, th radial little finger strings.

5. Release little fingers.

6. Take off onto thumbs distal index loops

7. Pass indexes over distal radial thumb strings, and pressing back these strings pick up the proximal radial thumb strings, being careful in doing so that the other thumb strings remain on the thumbs.

8. Repeat operation 6.

9. Repeat operation 7.

10. Repeat operation 6.

11. Twist the thumb loops once in a radial direction.

12. On back of thumbs ~~pick up and~~ pull out radial index strings.

13. With little and ring fingers hook down the ulnar thumb strings.

14. With mouth pick up the double, proximal, radial thumb strings and drop them over the thumbs.

15. ~~Indexes pass over to near side of radial thumb string and pull~~ Insert indexes from distal direction into thumb loops and pull double ulnar thumb strings ~~and pull this string~~ through index loops and up, releasing thumbs.

79

Te Matikuku o Tahaki is made in the same way except for the start.

1. Position 1.

2. With left index pick up right palmar string from distal direction, rotating index towards body and up.

H.cm.

Vero o Tavake

Vero o Tavake (Tail of the Bosun Bird) is a Mangarevan string-figure (pe'e).

1. Opening A.

2. Insert indexes from distal direction into little finger loops and rotate them down, towards body, under index strings and up ~~in/r/direction/return/to/position.~~ Release little fingers ~~string~~.

3. Twist index loops on themselves ~~and~~ by rotating indexes in ulnar direction at least three times.

4. Release thumbs and inserting other fingers of hand from far side into index loops, extend.

5. Toss the loop that hangs down, over the figure the number of times required to undo the crossing strings of the figure.

81 Slip
Mangareva Trick ~~Figure~~

1. Stretch loop between indexes.

2. Right hand of another person takes hold of the string nearest him, from above; his left hand takes hold of the string farthest from him, also from above

3. The right hand pulls its string over the other string; ~~the left hand~~ then pulls upward on its string and lifts it over the right index finger of the first person.

4. The first person pulls taught the loop as the second person releases his hold, and the loop slips off.

82

not quite clear

'Aka Uira

This figure, learned at Mangareva under this name, is, I think, the name as the Napuka figure Uira, which I saw but did not record at the time.

1. Double the loop and slip it over the wrists.

2. Insert little fingers between the ulnar double string ~~and then rotate them downwards, towards body and up, at the same time~~ and hook firmly the proximal (distal?) string to the palms of the hands. Then insert thumbs between ulnar strings and rotate them downward, towards body, and up, carrying the proximal string with them. At the completion of the rotation, allow the little fingers to resume an extended position. There is now a thumb and a little finger loop.

3. Twist little finger loops one complete revolution by rotating little fingers in a radial direction.

4. Twist thumb loops one complete revolution by rotating thumbs in a ulnar direction.

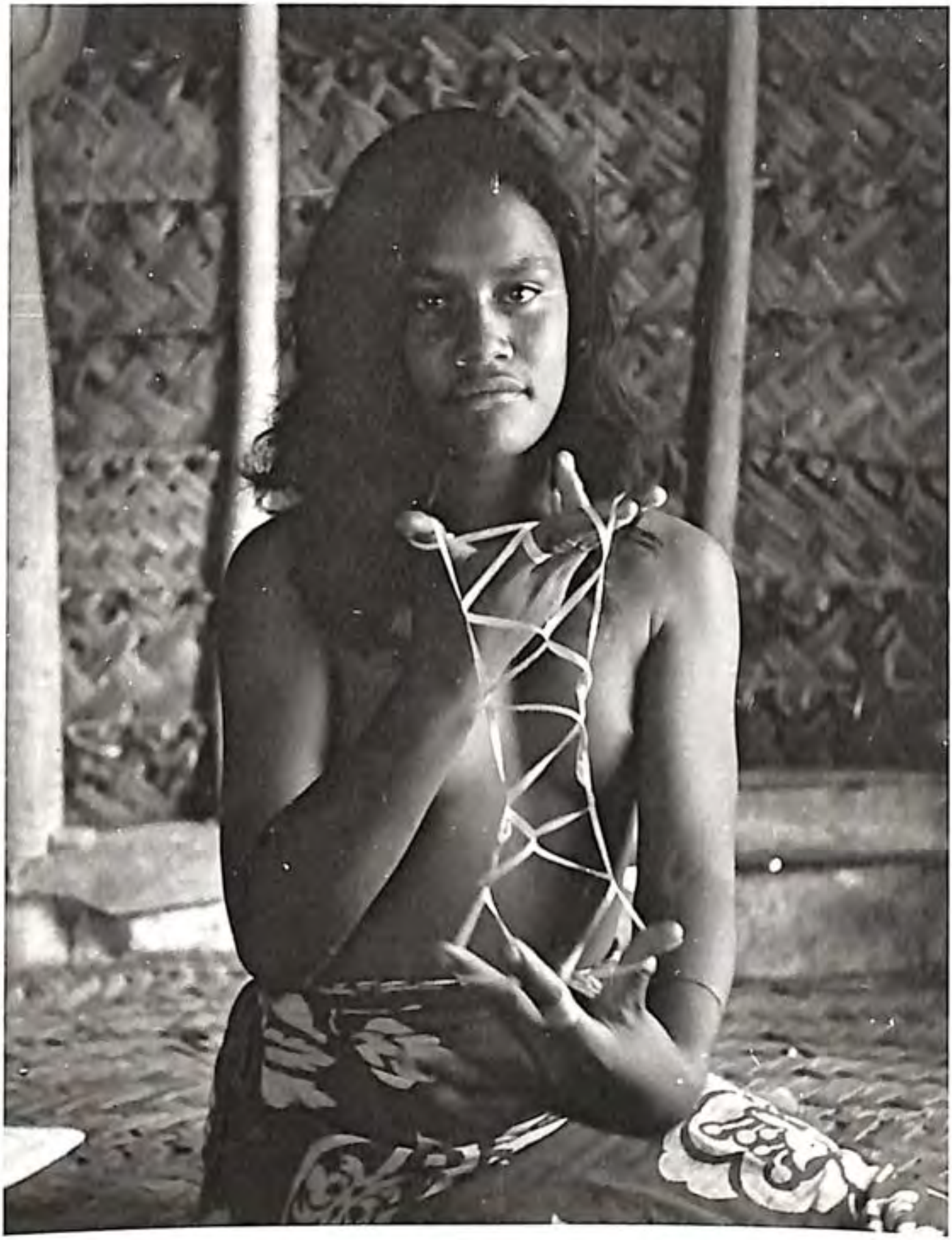
5. With thumbs pick up radial little finger strings.

6. With indexes pick up ulnar thumb string, and extend by clasping thumb-index string to sides of indexes with thumbs and turning palms outward. This makes uira, or lightening

7. Now release thumbs, then transfer index loops to thumbs, by insertings thumbs into them from proximal direction and taking them off.

8. Repeat operation 5.

9. Repeat operation 6. This makes patiri, or thunder.



FRONTISPIECE

(TUKUA OF NAPUKA)

Tukua

is the name of the girl.

String Figures of the Tuamotus

Introduction

These string figures from the Tuamotus were recorded during field trips in 1929, 1930, and 1931 and again in 1934, as mentioned described in the Annual Reports of the director of the B. P. Bishop Museum for 1932 (pp. 40-50) and 1935 (pp. 61-65).

The making of these figures, called fai, was still then an integral part of their culture, a means of ready communication and establishment of friendships between children in the traveling of families, a transmission through their names and accompanying chants of myths, legends, folk tales, a demonstration of knowledge and skill, a provoking of mirth and delight, and thus a dispelling of monotony and boredom. Because these Polynesians of the Tuamotu Archipelago had so well carried on this Polynesian diversion, and because I believed that through comparing the string figures of one part of Polynesia with another we could trace some ancient diffusions, I found myself engaged in recording them. I found the learning a good way, both to fill in the time when otherwise I would be forced to be idle sitting on a schooner deck or waiting between trips in Papeete, Tahiti, and to initiate friendship while sitting next to a Tuamotuan.

My main inspiration, however, was provided by Paea of Anaa atoll, born in 1889, who was then living in Tahiti. He patiently taught me the classical figures of Maui Noosing the Sun and of a cultural hero Turi. When one had mastered these two he was a graduate in the art of fai.

Fai

~~These~~ were figures made by adults and it was never considered childish to indulge in making them while whiling away time. Children, however, played a game with them. By responding to a call of the string figures' particular name, children all started, and the one who finished first was considered the winner. To signal his achievement, he would start the chant for that figure.

To record these figures I developed a shorthand which enabled me to follow and record the movements as they were being executed and then, usually to the astonishment of the demonstrator, to reproduce the figure by looking at the marks on my paper. The Tuamotuans learned from each other by close observation. They soon were aware that many figures were closely related in their succession of movements and this made it easy for them to acquire the knowledge of many fai. They could verbalize the movements in Tuamotuan. I once heard a girl dictate all the movements of a complicated figure to another girl in an opposite corner of the house.

Kenneth P. Emory
June 1, 1971

Tuamotu String Figures: a comparative analysis

This collection of 83 string figures from the Tuamotu Islands adds significantly to our knowledge of the patterns and techniques found in Eastern Polynesia. Although Bligh records the Tahitians as 'taking a piece of line in a variety of shapes off one of the others hands (in some places of England called a Cats cradle)' as long ago as 1789, the only published collections of figures have been made by Willowdean C. Handy, who describes 25 from the Society Islands (including Tahiti) and 30 from the Marquesas.[1] No figures have been recorded from the Austral Group and only an introductory 7 from the Cook Islands.[2]

As will be seen from the following Table, Professor Emory collected his figures throughout the Tuamotus (including Mangareva), though the numbers recorded against each island do not afford any indication of the total repertoire of the inhabitants, but rather his own length of stay, the availability of informants and the time which could be spared for recording:

Anaa	- 37	Hikueru	- 6
Vahitahi	- 35	Faite	- 2
Tatakoto	- 16	Raroia	- 2
Reao	- 12	Hao	- 2
Mangareva	- 12	Fakarava	- 1
Napuka	- 9	Fagatau	- 1
Amanu	- 8	Known throughout islands	- 7

An examination of the collection as a whole and the provenance of

individual patterns will indicate that in general they tend to transcend sub-regional cultural zones, the same figure being recorded, for example, from Anaa in the west and Raeao in the extreme east. Even the isolated atoll of Napuka, which preserves many untypical cultural traits, only serves to exemplify the homogeniety of the Tuamotuan string figure making complex. The same observation applies to the Gambier Islands, although the mixed and largely immigrant Mangarevan population of today could scarcely be expected to have preserved many patterns from the pre-Laval age.

The Table of Comparisons will show that a relatively small number of Tuamotu figures are known outside the Group, nowhere as many as a fifth, the main correspondences being as follows:[3]

Society Islands	- 15
Gilbert Islands	- 15
New Zealand	- 11
Marquesas Islands	- 10
Australia	- 10

The relatively high rating of the Society and Marquesas Islands is what one would expect, given known and suspected communications, and would almost certainly be higher if a really representative collection had been made from these groups. The correspondences with the Gilbert Islands, New Zealand and Australia are more difficult to explain, although in the case of the Gilberts it could be mainly due to the fact that 125 figures have been collected, more than for any other group, and that ethnologically the islands have been a cross-roads between Polynesia, Micronesia and Melanesia.

Three figures, Mageogeo (1st part), Kokikokiko I and Komo ko te Ariki, are known throughout the Pacific, as are Matuarere and Horahora if regarded as essentially the same figure in which the number of diamonds varies with the method of extension. No doubt others, such as Moko, which is known in Rarotonga by the same name, would be found to be equally widespread if our field collections were more complete.[4]

Nevertheless, despite the fact that the Tuamotuans know many of the basic Oceanic string figures and employ the universal Position 1 and Opening A to commence the majority of their own, one is immediately struck by the markedly different technique patterns prevalent throughout the archipelago, and again by the simple extension often used in which all four fingers are inserted into the thumb loops and the figure is shown with or without raising the index finger.

It is, I suggest, of significance that the Tuamotus, like Hawaii, appear to have lain beyond the eastern periphery of the Caroline Extension, the most sophisticated and effective method of displaying a figure so far invented, but one not so easy to learn. It would seem probable from a distributional study of the Caroline Extension that it entered the Pacific from the west (cf. the Australian <u>pindiki</u>[5]) and had not reached the more isolated islands of Eastern Polynesia by the period of European contact. It occurs in the Tuamotus only four times: presumably relatively recent introductions, though they could have arrived in the pre-European era through one or more of the many inter-group contacts known to have occurred. The important point , however, is

that the Extension did not have time to dominate the scene, as in parts of the Western Pacific, but remained an isolated and out-of-character variant.

It should be added that the Hawaiian Extension, as described by Dickey - Navaho thumbs, put indexes into triangles near thumbs, and turn fingers away under the figure and up - was also virtually ~~unknown~~ in the Tuamotus, where the typical extension was made between the index fingers and little fingers or thumbs (90 patterns) or, less frequently, by inserting all fingers into the thumb loops (20 patterns).[6]

Dr Emory has described the dramatic Turi and Maui Series as the best known examples extant at that time ~~today~~ of the classical Tuamotuan fai, and it is certainly in their series that one finds the finest flowering of the art as developed in this eastern Polynesian group. Of the nine series four begin with Opening A, two with Position 1 and three with the loop on the thumb and index finger of one hand and the thumb only of the other. After the initial opening, however, they all use a similar (and in five series an identical) technique, in which loops are held on the index fingers and thumbs, and either the thumb pulls the radial index string through the thumb loop or the index fingers pull the radial thumb string through the index loops. This technique was recorded by Andersen in New Zealand, though not to the same extent, but was frequently used in Hawaii.[7] Although engaged in collecting throughout the Gilbert Islands over a number of years I was only once shown a figure identical with the Maori pattern, but considered it at the time an introduction from Poly-

nesia; nor in any other figure was the technique used.[8]

It should be emphasized that although Figure (d) of Koviri, known as Heregao, results in a four diamond pattern identical with Tambanggara in the Fijian Sorokake Series, as does Uira, the series itself is unknown in the Tuamotus, being apparently confined to Melanesia, where it is widespread, with only one known extension outside the area: to the Gilberts.[9]

Cat's Cradle from Korea?

As far as the design is concerned the double-stringed diamond Na Tifai is probably the most widely known figure in the world, but it is difficult to make comparisons as there are so many different methods of reaching the final result. It is also the earliest recorded figure in the world, having been used by Oribasius of Pergamon, who found it in the writings of Heraklas, a Greek physician of the 1st century A.D., for traction on broken limbs.[10] In Central Africa it was still being made early in the 20th century by the method used by Heraklas.[11]

The following are comparative notes on three of the more interesting figures; others will be found following the method of construction given in the text:

(i) Na Fare Turu, recorded from the Marquesas, Gilbert Islands, Tikopia, ~~and~~ the Caroline Islands and Pukapuka in the Cook Islands, is one of the gems of the three-dimensional figures; there are minor differences in the openings. Only in the Gilberts does it continue to a second figure. In Australia identical movements are made after the opening moves but the extension produces a flat figure known as Two Blackfellows.

(ii) Matariki is a pleasing and intricate figure which so far has been found only once in Micronesia, once in Melanesia and now

in Polynesia.

(iii) Te Pito o Maui, on the other hand, has not been recorded from Melanesia, though it has been found in the Marquesas, Gilberts and New Zealand. The opening moves are the same in each group, while the central moves are essentially the same but are manipulated differently; the Gilbert Islands technique is the nearest to the Tuamotuan except for the extension.

In conclusion it may be said that to one accustomed to the traditional methods used in the Western Pacific the typical technique patterns found in the Tuamotus seem strangely different, and until one gets accustomed to them often bizarre and unnecessarily intricate; one cannot even unravel many of them by the usual procedure of taking the top and bottom strings and pulling them apart.[12] At the present stage of our knowledge they appear rather to stand in a class apart, with only a few patterns shared with the rest of Oceania and more especially with the Society and Marquesas Islands. It is to be hoped that with further field studies in the Eastern and Central Polynesian Groups, and particularly in the Austral and Cook Islands, it will be possible to determine more accurately the relationship of the Tuamotu figures and their construction techniques to those found in the rest of the Pacific.

Honor Maude.

Footnotes to Comparative Analysis

1. Bligh n.d.: 18; Handy 1925.

2. Devonshire 1949; Buck 1927.

3. In accordance with modern practice, comparisons are made on a basis of technique analysis, i.e. the actual movements by which the figures are made, rather than by the identity of the final result, which is sometimes reached by a variety of different movements.

4. Devonshire 1949: 117.

5. Davidson 1949: 797.

6. Dickey 1928: 9-10.

7. Andersen 1927: 102-5; Dickey 1928 .

8. Maude 1958: 125-7.

9. Hornell 1927: 54-60; Maude 1958: 12-17.

10. Day 1967: 124-6.

11. Haddon 1912: 31.

12. Haddon 1912: 5.

18 3/4 hours @ $2.50

$46.87

Quinn Lambert

Received - 9/12

LIST OF FIGURES

1. Na Tifai – Method 1
   (a) Tifai Manania
   (b) Tifai Kaefa — ~~Method 1~~
2. Na Tifai — Method 2
3. Na Tifai —
   (a) Tifai Manania
   (b) Tifai Kaefa — Method 3
4. Tifai Kea I
5. Tifai Kea II
6. Mageogeo
7. Mago
8. Pana i te Ora
9. Motutakanoa
10. ~~K~~ua – Method 1
11. ~~K~~ua — Method 2
12. Mahara Taravao (a, ~~and~~ b)
13. Na Mutu Karaea
14. Na Fai Peka (a, ~~and~~ b)
15. Pape Ri'iri'i (a, ~~and~~ b)
16. Tupa Rikiriki
17. Kokikoki I
18. Kokikoki II
19. Korairai
20. Haveke Tiraga
21. Haveke Tipapa
22. Patanuku
23. Patiki
24. Te Ava Raro (a, ~~and~~ b)
25. Puga Tahetahe
26. Uira
27. Kanaunau (a, ~~and~~ b)

28. Matuarere
29. Korava Hiti – Methods I, 2 and 3
30. Horahora
31. Puriri
32. Na Puroro
33. Kahuri Fara
34. Keri Kanoe
35. Kaki
36. Tuna
37. Keiga o Tuna
38. Ure o Hiro
39. Na Parapa
40. Fafarua
41. Komo ko te Ariki
42. Fai Tahemo
43. Taura o Tavaka
44. Kutami
45. Ki Faru
46. Ko Peka
47. Te Ana o te Mago
48. Moko (a, b, ~~and~~ c) – also Methods 2 and 3.
49. Moko Tariga (a, b)
50. Turi (a, b, c, d, e, f, g)
51. Maui (a, b, c, d, e, f, g, h, i, j) – also Puhaga Toto.
52. Na Turatura o Puga
53. Kopena Hiro (a, b, c, d, e, f, g, h)
54. Papani o te Rua o te Marama
55. Te Vaka o Hiro.
56. Ku Tavia (a, b, c, d, e, f, g)
57. Koviri (a, b, c, d)

58. Kotukurere I (a, b, c, d)
59. Kotukurere II
a/ 60. Potaka Purago (a, b, c, d, e, f, g)
61. Kokiri Pago (a, b, c)
62. Moe Hora Hia
63. Koperu
64. Kahegahega (a, b)
65. Haveke Tinihi
66. Na Fare Turu
67. Kotuku
68. Marama Hiti ki Ruga (a, b)
69. Marama Hiti ki Raro
70. Na Vahine Tetea
71. Matariki
72. Te Tipi Haga o te Kahea
73. Hihi o Togareva (a, b)
74. Toga ia Maui — Methods 1 and 2
75. Tuporokura
76. Maroariki
77. Fai taamu
78. Rori
79. Te Pito o Maui
80. Te Matikuku o Tahaki
81. 'Aka Uira
a/ a/ 82. Vero o Tavèkè
83. Mangareva Slip Trick

8. Lay figure down as before and release hands.
9. With fingers pointing down insert thumbs into former thumb loops, indices into former index loops, then pass them all under intervening string and up into centre of diamond; extend hands.
   This converts the figure back to Tifai Manania. Movements 6, 7, 8 and 9 may be repeated indefinitely.

These two figures are known throughout the Tuamotu and Society Islands and are identical with the Society Islands figures Honu Wahine and Honu Tane. The Samoan figure Paa, with the exception of movement 4 where the radial string is picked up, is identical with Tifai Manania but goes no further. This method of turning the figure over is used in New ~~Zealand~~ Caledonia but in conjunction with Na Tifai No. 3.[1]

2. NA TIFAI (The Turtles)

From Vahitahi only

Method 2

1. Opening A.
2. Pass indices proximal to little finger loops and return with both little finger strings, then insert into thumb loops from distal side, pick up radial thumb strings and release thumbs.
3. Pass thumbs, from proximal side, through proximal index loops and to ulnar side of distal ulnar index strings, hold these strings between tips of thumbs and indices; rotate indices down through proximal loops, towards you and up, retaining only distal loops; release thumbs and extend gently.

This figure is identical with the Maori figure Wahine and the Nauruan Ekwan III. It is made in the Gilbert Islands by two other methods and on Tikopia by a third method.[2]

3. NA TIFAI

From Vahitahi only

(The Turtles)

(a) Tifai Manania (Female Turtle)

Method 3

1. Opening A.
2. Release thumbs.
3. Pass right index away from you distal to all strings then hook up towards you ulnar little finger string and return to position; insert left index, from proximal side, into right distal index loop and draw hands apart.
4. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
5. Insert thumbs, from proximal side, into distal index loops, extend and then Navaho thumbs.
6. Release indices from distal loops.
7. Release little fingers.

3 (a)

This figure is identical with the Yirrkalla "Sun" and also with the first figure of the New Caledonian "Nameless".[3]

(b) Tifai Kaefa (Male Turtle)

8. Lay figure down, with hands in upright position, and release hands (a second person may perform the next movement).
9. Insert right index into former right thumb loop, near diamond, and right thumb into former left thumb loop; left index into former right index loop and left thumb into former left index loop; work tips of these fingers under double strings of diamond into centre of diamond and extend hands.

3 (b)

10. Turn tips of thumbs and indices into central diamond from distal side, allowing loops to slip off, and extend.

3 (c)

Movements 8, 9 and 10 may be repeated converting back to Tifai Manania, the only difference being the elimination of the half twist in each index loop.

Movements 8, 9 and 10 are used in Central Africa though the first figure is made a little differently. These figures may also be compared with the Hawaiian figure Wailua-Nui a Lanai, movements 21 and 22; this is a complicated series of figures and two methods are used for turning the figure over whereas in Na Tifai, Method 1, one method is used repeatedly and in Method 2 the alternative method is used repeatedly.[4]

4. TIFAI KEA I

From Araa

(White Turtle)

(A large turtle that will attack and kill a man)

1. Put loop over four fingers of each hand and turn back to back, little fingers towards you.
2. Spread fingers as widely as possible, then turn fingers outward in such a way that radial strings fall between indices and middle fingers, and ulnar strings between little fingers and ring fingers. The palmar string runs from ulnar side of little fingers to radial side of indices and then takes a turn round these fingers.
3. Insert right thumb, from proximal side, into left index loop and return to right with ~~double~~ radial index string; pass left thumb, from proximal side, through right thumb loop, insert into right index loop from proximal side and return with radial string.
4. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
5. Release little fingers and Navaho thumbs.

5. TIFAI KEA II

From Vahitahi

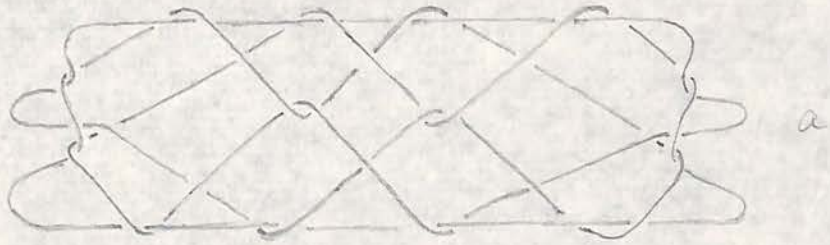
1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass index between left thumb and index distal to thumb-index string, hook up this string, rotating index in ulnar direction, and return to position.
3. Insert middle, ring and little fingers, from proximal side, into index loops and pull down radial string.
4. Insert thumbs, from proximal side, into index loops, hook back radial index strings and pull through thumb loops thus releasing original thumb loops.
5. Insert right thumb, from proximal side, into left thumb loop and transfer loop to right thumb; insert left thumb, from proximal side, into proximal right thumb loop and carefully lift off right thumb (thus exchanging right and left thumb loops). Work hands apart gently until figure appears.
6. Lay figure on lap, distal side down, and release thumbs and indices; insert thumbs into central vertical loop, then draw them apart thus enlarging loop and carrying side strings of loop in crook of thumbs. Extend carefully and evenly to produce a symmetrical figure, otherwise it will be a failure.

6. MAGEOGEO.

The figure is called Hiraukava at Napuka and was known there by a woman 75 years of age, who said her parents had taught her. Called Hirau at Tatakoto and as Rua-ka-peiti at Mangareva. Seen also at Takaroa, Raroia, ~~Napuka~~ and Hao.

1. Opening A.
2. Release thumbs.
3. Pass right index away from you distal to all strings then hook up towards you ulnar little finger string and return to position; insert left index, from proximal side, into right distal index loop and draw hands apart.
4. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
5. Insert thumbs, from proximal side, into distal index loops and Navaho thumbs.
6. Release indices from distal loops.
7. Transfer thumb loops to tips of indices.
8. Repeat 4 and 5.
9. Insert middle fingers, from distal side, into index loops and return with proximal radial index strings.
10. Release little fingers and extend by turning palms outwards.

No. 32 6
Cont.



6 (a)

The Anaa chant with this figure is:

Mageogeo, te mageogeo,

Aragaraga, te aragaraga,

Kohihiroa te kohihiroa.

The Vahitahi chant is:

Mageogeo, mageogeo,

Hi toto ka rapa,

Te igoa taua fai nei e,

Fai no Hihi.

The Tatakoto chant, given by aged Te Rava, is:

Hirau, hirau, kapeka, kapeka,

Mageogeo, koi to tohe,

Ka tu, ka rapa,

Te igoa taua fai nei e, Ko hirau kapeka.

p 9

Mageogeo, Paea of Anaa says, was a person who was caught in the web of Tukutukurahonui, the spider. As the spider refused to let him go, Mageogeo broke the net in his anger and freed himself. He took with him some of the broken strands with which he made this fai, called Mageogeo in memory of him.

This is one of the most widely known Pacific figures. In the Marquesas, Tonga and Tikopia the names ~~is~~ are clearly related similar, Loukape, Koukape and Raukape, elsewhere the ~~name~~ are ~~is~~ quite different. The construction is identical (apart from minor differences in the initial movements) except in North Queensland where the opening is different and the Navahoing is done on little fingers instead of thumbs, but the basic theme remains the same. Only in Tonga, Fiji, the Marquesas and Society Islands, and in Australia, does the figure proceed to one double diamond though not all by the same method.[5]

Continuation 1 (name not known)

11. Release thumbs then insert them, from proximal side, into distal index loops, return with distal radial index strings and extend figure.

Continuation 2 (Name not known)

12. Work hands gently apart until a compact central double diamond is clearly defined.
13. Lay figure down and release hands.
14. With fingers pointing down insert thumbs and indices into figure at lateral points of central diamond so that the strings passing to right and left from these points lie between these digits; work index fingers and thumbs under the double strings into centre of diamond and extend figure.

6 (c)

Continuation 3 (name not known)

15. Lay figure down and release hands.
16. Insert indices into former index loops, thumbs into former thumb loops, then work them all under the intervening string up into centre of diamond; extend hands.

6 (d)

7. MAGO

From Anaa

(Shark)

1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass index between left thumb and index, distal to thumb-index string, hook up this string turning index away from you and up; extend hands.

Right hand:

3. Rotating index in ulnar direction invert its loop; insert thumb, from distal side (i.e. from below), into index loop, then with index pick up ulnar thumb string and return to position leaving original index loop on thumb; allow thumb-index string to slip over tip of thumb.
4. Repeat movement 3 twice.
5. Rotating index in ulnar direction invert its loop; insert thumb, from distal side (i.e. from below), into index loop and release index; insert all fingers, from distal side, into thumb loops and release thumb.

Left hand:

6. Release thumb; insert middle, ring and little fingers, from distal side, into index loop, release index then re-insert alongside other fingers.
7. Extend figure by raising indices.

8. PANA I TE ORA

(Lift the life)

Known at Vahitahi by this name, an allusion to the motion in copulation. At Amanu it is called Pono Tiare (Enter the Tiare). At ~~Tataketo~~ Takapoto A Tahi pono te oreore (Enter the orifice once).

1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass index between left thumb and index, distal to thumb-index string, hook up this string turning index towards you and up; extend hands.

Right hand:

3. Rotating index in ulnar direction invert its loop; insert thumb, from distal side (i.e. from below), into index loop, then with index pick up ulnar thumb string and return to position leaving original index loop on thumb; allow thumb-index string to slip over tip of thumb.
4. Repeat movement 3 three times. Count a tahi, a piti, a toru, a ope pana i te ora (one, two, three, four pana i te ora) each time movement 3 is made.
5. Insert thumb, from proximal side, into index loop and release index, then insert all fingers, from distal side, into thumb loops and release thumb.

Left hand:

6. Release index and insert all fingers, from distal side, into thumb loop, withdrawing thumb. Extend by gentle tugging.

This figure is essentially the same as the Society Islands figure Ua te Tiare; the opening movements are different but achieve the same result and the extension is slightly different.[6]

9. MOTUTAKANOA From Anaa

Motutakanoa: a bare, open spot (tahuna) where Anaa chiefs lived; also a mythical place explained in the legends about Fagataufa, an island near Mangareva. This figure was given by Paea of Anaa.

1. Opening A.
2. Release little fingers.
3. Transfer index loops to thumbs.
4. Insert indices, from distal side, into distal thumb loops, pick up distal radial thumb strings and release distal loops from thumbs.
5. Twist thumb loops by rotating thumbs once in ulnar direction.

Right hand:

6. Rotating index in ulnar direction invert its loop; insert thumb, from distal side (i.e. from below), into index loop, then with index pick up ulnar thumb string and return to position leaving original index loop on thumb; allow thumb-index string to slip over tip of thumb.
7. Repeat movement 6 four times.
8. Rotating index in ulnar direction invert its loop; insert thumb, from distal side (i.e. from below), into index loop and release index; insert all fingers, from distal side, into thumb loops and release thumb.

Left hand:

9. Release thumb; insert middle, ring and little fingers, from proximal side, into index loop and pull radial string down on to palm.
10. Extend figure by tugging gently with right hand.

9

The chant with this figure is:

Motutakanoa	Motutakanoa
Ki te nohoga ariki;	At the seat of the chief;
E taka i mua, e taka i roto,	Understanding in front, between,
E taka ki taku kopu vanaga.	Understanding my wisdom.

No.8 10

10. HUA From Vahitahi

Method 1

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side, return with radial little finger strings and release little fingers.
3. Pass little fingers distal to index loops, insert into distal thumb loops from distal side, hook down distal ulnar thumb strings and pick up proximal ulnar thumb strings on backs of little fingers.
4. Pass indices distal to palmar strings, insert into thumb loops from proximal side and pick up ulnar thumb strings (which run to centre of figure) and release thumbs from all strings.
5. Transfer distal index loops to thumbs.
6. Transfer little finger loops to thumbs.
7. Release indices then insert four fingers of each hand, from proximal (or distal side) into thumb loops and release thumbs.
8. Extend by tugging gently.

11. HUA

From Reao

Method 2

Called at Reao Tematagi Tau Mutu.

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side, return with radial little finger strings and release little fingers.
3. Bring little fingers towards you distal to all strings, insert into proximal thumb loops from distal side, pick up proximal radial thumb strings and release thumbs from proximal loops.
4. Repeat movement 2.
5. Repeat movement 3.
6. Repeat movement 2.
7. Release indices but do not extend hands.
8. Insert all fingers, from distal side, into thumb loops and extend by gentle tugging.

The chant with this figure is:

Pororo noa iho,
Na te poro,
Tahetahe noa iho na hukai,
Te hua'kera kao.

Four faces

This figure is essentially the same as the Tahitian ~~figure~~ A Mahara Raiatea though a different technique is used for identical movements. The same figure is found in the Gilbert Islands and in Australia but in each place a different method of construction is used. Movements 2 and 3 above are the same as movements 2 and 1 in the "Gilbertese Movement" but are performed with different fingers.[7]

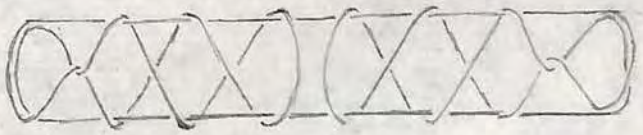
No. 69

12. MAHARA TARAVAO

(Thoughts of Taravao Peninsula)

(a) Open.

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side and transfer these loops to thumbs.
3. Bring little fingers towards you distal to index and distal thumb loops, insert into proximal thumb loops from distal side, pick up proximal radial thumb strings and transfer these loops to little fingers.
4. Repeat movements 2 and 3 three times.
5. Repeat movement 2.
6. Release indices then insert all fingers, from distal side, into thumb loops, release thumbs and extend figure by raising indices and gently see sawing.



12(a)

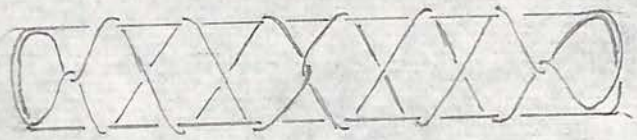
This figure is identical with the Tahitian figure <u>Mahara Taravao</u> and I have given it this name as the Tuamotuan sailor from one of the western islands, who showed it to me, did not know its name.[8] It is also known on Rapa

p. 18

No. ~~69~~ 12
(Cont.)

(b) Locked.

1. Opening A.
2. Release little fingers then make a new little finger loop by inserting right little finger, from distal side, into right index loop, rotating it outward and upwards, carrying ulnar index string with it; insert left little finger, from proximal side, into right little finger loop and extend.
3. Repeat all movements of (a) after Opening A.



12 (b)

No. 9 13

13. NA MUTU KARAEA

From Anaa

(The separations of Red Earth)

Called Tamutu Kaheahea at Hikueru.

more space

A long supple string is needed for this figure.

1. Position 1.
2. With right index pick up, from distal side, left palmar string rotating index in radial direction. With left index pick up right palmar string, from distal side, between radial and ulnar strings of right index loop, rotating index in radial direction.
3. Twist all loops once in ulnar direction.
4. Transfer little finger loops to thumbs.
5. Bring little fingers towards you distal to all strings, hook back distal radial thumb strings then enter proximal thumb loops from distal side, pick up proximal radial thumb strings and release thumbs from proximal loops.
6. Repeat 4 and 5 three times.
7. Repeat 4.
8. Release indices but do not extend hands.
9. Insert all fingers, from distal side, into thumb loops and extend figure by tugging gently with a sawing movement.

13

more space

A similar figure is made in the Gilbert Islands but the construction after movement 3 is entirely different.[9]

14. NA FAI PEKA

(The Crossed String Figures)

This is the Vahitahi name; Kavake Kahuna is the Hikueru name and is also their term for the half of the year from July to December. The figure was taught me by Tekuravehe of Hikueru, who was 80 years old.

(a) Open.

1. Opening A.
2. Twist all loops once in ulnar direction.
3. Pass thumbs distal to index loops, insert into little finger loops from proximal side, return with radial little finger strings and release little fingers.
4. Bring little fingers towards you distal to index and thumb loops, insert into proximal thumb loop from distal side, pick up proximal radial thumb string and lift proximal loop off thumb.
5. Repeat movements 3 and 4.
6. Repeat movement 3.
7. Release indices.
8. ~~Release little fingers then~~ Insert four fingers of each hand from distal side, into thumb loops and extend figure by gentle tugging.

(b) Locked

1. Opening A.
2. Transfer index loops to ring fingers and thumb loops to middle fingers.
3. Insert right index, from distal side, into right middle finger loop, pick up radial string and return to position; insert left index, from proximal side, into right index loop and return to position. Similarly insert right thumb into index loop, return with radial string and then insert left thumb into right thumb loop from proximal side and extend, thus making ~~fresh~~ new index and thumb loops.
4. Twist all loops once in ulnar direction.
5. Repeat movements 3 and 4 of (a) above twice, passing thumbs and little fingers distal to all loops.
6. Repeat movement 3 of (a) above.
7. Remove all loops except thumb loops then insert fingers, from distal side, into thumb loops and extend by gentle tugging.

No. ~~10~~. 15

15. PAPE RI'IRI'I From Vahitahi

(Tiny Wells)

The fact that these figures bear a Tahitian name may or may not be significant as to their origin.

(a) Six Wells

A long supple string is needed for this figure.

1. Opening A.
2. Transfer index loops to ring fingers and thumb loops to middle fingers.
3. Insert right index, from distal side, into ~~left~~ middle finger loop, rotate in radial direction picking up radial middle finger string; insert left index, from proximal side, into right index loop (wrapped round right index) and extend.
4. Similarly insert right thumb, from distal side, into left index loop, rotate in radial direction picking up radial index string; insert left thumb, from proximal side, into right thumb loop and extend.
5. Transfer little finger loops to thumbs.
6. With thumb and index of opposite hand grasp proximal radial thumb string, lift over tip of thumb and put over little finger, thus turning it over. ~~beginning with left thumb loop.~~
7. Repeat movements 5 and 6 three times.
8. Repeat movement 5.

9. Release indices, middle and ring fingers, then insert them, with little fingers, into thumb loops from distal side. Extend by tugging gently.

15 (a)

The construction of this figure is similar to <u>Na Fai Peka</u> no. 14 (b), but not identical.

(b) Eight Wells

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, rotate in radial direction and extend; insert left index, from distal side, behind right palmar string between radial and ulnar index strings, rotate in radial direction and extend.
3. Repeat movements 2, 3 and 4 of (a) above, ~~four times.~~
4. Twist all loops once in ulnar direction.
5. Repeat movements 5 and 6 of (a) above, four times.
6. ~~Repeat movement 5 of (a) above.~~
7. ~~Rpeat 9 of (a) above.~~

6. Transfer little finger loops to thumbs.
7. Release indices, middle and ring fingers, then insert them, with little fingers, into thumb loops from distal side. Extend by tugging gently.

15 (b)

16. TUPA RIKIRIKI

(Little Hermit Crab)

Given by Hikueru man, aged 80 years.

1. Opening A.
2. Transfer index loops to middle fingers and thumb loops to indices.
3. To make thumb loops insert right thumb, from distal side, into left index loop and pick up left radial index string then insert left thumb, from proximal side, into right thumb loop and extend hands.
4. Twist all loops once in ulnar direction.
5. Pass thumbs distal to intervening strings, insert into little finger loops from proximal side and return with radial little finger strings; release little fingers.
6. Bring little fingers towards you, distal to all strings; then insert into proximal thumb loops from distal side and return with proximal radial thumb strings; lifting them over tips of thumbs.
7. Repeat movements 5 and 6.
8. Repeat movement 5.
9. Release indices and middle fingers.
10. Insert all fingers, from distal side, into thumb loops and extend figure by gentle tugging.

Figure 16

17. KOKIKOKIKO I
(Warbler)

Called by this name at Amanu, Anaa, Vahitahi and Reao; at Takapoto it is called Kotiotio, which is another name for the same bird.

1. Opening A.
2. Release little fingers.
3. Transfer thumb loops to indices.
4. Insert thumbs, from distal side, into proximal index loops and return with proximal ulnar index strings.
5. Insert thumbs, from distal side, into distal index loops and return with distal ulnar index strings.
6. Pass middle fingers distal to distal radial index strings, hook back and pick up proximal radial index strings on backs of middle fingers.
7. Navaho thumbs.
8. Rotate left hand towards you until the figure of three diamonds appears.

17 (a)

The chant for this figure at Vahitahi: p. 26

Ka rare i te reo o te kokiko, kiko e,
E himene mai ra.

The chant at Anaa:

Kokiko, kokiko poro turituri,
Ka hana kauina;
Goio goio tohe rehurehu

Four spaces

Identical figures are found in the Philippines, Society Islands and Marquesas, Australia, Fiji, Tonga and Samoa, Pukapuka, Ropa and New Zealand.[10]

No. 11 /7
Cont.

The chant for this figure at Vahitahi:

Ka rare i te reo o te kokiko, kiko e,

E himene mai ra.

The chant for this figure at Anaa:

Kokiko, kokiko poro turituri,

Ka hana kauina;

Goio goio tohe rehurehu.

The figure may be continued by two players as follows:

9. First player holds the figure towards his partner, right hand turned round towards him. Second player, with palms facing each other and fingers pointing down, inserts little fingers, from above, into the two triangles at first player's right hand (a,a); into the next pair of triangles (b,b) he inserts thumbs; he pushes thumbs onwards, under intermediate central diamond and upwards again into third pair of triangles away from him (c,c), his little fingers he inserts, from below upwards, into the last pair of triangles (d,d), against first player's left hand.

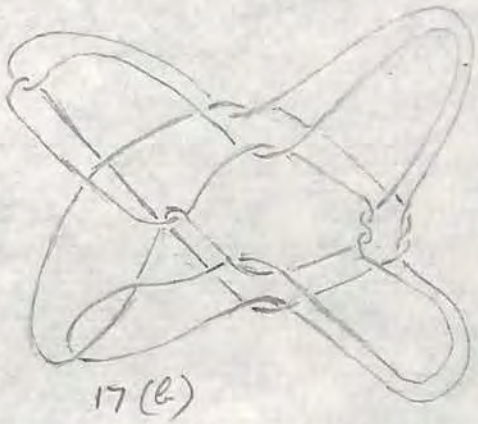
10. First player releases his hands. Second player extends

No. 11 17

Cont.

figure on thumbs and little fingers.

11. First player now takes loops off second player's little fingers with right and left hands respectively, holding hands palms up. First player holds his loops also with all fingers. The two work the figure back and forth until a double square appears in the centre.



17 (b)

12. The hold is now transferred to the four thumbs of the two players. The other fingers from underneath catch the square sides opposite their respective thumbs and pull them out, at the same time releasing the hold with the thumbs. This is repeated three times,, the thumbs retaking the hold before each shift.

13. The hands are now turned palms down, the figure is held from above, the square sides are pulled out from above three times, in a fashion similar to that of movement 12.

14. The figure is now laid on the lap. It will be found that two

No. ~~11~~ 17
Cont.

of the corners are not attached, the upper to the lower loops. In other words, the whole is a single figure, folded over on itself and it is possible for each person to take up two corner loops and stretch the figure out to double its length. This figure may be treated exactly as ar movement ~~10~~ 9 and the process may be repeated indefinitely.

This is identical with the Marquesas figure Tohiau.[11] There are a number of ways of making ~~the first figure, the three diamonds,~~ figure 17(a), figure 17(b), but the movements in ~~the second half~~ are identical, or nearly so, over a wide area. ~~An~~ Almost identical figures ~~is~~ are found in West Africa,[12] made by a totally different technique.[12]

No. 12 18

18. KOKIKOKIKO II

(Warbler)

Known throughout the western Tuamotus.

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, rotate index in radial direction and return to position.
3. Insert right thumb, from distal side, into index loop and return with ulnar index string; insert left thumb, from proximal side, into left little finger loop and return with radial little finger string.
4. With back of right middle finger pick up radial index string; insert left middle finger, from proximal side, into left thumb loop and return with ulnar thumb string.
5. Navaho thumbs.
6. Release little fingers.
7. To extend figure turn right hand away and up, left hand towards you and down.

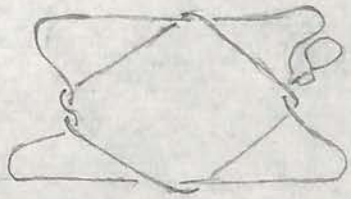


Figure 18

No. ~~12~~ 18
Cont.

The chief of Raroia, in making this figure, began with the following chant; as he ended it he completed the figure.

Kopega a Hiro

Ki ravarava ra e

Kokikokiko.

An almost identical figure is found in Northern Australia.[13]

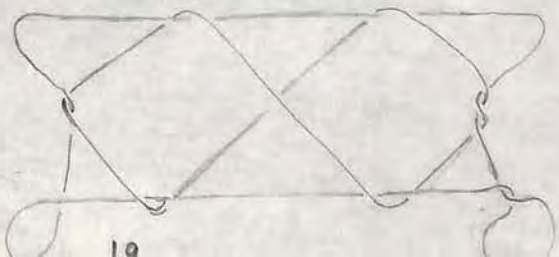
No. ~~13~~ 19

19. KORAIRAI

(Chaetodon Fish)

Known throughout Tuamotus. Called Papaka at Tatakoto, and Patiki at Reao.

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, rotate index in radial direction and ~~between~~ return to position.
3. Insert right thumb, from proximal side, into index loop and return with radial index string; insert left thumb, from proximal side, into little finger loop and return with radial little finger string.
4. Pass right middle finger proximal to ulnar index string and pick it up on back of middle finger; insert left middle finger from proximal side, into left thumb loop and return with ulnar thumb string.
5. Navaho thumbs.
6. Release little fingers.
7. Rotate left hand down and towards you until palm faces you, then bring right hand to left, palm facing outwards, until arms are crossed and hands are back to back with a figure of two diamonds between them.



No. ~~13~~ 19
Cont

An old woman of Hikueru called this figure Kokikokiko and gave the following chant for it:

Poke ga gahoro,
Namunamu,
Kakara hitohito
I ta ra'i kokikokiko.

Her daughter rendered the last two lines differently:

Kakara i toetoe,
Karaia kokiriko.

Our informant, Fariua of Fangatau and Hikueru, gave still a third version:

Pokiga i horo, pokiga i horo,
Nam, nam,[a] fakarai[b] toitoi[c]
Karaea,[d] karaea, kokiri ko.

There is an identical North Australian figure and a number of almost identical figures are found in various parts of the Pacific.[14]

~~XXXXXXXXXXXXXX~~

a. ~~1~~ nam, nam: feebly

b. ~~2~~ fakarai: to swim on side

c. ~~3~~ toitoi: a fish like a korari

d. ~~4~~ karaea: a certain fish.

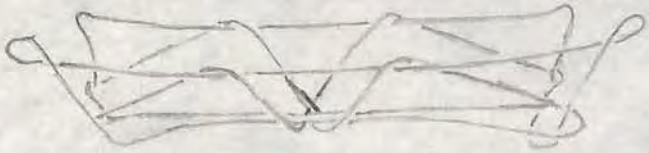
No. ~~18.~~ 24

20. HAVEKE TIRAGA

From Vahitahi

(Upright Canoe)

1. Position 1.
2. With left little finger pick up, from proximal side, right palmar string; pass right little finger, from distal side, through left little finger loop, pick up, from proximal side, left palmar string and return through left little finger loop.
3. Hold figure high, fingers pointing away, reach in with mouth, pick up ulnar little finger string which runs straight from hand to hand and pull towards you.
4. Insert indices, from distal side, into mouth loop, pick up right and left mouth strings respectively and release string from mouth.
5. Reach in with mouth, proximal to ulnar index string, and pick up crossed strings in centre of figure; release indices.
6. Pass indices to ulnar side of ulnar little finger strings, distal to all strings, then towards you proximal to all strings and, allowing figure to hand loosely, insert them into the square formed by the two transverse strings and two little finger strings; hook back the upper transverse strings, return to position and release string from mouth.



20

This is essentially the same figure as the Maori, the Pukapuka and the Gilbertese "canoe", the only difference being in minor details of technique.[15]

21. HAVEKE TIPAPA From Vahitahi

(Overturned canoe).

This figure is the reverse of No. 20.

1. Position 1.
2. With left thumb pick up, from proximal side, right palmar string; pass right thumb, from distal side, through left thumb loop, pick up, from proximal side, left palmar string and return through left thumb loop.
3. Rotate indices outward, down, towards you proximal to all intervening strings and insert into thumb loops from proximal side; hook back radial thumb string which runs straight from hand to hand and return to position.
4. With middle fingers draw out the two strings which cross in centre of figure between radial index and ulnar little finger strings, and put over big toe; release indices; the transverse string thus released should fall to the ulnar side of ulnar little finger string.
5. Bring indices towards you then rotate them proximal to thumb strings and insert into squares formed by transverse strings and thumb strings, hook back transverse strings nearest toe and return. Release strings from toe.
6. Saw hands gently and the figure appears.

Only in the Tuamotus apparently is the canoe made upside down.

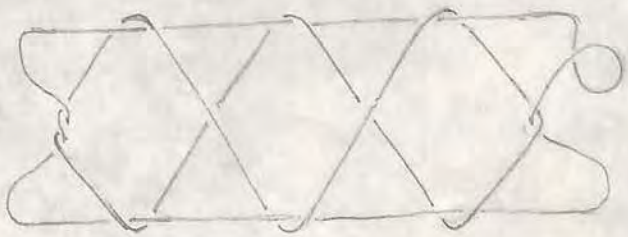
[It is a good deal easier if movement 5 is done by one hand at a time.]

Figure 21 is not illustrated, being identical with Figure 20 upside down.

22. PATANUKU

Known throughout the Tuamotus, but under different names. At Anaa, Faite, and Fagatau it is called Patanuku; at Vahitahi, Mata-hio-ragi; at Reao, Matagi-nui o Roke; at Hikueru, Manioraka; at Tatakoto, Tamaka-no-nihoe-raka; at Hao, Kahune; at Napuka, Mariko-ia-kaka, at Mangareva, 'aka-'ema'ema. The figure is undoubtedly ancient at Napuka, at least.

1. Opening A.
2. Release right hand.
3. Put tips of right thumb and little finger together, then insert from distal side into left index loop and transfer index loop to right hand and draw hands apart.
4. Insert right index, from proximal side, behind left palmar string and return to position.
5. Insert right thumb, from distal side, into right index loop and return with ulnar index string.
6. Insert left thumb, from proximal side, into little finger loop and return with radial little finger string.
7. With right middle finger pick up radial index string; with left index pick up ulnar thumb string and then Navaho thumbs.
8. Release little fingers, and extend by turning palms outwards.



No. 22
Cont.

The Anaa chant with this figure is:

Patanuku, te patanuku,

Te aragaraga, te aragaraga,

Patanuku, te patanuku,

Te aragaraga, te aragaraga.

The Raroia chant is:

Patanuku i te hiti kava e,

Puhipuhi uanei.

The Faite chant is:

Puhi e, tuki matanuku,

Te hiti kava puhi e.

The Fangatau chant is:

p. 35

Patanuku, patanuku,

Hauraria ra,

Te igoa taua fai nei

Ko patanuku.

No. 22
Cont.

The Hikueru chant is:

Manioraka, manioraka,

Te fai a tana tamahine nei, nei e,

Ko Manioraka.

The Takoto chant is:

Tamaka ra korokoro

No niho raka huti huti

No te ta kere e mea puta kohia,

Ia hoto.

The same figure, with only slight differences, is found in the Society Islands, Marquesas, Pukapuka, New Zealand adn the Gilbert Islands. The Tahitian figure is used for a game and the Maori figure proceeds to other figures.[16]

Austral Is, Caroline Is, Samoa, Solomon Is,

No. 23. **23. PATIKI** Seen only at Reao

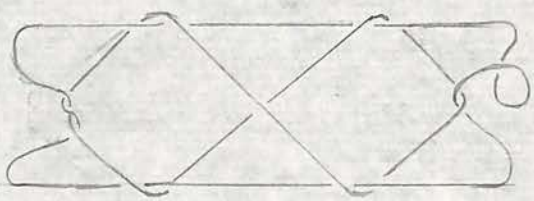
1. Perform movements 1, 2 and 3 of <u>Patamuku</u>, No. 22.

2 ~~4.~~ Insert right index from distal side behind left palmar string, twist towards you and up and return to position.

3 ~~5.~~ Repeat movements 5, 6 and 7 of Patamuku.

4 ~~8.~~ Release little fingers.

5 ~~9.~~ Turn left palm towards body and figure appears.



23

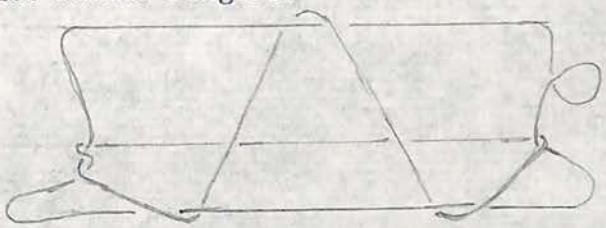
No. 24 **24. TE AVA RARO** Seen only at Reao

1. Perform movements 1, 2 and 3 of Patanuku, No. 22.

4. Lift off left little finger loop, untwist and replace.

5. Perform movements 4-7 of Patanuku, using both middle fingers at movement 7 and being careful to keep distal radial thumb strings near tips of thumbs.

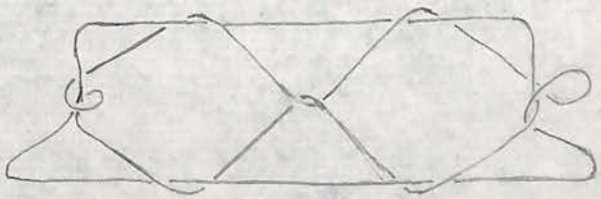
6. Release little fingers.



24(a)

Conversion (Kohiko haga) of this figure.

8. With indices pick up towards you straight string that runs across centre of figure and release middle fingers.



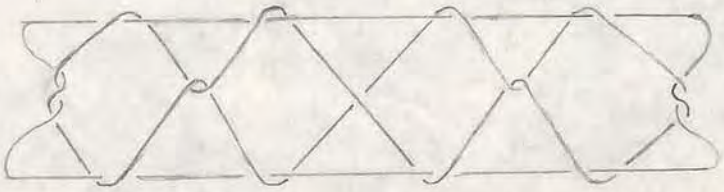
24 (b)

No. 25. 25. PUGA TAHETAHE From Anaa.

(Overflowing Spring).

Called Puhaga Toto at Vahitahi; Takama at Takoto and Puhaga Tautau at Amanu.

1. Opening A.
2. Release thumbs then pass them away from you proximal to all strings and return with ulnar little finger strings.
3. Insert thumbs, from distal side, into index loops, pick up ulnar index strings and release little fingers.
4. Bring little fingers towards you, distal to radial index strings, insert into thumb loops from proximal side and return with ulnar thumb strings; release thumbs.
5. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
6. Insert thumbs, from proximal side, into index loops, ~~between~~ at base of indices, return with radial index strings and Navaho thumbs. ~~ulnar thumb strings and palmar strings, Navaho thumbs.~~
7. Insert indices, from distal side, into triangles lying across thumb loops, release little fingers and turn indices away and up.



No. 25
Cont.

Paea says right and left diamonds represent springs; the two central diamonds, the flowing water.

His chant for this figure is:

Puga horohoro ki tai, horohoro ki uta;
Ko horohoro ki te vai ganuku[a], ko horohoro ki te vaiga kore.

This figure is identical with the Haeaiian "Four Eyes", method 2, and the Pukapuka "Te-kivi-a-te-kakai".[17]

a. ganuku; flowing.

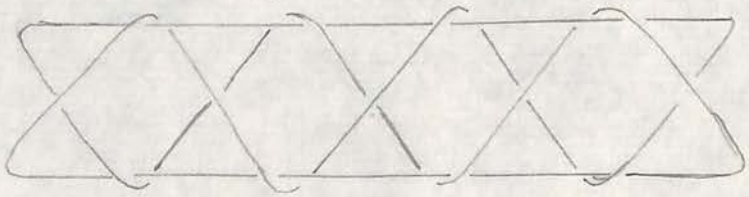
No. ~~29~~ 26.
~~Cont.~~

26. UIRA

(Lightning).

Given by Tetumu of Faite. Called Uira at Tatakoto, Amanu, Hikeru, and Raroia; ~~and~~ Hird at Napuka; ~~called~~ and Tukamo at Vahitahi.

1. Double the loop and put over hands onto wrists; arrange strings so that radial strings are crossed.
2. Pass thumbs away from you between the two ulnar wrist strings then rotate thumbs in ulnar direction carrying with them proximal wrist strings and as wrist loops slip off hands catch distal ulnar string with little fingers and rotate them towards you and up. There should now be little finger loops and crossed thumb loops.
3. Transfer little finger loops to thumbs.
4. Transfer thumb loops to wrists keeping distal strings distal.
5. Repeat movement 2.
6. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
7. Caroline Extension.



The Hikueru chant with this figure is:

Te uira, te napa, te napa,

Totoro, totoro, pū.

At Tatakoto the chant is:

Uira, Uira,

Kamo, kamo.

At Napuka the wrist loops are formed by first slipping a single loop over wrists, then allowing it to sag, passing left hand from radial and proximal ~~direction~~ side into loop near right hand and picking up on its back the radial string. Now lifting left hand high, bring right hand up into distal left hand loop from ulnar and proximal side and extend.

At Amanu the figure is worked by turning palms inwards and outwards to the accompaniment of bursts of laughter.

Except for the final extension this is identical with the Marquesas figure Kooi Ui'a.[18]

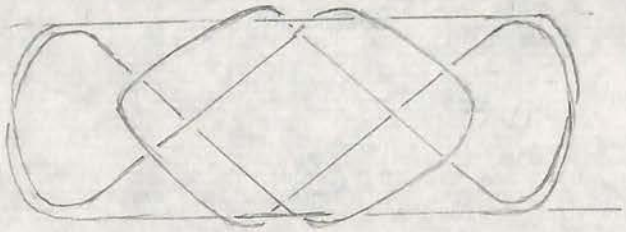
27. KANAUNAU

From Anaa

(a) Open

Universal in Tuamotus. Known by the same name at Napuka, Tatakoto and Reao.

1. Opening A.
2. Pass thumbs proximal to index loops, insert into little finger loops from proximal side, transfer little finger loops to thumbs and return to position.
3. Transfer index loops to thumbs.
4. Insert little fingers, from distal side, into thumb loops and hook down distal ulnar ~~index~~ thumb strings then insert little fingers from proximal side into thumb loops, pick up the two ulnar thumb strings and return to position.
5. Insert indices, from distal side, between palms and palmar strings, pick up palmar strings and release these strings from thumbs; turn hands down away from you, centre thumbs and figure appears.



27(a)

No. 30 27
Cont.
2

The chant now begins. At the end of each line one plays the figure by pulling with the thumbs. This is the Takaroan chant:

Kainaunau

Patia hua

Tuhakarere

Porohiti porohi a minomino.

Te raho te kaveti

Ka motu, ka motu tahiti

E memea tutu pahua

Ki te raho gutu e.

Kiri motu.

The Anaa chant, as given by Paea, is:

Ka naunau

Te patia hua

Tufakarere

Porohiti poro a miomio.

Ka motu, ka motu tahiti.

Tutu pahu

Ki te raho mui e.

Kiri hemo.

A chant for this fai heard at Vahitahi is:

Ka naunau ka naunau patia hua, hua rere;

Porohiti, poro a meamea, te mea of te vahine;

Heru e, heru e, panapana, tuauou hia, 'a uouo hia,

A mua titi, tutu pahua e te rahonui e,

Kere motu.

The Napuka chant for Kanaunau is as follows:

Ka naunau

Te ~~patiahua~~ patia hua

Tuhakarere,

Hora porohiti

Poro a meamea

Te mea o te kaveu

Tiaru e.

Paina, paina i te fare tia,

E motu ta hiti, e motu to vaevae.

Paea's brother chanted the last four lines as follows:

A mutu te raheo te kaveu
A mutu tahiti
Tutu pahua i te raho nuku e,
Kiri hemo.

Except for the final extension this figure is identical with the Society Islands figure U Tami. The Pukapuka figure Te-ponaunau, though made by a different method, has a similar chant.[19] This figure is also found on Rapa.

6. The thumbs are now slipped out and the figure extended.

Figure 27 b

7. The thumbs are then passed into the proximal side of the two inner loops and extended towards the operator. The figure is worked by bending the thumbs towards the palms and spreading the other fingers of the hand, then returning to the former position.

This opening and shutting movement is accompanied by repeatedly chanting:

Ki poru, ki faru,
Ki poru, ki faru.

(b) Closed.

1. Opening A.
2. Release thumbs.
3. Insert right thumb, from distal side, into index loop, rotate thumb down, towards you and up, carrying with it radial index string.
4. Insert left thumb, from proximal side into right thumb loop and return.
5. Repeat movements 2, 3, 4, 5 and 6 of (a) above.

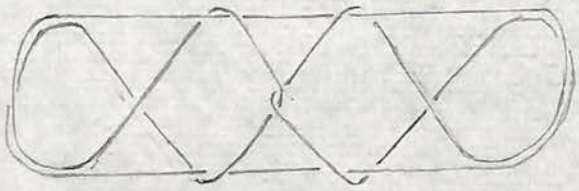


Figure 27(c)

No. 33. 28

28. MATUARERE

Seen at Napuka and Tatakoto. Known at most islands. Called 'Aka-ka'a Ka'a at Mangareva and Haguru at Napuka.

1. Opening A.
2. Pass thumbs proximal to index loops, insert into little finger loops from proximal side then rotate in ulnar direction carrying with them ulnar little finger strings; release little fingers.
3. Insert middle, ring and little fingers, from proximal side, into index loops and hold down radial index strings on palms.
4. Insert indices, from distal side, into thumb loops, turn away from you and up and release little fingers.

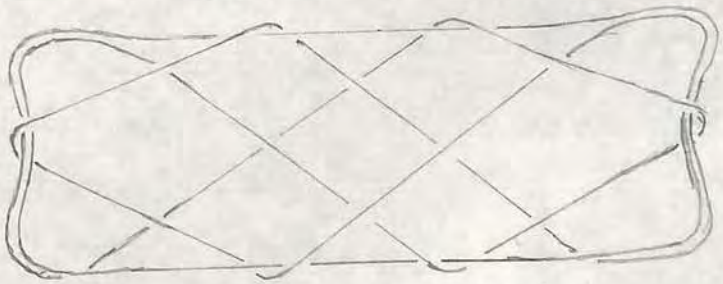


Figure 28 (a)

5. Bring little fingers towards you through central diamond, pass them distal to two diagonal strings, then proximal to radial thumb string, hook this string back through central diamond and release thumbs.

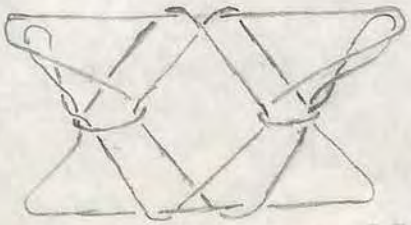


Figure 28 (b)

No. ~~33~~ 28
Cont.

6. Insert thumbs, from proximal side, into index loops, pick up radial index string which runs from hand to hand and release indices from all strings.

7. Insert indices, from proximal side, into little finger loops, spread fingers wide to extend figure, release thumbs, and strings jump up.

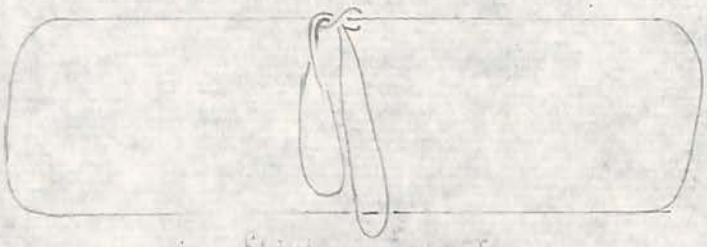


Figure 28 (c)

The Takaroa chant with this figure is:

Na vahine tete
E noho ana i te pae ava
Tuare tuare takere hiti
Kereponaio.

A Takapoto chant is:

Te noho ra Matuarere
I te pae ava, etc.

No. 33 28
Cont.

An Anaa chant is:

Rokohiatu Matuarere

Ki te pae ava

Tuare tuare takere hiti

Takurumaga kereponio.

Paea of Anaa explains that Matuarere was a person who went to the side of the lagoon pass to look for the arrival of canoes. When one came he ran and dived into the pass, swam under water, and emerged beside the canoe.

At Vahitahi we heard the following chant:

Reko hia'tu Matuarere	It is said, Matuarere
E noho ana i te pae keka,	Sits by the side of the path,
Tuarei, tuarei, takerehiti, tau!	.....

At Reao the first figure is called Tapaka Nui. The stage where the lower sides of the diamond are pulled down is called Mataratara, and the second figure is called Mamae. The figure is not worked before releasing into the last figure, which is called Te-tuarere-toku-tika. The last series of movements is not known at Napuka. p. 46

This sequence is found over a wide area. On Nauru, New Caledonia and Tahiti all three figures are made; in Australia and the Torres Strait Islands the middle figure is by-passed and in Fiji and the New Hebrides only the first two figures were found. On Pukapuka only the first figure was found.[20] It is also found on Rapa

29. KORAVA HITI

p. 26 cont.

This figure is called Korava Hiti at Vahitahi, Horahora at Anaa, Gigiti at Tatakoto and Torearea (a small turtle) at Napuka.

Method 1.

1. Opening A.
2. Pass thumbs distal to index loops and proximal to little finger loops and return with both little finger strings.
3. Insert indices, from distal side, into thumb loops, rotate indices upwards in ulnar direction and release thumbs.
4. Work thumbs, from proximal side, into proximal index loops, close to indices and enlarging loops, then slide thumbs up indices until they reach distal ulnar index strings, hold these strings between thumbs and indices and twist indices in ulnar direction, through proximal index loops back to position releasing thumbs. Extend figure gently.

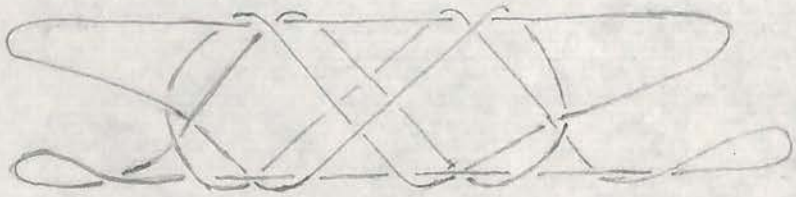


Figure 29 (a)

No. 34 29
Cont.

The Anaa chant with this figure is:

Hora hia ki tai,

Te uru moe ga Vahieroa,

Ka tamaku, Kapue-huehue,

Kotia te fara kura.

In this chant, hora means to die; uru is a group of stones; Vahieroa is the chant form of Vahivero; Kapuehuehue is the mother of Vahieroa; Te-fare-kura is where Vahieroa's navel string was cut.

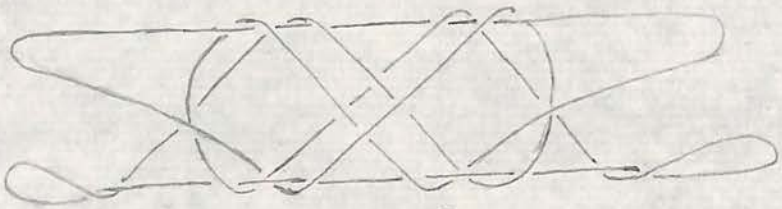
Two years later Paea said that Horahora, his name for the figure, was the name of a bare piece of land (tahuna) where games were played, and the figure was named after this place.

No. ~~34~~ 29
Cont.

Method 2.

Shown at Vahitahi and called Korava Haviri Piti (Korava twice twisted).

1. Opening A.
2. Pass thumbs distal to radial index strings, proximal to ulnar index strings, then distal to radial little finger strings and proximal to ulnar little finger strings; return to position with both ulnar strings.
3. Repeat movements 3 and 4 of Method 1 above.



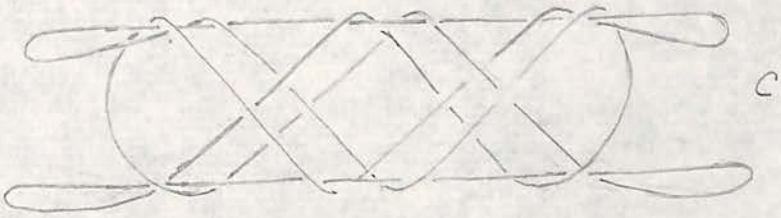
29 b

At Napuka, Torearea Paite (Torearea twice twisted) is made as follows:

1. Perform movements 1, 2 and 3 of Method 1 above.
2. ~~4.~~ Pass thumbs distal to two proximal ulnar index strings, then proximal to distal ulnar index strings and hold these strings against indices; rotate indices in ulnar direction between proximal ulnar strings and three radial strings allowing all but held ulnar string to fall off indices.

No. 34 29
Cont.

3-5. Pass thumbs, fromproximal side, through index loops, then proximal to distal ulnar index strings, hold these strings against indices; rotate indices in ulnar direction through proximal loops and return to position.



29c

No. ~~34~~ 29
Cont.

Retype

54
100

29. Method 3.

Shown at Vahitahi and called Korava once twisted.

1. Opening A.
2. Pass thumbs, from proximal side, through index loops then proximal to little finger loops; return with both little finger strings and radial index strings.
3. Repeat 3 and 4 of Method 1. write in full omitting piece about tongueing loops

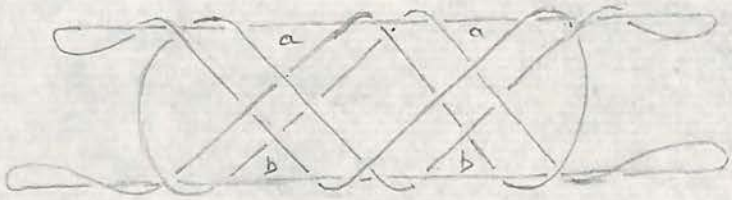


Figure 29d

Conversion of Korava into Tifai Mananiai.

Korava may be converted into (kohiko hia) Mananiai in the following manner.

4. A second person, facing the maker, conceives of the central diamond as one bounded by double strings and ~~with his indices he pushes inward~~ (from the point marked by arrow on the ~~figure) the outer string~~ until ~~his conception~~ this is clearly apparent. and arranges the figure as [illegible]

Then he inserts his indices into the inverted triangles on either side of the upper half of the central diamond bounded by a double string, at a, a, and he inserts his thumbs into the triangles on either side of the lower half of the diamond at b, b.

5. The original maker then lets go his hold, and the new player turns the tips of his indices and thumbs, from proximal side, up into the central diamond and extends. There is now a large central diamond framed in a double-sided rectangle.

6. Thumbs and indices are now turned back into the new central diamond from distal side and the figure extended. This makes Tifai Manania.

These figures, though not identical with any other, ~~figure~~, are essentially the same as the Maori Koura, the Caroline Islands "Circles and Triangles, the Gilbertese Te Itu ma te Kaeko and the Tikopian Kaunga Tete Maori.[21]

30. HORAHORA

From Vahitahi.

1. Opening A.
2. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and rotate thumbs in ulnar direction carrying with them ulnar little finger strings and releasing little fingers.
3. Bring little fingers towards you proximal to index loops. Insert into thumb loops from distal side and hook down ulnar thumb strings; insert middle fingers, from proximal side into index loops and hook down radial index strings; bring indices towards you distal to radial thumb strings then hook back these strings through index loops releasing original index loops and middle fingers.
4. Release thumbs.

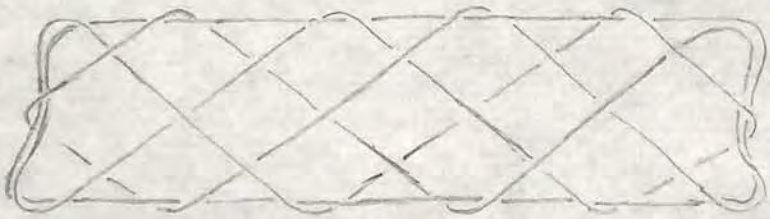


Figure 30

The chant with this figure is: p. 51

<u>Horahora hia mai te puta o Fatukore</u>

<u>Aue paneke paha vau ki te puta e Kuporu.</u>

Except for variations in extensions an identical figure is found in the Marquesas, Society Islands, Pukapuka, Fiji, the Gilbert Islands and Tikopia.[22]

Austral 93. Rapa - N.Z.

31. PURIRI From Vahitahi

Called Te-Ure-o-Tihi at Fangatau.

1. Opening A.
2. Transfer index loops to ring fingers and thumb loops to middle fingers. To make new index loops insert right index, from distal side, into middle finger loop, pick up radial middle finger string and return to position; insert left index, from proximal side, into right index loop and extend hands.
3. With opposite hand transfer index loops to middle and ring fingers, then transfer little finger loops also to middle and ring fingers.
4. Navaho middle fingers with proximal radial strings, and ring fingers with proximal ulnar ring finger strings.

31

5. Hold hands with fingers pointing away, then take in mouth the double strings which run across centre of figure. Draw hands away from mouth until palms meet. Release all fingers and pinch the bundle of four double loops at their stem with right hand, then hold mouth loops in left hand.

This figure is found in the Marquesas, North Queensland, Fiji, and Tikopia, ~~and Pukapuka~~, with a variety of final movements.[23]

32. NA PURORO

First learned at Vahitahi, where by some it is called Peketu. The figure, as it is at the end of movement 6, is known as Kahui (Pandanus Food) or Kahuri Fara (Bunch of Pandanus Drupes) at Reao, and Ka'ui 'Ara at Mangareva. This is as far as they go with the figure.

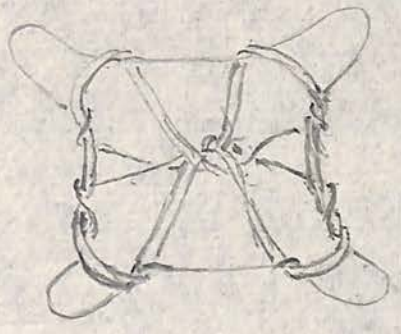
1. Perform movements 1 to 4 of Puriri making a new thumb loop instead of a new index loop at 2.

2 ~~5.~~ Insert indices, from distal side, into middle finger loops and pick up towards you radial middle finger strings; insert little fingers, from distal side, into ring finger loops and hook down ulnar ring finger strings; release ring and middle fingers and extend on indices and little fingers.

3 ~~6.~~ Rotate indices towards you, then away between double strings which run from hand to hand in centre of figure.

4 ~~7.~~ Insert thumbs, from proximal side, into little finger loops, then hook down the remaining string running from hand to hand, return through little finger loops and release little fingers.
The resulting figure is like a four-leafed clover.

No. 37 32
Cont.



32

The chant with this figure is:

Na puroro,

Hiaki ana te hi vavae,

Tuku iho ana te hi vavae;

Na puroro te numiga,

Tu iho te tohe,

Numinumi te vae roha.

33. KAHURI FARA

Seen only at Reao

(Pandanus Fruit)

1. Opening A.

2. Transfer index loops to ring fingers and thumb loops to middle fingers. To make new index loops insert right index, from distal side, into middle finger loop, pick up radial middle finger string and return to position; ~~turn up towards you then~~ insert left index, from proximal side, into loop around right index and extend hands. Make new thumb loops in a similar manner.

3. Transfer thumb loops to index, middle and ring fingers, then transfer little finger loops to same fingers. Navaho indices with proximal radial strings and Navaho ring fingers with proximal ulnar ring finger strings. With opposite hand grasp proximal dorsal string of middle finger loop and lift over double dorsal strings and over tip of finger.

4. With opposite hand pull out the palmar middle finger string, then grasp all loops near fingers and slip the three different loops off, give them a half ulnar twist and insert thumb, index and middle finger into the loops, beginning with thumb and inserting it into former ring finger loops.

33

5. The figure has a double string running from hand to hand between thumb and index fingers and another between index and middle fingers. Pull these strings out with mouth, making the two <u>taringa</u> (~~bunch~~ stems of the bunch of pandanus fruit). Just before pulling out strings say "<u>Kahui puku</u>" (green pandanus fruit); then on pulling out say "<u>Kanakana</u>" (ripening), then "<u>Wawa</u>" (ripe).

No. 39. 34

34 KERI KANOE From Anaa.

(Squid Hole).

At Tatakoto the figure is called Fare Tinarima and is made with the opposite hand; it is also continued into Hakari (coconut) by releasing proximal index string.

1. Opening A.
2. Twist left hand outward, down, towards body, and up, palm upward. With left index finger pick up from distal side and take off on to left index the right index loop.
3. Return left hand to original position.

34

The Anaa chant with this figure is:

Na te kanoe,	Oh, squid, glide out,
Ka teka noa mai,	I will carry you.
E hapai atu ra vau u i e.	

This figure is probably an introduction from Tahiti, though it is known from one end of the Tuamotus to the other.

1. Double loop and place it around neck.
2. With right hand pull out one loop and place it in Position 1 on left hand.
3. With right hand take the ulnar little finger string and wrap it a number of times around left thumb and little finger.
4. Then with right hand take hold of the remaining neck loop, ~~and~~ thread the end of it through the thumb-little finger loops from the distal side and hold in right hand. Withdraw left thumb and little finger, extend and arrange diamonds.

Illustration here → Space release

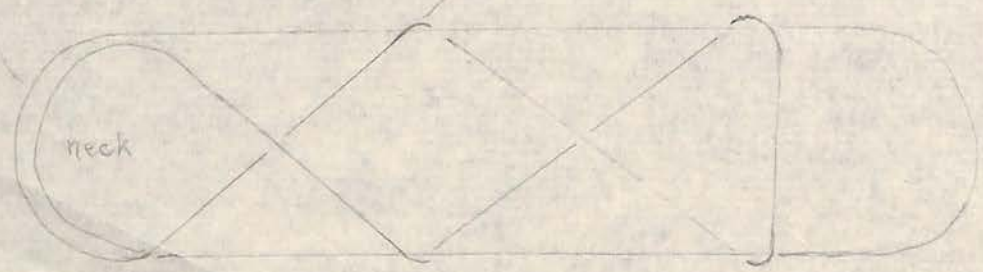
35

The Vahitahi chant with this figure is:

Moua Puta haapii te reo fafaru;

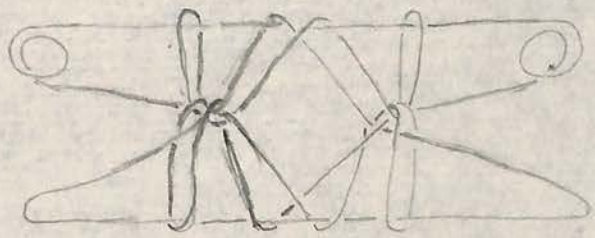
OR

Tare mai to mou'a puta	Let your pierced mountain come,
Haapii mai te reo farani.	Teaching the French Language.



Called Hiwe at Reao. **This is the mythical eel Tuna which figures in many tales.**

1. Opening A.
2. Twist each loop once in ulnar direction.
3. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
4. Bring indices towards you distal to all strings then insert into proximal thumb loops from distal side and lift proximal loops only off thumbs thus transfering them to indices.
5. Twist indices once in ulnar direction round their distal ulnar string (to anchor string firmly to index).
6. Carefully release thumbs and little fingers, leaving loops hanging. Bring little fingers towards you proximal to all strings then pass through hanging thumb loops away from you, hook back hanging little finger loops and pull through thumb loop.
7. Lift proximal index loops (with mouth or in any convenient way) over distal loop and over tips of indices. Extend figure.



No. ~~42~~ 36.
Cont.

The Anaa chant with this figure is:

Ko tuna ki te pepenu ko roaroa,	O Tuna of long head,
Ka horo tipukupuku ki te mahiga haga.	Wriggling along with curved tail.

The Faite chant is:

Kai hemo ia ko tuna ia,

Keria mai te keri hakari

Ki eri poa.

Ninanina hia, takataka hia,

Kikiri tia mai te gaere moka iraro.

The Society Islands figure Moua Puta has almost identical movements, which, however, produce a muddled figure and it seems likely that the informant made one incorrect movement.[24]

No. 43 37.

37. KEIGA O TUNA

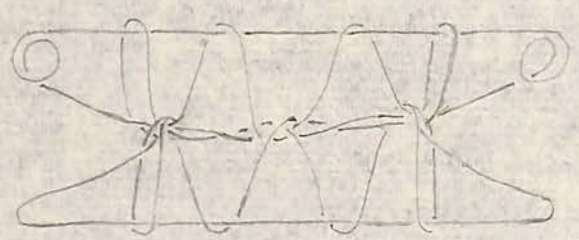
From Anaa

(Bones of the Tuna).

Called Keiga Tarava at Vahitahi.

1. Position 1.
2. Bring right hand to left, insert right index finger, from distal side, behind left palmar string, twist towards you and up and return to right.
3. Pass left index finger, from distal side, through right index loop, insert behind right palmar string from distal side, twist towards you and up and return to position.
4. Twist all loops once in ulnar direction.
5. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
6. With opposite hand pick up proximal radial thumb string, lift it over tip of thumb and wind once round index finger in ulnar direction.
7. Carefully release thumbs and little fingers allowing their loops to hang; pass thumbs away from you through hanging thumb loops and bring the hanging little finger loops back through them.
8. With opposite hand remove proximal index loops.
9. Turn hands with palms outwards.

No. 43 37
Cont.



37

Tetumu of Faite gave me this chant for the figure:

Peka hia te ivi no Tuna, e ri,

E kua oti hia, peka hia.

This figure is identical with the Society Islands figure Te Ivi o Tuna.[25]

No. 44. 38

38. URE O HIRO From Anaa

(The Penis of Hiro)

1. Put single or double loop over big tee and insert both hands into loop from proximal side.
2. With thumb and index of each hand pick up ulnar dorsal strings which run to toe.
3. Slip hands out of dorsal strings and arrange figure to represent Ure O Hiro (The Penis of Hiro).

38

The chant with this figure is:

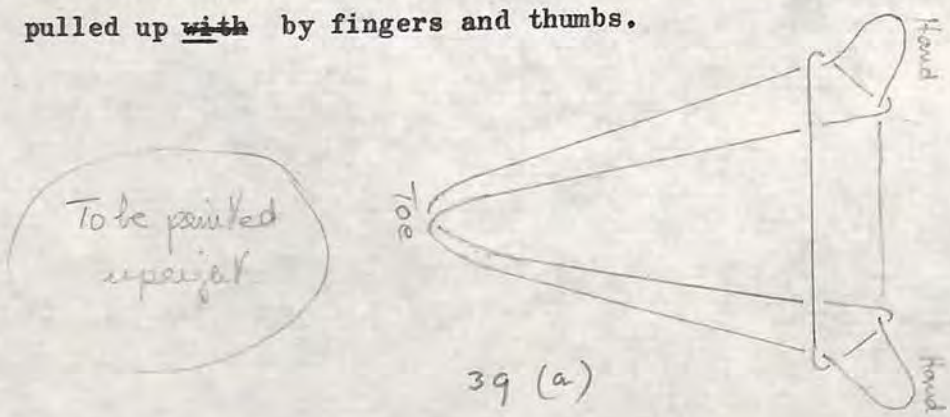
Ko te ure roa ki aragaraga ka taea te hutu kio togotogo.
Ka mau ai te rereka.

At Vahitahi a very elaborate figure was made and called Te Ure O Tonga in which the male sexual organ was represented realistically.

No. ~~45.~~ 39 39. NA PARAOA From Anaa

(Two Whales)

1. Twist the string once round the big toe of the right foot.
2. Insert each hand, from proximal side, through the free upper portion of loop, bend each hand outwards over its respective side string, then rotating the hands first downwards and then inwards towards one another, pass them again through the loop from the proximal side and back to an upright position. A double loop now passes across the back of each wrist and once across its inner side.
3. Bend the hands down and catch hold of the string crossing the upper surface of the big toe with index finger and thumb of each hand; pull up the loop as far as possible, running the cord through the fingers as the hands draw apart and allowing the wrist loops to slip off over the strings that are being pulled up ~~with~~ by fingers and thumbs.



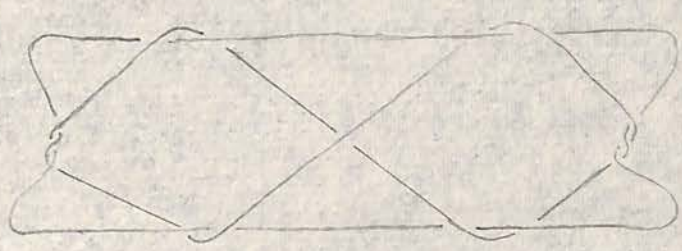
39 (a)

This is identical with the Fijian Wangga-ni-Viti and the Tongan Ipu Sioata. It is also the same as the New Caledonian "Nameless".[26]

Te Nohohaga o Na Paraoa (The Habitat of the Two Whales).

4. Replace indices by thumbs, inserting thumbs from proximal side.
5. Insert little fingers, from proximal side, into small lateral triangles, then, carrying the ulnar transverse string on their backs, insert little fingers down into long loop and under outside string.
6. Slip out toe and extend figure.

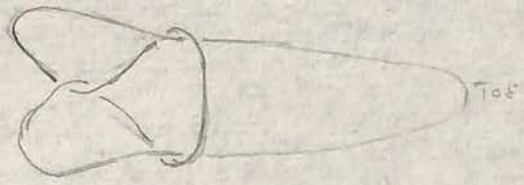
No. 45 37
Cont.



39 (b)

Paea says this figure is made in commemoration of the two whales which carried Hina to the land of Tinirau, and Kae to his home. An interesting version of the figure, shown me by Paea, was made as follows:

1. Put one end of loop over big toes.
2. Holding other end of loop in one hand, twist it on itself.
3. Insert hands from proximal direction into the end of the loop near body.
4. Rotate hands outward and down so that the string is wrapped almost completely around the wrist.
5. Pass hands into toe loop from proximal side and between thumbs and index fingers pick up toestrings and pull them through wrist loops as these are slipped off. Extend.



39 (c)

40. FAFARUA From Anaa
(Devil Fish)

1. Put loop on big toe and make one turn around toe with right hand string.
2. Put both hands into long loop from below; over the side strings of the loop, down, towards body and up on near side of near end of loop.
3. With both indices pull out toe dorsal string, slip wrist loops off wrists and let them fall upon the string held in hands.

40 (a)

The Tuamotuan chant, as given by Paea of Anaa, is:
Fafarua te fafarua, karearea te karearea. (Repeated once)

This figure is identical with the Hawaiian Umeke Ai o Hina.[27]

more space

(b) Nohohaga Fafarua (Dwelling place of the devil fish)

4. Replace index fingers by thumbs, inserting thumbs from below.
5. Insert little fingers, from proximal side, into small lateral triangles, then carrying the ulnar transverse string on their backs, turn little fingers down into long loops and under outside string.
6. Slip out toe and extend. Drop little finger loops.
7. Insert all fingers into thumb loop from distal side and, turning hands with palms towards each other, extend gently. The resulting figure consists of two central loops.

40 (b)

No. ~~48.~~ 41

41. KOMO KO TE ARIKI

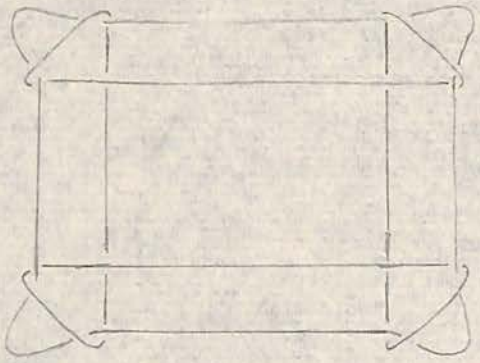
From Anaa

(The King's Well)

Called Paraoa in Napuka and Raroia; also known as Komo Hekeheke in Raroia.

1. Two players with a string each make Opening A.
2. Facing each other, players lower their hands. First player inserts his whole hand, from distal side, into second player's index loops and returns with those loops on his wrists; second player does the same.
3. First player now removes his hands from all loops, gathers up the hanging strings and wraps them round and round the strings between second player's hands. p. 84
4. First player, with his right hand, removes loop from second player's left thumb and, with his left hand, removes the loop from second player's little finger.
5. Second player releases his left hand from the wrist-loop, then picks up with it his right thumb and little finger loops. He then releases his right hand from wrist loop and takes the former little finger loop. The players now draw their hands apart, working the strings until centre is unravelled and figure appears.

No. ~~48~~ 41F
Cont.



41

Paea of Anaa says the large central square area represents the spring of the chief, and the four triangles formed in the corners, the komo hekeheke, for commoners.

At Anaa I showed this figure to a group of natives, who declared that the name Komo ko Te Ariki belonged to fai No. 40 and that the correct name for this figure was Na Fare (The Houses). Paea also called the figure Komo Rikiriki, saying that it was so called because the four little wells in the corners represented the bathing pools of the commoners (tagata rikiriki).

This figure is found in Australia, New Zealand, the Marquesas, Hawaii, Oceania, Caroline Islands, Gilbert Islands, New Guinea and Tikopia. The method of construction is the same everywhere but the ~~fingal~~ final extension varies. 28

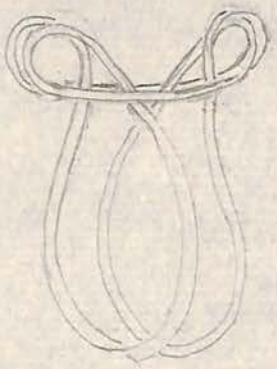
No. ~~49~~ 42.

42. FAI TAHEMO

Called Fai Tahemo (slip figure) at Amanu and Tatakoto. Paea of Anaa gives it the name Arero o Tavaka (Tongue of Tavaka, a character in the legend of Rata).

1. Double the loop and hold in both hands with hands back to back, fingers pointing down and thumbs free.
2. Spread fingers of left hand as wide apart as possible, then turn them upright, allowing the radial strings to fall between the index and middle fingers, the ulnar strings between the ring and little fingers.
3. Turn palm of left hand away from body. Pass thumb proximal to index and little finger string then bring them back on back of thumb and turn palm again inward.
4. With left little finger pick up proximal left thumb strings (the two that run from dorsal side of little finger and around the dorsal side of thumb).
5. Twist loop between hands by turning right hand towards you palm up then draw hands together and slip right hand loop over left index.
6. Lift off left thumb loops with the right thumb and index finger. Pull the loops out to the right and let ~~it~~ them fall so as to appear as in fig. 42. This is the tongue of Tavaka.

No. ~~49~~ 42.
Cont.



42

7. Carry the "tongue" up over to the back of the left hand, between index and middle fingers, and let it fall free.
8. With index and thumb of right hand, pick up double palmar strings and pull out to right. This unravels all strings from left hand.

The tongue is the bait thrown out to take a certain demon shark. When the line is pulled in (movement 8), behold, the tongue has been taken.

The Anaa chant with this figure is:

<u>Ko te arero nui o Tavaka, ei tanoka ki te mago Roaiheikapu;</u>
<u>E ka te neki ki Maugatefara.</u>

The tongue of Tavaka is a bait for the shark Roaiheikapu.
The oven is heated at Maugatefara.

No. ~~49~~ 42
Cont.

The story is that Hitihiti and Rekareka go to spear this shark. The first spear thrown is broken; the second wounded the shark, which now lies on its side in the heavens (this shark is now the Milky Way) with the spear in its side (the spear is represented by stars). Chagrined at their lack of success, they go to the oven prepared for the shark and throw themselves upon it. The tongue of Tavaka was the only bait which would attract this shark near enough to be speared.

Similar figures are found in New Zealand, the Marquesas, Hawaii and Papua, using a variety of methods of construction.[29]

43. TAURA O TAVAKA
(Tavaka's rope)

From Anaa.

Called Na Raho Tava (Tava's Testicles) at Vahitahi; Hamore at Reao.

1. Opening A.
2. Transfer index loops to ring fingers and thumb loops to middle fingers. To make new index loops insert right index, from distal side, into middle finger loop, turn towards you and up then insert left index, from proximal side, into loop round right index and draw hands apart.
3. Pass thumbs proximal to all strings and return with ulnar little finger strings.
4. Pass thumbs distal to radial index strings and proximal to ulnar index strings, distal to radial middle finger strings and proximal to ulnar middle finger strings, then distal to both ring finger strings and proximal to radial little finger strings, return to position with radial little finger strings and ulnar middle and index strings.
5. Insert indices, from distal side, into thumb loops and, keeping them pointing down, draw the three ulnar thumb strings back to palms; insert tips of indices behind palmar string and pick it up; release thumbs.
6. Transfer distal index loops to thumbs.
7. With opposite hand put radial index string over thumb and Navaho thumb.
8. Insert indices from distal side, into triangles lying across thumb loops, release middle, ring and little fingers then turn indices away and up to extend figure.
9. Release loops caught in top string and arrange figure as illustration.

No. 51 44 44. KUTAMI From Anaa;

1. Position 1.
2. Pass indices proximal to ulnar little finger strings, pick them up and return to position.
3. Pass thumbs distal to radial index strings and proximal to ulnar index strings and return.
4. Navaho thumbs. This figure may be worked by spreading and closing fingers.
5. Insert right thumb, from proximal side into left thumb loop and release left thumb; insert left thumb, from proximal side, into proximal right thumb loop and lift it off right thumb, thus exchanging thumb loops.
6. Point hands outwards and place thumbs midway between index fingers and thumbs; work figure by lateral pressure and release of pressure on the part of the thumbs. The central diamond opens and shuts.

p.69

44

The Anaa chant with this figure is:

Kutami e kutami te hika o te vahine,
Kia mau mai hoki te reka ki tana hutu.
Kauehe, kua reka!

The Vahitahi chant is:

Aore to tohe koromiko.

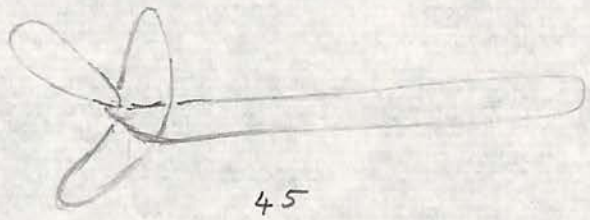
The figure produced at movement 4 is identical with the Maori Toemi, the Marquesan Popo Tikaue, the Hawaiian Ole-amo C, the Pukapukan Te-kolemu-yengiyengi and the Gilbertese Nei ni Kauki.[30]

The Gilbertese [illegible]

No. ~~52~~ 45

45. KI FARU

1. With one hand only perform Movements 1 to 4 of Kutami (No. 44).
5. Work the figure by spreading and closing the fingers whilst holding hanging strings with free hand.



The chant with this figure is:

Ki farufaru[1a] te tupoupou[2b],
ki farufaru te tupoupou,
e ê ka kapi[3c] ra, ka kapi ra.

a 1 open up
b 2 buttocks
c 3 fill.

No. 53 46

46. KO PEKA
(Crossed)

From Anaa

Called at Vahitahi a <u>fai taheme</u> (slip trick).

1. Hold left hand in a horizontal position, thumb pointing upwards. Place loop over hand, including tip of thumb, so that there is a palmar and dorsal string.
2. Insert right index, from proximal side, under palmar string; pass it between left thumb and index, distal to dorsal string then bending index over this string hook it under first joint and pull gently towards you until there is a loop about two inches long passing under the radial thumb string. Now turn index towards you and up and putting tips of indices together allow loop to slip on to left index. Pull dorsal string tight.
3. Repeat 2 between each pair of fingers.
4. Release left thumb; gently pull palmar string and all loops come undone.

46

This trick is now made all over the world.

No. ~~54~~ 47

47. TE ANA O TE MAGO
(Cave of the Sharks).

From Anaa.

1. Grasp loop in left hand.
2. With right hand take either left or right string and form a loop about three inches in diameter.
3. Grasping the juncture of the loop between thumb and index of left hand, to free right hand, with thumb and index of right hand make a complete twist of the string running to the right around the string running to the left. Reach into the loop with the right hand from the opposite side and, taking hold of the string leading off to the right, pull it through the loop until the loop is suspended between (and around) the upper and lower string of one end of the main loop.
4. In the same manner form a loop on the other end of the main loop.

47

The chant with this figure is:

Ko mago koe ki te rua koveoveo,	You shark in the cave
Mihiga o Hina-tepipiro.	stinking with the urine of Hina-tepoporo.

~~Marama Hiti Iruga is converted into this figure~~.

48. MOKO (Lizard) From Anaa

Called Moko in the west, Kuoni at Takakoto, Akatorea at Mangareva.

Method 1

(a) Moko Puna

1. Opening A.
2. Insert indices, from distal side, into little finger loops and return with ulnar little finger strings, then insert into thumb loops, also from distal side, pick up radial thumb strings and release thumbs.
3. Rotate indices in ulnar direction, carrying with them radial little finger strings, and complete the circle.
4. Insert thumbs, from distal side, into index loops and transfer these loops to thumbs.

48 (a)

(b) Te Nohohaga o Na Moko (The dwelling place of the Lizard)

5. Pass indices distal to ulnar little finger strings, hook them up in crook of indices and keeping indices pointing down insert them into thumb loops from distal side; turn away and up and release thumbs.
6. Rotate indices in ulnar direction, through little finger loops from distal side, and complete the circle.
7. Insert thumbs, from proximal side, into double index loops, spread thumbs and indices wide apart and release little fingers.

48 (b)

(c) Moko Horohoro (Running Lizard)

Called Kuoni at Amanu and Vahitahi; Te Tohe a Kuriri (The bobbing of the tail of the Kuriri bird) at Tatakoto.

8. Insert little fingers, from proximal side, into central "V" of figure, bend little fingers over their respective string, pull down to palms and release indices.

48 (c)

9. The figure is put into action by inserting left index away from you into left lower corner of figure, releasing thumbs and running the boundary string in a counter-clockwise direction by inserting right hand towards you into right side of figure and pulling with little finger. After the left double loop has passed over left index it is run back to its original position by pulling with right thumb and index. The right loop represents the head and the left loop the testicles of the lizard. It is pulled back and forth to the accompaniment of the chant. p. 74

A horohoro ra mo'o;
Te tatuketuke ra moko;
Kua reka, kua reka no moko e.

The Takaroa chant is:

A horohoro raa moo;
Te a'ua'u mo'o;
A horo rate, a horo rate,
Ahoro ra mo'o.

The Tatakoto chant is:
E upoko ti, e upoko ta,
Te raro mai to te pahi tena,
Tirotiro anai oe.

This figure is the same as the Pukapuka Tikonikoni; it is also found in the Society Islands, Hawaii, Malaita and New Zealand with some minor differences in working and extension. In the Gilbert Islands it proceeds to a totally different figure.[31]

Austral 30

Method 2

A less adroit method of making the figure was taught me by an old lady of Takaroa and was shown me again at Vahitahi.

1. Repeat movements 1 to 5 of Method 1.
2. ~~6.~~ Twist indices once in ulnar direction.
3. ~~7.~~ Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
4. ~~8.~~ Insert little fingers, from proximal side, into index loops, hook down radial index strings to palms and release thumbs.
5. ~~9.~~ Transfer little finger loops to thumbs.
6. ~~10.~~ Repeat movements 8 and 9 of Method 1.

The woman who demonstrated this slid the figure with the left hand instead of the right.

When in movement 6 the index loops, instead of being twisted in an ulnar direction as in the above fai, are twisted in the radial direction to continue on to Komo Rikiriki and the Turi, then all steps in the above fai, as made by the old Takaroa woman, must be ~~continue~~ followed to continue the figure. No short cuts are possible. Hence this method is probably the original way of making Moko; the short cut known everywhere else in Polynesia being of later adoption. On the other hand, the influence of the Turi fai may well have caused the woman to forget the short cut. She was an hour trying to remember the fai Moko Horohoro.

Method 3

At Vahitahi I was told of three methods of making this figure. Two of them proved to be the two methods so far described. In the third the movements are exactly the same as in Method 1 except that in movement 2 index fingers pass proximal to little finger loops and pick up both strings; in movement 3 indices are simply rotated once in ulnar direction; in movement 8 the two sides of the central "V" are pulled down as in Method 1 disregarding the other strings lying distal to it.

49. MOKO TARIGA

From Anaa

Also known as Moko Kopu Toreu at Anaa; called Tariga Moko, or Moko Tariga, at Vahitahi and Tatakoto and Moko simply at Mangareva.

(a) Komo Rikiriki (Little Waters or Springs)

1. Repeat movements 1 to 5 of Moko, No. 48.

2 ~~6.~~ Rotate indices once in radial direction.

3 ~~7.~~ Pass thumbs proximal to index strings, insert into little finger loops from proximal side and return with radial little finger strings.

4 ~~8.~~ Insert little fingers, from proximal side, into index loops, hook down radial index strings allowing little finger loops to slip off, and release thumbs.

49(a)

(b) Na Tariga Moko (Lizard Ears)

Only known by this name at Vahitahi.

5 ~~9.~~ Transfer little finger loops to thumbs, inserting thumbs from proximal side.

6 ~~10.~~ Insert little fingers, from proximal side, into left and right upper central diamonds a, a, hook down outer, lower strings of these diamonds b, b, on to palms, release indices and extend.

7 ~~11.~~ Insert indices, from proximal side, into that thumb loop which has its ulnar string running from hand to hand, and release thumbs from both loops.

49(b)

The Tatakoto chant with this figure is:

E moko, e moko, e kaki,
E moko, e moko, e kaki.

The Pukapuka series Paiokiole is the same to movement 7 ~~11~~ but then proceeds to three more figures.[32]

50. TURI From Anaa

This stands at the head of the Tuamotuan classical fai known today in the western part of the Tuamotus. It was not known at Vahitahi but I saw it at Hao. more to p. 90 ~~It~~ The Turi series can be made as a continuation of Moko No.48 or Moko Tariga No.49 by reverting these to Moko Puna No. 48(a). This reversion is done simply by reinserting little fingers in the opposite direction into their own loops then inserting thumbs, away from you, into the corners of the large central diamond or triangle and pulling out the loops at the side by lateral tugging, withdrawing index fingers. Continue by performing movement 5 of Moko and movements ~~6~~ 2, ~~7~~ 3 and ~~8~~ 4 of Moko Tariga, this makes Komo Rikiriki No. 49(a) which is also the figure after movement 8 of Turi.

(a) Te Poupouoga o Turi (The Canoe Shed of Turi)

1. Opening A.
2. Insert indices, from distal side, into little finger loops and return to position with ulnar little finger strings, then insert into thumb loops, also from distal side, pick up radial thumb strings and release thumbs.
3. Rotate indices in ulnar direction, carrying with them radial little finger strings, and complete the circle.
4. Insert thumbs, from distal side, into index loops and transfer these loops to thumbs. This makes Moko Puna, no. 48(a).
5. Pass indices distal to ulnar little finger strings, hook them up in crook of indices and keeping indices pointing down insert them into thumb loops from distal side; turn away and up and release thumbs.
6. Rotate indices once in radial direction.
7. Pass thumbs proximal to index strings, insert into little finger loops from proximal side and return with radial little finger strings.
8. Insert little fingers, from proximal side, into index loops, hook down radial index strings allowing little finger loops to slip off and release thumbs. This makes Komo Rikiriki, no. 49(a).
9. Insert thumbs away from you into central diamond, hook thumbs under single upper bounding strings on either side of it (the strings which run to base of figure) and bring to right and left back to position.

10. Insert thumbs, from proximal side, into index loops and on back of thumbs draw double radial index strings through thumb loops; release indices and transfer thumb loops to indices.

50 (a)

The chant with this figure is:

Taku popouoga ra, ko te puniga ia o Turi.
Ka puagiagi[a] na matagi Putagi[2]tua.

[a] puagiagi: to cool.

(b) Na Pofaki o Turi (The Marae Stones of Turi)

11. Insert thumbs up into sloping loops at base of figure; transfer right thumb loop to left thumb, then insert right thumb, from proximal side, into left thumb loop and draw thumbs back to position.
12. Repeat movement 10.
13. Insert thumbs, away from you, into central "V", hook back strings on either side of thumbs and return to position.
14. Repeat movement 10.

50 (b)

The chant with this figure is:

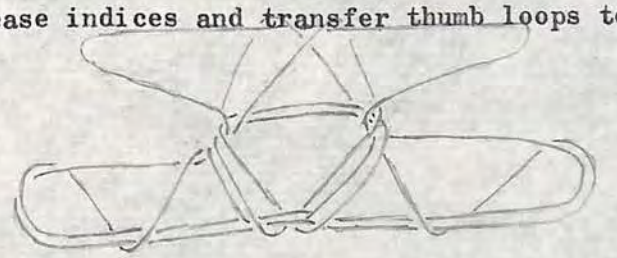
Ko te marae pofaki ki te turaga[b] o Turi,
Ki te matagi Putagirua.

[b] turaga: dwelling place.

No. 58 63 50
(Cont.)

(c) Te Nohoraga o Turi (The Dwelling Place of Turi).

15. Wrapped around the base of each of the two representations of an upright stone of a marae, and also wrapped around little finger loop, is a loop. Insert thumbs, away from you and towards one another into these loops above the three base strings and making sure they lie behind the upright ulnar index strings.
16. Transfer left thumb loop to right thumb then insert left thumb, from proximal side, into proximal right thumb loop and take this loop only off right thumb.
17. Carefully release right index then insert towards you proximal to left ulnar index string; repeat with left hand.
18. Insert thumbs, from proximal side, into index loops and on back of thumbs draw radial index strings through thumb loops; release indices and transfer thumb loops to indices.



50 c

The chant with this figure is:

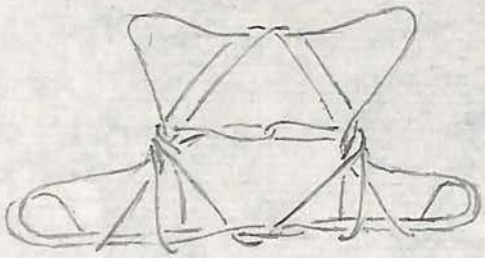
Nohoraga tuturu mau ko Turi,
Ki te haka mauga ki na kaho.

No. 58 ~~63~~ 50
(Cont.)

(d) Te marae o Turi (Turi's Marae).

19. The lower half of each side of the large diamond is bounded by three strings, one of which lies uppermost on the base strings, insert thumbs towards one another under these strings then transfer right thumb loop to left thumb and insert right thumb, from proximal side into left thumb loops; draw thumbs back to position.

20. Repeat movement 18.



50(d)

The chant with this figure is:

Taku marae numinumi, kahaea[a] ki ruga i hae ragi,
Nohoraga o Turi.

[a] kahaea: looking upward.

(e) Turi e Moehau (Turi and Moehau)

21. With thumbs pointing towards one another pick up lower bounding strings of large central diamond.
22. Repeat movement 18.
23. The strings of upper half of original large central diamond cross over ulnar index string, with left thumb pick up from right to left uppermost of these crossed strings and with right thumb pick up the other string, from left to right, proximal to left thumb loop.
24. Repeat movement 18.

50 (e)

(f) Turi e Tone Noe, Moehau e Tona Noe (Shadows of Turi and Moehau)

25. Insert thumbs, from proximal side, into horizontal loops to left and right of the two vertical loops and draw out to sides.
26. Transfer left thumb loop to right thumb then insert left thumb, from proximal side, into proximal right thumb loop and take this loop only off right thumb.
27. Repeat movement 18.
28. There is now a small central diamond, with strings lying uppermost, bisected by two upright loops and bounded by a double string. Insert thumbs, towards each other, between lower pair of boundary strings and draw out to sides.
29. Transfer right thumb loop to left thumb then insert right thumb, from proximal side, into left thumb loops and draw hands apart.
30. Repeat movement 18.

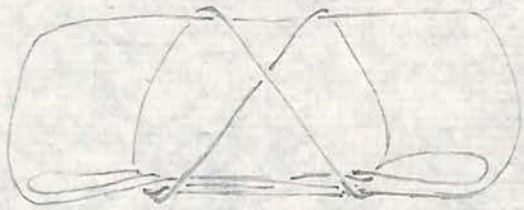
50 (f)

The two upright loops on the left represent Turi and his shadow; those on the right Moehau and his shadow.

No. ~~58~~ 50
(Cont.)

(g) Mou's o Turi e Moehau (Mountains of Turi and Moehau)

31. Insert thumbs, away from you, into small triangles near little fingers and release indices. Extend figure by tugging gently.



50 (g)

~~34~~ 32. To unravel figure pick up index string between the lips at the point between the two mountain peaks. Slip out all fingers and let loop hang. Insert hands from proximal side into loop near mouth. Unravel the tangle by pulling laterally.

The Turi Series can be made as a continuation of ..... (etc., as on p. 85) ... subset 8 of Turi.

No. 55

51. MAUI

This fai, with fai Turi, is to be counted among the classical string figures of the Tuamotus. No one was considered skilled in the making of string figures unless he could make these. I saw this figure as far east as Vahitahi; but nowhere did I hear the names given for each stage except by Paea of Anaa, who demonstrated the figure for me, and I did not hear elsewhere the chants he gave.

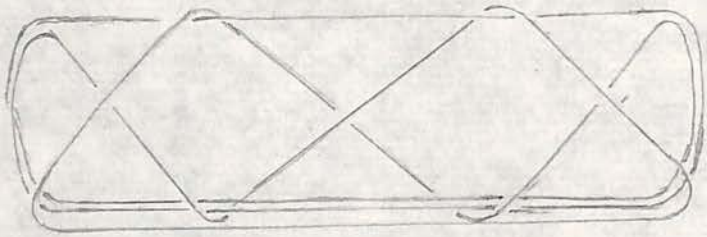
Close at 4 places

(a) Te Popouga o Maui (The House of Maui)

1. Opening A.
2. Insert indices, from distal side, into little finger loops, rotate them towards you and up, under their own loops and carrying with them radial little finger strings; release little fingers.
3. Pass little fingers, from distal side, through index loops, then insert into thumb loops from proximal side, bend little fingers on to palms thus holding down radial thumb strings and ulnar index strings; release thumbs.

2

No. ~~55~~ 51
Cont.



51(a)

The chant with this figure is:

Ka tika kio turu,

Ka tika kio maragi,

Kaore te tika te popoyoga o Maui

E rakorako hia.

(b) Te Marae o Maui (Maui's Marae).

~~4. This next move results in wrapping the strings forming the outer corner of each of the two diamonds around each other.~~

4. Insert thumbs away from you into little finger loops, then towards you into each diamond. Release from little fingers the single string running from hand to hand. Insert little fingers, from proximal side, into thumb loops and release thumbs.

51 (e)

(c) Na Konao Turukiga o Maui (The Back Rest Stones of Maui)

5. Insert thumbs away from you into little finger loops, then remove distal loops from little fingers by bending thumbs towards palms and pressing outwards, bringing thumbs back towards body.
6. Insert thumbs, from proximal side, behind double index-little finger strings and bring these strings through thumb loops by turning thumbs back through loops. Release indices.
7. Arrange ulnar thumb strings so that distal string runs from hand to hand. Now insert indices towards you between distal and proximal ulnar thumb strings, release thumbs and extend.

51 (c)

This is identical with the Tahitian figure Opahi, and the Aitutaki figure Rau Nahe[33], ~~and the Pukapuka Tikonikoni~~.[53]

(d) Te Haga Taura Ki Here Kiai te Hana
(The Ropes which Noosed the Neck of the Sun)

8. From centre of figure a string runs horizontally to each side. With thumbs push this string up towards indices so that the resulting figure consists of two central diamonds held out at each side by a lateral triangle whose base is the side bounding string of figure. See Fig. (c) above.
9. Insert thumbs, away from you, into lateral triangles described above, pick up on back of thumbs upper string of triangle and bring thumbs back towards body.

10. Exchange thumb loops in this manner: insert right thumb, from proximal side, into left thumb loop and take off on to right thumb. Insert left thumb into proximal right thumb loop and take this loop only on to left ~~off right~~ thumb. Extend.

11. Insert thumbs, from proximal side, into index loops and bring radial index strings through thumb loops by turning thumbs back through these loops. Release indices, then insert, from proximal side, into thumb loops, release thumbs and extend.

51(d)

(e) Ko Maui Raua Ko Ri (Maui and Ri)

12. On back of left thumb pick up and bring back the string marked 1, Fig.51(d) (the left end of the radial little finger string that runs from right little finger across to left side of figure). With right thumb pick up corresponding string on right side of figure, the string marked 2 in Fig.51(d).

13. Insert left thumb, from proximal side, into right thumb loop and take off on to left thumb. Insert right thumb, from proximal side, into left thumb loops and extend hands.

14. Insert thumbs, from proximal side, into index loops and bring radial index strings back through thumb loops by turning thumbs back through these loops. Release indices, then insert them, from proximal side, into thumb loops, release thumbs and extend.

51 (e)

Ri was a friend and assistant of Maui. Ri failed to do his part; Maui, in anger, grabbed him first by the nose, pulling it out, then by the ears, pulling them out, then by the posterior~~s~~, pulling out a tail. Thus was formed the first dog.

(f) Te Puniga o Maui (The Hiding of Maui)

15. Insert thumbs away from you, then towards each other, into circles around index loops and bring the inner strings back on thumbs.

16. Exchange thumb loops in this manner: insert right thumb, from proximal side, into left thumb loop and take off on to right thumb. Insert left thumb into proximal right thumb loop and take this loop only off right thumb. Extend.

17. Insert thumbs, from proximal side, into index loops and bring radial index strings through thumb loops by turning thumbs back through these loops. Release indices, then insert them, from proximal side, into thumb loops, release thumbs and extend.

51 (f)

(g) Te Keta Haga o te Hana (The Securing of the Sun)

18. On back of right thumb pick up and bring back the string marked 1 in Fig.51(f) (the string running from central upper "V" to right side of figure). On back of left thumb pick up and bring back the string marked 2 in Fig.51(f) (the corresponding string on left side of figure).

19. Repeat movement 17.

51 (g)

No. 55 51
Cont.

The chant with this figure is:

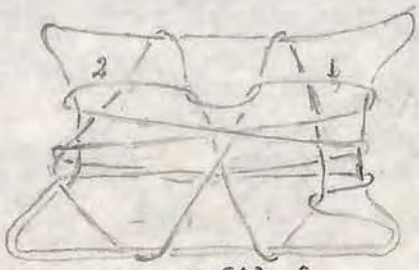
Taku taura nei ra ko takai marama ki here kia te nohi ka o Atea.

To unravel the figure at this point insert thumbs into lateral triangles above little finger loops, release index fingers and extend.

(h) Hana o Maui (Sun of Maui).

20. Insert right thumb away from you into triangle 3 of fig 51 (g) (the triangle to the left of inverted "V") and on ball of thumb pick up string marked 4 in the figure (the left side of the central inverted "V"); pull this string towards the body and to the right. Now reach in with left thumb, insert it into triangle 1 (to the right of the central inverted "V"); pick up string 2 on ball of thumb and bring it towards the body and to the left (these are rather difficult movements). Bring thumbs back to position.

21. Insert thumbs, from proximal side, into index loops and bring radial index strings through thumb loops by turning thumbs back through these loops. Release indices. Insert indices, from proximal side, into thumb loops, release thumbs and extend.



51 F

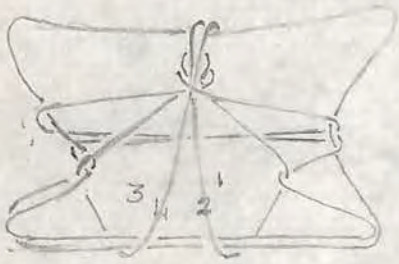
No. 55 51
Cont.

(i) Kavake o Maui (Moon of Maui).

22. Insert thumbs away from you between the bounding strings of the lower half of central diamond (place marked 1 in fig 51(h)); on backs of thumbs pick up and bring towards the body the upper strings (strings marked 2 in fig 51(h)).

23. Insert right thumb, from proximal side, into left thumb loop and take off onto right thumb. Insert left thumb, from proximal side, into right thumb loops and extend thumbs.

24. Insert thumbs, from proximal side, into index loops and bring radial index strings through thumb loops by turning thumbs back ~~into~~ through these loops. Release indices. Insert indices, from proximal side, into thumb loops, release thumbs and extend.



51(g)

To unravel the figure insert thumbs, away from you, into little finger loops and, releasing indices, pull sideways with gentle agitation.

No. 55 5b.
Cont.

~~Conversion of Maui into Puhaga Toto.~~

At Amanu and Vahitahi, and also at Anaa, I saw a variant of the figure Maui which, at Vahitahi, was convertible into Puhaga Toto, ~~No.~~ No. 25. In this variant the stages from 1 to 19 of Maui, as shown by Paea, are followed. The figure which has then emerged ~~is~~ was called by him "The Noosing of Maui's Neck". Beginning with this figure, 51(g), the movements are as follows:

20. Insert thumbs into little triangles just above little finger loops and pick up and pull out on backs of thumbs the ~~upper~~ inner bounding strings of triangles.

21. Exchange thumb loops in this manner: insert right thumb, from proximal side, into left thumb loop and take off on to right thumb. Insert left thumb into proximal right thumb loop and take this loop only off onto left thumb. Extend.

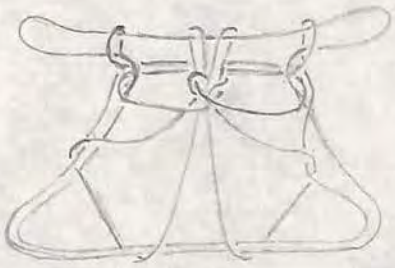
22. Insert thumbs, from proximal side, into index loops and bring radial ~~index~~ strings through thumb loops by turning thumbs back ~~into~~ through these loops. Release indices. Insert indices, from proximal side, into thumb loops, release thumbs and extend.

23. On back of left thumb pick up and bring back the string marked 1, fig 51(d) (the left end of the radial little finger string that runs from right little finger across to left side of figure). With right thumb pick up corresponding string on right side of figure, the string marked 2, in fig 51(d).

24. Insert left thumb, from proximal side, into right thumb loop and take off onto left thumb. Insert right thumb, from proximal side, into left thumb loops and extend thumbs.

No. 55
Cont.

25. Insert thumbs, from proximal side, into index loops and bring radial index strings through thumb loops by turning thumbs back through these loops. Release indices. Insert indices, from proximal side, into thumb loops, release thumbs and extend.



51 (j)

The upright loops on either side of Maui are the taia of Maui, the "soldiers" who tied the neck of Maui.

Conversion of Maui into Puhaga Toto

The figure is converted into Puhaga Toto (No. 25) in the following manner:

26. Lay hands on lap, palms upwards. Gently withdraw indexes; insert back of right index under string No. 4 in fig. 51. (g) and return to right; insert left index under string no. 2 (inside right index loop) and return to left. Extend until knots are unravelled.

27. Rotate little fingers towards body and up. This makes a little finger and an index loop.

28. Pass thumbs proximal to all strings and with back of thumbs, from ulnar side, pick up ulnar little finger strings and bring it back with thumbs proximal to all strings.

29. Continue now as from movement 3 on in Puhaga Toto, No. 25.

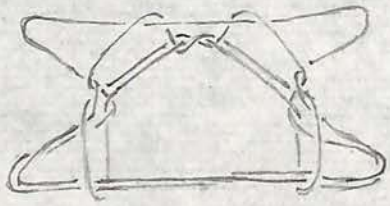
No. ~~70~~ ~~58~~ 52

52 NA TURATURA O PUGA

From Vahitahi

1. Perform 1 to 7 of Maui.

2 ~~8.~~ Insert thumbs, away from you, into upright triangle at base of figure between the two diamonds, in crook of thumbs pull sides of triangle to right and left then insert thumbs, from proximal side, into index loops and pull radial index strings back through thumb loops; release indices then transfer thumb loops to indices.



52

53. KOPENA HIRO

From Anaa

(Net of Hiro)

This is Hiro's net by which he caught spirits.

Known at Vahitahi as Raparapa and at Amanu as Kohiti.

more space

(a) Te Roki o Hiro (Hiro's reclining Seat)

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, rotate index towards you and up and return to position.
3. Insert right thumb, from proximal side, into index loop and return with radial index string; insert left thumb, from proximal side, into left little finger loop and return with radial little finger string.
4. Insert left index, from proximal side, into left thumb loop and return to position with ulnar thumb string.
5. Navaho thumbs.
6. Carefully release little fingers and re-insert into loops from opposite direction.

53 (a)

The chant with this figure is:

E Hiro e, to roki takuekue,	Oh Hiro, this is your sliding seat,
E Hiro e, to roki takuekue,	Oh Hiro, this is your sliding seat,
Koi ruga, koi raro, koi taua roki.	It is above, it is below, it is our reclining seat.

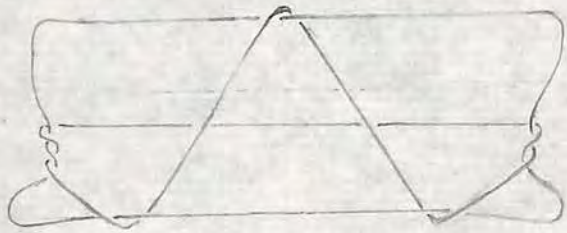
No. ~~14~~ ~~22~~ 53
Cont.

(b) Te Popouga o Hiro (The House of Hiro).

7. Release little fingers and extend hands.

8. Bring little fingers towards you proximal to median double strings then insert them between the two strings and pull down the upper string onto palms.

9. Release thumbs.



53(b)

/

Te popouoga te popouoga,	The house, the house
No Hiro a no Hiro,	Of Hiro, of Hiro;
Te popouga te popouga,	The house, the house
Ka piko a no Hiro.	Where Hiro slept.

A ~~similar~~ figure is made on Pukapuka with similar but not identical movements.[3]

more space

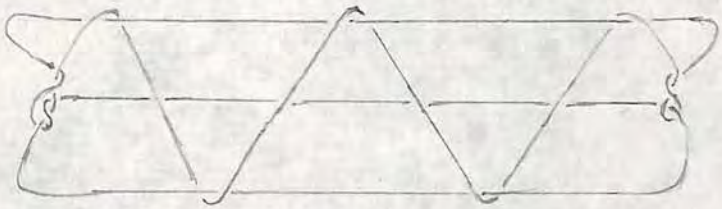
(c) Na Pofaki o Hiro (The Marae Stones of Hiro).

10. Insert thumbs, away from you, into little finger triangles, and return with upper bounding string of each triangle.

11. Bring indices towards you distal to radial thumb strings, rotate indices in radial direction carrying with them radial thumb strings and dropping former index loops.

No. ~~14~~ 53 22
Cont.

12. Release thumbs.



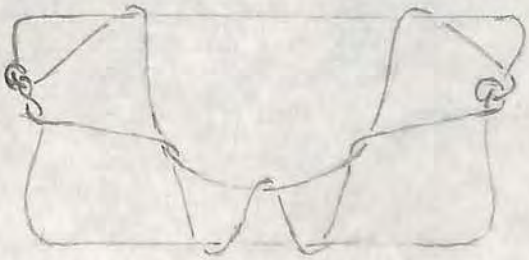
53(c)

The chant with this figure is:

Aku pofaki keokeo turukiga,	My sharp leaning stone,
Ka keokeo ki te maoake fakaritorito.	Piercing the mild Maoake wind,
Toga haumi te matagi hau makariri.	Toga haumi is the chilling wind.

(d) Tahora o Hiro (Swing of Hiro).

13. Insert thumbs, from proximal side, into index loops and pull down strings which lie across index loops, then pass thumbs away from you proximal to horizontal median string and return with this string on back of thumbs; pass thumbs proximal to radial index strings and put tips of thumbs and indices together, rotate indices in ulnar direction and back to position releasing thumbs.



53(d)

At Vahitahi this figure, made in exactly the same way, is called Te Rua o te Marama (The Pit of the Moon). The chant is:

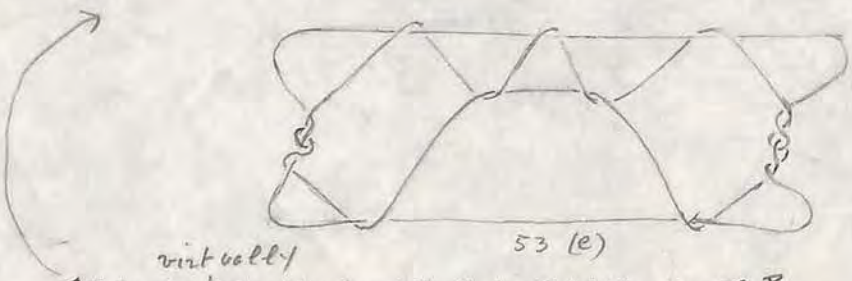
E mea, e mea e tamai,
Te ruki, ruki ake,
Ka tika, ka tika,
Haere a tuki,
Marama ta hiti ruga, e raro.

(e) Te Mauga o Hiro (Hiro's Mountain or Grove of Trees).

14. Insert thumbs, away from you, into lateral triangles (which lie below index loops), and hold base string of each triangle between thumbs and bent ring fingers to facilitate next movement. Rotate indices in radial direction, through lateral triangles and up carrying with them upper bounding string of triangles and dropping index loops; release thumbs. This changes the figureback to No. 53 (c).

15. Pass thumbs away from you proximal to horizontal median string and return with this string on backs of thumbs.

16. Release little fingers.



53 (e)

Illustration 102 follows 17 over page

This is virtually identical with O te Kohiti, No.56e.

No. ~~14~~ 53 22
Cont.

17. Substitute little fingers for thumbs, inserting them from opposite direction.

Illustration comes here

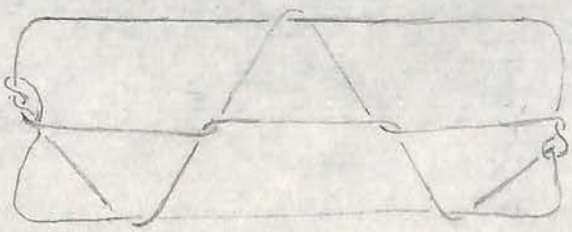
53 (e)

The chant with this figure is:

Mauga tapu e,	Sacred Mountain!
Ko Hiti taku henua,	Hiti (Tahiti) is my land.
Mauga tapu e,	Sacred Mountain!
Ko Hiti taku henua,	Hiti (Tahiti) is my land.
Eke atu te vaka o Hiro,	The canoe of Hiro passes over the sea,
Matauka utuhi i varo tahi e.	Grounds on the sand.

(f) Te Pora o Hiro (Hiro's Canoe Cabin).

18. Insert left thumb, away from you, into left diamond and right thumb into right diamond; put tips of thumbs and indices together, rotate indices down, towards you and up and release thumbs.



53 (f)

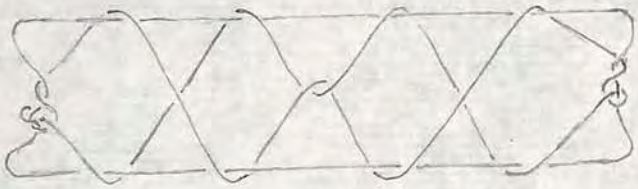
53.

No. ~~14~~ ~~22~~
cont.

(g) Kopena Hiro (Hiro's Net).

19. Insert thumbs, from distal side, into index loops, hook down strings immediately below thumbs then insert thumbs, into little finger loops from proximal side and hook back strings immediately above them.

20. Release indices then insert them, from distal side, into thumb loops, return with radial thumb strings and release thumbs.



53(g)

The chant with this figure is:

Kopena Hiro, ki ravarava e,

Kopena Hiro, ki ravarava e;

Koi ruga, koi raro, koi te puta i tana kope.

(This is virtually identical with Kamake te Uru o Toga, No. ~~11~~ 56(d))

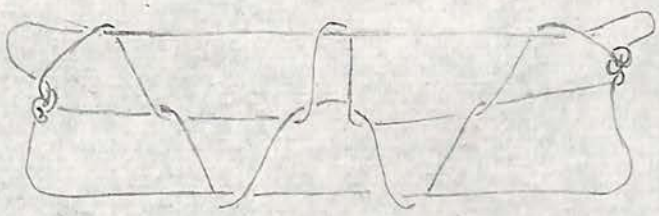
(h) Te Piti o Te Mauga o Hiro (The Second of the Mountains of Hiro)

Leave space

21. Pass thumbs away from you proximal to ulnar index strings, hook back string immediately below thumbs, then insert thumbs into little finger triangles and return with ~~lower outer bounding~~ strings ~~of lateral triangles.~~ immediately above them.

No. ~~1422~~ 53
Cont.

22. Release indices, then insert into thumb loops from distal side, pick up radial thumb strings and release thumbs.



53 (R)

This last figure our informant made upon a later demonstration of this Hiro series. When asked the name he hesitated as if he did not know, and then said it was the Mouga o Hiro. When I pointed out that this name had already been given for one of the figures he replied that this was Te Piti o te Mouga o Hiro; it sounded like an invention on his part.

P/

No. ~~16.~~ ~~20~~ 54

54. PAPANI O TE RUA O TE MARAMA From Anaa

(Door of the pit of the Moon).

Known also at Vahitahi.

Make No. 53(e), Te Mauga o Hiro. This can be accomplished quickly by performing movements 1-5, 7, 8, 11, 12, 15 & 16.

17. Transfer thumb loops to little fingers.

18. Insert thumbs, away from you, into index corners of figure; with balls of thumbs bring towards you upper, outer bounding string of each diamond, then insert thumbs, away from you, into little finger corners and return to position with lower outer bounding string of each diamond.

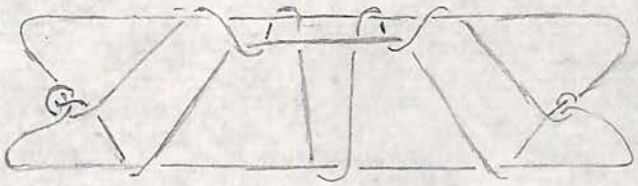
19. Pass thumbs away from you, proximal to radial index strings, press tips of thumbs and indices together, rotate indices in ulnar ~~radial~~ direction, through thumb loops and release thumbs.

20. Insert thumbs, away from you, into little finger corners of figure, return with diagonal strings which cross little finger loops; release little fingers.

21. Transfer thumb loops to little fingers.

22. Insert thumbs, from distal side, between the two strings which run from palmar strings to ulnar index strings, pull down the near strings, pass thumbs proximal to ulnar little finger string, return with this string and release little fingers.

No. ~~16~~ ~~20~~ 54
Cont.



54

No. 15/5T8 55

55. TE VAKA O HIRO — From Anaa

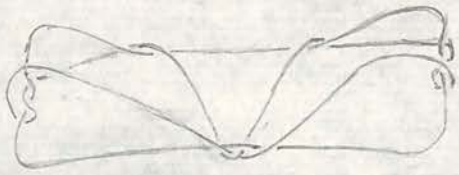
(Hiro's Canoe)

Perform first 8 movements of No. 53 Kopena Hiro.

9. With mouth pick up median string close to left hand; release left index then insert it towards you into mouth loop and release string from mouth.

10. Repeat with right hand.

11. Lift thumbs up until they are level with tips of indices.



55

The chant with this figure is:

No vai te vaka i eke mai tua?	Whose canoe is it coming over the ocean?
No Hiro. Tupere perepere.	Hiro's,- rocking, rocking,
No vai te vaka i eke mai tua?	Whose canoe is coming from the ocean?
No Hiro, tuperepere;	Hiro's,- gently rocking;
No Hiro, tuperepere.	Hiro's,- gently rocking.

No. 17. 21 56

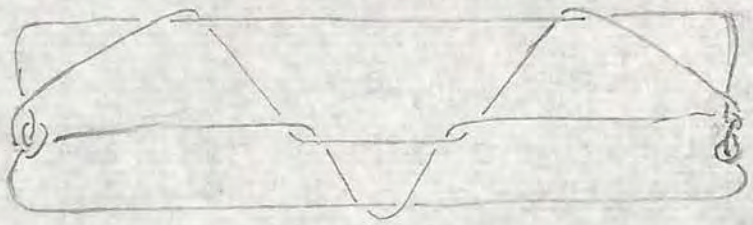
56. KU TAVIA From Hikueru

A fai closely related to Kopena Hiro 20. 22 58, Potaka 20. 60, and Koviri 20. 57. Our informant was Tapahi of Hikueru, a woman 80 years old.

1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass index between left thumb and index distal to thumb-index string, hook up this string rotating index away from you and up and return to position.
3. Pass little fingers, from proximal side, through thumb loops, insert into index loops, also from proximal side and hook down radial index strings to palms; release thumbs.
4. Insert right thumb, from distal side, into right index loop, then insert towards you into loop depending from palmar string, hook up string which is right hand end of left ulnar index string and release right index; transfer thumb loop to index. There is now a large triangle, the base string of which runs across midway between the index and little finger string, and which string takes a turn around the left bounding string and a complete twist around the right bounding string.
5. Transfer little finger loops to thumbs.
6. Insert little fingers, from proximal side, into triangle depending from ulnar index string, and hook down base string of triangle; bring indices towards you distal to radial thumb strings and then hook them back, releasing original index strings; release thumbs.

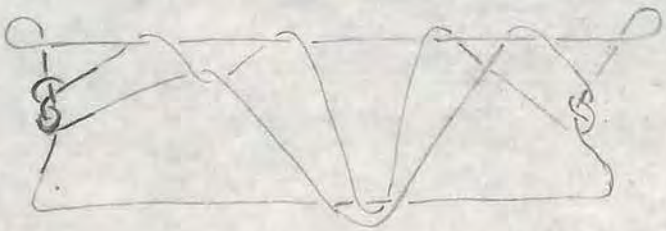
No. ~~17-21~~ 56
Cont.

7. Hold ulnar index strings between thumbs and middle fingers, release indices then re-insert them into loops from opposite direction. Transfer little finger loops to thumbs.
8. With little fingers hook down base strings of two triangles.
9. Bring indices towards you distal to radial thumb strings then hook them back releasing original index strings; release thumbs.



56 (a)

10. Insert thumbs, from proximal side, into index loops; on ball of thumbs bring towards you strings which lie across index loops, then hook up strings which form base of lateral triangles.
11. Release indices then put tips of indices and thumbs together and transfer thumb loops to indices.
12. Bring left hand down towards you; bring right hand round with palm facing towards you. Continue movement until arms are crossed. This makes Ku Tavia.



56 (e)

No. ~~17~~ 56
Cont.

The chant with this figure is:

Ku tavia, ku tava,

Te fakariki, e matematea.

13. Return to normal position, then Transfer little finger loops to thumbs; bring little fingers towards you between the two strings depending from palmar strings and hook down the proximal strings (these lie proximal to the thumb-index string and when pulled down open up the figure).

14. Bring indices towards you distal to radial thumb strings then hook them back releasing original index strings; release thumbs.

~~This~~ makes Te ivitu tarau, te ivi o Mere.

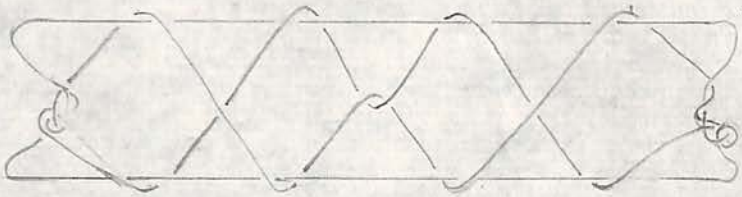
56 (c)

The chart with this figure is:

15. Insert thumbs, away from you, into little finger corners, bring back base strings of lateral triangles.

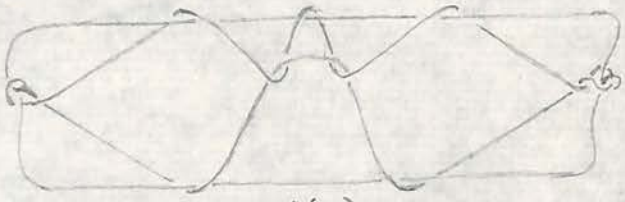
16. Release indices then put tips of indices and thumbs together and transfer thumb loops ~~to indices~~ to indices. This makes Kamake te Uru o Toga.

No. 17-21 56
Cont.



56(d)

17. Insert thumbs, away from you, into little finger corners and pick up lower bounding string of each lateral diamond. Release indices, then putting tips of thumbs and indices together transfer thumb loops to indices. This makes O te Kohiti.



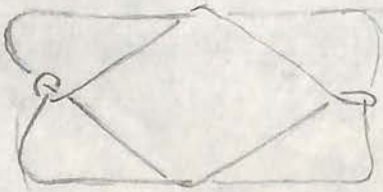
56(e)

2nd place

{This is identical with Te Mauga o Hiro, No.53e}

18. Holding left hand up, palm towards body, release right hand; insert right index, from proximal side, into figure between left ulnar index string and right upper bounding string of left diamond; likewise insert right thumb between base string of figure and right lower bounding string of left diamond.

19. Transfer left little finger loop to left thumb.



56(f)

20. Insert little fingers, from proximal side, into thumb loops, insert into central diamond from distal side and hook down upper bounding strings to palms.

21. Bring indices towards you distal to radial thumb strings, then hook them back releasing original index strings; release thumbs. This makes Pātūnuku.

56 (g)

The chant with this figure is:

Patanuku, hura riki ka tutu, ka tutu, ka rapa, te igoa o taua fai nei e, patanuku.

22. Insert thumbs, from proximal side, into index loops; on ball of thumbs bring towards you string which lies across index loops (upper outer bounding strings of lateral diamonds), then hook up lower bounding strings of lateral diamonds.

23. Release indices, then putting tips of thumbs and indices together transfer thumb loops to indices.

24. Insert middle fingers towards you into lateral slanting triangles, pull base string to palms and release little fingers.

The chant with this figure is:

Hua puta te korohihi, te kiri a tai.

57. KOVIRI

From Anaa

(Twist)

Called Taimana at Reao.

(a) Koviri Mua (First Twist)

1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass right index between left thumb and index, distal to thumb-index string, then pick up this string on back of index and turning index away and up return to right.
3. Insert middle, ring and little finger of each hand, from proximal side, into index loops, close fingers over radial strings and hold against palms.
4. Insert thumbs, from proximal side, into index loops, return with radial index strings and pull through thumb loops, allowing original thumb loops to slip over tips of thumbs.
5. Bring indices towards you distal to straight string which runs from one thumb-index string to the other, hook back this string on tips of indices allowing index loops to slip off.

57 (a)

6. Release thumbs, middle and ring fingers.

No. 20 ~~26~~ 67
Cont.

The pataku is:

Koviri aiho iko

Koviri aiho muri

Koviri mua, koviri roto, koviri faka otioti.

(b) Koviri Roto

7. Insert thumbs, away from you, into little finger loops, on back of left thumb pick up lower left side of left diamond; on back of right thumb pick up right lower side of right diamond. Release indices and turn little fingers towards you and up.

8. Transfer thumb loops to indices.

9. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and transfer little finger loops to thumbs.

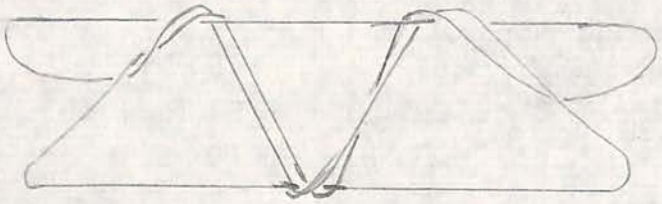
10. Twist index loops once in ulnar direction.

11. With opposite hand bring thumb loops up through index loops and replace on thumbs.

12. Insert little fingers, from distal side, into index loops and hold down ulnar strings on palms; release indices.

13. Caroline Extension with radial thumb strings.

3 57
No. ~~20~~ ~~26~~
Cont.



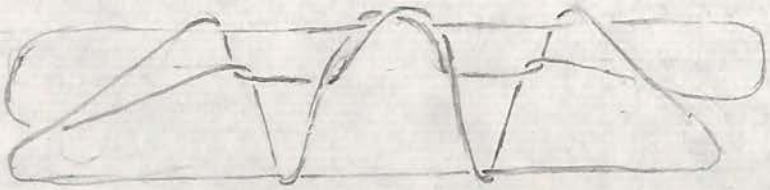
57(b)

(c) Koviri Fakaoti (Last Twist).

14. Release radial index strings from thumbs.

15. Turn little fingers towards you and up.

16. Repeat movements 9 to 13.



57(c)

(d) Heregao.

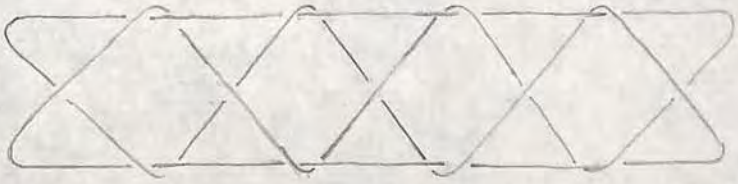
Make Koviri Mua (57(a))

7. Lay figure on lap; fingers pointing down. and release hands.

8. Place tips of thumbs and little fingers together and insert, from distal side, into lower corners of figure (former little finger loops). Now bring thumbs towards you under base string of figure (former ulnar little finger string) ready to pick it up; then work little fingers away from you, under two strings of diamonds up into inverted triangle at top of figure, hook little fingers round top string of figure (former radial index string) rotating them towards you return proximal to two strings of diamonds and up on ulnar side of thumb strings.

9. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.

10. Caroline Extension.



57 (d)

The <u>putakutaku</u> is:

close up

<u>Ko heregao</u>[a] <u>ki te vaiga areare, nohoraga tavake</u>[b].
<u>Ka tagi hoahoa te tagi o te kena</u>[c].

a. heregao: a certain fish.

b. tavake: the tropic bird.

c. kena: a bird.

No. 21. 27

58. KOTUKU RERE I

From Anaa

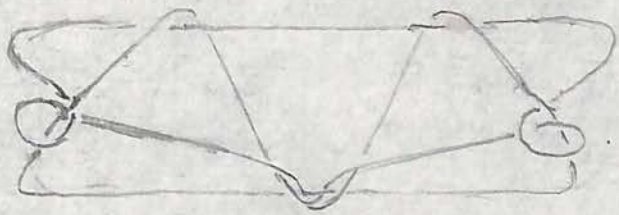
(Flying Heron)

(a) Kotuku Rere Ki Tua

1. Position 1.
2. Bring left hand to right, insert into right hand loop from ulnar and proximal side and return to left; insert right hand, from proximal side, behind left proximal palmar string and return to right. Each hand should now have a wrist loop and a palmar string with ulnar strings crossed.
3. Insert index, middle and ring finger of each hand behind its palmar string from distal side, thus forming a second wrist loop.
4. Pass thumbs away from you between ulnar strings, rotate them towards you carrying proximal ulnar wrist string with them; bend all fingers over distal ulnar wrist string and rotate them towards you carrying distal string with them and bring index only upright between two strings in crotch of thumbs. This should be performed as one movement. There are now twisted loops on each index and a loop on each thumb.
5. Bend indices away and down, then insert thumbs into inverted loops and release indices.
6. Insert little fingers, from distal side, into distal thumb loops and hold down distal ulnar thumb strings against palms.

No. 21 ~~21~~ 58
Cont.

7. Bring indices towards you distal to proximal ulnar thumb strings and insert between distal and proximal radial strings, hook back proximal radial thumb strings and return to position.



58 (a)

The chant with this figure is:

Clix up

Kotuku rere ki tua, kotuku rere ki tua,
Hipahipa ana ki tana kokorohua,
Hipahipa ana ki tana kokorohua.
Kokorohua te taverevere,[a] kokorohua te taverevere.

[a] Kokorohua is oopu in Tahitian, a fish (Salarias poptae). Taverevere means eel-like. Kokorohua te taverevere is the full name of fish called taverevere on account of its tail.

The chant as given by Tetumu of Faite is:

No. 21 ~~27~~ 58
Cont.

Kotukuere ki tua, ki tua,

kotukuere ki aro, ki aro,

Naupaki, naupaki,

Tapiga kore, aore tavega.

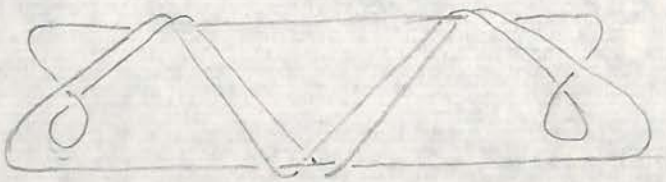
At Vahitahi the last line is rendered "Na'u te pake".

(b) Kotuku Rere Ki Aro (Heron flying over the Lagoon).

1. Perform movements 1, 2, 3 and 4 of Kotuku Rere Ki Tua.

2 ~~5~~. Twist thumbs once in radial direction.

3 ~~6~~. Perform movements 5, 6, ~~7~~ 3 and ~~7~~ of Kotuku Rere Ki Tua.



58 (b)

The chant with this figure is:

Kotuku rere ki aro, kotuku rere ki aro,	Heron flying over the ocean,
Hipahipa ana ki tana kokumu,[a]	Looking at his kokumu,
Hipahipa ana ki tana kokumu, e,	
Kokumu kai tutae.	Kokumu eating feces.[a]

a. Kokumu is the fish aua in Tahitian, It is a tiny fish swimming in large schools. Informant, Paea of Anaa.

No. 21 58
Cont.

(C) Taioropua (A Place Name).

1. Perform movements 1, 2, 3 and 4 of Kotuku Rere Ki Tua.

2 ~~5~~. Transfer index loops to thumbs.

3 ~~6~~. Insert little fingers, from distal side, into distal thumb loops and hold down distal ulnar thumb strings.

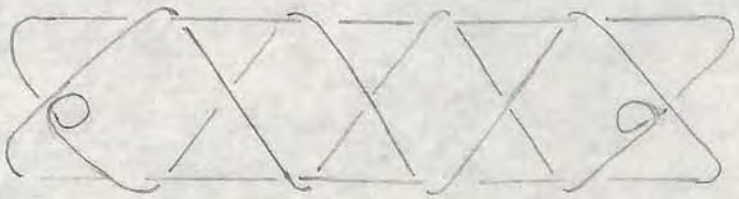
4 ~~7~~. Insert indices, from proximal side, into thumb loops and return with proximal ulnar thumb strings.

5 ~~8~~. Release little fingers and release radial index strings from thumbs.

6 ~~9~~. Bend indices away and down and insert thumbs into inverted loops and release indices.

7 ~~10~~. Insert little fingers, from distal side, into thumb loops and hold down distal ulnar thumb strings.

8 ~~11~~. Bring indices towards you distal to proximal ulnar thumb strings and insert between distal and proximal radial thumb strings, hook back proximal radial thumb strings and return to position.



58 (c)

No. ~~21~~ ~~27~~ 58
Cont.

(d) Maraetefano (A Place Name).

1. Perform movements 1, 2, 3 and 4 of Kotuku Rere Ki Tua.

2 ~~5.~~ Twist thumbs once in ulnar direction.

3 ~~6.~~ Perform 5 to 11 of (c) Taioropua.

This figure is the same as the previous one except that after movement 4 thumbs are twisted in ulnar direction instead of radial, thus resulting in four diamonds, with the base of the two central diamonds wrapped twice around the base string.

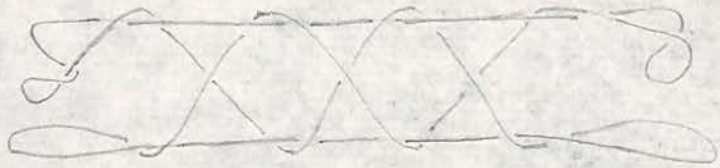
No. 31 ~~28~~ 59

59. KOTUKU RERE II From Fakarava

(Flying Heron)

1. Opening A.
2. Release thumbs.
3. Pass thumbs proximal to index and little finger loops and return with ulnar little finger strings.
4. Insert thumbs, from distal side, into index loops and return with ulnar index strings.
5. Release little fingers.
6. Bring little fingers towards you distal to radial index strings, insert into thumb loops from proximal side and return with ulnar thumb strings.
7. Release thumbs.
8. Insert middle fingers, from distal side, into index loops, pick up radial index strings then pressing indices against middle fingers to keep string taut extend figure by turning palms outward.
9. Release middle fingers.
10. Insert thumbs, from distal side, into index loops and return with ulnar index strings.
11. With middle fingers pick up radial index strings from ulnar side, press indices against middle fingers to keep string taut, release thumbs and extend figure by turning palms outward.

No. ~~31~~ ~~28~~ 59
Cont.



59 (a)

The chant with this figure is:

Close up

Kotu kurere ki aro, ki aro;

Kotu kurere ki tua, ki tua.

12. Release middle fingers.

13. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.

14. With index and thumb of opposite hand pick up radial index string, close to index, and drop over thumb, then Navaho thumb.

15. Release little fingers.

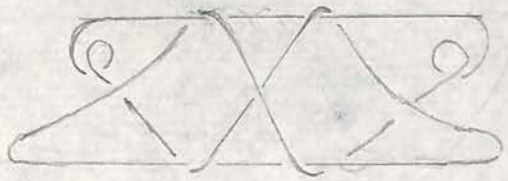
16. Bring little fingers towards you distal to ulnar index strings, insert towards you into loops depending from ulnar-thumb-radial-index strings and pick up the distal string which runs from hand to hand.

No. ~~31~~ 59
Cont.

17. Release thumbs.

18. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.

19. Insert middle fingers, from distal side, into index loops, pick up radial index strings then pressing indices against middle fingers to keep string taut extend figure by turning palms outward. This makes Na Ruga o Maui.

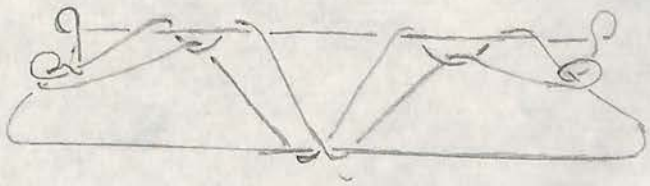


59 (b)

20. Release middle fingers and thumbs.

21. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.

22. Repeat movement 19. This makes Na Ruga Tinirau.

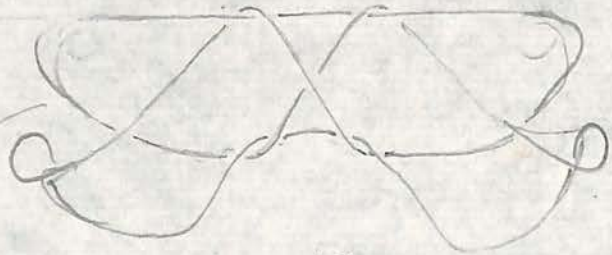


59(c)

23. Release middle fingers and thumbs.

24. Pass thumbs, from distal side, through index loops, insert into little finger loops from proximal side and return with radial little finger strings.

25. Repeat movement 19. This makes Tapena Kore, akore kavega.

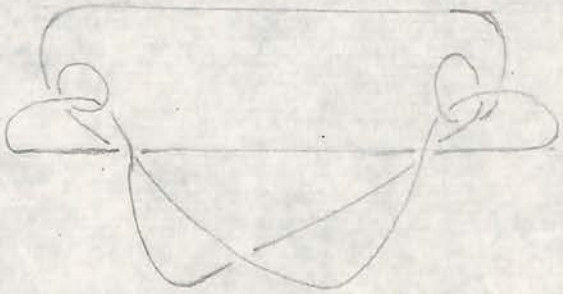


59 (d)

26. ~~[illegible]~~ Release middle fingers and thumbs.

27. Pass thumbs proximal to index and little finger loops and return with ulnar little finger strings.

28. Insert middle fingers, from distal side, into ~~under~~ index loops, pick up radial index strings then pressing indices against middle fingers to keep string taut extend figure by turning palms towards you. This makes Naupaki.



59 (e)

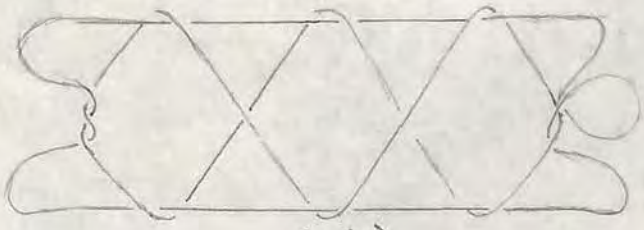
No. 4 (a). 60

60. POTAKA PURAGO A

From Tatakoto

Seen also at Vahitahi. Called Goio i Hakoro (Dangling Umbilical Cord) at Anaa where it begins differently.

1. Opening A.
2. Release right hand.
3. Insert right thumb and little finger, from distal side, into left index loop, lift loop off left index and extend hands.
4. Insert right index, from proximal side, behind left palmar string and return to position with it.
5. Insert right thumb, from distal side, into index loop and return with ulnar index string; insert left thumb, from proximal side, into left little finger loop and return with radial string.
6. With back of right middle finger pick up right radial index string; with back of left middle finger pick up left ulnar thumb string and Navaho thumbs.
7. Release little fingers and extend by turning palms outwards.



60 (a)

This is identical with Patanuku No.22 to movement 8.

8. Lay figure on lap, proximal face down and gently release right hand.

No. ~~4~~ 60 (a)
Cont.

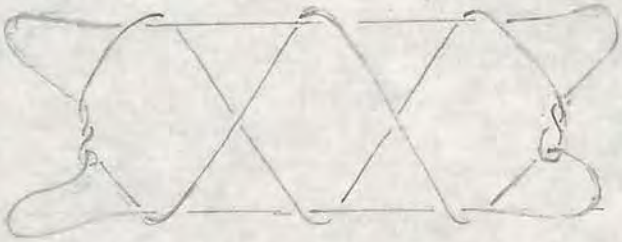
9. Insert right index towards you under left ulnar middle finger string between the middle and left hand diamond; insert right thumb away from you under left radial thumb string, between the middle and left hand diamond, and extend hands.

60 (b)

10. Transfer left middle finger loop to left index.

11. ~~Transfer left~~ Insert little fingers, from proximal side, into thumb loops, pass them distal to lower bounding strings of diamond, proximal to upper bounding strings of diamond, hook down these latter strings and hold against palms.

12. Bring indices towards you distal to radial thumb strings, bend indices downover this string and take it back through index loop releasing original index loops and thumbs.



60 (c)

13. Insert thumbs, from proximal side, into index loops, bend thumbs over upper bounding strings of lateral diamonds and pull towards you; then insert thumbs away from you into

No.60
Cont.

little finger loops; press tips of indices and thumbs together, rotate indices towards you, through thumb loops and up, thus releasing thumbs.

14. Insert thumbs, away from you, into little finger triangles and return with strings which lie immediately above them; release little fingers.

15. Transfer thumb loops to little fingers.

60(d)

16. Insert right thumb, away from you, into small triangle depending from right ulnar index string, insert left thumb, from proximal side, into right thumb loop and release right thumb.

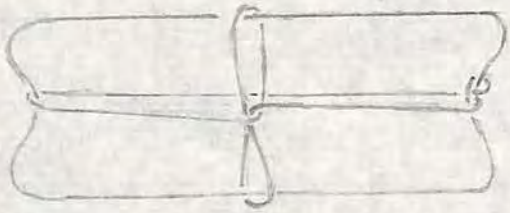
17. Insert left thumb, from proximal side, behind left palmar string, close to little fingers, and return to position drawing palmar string through thumb loop.

18. Release left index then insert, from proximal side, into left thumb loop and transfer thumb loop to index.

60(e)

and with back of thumb pick up left bounding string;

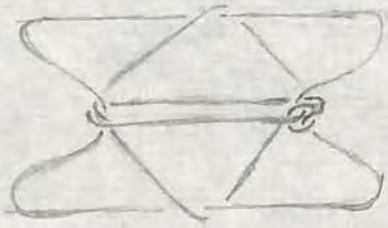
No, ~~4 (a)~~ 60
Cont.



60 (e)

19. Insert thumbs, away from you, into upper loop of central figure, on balls of thumbs pull side strings towards you and to right and left; insert thumbs, from proximal side, into index loops and return to position, carrying radial index strings through thumb loops; release indices.

20. Insert indices, from proximal side, into thumb loops and transfer thumb loops to indices.



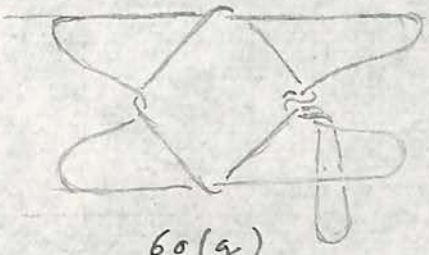
60 (f)

21. Insert thumbs, from proximal side, between the two horizontal strings and return to position.

22. Insert thumbs, from proximal side, into index loops, return to position drawing radial index strings through thumb loops.

23. Release indices then insert into thumb loops from proximal side and transfer thumb loops to indices.

No. 4 (a) 60
Cont.



60(g)

At the end of movement 11, the ~~natives~~ people of Tatakoto chant:

Rokoi na Tu

Na potaka o puraga

Te revareva ara i te vahi tana tohe

Tuere tuere takerehiti au e.

The Vahitahi chant is:

Potaka[a] aku e, potaka aku e,

Naku iho taku potaka.

a. Stingray

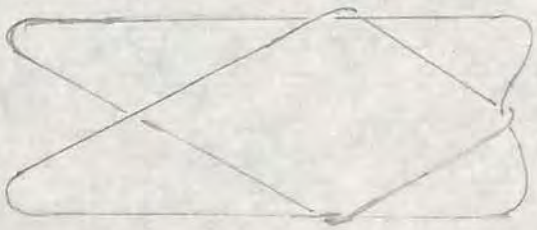
No. 4 (b) 61

61. KOKIRI PAGO

From Anaa

At Anaa the three diamond figure at the end of movement 12 of previous figure is made as described below. Thereafter the movements are identical.

1. Insert right thumb and left thumb and index into loop.
2. Pass right index between left thumb and index, proximal to thumb-index string, and return to right with this string.
3. Insert right little finger, from proximal side, into right index loop and pull radial index string down to palm.
4. Insert right thumb, from proximal side, into right index loop; return to position drawing radial index string through thumb loop; release right index; transfer thumb loop to index.
5. To extend figure bend left thumb down over its ulnar string then insert little finger towards you into thumb loop and release thumb.



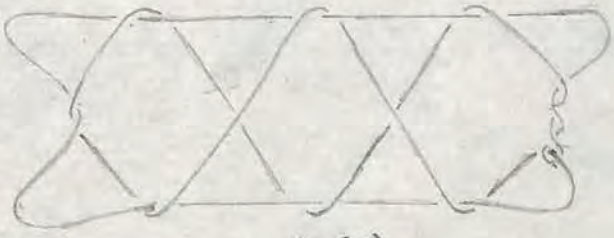
61 (a)

Paea of Anaa calls this figure Kokiri Pago, and gives the following chant with it:

No. 4 (b) 61
Cont.

Kokiri e, kokiri e,	Oh little kokiri fish
Kokiri kumukumu,	Kokiri, who makes a clucking sound,
Kokiri pagopago.	Kokiri, who is of yellow hue,

6. Take out left index and re-insert into loop from opposite direction. Transfer little finger loops to thumbs.
7. Insert right little finger, from proximal side, into right thumb loop, then pressing back the lower right boundary string of diamond pass little finger below upper boundary string and hook down to palm.
8. Insert left little finger, from distal side, into thumb loop and hook down ulnar thumb string.
9. Bring indices towards you distal to radial thumb strings then hook these strings back through index loops and release thumbs.



61 (b)

Paea calls this, Te Fanau Haga o Te Haga Kokiri (the Birth of the Kokiri).

From this point ~~Now~~ proceed as from movement 13 on, in Potaka Puraga. N.P. ~~The figure at the end of this movement, Paea calls, Te Heriheri Haga o te Haga Kokiri (The Spawning of the Kokiri). The figure at the end of movement 15 is called, Fakeakea, the name of a small fish.~~

See attached sheet

N/P

Paea's names for figures in Potaka Puaga were as follows:

1) The figure named at the end of movement 13 he called Te Heerheei Haga o te Haga Kokiri (The Spawning of the Kokiri).

2) Figure 60 (d) he called Fakeakea, the name of a small fish.

3) Figure 60 (e) he called Te Kukiri o Kokiri Kaha. The kokiri is a fish of the Balistapus family.

No. 4 (b) 61
Cont.

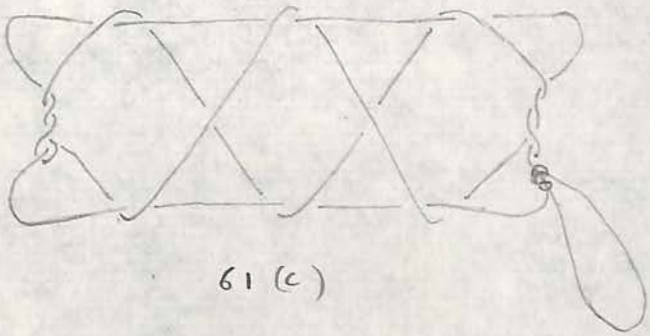
The figure at the end of movement 18 is called, Te Kukiri o Kokiri Kaha. The Kokiri is a fish of the Balistapus family.

Paea of Anaa continued the figure one stage further, in the following manner:

24. Transfer little finger loops to thumbs.

25. Insert little fingers, from proximal side, into thumb loops, then insert into diamond; hook down upper bounding strings of diamond and hold against palms.

26. Bring indices towards you distal to radial thumb strings, hook back these strings through index loops and release thumbs.

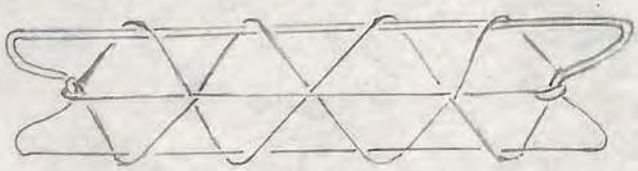


61 (c)

No. ~~71~~ 67

62. MOE HORA HIA

1. Opening A.
2. Insert indices, from distal side, into little finger loops, rotate them towards you and up, under their own loops and carrying with them radial little finger strings; release little fingers.
3. Insert little fingers, from proximal side, into index loops and hook down radial index strings.
4. Insert thumbs from proximal side, into index loops and bring radial strings back through thumb loops.
5. Release little fingers then transfer thumb loops to little fingers.
6. Insert thumbs, away from you, into little finger corners and bring back diagonal strings which lie across them.
7. Insert thumbs, from proximal side, into index loops and bring radial strings back through thumb loops.
8. Release indices then transfer thumb loops to indices.
9. Insert thumbs, away from you, into little finger corners, on backs of thumbs bring back ulnar little finger strings which cross figure diagonally, then pass thumbs away from you proximal to base string of figure and hook it back towards you; release little fingers.
10. Transfer thumb loops to little fingers.



62

No. 71 67
(Cont.)

close up

The chant with this figure is:

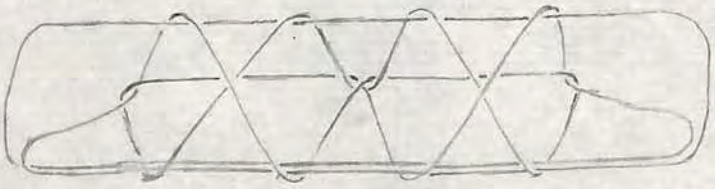
Taku moe kaviria,
Ki roto Katuu
E vava te tai o Pekahi,
E rere te Mahoe te tai o Rauagi.

Mahoe is a ghost, and his path is represented by the straight string running in and out among the four diamonds.

No. ~~74.~~ 63 63. KOPERU From Amanu

Called Taura o Te Ura at Anaa.

1. Opening A.
2. Rotate indices in ulnar direction, pick up both little finger strings then, with indices still pointing down bring them towards you proximal to index loops and insert into thumb loops from distal side, reverse rotation of indices taking ulnar thumb strings back to position and releasing thumbs.
3. Insert little fingers, from distal side, into index loops and hook down ulnar index strings to palms.
4. Rotate indices in ulnar direction and pick up radial little finger strings in crooks of indices, complete rotation allowing index strings to slip off.
5. Insert thumbs, away from you, into little finger loops, pick up ulnar little finger strings which cross figure diagonally, bring them towards you on back of thumbs then pass thumbs proximal to double base stringsof figure and hook them back through thumb loops; release little fingers.
6. Extend by turning palms outward.



63

No. 59.64 64. KAHEGAHEGA From Vahitahi

(a) Open

1. Opening A.
2. Insert all fingers and thumbs, from proximal side, into index loops and allow them to fall onto wrists.
3. Insert indices, from distal side, into little finger loops, pick up radial little finger strings on their palmar sides, then with indices still pointing down carry them distal to ulnar thumb strings, insert into thumb loops from distal side and pick up ulnar thumb strings on their dorsal sides and return to position.
4. Release thumbs.
5. Transfer index loops to thumbs.
6. Transfer wrist loops to Position 1 on each hand.
7. Repeat 3.
8. Release little fingers.
9. Insert middle, ring and little fingers, from proximal side, into thumb loops and release thumbs.
10. Insert thumbs, away from you, into figure close to palmar strings, pick up string which runs across centre of figure on backs of thumbs, release little fingers and draw hands apart.

64 (a)

Except for the extension the identical figure is found in Tahiti, Caroline Islands, Gilbert Islands and Australia.[35]

(b) Locked

1. Opening A.
2. Release thumbs, then insert right thumb, from proximal side, into right index loop, twist thumb in radial direction once, round radial string only, passing thumb distal to radial thumb string first and then proximal to it and also proximal to ~~radial index~~ string, lying at base of index, thus making a loop with a twist in it; insert left thumb, from proximal side, into right thumb loop and extend hands.
3. Repeat all movements of (a) above after Opening A.

64(b)

65. HAVEKE TINIHI — From Anaa

(Tinihi's Canoe)

1. Repeat movements 1 to 9 of <u>Kahegahega</u> No.64(a).
2. In each index corner is a small triangle, insert thumbs into figure below the base strings of these triangles and pull them out. This makes the canoe.

65

No. ~~61~~ 66 66. NA FARE TURU From Vahitahi

Called Ko Hare Turu at Napuka; Karuru (shed) at Tatakoto and Are-kura at Mangareva. Known throughout Tuamotus.

1. Position 1.
2. With hands about six inches apart pass left hand to ulnar side of right hand, insert into loop from proximal side and draw hands slightly apart; now bring right hand towards you proximal to left ulnar little finger string and extend hands.
3. Insert right index, from proximal side, behind left palmar string and return to right; pass left index, from distal side, through right index loop, insert behind right palmar string from proximal side and return to left.
4. Insert all fingers and thumbs, from proximal side, into index loops and transfer these loops to wrists.
5. Insert indices, from distal side, into little finger loops, pick up radial little finger strings on their palmar sides then, with indices still pointing down, insert them into thumb loops from distal side, pick up ulnar strings on their dorsal sides and return to position.
6. Release thumbs.
7. Transfer index loops to thumbs.
8. Transfer wrist loops to Position 1 on each hand.
9. Repeat movement 5.
10. Release little fingers.

No. ~~61~~ 66
Cont.

11. Transfer thumb loops to middle, ring and little fingers.
12. Two strings will be seen running from hand to hand, insert thumbs into figure close to middle fingers and pull out these strings; release middle, ring and little fingers.
13. Transfer thumb loops to little fingers.
14. Insert thumbs away from you into little finger loops and return with radial little finger strings. This string now forms the roof of the house.

66

15. Release ulnar thumb string from little finger, release thumbs and work hands apart, this makes Fare Mutu.

The chant with this figure is: p. 132

Ara turu au ra i to hare ki te kau harega[a],
Ka ara turu atu ki te moae, e,
Hura koe iaku ki te puta o Orovaru!

a. ~~1~~ kauparega: place where waves deflected by a small islet meet on the other side and break against each other.

This figure is known, with little variation, in the Marquesa and Society Islands, Austral Is, Pukapuka, Caroline and Gilbert Islands, and Tikopia. It is also made in Australia but is extended as a flat figure.[36]

No. ~~62~~ 67

Leave Space

67. KOTUKU

(Heron)

Known everywhere in the Tuamotus.

1. Position one but with strings crossing in middle.
2. Complete Opening A.
3. A second person inserts, from distal side, a stick about the size of a pencil into the center of the index loop and against the crossing strings at the point where they cross.
4. Release index fingers and allow loops to catch and hold the stick at right angles while its butt rests against the crossing strings.

The chant given with this figure at Tatakoto is:

<u>Te noho mai ra te kotuku i te pae aria,</u>

<u>Kai tana kokoroue,</u>

<u>Kai tana ririhau.</u>

No illustation is given for Figure 67

No. ~~65~~. 68

68. MARAMA HITI KI RUGA

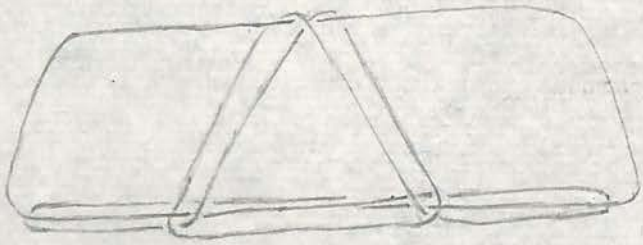
(Rising Moon)

From Vahitahi.

(a) Short Method.

This short method is called Maeama Hiti ki Ruga Poto (poto: short).

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
3. Insert indices, from proximal side, into thumb loops, return with ulnar thumb strings and release thumbs.
4. Insert thumbs, from proximal side, into distal index loops and, releasing little fingers, extend figure by spreading thumbs and index fingers apart.



68 (a)

No. ~~63~~ 68
(Cont.)

(b) Long Method

1. Perform movements 1 to 3 of Method (a).

2 ~~4.~~ Transfer distal index loops to thumbs.

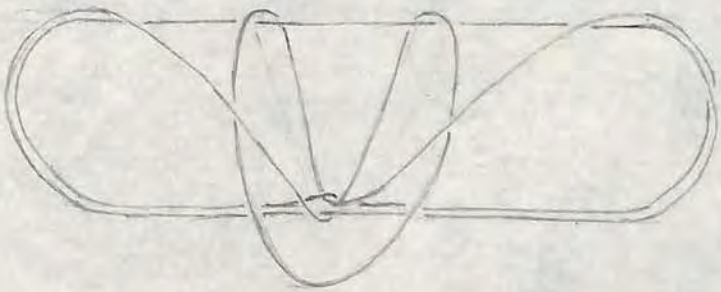
3 ~~5.~~ Insert middle, ring and little fingers, from proximal side, into index loops and hold down radial index and ulnar thumb strings; bring indices towards you, distal to radial thumb strings, then hook ~~it~~ them back through index loops and release thumbs.

4 ~~6.~~ Insert thumbs, away from you, into middle, ring and little finger loops close to little fingers and hook back string which runs straight across figure.

5 ~~7.~~ Release indices, then put tips of thumbs and indices together and transfer thumb loops to indices.

6 ~~8.~~ With mouth take hold of ulnar index string in centre of figure, turn indices towards you through own loops into lateral triangles then away from you picking up the double bounding strings of triangles.

7 ~~9.~~ Release middle, ring and little fingers, then insert them, from distal side, into index loops and extend figure dropping mouth loop which hangs free.

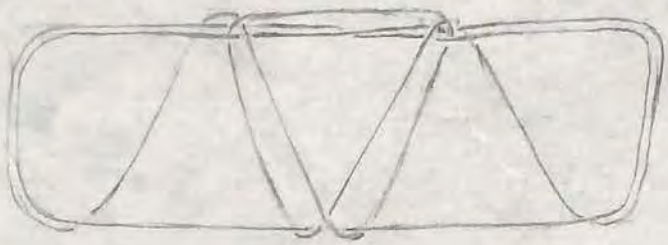


68 (b)

No. ~~64~~ 69

69. MARAMA HITI KI RARO
(Setting Moon)

1. Opening A.
2. Transfer thumb loops to indices.
3. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
4. Insert thumbs, from proximal side, into distal index loops, Navaho thumbs and release distal loops from indices.
5. Repeat movements 2 and 3.
6. Transfer distal index loops to thumbs.
7. Insert middle, ring and little fingers, from proximal side, into index loops and hold down radial index and ulnar thumb strings; bring indices towards you, distal to distal radial thumb strings, then hook them back through index loops and release thumbs from both loops.
8. Insert thumbs, away from you, into index corners, press down strings immediately below them, then pick up straight string which runs from hand to hand and release indices.
9. Press tips of thumbs and indices together and transfer thumb loops to indices.
10. With mouth take hold of ulnar index string in centre of figure and release indices, then release middle and ring fingers and insert them, ~~from distal side~~ towards you, into little finger loops, release string from mouth and extend by a see saw movement.



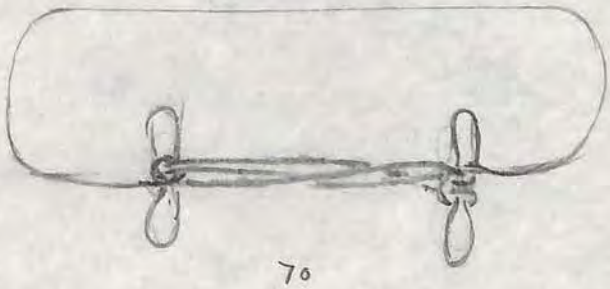
69

To unravel, lay figure down, pick up one of the two inner strings of central triangle in each hand and pull apart gently.

No. ~~66~~ 70 70. NA VAHINE TETEA From Vahitahi

Seen also at Anaa.

1. Place a short (18 inches long) or doubled loop on thumb and index of one hand and thumb only of the other hand.
2. Pass free index distal to thumb index string of opposite hand then pick it up by turning away and up; extend hands.
3. Insert little fingers, from proximal side, into index loops and hook down radial index strings on palms.
4. Insert thumbs, from proximal side, into index loops and bring radial index strings back through thumb loops. Do not release indices.
5. Ulnar index strings cross each other near base of figure, forming two sides of a small triangle; insert middle fingers, from the far side, into this triangle and in crook of middle fingers pull these strings to either side, then insert middle fingers, from proximal side, into thumb loops, on their backs pick up strings which lie across thumb loops and return to position.
6. Transfer middle finger loops to indices. With opposite hand bring ulnar middle finger strings over indices, thus turning loops over onto indices.
7. Navaho indices and pull figure taut with thumbs.
8. Release indices and little fingers, then insert all fingers, from proximal side, thumb loops and extend by widening loops.



70

No. ~~66~~ 70
(Cont.)

The chant from Vahitahi is:

Na vahine tetea,
Pepe i uta, a rari orua ohure
I te miti tetea.

The Anaa chant is:

Na vahine pipio,
Oioi orua avae,
A rari te miti tete.

The Tatakoto chant is:

Na vahine tetea,
Na vahine pipio,
A pepe, a pepe orud, i uta, a rari orua ohure
I Te miti tetea.

l.c.

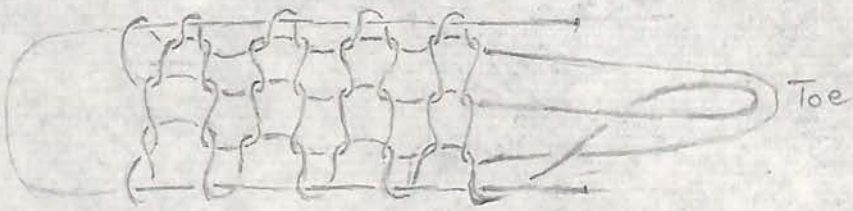
No. 67 71 71. MATARIKI From Vahitahi

Seen also at Reao. This figure used to be made at Anaa and Amanu but is now lost.

1. Double the loop, put one end over left big toe; separate the other two loops and put one over left index and the other over left thumb so that right toe string is uppermost where the two centre strings cross.
2. Insert right index, from proximal side, into thumb loop, hook down ulnar thumb string and pull towards you; put tips of right thumb and index together and transfer index string to thumb.
3. Right thumb and index now work in conjunction with each other; pass right index proximal to right thumb string, distal to left radial thumb string, insert into left index loop from distal side, hook down radial index string and pull towards you allowing previous string picked up to slip off thumb and index. Put tips of right thumb and index together and transfer index string to thumb.
4. Pass right index proximal to rightthumb string and distal to all other strings; hook up left ulnar index string and pull towards you allowing previous picked up string to slip off thumb and index.
5. Put right hand string, away from you, over left index.
6. Insert right index, between the two near toe strings ~~about~~ close ~~half way down~~ to foot, pick up string which runs from toe to left thumb, run index up the length of this string and put it over left thumb.
7. Repeat movements 2 to 6 until all the string is used up.
8. Take a coconut leaflet midrib and insert from distal side through all left thumb loops, then curve it backwards and run the tip through all right index loops, from proximal side. Withdraw index and thumb and arrange on stick so that the figure looks like a snow shoe. The figure is intended to represent the net of Matariki, or the constellation Matariki

No. ~~67~~ 71
(Cont.)

(the Pleiades) which, in turn, represents this net of food.



71

Similar figures are made on Pukapuka, in the Gilbert Islands and in Fiji.[37]

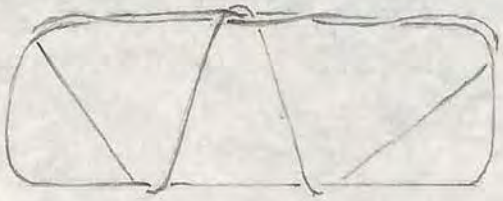
No. ~~68~~ 72

72. TE TIPI HAGA O TE KAHEA

(The Waxing of the Moon).

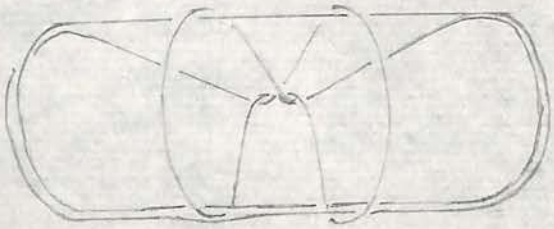
From Vahitahi

1. Insert left thumb and index and right thumb into loop.
2. Bring right hand to left, pass index distal to left thumb index string then hook it up turning index away and up. Extend hands.
3. Insert middle, ring and little fingers, from proximal side, into index loops and hook down radial string.
4. Insert thumbs, from proximal side, into index loops and draw radial strings back through thumb loops; release indices.
5. Transfer thumb loops to indices.
6. Insert thumbs, away from you, into little finger loops, pick up diagonal string which lies across little finger loops and release little fingers.
7. Repeat movement 3.
8. Insert indices, from distal side, into thumb loops, twist away from you and up thus carrying ulnar thumb strings through index loops; release thumbs.
9. Insert thumbs, away from you, into little finger loops, turn palms away to open up figure until central "V" shows then pick up two strings forming sides of "V" whith back of each thumb; release indices.
10. Insert indices, from distal side, into thumb loops, pick up radial thumb strings and release thumbs.
11. Insert thumbs, from proximal side, into index loops, pick up radial string which runs from hand to hand and release little fingers.



No. ~~71~~ 73 73. HIHI O TOGAREVA From Vahitahi

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
3. Insert indices, from proximal side, into thumb loops and return with ulnar thumb strings; release little fingers.
4. Bring little fingers towards you distal to index loops, insert into thumb loops from proximal side, return with ulnar thumb strings and release thumbs.
5. Transfer distal index loops to thumbs.
6. Insert indices, from distal side, into thumb loops and transfer these loops to indices.
7. Release little fingers.
8. Insert all fingers, from proximal side, into index loops and extend figure by widening loops.



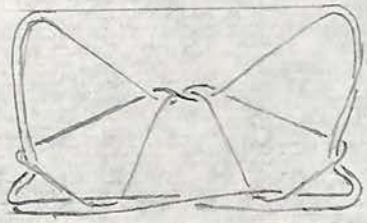
73 (a)

The chant with this figure is:

Hihi o Togareva, ka ka i ake,
Ki raro te tai nui,
Na maua te ma kei.

No. ~~72~~ 73
(Cont.)

9. Insert thumbs, away from you, into lower parts of two central lobes, in crook of thumbs pull strings to sides, then insert thumbs, from proximal side, into index loops and pull radial index strings through thumb loops; release indices.
10. Insert indices, from proximal side, into thumb loops and extend figure.



73 (b)

74. TOGA IA MAUI From Tatakoto

Method 1

1. Opening A.
2. Pass thumbs proximal to index loops and return with ulnar index strings.
3. Rotate indices in ulnar direction between little finger and thumb loops, allow radial index strings to fall off and pick up ulnar thumb strings; release radail index strings from thumbs by turning thumbs under thumb-index strings.
4. Repeat movements 2 and 3 twice.
5. Transfer index loops to thumbs. + release l.fs.
6. Insert all fingers into thumb loops from proximal side and extend figure by widening loops.

74

Method 2

This figure at Napuka, where it is called Tipoka (Paddle), is the same as Toga ia Maui, Method 1, except for the extension.

1. Perform movements 1 to 4 of Toga ia Maui.

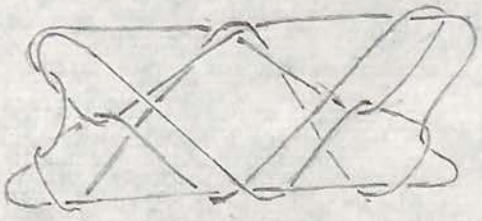
2 ~~5.~~ Insert thumbs, from proximal side, into index loops, release little fingers and extend figure by stretching thumbs and indices wide apart.

No. 75 75

75. TUPOROKURA

From Vahitahi

1. Opening A.
2. Pass thumbs, from distal side, through index loops, then proximal to little finger loops and return with both little finger strings.
3. Insert indices, from proximal side, into thumb loops, return with ulnar thumb strings and release thumbs.
4. Pass thumbs proximal to all strings and return with ulnar little finger strings.
5. Insert thumbs, from proximal side, into distal index loops and Navaho thumbs.
6. Release little fingers and transfer thumb loops to little fingers.



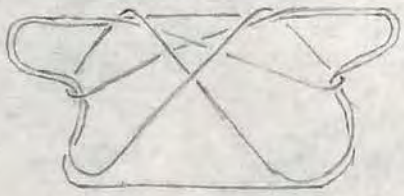
75

The chant with this figure is:

<u>Moki, moka</u>,
<u>Horoatea, haroagiagi</u>,
<u>Tupotokura</u>.

No. 76 76 76. MAROARIKI From Vahitahi

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
3. Insert indices, from proximal side, into thumb loops; return with ulnar thumb strings and release little fingers.
4. Bring little fingers towards you, distal to index loops, insert into thumb loops from proximal side, return with ulnar thumb strings and release thumbs.
5. Transfer distal index loops to thumbs, then transfer little finger loops to thumbs.
6. Release indices then transfer thumb loops to four fingers of each hand.
7. A loop now hangs from each hand; pass right thumb distal to base string of figure, and insert into left hanging loop from proximal side; pass left thumbs, from distal side, through right thumb loop and pick up right hanging loop from proximal side.
8. Insert thumbs, from proximal side, into index loops and pull radial strings back through thumb loops.
9. Release indices then transfer thumb loops to indices.



76

The chant with this figure is:

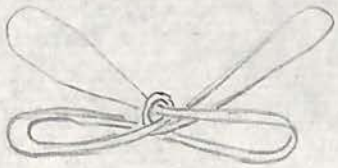
<u>Maroariki i te poipoi e,</u>
<u>kiha taga, ki.</u>

No. 77 77

77. FAI TAAMU
(Slip Trick)

From Vahitahi Only

1. Insert little fingers only into loop.
2. Pass thumbs proximal to little finger loops and return with both little finger strings, thus making double palmar strings.
3. Bring right hand to left, insert right thumb, from proximal side, behind left palmar strings and return to right; pass left thumb proximal to left little finger loop, then insert, from proximal side, behind right palmar strings and return to position proximal to left ~~thumb loop.~~ little finger loop.
4. Navaho thumbs.
5. Tie figure by drawing hands apart.



77

6. Gently release thumbs, draw hands apart and the figure dissolves.

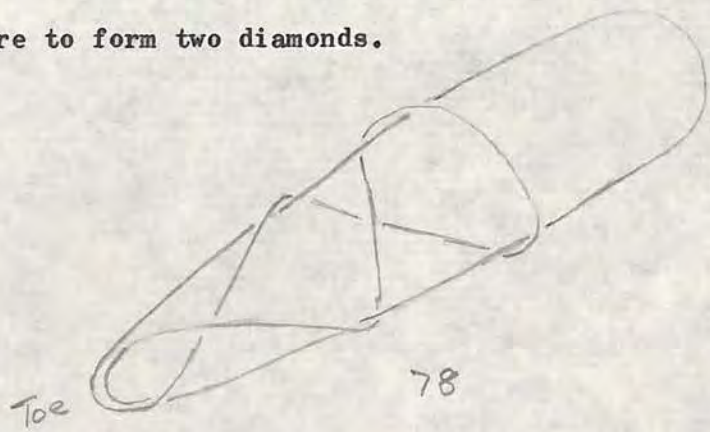
This trick is similar to the Tahitian Amatara and to the Ellice Islands Te Noti o Kulu.[38]

47. 78

78. RORI From Anaa

(Sea Slug)

1. Place loop over a big toe and twist once around that toe; insert left hand into other end of loop.
2. Insert right hand, from proximal side, into loop, rotate to right in a complete revolution bringing it up inside loop and thus wrapping the string around the wrist.
3. Pass right hand over left string, down around it and up into main loop from proximal side.
4. With thumb and index of right hand pull out string wrapped round big toe and pull up towards body allowing strings to slip off right hand; release left hand.
5. Arrange figure to form two diamonds.



The chant with this figure is;

<u>Ko rori houhou gaere, ki te rehega,</u>
Oh, Rori, buried in the sand at the edge of the sand bank,
<u>Ka garo ki te varoga ko Havaiki.</u>
Loose yourself in the ooze of Havaiki.

79. TE PITO O MAUI

From Mangareva

Among the figures made by their ancestors, the elder Mangarevans mentioned Te Pito o Maui, The Navel of Maui, and Te Matikuku o Tahaki, The Fingernails of Tahaki, as amongst the finest. I have not encountered the former figure in the Tuamotus.

1. Opening A.
2. Twist all loops once in ulnar direction.
3. Transfer thumb loops to indices, keeping them distal.
4. Pass thumbs, from distal side, through proximal index loops, insert into little finger loops from proximal side and return with radial little finger strings; release little fingers.
5. Transfer distal index loops to thumbs.
6. Pass indices distal to distal thumb loops, insert into proximal thumb loops from distal side and transfer proximal loops to indices.
7. Repeat movement 5.
8. Repeat movement 6.
9. Repeat movement 5.
10. Twist thumb loops once in radial direction.
11. Insert thumbs, from proximal side, into index loops; bring little and ring fingers towards you, proximal to index loops , insert into thumb loops from distal side and hook down double ulnar thumb strings.
12. Navaho thumbs with double radial strings.
13. Insert indices, from distal side, into thumb loops, turn them away and up carrying with them double strings lying across thumb loops.
14. Release thumbs.

79

The chant with this figure is:

Te Pito o Maui,
Te Kotiga, te Kotiga te pito o Maui.

The cutting, the severing of the umbilicus of Maui.

This is essentially the same figure as the second figure of the Maori Kuri a Tuatini, the Gilbertese Kawain te Maniba and the Marquesan Te Mahaivero though the last has a complicated movement instead of repeating the earlier manipulations, as the others do; all vary in the final extension.[39]

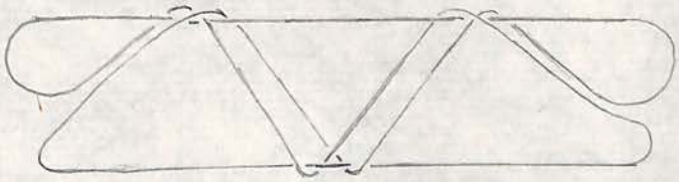
No. ~~79~~ 80 80. TE MATIKUKU O TAHAKI From Mangareva,

1. Position 1.
2. Insert left index, from distal side, behind right palmar string, bring index towards you and up and return to left; pass right index, from distal side, through left index loop, pick up left palmar string from proximal side and return to right.
3. Proceed as in Te Pito o Maui after Opening A.

80

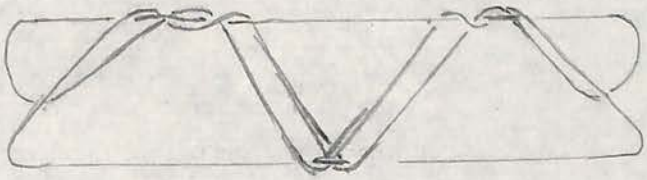
No. ~~82~~ 81 81 'AKA UIRA From Mangareva

1. Double the loop and put over wrists, crossed strings on radial side of hands.
2. Hook little fingers round distal ulnar strings and hold against palms; insert thumbs between ulnar strings then rotate thumbs down, towards you and up carrying with them proximal ulnar strings and allowing both radial strings to slip over hands; straighten little fingers. There should be a loop on each little finger and a crossed loop on each thumb.
3. Twist little finger loops once in radial direction.
4. Twist thumb loops once in ulnar direction.
5. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
6. Caroline Extension. This makes Uira (lightening).



81(a)

7. Release thumbs and transfer index loops to thumbs.
8. Repeat movement 5.
9. Caroline Extension. This makes Patiri (thumnder).



81(b)

82 VERO O TAVAKE From Mangareva.

1. Opening A.
2. Insert indices, from distal side, into little finger loops, rotate indices towards you and up under their own loops and release little fingers.
3. Twist index loops at least three times in ulnar direction.
4. Release thumbs.
5. Insert middle, ring and little fingers, from distal side, into index loops and extend figure by widening loop.
6. Throw the hanging loop back over the figure as many times as necessary to unravel it.

83. MANGAREVA SLIP TRICK

1. Insert indices only into loop.
2. A second player, with his right hand, takes hold of the ulnar index string from above; with his left hand he takes hold of the radial index string, also from above, and pulls both strings tow ards himself; his right hand is now raised and moved over to the left and the right hand string is dropped over first player's right index.
3. First player draws his hands apart as second player releases his left hand and the loop slips off first player's right hand.

77 Arthur Circle, Forrest,
A.C.T.2603, Australia,
28th January, 1980.

The Manageress,
Bishop Museum Bookshop,
Bernice P. Bishop Museum,
1355 Kalihi Street,
P.O. Box 19000-A,
HONOLULU, Hawaii 96819.

Dear Madam,

Professor Kenneth Emory notified me by letter dated 14 June last that the Director had agreed to the Bookshop taking 100 copies of our joint monograph on the String Figures of the Tuamotus.

This work has now been published by the Homa Press of Canberra and copies have been sent to the Australian National University Press, who are acting as distributors.

The recommended retail price is $6 (Australian currency) and the books are available at this figure less the usual trade discount of 40%, plus postage.

String Figures of the Tuamotus is No.2 in the Homa Press String Figure Monographs Series, and Monograph No.1, Solomon Islands String Figures, based on the collections of Sir Raymond Firth and Christa de Coppet, is available at the same price.

Yours faithfully,

Honor Maude.

77, Arthur Circle,
Forrest,
November 27, 1979

Dear Kenneth,

We have had a few problems with the Tuamotu String Figure book but we are now well on the way to production. I have just been talking to the printer and he tells me that the printing and the cover are already done leaving the Frontispiece and the binding to be dealt with.

One difficulty, which I think we may have overcome thanks to the Manager of the Printery, was the fact that the Government is changing the rule for the Bounty; from January 1980 there has to be a run of 1,000 to qualify for one third of the printing cost, and I have only 400. I was quite surprised and very glad to hear that things were moving and I know they are working to get us, and a few others, through before Christmas.

The typist gave me some extra hours of work by twice leaving out the space for a figure and then going on typing. I mANAGED to reclaim the space in 7 pages of re-typing!

The printer's quotation is a little higher at $988, less the Bounty if we qualify; then there is the cost of re-typing, but all being well it should work out at the same price as the Solomons, $6 retail. I have asked the Press for the cost of 100 copies for the Bishop Museum and they will let me know tomorrow so I'll put it in a PS.

On the front cover I have Maui's Sun (No 51h) and Turi e Tone Noe (No 50 f); on the back cover Na Fare Turu (No 66), Matariki (No 71) and one other, I can't remember which one I chose.

The Press have asked Harry to make some alterations to the Peruvian Slavers, moving Tables so as to make an uninterrupted narrative. We hope the book will appaer in the early part of 1980.

With warm greetings from us both,

Honor

PS. The wholesale discount is 40% plus postage. So if we can keep the retail price here at $6 the cost to the museum will be $3.60 each - i.e $360 plus postage for 100 copies.

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

Dec. 17, 1979

Dear Honore,

I am delighted no end with the first copy from the press of *Shining Fingers of the Tuamotus* and rushed around the Museum to show it. The cover is so very attractive and it opens with the picture I like best. So I am in a good mood to enjoy the Christmas and New Year season.

Your handling of the illustrations is so very well done. Your contribution makes the whole work a landmark achievement. Thank you, thank you, Honore. Wish we could celebrate together here.

With our love

Kenneth

BERNICE P. BISHOP MUSEUM

P. O. Box ~~[illegible]~~ 19000A, Honolulu, Hawaii 96819 • Telephone 847-3511

September 28, 1979

Mrs. H.E. Maude
77, Arthur Circle,
Forrest,
A.C.T. 2603
Australia

Dear Honore,

I, too, was quite disappointed to learn you and Harry were here while we were in Tahiti.

I just reread my preface to "String Figures of the Tuamotu Archipelago" by Kenneth Emory and Honore Maude. I have nothing to add I can think of. If there were to be a hang-up or long delay I would be tempted to translate the chants.

Particularly pleasing is your decision to use the photo of Tukua and your idea of the title for it.

Marguerite and I celebrated our Golden Wedding September 17, 1975. Congratulations on attaining yours. We are thankful we held together. The memories and experiences we shared are precious.

It was good, too, that you could go back to the Gilberts after thirty years. From 1931 to 1961, thirty years, Marguerite and I, too were away from Tahiti.

With fond aloha,

Kenneth

Kenneth P. Emory
Senior Anthropologist

77, Arthur Circle,
Forrest,
A.C.T. 2603

22nd September, 1979.

Dear Kenneth,

We are very sorry we missed you and Marguerite on our recent visit to Honolulu; unfortunately our dates were determined by the celebrations at Tarawa, beginning on July 7th. it seems we only get moving when outside influences urge us on, in this case an invitation from the GilbertsIslands Government (now Kiribati). After an absence of thirty years we had a wonderful welcome and kept on meeting Gilbertese who remembered us, including staff members from 1945, and even earlier.

Thank you for your two June letters, I am delighted that the Director has agreed to the Bishop Museum Bookshop taking 100 copies of the Tuamotu string figures.

The costs I quoted were Australian dollars. As soon as I can get the MS to the printer I will let you know his quotation. Costa I know have risen by about 12% but the Tuamotu book will be slightly smaller so it may work out at much the same price.

Harry and I have been housebound for a couple of weeks with 'flu and cole, wet weather, but I have been able to phone my typist and she will be ready to begin our book very soon. However there is time for you to add something to your preface as the early pages are numbered differently.

In the meantime I have been through the MS, replaced the missing page and cut every illustration to fit into the text, marking the requisite space on the MS. Anvida, the typist, is very good indeed at setting out headings and judging when to ~~leave~~ begin a new page.

Another item we had under discussion was the photograph for the Frontispiece and I agree with your choice of 17784-6; I think the tirle whould be simply "Tukua of Napuka". The figure she is making is most intriguing, similar to Puga Tahetahe, but with a very different extension (it is in fact a "turned over figure). I have looked at the other photos and none are as good as Tukua; the only other possible one is Patanuka, No.7, but one hand is cut off. I propose putting a note at the end of the list of figures as follows - The unrecorded figure in the Frontispiece, as shown by Tukua of Napuka, is similar to Puga Tahetahe, No.25, but has a different extension.

We have just celebrated our Golden Wedding, in the midst of 'flu, but Alaric had been with us the week before and we had a dinner then. He brought us a family gift of a brass door knocker with the Maude coat of Arms , it is very handsome!

With very warm greetings from us both and with my love,

Honor.

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

Dear Honor,

You see that by a mistake, I started this letter on the back of this letter. Well, anyoje can read it, O.K. with me. But the last sentence may have to be repeqated becuuse it is glued under. It is: Would there be time enough for me to add a sentence or two (or a paragraph) to my preface?

Not only Sinoto and I are going to Tahiti July 6, but also Marguerite, Tiare, and grandson Emir. Adrienne Kaeppler and two students from the museum will go also to help record Tuamotuan dances and songs. Should be a great time.

Kenneth

Aloha a nui loa from,Marguerite too

BERNICE P. BISHOP MUSEUM
~~XXXXXXXXXX~~
~~HONOXOLXXXXXXXXXX~~

NEW ADDRESS:
1355 Kalihi Street
P. O. Box 19000-A
Honolulu, Hawaii 96819

June 7, 1979

Mrs. Honor Maude
77 Arthur Circle
Forrest, A.C.T. 2603
AUSTRALIA

Dear Honor:

How good to be assured through your letter of 31st May, that you and Harry are holding your own as well as we, two.

We will be going to Tahiti with daughter Tiare and grandson Emir, July 6 to 29. Sinoto, Adrienne Kaeppler and two students are going also. Adrienne and I will be winding up our study of the Tuamotuan dances and I my last bit on Tuamotuan culture, the ancient tipara rite of Vahitahi, working with Tuamotuans who have come to Papeete to live.

I am perfectly delighted to learn that you are ready to go ahead with publishing our book on the String Figures of the Tuamotus, providing Bishop Museum takes 100 copies to sell through their book shop.

Sinoto, our chairman, is more than willing, and the Book Shop people, too, but they will have to have the o.k. of the Director, Creutz who at the moment is on the mainland. But I have made an appointment to see him when he is back, Tuesday the 12th and I am sure he will agree to the proposal of the Book Shop taking 100 copies at the retail price less the usual trade discount.

Your given costs in terms of $. Are these U.S. or Australian dollars? How much do you figure will be the sale price of the Tuamotuan book and is the trade discount 40%?

On showing Monograph No. I to those in the Book Shop, they wanted immediately to order some and so you will be hearing from them.

With our aloha nui loa.

Sincerely,

Kenneth

Kenneth P. Emory
Senior Anthropologist

KPE:pb

77 Arthur Circle, Forrest,
A.C.T.2603, Australia,
31st May, 1979.

Dear Kenneth,

It was good to hear from you and to know that you and Marguerite are in good health. We are both well and busy, but perhaps take things a bit slower these days.

I think that I mentioned to you at Christmas that I had registered myself as the HOMA Press and was publishing the Solomon Islands String Figures collected by Raymond Firth during 1928-29 and Christa de Coppet in 1963-65. I am sending you a copy of this to see if you like the format, as my intention was to publish the Tuamotu collection this year as No.2 in the series.

I am very loth to part with the MS once more, especially to the French. The Societe des Oceanistes kept it for 18 months, and then returned it with their apologies, saying that they had no paper. Dr Lavonde, having accepted the collection with enthusiasm, was, I understand, unable to get a reply from the bureaucracy which controls them in Paris, and I finally retrieved it through the kindness of Madame Lavonde.

When the manuscript arrived from Tahiti I found that page 138 was missing and that instead there was a note saying that it was not an omission but an error in pagination. Actually page 138 is vital to the construction of a figure, but of course I have got a duplicate. Also someone in Orstom has stamped every page and every illustration with six large black numbers.

The whole text will have to be retyped carefully by an expert for offset publication, like the Solomon Islands book, and fortunately I am in a position to defray the cost of publication. But it would help me very much if the Bishop Museum Bookshop would agree to take 100 copies at the retail price less the usual trade discount.

My intention is to ask for a further grant of $100 from the Republic of Nauru Publication Fund. The printing is done by the Central Office of the Australian National University, and because it is done in Australia I am entitled to a bounty from the government of one-third of the printing cost.

The Solomons book cost $900 for 266 pages, and the Tuamotus would, I think, come to about the same, while the retyping of the manuscript will cost about $200. As you will see the total cost to me is $1,100, but as I get $100 back from the Nauru grant and a $300 bonus, my net outlay is $700; and some of this I should get back in sales.

The A.N.U. Press took over the distribution and agreed to price the book at $6 retail. This was not a paying proposition for me, but I wanted the price kept low for the islanders. The Nauruans have bought up the whole edition of the book I did for them and they are now making the figures publicly at Arts festivals!

I hope that you will be able to agree to this proposal and succeed in persuading the Bookshop to stock it. I can then go right ahead with the preparation of the monograph.

With our very best wishes,

Yours sincerely,

P.S. The title would be as we agreed originally:

Sitting Figures of the Tuamotus

Kenneth P. Emory & Honor Maude.

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

May 22, 1979

Mrs. Honor Maude
77 Arthur Circle
A.C.T. 2603
Australia

Dear Honor:

Here it is, May 1979, and The String Figures of the Tuamotus still unpublished, however Material Culture of the Tuamotu Archipelago and The Changing Pacific, have been published.

We at the Bishop Museum have been going through changes which have delayed publication plans.

We have a new director, Dr. Edward Creutz and an entirely new and greatly enlarged Board of Trustees.

I shall be taking up anew the attempt to have the string figures published. It was listed in Material Culture as "In press...Orstom Press."

Dr. Sinoto and I are going to Tahiti in July for three weeks and we may even try again to see if OSTROM would be interested in helping.

We would like to know how you and Harry are doing. Marguerite and I are in good health, only lacking the pep we had ten years ago.

Our love to you both,

Kenneth

Kenneth P. Emory
Anthropologist

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

May 14, 1975

Mrs. Harry E. Maude
77, Arthur Circle
Forrest, A. C. T. 2603
Australia

Dear Honor:

I am sending Xerox copies of photos taken of fai at Napuka in 1934. I cannot find that I recorded the names of any of these at the time. Do you think you could identify any of them? Is not 17784-7 "patanuku" our no.22, page 33, and for which I have the Napuka name of Mariko-ia-kaka? The best picture is 17784-6, which I would like to see as a frontice-piece illustration for "Tuamotuan String-figures."

I attach a summary of the Maui legend, which, rewritten, could be included with the account of the Maui series.

I have not as yet had any word from Henri Lavondese in Tahiti.

Again, with best wishes,

Sincerely,

Kenneth P. Emory

enc: 5

12th May 1975.

Dear Kenneth,

Thank you very much for your letters + + for the copy of your letter to the Lawndes. I do hope we receive an affirmative reply.

I'm sorry I haven't answered your earlier letter before this. I wanted to check the Stokes material + it has been a busy time one way + another, including our 6 monthly sale of plants for the YWCA, all of which we got up ourselves! We raised $370 in 3 hours.

I have been very carefully through Stokes + have come to the conclusion that the best plan would be to omit the figures from the comparative table but to put them in the text. I will re-type the pages affected, together with the footnotes for substitution + will send a copy to you + to Mr Lawndes.

I will write again when I have completed the inclusions + give you detailed information on my decisions. Stokes will, of course, be added to the References, fortunately the last name, after Stanley!

Thank you for your very generous comments on my share in our enterprise, it was as you know, an absorbing exercise, cementing a fast

friendship. I am delighted that you contemplate writing a digest of Maui, Turi & Ri legends, I had hoped you would have time to do that, it will round off those wonderful series.

Harry is just finishing the building of the "maneuka", all the detailed instructions & chants we collected a good many years ago.

With our very warm regards,

Honor.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

April 28,1975

Dear Honor,

Well, I have now been to Tahiti. I took the string-figure manuscript down, left it at the office headquarters of ORSTOM with Claude Robineau for Henry and Anne Lavondese, who arrive May 1-3. I enclose a copy of the letter I have written Henri. We will see now how it will go.

I agree with you that the figure made by the Napuka girl Tukua, I have not recorded, and has not yet been recorded. I am having prints made of the three others photos I took at the time of this girl. They may be identifiable, or give clues. But I think it would be alright to have the photo I sent you,reproduced, and with the title, "unrecorded fai". This would indicate that I had not exhausted the descriptions of Tuamotuan figures.

I have revised my ACKNOWLEDGEMENTS a copy of which I also include. Thank you for the data which I needed to do this, and which was in your letter of April 4, 1975, which reached me safely in Tahiti, as also the description for the making of the string-figures.

On my return I found Marguerite O.K. and all going as well as could be expected at the museum. Best of all, the double-canoe just built for the ocean trip to Tahiti and return, is sailing beautifully . We have a full year for the preparations and the picking and training of her crew.

It seems there may be time for me to put in a digest of the Tuamotuan legend of Maui which the Maui fai illustrated, also that of Turi and Ri. Also, I probably could give more translations for the chants. Tuamotuans of my generation are now living in Papeete, from all over. I will be working with them next year, if all goes well.

I will be sending off my paper for Harry's festschrift, soon.

Hope this finds you both well and happy.

Aloha nui,

Kenneth

Kenneth P. Emory

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

April 24, 1975

Mr. et Mme. Henri Lavondese
O.S.T.R.O.M.
Papeete, Tahiti

Dear Henri and Anne:

In March I received a letter from Honor Maude in Australia telling of the results of Harry's inquiring whether ORSTOM would be interested in publishing our Tuamotuan String Figures manuscript in their series. She said that the suggestion was referred to M. Lavondes in Paris and that he (you) approved it in principle and had asked that a copy of the text be sent to Papeete for you to see and for estimating the cost. As I was planning to go to Tahiti for two weeks in April, we agreed that I take down my copy for you to examine. So I did, and learned from Calude Robineau that you both would be there May 1-3, so I have left the manuscript with him.

I think it would be great if ORSTOM were to publish this manuscript as I would like to make this contribution to their field of research. My manuscript on the Material Culture of the Tuamotus has gone to the printer and should be available in a few months. String figures may seem to be a very insignificant part of Polynesian culture, but all branches practised the making of them and it was very much a part of their recreational sitting life, not only did the youngsters all learn to make them and accompany them with little chants, but adults went further and developed quite elaborate sequences which following the telling of the exploits of Maui and of other mythical heroes.

I am enclosing a new preface and also a different "Notes on Terminology" which should be substituted for what is there in the manuscript now. See that this is done, please. Also, we have not been able to identify the fai made by the girl in the photos, so if it is used the title should indicate it is a fai which we have not yet recorded.

The making of these figures is something that could be taken up again, now that they are recorded, and offer a fascinating pastime, requiring dexterity and skill and a pastime which anyone could afford. It would be good to see the making of this fai revived there in French Polynesia. So I hope you will succeed in having ORSTOM publish this study.

Yosi has received funds to continue the excavations at Fare and so will be down again in August. We shall be much interested in what you two will be doing.

My reason for going to Tahiti aside from seeing old friends and learning what was going on, was to start interest in the coming of the pahi Hokule'a next year in May and in the provisioning of it and recruiting those in Tahiti we may want to be on the voyage from Tahiti to Hawaii. You will hear from me right along on what we hope to do.

I plan to come down next year to be there when the double-canoe arrives and to work with Pere Hubert Coppenrath and Odette Frogier with old Tuamotuan friends on re-recording the songs and chants of Tatakoto and Vahitahi and the dances. Adrienne Kaeppler can be with me.

With best wishes from all of us,

Kenneth

Kenneth P. Emory

6.4.75

Dear Kenneth,

First of all to deal with the excellent photo of the Napuka girl with the, I fear , unknown string figure. I have to advise that it is not Punga Tahetahe, for several reasons. The diamonds are correct but the strings do not overlap in auite the same way; more important, the extension is totally different, this is a 'turned over' figure (as in No.17, p.25, Kokikokiko I), moreover the girl has a tight loop on each index finger and Punga Tahetahe is extended on thumbs and index fingers only; you will see also that the bounding strings run from thumb to ring or little finger so that the figure would not extend if held in the normal manner.

I have been right through the Tuamotu figures and also gone back to your original manuscript without finding this figure. It is quite unique as far as I know.

I like your new Introduction very much and also the Acknowledgements; thank you very much for your generous remarks about myself. As you know I loved doing them. You mention missing ones so I checked them and find that only two defeated me, and one intermediate step in Koviri. Neither of those were 4 diamond figures turned over, I can see that much. This is very tantalising, what figure can the girl be holding? Unless you feel this is your best photo and being unique it should be included without a name would you send me the others you mention in your letter of March 27th to see if I can identify them?

I first worked on the Tuamotu string figures in 1958, particularly during the sea voyage back to Australia. Then I had to finish the Gilbert Islands collection and also Nauru. Raymond Firth's Tikopia collection was given to me in early 1962 whilst we were in London, an easy collection as I was familiar with the movements! I am now working on his Solomon Islands figures. So I began serious work on the Tuamotus in November, 1962 the time I landed in hospital. I hate being defeated and some of the Tuamotu movements are very tricky so it meant many hours of trial and error and I know you will understand the triumph & satisfaction

of success.

I am sorry now I didn't spend more time of the Stokes collection, but I was not very well. I have a photo copy of Pearl Beaglehole's Pukapuka collection and I wish it could be published.

I am ashamed and horrified that I omitted the terminology (I can't think how Harry's eagle eye didn't notice!) and I will send you one separately. Nauru will not do as I changed the usual anthropological terms at the eleventh hour in case the Nauruans ever wanted to re-learn them; pious hope, they never even said 'thank you' althoug they have used the designs to decorate their 'planes and other places I am told. The strings, by the way, I reckon should be 5 ft for the series and 10 ft for other figures.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

April 2, 1975

Mrs. Harry E. Maude
77 Arthur Circle
Forest, A. C. T. 2603
Australia

Dear Honor:

Enclosed is a Xerox copy of what we found of the records Stokes obtained of string figures in Rapa, Rurutu, Rimatara, and Tubuai. Stokes took movies as a means of recording. This film deteriorated and had to be discarded, but he made prints on paper of sections which are quite clear. These could be photo copied if it would seem worthwhile to you. He also took a dozen or so still pictures of completed figures which we have.

To what extent should we note his material? At least we must refer to its existence. We have added columns to your comparative list with the seeming equivalents to the Tuamotu fai.

I have had to postpone my going to Tahiti to April 8 because of dental trouble and so now plan to be there April 8-20. I can be reached in Tahiti through Bengt Danielsson, B.P.558. Papeete, Tahiti.

Yours,

Kenneth P. Emory

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

March 28, 1975

Dear Honor,

I am trying to remember when yit ws you were staying with me and you did a spell at the hopital. I thought it was in 1961, or 1960, but can find no mention of it in my line-a-day diary for those years, so it must have been earlier or later.

Do let me know when it was. I want to metion that date in the introduction.

Kenneth

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

March 27, 1975

Mrs. Harry E. Maude
77 Arthur Circle
Forest, A.C.T. 2603
Australia

Dear Honor:

I have rewritten the introduction to String Figures of the Tuamotus and added acknowledgements,of both of which I am enclosing copies for your comment or suggested revisions or additions. I will take these with me when I go down to Tahiti, April 1 to 13. You can write me there care of Bengt Danielsson, B. P. 558, Papeete Tahiti. I will take the manuscript and illustrations to ORSTOM headquarters and discuss it with them. I have thought a few photos of the figures might be interesting to include and especially that it would be nice to show a Tuamotuan girl with a fai made of the usual strip of pandanus leaf--the one enclosed. I am embarrassed though that I cannot quite recognize the figure for sure, it looks like Punga Tahetahe of four diamonds, number 34 described on page 84. What do you think?

I have made the small selection of photos enclosed. The negatives can make very good prints.

Everyone here thinks it fine that there is this prospect of having this work printed at last. If ORSTOM does not show sufficient interest we will see what we can do here.

Hoping to hear from you soon and to have good news of you two. I have a manuscript ready for Harry's Festschrift. It is entitled "Polynesian Division of Food and Labor" and includes examples from Napuka and Kapingamarangi atolls. Very short--five pages.

With much aloha,

Kenneth

Kenneth P. Emory

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

March 27, 1975

Mrs. Harry E. Maude
77 Arthur Circle
Forest, A.C.T. 2603
Australia.

Dear Honor:

In my letter of March 27 the number I gave for the String Figure #34 described on p.83 is from the old manuscript, it should be #25, p.37 of our new manuscript.

I have discovered that Stokes seems to have collected string figures at both Rapa and in the Australs. We are looking up what he collected. He has for example "Rapa - naure is equivalent to Tuamotu - moko" I shall let you know further what we come up from his research.

With much aloha,

Kenneth

Kenneth P. Emory

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

March 20, 1975

Mrs. Harry Maude
77 Arthur Circle
Forrest, A.C.T. 2603 Australia

Dear Honor:

I have received an invitation to contribute to Harry's Festschrift and will be doing this. I have good data on methods of distribution of food for Tuamotus and Kapingamarangi.

I am reading the String Figures manuscript to take to Tahiti April 1. I am submitting a photo of a Napuka girl in her house exhibiting a string figure(and her own figure). May make it more popular.

Yours,

Kenneth P. Emory

77, Arthur Circle,

Forrest, A.C.T. 2603

24.3.75.

Dear Kenneth,

No sooner had I posted my letter than yours arrived. I am so glad that you are pleased at the prospect of publication by ORSTOM and it is wonderful that you can take the manuscript to Tahiti with you. All very opportune and your being friends with M. Lavondes will surely give him that little extra interest in the project! Harry attended a UNESCO conference in Suva with M. Lavondes about 3 years ago and liked him very much.

I am writing today to the Directeur in Papeete and 'making a demand' (his phraseology) for publication. He signed the letter Y. Lemaitre.

We were happy to hear that the launching of the Polynesian double-canoe went off so well and we shall look forward to seeing pictures of the event.

With warm regards to all at the Museum and our love to you,

Honor.

P.S. On reading my letter Harry says, & I agree, that the 'demand for publication' would come better from you than from me, as you are so much better known to them. So may I please leave it to you to do what is necessary when you get to Papeete?

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

March 14, 1975

Dear Honor,

My letter of March 4 must have crossed with yours of March 6, because you say nothing about having received it. What a coincidence!

Naturally, I and we are delighted, very happy, that ORSTOM has signified its interest in publishing it. We know M. Lavondes very well (Henri and Anne). By rereading your letter I see that you have not received mine, or rather had not when you wrote. I can conveniently take down the original manuscript to Tahiti, to the office of ORSTOM there, when I go down April 1st. I will plan to do this and will do it if that is O.K. with you, too.

The launching of the Polynesian ocean-going double-canoe sailing vessel when off beautifully March 8. We were spell-bound, she is such a grand ship. Will send you pictures.

Best wishes to you two from all here, and

aloha nui loa,

Kenneth

77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
6th March, 1975.

Dear Kenneth,

Some months ago Harry enquired through friends in Tahiti whether ORSTOM would be interested in publishing the Tuamotu String Figure Monograph in their Series.

This suggestion was apparently referred to M. Lavondès in Paris who has now approved it in principle and asked that a copy of the text should be sent to Papeete for costing and forwarding to him.

We are naturally very happy that ORSTOM has been so forthcoming; they enjoy a Government subsidy so there should be no need for us to raise funds for publication, which is a distinct consideration in these days of rampant inflation. Harry thinks that they would publish it very soon, which would be wonderful.

I will check my copy and have it ready to send to Tahiti (unless you would prefer to send the original) as soon as I hear from you that you have received the original and have no objection to the proposal.

With our best wishes and kindest regards to all at the Museum,

Yours,

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

March 4, 1975

Mrs. Harry E. Maude
77 Arthur Circle, Forrest,
A.C.T. 2603, Australia

Dear Honor:

The Tuamotuan string-figure manuscript arrived the middle of February. I am relieved it is safely here now. I meant to have answered your letter of December 14 immediately, and then too, to have written immediately when the manuscript arrived. Among the happenings which keep me flying about are the preparation for launching the double canoe we have at last been able to build. We are modeling the launching ceremony on the good Hawaiian accounts we have, with their prayers and chants. I have been put in charge of this.

I will be going to Tahiti April 1-13, to look after arrangements for those on the voyage when the sailing vessel, Hoku-le'a, arrives from Hawaii in May or June 1976. She will make the trip navigated by using stars, winds, waves, currents, etc.

At present we have a number of publications on the way. String-figures is being put in line. As soon as we have an estimate on cost, we will let you know the help we will need. After two years working on my Tuamotuan Material Culture, it is now in page proof and so we should see it on library shelves before Christmas.

Marguerite and I manage to keep going--I about the same speed, she slowing down the pace and absorbed in reading Time-Life books on the early history of man, etc. She wants to know about her European ancestors, too.

Hope we all can exist well till one can make Tuamotuan string figures from our book.

With best wishes,

Kenneth

77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
14th December, 1974.

Dear Kenneth,

We were, as you can imagine, delighted to hear that your anthropology department had decided to publish the Tuamotu string figures. We had tried the Libraries Board of South Australia, who published my Nauru string figures book, but heard recently that lack of funds prevented them from doing the Tuamotus as well.

Unfortunately there are no organizations in Australia who provide funds for publication, as Harry has found out after many attempts over the years to obtain subsidies for monographs on Pacific studies in which he is interested.

The Republic of Nauru Fund makes advances against repayment from royalties, and they might be persuaded to stretch a point and ddvance a few hundred dollars ($1,000 is their maximum) against a lien on sales, but it would need a change in their rules. Would you like Harry to try?

In any case we should be willing to contribute to the cost of publication from our own savings; so please let us know what you need and we will see what we can manage. Not a lot, I'm afraid, as we no longer have a salary to fall back on.

The Nauru book was done by offset from typing and came out very well and quite cheaply in an edition of 600 retailing at $5 (and actually made a small profit). I enclose a prospectus - perhaps something like this is what you have in mind?

We both keep busy: Harry on his writing and editing and I on a work on the string figures of the Solomon Islands, in collaboration with Raymond Firth and Christa de Coppet.

With our very best wishes for a Happy Christmas and New Year to you both,

Yours sincerely,

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

November 12, 1974

Mrs. H. E. Maude
77, Arthur Circle,
Forrest, Australia ACT 2603

Dear Honore,

I don't think I have given you an answer to your letter of June 30, telling of Patrick O'Reilly's bad answer.

I've been swept away by the time taken to write an article for the National Geographic and serving as consultant for them on a number of articles. Then Marguerite and I finally took a trip to the mainland to visit Winifred in California and Tiare in Virginia and go up to Washington and New Hampshire.

Now I am winding up my Tuamotuan Material Culture which is set up in print and ready to go except for one final section which I am working hard upon this week.

Now, we have decided we, our anthropology department, will publish String Figures of the Tuamotu Archipelago by Kenneth P. Emory and Honore Maude. We will have to get the money. We will have to try a number of sources--if you can tap a small subsidy, do so.

I am very well, Marguerite is having gall bladder trouble and faces an operation. But the daughters are well and managing.

Do hope this finds you both in good shape.

Aloha nui from us both,

Kenneth

Kenneth O. Emory

M.S. Posted 31-12-74

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

February 5, 1973

Dear Honor:

I was happy indeed to hear from you and to learn that our manuscript on Tuamotu String Figures had gone off to Paris. I have just sent a note to Patrick O'Reilley, hoping it might make that l'eau a la bouche flow.

The work you have done on the manuscript was tremendous and necessary to render it fit for publication. So your name must appear as co-author, I hope you saw to that. I have all but completed the edited Tuamotu manuscript, half of which and all the illustrations are with the printer. The other half goes next week.

Pat McCoy here has received a letter from Easter Island saying that Julia is still there and he will be writing urging her to keep on with what she was going to do on the string figures. Bill Ayres is back on Easter Island, with his wife this time. Life is a bit hazardous with a revolution of a sort going on.

Yosi is back from Tetiaroa atoll, 30 miles north of Papeete, well pleased with the archaeological school he held there with 6 students from the University of Hawaii and 6 students from Tahiti. There are at least 14 maraes on the atoll which they are studying.

Marguerite and I are enjoying life but finding we have to go quite a bit slower than autre fois. Gathercole is here at present, visiting us and his wife Adrienne Kaeppler. He, or they will be going to New Zealand, he to study Pitcairn material. They are a great pair. Adrienne is one of our most able members. I am having to visit the outer islands frequently and hope Marguerite and I can get down to Tahiti this June or July.

When you both were staying with me, that was a happy time for me. I wish you could see our garden now, Marguerite has created something most beautiful.

So, with affection,

Kenneth

77, Arthur Circle,
Forrest, A.C.T. 2603,
Australia.
22nd Jan. 1973.

Dear Kenneth,

I'm happy to be able to tell you that the Tuamotu String Figures have gone on their way to Paris at last! I was sorry that Harry insisted on having the MS retyped as the typist was such a long time doing it, owing to an accident, but the final result was worth while and the original looked awful beside it. I checked and re-checked both the text and the illustrations going back to your MS and the photographs, and Harry also went through it with me more than once. Now we can only hope that Patrick O'Reilly will still have 'l'eau à la bouche' when he sees it.

I corrected a number of drawings and did some again. It is extra-Ordinary what one can miss and I found that when I came back to the text, having forgotten most of the figures, the I had not extended 'Taura O Tavaka' correctly so drew it again.

Thank you for your Christmas Greetings and congratulations on your 75th birthday, a very young 75 by the look of you! I shall look forward to seeing your Material Culture of the Tuamotus; I learnt quite a lot ofMat and Basket making (and cooking) in the Gilberts but never wrote them up.

We are well but suffering from heatwave after heatwave and a drought; it is a terrible country for extremes of wet and dry and heat. I keep half the house cool with an air conditioning machine but Harry sits out in his Library and I do not know how he stands it , perhaps being born in India, and the third generation there, gives him some immunity. We hope Marguerite is better and responding well to treatment.

Harry joins me in affectionate greetings to you both,

Honor.

P.S. I haven't heard anyting more from Julia on Easter Island, which is disappointing, but I gather she is kept busy by her husband and also has a small child to look after. I liked her very much and only hope she isn't having a tough time; conditions on Easter Island are probably worse than on Pitcairn!

77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
19th January, 1973.

Father Patrick O'Reilly,
Secretary-General, Société des Océanistes,
Musée de l'Homme, Palais de Chaillot,
PARIS XVIe, France.

Dear Father O'Reilly,

You may remember your letter of the 8th July, 1970, in which you kindly agreed to consider the publication of the study on String Figures from the Tuamotus, by Professor Kenneth Emory and myself, in your monograph series, as confirmed by you during your visit in person to us - a visit which we shall long remember with great pleasure.

It took longer than I had expected to get the text of this work, with its illustrations, completed: partly due to the fact that Dr Emory was in Honolulu and I was in Canberra.

However everything has now been finally checked, typed and rechecked, and the illustrations drawn by myself and inked over by a professional draftsman. And this morning I sent the whole manuscript to you in two packages: one by airmail parcel post containing the typescript and the other by registered air letter containing the illustrations. These latter are numbered and the place where each goes in the text is marked in the space I have left.

I do hope very much that you will be able to see your way to publishing this monograph, as the Tuamotu String figures are in many instances unique and most important to our increasing understanding of the string figure making art and also the distribution of the patterns throughout the Pacific Islands, which in turn will help us to understand the place of their culture in Polynesia as a whole. You will, I know, readily appreciate that many, if not most, of them could no longer be obtained today, and that only by the publication of this collection made nearly 50 years ago can the knowledge of their function, their beauty, and the method of their construction be preserved for posterity.

In my husband's letter to you dated the 14th September, 1970, he offered to contribute towards the cost of publication of this work, should this be necessary. We are unfortunately on a small pension, particularly by French standards which are so much higher than ours, but we should still be glad to do anything we can to ensure the publication. We should also like to purchase a number of copies for distribution to our correspondents engaged in the study of string figures in many parts of the world.

I hope that you received a copy of my book on The String Figures of Nauru, published by the Libraries Board of South Australia in 1971, as I asked them to send you one. The monograph Tikopia String Figures, by Raymond Firth and myself, was published by the Royal Anthropological Institute of London in 1970 and we are now completing a further work on the String Figures of the Solomon Islands, which will include Christa de Coppet's collection from Malaita. Only when these gaps have been filled will it be possible to work on a comparative study of the distribution of Oceanic string figures.

With very best wishes for this New Year from my husband and myself,

Yours sincerely,

Honor Maude.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

Aug. 27,1972

Dear Honor,

I was glad that you got back to the Tuamotu string figures and that they have gone for finaly typing to O'Reilly. What a work you have done! I am so rusty on the making of them that the other day I had trouble doing a figure even from our description. Indeed Takapoto and Tatakoto are different atolls,and far apart. We are thinking of going to Tahiti next spring to study East Tuamotuan dances and songs,-the ones I attempted to record in the 1920's. Adrien Kaeppler, whose specialty is the dance and music accompment, is anxious to make this study and to work with me, using as control my reacords of that time. Natives from Tatakoto and Vahitahi are now in Papeete working for the big effort in connection with the Atomic Bomb. Granparents have been brought to look after the kids, and last year they put on a performance in Papeete, which prooved they still retain the ability to sing and dance as they did in the days when I was there. Adrienne would go the following year and to the Easter Tuamotus. I do not dare now be so far away from Marguerite that I could not return in a matter of several days if she needed me.

I had the good fortune to be able to slip down to the Society Islands for nearly two weeks, Aug.1-12. Marguerite has been having cramps and a thrombosis shut off the blood to one eye long enough to permanently damage its eyesite. She is on medication to check arteriosclerosis and must take it easy or she might have another attack. In Tahiti I visited the outer islands with Dr. Sinoto with whom I started our archaeological work in the Society Islands, seeing the restorations he has made and prospecting for archaeological sites to dig.

It is indeed good news that you have Firth's collection of figures and best of all that that one named Grant McCall has gone to Easter Island and his wife Julia is going to record the making of those string figures and is in touch with the lady in Chile. Of course, many of those figures of Campbell ~~are~~ may have been imported or influenced, but I believe it quite possible that many of their own have survived along with the language. It will be in the making of them that perhaps we can detect the ancient ones.

My manuscript on Tuamotuan matwrial culture is well on its way to publication. The figures and captions have gone to the printer and that was the most difficult part to get ready,-over 150 figures (including reproductions of photographs).

Marguerite joins me in aloha nui loa, to you both.

Kenneth

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

July 22, 1971

Dear Honor,

I am much releived to know that the String Figure manuscript reached yo you and that you are ready to work on it.

I wish I had time to check over thoroughly the texts of the chants and to translate more of them. Perhaps most of these shpuld be left out and made the subject of a separate work, especially now as I ha have in mind to go to Tahiti next year to work on the translations of Tuamotuan material gathered in 1929-30,1934, with Tuamotuans from Takapoto, Napuka, Vahitahi, etc. now living in Tahiti- the grandparents that if been brought down to look after the grandchildren and great-grandchildren of those who have f;ocked to Papeete to work.

You will be very happy to learn that a collection, a large obe, of Easter Island figures has just been described, with their chants, in a large volume on Easter Island chants and songs by a Dr. Campbell, resident physician in 1965-66. The volume cost $ 35.00, is well illustra with color photographs . He had Dickie's bulletin on Hawaiian figures, thos of Handy on the Society Island and Marquesan figures, etc.and attempts a co His illustrations of final figures are excellent. A Mrs. Adriana Martinez de Baeza of Santiago has the description of how they were made. He will try to get a copy to us. of her manuscript. He collected some 80 figures, including ones they recognized as having learned from the Tahitians with th Tahitian chants. But most of the figures are local and I feel sure, anci It is fortunate that we can round out figures from Polynesia, including Easter I.!

Campbell, Ramon
La herencia musical de Rapa nui. Santiago de Chile

Andres Bello, Casilla 4256

Marguerite & I are well. We just ~~[illegible]~~ had a one-week trip to Tahiti. Bengt Danielsson comes tomorrow for 2 days on his way to Tahiti. He will go to Canberra I am sure & so will see you.

With fond aloha
Dennett

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

June 4, 1971

Mrs. Honor Maude
77, Arthur Circle
Forrest, A.C.T.
Canberra
Australia

Dear Honor:

It is three years (June 18, 1968) since you sent up the manuscript on Tuamotu string figures! It will soon be a year since I wrote you October 5, 1970. And now it is 5 months since you wrote (Dec. 9, 1970) that Father Patrick O'Reilly was interested in publishing our joint manuscript, and since April 27 a month has gone. It just seems that I am faced with one emergency after another without end in keeping our department in projects and funds. I realize I will not have the time I thought I would to go over all the figures, making them over again. As you have said no matter how clear one thinks he has made a description, one cannot, at times, make the figure from even his own description. If there were time, I would describe some of the most difficult movements with several alternate descriptions one of which might be more comprehensible by the reader.

I have decided, now, to send on the illustrations of the figures. I have made a xerox copy. Also to return your manuscript with such notation as I have made. So now you can work on the whole thing, and if I have time to do more, I will--and send the results to you as long as there may still be time.

Sincerely yours,

Kenneth

Kenneth P. Emory

Kenneth P. Emory
Senior Anthropologist

KPE:pb

Manuscript under separate cover.

Ans. 15. 7. 71.

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

May 7,1971

Dear Honor,

Your airmail of February 27th arrived a week ago causing me to get out the manuscript on String Figures and see what could be done to get it too you with the neccesary going-over over with as soon as possible.

Several weeks ago I was informed that a Festchrif is to be prepared for Kathering Luomala to be presented to her on her retirement. I was asked to prepare a contribution and I though I would talk about the chants and tales that went along with string figures and give at least the Maui figure and possibly the Turi. Also I would des~~s~~cribe how the figures functioned in their life.

The past two weeks and the week to come I am so saddeled with projects we are carrying out in archaeology- field work on Maui and on Hawaii and on Molokai and my needing to go back and forth that I am no able to do anything else. I hope, tho, by next week-end that I can atte to our manuscript.

Sincerely,

Kenneth

77 Arthur Circle, Forrest,
A.C.T.2603, Australia,
27th April, 1971.

Dear Kenneth,

Father Patrick O'Reilly was here a short while ago and had lunch with us. He seemed really interested in publishing the Tuamotu String Figures and asked if we would send the typescript to him as soon as possible.

How soon can you let me have the MS, and the drawings, so that I can make a final check to see that all is in order? I will then send him on to him by airmail.

I am worried that further delay may mean that he is not able to publish the monograph, as he indicated as much to Harry, who attended a Conference with him.

With best wishes,

Yours very sincerely,

Hector

9-12.70.

Dear Kenneth,

It really is a most exciting thought that Father Patrick may publish the Tragmotion Stories requires & am so very glad that you dee. Happy ~~[illegible]~~ with my poems in the new edition of the N.S. Your suggestion that the work read may come with yours as co-author, is most generous & I feel very honoured.

The collection is a marvellous one, especially the Classic series & I can still do Maui - two others by dint of doing them from time to time. X

Harry has just retired - we are enjoying a short time

in the state of Victoria. We came over the Snowy mountains because of a heat wave, I wasted inland visiting a niece while Harry did the same in Melbourne at a book auction. Now we are on the coast with a gale blowing & pouring rain!

I meant to write earlier to ask you to send me the drawings if possible as I shall have to make a final check of them. We had 'flu in August & then other things followed & we are just catching up.

I look forward to receiving the completed text & will send it on as speedily as possible.

Yours

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

October 5, 1970

Mrs. Honore Maude
77 Arthur Circle
Forrest, A.C.T. 2603
Australia

Dear Honore:

For the first time since I received your letter of June 18, 1968, I have sat down to tackle its contents - the list of corrections and additions to Tuamotuan string figures, the rearrangement of their order, and the digesting of the Comparative Analysis by you. After going over these I realize with full force the tremendous work you have put in on these figures I collected and that this work and your analysis convert the record into an ethnographic document of real and lasting significance. Therefore I have decided that the work must bear your name with mine as coauthor.

I see now that I have considerable work to do before the manuscript can be submitted for publication and I am settling down now to do it. I feel it will take a month, because I can only use a very little part of time during the day when I am at the museum. I am so busy still with museum affairs in spite of the fact that Dr. Yosihiko Sinoto has taken over the chairmanship.

I am thinking that to make the publication self contained that a description of the anatomy of making them should be included. I am working on a brief preface telling how I collected these and their function in the culture as I witnessed it.

I do hope that health will keep with us two until we see all this in print. If Father Patrick can not publish it I will seek a local foundation or patron.

Let me hear how it is with you now.

With much gratitude and much affection,

Kenneth

BERNICE P. BISHOP MUSEUM
P. O. BOX 6037
HONOLULU, HAWAII 96818

Sept. 17,1970

Dear Honor and Harry,

What good news that O'Reilly might be able to persuade his friends on the Editorial Board of the Journal de la Societe des Oceanistes to publish the "String Figures of the Tuamotus" as a mongraph in the publications of the Societe.

I will have the manuscript and illustrationszeroxed here and sent to you for final examination before your sending it on to Paris. It will take a few days for me to go over it myself and add a preface. I will keep the zeroxed copy here and send the original to you.

I have just been retired from the chairmanship, now being ably taken over by Yosihiko Sinoto. But, occupying the Ledyard Distinquished Chair of Polynesian Prehistory, I will still be full time on our staff and actives as usual in everything, so long as my present good health lasts.

Do hope you find retirement pleasant andn that you both are in good health.

With every best wish for your happiness

Kenneth

Société des Océanistes
Musée de l'Homme
Palais de Chaillot
75116 PARIS

Paris, le 7 février 1973

Mme Honor Maude
77 Arthur Circle
FORREST, A.C.T. 2603, Australie

Chère Madame,

Nous vous remercions pour votre lettre du 19 janvier 1973, ainsi que pour les deux paquets contenant l'un les illustrations, l'autre le texte de String Figures from the Tuamotus.

Le Père O'Reilly est actuellement absent de Paris, mais dès son retour nous ne manquerons pas de lui remettre le tout, afin qu'il étudie avec notre "Comité de Publication" la possibilité de publier cet intéressant travail.

L'ouvrage THE STRING FIGURES OF NAURU nous est bien parvenu et nous vous remercions de nous l'avoir fait adressé par The Libraries Board of Australia. Un compte rendu a paru dans le dernier numéro du Journal de la Société des Océanistes (t.XXVIII, n°36). Notre revue vous est adressée à chaque parution et nous espèrons qu'elle vous parvient régulièrement malgré la distance et les lenteurs de l'acheminement par bateau.

Veuillez croire, chère Madame, à nos sentiments les meilleurs.

Le secrétariat

77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
3rd April, 1974.

Father Patrick O'Reilly,
Secretaire charge des publications,
Societe des Oceanistes,
Musee de l'Homme,
Palais de Chaillot,
75116 PARIS, France.

Dear Father O'Reilly,

I believe that you have been away from Paris, in the Pacific and elsewhere, during much of the past year, so I have not liked to worry you about the publication of the memoir by Kenneth Emory and myself on String Figures from the Tuamotus, which was sent to the Secretary-General on the 19th January last year and its receipt acknowledged by letter dated the 7th February.

I have now heard from Kenneth Emory enquiring about the possible date of publication and I would like to order a number of copies for distribution to correspondents in various parts ofthe world who have been waiting for this rather special and important collection with keen anticipation.

It seems a long time now since we had the pleasure of meeting you in Canberra and we hope that all goes well with you and your great work for the advancement of Pacific studies. My husband's essay on 'Pacific Bibliography', in which he pays his tribute to you as the doyen of the fraternity of bibliographers, who sets the standards for others to follow, is about to be published, and we shall be sending you a copy.

With our best wishes,

Yours sincerely,

Honor Maude.

Copy

Department of Pacific History,
14th September, 1970.

Emeritus Professor Kenneth P. Emory,
The Bernice P. Bishop Museum,
P.O. Box 6037,
HONOLULU, Hawaii 96818.

Dear Kenneth,

I have had a letter from my old friend Patrick O'Reilly in Paris in which he says that he might be able to persuade his colleagues on the Editorial Board of the Journal de la Société des Océanistes to publish the 'String Figures of the Tuamotu Islands' as a monograph in the Publications de la Société.

He asks me to send him the final text, with illustrations, and I rather fancy that it would be likely to receive priority treatment for early publication.

Honor says that you have the only complete copy of the text with the illustrations but that you may have a paragraph or two of your Introduction still to finish.

If you approve the idea of publication in this Series could you dictate the paragraph or two still missing (if indeed anything still requires to be done) and airmail the final text and photographs to me? I can then have the whole thing photocopied, in case of accident, and send the original to Father O'Reilly.

I am now on the eve of retirement, and indeed may have retired before I hear from you. Meanwhile we hope that all continues to go well with you and your great work in Hawaii.

With our very best wishes,
Very sincerely,

H.E.M.

Father Patrick O'Reilly,
Secretary-General, Société des Océanistes,
Musée de l'Homme,
Palais de Chaillot,
PARIS XVIe, France

Dear Father O'Reilly,

I am most contrite at not having replied before to your letter of the 8th July, but it arrived just as I was engaged in writing my Presidential address for delivery to the History Section of the 42nd Congress of the Australian and New Zealand Association for the Advancement of Science at Port Moresby.

It was the first time that ANZAAS has ever met in the Pacific Islands, and appropriately also the first time that a Pacific historian had been invited to speak on

Jim,

The Peruvian Labour Trade, 1862-1863

We spoke on the above subject some months ago, when you kindly gave me permission to engage the services of Senorita Lucila Valderrama, Jefe del Departamento de Bibliografía y Ediciones at the Bibliotheca Nacional in Lima, to search for documentation relating to the Peruvian side of the trade, as I had already obtained most of the material contained in the:-

(a) British Foreign Office, Consular and Admiralty correspondence;

(b) French and Hawaiian Ministry of Foreign Affairs correspondence;

(c) London Missionary Society records;

(files of the Messager de Tahiti

the subject of 'Pacific History - Past, present and future', so I was anxious to do my best.

Now it is all over and I am back in Australia to tackle a market formidable accumulation of correspondence.

I am most grateful to you for your kindness in agreeing to have a look at my wife's manuscript with Kenneth Emory on 'The Stone Figures of the Tuamotu Islands', and have written to Dr. Emory asking him to finish the few paragraphs of his observations and let me have the final text of the whole work at his early convenience.

I certainly appreciate your remarks on the shortage of money to finance the publication of manuscripts such as this. As General Editor of the Pacific History and Pacific Manuscripts Series I am always up against this difficulty myself, and even the

Journal of Pacific History ~~only~~ would be run at a loss were it not for the generosity of Professor Davidson.

Were I staying on with the University I should be glad to contribute towards the cost of production of the Transactions, though, but I have now reached the age of compulsory retirement and within a few months will be on pension. We are not sure as yet whether this sudden amputation by half of our income will permit us the luxury of assisting the publication of Pacific studies, but if you should decide to publish the work we might be able to help. There is nothing more than the fact that we cannot take our money with us to the next world, so we might as well use it up in this, though the current rate of inflation looks like serving us this problem.

I hope that you will like our latest work, the World Catalogue of Theses on the Pacific Islands which I have asked the A.N.U. Press to send you a copy.

With all good wishes,

Yours very sincerely,

Department of Pacific History,
Department of Pacific History,
14th September, 1970
14th September, 1970:

Father Patrick O'Reilly,
Secretary-General, Société des Océanistes,
Musée de l'Homme, Palais de Chaillot,
PARIS XVIe, France.

Emeritus Professor Kenneth P. Emory,
The Bernice P. Bishop Museum,
P.O. Box 6037,
HONOLULU, Hawaii 96818.

Dear Kenneth,

I am most contrite at not having replied before to your letter of the 8th July, but it arrived just as I was engaged in writing my Presidential Address for delivery to the History Section of the 42nd Congress of the Australian and New Zealand Association for the Advancement of Science at Port Moresby.

It was the first time that ANZAAS had ever met in the Pacific Islands, and appropriately also the first time that a Pacific historian had been invited to speak on the subject of 'Pacific history - past, present and future', so I was anxious to do my best. Now it is all over and I am sorry that you have the tedious chore of the text with the illustrations, but that you may have a paragraph or two of your Introduction still to finish.

I am most grateful to you for your kindness in agreeing to have a look at my paragraphs on the history of the Tuamotu Islands, and if you approve of the idea of publication you may dictate the paragraph and the illustrations (if I can find anything to illustrate the paragraphs) and insert the final text and photographs of the text with the illustrations, or else send the original to Father O'Reilly.

I certainly appreciate your kindness and time, but I do not have money to retain the services of a typist, which are dear, and I hope that a liberal Editor of the Pacific History will accept your monograph. We are always up against this difficulty myself, and even the Journal of Pacific History would be run at a loss were it not for the generosity of Professor Davidson.

With our very best wishes,

Very sincerely,

Were I staying on with this University I should be glad to contribute towards the cost of production of the Tuamotu monograph, but I have now reached the age of compulsory retirement and within a few months will be on pension. We are not sure as yet whether this sudden amputation by half of our income will permit us the luxury of assisting the publication of Pacific studies, but if you should decide to publish the work we might be able to help. There is nothing surer than the fact that we cannot take our money with us to the next world, so we might as well use it up in a good cause in this, though the current rate of inflation looks like saving us this problem.

I hope that you will like our latest work, the World Catalogue of Theses on the Pacific Islands, which I have asked the A.N.U. Press to send you a copy.

With all good wishes,

Yours very sincerely,

SOCIÉTÉ DES OCÉANISTES
TÉLÉPHONE : PASSY 74-46
MUSÉE DE L'HOMME
PARIS XVIe
CHÈQUE POSTAL PARIS 494-14
PALAIS DE CHAILLOT

Paris, le 8 juillet 1970

Mr. H.E. MAUDE
The Australian National University
Dept. of Pacific History
Box 4 P.O.
Canberra

Cher Monsieur Maude,

Votre proposition de publier "The string figures of the Tuamotu islands" nous met l'eau à la bouche.

Nous ne sommes guère, hélas, plus riches que le Bishop Museum !

Voulez-vous envoyer le manuscrit dès que vous serez en sa possession.

Je le ferai "piger", et proposerait l'affaire à mon Bureau.

Merci de vous souvenir des Océanistes de Paris et de votre tout dévoué

Père O'Reilly

Patrick O'Reilly

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

July 26, 1968

Dr. and Mrs. Harry Maude
77, Arthur Circle
Forrest, A.C.T. 2603
Canberra, Australia

Dear Honore and Harry,

Your letter of July 18th came this morning with the comparative analysis for Tuamotuan string figures, list of corrections and additions and a revised list for the order of the figures. What a big piece of work! And now for me, a job, to put the mss in final shape. I will have to take a week or so off to do it, as soon as possible.

In starting out with the Turi figure, of course the description of its making must be done in full.

Indeed, if you can find a publisher do so. With us it is certain that it will be years before we can hope to do it, and I would like to see it come out before I am 80 or 90 and the Material Culture of the Tuamotus before I am 75.

Marquerite is back on her feet. I went on a hair-raising burial cave expedition last week, when we lowered 2 men 450 feet to a cave in a cliff wall 1,100 feet high, directly above the ocean. A helicopter and 5 trained rescue men from the Hawaiian Fire Department made it possible. I stayed on top of the pali. So I'm o.k.

With warm aloha,

Kenneth

Kenneth

77, Arthur Circle,
Forrest, A.C.T. 2603.
18.7.68.

Dear Kenneth,

Thank you for your letter of May 21. I am glad to say the Comparative Analysis is done at last and enclosed with this. Harry had a hand in it, I do the spade work, he mulls it over in his mind and asks questions and then makes a much better job of it than I could. Please tell us if you do not agree with some of our statements or would like to make some alterations.

I also enclose the comparative table, a list of corrections and additions and a revised list of the order of the figures after putting the series all together; the pencilled numbers denote their previous numbers, not your original numbers.

I have re-typed the first page of the references adding those for the footnotes in the comparative analysis.

There is also a list of footnotes for the analysis.

I have re-typed the first page of Turi giving the construction in full instead of referring to Moko. Since Turi "stands at the head of the Tuamotuan classical fai...." it seemed appropriate and personally I find it very tiresome searching for the opening moves.

I have also re-typed Fai Taamu which I had done badly. I have deleted the comparison with the Gilbertese Bo Kabenga as it is not a good one and I have substituted the Ellice "Te Noti o Kulu" which is almost identical.

I had made a note on my copy to the effect the the second part of No.74, Toga ia Mami would not extend, in fact it does perfectly. Did I send you a drawing? I enclose one in case I didn't.

I find when I return to a set of figures after a lapse of time that the information is not always as clear as I thought when I first wrote it; sometimes can't make my own descriptions work in fact! I wonder if it is possible to get a text like this perfect?

A long wait for publication seems a pity, if we can find a publisher would you be willing to let them do it if it does not cost the Museum money?

We were sorry to hear Marguerite had been on crutches and hope her ankle is quite better now. We did not get our holiday in Queensland and it does not look as though we shall get it this winter. Harry is badly in need of a break but probably won't take it until he collapses as far as I can see!

With warm regards from you both.
Honor.

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

May 21, 1968

Mrs. H. E. Maude
77 Arthur Circle
Forrest A.C.T. 2603
Canberra
Australia

Dear Honoré,

Though months have gone by it seems only weeks. No ground has been lost as regards the Tuamotu string figure manuscript, as it will be several years yet before we can hope to have the money necessary to publish it. However, it behooves us to have it ready as soon as we can.

I am indeed sorry you have been suffering again and do hope that you are now finding existence much better.

As soon as you have your analysis of the string figures ready, I will be very happy to have it, together with your revised numbering.

Marguerite has been on crutches for six weeks as a result of a badly sprained ankle. So we all have our periods of misfortune. At first I had to do all the cooking, dish washing, etc. which reminded me of the time Harry and I had to be bachelors together, because you were in the hospital and Marguerite was far away.

With aloha nui,

Kenneth

BERNICE P. BISHOP MUSEUM

Honolulu, Hawaii 96819 · Telephone 855-951

August 9, 1967

Ans. 20.8.67.

Mrs. Honor Maude
77, Arthur Circle
Forrest, A.C.T.
Canberra
Australia

Dear Honor:

Here is the reimbursement for the typing expenses $33.44 which seems to be the equivalent of the $27.00 and $2.75 due you, in your currency.

I was able to have ink figures for the string-figure illustrations made at a total cost of only $35.00.

Soon I will have the manuscript edited. I presume you have a carbon copy. When could you make a comparative analysis - how many pages might be involved?

We move busily along.

Aloha nui,

Kenneth

Kenneth

Enclosure

Analysis in two weeks. i.e. 3.9.67.

Send revised numbering

Letter sent 3.5.68.

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

July 25, 1967

Mrs. Honor Maude
77, Arthur Circle
Forrest, A.C.T.
Canberra
Australia

Dear Honor:

Your letter and the manuscript on the Tuamotu String Figures has been here a time now. I am delighted with what you have done. The main manuscript on material culture is assuming its final form for publication and as soon as this is done, our string figure manuscript will be readied for the printer, too. Just when they will be printed is another matter as there is a great back-log! However they will be off my mind.

I will send along $27.00 in reimbursement for the typing, plus $2.75 postage, in a few days. We will have the figures inked here.

I should have an introduction and must see what I can do on this. A comparative analysis by you would be wonderful, could you and would you do it?

Marguerite and I enjoyed Oregon immensely - especially the spring flowers.

Hope you have a good August vacation in Queensland.

With aloha nui,

Kenneth

Kenneth

P.S. I take it that you will be writing an Introduction; would you like me to do a comparative analysis?

77, Arthur Circle,
Forrest, A.C.T.
26.6.67.

Dear Kenneth,

I did not think such a long time would elapse between the completion of the main typing and having the manuscript ready for you. All the comparisons and the checking and re-checking take ages but these are now done. It does not seem to matter how many times I go through I still find mistakes, even pictures upside down! The parcel will go to you by Second Class Air Mail.

I have done all but one of the main figures; No. 28 has defeated me. There are a few queries where I am not sure I am right; have you a complete set of photographs to check them by?

I have not asked J.P.S. about publishing, their June 1966 number has only just come out! Let me know how you feel about taking a chance with B.M. or J.P.S., both, I expect, will mean a long delay.

So far I have spent $27 on the typing of the manuscript. I'm sorry about the joining of words, the typist, otherwise very accurate, found the space bar of our electric typewriter hard to manage; all other errors are mine! I can get the drawings done in ink for about 50 cents each if you return the manuscript to me. Perhaps you could get it done for less? I have enclosed a copy of "String Figures from Northern New Guinea" which have just come out in Oceania, to give you an idea of my illustrations; they need not be done with quite such a thick pen.

I hope you and Marguerite enjoyed your stay in Oregon and were not frozen. We hope to go to Queensland in August, our first trip away since the fiasco of Tasmania 3 years ago which was a second Honolulu except that Harry managed to get me back to the hospital here. Now I'm on cortizone we hope to have a good holiday.

With our warm regards to you both,

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

March 4,1967

Dear Honore,

While awaiting Force's decision as to whether or not we are ready to publish Tuamotuan String Figures, I must not delay answering your letter of January 28. From our great back-log of manuscripts I have a feeling J.P.S. could get out the publication of them long before B.M. But can they afford to do so?

Please let me know how much of the $ 100 you need and if you want me to send money along now, and if so how much, etc. So glad the drawings are about done.

I have been reviving the making of the Tuamotuan figures, for the daugther of a dear friend, 7 years old, is learning them from me and they are becoming all the fad now at her school,- even Maui.

Marguerite and I leave for Oregon University, Department of Anthropology, Eugene, Oregon, the 17th of March to be gone till June 15. I am to head two seminars on Oceania.

With warm aloha from us both,

Kenneth

77, Arthur Circle,
Forrest, A.C.T.
28.1.66.

Dear Kenneth,

Thank you very much for your letter and for the information that funds are available to help with typing and illustrations.

I have a young typist coming two or three days a week to work with me and we have already done nearly half the figures, typed and illustrated in pencil. This week the family descend on us for a couple of weeks so there will be no more work done until they are gone!

It is quite extraordinary but I still get a flash of insight and suddenly find I can work out yet another figure so that I have now done two or three of those I said I could not work out; this includes the series though one of them refuses to work but I'm sure I have the right beginning after all.

The photographs you sent me haven't the numbering to tell which string to pick up but I think I know them well enough to know, if I get stuck I'll send the picture which needs copying from yours. Maui, though No.55, is done and illustrated, it is a lovely series and even Lois gets interested, She loves the chants even though they are not translated. I think we should have a note to say who Maui was, will you do one or shall I make one out from Harry's books?

I shall wait to hear what your Director says

P.T.O

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

January 23, 1967

Mrs. Honore Maude
77 Arthur Circle
Forrest A.C.T.
Australia

Dear Honore:

I was very happy over your letter of January 8, bringing the news that you had completed the first draft of the Tuamotu string figures.

Of course, I do not mind your changing the set up any way you think best.

Page 80a - not in your copy simply has this: "At Takoto, the figure is continued into Hakari (coconut) by slipping off the proximal index string." At the end of this, in pencil, you had a "?" mark.

I have funds which you can use to help with illustrations or typing, up to $100 if necessary.

If J.P.S. would publish the string figures, O.K. But I will ask our director his wish.

I doubt at this length of time away from the making of the figures that I could help, with those you could not work out.

I leave for the University of Oregon, March 15 to be gone till June 15.

I had a pleasant and profitable field trip to Tahiti December 17 - January 7.

Yours

Kenneth

Kenneth Emory

KE:pb

about publishing before I tackle J.P.S. The drawings will be in ink ready for the printer.

Regards etc.

Honor Maude.

8.1.67

Dear Kenneth,

Thank you very much for your letter of 8th November and for the photographs which arrived safely. I am happy to report that I have completed the first draft of the Tsamoto string figures and find there are now only 6 figures and one series that I haven't been able to work out. I will give a list of them at the end of this letter.

The series is No. 21, Kotuku Rere, which has a very difficult fourth movement. We have, in fact, made the first & second figures but I don't think I'm doing what you describe! The movement is almost impossible to describe or even to do twice the same & I release thumb loops which your don't. It would be nice if you could get it again.

5

The typing of this manuscript will take some time, there are 144 of your pages! Do you mind if I change the set up a little? I thought of putting your remarks about the name in the various islands at the beginning and your comparisons, with mine if I find any more, at the end of each figure.

1

Tequies not done.

Nos. 19, Naveka Tipaipa

No. 28 Na Tai a te aiki.

No. 41 Mou'a Puta (missing from manuscript)

No. 47 Rosi.

No. 65 Kohiti

No. 67 Matauki. (sounds like a variation of Gilbert's No. 22.?)

No. 68 Te tipi haga o te teaka (a movement missing)

There is a note 'insert page 80a' but no p. 80a

The illustrations are not complete but I think I had better draw them all as photos are too costly
2. to reproduce. I draw in pencil & get an expert to do them in ink, have you any funds at all to help with this?

The Polynesian Journal might be interested in publication, shall I try them? They
3. bought out my Gilbert Islands book as a memoir. The Bishop museum would be good but we don't want to wait too long after I have been so slow do we?

A. Dp. A. + [illegible] Yes.

Gagor - Ebon.

BERNICE P. BISHOP MUSEUM

Honolulu, Hawaii 96819 · Telephone 855-951

November 8, 1966

Dear Honor

Yesterday I got off to you, finally, the set of prints of the Tuamotuan string figures.

It was so pleasant to have a letter from you and to know you were still working away at this manuscript. Too bad that there are several which will not respond to my description of them! Perhaps they still survive and we can recapture them.

Can you find a place to publish the Tuamotuan string figures?

Maybe we could, but they will have to wait till there is money and after many other manuscripts are edited and published. Still, this is possible.

I remember very pleasantly your stay here and the fun we had when you were at the hospital, trying to catch on with the making of several of the figures. Now I have gone into so many other fields and am far away in language and archaeological studies. Marguerite and I will be going with Dr. Sinoto to Tahiti, Dec,17-February 5. Then next March 15-J 15, Oregon Univeristy. Then back to Hawaii.

With very best aloha to you both,

Kenneth P. Emory.

Mrs. H.E. Maude,
77 Arthur Circle,
Forrest, A.C.T.
Canberra
Australia

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII 96819

September 28, 1966

Mrs. Honor Maude
77 Arthur Circle
Forrest, A.C.T.
Canberra, Australia

Dear Honor Maude:

Your letter of December 1965 came while I was in Tahiti and unfortunately got tucked away and unattended.

Please, let me know right away if you are still interested in working on the Tuamotu figures. I can certainly let you have a set of prints of the figures and will send them down by air immediately I hear from you.

At the 11th Pacific Science Congress we ran into many mutual friends. Wish you could have been there.

We had a fascinating and profitable visit in Japan.

The Journal of Pacific History will be a welcome addition to the medium for releasing newly won knowledge.

Best wishes and aloha,

Kenneth

Kenneth P. Emory

KPE:pb

4/98, Arthur Circle,
Forrest, A.C.T.
28.3.61.

Dear Kenneth,

I am returning the photos that belong to your Tuamotuan string figures as you requested; the small ticks indicate that I have made the figures, and I have made almost all of them, but some are not clear enough for publication and I would like to re-draft them. I am also sending you a revised draft of the method for making the Maui series, would you go through it or try it on someone else please? You may remember that you showed me how to get as far as "The Securing of the Sun); I spent hours, I think days, over the next two ~~movements~~ patterns and found I had to change "right" for "Left" and vice versa. I also found that the use of proximal and distal was confusing with the hands in that position so I have changed it to "towards" and "away" from you.

I had given up all hope of doing the conversion of Maui into Puhaga Toto but decided yesterday to try once more and achieved success! It was not at all clear so I have changed the wording and hope you approve. Did you know that it is quite unnecessary to make the "taia" of Maui first? Puhaga Toto follows from "The Securing of Maui's Neck". Have you a photo of the "taia" of Maui?

I cannot make nos. 13, 28, 36, and 65; there would appear to be no illustrations for nos. 3, 9, 10, 11. 12, 23, 25, 31, 38, 40, 63 and 64.

Page 5 e does not seem to follow page 5 d and it is not clear whether movement 11 on page 11 follows on from p.5c, movement 10 or movement 12.

Does fig. 4j follow 4h or 4 i?

If you haven't time to struggle with the above questions leave them until I have done more work on them.

The Tuamotuan patterns are absolutely fascinating, especially Maui which I am sure I could never forget now. I would very much like to go ahead with them if you approve of my alterations. I am so glad you wrote about them as I get bogged down on local affairs and need to be spurred on. Once I get going on strings of course <u>everything</u> else goes by the board.

Harry thanks you for your letter and is glad the material he sent you is of some use. He hopes to be at the Pacific Sci Congress.

With our best regards to you both,