



School
EXERCISE
Book

PREMIER

96 PAGES

From
Raymond Smith's
field notes

NAME H. Maude

CLASS Strong Degree from

SUBJECT Tekopia, 1928-29

~~FAKAFILI~~

No Name?

FOI NUPU

1)

1. Opening A.
2. Exchange index loops; right loop through left loop.
3. ^{Tua Sogetasi} Ta e eua, + fakamau & release little fingers.
4. ^{Fuifui ifo.} ~~Release little fingers, then insert~~ Bamabam
~~into distal index loops from distal~~
~~side & transfer distal loops to little fingers.~~ Movement:?
5. See below ~~Push ^{little} loops towards centre of figure to make a better figure~~
- 6+7 ~~Ta e eua + fakamau Repeat 3 & 4. (Teppe in feel please)~~ 6+7
- 8 ~~Release indices.~~ Bamabam Extension?
- 9 ~~Asu Fakafili~~
- 9 ~~Fakafili i tua, asu, fakafili i roti.~~



5. Insert index into opposite index loop from distal side and push little loops towards centre of figure to make a better figure.

2)

NIV TAKO TORU

1. Opening A.
2. Twist left little finger and right thumb
over anti-clockwise.
3. Tao sogolasi, tā e sua, fakamau and
release little fingers.
4. Furuifuri ifo.
5. Release indicis.
6. Fakafiti i tua, asu, fakafiti i aote.

3)

Te Kaulika Nava.

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, twist towards you & up & extend; performs same movement with left index; inserting from distal side ^{through right} ~~the~~ index loops.
3. Tao sogotasi, ta e tonu & release thumbs.
~~ta e tonu & release thumbs.~~
4. Pass thumbs, from distal side, through proximal index loops & proximal to little finger loops, return with ulnar little finger strings & release little fingers.
5. Insert little fingers, from distal side, into distal index loops & transfer these loops to little fingers. (Furipuri ipo.)
6. Tao sogotasi, ta e rua, & fakamau & release little fingers.
7. ~~Repeat~~ Furipuri ipo.
8. Release indices.
9. ~~Asu, and~~ fakapili i xoti / Fakapili i rua,



TERE I TAINE
~~Tere i taine~~

4)

1. ~~Hawaii~~ Murray Opening.
2. Insert little fingers, from distal side, into distal index loops, hook down distal ulnar index stems, then insert into proximal loops from proximal side & return with proximal ulnar index stems.
3. Pass thumbs, from distal side, through proximal index loops & return with distal ulnar index stems.
4. Bring middle fingers towards you distal to distal radial index stems, catch up on their backs proximal radial index stems & return to position.
5. Keeping stems hanging loosely release thumbs & then passing thumbs distal to released stem & proximal to distal radial index stems return to position with distal radial index stems on their backs.
6. With little fingers hook down ulnar middle finger stems & release middle fingers; turn little fingers away & up to position; turn thumbs down towards you & spreading fingers wide turn palms outwards.

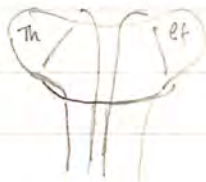


Release little fingers & thumbs then pull hands quickly apart; this leaves a double stem on indices only.

5)

KUMÉ

1. Position 1 on left hand
2. Insert right hand, from proximal side, into hanging loop, grasp left palmar stem + pull out to full extent + drop.
3. Repeat 2.
4. Insert right hand, from proximal side, into hanging loop then insert middle finger, from ^{distal} proximal side, into left little finger loop + thumb, also from ^{distal} proximal ~~proximal~~ and radial side, into left thumb loop, pull out to full extent releasing right hand from wrist loop.
5. Insert all fingers of right hand into loop beside right middle finger.
6. space for ~~other~~ ^{double} chant
By pulling on little finger side of loop + slacking thumb side the loop opens out.
space for ~~other~~ chant.



7. By pulling on thumb side + slacking little finger side the knot tightens. again ? gone to sleep again.

hand, at a, a; into the next pair, at b, b, he inserts his thumbs, also from distal side; he pushes his thumbs onwards, under the intermediate central diamond & brings them up into the third pair of triangles away from him ^{e, c} _{at b, b}; his little fingers he brings up through the triangles nearest ^{right} hand, at d, d.

8. First ~~player~~ ^{player} releases his hands, second player extends figure q. First player inserts hand into central
9. diamond & enlarges it, then withdraws hand.
10. Second player presents back of right hand to partner who inserts ^{one} his thumbs, from proximal side, into second player's ^{eyes} little fingers ^{loop} & the other thumb into his thumb loop; second player releases right hand
11. then takes left thumb loop on right thumb & left little
12. finger loop on left thumb.
11. Insert all fingers into loops beside thumbs then with middle or index fingers pull down double strings of central diamond & release all other fingers; replace thumbs in loops & repeat process.

Players chant: -

large space.

12. Lay figure down carefully & note that it consists of an upper & lower layer. Carefully lift top layer at first player's right hand and second player's left hand & spread out figure to make ^{TOP A} MATHAMA once more.

6.)

TOFA $\overline{1A}$ MAAAAA
~~(6a MAAAAA)~~

1. Novak's Opening.

2. Insert middle, ring & little fingers, from proximal side, into index loops; close fingers over radial dorsal stems & let ulnar dorsal stems slip on to thumbs but do not release stem from crook of middle, ring & little fingers.

3. ~~Caroline Extension~~ ^{Fakafiti i eoti}. This makes KO MAAAAA.

space for illustration.



4. Release thumbs then pass them ^{proximal} ~~distal~~ to index loops, distal to little finger ^{middle &} ring finger loops (in this case underneath) & return to position with ulnar little finger stems; release middle, ring & little fingers.

5. Repeat 2.

6. ~~Caroline Extension~~ ^{Fakafiti i eoti}, turn palms away from you then bring right hand down, towards you & up ^{bring} of the left hand ^{up} towards the right & then down & away from you. This makes TOFA.

space for illustration.

7. The figure now consists of three interior diamonds and eight exterior triangles, the latter based upon the two stems running from hand to hand. A second player, with palms facing each other, inserts little fingers from above into the two triangles close to your left

(see previous page)

7)

RAUKAPE

1. Opening A.
2. Release thumbs.
3. With mouth pick up, from distal side, ulnar little finger string and pull towards you.
4. Insert left index, from distal side, into mouth loop, pick up right mouth string on its back and return to left; pass right index between your body and left mouth string, return to right with string on back of finger & release string from mouth. Extend hands keeping proximal and distal index loops well apart.
5. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
6. ~~Navaho indices~~ Insert thumbs, from proximal side, into distal index loops and Navaho thumbs with lips.
7. Release indices from distal loops and transfer thumb-loops to indices, keeping these loops distal.
8. Repeat 5 and 6.
9. Pass middle fingers distal to distal ulnar index strings, insert into proximal index loops from distal side and pick up proximal radial index strings.
10. Release little fingers and turn palms away with fingers wide apart.

7/

RAUKAPE

Raukape

Bani Mai.

See p. 102 + 103

Geberit Salomon

no help please

8/

TE KAM ZA

SIBOTARA

Neneui plus

1. Opening H.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side & return with radial little finger strings.
3. Insert indices, from proximal side, into thumb-loops, return with ulnar thumb strings & release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, insert into little finger loops from proximal side, & return with radial little finger strings &
5. release little fingers
6. With little fingers hook down distal ulnar index strings then pass them proximal to proximal index-loops, insert into thumb-loops from proximal side, & return with ulnar thumb strings. & release thumbs.
6. Pass thumbs, from distal side, through proximal index loops, hook back proximal & distal ulnar index strings & return proximal to distal radial index strings.
7. Navaho ~~indices~~ and thumbs and release
8. ~~Navaho~~ indices from distal loops.

8. Pass thumbs distal to index loops, insert into little finger loops from proximal side & return with radial little finger strings.
9. ~~Continue Extension~~ Fakafiti i rotu.
Space for illustration
10. Take ulnar string of right index in mouth, release under then insert into mouth loop from proximal side & release string from mouth. Repeat with left hand.
11. Release thumbs.
12. Pass thumbs, from distal side, through proximal index loops, insert into little finger loops from proximal side, & return with radial little finger strings & release little fingers.
- Repeat 11.
13. Repeat 5
14. Repeat 6
15. Repeat 7
16. Pass thumbs, from distal side, through index loops, insert into little finger loops from proximal side & return with radial little finger strings.
17. ~~Continue Extension~~ Fakafiti i rotu.
Space for illustration.

If a very long string is used movements 10 to 17 may be repeated a number of times until there are many diamonds.

This page not ready.

18. A second player now comes in. First player holds figure horizontal, second player inserts thumbs & little fingers into figure, from above, into triangles at tips of first player's indices; ~~with~~ little fingers pick up radial thumb stems which are a continuation of palmar stems; thumbs pick up on backs ulnar index stems which form top of figure. →

19. First player releases hands.

19. ~~20.~~ Second player inserts thumbs, from proximal side, into little finger loops & returns with radial little finger stems.

20. ~~21.~~ ^{Sakafiki, 2011} Caroline Extension: ~~add figure horizontal.~~

21. ~~22.~~ X First player repeats movements 18, 19 and 20.

22. On either side of figure one radial thumb stem crosses ulnar index stem ^{and} threads through a small loop before again crossing ulnar index stem, thus forming a triangle.

~~Second player~~ inserts little fingers into triangles and picks up these radial thumb stems after they have passed through the little loops; ~~inserts~~ thumbs also into triangles & picks up ulnar index stems. First player releases hands.

23. Second player repeats movements 19 and 20.

a)

Fetaka FETAKA

1. Insert thumbs into doubled loops.
2. Pass little fingers proximal to thumb loops and return with both thumb strings.
3. ~~With~~ ^{with} right index ^{pick up,} ~~pick up,~~ ^{from} proximal side, four left hand palmar strings and return; with left index pick up, ^{from} proximal side and between ulnar and radial strings of right index, ^{right hand} four ^{palmar} strings. ✂
4. Insert thumbs, ^{from} proximal side, into index loops and Navaho index thumbs.
5. Release indices and pull strings taut until knot in ~~to~~ center is drawn tight.
6. Release left hand then take right ulnar little finger string in left hand and release right hand.
7. Hold figure up while tapping on knot with right index "count many children".

"Ta ta foi fetaka" -

Ta. ta foi fetaka" -

Tapping on knot for each repetition. Lastly

"Fakaoti hi a"

and strike the knot hard enough to break it.
Metaphor from striking... nuts to open them

9) ~~FB TAKA~~

~~Copy No 118 Gabriel Islands p. 147-8. 6. 6.~~

10) KAU TUKU NIVA

Basil aged 9.

1. Opening H.
2. Tao sogotasi, ta e toeu & release thumbs.
3. Pass thumbs proximal to ~~the~~ ^{index} ~~loops~~ ^{loops}, insert into little finger loops from proximal side & return with radial little finger strings.
4. Insert thumbs, from proximal side, into distal index loops ^{and} Navaho thumbs.
5. Release distal index loops.
6. ~~Repeat~~ Tao sogotasi, ta e toeu and release thumbs.
7. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
8. ~~Insert little fingers, from distal side, into distal index loops & transfer loops to little fingers.~~ Furifuri ifo.
9. Tao sogotasi, ta e sua, fakaman and release little fingers.
10. ~~Repeat~~ ~~8~~ Furifuri ifo.
11. Release indices.
12. Fakafiti i tua, asu and
12. ~~Caroline Extension with radial thumb strings.~~
13. ~~Release thumbs.~~ fakafiti i eoti.
14. ~~Pass thumbs proximal to index loops, insert into little finger loops from proximal side & return with radial~~

little finger strings, then runset into upper loop
also from proximal side, release index
to Carotid Extension.



* Tao sogotasi and ta e sua kee makes 1/2 Co.

11) TE AFERAU

Bua-n Nei Kirive.

~~Copy (10/6) p. 13/105. (see after 14)~~

This to be copied from the Gilbert's book.

12) KHN ZH TETE

1 double 9s + 2 single.

1. Opening H.

2. Tao sogotasi, ta sogotasi, & release thumbs.

3. Pass thumbs, from distal side, through proximal under loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.

~~4. ^{Furifuri ifo.} Insert little fingers, from distal side, into distal under loops & transfer these loops to little fingers.~~

~~5. Tao sogotasi, ta sogotasi & release thumbs.~~

~~6. Repeat 2, 3 and 4 three times.~~

(21 done of 1 done)

~~7. Repeat 4. Furifuri ifo~~

~~8. Tao sogotasi, ta sogotasi & release thumbs~~

~~9. Repeat 3~~

~~10. Repeat 4. Furifuri ifo~~

~~11. Tao sogotasi, ta sogotasi, release thumbs~~

~~12. Repeat 3;~~

~~13. Repeat 4. Furifuri ifo.~~

14. Tao e eua, ta sogotasi; release proximal index strings from thumbs then, with distal ulnar index strings still held down pass thumbs proximal to proximal under loops, & return with ulnar little finger strings.

*7. Furifuri ifo. *10. Fakafiti i asu " Fakafiti i eoti. (Continue Ext.)

15. Release indices

*8. release little fingers.

1. Opening A.
2. ^{Transfer} index loops to wrists.
3. Insert indices, from distal side, into thumb loops, pick up ulnar thumb stems on their tips then insert indices into little finger loops, also from distal side, & pick up radial little finger stems, dropping ulnar thumb stems as you do so; turn hands with palms upwards.
4. With opposite ^{index & thumb} hand take hold of ulnar thumb & radial index stems where they join on palm of hand & release thumb, index & little finger. Insert little finger away from you into near loop then pass thumb distal to radial little finger stem & insert towards you into far loop.
5. Repeat 3 & 4 twice.
6. Repeat 3.
7. With opposite hand pick up radial wrist stem & drop over thumb; with ^{opposite} ~~for~~ index & thumb ^{take hold of} ~~grasp~~ radial index ^{stem and} ~~dorsal~~ ~~ulnar~~ ~~thumb~~ stems, ~~and~~ ~~that~~ ~~and~~ release all but thumb; drop dorsal stem & insert little finger into remaining loop pointing towards opposite hand.
8. ~~Insert indices, from distal side, into thumb loops & transfer thumb loops to indices.~~ See well

9. Pass thumbs proximal to index loops, insert into little finger loops from proximal side, return & insert into index loops also from proximal side; release indices.

10. Caroline Extension.



8. Fakafiti i tua, asu, fakafiti i roto.

Te Kanu Kupega.

The direction of the twist makes all the difference to the figure. The usual twist, out, down, in & up makes 5 diamonds without the two central twists.

Makes 5 double ()'s not 6 as illustrated.

14)

TE KAU KUPEKA

1. Openning A.

2. ~~Twist all loops once, right hand clockwise, left hand anti-clockwise.~~

3. Tao sogotasi, tā e rua, * fakamau & release

* Little fingers.

4. Inset ^{Furifuri ifo.} little fingers, from distal side, into distal index loops. Transfer these loops to little fingers.

5. Push little loops towards centre of figure.

6. Tao sogotasi, tā e rua, fakamau & release little fingers.

7. Repeat ~~the~~ Furifuri ifo.

8. Release indices.

9. Fakafiti i ^{tā} ~~so~~, asu, fakafiti i sotu.

2. Twist all loops once, little fingers & indices ^{towards you} ~~towards you~~ ^{towards you} ~~towards you~~ away from you down ~~and~~ up.

~~all the way down the way~~



1/2 TAKARO PA TEKOFE

Game (invented by) Pa Tekofe.

1. Holding left hand horizontal + with palm facing you, hang loops over the four fingers.
2. Wind palmar strings round the back of left hand + drop again on palmar side; wind dorsal strings round palm of hand + drop again on dorsal side. Repeat these movements about 6 times, keeping loops loose.
3. Insert right thumb + little finger into hanging loop from proximal side + extend hands.
(Position 1 on right hand.)
4. Find the two palmar strings which were the last to be wound round the hand; take them between right thumb + index then insert left thumb, from proximal side, under radial string of loop + up through all loops on palm; with left thumb + index take strings held ^{between} ~~on~~ right thumb + index + pull them down through the loops, shaking loops off left hand as you do so.
5. Transfer loops held in left thumb + index to thumb - little finger.
6. Release right little finger then insert into thumb loop from distal side + release thumb; insert thumb into little finger loop from ^{prox} side.

7. Takapiti i tua + arrange diamonds.

Game of Parting.

1. Opening A.
2. Insert indices, from proximal side, into thumb loops & transfer ^{thumb} loops to indices.
3. Pass thumbs away from you proximal to all strings, hook back ulnar little finger strings & release little fingers, thus transferring little finger loops, turned over, to thumbs.
4. Transfer distal index loops to thumbs.
5. Bring indices towards you distal to thumb loops, then, hooking back distal radial thumb strings, insert indices, from distal side, into proximal thumb loops, pick up proximal radial thumb strings & release thumbs from proximal loops.
6. Repeat 4 + 5 four times.
7. Transfer distal index loops to little fingers.
8. Tao e sua, la sogotasi, kape ake and release little fingers.
9. Tui fua i fo.
10. Release indices.
11. Fakapiti i tua - 12. Asu, fakapiti i soto & arrange figures.

15)

KAMA KUPEGA

5 double 9s.

1. Opening A.
2. Tao e eua, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, ~~insert into~~ ^{proximal} little finger loops & return with ulnar little finger stems; release little fingers.
4. Fuiifui ifo. ~~little fingers distally into distal index loops & transfer to little fingers.~~
5. Tao ^{sogotasi} ~~e eua~~, ta sogotasi ta e eua, # fakamau, ^{and} ^{release little} ^{fingers.}
6. Fuiifui ifo.
7. Push little loops towards centre of figure.
8. Tao sogotasi, ta e eua, # fakamau ^{and} release little fingers.
9. Fuiifui ifo.
10. Release indices.
11. Fakapiti i tua, asu, fakapiti i roti.

Note: see



10 single ↓s
+ 2 stems through.

16)

KAN TUKEE NIVA

1. Opening A.
2. Insert indices, from proximal side, into little finger loops & transfer these loops to tips of indices.
3. Insert thumbs, from proximal side, into distal index loops; with ring & little fingers hook down distal ulnar index stems & proximal index loops; pass middle fingers distal to distal radial thumb stems & proximal to proximal radial thumb stems & lift proximal loops off thumbs; straighten ring & little fingers & ~~release~~ ^{allow} ~~remove~~ distal ^{index} loops ^{to slip off} from indices; transfer middle finger loops to tips of indices.
4. Repeat 3 three times.
5. Insert little fingers, from ^{proximal} ~~distal~~ side, into distal index loops & transfer these loops to little fingers.
6. Tao sogotasi, tā e lōu & release thumbs.
7. Pass thumbs, from ^{distal} ~~proximal~~ side, through proximal index loops, proximal to little finger loops & return with ulnar little finger stems; release little fingers.
8. Furefure 2fo. (~~Distal ind. loops to lfs. turned over~~)
9. Tao sogotasi, tā e eua, fakamau & release little fingers.
10. Furefure 2fo. See over

11. Release indices

12. Fakafiti i ~~roti~~ ^{roti} hia, asu, fakafiti i roti.



17)

TAKARO PENI POTUTASI

1. Position 1 with ~~double~~ string doubled.
2. Insert right $\&$ index, from proximal side, behind left palmar string & return.
- 3 LEFT HAND. -
3. Insert thumb, from proximal side, into little finger loop & return with radial little finger string.
4. Insert index, from proximal side, into thumb loop, ~~the~~ return with ulnar thumb string & release thumb. (Keep index loop near tip of finger.)
5. Pass thumb proximal to index loop, insert into little finger loop from distal side, twist down, towards you & up carrying with it radial little finger string & release little finger.
6. Transfer index loop to little finger.
7. Repeat 3, 4, 5 + 6.
8. Repeat 3, 4, 5, + 6
9. Repeat 3
10. ~~Insert index, from proximal side, into thumb loop & return with ulnar thumb string.~~ *Bealini F. Lawsoni Fakapiti i eoti.*
11. Release right index.



18)

MFININI

Nauvureture - different
opening

1. Hold string between thumbs & indices, hands being about six inches apart; make a small loop by bringing right hand to left & away from you; hold double string in mouth. ~~Take~~ With hands between hanging strings & your body, pick up middle of long hanging loop & put in mouth ^{above} ~~below~~ strings already there. Insert right & left hands towards you into right & left ~~long~~ hanging loops respectively & being upright; insert little fingers towards you between strings of right & left wrist loops & insert into small mouth loop from proximal side; release all strings from mouth.
2. Transfer wrist loops to ~~position~~ thumbs.
3. Insert thumbs, from proximal side, into ~~thumb loops~~ ^{r.f. loops} and return with radial little finger strings.
4. ~~Palatine Extension~~ Fakafiti i loti.

over

2. Right and left hands have each a long loop; insert little fingers, from proximal side, into mouth loop and release strings from mouth.

✓

✓

over

SERIES FOR TWO PLAYERS

Continuation: MOA

6. First player ^{lowers} ~~lowers~~ hands to hold figure horizontal.
 7. Second player inserts little fingers, from above, into triangles ^{a, a} ~~at~~ ^{near} first player's ^{indices} ~~little fingers~~ and ^{brings them} ~~picks~~ up through diamonds b, b; he then inserts thumbs into diamonds b, b and brings them up in triangles c, c.
- First player ~~of~~ releases his hands.

8. Asu and fakafiti i rotu.

Illustration

Continuation: KOLAO

Kolao 1222

9. Second player keeps hands in upright position.
10. First player inserts little fingers at a, a, and holds radial thumb stems and ulnar index stems between little and ring fingers; he then inserts thumbs at a, a, and hooks back outer arms of central W. Second player releases hands.
11. Fakafiti i rotu.

Illustration

Continuation: KAI PO TUSI

Kai Po Tusui

12. First player holds figure horizontal.
- ~~13. Second player inserts little fingers at a, a, and brings them out at b, b, hooks up the diagonal stems and then inserts thumbs also at b, b, and picks up base of figure (i.e. ~~first~~ player's ulnar little finger stems.~~
13. Second player inserts four fingers of each hand, from below, ^{at} ~~into~~ a, a, and thumbs at b, b. First player (see after 19)

PUPU MA SIZANO

Pupu ma sizano.

or

Sauma aayi

19)

1. Opening A.
2. Insert indices, from distal side, into little finger loops, twist towards you & up between indices & thumbs carrying with them radial little finger stems & ~~index~~ ^{index} index stems; release little fingers
3. Twist index loops once more.
4. Insert middle, ring & little fingers, from distal side, into index loops; with middle finger push up that radial index stem which runs from hand to hand & at the same time release tension on thumb stems by turning hands away from you. This shows figure of four diamonds.
5. Gently release thumbs, then insert into released loops from distal side, & pick up on their backs the radial index stems which form the lower outer diagonals of diamonds.
6. Gently release thumbs again, then insert into released loops from distal side, pass them proximal to double little finger stems & return with them on backs of thumbs; release little & ring fingers & turn hands outwards with fingers spread wide.

✓

releases hands.

14. Fakafiti i roti.

Illustration.

Continuation:

15. Second player keeps hands in upright position.

16. First player inserts little fingers at a, a, and bends them out at b, b, hooks up the diagonal strings and then inserts thumbs at b, b, and picks up base of figure (i.e. Second player's ulnar little finger strings). Second player releases hands.

17. Ase, ~~and~~ fakafiti i roti.

Illustration.

Continuation: MARRAMA

18. First player holds figure horizontal.

19. Second player inserts little fingers, from above, ^{at a, a,} ~~into~~ and bends them up at b, b; he then inserts thumbs at b, b, and bends them up at c, c. First player releases hands.

20. Ase, ~~and~~ fakafiti i roti.

Illustration.

Continuation: TARO

21. Second player keeps hands in upright position.

22. First player inserts little fingers at a, a, and holds radial thumb strings and ulnar index strings between little and ring fingers; he then inserts thumbs at a, a, and hooks back arms of central V. Second
(see after 20)

20)

RAVNISIKEO

Kahawaihaka
adipant skin.

1. Insert thumbs into loop so that radial thumb string is about six inches long, the rest of the loop hangs loosely down.
2. Pass left little finger to right and towards you, distal to radial thumb string, pick up on its back right radial thumb string and return to left. Pass right little finger to left and towards you, distal to right radial thumb string, insert into left thumb loop from proximal side & extend hands.
3. Insert thumbs, from proximal side, into little finger loops & return with radial & little finger strings.
4. ~~Caroline Extension~~ Fakapiti i aoti.
5. Navaho thumbs with hanging loops.
6. Put tips of thumbs and indices together and transfer index loops to thumbs.
7. ~~Caroline Extension~~ Fakapiti i aoti.
8. Navaho thumbs.
9. Release little fingers, rotate thumbs towards you and down and turn palms outwards, thus extending figure.

Illustration.

A better extension is achieved by releasing little fingers at movement 9, then transferring index loops to little fingers followed by asu fakapiti i lina, and fakapiti i aoti.

player releases hands.

23. Fakapiti i roti.

Illustration

Continuation: MANINI

24. First player keeps hands upright.

25. Second player inserts little fingers, towards himself, at a, a, each little finger hooks up the two stems of hanging loops then brings them up above upper horizontal string (i.e. ulnar index string), hooks up that string towards himself allowing double stems to slip off. He then inserts thumbs, away from himself, at b, b, and hooks up lower horizontal string.

First player releases hands.

26. Aze, ~~and~~ fakapiti i roti.

21)

VAI ZUTU FITU

RAW ZUTU FITU

See also
170. 12.
almost identical

1. Opening A.
2. Tao sogotasi, ta sogotasi & release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnae little finger stems; release little fingers.
4. Furufuri iifo.
5. Repeat 2, 3, + 4 four times.
6. Tao sogotasi, ta e rua, * fakamau ^{little fingers.} and release
7. ~~Release little fingers~~ * Furufuri iifo.
8. Release indicis
9. Fakapiti i tua, asu, * fakapiti i roto.



10. Lay figure down and carefully release hands. With ~~hands~~ palms facing one another insert thumbs at a, a, and indices at b, b, and pick up the top and bottom stems of figure. Extend hands.
11. Repeat ~~movement~~ ^{7 and} 9. Figure reduced by two diamonds.

✓ T2.

5 (s) second method.

See Over

Movements 2, 3 and 4 are usually repeated seven times,
with a very long stemj eight or ten times.

22)

TAURAGA A RUPE Text-figure 4, No 3.

p. 90

1. Opening A.
2. Transfer index loops to middle fingers & thumb loops to indices.
3. Take radial index string in mouth; insert right thumb, from distal side, into mouth loop & return with left mouth string; pass left hand to right proximal to mouth loop, then insert into mouth loop from distal side & return with right mouth string releasing string from mouth.
4. Transfer thumb loops to indices & middle fingers; transfer little finger loops also to indices & middle fingers.
5. Navaho indices with proximal radial strings & navaho middle fingers with proximal ulnar middle finger strings.
6. Grasp left hand strings in right hand & lift gently off, turn loops over away from you & place over thumb & little finger. Repeat with other hand.
7. stretch fingers wide apart & pull figure taut.
8. With indices pick up towards you the two

straight stems which lie across figure.

9. Release thumbs then insert them, from distal side, into index loops & release indicis
 10. Insert thumbs, from proximal side, into little finger loops, return with radial little finger stems & Navaho thumbs - the figure emerges again. The process may be repeated indefinitely
- ✓

twist thumbs away, down, towards you & up
carrying with them ulnae ~~little~~ ^{index} fingers strings;
release ~~little~~ ~~fingers~~ indices.

19. asu, fakafiki i rotu.

This termed "manini" steel though now four central ~~is~~
diamonds.

10. Repeat 7 + 9.

MANINI

Illustration

Process is repeated until there are 8 or 10
diamonds.

✓ SARA release indices & pull out.

24)

FONU

Maucata.

Two players

player 1 has shorter string than player 2.

1. Two players with a string each make Opening A; K
2. Facing each other player 1 inserts his whole hand, from distal side, into index loops of player 2 and returns with those loops on his wrists; player 1 does the same.
3. Player 1 removes his hands from all loops, gathers up the strings hanging from player 2's hands and wraps them round and round strings between latter's hands, with a clockwise movement of right hand.
4. Player 1 holds the remainder of string between his two hands & rubs them ~~shantings~~ calling

"melimili ta zalizali

Tata tou esu"

and touches player 2's nose. He rubs strings again and calls again towards nose of someone else near and so on. a good joke

5. Player 1 takes loops from ~~over~~ ^{left} player 2's ^{hand}, lifting thumb loops in right hand and little finger loops in ~~right~~ ^{left} hand; player 2 releases his left hand from 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 former little finger loop.

Players draw hands apart.

6. Both players saw alternate hands and sing

"Fonu E

Fonu tencei

Te uau o

Te fonu tencei"

Notes here for Prof. Smith.

1. Position 1 with left hand only.
2. Insert right forefinger, from distal side, behind left palmar string & pull out to ~~farthest~~ ^{full} extent & drop.
3. Insert right forefinger, from distal side, behind left palmar string, between ulnar thumb & radial little finger strings, & pull out to full extent & drop then insert right thumb & little finger into hanging loop from proximal side (i.e. in position 1.).
4. Insert right index, from proximal side, under behind left palmar string & return to right with palmar string.
5. Insert left thumb, from proximal side, into little finger loop & return with radial little finger string; pass right thumb distal to radial index string, proximal to ulnar index string & return with ulnar string.
6. Fakafiki & Navaho thumbs. ~~Put tips of thumbs & indices together & allow index loops to slip on to thumbs.~~
7. Release little fingers.
8. Spread thumbs & ~~little fingers~~ ^{indices} wide apart & turn hands palms away from you.



Illustration.

Second player inserts hand through center diamond.
First player sings: -

Kai polo ki
Kai polo ka
hoki Koka

✓ as he calls Koka he releases his left hand
& pulls figure to right which frees 2nd player.

26)

KIAMI KUPEGA *

1. Opening A.
2. Tao sogotasi, ta e toeu + release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops + return with ulnar little finger strings;
4. release little fingers.
4. Tuiifuei ifo.
5. Tao sogotasi, ta e eua, fakamau + release little fingers. Tuiifuei ifo.
7. Push little loops towards centre of figure.
8. Tao sogotasi, ta, e eua, fakamau + release little fingers
9. Tuiifuei, ifo ~~release indices.~~
10. Release indices
11. Fakafiki i tua, asu, fakafiki i roto.

↳ double Os with a twist at either side
of central 2.

Note after this + a dance song?

37) +

F O I A T U

1. Opening A.
2. Tao sogotasi, ta sogotasi & release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger stems; release little fingers.
4. Tuihuei ifo.
5. Tao sogotasi, ta e rua, fakamau & release little fingers.
6. Tuihuei ifo.
7. Release indices.
8. Fakapiti i tua, asu, fakapiti i sotu.

One double diamond.

27)

VAI ZUTU RUA 4

same as

1. Opening A.
2. Tao sogotasi, ta e toeu + release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops + return with ulnae little finger stems; release little fingers.
4. Tuiifuri ifo.
5. Tao sogotasi, ta e sua, fakaman + release little fingers.
6. Tuiifuri ifo.
7. Release indices
8. Fakapeli i tua, asu, fakapeli i sotu.

Two double diamonds.

This is beginning of Kan Kupega Pa ~~Kowati~~ Kowati.

32) ✓

Takaro Sa Runga.

1. With feet about six inches apart put one end of loop over two big toes; hold other end in right hand and pull taut. With left hand grasp string between toes and pull up ^{to side} to right hand. (Remove loop from left toe, turn over and replace so that strings do not cross.)
2. Lay strings on lap; right and left hands pick up right and left strings near where they cross, crosses them again and carries them ~~to other side~~ outside side strings, then with palms facing down pick up side strings with backs of thumbs and pull taut.
3. Repeat movement 2 about 6 times. ^{from proximal side}
4. To extend insert right hand little finger ^{from proximal side} into right hand loop and thumb into left hand loop. Insert left little finger, ^{from proximal side} into right toe loop and thumb into left toe loop.
5. Fakafiti i tua, asu, fakafiti i eoti.

Te Hua a Runga

28)

Vai zutu toou x

1. Opening A.
2. Pass thumbs distal to index loops, insert into little finger loops from proximal side & return with radial little finger strings.
3. Fakafiti i ~~toou~~^{20ti} & release thumbs. (Note in journal)
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
5. Fui fui i fo.
6. Tao segotasi, ta e suo, fakamau o release little fingers. 7. Fui fui i fo. 8. Release indices.
9. Fakafiti i tua, asu, fakafiti i eoti.

Three³ double diamonds

Note after this?

39 with different twist?

KAN KUPEGA

1. Opening A.
2. Twist all loops once.
3. Tao sogotasi, ta sogotasi + release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, ~~distal side~~ ^{proximal to} little finger loops ~~and~~ ^{proximal side,} and return with ulnar little finger strings; release little fingers.
5. Fufufui ifo.
6. Tao sogotasi, ta e eua, fakamau o release little fingers
7. Fufufui ifo
8. Release indices
9. Fakafili i tua, asu, fakafili i aoti.

with.
 4 diamonds no twists

29) X

Vai zutu toeu.

~~Banaban 3 weeks.~~

1. Opening A. 2. Twist all loops by rotating fingers ~~away~~,
~~down~~, towards ~~up~~, ^{down, away and} up. 3. Tao soqotasi, ^{5. Release middle} ta e eua ~~and~~

fakaman = release little fingers. 4. ^{6. Fakafiti} ~~the~~ ~~loop~~.
^{i tua, aze, fakafiti e eoti.}
KUMETE.

✓
30) X

1. Opening A.

2. Insert indices, from distal side, into little finger loops. rotate them towards you and up, between indices and thumbs, carrying with them radial little finger strings; release little fingers.

3. Insert middle, ring and little fingers, from distal side, into index loops and pull down ulnar index strings.

4. Holding figure loosely gently release thumbs then insert them into the dropped loops from distal side; next insert them into figure close to tips of middle fingers and pick up from proximal side proximal radial index strings.

✓

33)

PUPUZA MOANA

1. Opening A.
2. Rotate right hand twice clockwise wrapping strings round wrist; with right thumb & index remove loops from left index, rotate left hand once anti-clockwise & replace index loops. Unwind both hands.
3. Repeat 2 with opposite hands & opposite directions.
4. Tao soqotasi, ta e eua, ^{Rape ake} fakamau & release little fingers.
5. ^{Release indices} Fuiifui ifo
6. Fakafiti e tua, asu, fakafiti e eoti.



30)

ARA IRI TE POPOURI

X

1. Opening A.
2. Take in mouth ~~crossed stems~~ of ulnar index & radial little finger stems where they cross.
3. Insert right index, from distal side, into mouth loop, pick up left mouth stems & return to right; pass left index between your body & right mouth stems, pick up these stems on back of index & return to left; release stems from mouth.
4. Pass thumbs proximal to index loops, insert into little finger loops from proximal side, twist thumbs away, down, towards you & up carrying with them ulnar & little finger stems & release little fingers.
5. * Insert thumbs, from proximal side, into index loops; there are now ^{two} proximal & two distal radial thumb stems with a single radial stem between them. * Navaho thumbs with double proximal stems.
5. * Pass ring & little fingers proximal to index loops & hook down ulnar thumb stems then *
insert middle fingers, from proximal side, into index loops, pass them distal to distal radial thumb stems +.
6. Insert thumbs, from distal side, into index loops & transfer these loops to thumbs.

7. Fakafiki i eoti and release thumbs

Illustration.

Loose stems on top called ARA in TE MARAMA.
to light, those in centre of figure ARA

IT

"ARA IRI TE POPOURI E

ARA IRI TE MARAMA"

~~NA TA'INA~~

in lower half of figure,

8. With ^{index} thumbs, ^{release little fingers} back of hand pick up ulnar ^{combination of} stems
which run to base of figure ^{(one of the loose} then turning hands
palms away from you pick up with little fingers
diagonal string lying close behind them. ^{top strings.)}

9. Release indices & extend hands fully.

10. Ase, fakafiki i eoti.

then proceed to ~~MANINI~~ ^(flexive extension) as in ~~RAU A KERA.~~

37) After 26.

35) after 39.

32) With feet. (See after 27)

33) Twisted round wrists. (See before 31)

34) arb Na Ulwehwe Series for 2 exactly as in Gilbert's except for
opening figure. See after 38 for (b) Manini¹⁵ for (a)

38) ✓

KANU TUKE NIVA

6 Ds + double stems?
+ thumb

1. Opening A.
2. Bring ~~thumbs~~ ^{indices} towards you, distal to thumb loops, then away from you proximal to thumb & index loops, insert into little finger loops from proximal side, & return with ulnar little finger strings
3. release little fingers.
3. Bring ring & little fingers towards you proximal to index loops, grasp ulnar thumb string between them & return allowing string to slip over little fingers.
4. Insert little fingers, from proximal side, into distal index loops & navaho little fingers.
5. Release indices from distal loops.
6. Tao sogotase, ta e toeu & release thumbs.
7. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops, & return with ulnar little finger strings, & release little fingers
8. Tuipeui efo.
9. Tao sogotase, ta e eua, ^{kape aki} fakamau & release little fingers
10. Tuipeui efo.
11. Release indices
12. Fakafiti i tui, asu, fakafiti i sotu.

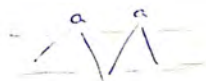
Notes after this

3/15) A

MANINI FROM MARAMIT.

1. Navaho Opening.
2. Insert middle, ring & little fingers, from proximal side, into index loops; close fingers over radial dorsal stems & let ulnar dorsal stems slip on to thumbs but do not release stems from crotch of middle, ring & little fingers.
3. Caroline Extension.

Space for illustration



4. Lay figure down, fingers pointing downwards, and
5. release hands.
5. Insert little fingers at a, a, pick up crossed stems & top stem of figure, at the same time pick up with thumbs stems forming arms of central "V" and extend.
6. ~~Caroline Extension~~. Fakapiti i rotu.

✓ Second player takes figure as in MANINI.

Space for illustration



39) ✓

KAU KUPEGA

1. Opening A. down, away and up.
2. Twist each loop once rotating fingers towards you.
3. Tao sogotasi, ta sogotasi + release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops, return with ulnar little finger strings; release little fingers.
5. Turifuri ifo
6. Tao sogotasi, ta e eua, * fakaman + release little ^{Fingers.}
7. Turifuri ifo
8. Release indices
9. Fakafili i tua, asu, fakafili i soti.

4 ↓ (double) with central twists

35) X

TE UTOKOTOKO

1. Opening A.
2. Tao sogotasi, ta e eua, fakaman and release little fingers
3. Fakafui ifo
4. Release indices
5. Fakafiti i tua, asu, fakafiti i sotu.

36) X

Continuation: ~~TTTTTTTTTTTT~~ MOMONA

6. Release indices, then insert them towards open between double stems in centre of figure and release thumbs and little fingers
7. Transfer index loops to thumbs.
8. Arrange stems so that radial thumb stems are crossed then insert little fingers, from proximal side, into proximal thumb loops and return with proximal ulnar thumb stems.
9. Fakafiti i sotu and release thumbs.
10. Pass thumbs proximal to index ~~loops~~ ^{and} little finger loops, return with both little finger stems and insert into index loops from proximal side; rotate thumbs away, down, towards open and up and release ^{indices}.
11. Insert thumbs, from proximal side, into little finger loops and return with radial little finger stems.

do the fingers twisting in ulnar direction at 2!

40/1

VAIZUTU TASI FAI OFA

1. Opening A - down, away & up.
2. Twist all loops once rotating fingers towards you,
3. Tao sogotasi, ta e toeu & release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
5. Tui'fui ifo
6. Twist thumbs & little fingers loops, rotating outwards.
7. Tao sogotasi, ta e rua, fakaman & release little fingers.
8. Tui'fui ifo.
10. Fakafiti i tua, asu, fakafiti i esiti.
9. Release indices

12. Fakafiti i esiti.

Space for illustration.

Movement 10 may be repeated as many times as desired.

41) X

VAI ZUTU TASI FAI OFA

2nd method.

1. Opening A.
 2. Twist indices.
 3. Tao sogotasi, ta e to'u and release thumbs.
 4. Pass thumbs, from distal side, through proximal index loops, ~~base~~ ^{proximal} into little finger loops ~~from~~ ~~proximal~~ side and return with ^{ulnar} ~~radial~~ little finger strings; release little fingers.
 5. Furihuri ifo.
 6. Tao sogotasi, ta e eua, ^{kapake} fakamau and release little fingers.
 7. Furihuri ifo.
 8. Release indices
 - ✓ 9. Fakafiti i tua, asu, fakafiti i roti.
-
1. Fakamau, thumbs passing through proximal index loops from distal side.

Some to 3, no more which connect out?

42) *

KAA TUKE NIVA.

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, twist towards you & up & return to right; perform same movement with left hand.
3. Twist little finger & thumb loops once rotating inwards. in radial direction.
4. Tau sogotasi, ta e toea & release thumbs.
5. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
6. Tui fua i fo.
7. Twist little finger & thumb loops once rotating away from you. in ulnar direction.
8. Tau sogotasi, ta e rua, fakamau & release little fingers.
9. Tui fua i fo.
10. Release indices.
- ✓ 11. Fakafiti i tua, asu, fakafiti i roto.

KAN ZU TETE MAORI

1. Opening A.
2. Pass thumbs distal to index loops & proximal to little finger loops & return with ulnar & radial little finger strings.
3. Insert indices, from distal side, into thumb loops, ~~twist~~ ^{twist} them away & up, release thumbs.
4. Pass thumbs proximal to these distal radial & one distal ulnar strings, hold distal ulnar strings between thumbs & indices & twist indices down, towards you & up distal to proximal ulnar index strings; release thumbs.
5. Pass thumbs, from proximal side, through proximal index loops, ^{then} proximal to distal ulnar index strings, hold these strings against indices then ^{twist} ~~twist~~ indices down, through ^{distal and} proximal loops, towards you & up retaining original distal loops only.
6. Pass thumbs proximal to index loops, insert into little finger loops from proximal side & return with radial little finger strings; then insert into index loops, also from proximal side & release indices.
7. Fakapiti i rotu. (~~Caroline Extension~~)

3 double (S)
any number

43)

KANZA TETE

1. Opening A.
2. Tao sogotasi, ta sogotasi o release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, ~~insert into~~ ^{proximal to} little finger loops o return with ulnar little fingers; release little fingers.
4. Turepuri ifo.
- ~~5. Tao sogotasi, ta sogotasi o release thumbs.~~
5. Repeat 2, 3. + 4 twice
6. Release indices
7. Fakafiki i tua, asee, fakafiki i eoli.

Can also be made with 6 diamonds. Any number

45)

FOI NUPU PV TAREMEKO

1. Opening A.
2. Taosogotasi; Ta sogotasi; release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
4. Furefure 2fo
5. Release indices
- ✓ 6. Fakafite i tua, asu, fakafite i roto.

1. Hold string between thumbs & indices, hands being about six inches apart; make a small loop by bringing ~~small~~ ^{right hand} ~~loop~~ to left & away from you and hold double string in mouth; insert hands ^{away from} ~~hands~~ you into large hanging loop and extend hands, then put ulnar wrist string in mouth proximal to small mouth loop; insert little fingers, from proximal side into small mouth loop & release strings from mouth.
2. Bend thumbs down ^{towards you} then away from you proximal to radial wrist strings & distal to ulnar wrist strings, bend thumbs down, towards you & up bringing with them ulnar wrist strings.
3. Remove wrist loops from wrists & drop.
- ✓ 4. Fakafiki i ^{roti} ~~to~~, asee, fakafiki i ^{roti}.

Illustration.

Continuation:- Three, Five, Seven or more unufe.

5. Release indices ^{away from you}
6. Pass right hand ^{away from you} proximal to all strings of left hand, grasp ulnar little finger string, bring it back proximal to all strings, then away from you distal to all strings and drop over little finger; Navaho

little finger. Repeat with other hand.

7. Remove ~~all~~ ^{from} thumb ^{the} loops, ~~and~~ whose ulnar stems cross ~~the~~ radial little finger stems.
8. With opposite hand remove thumb loop ^{by grasping radial stem} ~~turn~~ over and replace on thumb so that original radial thumb stem become the ulnar stem.
9. Fakafili i tua, asu, fakafili i zoti.
Illustration.

This figure needs arranging ^{as} the stems appear to be twisted when ^{in fact} they are not, ~~the~~ ^{or alternatively} ~~the stems can be done by~~ ~~having~~ ~~compact~~ ~~before~~ ~~extending~~ ~~figure~~, pull ~~the~~ radial thumb stems two or three inches towards you (thus shortening ulnar thumb stems which form top of figure and allowing more stem for the design.

✓

1. Insert thumbs into loops so that radial thumb string is about six inches long, the rest of the loop hangs loosely down.
2. Pass right little finger to left and towards eye, ^{distal} ~~proximal~~ the radial thumb string, pick up on its back radial thumb string close to left thumb and return to right. Pass left little finger to right and towards eye, ^{distal} to left radial thumb string, insert into right thumb loop from proximal side and return to left with right radial thumb string. Draw hands apart until strings are taut.
3. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
4. ~~Caroline Extension~~. Fakapiti i eoti.
5. Navaho thumbs with hanging radial thumb string
6. Place tips of thumbs and indices together and allow index loops to slip on to thumbs.
7. ~~Caroline Extension~~. Fakapiti i eoti.
8. Release little fingers.
9. Transfer index loops to little fingers.
10. ~~Caroline Extension~~. Fakapiti i eoti.
11. Release little fingers.
12. Transfer index loops to little fingers.
13. ~~Caroline Extension~~. Fakapiti i eoti.

18)

Finger & Thumb League

Cannot do it.

Song chanted when stems ^{are} tangled.

matāra matāra feuki

Ko pu te kauru

Ka oko mai

ma te tokoloko

ma te fakamifo

mai serea serea

Ko tou atē serea

Notes here for classification please.

49

TI TASI

Two players sit opposite one another with hands facing,

1. Position 1 on left hand of player A; loop on right hand little finger of player B.
2. Player B inserts right thumb, from distal side, behind palmar string of player A and returns to ^{position} 1.
3. Ase, both players, and fakafiti i rotu.
4. Player A now works with right hand, player B with left hand; ^{through figure} pass little finger ~~distal~~ to double radial thumb strings, ~~proximal~~ and pick up ulnar little finger string from proximal side; then turning palm of hand to face partner ^{pass} ~~insert~~ thumb, ~~from~~ ^{proximal} ~~distal side~~ into ^{ulnar} index ^{string} loop and release hand originally holding figure.
5. Ase, ~~and~~ fakafiti i rotu.
2 1/2" Zeluskation. Titasi.
6. Keeping figure extended player A makes ~~an~~ ~~anti~~ clockwise, player B an anti-clockwise sweep through half a circle thus turning figure over; it is now termed Ta tea.

Zeluskation. 2 1/2"

7. Both players, with free hand, insert thumb & little finger, from above, into triangles close to hand holding figure, thumb into figure near thumb, little finger near index; push hand ^{thumb & little finger moving down} towards partner, scooping up all intermediate strings until hands meet in center.

clasp hands, fingers interlacing, and withdraws other hand.

8. Player B with left hand picks up on back of ~~the~~ player A's ~~right~~^{left} hand the stems between player A's index and thumb and his little finger and ring finger by turning half right and putting his hand on top of player A's hand pointing in the same direction; player B inserts little finger and thumb between the above mentioned stems and picks up thumb stem with thumb & little finger stem with little finger.

9. Player A releases ~~the~~ hands. Player B performs *Azu*, ~~and~~^{and} *fakafili i toti*.

10. Illustration 2 1/2"

10. Player A, with indices and thumbs, presses stems of figure together, hands about six inches apart; this causes two little loops to stand up in center of figure; player B releases thumbs and indices, and inserts thumbs towards one another into loops and extends hands.

11. II. Each palmar string now has a loop depending from it; with opposite hand grasp distal stem of this loop, release thumb and insert away from you into loop held by opposite hand.

12. *Azu*, ~~and~~^{and} *fakafili i toti*.

13. To reveal figure, turn each hand clockwise for quarter of a circle, then bring right hand palm down towards you and lower left hand,

palm down, until figure is displayed on horizontal plane.

#4.

Illustration 5''

~~#4. The figure now consists of three interior diamonds and eight exterior triangles, the latter based upon the two stems running from hand to hand.
Player A, with palms facing.~~

Questions

Does Mamini always have 4 or more triangles?

Notes on "Te Taba" (Gilbertese name)

1. "Some Stem Figures from N.E. Angola -

M.D. and L.S.B. Leakey. pp. 21-24.

Unusual & complicated way of making the first figure of 3 Δ 's (wrist-loops to 2 Δ 's to Naumake) then usual pick up & turning over until one player fumbles & fails - Called "Four women grinding corn".

2. "Cats Cradles of the Kivai Papuans..." G. Lamdman p.

p. 225 "An Aemshell" - only to the 3 Δ 's -

Odd way of making Murray Opening - on to "Little Fishes" then odd movements to 3 Δ 's as for Te Taba.

3. "Maori Stem Figures" J. C. Anderson.

pp 35-36 "Parosi"

Op. A to op. similar to Murray op. same movements as to "Little Fishes" (but doesn't finish it) + Navaho Humba 3 Δ 's

Te Taba follows on without intermediate figure & arrangement.

4. "Some Stem Figures from Fiji..." James Hensell.

pp 50-54, 75-6.

(a) Op. A. + same as Maori.

(b) Double turn on big toe etc

Usual method after 3 Δ 's

5. "String Figures from the Gilbert Islands" H.C. + H.E. Maude.
pp. 136-140.

With two players from the beginning
also Dickey p. 167. 3 Os from Na Uvelwa.

6. "String Figures from Northern New Guinea" C.A. Wedgwood.
pp.

? With two players from beginning but different method

7. Jayne. p. 43. Bagobo Os - Philippines

Op H. to similar Murray Op. to 3 Os only.

8. Malacca. with two players?

9. Gold Coast String Games. C.L.T. Geffeth p. 289.

Totally different technique but ends with turning
over to 3mg + returning to 3 Os but opening up different.

10. "String Figures from the Marquesas..." Handy. pp. 45-47
Same as Maori.

11. as above "..... and Society Islands" Handy pp. 86-88.
Same as Maori.

12. Tonga. Hornell p. 66. Same as Maori

X 13. Samoa " p. 75. " to 3 Os only

X 14. McCarthy p. 174. 70-79. Navaho Op.
Navaho Op. to 3 Os. (not through Na Uvelwa).

ditto p. 154. Os. 36

Op H. to op. similar to Murray. similar or same as
Maori

MANINI

1. Insert right thumb & left thumb & index into loops.
2. Bring right hand to left, pass index between left thumb & index, distal to string, running between them, then hook back this string with right index turning finger away & up; return to position.
3. Pass little fingers proximal to index loops & insert ring fingers into index loops from proximal side, ~~the~~ clasp radial index strings between these two fingers & return to position ~~allowing~~ with radial index strings on backs of little fingers; release ring fingers.
4. Release indices.
5. Ta sogotasi (with radial little finger strings) &
6. release thumbs.
6. Transfer index loops to thumbs.
7. Ta e rua (with both little finger strings) & release thumbs.
8. Transfer index loops to thumbs.
9. Ta sogotasi (as above), fakamanu & release little fingers.
10. Faaifua ifo
11. Fakafili i tua, asu, fakafili i roto.

6 single Is

1. Insert thumbs only into loops.
2. With left hand hold stems near right hand & rotate right thumb away, down, towards you & up & release stems held in left hand.
3. Insert little fingers, from proximal side, into thumb loops & return with ulnar thumb stems.
4. Insert right index, from proximal side, behind left palmar stem & return to right; insert left index, from distal side, into right index loops & from proximal side behind right palmar stem & return to left. (As in Opening A.).
5. Insert indices, from distal side, into little finger loops, rotate towards you & up carrying with them radial little finger stems & ulnar index stems;
6. ^{release little fingers}
~~7.~~ ^{with ring & little fingers hold ulnar index stems against palms} Pass middle fingers proximal to radial index stems & insert into thumb loops from proximal side; release thumbs carefully then pass them from distal side through middle finger loops; hook back radial index stems which cross figure diagonally to base & release middle fingers.
8. Repeat 7 but thumbs hook back double stems at base of figure.
9. Release ring & little fingers; pass middle fingers

✓ 10. towards you, proximal to distal radial index strings
which run from hand to hand & hook back this string;
then stretching fingers wide turn hands palms away
from you.

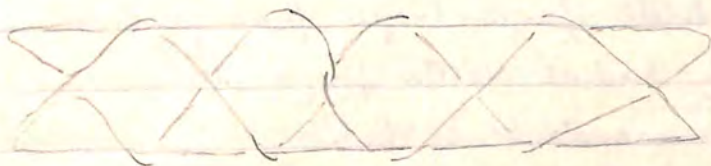
Beginning of Kenneth's "Swain of the Sun" by
Maui, after initial twist

1. Position 1.
2. Bring right hand to left, meet right index, from distal side, behind left palmar stem, then under away & up & return to position. Repeat with other hand.
3. Twist all loops once, right hand clockwise, left hand anti clockwise
4. Tao sogotasi, ta e rua, fakamau & release little fingers
5. Fuiifui ifo.
6. Push little loops towards center of figure.
7. Tao sogotasi, ta e rua, fakamau & release little fingers
8. Fuiifui ifo.
9. Release indices.
10. Fakafiti i tua, aue, fakafiti i sotu.

2½" illustration

✓ This is termed "manini" though it has..... kuyoga

1. Hold string in both hands with hands about six inches apart, bring right hand ~~string~~ to left thus making a small loop with right hand string lying over left hand string; give loop another twist in the same direction & hold ~~crossed~~ ^{looped} strings in mouth.
2. Insert hands, away from you, into long hanging loops. grasp tight & lay it over strings already in mouth; insert little fingers, from proximal side, into small mouth loop, & release all strings from mouth & extend.
3. Transfer wrist loops to thumbs.
4. Insert thumbs, from proximal side, into little finger loops & return with radial little finger strings.
5. ~~Caroline Extension~~. Fakafiti i eoti.



54)

KAN TUKE NIVA

1. Opening A.
2. Tāo sogotāsi, tā e ^{to'u} ~~seva~~ but indices hook back radial index strings.
3. Transfer distal index loops to Thumbs.
4. Insert middle fingers, from distal side, into thumb loops & pass indices towards you between proximal & distal radial thumb strings; with tips of indices hook back proximal radial thumb strings & return to position.
5. Release thumbs.
6. Pass thumbs, from distal side, through proximal index loops & return to position with proximal & distal ulnar index strings. ~~Navaho thumbs~~
7. Navaho thumbs & release distal loops from indices.
8. Pass thumbs, from proximal side, through index loops, insert into little finger loops from proximal side & return with radial little finger strings.
9. ~~Caroline K. Klemm~~ ^{Fakapiti e estī} and release thumbs.
10. Pass ~~indices~~ ^{thumbs}, from proximal side, through proximal index loops, proximal to little finger loops & return with ulnar little finger strings; release little fingers.
11. Transfer distal index loops to little fingers.
12. Insert thumbs, from proximal side, into index loops & hold down ulnar index strings; insert indices, from distal side, into little finger loops, hook up radial little finger

stings & allow original index loop to drop off; bring indices towards you, shell pointing down, distal to radial thumb stings; then hook these back ~~on top of~~ ^{& straighten} indices; pass thumbs, shell holding down ulnar index stings, proximal to ulnar little finger stings & hook them back through thumb loops.

13. Release little fingers.

14. Fakafu'e i'o

15. Fakafu'e i'ea, au. fakafu'e i'etu.

8 \diamond s with double sting sumo through

Reducing diamonds not clear.

1. ① Fōi Nūpu
2. ⑦ Nū takō tōru
3. ⑰ Te Kauhēka niva 4 ♠s 2 stumps through
4. ⑳ Tee i tane
5. ⑳ Kume
6. ⑳ Tōpa i a mārama
7. ⑳ Kauhēka
8. ④⑤ Te Kauhēka sibotāa
9. ⑤⑩ Fekaka
10. ⑩⑨ Kau tūke niva 6 ♠s 2 stumps through
11. ④③ Te Apeau
12. ⑨ Kauhēka tē
13. ⑳ Fēfēka
14. ④④ Te kau kupenga 5 double ♠s
15. ④⑥ Kau kupenga "
16. ②② Kau tūke niva 10 ♠s 2 stumps through
17. ③② Takāo peri potukāsi
18. ④⑥ Mānini etc (Maubuhue Series)
19. ③⑥ Pūpu mā sīngānō
20. ③⑩ Kauhēka
21. ⑩⑩ Vāi ngutu fētū
22. ③③ Tauranga a eupe
23. ③⑨ Kau a kēa (+ 31)
24. ④④ Fōru
25. ⑤② Kai poloki
26. ④⑤ Kau kupenga 4 double ♠s

27 (1) Voi zuku eua

28 (3) " " toeu

29 (5) " " "

30 (30) Kumete

31 (28) Osa eei te popouri

32 (4) Takao sa sunga

33 (25) Pupsuya moana

34 (8) Manini fern marama

35/36 (40) Te utokotoko etc

37 (3) Foi atu

38 (20) Kaeu tuke niva 6 As with 2 stamps through

39 (11) Kaeu kypenga 4 double As

40 (12) Vaizuta lāsi fai oia

41 (16) " " " " 2nd

42 (18) Kaeu tuke niva (Same as 39) 4 As with 2 stamps through

43 (8) Kanya Tete

44 (34) " " maori

45 (2) Foi nupu pu talemeko

46 (42) Unufe e eua etc

47 (31) Vaie atu etc

48 X Funga + Hump figure

49 (17) Te lāsi etc

50 (21) Manini

51 (37) Kaukape

52 (23) Manini

53 (25) " a logo

54 (21) Kaeu tuke niva 8 As with 2 stamps through

not to be typed.

Tekopia cord much longer than "ours", about a fathom and a half when doubled.

Native cord in general very thin.

Figure between 49 and 50 not done.

Takao sa Ruya, made on two zasala rods and big wets.

No. 48. Finger & thumb figure -
cannot do it.

33 Southwood Avenue
London N6 5SA

8. iii. 79

Dear Honor,

A brief note to pick up
a couple of threads.

When we talked in
Canberra - and it was good to meet
again and see Harry too - I seem to
remember you didn't think you had
news of your RAIN article. I have
now checked up on this, having just
got back to London, and the article
was published in RAIN no. 16, Oct.
1976 under the title of "Cradles
of Civilisation", over your name.
If by any chance you did not receive
a copy of this number of RAIN let me
know.

The attached came to my
notice recently. You may well have
seen it, but in case not here it is.
Sorry for the poor copy - the
original is on brown paper which does
not reproduce well. In any case, I'm
sure you will know the figures
represented.

I handed over your
Solomon Islands book to a young friend
of mine in Hong Kong who is showing
an interest in string figures -
maybe the art is catching on in far
places.

All best wishes to you both.

UNIQUE FACET OF NEW HEBRIDES' CULTURE SHOWN

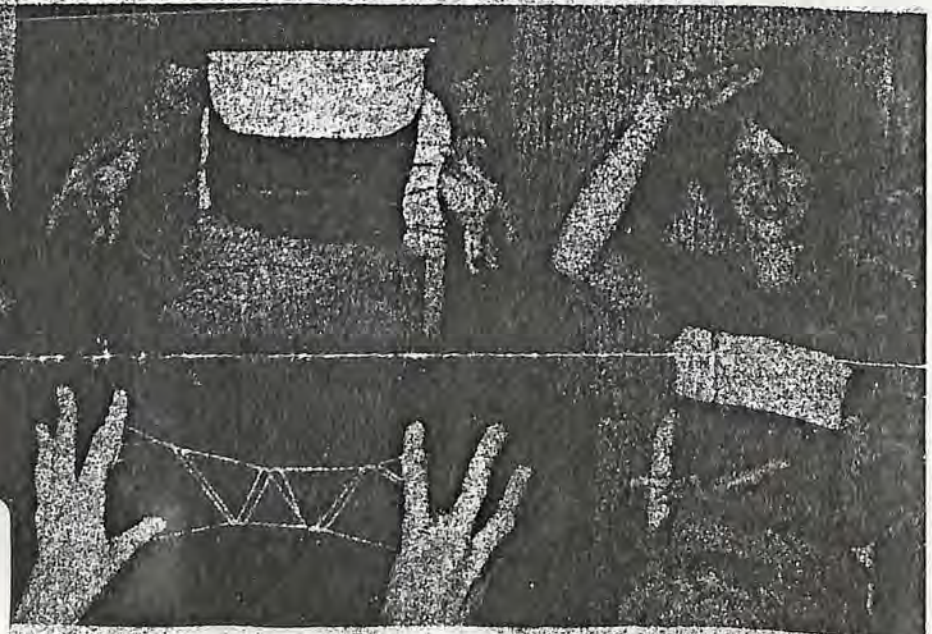
Seen frequently around the Center these days is Instructor Joan Mossman who is teaching *Culture of the Pacific*, *Cultural Ecology*, and *Women in Cross-Cultural Perspective* and is also currently working on her doctoral dissertation which examines social changes under the missionization process in Malekula the New Hebrides.

Ms. Mossman is especially interested in the effects of colonialization on the now-emerging island nation and she plans to return to the New Hebrides next summer to make a photo-essay that will reflect both the Islands' traditional culture and the changes occurring as Independence draws near. She also wants to make a film documentary about sand drawing and string figures (such as the widely-known 'Cat Cradle') because, she says, the people of New Hebrides have an incredible repertoire of these, and still pictures do not convey their complexity well. The sand drawings, done only by men, are created without lifting a finger, in a continuous line.

After graduating from Radcliffe, Ms. Mossman continued her education at Stanford where she received a master's degree in cultural anthropology and is now a candidate for a Ph.D. ■

Instructor Joan Mossman demonstrates a few of the "String Figures" she learned in the New Hebrides - "The Flying Fox," "The Fresh Water Shrimp" (also done in New Caledonia), "The Outrigger Canoe," "The 3-Pronged Fishing Spear"

In the Islands, the string used is made from a species of hibiscus. Many of these figures start out like the well-known "Cat Cradle," with a series of intricate finger maneuvers quickly changing the patterns created. In the New Hebrides, string figures are called "gangue," which also means "the rope you didn't expect to take." They have been part of the Islands' cultural heritage since pre-contact.



This is from an old copy of TIME magazine - 1975.

Mitsui Aluminium Co., Ltd.
Mitsui Bank, Ltd.
Mitsui Construction Co., Ltd.
Mitsui Kanko Development Co., Ltd.
Mitsui Lumber Co., Ltd.
Mitsui Miike Machinery Co., Ltd.
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Mitsui Mining & Smelting Co., Ltd.
Mitsui Mutual Life Insurance Company
Mitsui Oil Exploration Co., Ltd.
Mitsui Norin Co., Ltd.
(Mitsui Agriculture and Forestry Co., Ltd.)

Mitsui Oil Supply Company, Limited
Mitsui Petrochemical Industries, Ltd.
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Denki Kagaku Kogyo Kabushiki Kaisha (DENKA)
Hokkaido Colliery & Steamship Co., Ltd.
The Japan Steel Works, Ltd.
Nishi Nippon Electric Wire & Cable Co., Ltd.

Sanki Engineering Co., Ltd.
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Taiho Marine & Fire Insurance Co., Ltd.
Toray Industries, Inc.
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Mitsui & Co., Ltd.



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Dear Honor,

Many thanks for your letter. Raymond and I will be in Canberra (University House) between Dec. 27 and Jan. 9 and hope to see you. We are at the moment travelling through the North Island, and will we leave for Melbourne on Dec. 20.

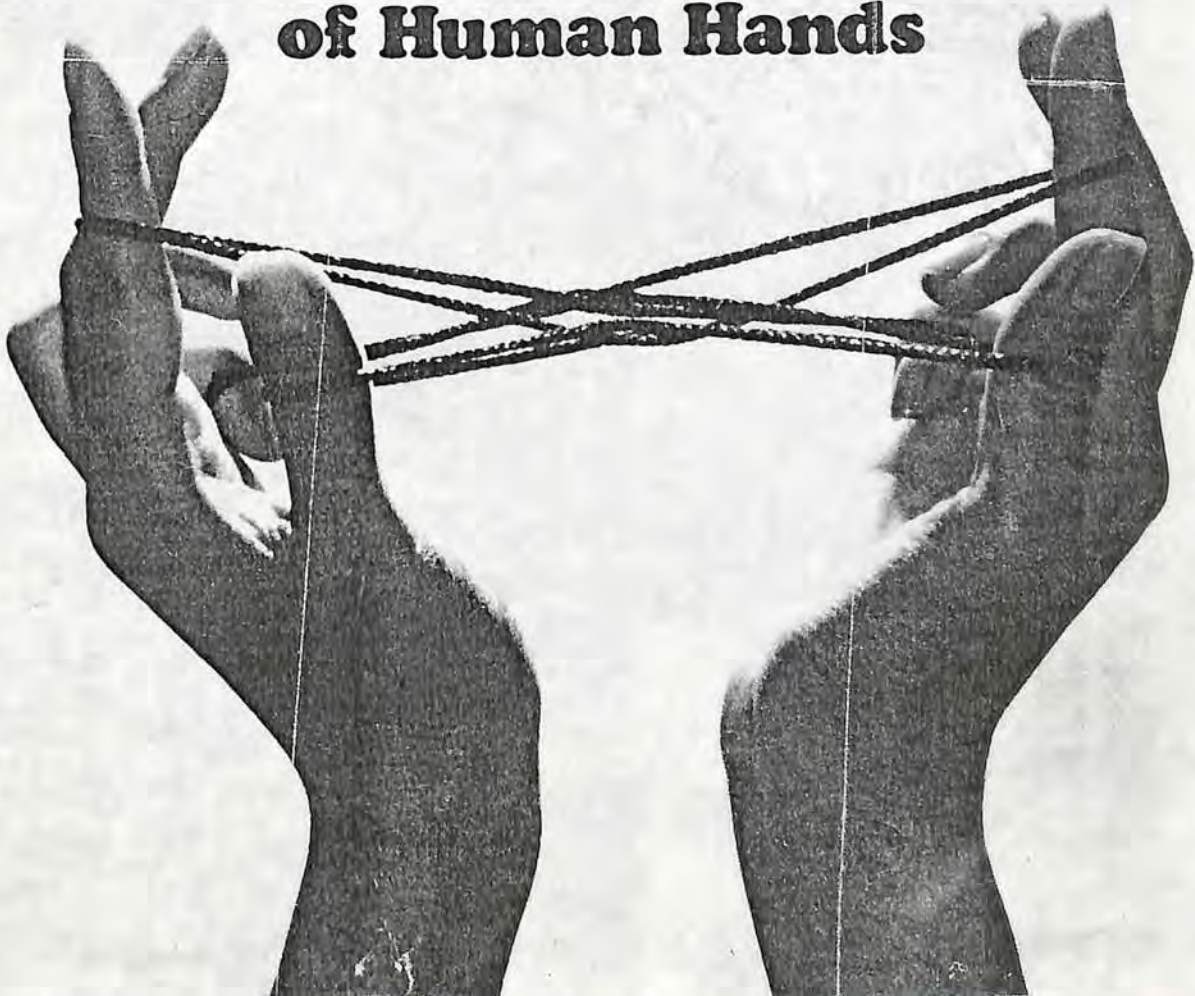
Melbourne on Dec. 20

Ever
Raymond

Cat's cradle is child's play. But it helps children to learn the importance of skilled hands in the creation of their expanding world. Before the dawn of history mankind learned, and benefited from the fact, that hands could create new wonders when the fingers worked together.

And that's what the Mitsui Group is all about: creation of new wonders through synchronized, cooperative efforts of the member firms. An idea as simple as this has made the Mitsui Group a truly international operation. And Mitsui teamwork could, perhaps, help solve your problems.

The Miracle of Human Hands



This is from an old copy of TIME magazine - 1975.

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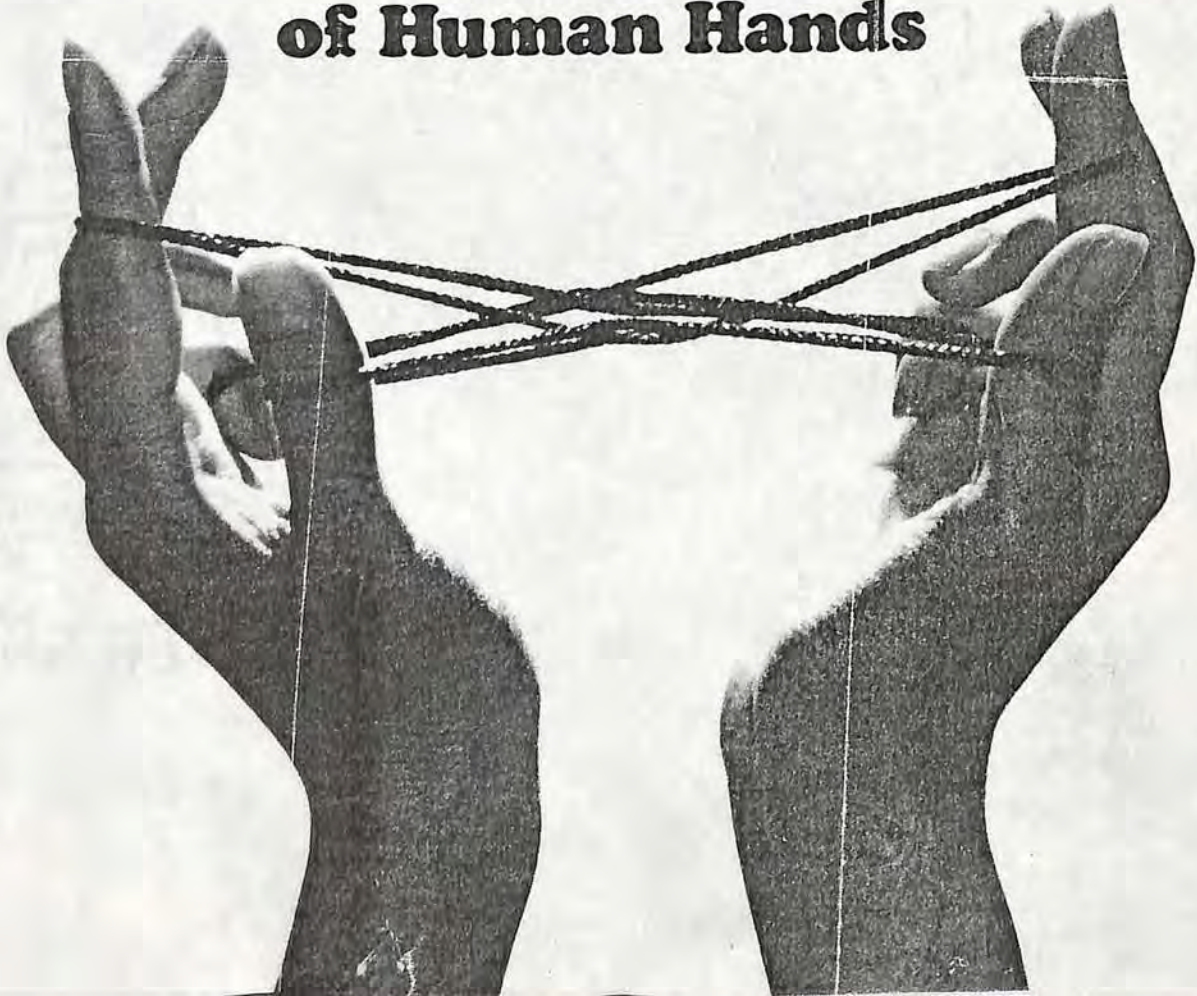
11

Cat's cradle is child's play. But it helps children to learn the importance of skilled hands in the creation of their expanding world. Before the dawn of history mankind learned, and benefited from the fact, that hands could create new wonders when the fingers worked together.

And that's what the Mitsui Group is all about: creation of new wonders through synchronized, cooperative efforts of the member firms. An idea as simple as this has made the Mitsui Group a truly international operation. And Mitsui teamwork could, perhaps, help solve your problems.

Ever
Raymond

The Miracle of Human Hands



Drawings sent air freight 23.6.68.
Letter posted 24.6.68

77, Arthur Circle,
Forrest, A.C.T. 2603
14.6.68.

Dear Raymond,

Very many thanks for your letter; to have arrived so near to publication is very exciting.

1. Since writing to you I have found that in the Tuamotus their equivalent of Tofa is only turned over 3 times!
2. I entirely agree about the translation of titles where possible, it makes the figures even more interesting than they are already.
3. I have a copy of the photograph and would like to see it in the book. The figure I think is No.8; looking through a magnifying glass I can see that the strings on the right at one end of the diamonds are definitely tied whereas in No.5 they are not.
4. I note the new numbering of the pages, cutting out 73a and b, much better thank you.
5. My naughty artist has gone off to a job in Sydney without giving me the drawings as she promised. However her father is to have a few words with her and he expects her here for the weekend. I'll send the package as soon as I get the other two pictures. The one you have is an extra, I think Jenny did two the same so I was able to send it just as a sample.
6. No, there is no need to send me the MS, especially as you have had time to go through it so minutely. I was envisaging publication in the Pacific. The proofs Harry and I will do together, we are rather experienced by now!
7. Yes, I think my introduction should be updated.
8. If you are happy to cut out my initials in Figs 42 and 43 I am agreeable; it was only done to show where I had added to the original but the brackets do that anyhow.
9. I have found a mistake in my copy of the original table of comparisons; would you please check yours? Under the Carolines "Bur-bur-ani-jau" should be on the same line as Kaunga Tete Maori. I have done a table for the Tuamotus and I am gradually making a comprehensive one for myself which should save me a lot of checking and hunting - I hope.
10. I feel that the list of figures would be more conveniently placed

after the "Construction of Tikopia Figures". I have looked at the other String Figure bobbs I have and in most cases the list is near the beginning.

I enclose a suggested title page and contents page but do as you think best, there is no need to check again with me.

With our best regards,

Yours ever,

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2. Foi Nupu pu Taumako.....
3. Foi Atu.....
4. Vai Ngutu Rua.....
5. Vai Ngutu Toru I.....
6. Vai Ngutu Toru II.....

(etc.)

Table of Some Oceanic Comparisons with Tikopia Figures.....
Footnotes
References

The London School of Economics and Political Science

(University of London)



Houghton Street, Aldwych
London, W.C.2

Telephone HOLBORN 7686

5. VI. 68

Dear Honor,

I have now had time to pick up the threads from your very welcome letters of May 1, 12 and 15, and my crossings.

- 1: The two new figures, numbered list, comparative table and altered pages arrived safely towards the end of the month.
2. I have made all the corrections from your list (a few you had already made in pencil). I have also changed ulnar to radial on p. 2 of your terminology explanations (letter of 1.5.68) and added the reference to Footnote 21.
3. Congratulations on getting the two new figures out ; sorry they weren't clearer. Your description of kati fakafeuviake looks right - uvi means to lift, faka is causative prefix, and fe reciprocal prefix, so the idea is ~~KE~~ of a sort of double or reciprocal Navaho, which I suppose is roughly so. Anyway, it comes out, so must be so !!
4. Thank you for retyping the pages which had chants - I think it all looks much neater this way.
5. About "Preface", order of this and your introduction, I bow to your opinion ; also as regards order of names as authors. Maybe in the end we have done about an equal amount of work- though mine was mainly done forty years ago !! I attach a sheet of suggested title ~~page~~ and contents table.
6. Your queries on my Preface : I think Tofa chant is "presumably up to ten" - I have no clear memory, nor alas any precise note.
Kume : your points accepted; and corrections made accordingly - the omission of ku ara etc. was accidental.
7. Owing to my bad writing there are still a few Tikopia words to be corrected, eg. Ara ki to popouri ; Pu Taumako (not Taremeko) etc. I'll tidy these up; I hadn't wanted to bother you with them . I must also make my own spellings consistent.
8. I think it would look better to have English translations with those Tikopia names that are translatable : eg.
FOI NUPU (POOL) ; TE FONU (TURTLE) ; TE KAU NGA SIKOTARA (FLOCK OF KINGFISHERS).....
Is this agreeable to you ?

- no. 8.
9. On p. 3 of my Preface I refer to a photograph. I think I showed you this in London, but cannot remember if I sent you a print. It is of a lad displaying (and looking through) a 3 diamond figure, which looks to me like Vai ngutu toru Pu Atafu (no 5.) or possibly Kaungatete (no. 8). But I am not sure. I think it would be interesting to reproduce, don't you ?
10. In your major text, correcting the page numbers after the new figures, I have converted your earlier 73a and b into 76 and 77, and following pages accordingly, so the last page is now 95. I trust you agree ; there seemed no point in the a and b since we were altering the numbers.
11. Forget about the Ulawā/fangatua point - I cannot imagine what it may have referred to.
12. Since I am clearing off as many jobs as possible in preparation for going to Hawaii, I would like to get the whole thing to the Secretary of the RAI, Christie, who handles the Monographs, before the summer vacation. So I suggest that you post the Figures over by Air Freight, and allow me to reimburse you from my research grant, as I did before. If you will let me know the cost I can pay the sum into your account over here, or as you wish. I would hate to wait on sea mail these days.
Also, I suggest that the MS should go without being sent out to you again for a final check. I think I have made all the corrections carefully, and we can save some time. Of course it is essential that you should see the proofs, and I shall make this clear to the RAI. Sorry if this sounds a bit rushed after so many years, but I hope you will understand !
13. A couple of small points. Your introduction is dated 7 Jan. 1967. Would you like to update it, especially since you have made some changes on page 1 ? I should be inclined to date both ours June... 1968 !
Also there are a couple of observations in brackets, with your pencilled initials after : eg. no. 42, Takaro sa Runga; 43, Unufe e rua. I realise they are your own explanations, but since so much else is your rendering, can we drop out your initials, and just leave the observations in brackets ?

I think this covers all the points. If you agree, I'll get ready to send the whole thing in as soon as the drawings arrive.

All best regards, and to Harry.

Ever
Raymond.

(x) P.S. I have one figure head, sent in advance long ago.

TIKOPIA STRING FIGURES

RAYMOND FIRTH and HONOR MAUDE

Contents

1. Preface; String Figures in Tikopia Social Life..... P
Raymond Firth
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Honor Maude
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5. List of Tikopia Figures
6. Footnotes
7. References

Delete " used in making etc.



THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE.

Ans. 15.5.68.

HOUGHTON STREET,
ALDWYCH,
LONDON, W.C.2

Telephone: 01-405 7686 (7 lines)
Telegrams: Poleconics, London WC2

10th May 1968.

Dear Honor,

Just a note to pick up mine of 1st May which probably crossed with your letter, for which many thanks. Yesterday I had a talk with Christie, Secretary of the Royal Anthropological Institute, about the possible publication of the Tikopia string figures as an Occasional Paper of the R.A.I. He was quite keen on the idea, especially since in the Occasional Paper series they have had rather a lot of social anthropology recently. I said I would try and let him have the complete manuscript by the end of June.

If, then, you can send me the two extra figures and the complete set of drawings, I think we can go right ahead. I am assuming that you may need to renumber the figures in the light of the extra two. But if you send me a list of the renumberings, I can change them in your manuscript here. If you have any comments on my Introduction, I would be glad to have them. And if I may make the small changes in your manuscript which I mentioned earlier, i.e. taking out the material on chants, then I can give the edited version to Christie in June. I think it would be a good idea to publish with the R.A.I., especially since they did my and Jim Spillius's "Ritual Change" also as an Occasional Paper.

Best regards to Harry
Yours ever,

Raymond.

*Mrs. Honor Maude,
Australian National University,
Box 4 P.O.,
Canberra, A.C.T.,
Australia.*

Mrs. Honor Maude,
Australian National University,
Box 4 P.O.,
Canberra, A.C.T.,
Australia.

77, Arthur Circle,
Forrest, A.C.T. 2603
12.5.68.

Dear Raymond,

Thank you for your letter and draft of your introduction. I have a few practical comments to make but criticism I feel would be presumptuous - anyhow it seems excellent to me, and to Harry.

I think your introduction should come first, for two reasons; it is your collection and the details of collecting, together with the notes on its place in the social structure, should come before my discussion of the figures and the terminology which seem to follow on in a natural sequence. My only suggestion is that your introduction might be better called "Preface" and that it should be followed by my effort which would be called the "Introduction". This might be better than having two introductions?

I think also that your name should come first.

I have taken out the chants, which we agree are more appropriately placed in your preface. I have re-typed the pages involved, which simplifies the alterations and will enable you to see how I have done them and to make changes if you want to.

I have inserted the two new figures in what seemed to me to be the logical places. The new 25 comes at the end of the main tao and ta series and also next to a figure of single diamonds. The other new one is now 44, before the three sided figure and figures for two players.

44

Pages after p.36 must be renumbered but as pages 89 and 91 come out (because of my retyping) they end up the same at page 92. Footnotes are not affected. These I suppose will either come at the foot of the relevant pages or in a block at the end before the list of references.

A list of the figures is enclosed with the corrections, this should have been made originally and will simplify your checking of the numbers in your preface.

I have felt all along that I should have made a table of comparisons and as it is pouring with rain, breking the drought, I have had a happy afternoon doing it. The figures, unfortunately, do not tally with my earlier count so they will have to be corrected. The table should go at the end of the text I should think, before the references.

All these I am sending under separate cover by Second Class Air Mail.

I cannot find any Ulawa reference in the Solomon figures nor is there a Fangatua anywhere; they might turn up with closer scrutiny.

Does the Tofachant number up to ten or to any number? I think most places only count to ten and some then count ten again turning the figure over the opposite way.

With Kume the knot is tight in the first place, then loosened and then tightened again; please see if you approve of my note at the end of movement 7.

I notice that you have left out the "Tera ku moe" and "Tera ku ara" followed by "ku ara ku ara ku ara", is this intentional?

On page 7, line 7, you have "When the knot at the bottom..." but actually the knot is at the left hand side.

With all the alterations and corrections, I never seem to come to the end of the latter, you might like me to make a final chek of your manuscript before it goes to the publisher? Harry suggests that the East West Centre might very well be glad to publish it.. I know that the Bishop Museum have a long waiting list as Kenneth enquired about his Tasmotu String Figures. It is quite interesting that Tikopia figures gave me no real trouble but the Tuamotus I found most difficult, there the movements are so different and difficult .

I'm afraid the typing could be better, I am rather rusty and this electric machine is so sensitive that I am in constant trouble with it!

With our best regards,

Yours ever,

The London School of Economics and Political Science

(University of London)



Houghton Street, Aldwych,
London, W.C.2
Telephone 01-405 7686

1st May 1968.

Dear Honor,

I have now completed the draft of my introduction to the "String Figures" and send you this copy. I will be very grateful for any comment or criticism you may have to make. You will see that I have taken the material about chants out of the context of the individual figures and put it all together. I think it is better to have it in this general context and would suggest that the bits and pieces come out from your draft accordingly.

I have a few verbal changes to suggest in your introduction, but they are quite small and can wait. Do you wish my introduction to come first or would you think it more appropriate for yours to open?

I am sorry that I discovered the extra figures so late. I hope it will not involve any problem of renumbering. If they are to be inserted into the general body of the text, will you please let me know just where and the consequent renumbering, since I will have to make the appropriate changes in my introduction.

I will now start to look for a publisher. It may be that when I get to Hawaii in September I can explore possibilities better there.

Yours ever,

Best regards to Harry
→

Raymond.

Mrs. Honor Maude,
Australian National University,
Box 4 P.O.,
Canberra, A.C.T.,
Australia.

77, Arthur Circle,
Forrest. A.C.T.
26th April, 1967.

Dear Raymond,

I was very glad to get your letter and to hear that the manuscript had arrived safely, I know how busy you are so I wasn't really worrying. Thank you for your kind remarks, they make the work very worthwhile in addition to enjoying it! Thank you too for the bank payment.

I have added footnotes to the text, it does give a better idea of the distribution of figures, and I have made a list of where the new footnote numbers are to be inserted. I have also revised the list of references, re-typed four pages which needed alterations and made a list of mistakes, deletions and alterations. I hope I have made it all clear.

Harry tells me that J.P.S. has not appeared for a whole year so it doesn't sound very hopeful for publication! Kenneth Emory says the Bishop Museum has a long lag of material so early publication there seems unlikely.

I am delighted to have Hornell's figures from the Anglo-Egyptian Sudan, thank you very much. I am sending you Camilla's figures from Northern New Guinea; the illustrations have come out well but I am sure the printer moved them after I had seen the galley proofs as they are not where I had indicated.

I am slowly checking Kenneth's figures and doing the comparisons in between moving hoses, we have a drought here, and sweeping up the autumn leaves. I'm itching to get going on the Solomon Islands figure.

Christa de Coppet's collection from Malaita have arrived, a

over

The London School of Economics and Political Science

(University of London)



Houghton Street, Aldwych
London, W.C.2
Telephone HOLBORN 7686

15th February 1967.

Dear Honor,

I owe you a deep apology for not having acknowledged before your various letters, of which I now see to my shame there have been three.

First, let me acknowledge receipt of the introduction and of the text of the string figures, together with the sample drawing. I think all this is excellent. I have not yet been able to get down to my own part of the introduction because of pressure of other work, but I hope to do so in the Easter vacation. I have begun already to look out references from my field notebooks and diary. With regard to the various points you raise:

1. I am arranging for the payment into your joint account of £28 sterling, being payment for £12 sterling typing and £16 sterling (i.e. £20 Australian) drawings. It is very good to have had this work done professionally.
2. I think we should have footnotes and references for comparisons in the text. I take it you will supply these.
3. I think there should be an index to the figures. I take it this will come at the proof stage.
4. I will make the various additions etc. to your text, as you ask.
5. I have not yet been able to trace the "essential first figure" in the Solomon Island series you mention. I am sorry about this. It is such a long while ago and my material has passed through so many vicissitudes that I am surprised it has endured. "Motu Kiwi" is taken from Johannes Andersen's Maori book, illustrated on his p. 94. It is, as you say, four diamonds! (At the time I collected all these figures I was using Andersen as my guide, hence the unexplained Maori terms).

6. I have still to write around in regard to possible publication, but will get on to this when I start my own piece of the work.

7. In going through my papers recently I came across a reprint of Hornell's "String Figures from the Anglo-Egyptian Sudan" in Sudan Notes and Records of 1940. I expect you know this but in case you do not have a copy I send it herewith.

Once again, let me express my gratitude and admiration for all the work you have done on the Tikopia figures. I will try and get on to my part now.

Best regards and
Yours ever,
Raymond.

Mrs. Honor Maude,
77 Arthur Circle,
Forrest, A.C.T.,
Australia.

77, Arthur Circle,

Forrest, A.C.T.

22.1.67.

Dear Raymond,

There is a third well known figure which I feel should have a special mention in the introduction, I can't think how I missed it, so I enclose a paragraph for insertion please.

I am working on Kenneth Emory's collection from the Tuamotus, I have finished a rough draft of them all and have a young typist who comes to the house two or three times a week and works with me which is going to be much more satisfactory, and a good deal cheaper, than putting it out for typing. Having got well ahead with this lot I have been looking at your Solomon Island collection, a marvellous one, and intend doing it next.

You have made very rough notes and sketches of a series of figures which is found elsewhere, with all kinds of variations, and I can make out quite a lot of it but the essential first figure I cannot find; all the others are on two pages of a lined note book. The only note I can see, which appears to be apposite merely says: "Raurau'a = motu kiwi made in native way. A figure called Motu Kiwi I cannot find either. Can you remember if it is a figure of four diamonds because that is what I think it should be?

Daniel de Coppet writes to Harry that his wife's 37 figures

are being typed and will be sent to me for me to arrange publication.
Would it be a good idea to include them in a book with your collection?.

I worked out all but two of Dr Laade's film of string figures and they are being typed. The idea is that the manuscript should be kept with the film but I feel it should also be published so that it can be used for comparative purposes, there should also be drawings. I may be able to persuade the Institute for Aboriginal Studies to print it but they were not keen when I first suggested it. These figures were from the Torres Strait Islands.

Camilla Wedgwood's figures from Northern New Guinea are to come out in the March issue of Oceania so the missing information in my references can be filled in then.

With best regards from us both,

Yours sincerely,

Howe Maude.

Dear Raymond.

I enclose herewith my introduction, edited as no doubt you can see, by Harry! I hope it fits the bill but please make alterations if you don't agree with some of it.

Do you think we should have footnotes and references for the comparisons in the text or have I given sufficient information in the introduction? Also would you like an index of figures?

Would you please ~~add~~ a note ~~at~~ after the figure of Pupunga Moana (which I see has a typing error in the title), I have changed my mind about putting it in the introduction.

"Pupunga Moana is made up of an original series of movements which produce a most attractive pattern."

Another typing error I have missed is on page 42, third line from bottom, 'Three Stars' should be 'Three Stars'.

I am enclosing a sample of the illustrations of which there are 73 (this is an extra) and I have paid £20A for them. I think Jerry has made a good job of them & they should be just what the printer wants

as she works in the Government Printing Office.
I am keeping the illustrations until we know who
is publishing as there does not seem to be much point
in sending them to England if they are being
published in New Zealand.

I think we agreed that any payments should
go into our London Bank, the account is H.E. & H.C.
Maude, Midland Bank Ltd Postley & Remico St. E.C.2.

With regards from us both

Yours sincerely

3.12.66

Dear Raymond,

I have sent off to-day, by second class airmail, the final draft of the Tishopia string figures, with the terminology used. I have put them in the order of your note book to facilitate your working through them for the odd note.

I have also enclosed a list of the original & the new numbering with the names of the figures.

It is quite astonishing how many times one can go through a draft like this & still find omissions, mistakes or improvements. Hussy has also been through & edited my grammar & punctuation!

Jenny, who is preparing the illustrations from my pencil drawings, says she is almost finished & I have asked her to let me have them as soon as possible.

I have revised the draft a good deal as I found some awful omissions, mainly in the terminology, forgetting to put in the basic terms. Then I found I had not used 'takamau' or as in all figures ^{thumbs extend} the ulnae string I have used it in that sense. I had the draft re-typed

x I have now proved that the making of string figures can be worked out from a film - even when the film is not made with this in view; I reconstructed 27 of the 29 on D. Lauder's film - of Torres Strait islanders

by a professional typist who charged me the very steep sum of £12 sterling if found ~~or not~~ I will show in this expense.

Spaces have been left for your translations, if any, in most places + we have put the closing up signs in pencil so that you can erase them if necessary.

My part of the introduction is almost ready; there again I keep adding as some new thought occurs to me.

We spent a few more hours on Te Kawa Sikoata, fascinating but frustrating, and have worked out all but one move - we also discovered some attractive alternatives. We stuck as closely as possible to your notes + I can't think where we go wrong, we just couldn't get the two loops in the penultimate move but could get it with another set of pickups ending in the one diamond figure!

I shall finish Kenneth Emory's figures for the Tuamotus next, they are so different + so difficult to describe. Then I hope to do some from the Solomon Islands.

x With our best regards
Loves sincerely.

at 27/5

77, Arthur Circle,
Forrest, A.C.T.
1st December, 1965.

Dear Raymond,

I am so glad you were pleased with the Tikopia string figures; I enjoyed doing them especially as I already knew the basic movements of *tāo* and *Ta* in its simplest form and I was fascinated by the astonishing number of variations. They were not difficult to describe either, which is more than can be said for Kenneth Emory's figures from the Tuamotus, they are almost as bad as Nauru and cannot be done quickly.

1. I think we could use the terms as I have put them in the text, they are easy to learn, are used many times and are so very concise. As you will see I have described them in full, more or less as you had done them; they need a little polishing perhaps, should they all, for instance, be in the same tense!
2. I agree entirely with your suggestions for the introduction; I would enjoy doing the discussion of the movements and similarities throughout the Pacific. This I will do as soon as I can.
3. Your part of the introduction should certainly come first, it is very necessary and could only be done satisfactorily by you.

The enclosed terminology was almost ready when I sent off the draft of the figures by surface mail and I expected this to reach you by air mail before the draft arrived. However I got caught up in various ways and I am sorry this is late.

I thought of putting in all the other Tikopia names as they are most interesting and are not usually found I think. At Nauru they had a name for the *Ta-Tao* movement, *Eongatubabo*; and for a long Gilbertese movement, *Amwangijo* but I did not record any but names of fingers in the Gilberts (it might have been from inexperience, I'm not sure).

In some cases in the terminology you have given literal translations and in others none so I have left a space in case you can fill them in.

I had discovered my mistake with *roto*, in your glossary which I return herewith. There is some confusion over fakamau and kepe ake, you have changed them round in your introduction, but I think now it should be kape ake where I have written it above fakamau.

I asked my amateur typist to leave a space under the titles for a translation where possible but she has seldom done so. I also like the

name of the donor under the heading but I did not attempt to decipher your writing, would you please put them in? I liked the age added in the case of Basil, No. 10. Would you also mention please if everyone, men, women and children make string figures?

There is a correction in No. 33; 5. should be "Release indices".
6. "Turifuri ifo" etc.

I noticed recently when checking Kenneth's figures with Willowdean Handy's that she wrote "twist in radial (or ulnar) direction" and this seems to me to be a very clear way of describing the twists, what do you think? Funnily enough she found collecting string figures an awful effort. We are very sad at her recent death and her wonderful story "Ironwood" not re-written for publication as suggested some time ago.

In the Gilberts string figures are taai (which is also "sun") or wau, in the Tuamotus fai as in Tikopia and the Gilbertese word for a game is tekakaro which is very like the Tikopia takaro.

I do hope you will find fai still being made on Tikopia and I shall look forward to seeing you at some time next year, best of all if you come here for a night or two.

Harry found the enclosed reference about early contacts with Tikopia, which he thinks he has not sent you previously. He also says the Prospectus of the Journal of Pacific History is now being printed, the Journal itself is nearly complete with all articles (10) received and we hope the first issue will be out by the end of April; there have been many difficulties, due no doubt to it being the first issue. Harry hopes very much that you will be able to write a piece for the second issue (1967), as you kindly suggested: this would be a tremendous help for the infant publication.

With regards from us both,



THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE.

HOUGHTON STREET,

ALDWYCH,

LONDON, W.C.2.

Telephone: Holborn 7686 (7 lines)

Telegram: "Poleconics; Estrand," London

10th November 1965.

Dear Honor,

Just a note to report that your draft of the Tikopia string figures has arrived safely, together with my notebook. I am most impressed by the work you have put in on the figures. You have succeeded in deciphering my almost illegible script and have set them out in most beautiful form. I am lost in admiration at your patience.

I have now to go through them in detail. I see there are one or two places where my writing has defeated you. You have put a Z (ZUTU) for my NG (h), and my roto has come out as roti. But there seem to be very few corrections needed. There are, however, a few questions to be settled.

1. How do you think the material should be presented? I imagine that those parts of the instruction which are in Tikopia should be translated into English with the exception probably of the TAO, TA etc. movements.
2. There should be, I suppose, an Introduction which explains systematically the TAO, TA etc. and discusses the relation of the Tikopia movements to those elsewhere in the Western Pacific. This Introduction should, I think, be written by you since I have no competence for it.
3. Then there should be presumably another section of the Introduction, perhaps coming first, which explains the place of string figures in Tikopia life, how I collected these, and the way in which figures are attributed to named inventors. This section, I take it, is my job.

With regard to the two figures which you say you cannot work out, since I have now lost all my skill I would think it unlikely that I can do any better than you. But I will have a look at them. There is just one possibility which may help. There is now in England a Tikopia, a youngish man, who is doing a course for Head Teachers and Administrators at the University of Birmingham. I have met him once and expect to be meeting him again. He speaks good English and we switch in conversation between English and Tikopia. He is very interested in talking about Tikopia things and I am sure would like to see the string figure manuscript. My guess is that he probably will not have much knowledge but there is just a chance.

My plans for going to Tikopia next year seem to be going ahead. It is possible that I might have to go direct from New Zealand to Tikopia but in this case I could almost certainly meet you afterwards in Sydney - perhaps with some additional material.

Once again, my thanks indeed for taking all this trouble. It looks at last as if this material can be published and I am most grateful to you for your co-operation. My secretary, who is taking this letter, comments: "How long have you had it, thirty-seven years? It is as old as I am!" (It is a long road!)

Yours ever,

R. Maude

Mrs. H. Maude,
77 Arthur Circle,
Forrest, A.C.T.,
Australia.



← First fold here →

← Second fold here →

Sender's name and address:

Professor R. Firth

London School of Economics &
Political Science,

Houghton Street, Aldwych,
London, W.C.2 England.

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IMPERIAL AIR MAIL
AEROGRAMMES



THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE.

Telephone: Holborn 7686 (7 lines)
Telegram: "Poleconics, Estrand," London

HOUGHTON STREET,
ALDWYCH,
LONDON, W.C.2.

25th June 1965.

Dear Honor,

I was delighted today to get your letter and to hear that you already have the first draft of the Tikopia string figure material. I am most impressed to find that you have worked out all but two of the fifty-three figures. I do not think now I could be of any help to you since my fingers have forgotten their skill and I no longer carry the moves in my head. But there is one possibility. I am hoping to be able to visit Tikopia in the autumn of 1966. I expect to be there for only a few weeks but it might well be possible to try out some of the material. In any case I could add a little information on the extent to which present-day Tikopia still know these figures. (My impression in 1952 was that they were of less significance than a generation before).

On my way to or from Tikopia I certainly would hope to pass through Sydney. Perhaps it would suit better if we could meet after I had come back but we can communicate about this again.

All best regards and to Harry.

Yours ever,

Reginald

Mrs. H. Maude,
7V Arthur Circle,
Forrest, A.C.T.,
Australia.

By air mail
Par avion

POST CARD

ADDRESS ONLY TO BE WRITTEN ON



Ms H. E. J'ande
77 Arthur Circle
Forrest
CANBERRA A.C.T. 2603
Australia.

18.V.79

Dear Honor - The two copies of String Figures
and notes arrived this morning. many
thanks. IT is a very nice looking publication
and I am proud to be associated with it.

A letter from Margorie Topley in
Hong Kong says that her son Julian, to
whom I gave a copy, with a copy of Kathleen
Madden's little pamphlet, has started a craze
in his school there!
Excuse this card. Regards to you both Raymond.

77 Arthur Circle, Forrest,
A.C.T.2603, Australia,
18th March, 1979.

Dear Raymond,

Thank you very much for your note and for the photocopy of the string figure article in Center South Pacific. Yes, I had already seen it and am writing to Ms Joan Mossman to ask her if she intends to make a collection and if she would like a copy of the Solomon Islands String Figure book. If she makes a serious study of the New Hebrides figures it will fill a gap in our knowledge of that area.

Do you remember the Japanese String Figure Association and the Bulletin in which we had asked them to advertise the string figure books? First we had a small order, but now quite a large one which includes 10 copies of the Tikopia monograph.

This uses up all my stock and I wondered if you would be so kind as to find out if Jeremy Benthall can send me as many copies as he has up to say 70. I hope he will let me have them at the same price as in March 1976, i.e. £7.50 for 12 copies. I sincerely hope that the books were not remaindered without giving me a chance to buy up the stock, as I anticipate a further order from the Solomon Islands.

I despatched the 5 copies you ordered of the Solomon Islands work straight away, inserting a note in each saying that they were from you, so I trust you have received acknowledgments by now. You paid me for them at the time.

Some time later I realized that I had not sent you your own two copies so I packed them up with your original notes and posted them to you about a fortnight ago.

Thank you for letting me know that my article was published in Rain No.16 (Oct. 1976) as 'Cradles of Civilisation'. I never received a copy and should very much like to have one if possible.

Harry's book on the Peruvian Slave Trade in Polynesia is now - today - ready for the final typing, so we are contemplating a break and possibly a trip to New Zealand.

To our surprise and pleasure we have been invited to the Independence Celebrations at Tarawa in mid-July and look forward with some excitement at setting foot on the scene of our early life after 30 years absence.

With best wishes from us both,

33 Southwood Avenue
London N6 5SA

8. iii. 79

Dear Honor,

A brief note to pick up
a couple of threads.

When we talked in
Canberra - and it was good to meet
again and see Harry too - I seem to
remember you didn't think you had
news of your RAIN article. I have
now checked up on this, having just
got back to London, and the article
was published in RAIN no. 16, Oct.
1976 under the title of "Cradles
of Civilisation", over your name.
If by any chance you did not receive
a copy of this number of RAIN let me
know.

The attached came to my
notice recently. You may well have
seen it, but in case not here it is.
Sorry for the poor copy - the
original is on brown paper which does
not reproduce well. In any case, I'm
sure you will know the figures
represented.

I handed over your
Solomon Islands book to a young friend
of mine in Hong Kong who is showing
an interest in string figures -
maybe the art is catching on in far
places.

All best wishes to you both.

UNIQUE FACET OF NEW HEBRIDES' CULTURE SHOWN

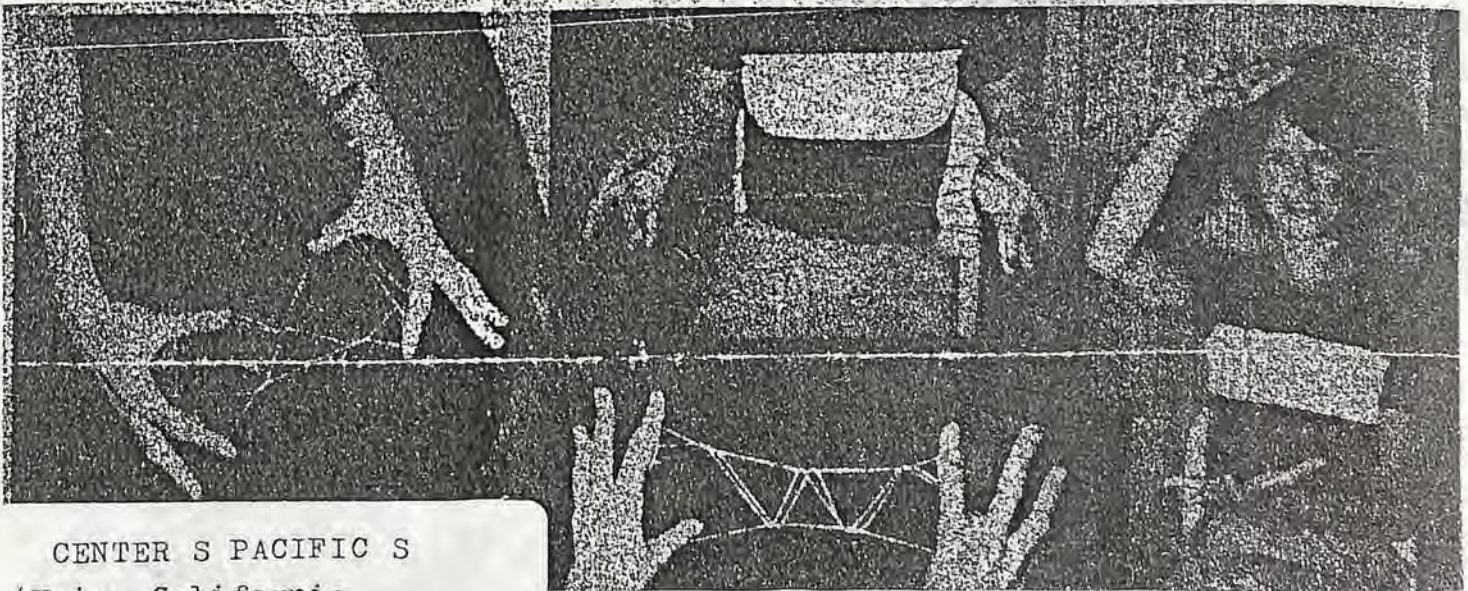
Seen frequently around the Center these da
is Instructor Joan Mossman who is teaching *Cultur
of the Pacific, Cultural Ecology, and Women in Cro
Cultural Perspective* and is also currently working
her doctoral dissertation which examines soci
changes under the missionization process in Maleku
the New Hebrides.

Ms. Mossman is especially interested in the effec
of colonialization on the now-emerging island nation
and she plans to return to the New Hebrides nex
summer to make a photo-essay that will refle
both the Islands' traditional culture and the chang
occurring as Independence draws near. She also wan
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out lifting a finger, in a continuous line.

After graduating from Radcliffe, Ms. Mossma
continued her education at Stanford where sh
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Instructor Joan Mossman demonstrates a few of the "Stri
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In the Islands, the string used is made from a species of hibisc
Many of these figures start out like the well-known "Cat
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figures are called "gangue," which also means "the ro
you didn't expect to take." They have been part of the Island
cultural heritage since pre-contact.



CENTER S PACIFIC S

Dear Raymond,

This is the third time I have begun to write to you and I hope I am still in time to catch you before you leave for this part of the world.

The Solomons String Figure book was to be ready in mid-September and I delayed writing to give you definite news. There have been the inevitable delays but about two weeks ago we checked the lay out, figures etc. and I saw them begin printing the copy for photography. I got cold feet about the distributing and it was suggested that I ask the A.N.U. Press if they would take it on; to my relief and pleasure they have agreed and I feel sure you will approve.

Thank you very much for your reply to my last letter and for your comments and advice. I changed the paragraph about Christa, to be more explicit; your remarks were so true and made us laugh.

You mention the article I was to write for RAIN and I did do one. I don't know whether Mr Benthall used it, though he said it was what he wanted but he asked if he might change the title. I did not mention the use of string figures for children because they are all too difficult. I have found that unless I have a child for a long time, and confined to bed at that, only the simplest figures can be mastered. We have put a list of my publications on the reverse of the title page of the Solomons which will at least alert libraries to what is available. I sometimes wonder if I made a mistake in using 'tao' and 'ta' etc. but if, in years to come, the Tikopia lose the art (like the Nauruans) and but the book I'm sure they will be delighted to find their own wording!

Harry is progresssing well with the Peruvian Slave Trade in Polynesia but I have held him up by having my first bout of 'flu for years and years; I am up again but not yet 100% so please excuse mistakes.

Our warmest regards, as always,

Honor

33 Southwood Avenue
London N6 5SA

8. iii. 79

Dear Honor,

A brief note to pick up
a couple of threads.

When we talked in
Canberra - and it was good to meet
again and see Harry too - I seem to
remember you didn't think you had
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Sorry for the poor copy - the
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maybe the art is catching on in far
places.

All best wishes to you both.

UNIQUE FACET OF NEW HEBRIDES' CULTURE SHOWN


Seen frequently around the Center these days
is Instructor Joan Mossman who is teaching *Cultures
of the Pacific, Cultural Ecology, and Women in Cross-
Cultural Perspective* and is also currently working on
her doctoral dissertation which examines social
changes under the missionization process in Malekula,
the New Hebrides.

Ms. Mossman is especially interested in the effects
of colonialization on the now-emerging island nations,
and she plans to return to the New Hebrides next
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cultural heritage since pre-contact.



CENTER S PACIFIC S
(Univ. California,
Santa Cruz)
vol. 2 no. 3 Sept. 1978

33 Southwood Avenue
London N6 5SA
18. v. 78

Dear Honor,

Many thanks for your letter of April 21 ; I have been away lecturing up at Edinburgh, or would have replied earlier.

It is very good news that the Solomons String Figures are to be published, and in format similar to the Nauru book. Congratulations on the success of your labours. - and on managing to get the arrangement on what seem to be very moderate terms for present-day publishing.

I will be delighted to receive copies in due course. As to reviews, I have no bright ideas. But off the cuff, I suggest a copy for RAIN, marked for the special attention of Jonathan Benthall, whom you may remember meeting, the Director of the RAI and Editor of RAIN. You may remember that I murmured how good it would be to get an article from you into RAIN, on the aesthetic interest of string figures, and their practical value, in schools, in therapy etc. If you could do such it would be a good lead into getting the book more widely reviewed. A copy to Malcolm McLead, Director of the Museum of Mankind, Burlington Gardens, London W1 might also stimulate interest. Then the RAI has an Education Committee - on which Rosemary sits ; their attention might be drawn to the interest of the figures for schools. MAN, the regular journal of the RAI should also get a separate review copy : Reviews Editor M. Gilson - the book to go to him c/o Museum of Mankind Library, 6 Burlington Gardens, W1X 2EX. With Crista de Coppet's contribution, the journal L'HOMME in Paris might also be interested in a review copy.

I have asked the RAI about the de Coppets ; no record of them exists there - presumably since they are not members.

As regards your Foreword, I think it fine. If you do want suggestions I have three :

- i. a reference might be made somewhere to the Tikopia volume, since Tikopia is part of the Solomons, and therefore the two volumes are linked up to a point, apart from my contributions.
- ii. a very minor point - the "congratulations " to C. de C. might refer (if true) to the difficulty of the Malaita figures - otherwise readers may/a bit surprised that you seem surprised that she ever did them at all !
- iii. I think that after the analytical work of pages 1 to 3 it would be good to have a couple of paragraphs of more general statement about the interest and value of string figures in general - with a reference to work that you yourself have done. People have no idea that these figures are anything but rather odd toy-like games, and I think you should use the opportunity of this Foreword to "plug" the interest of the study. This something that a reviewer might get hold of, never having thought of it before.

Finally, there is a chance that we may meet in Canberra around the end of this year, if you and Harry will not be off on some holiday jaunt. Rosemary and I leave for New Zealand - to teach at the Auckland department of anthropology for a while - and hope to get over to Australia before returning to London

Warm regards to you both.

Raymond

77, Arthur Circle,
Forrest,
A.C.T. 2603.
21.4.78.

Dear Raymond,

I am sure you will be as pleased as I am to hear that the Solomon Islands String Figures are well on the way to being published.

I decided not to send them to Oceania after all, partly because it seemed doubtful if they would take the MS and if they did it would have been an expensive operation, with the illustrations 8 or 10 to a page at the end of the book.

Fortunately Professor Wang Gungwu came to the rescue and got me a grant of 100 from the Nauru Publications Fund. As this is a university fund it enabled the A.N.U. printing section to undertake the production by offset process. So it will be similar to the Nauru book and Anvida Lamberts, who typed Nauru so beautifully, is well ahead with this one.

The cost of the work will also be reduced by the Government bonus for books produced in Australia. To facilitate cataloguing a name for the Press is seems desirable, so Harry maintains, so we are calling it the HOMA Press! Hopefully, this can be used for other string figure works in contemplation, e.g. the Tuamotu collection which is still languishing in French hands.

We can defray the expenses, after all you subsidised the Tikopia Monograph, and will be sending you four free copies. Could you let me know please who should receive review copies?

We were in Adelaide last month and were delighted to be told that only 87 copies are left out of a total of 407 copies produced. In fact it seems that this is an art form

which has been saved from extinction and revived, perhaps I should say 'near extinction' for I learnt them from a small group of 'old men' in 1937; but most if not all perished during the Japanese occupation. String Figure patterns are reproduced in the freize around the foyer of Nauru House, in Melbourne, and as decorations on their ships and aeroplanes; they were also made and shown by the Nauru team at the Pacific Arts Festival in Rotorua.

I enclose a copy of my Foreword for criticism, if you would be so kind. I wrote to Christa de Coppet some time ago and have had no reply; do you think the R.A.I. might have their present address since Daniel is an anthropologist?

Our warm regards to you both, we hope you did not suffer too badly in your severe winter. My sister lives in Dorset, so I phoned her anxiously, much to her surprise, but she was alright as she lives on a hill.

Yours ever,

Honor.

77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
3rd November, 1974.

Dr Elli Kōngas-Maranda,
Department of Anthropology,
University of British Columbia,
VANCOUVER 8, British Columbia,
Canada.

Dear Dr Kōngas-Maranda,

Raymond Firth has suggested that I should write to you as he has an idea that you may have collected string figures during the course of your work in the Solomon Islands.

Having written monographs on the string figures of the Gilbert Islands and Nauru, Raymond suggested that we should collaborate in a work on his Tikopian figures, which he had collected as long ago as 1928.

This was published in 1970 by the R.A.I. and I am now preparing another monograph, on the string figures of the Solomon Islands, based on Raymond's large collection made in 1928-1929 and a second made by Christa de Coppet (wife of the French anthropologist) when living with the 'Are'are people on Malaita in 1963-1965.

Any help which you could give us would be most appreciated, and of course fully acknowledged in the book. What I am looking for are not only construction methods but also any information on their significance, mode of transmission from generation to generation, the prevalence of stories or chants, and other ancillary information. Raymond's informants were all men, as were all of Christa's bar one, and I wonder if this is usual?

Yours sincerely,

Honor Maude.

as from : 33 Southwood Avenue
London N6 5SA

2.9.74

Dear Honor,

I have been disgracefully slow in replying to your letter of early July. A mixture of illnesses - both Rosemary's and mine - and a retreat to our cottage in Dorset, with visitors, AND revision of a book of mine I thought long past its reprinting days, but which has been revived - Human Types - have all made me neglect correspondence.

First, many thanks indeed for your and Harry's congratulations, which Rosemary and I appreciate greatly. You know what these honours mean, but in the village here we still are Mr and Mrs Firth - and intend to remain so - and I get letters from the States and elsewhere addressed to Sir Firth etc. etc. It was an odd experience in a way because it was quite unexpected, and though very pleasant, was rather disconcerting; one felt one had somehow changed one's identity!

It is sad about the legal question of Jim's dependant, and I hope it gets settled satisfactorily for Ruth. Please give her regards from Rosemary and me. I still find it so hard to realise that Jim is no longer with us - he is so vividly before me as a strong visual image, in so many contexts. I haven't heard what has happened about the Chair. Since it /- I understand - the ONLY Chair of Pacific History in the world it would be a great pity for it to lapse into something else. But I suppose there have been difficulties in filling it adequately.

About the string figures - it is cheering to me that so many of Christa's figures are identical with mine - or nearly so. It is interesting too that the figures have persisted over a period of 40 years or thereabouts - nearly two generations; can Christa tell you anything about the process of transmission - about which I have only the vague idea of younger children looking on and learning from elders?

The name of the figure you send is GAURA, as you guess. And my congratulations on your patience and pertinacity in working it out - you really are marvellous. Somewhere in your account you should indicate how you set about piecing out such a construction from my inadequate notes, the alternatives you tried and rejected etc etc. Provenance? I have nothing to indicate in my notebook. But you might make a guess at it from the context of other figures - by paper, writing etc. I have a vague feeling it is Bggela/Guadalcanal, but this is quite unsupported.

Are you in touch with Dr Elli König-Maranda, in the Anthropology Department at the University of British Columbia, Vancouver 8? She and her husband Pierre worked very intensively in Lau, Malaita, and she may well have string figure material - I can't remember whether she told me so or not.

All best regards, to you and Harry.
Ever,


Raymond Firth.

B.C.
Canada.

returned herewith

June 1974

Dear Raymond,

First of all congratulations on your knighthood and our abject
apologies for not doing so before this; somehow we missed it ^{feeling about it} in the new ^{and}
we are rather out of touch with current affairs at the university, ^{however have}
^{heard}

I am sorry I did not finish the work on the Solomon's last winter,
it always takes me longer than I anticipate and then we went up to Queensland
for a holiday. I find now on a complete re-arrangement of the two collections
that out of Christa de Coppet's 49 figures you have ^(out of a total of 90) 27, that are identical or
very nearly so.

I enclose your looped figure which I had hoped to do with the aid
of Christa's figure, which we worked out together, but they are not at all the
same. So I set to work again on your construction ^{and} by dint of some easier
to make the end loops,
manoeuvring at the finish, I actually achieved the result depicted. I am
not sure, however, of the name. is it GAURA? There are no details as to where
you found it.

This is from an old copy of TIME magazine - 1975.

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Dear Honor,

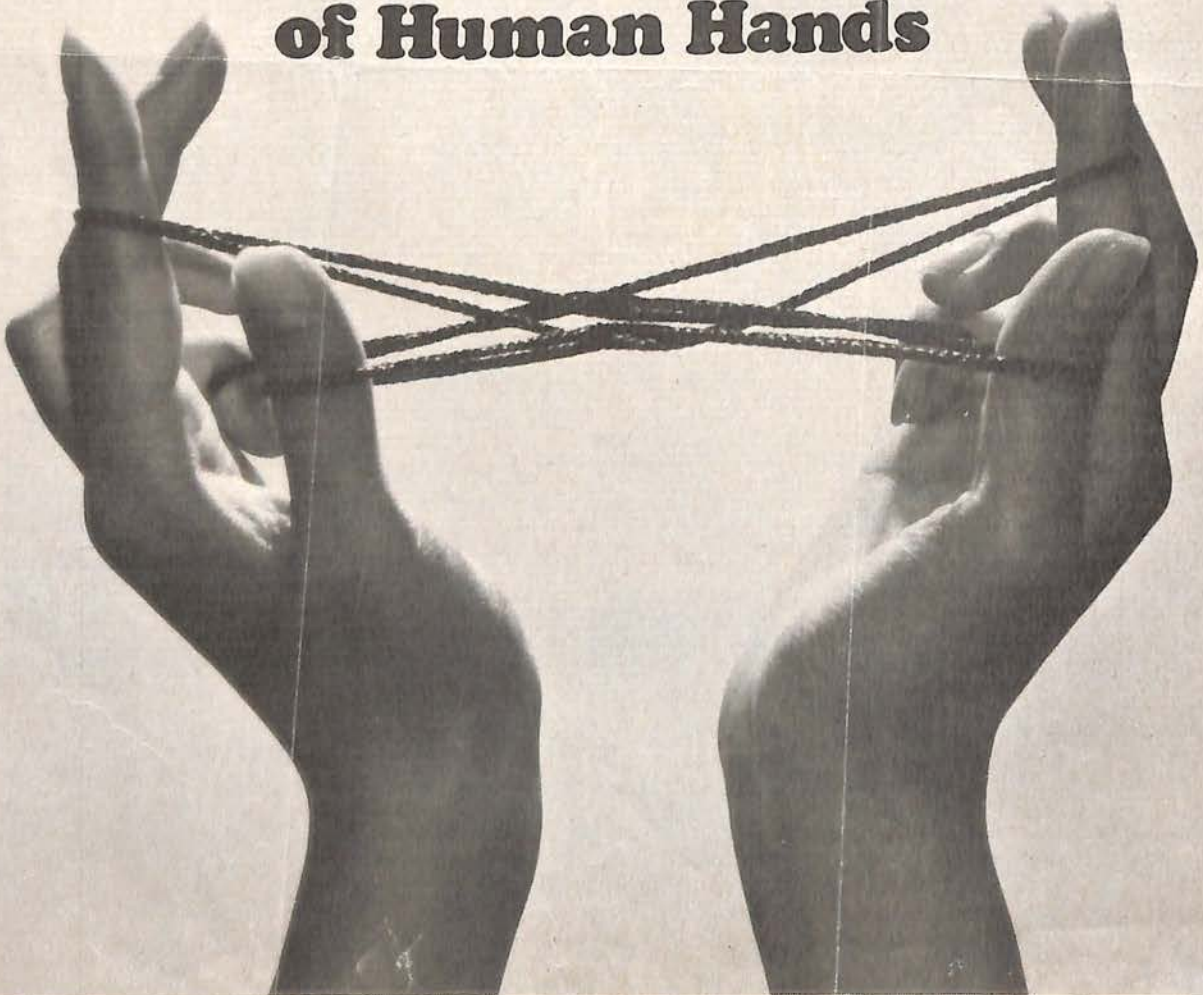
Many thanks for your letter. Raymond and I will be in Canberra (University House) between Dec. 27 and Jan. 9 and hope to see you. We are at the moment travelling through the North Island, and will be leaving for Melbourne on Dec. 20.

Melbourne, on Dec. 20

Ever
Raymond.

Cat's cradle is child's play. But it helps children to learn the importance of skilled hands in the creation of their expanding world. Before the dawn of history mankind learned, and benefited from the fact, that hands could create new wonders when the fingers worked together. And that's what the Mitsui Group is all about: creation of new wonders through synchronized, cooperative efforts of the member firms. An idea as simple as this has made the Mitsui Group a truly international operation. And Mitsui teamwork could, perhaps, help solve your problems.

The Miracle of Human Hands



77 Arthur Circle, Forrest,
A.C.T. 2603, Australia,
6th May, 1970.

Mrs Valerie Phillips,
Editorial Secretary,
Royal Anthropological Institute of
Great Britain and Ireland,
21 Bedford Square, LONDON, W.C.1,
England.

Dear Mrs Phillips,

Thank you for your letter of the 30th April, which arrived yesterday, and I am sorry that there has been a misunderstanding about the proofs of 'Tikopia String Figures'. I would have written to you before but understood that you were very busy on other publications, so did not like to worry you.

On the 2nd January I sent a list of queries relating to the correcting of the proofs to Professor Firth and had gathered, from his reply dated the 23rd, that he had been in touch with you about them and that I would be hearing from you on the subject in due course. I consequently kept the proofs, corrected as far as I was able, pending the receipt of your letter.

I am now forwarding them by second-class airmail, and will leave it to you to deal with the question of Headings and the Position of the Figures in the text, both of which (and particularly the latter) seem to me to be rather crucial to the clarity of the article. I do not know whether Professor Firth actually sent on my queries to you, as he stated that he was going to, but if so you will recollect my plea that, as is usual in the case of publications on String Figures, the heading should be simply '1. Foi nupu (a pool)', and similarly for the others and that 'Figure 1' or 'Fig.1' should appear underneath the actual figure (when inserted in its place in the text) as the caption. This is of particular importance when it is a series, for example 'Figure 40 (a)', 'Figure 40 (b)', 'Figure 40 (c)', and the like.

As regards the illustrations, I am doubtful (perhaps wrongly) whether you would find it possible to match them from the originals, as they are all reproduced out of sequence and some of them upside down. In some instances, where the final figures were virtually identical, I had to make them again from the text in order to establish which one they represented.

It was for this reason that I asked Professor Firth whether I should cut out, sort and number each figure. However, as your letter does not indicate that I should do this I am returning them with pencilled indications showing their number and correct way up. I have also shown in the margin of the text the position where I would like them to go.

With apologies for my misunderstanding as to whose move was next, and hoping that you will now be able to prepare the galleys for the printer without difficulty. As you say there will still be time at the page proof stage to make sure that everything is in place, and more particularly the illustrations.

Yours sincerely,

Honor Maude

ROYAL ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND

21, BEDFORD SQUARE, LONDON, W.C.1

Telephone: 01-636 2980/9129

Mrs Honor Maude
c/o Dept of Pacific History
A.N.U.
Canberra.

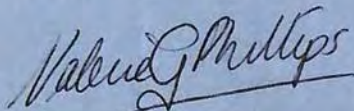
30 April 1970

Dear Mrs Maude,

I am sorry to trouble you, but I have not yet received the corrected proofs of 'Tikopia string figures'. Professor Firth has already returned his copy, but he says you are a better proof-reader than he is, and he would prefer me to wait for your corrections to arrive. However, if you did not find any serious errors in the text, just let me have an O.K. and I will return the proofs with Professor Firth's and my own corrections to the printers; I can get hold of another proof of the illustrations and match up the numbers from the originals. In any case I will send page proofs to you and to Professor Firth, so that you can both have a final check.

I am anxious to get this paper off my hands as soon as possible, since I have two more Occasional Papers in the queue for publication, and I would be grateful for an early reply.

Yours sincerely



Valerie Phillips (Mrs)
Editorial Secretary

as from : 33 Southwood Avenue
London N 6

3. XII. 69

Dear Honor,

I send this care of Harry because I continually mislay your private address.

This is primarily a note to say that Mrs Phillips, the Editorial Secretary at the Royal Anthropological Institute, wrote to me last month to say that our Tikopia string figure MS. had gone to the printers, and proof might be expected in 3 to 4 weeks from then, i.e. from about now on. She could give no publication date, but anticipated no further delays.

I am hoping to see proofs when I get back to London in a fortnight, or soon after. I asked her to be sure and send you proofs also, airmail, and will check on this when I get to London. My hope would be that your corrections - hopefully not very drastic - will come back to London before I leave for Cornell, soon after mid-January; then I could settle any last-minute queries with Mrs Phillips on the spot. I trust this kind of timetable will suit you.

Don't bother to reply to this, nor should you get anxious if no proofs appear very soon; printers' delays these days are notorious, and even if I have left for Cornell any details can be settled easily enough. The great thing is that the material is actually in the press - 40 years after I collected it !!! * (So also is Rank and Religion in Tikopia !)

Another point altogether: George Stocking, an historian of anthropology and a scholar, tells me that the Haddon Papers in the Anderson Room in Cambridge University Library contain many scattered data on string figures. You may know this already, and anyway, all the data may have been used already by him and (Haddon) Kathleen Rishbeth. But I thought you should know, in case at some future time you happen to be in Cambridge and want to check.

It was good to see you and Harry; my plans after Chicago are uncertain, but maybe I can get out to the Pacific again. Here has been enjoyable, and very beautiful, since the mountains, snow-capped now, give a great dignity to the harbour and coastline.

All warm regards to you both.
Ever,

R. Raymond

* The publication will be Occ. Pap. of the R.A.I. No. 29

[Handwritten signature]

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2nd July 1968.

Dear Honor,

I was delighted yesterday to receive the drawings of the string figures. I have sent off a cheque for £4 sterling to your account. I have also inserted an acknowledgment to Jennifer Morgan. Today I am taking the whole parcel up to Anthony Christie at the R.A.I.

But there is one urgent query. As the figures stand now, no. 11 is Kau Kupenga without any rank number, while 14, 15 and 16 are Kau Kupenga I, II, III. Since these all seem to belong to the same series, should we not make no. 11 Kau Kupenga I, no. 14 Kau Kupenga II, 15 III, 16 IV?

This could be done with only minimal change in the text elsewhere wherever there happens to be a reference. If, however, you feel that all the K K's should be together, then no. 11 would have to be 13 and nos. 12 and 13 no. 11. I could do this but it means a little more work, and I think it is perhaps unnecessary to do so because you presumably arranged the figures in some kind of developmental order already.

Let me have a note about this as soon as you can. Otherwise everything seems fine.

All best regards,

Yours ever,

Raymond

Mrs. Honor Maude,
77 Arthur Circle,
Forest, A.C.T.,
Australia.

Ans. 7.7.68.

*Kau Kupenga has same working as 10 without repetition
" " I II + III all push little loops to center. No. 11
does not*

no 44

TAKARO PA TEKOFE

(Game /_invented by_/ Pa Tekofe)

1. String hung on LH.
Palmar string wound round back of hand, dorsal string wound round front of hand. This process repeated half a dozen times or so. Keep loops loose.
2. Position 1 on RH.
3. RH grip two strings on palm. L thumb under loops on palm, grip the two strings with thumb and forefingers and shake the hand loops down on to it.
4. Taotao ifo from FF to LF LH ;
change strings on RH.
5. Fakafiti.

A Manini of many lozenges ^(x)

/_ A remark here follows

" Fangatua = Ulawa "



I think not

I am not sure whether it refers to above figure ^(x) or not ; it could be a separate note equating a Tikopia figure called fangatua literally "opening back " with ~~the~~ sketched Ulawa figure from my Solomons set. / a

No 25

TAKARO MAVAE

(Game of Parting)

1. A.
2. Ff under far th. and release th. on to ff.
3. Th. under ^{all}str. under lf and return, releasing lf.
4. Kati feuviake th. and ff. *Distal ind. loops to thumb. Release movement 5 times.*
i.e. (_ ?? or repetition of "4" by mistake on turn of page ; I cannot read my own writing clearly !/
Navaho th. and take on them top of ff. loop, taking the loop on top ff. /_This reads very oddly !! /
5. Kati fakafeuviake.
6. Repeat move 5 ; (Repeat 5 times in all)
7. Taotao ifo top ff to lf.
8. *Tao e uua* Ta sokotasi near lf ; kape ake, th going over far upper ff to bring far lf.
9. Furifuri ifo.
10. Release ff.

STRING FIGURES IN TIKOPIA SOCIAL LIFE

by Raymond Firth

This collection of string figures was obtained by me during my first visit to Tikopia in 1928-29. As part of my preparation for field work on Tikopia, and through general interest, I had given a little thought to the study of string figures, and took with me Johannes Anderson's book on Maori string figures which had appeared a year before and which I found a helpful guide. I had equipped myself with two cords, each of 4 yards of piping, which is rounded, soft and easy on the fingers.

In the course of a long journey by sea through the Solomons I took the opportunity to collect string figures from villages where the ship called and from Melanesian travellers aboard. (It is hoped that these Solomon Islands figures can be published later.) On Tikopia I was too busy with other subjects to spare time for string figures for the first few months. Soon after I arrived I noted in my diary two "embryonic cats cradles", but among the various games played saw hardly any string figures. Then towards the end of March 1929 I recorded in my diary that children were playing string figures a lot. This seems to have re-awakened my interest because almost immediately afterwards and intermittently for the next two months I spent considerable time in collecting figures. I worked mostly in the afternoon and evening, with a few informants who seemed knowledgeable and skilled. In all I spent nine occasions amounting perhaps to about 25 hours on this work. My last diary note at the beginning of June "Indoors in morning finishing string figures", suggests that by then I had fairly well exhausted the local repertoire.

In collecting these figures I made it my practice to master each figure myself when I had recorded the movements from my informants. This was assisted by having two strings. If we did the figure together I could then imitate the movements of the informant and correct my record if this was inaccurate. For a number of years I kept the skill then acquired, but have long lost it through lack of practice. To the enthusiasm, patience and skill of Honor Maude I owe the present publication.

String figures are classed by the Tikopia as a kind of takaro, the general term applied to games or sport. They appear to have been traditional in Tikopia and were credited with having been originated by spirits. String figures themselves are known as sikosiko. This is a continuative, substantival form of the verbal siko which applies to a definitive movement of the hands with the strings, usually resulting in some recognisable figure. It is also applied when in a two-person game one takes over the strings from another and produces a different form of the figure.

Ordinarily, sikosiko is a game played by children. Probably because it needs little bodily activity it has only a short vogue at any time. (Nine days after my record that children were playing string figures a lot, I noted that there was a great deal of stilt walking by boys - and no reference to string figures at all.) String figures are not regularly produced by adults. But although a children's game, string figures are not regarded as unworthy of the attention of adults. During my visits many men and women who remembered a few figures from their childhood were quite pleased to demonstrate the skill they had retained. Some adults in fact seemed to be interested in the experimental possibilities of the game, and on their own initiative attempted to produce new forms of figure. When such a new form attracted general interest and was

incorporated into the public repertoire it was commonly known by the name of the person who invented it. Such inventors seemed normally to have been adults⁽¹⁾.

Although many figures are the same as those produced elsewhere in the Pacific (see Honor Maude's Introduction), and in 1929 I noted similarities to some which I had collected in the Solomons, the Tikopia regarded all their figures as local products. I do not know any which they thought to have been borrowed. The persistence of the practice of making string figures is attested on a limited historical scale by the anthropological record. In the notes which the Rev. W.J. Durrad was kind enough to give me from his stay on Tikopia in 1910, the names of nine "cats cradles" are recorded, six played by one person and three by two persons. All of these, independently recorded, appear in my collection in 1929. A generation later in 1952, and still later in 1966, I recorded the making of string figures spontaneously by children, though I did not take time to record any details. (See photograph.)

Tikopia distinguish between string figures which are produced experimentally and those which are well recognised forms. All the latter have individual names, though in some cases the name is shared by what the Tikopia consider to be variants of the same basic type. Some of these names are of general allusive kind, their shape suggesting in an abstract way objects of the ordinary environment. Such are the diamonds named after fish (usually broad-bodied types), pool or coconut. One open angular design is named after the grasshopper - the figure does suggest the insect's raised legs. Another design is called after a wooden bowl and vaguely suggests this in outline. A design with a central bar is

(1) I noted one difference from Western practice. Tikopia, especially children, tended not to pay special attention to the kind of string they used, but would pick up any length of fishline or strip of leaf fibre which would serve.

called 'the big staff' and another the 'pigeon perch'. Another still, a kind of prism figure, is called 'the canoe shed' with the thumb string as the ridgepole. Figures with multiple diamonds tend to be called after constellations - 'the pole net' (embodying Orion's Belt), the Milky Way. Still other types of figure where movement is part of the production embody a mimetic element in their names. Such are fetaka which when knotted represents the vere nut and which when struck hard opens. Mimetic also to some degree is probably the 'flock of kingfishers', an elaborate figure made by two players with a succession of multiple diamonds.

In half a dozen of the fifty or so string figures a simple chant is associated with some phase of their production. These are all action figures and in some the chant is part of a mimetic performance. In fetaka (No. 50) the children participating hold up the knotted figure and count out among themselves

Ta ta foi fetaka

Strike, strike the vere nut

tapping in turn with the finger on the nut for each child present.

Lastly, they chant

Fakaoti ki a --- (so and so)

ending with 'so and so' - striking the nut hard, and by pulling on the strings breaking the figure open. This simulates the cracking open of the vere nut for food.

In another figure, 'the turtle' (No. 44), after the cord has been wound one of the two players takes the remainder of the cord in both hands and rubs it, with the words

Milimili ta ngalingali

Tata tou isu.

Milimili refers to the action of rubbing and ngalingali is probably a

synonym for ngaringari, a rat. One may translate the jingle as

"Rub, rub, strike the rat

Strike your nose."

and the player touches the other's nose. He rubs again and calls again, touching the nose of someone else near and so on until the joke is exhausted. Later the players, when the figure is extended in a rectangle, saw the alternate ends and sing

Fonu E

Fonu tenei

Te uru o

Te fonu tenei.

Turtle, O

Turtle, this

The head of the turtle is this.

The explanation given was "We sing according to whereabouts is the head of the turtle, as to which end it is. We pull as to where it shall be. The head of the turtle is the bigger end."

In Tofa (No. 48) made by two players, at stage 11 they chant

Tofa tasi

Tofa kulu ki raro

or

Tofa rua, etc.

Tofa ku ki raro.

The first ditty is simply Tofa 1, Tofa 2, ... ; the second is obscure in meaning, but ku and kulu may represent tu and turu, with the idea of Tofa, standing down. This probably refers to the next move of laying the figure down.

In Kai poloki (No. 52), a catching trick, when a centre diamond has been made a second player inserts his hand through it and the first player sings

Kai polo ki

Kai polo ka

Koki

Koka.

50
Conducting to 10?

54

This jingle is practically meaningless as it stands. Kai, to eat, presumably refers to the catching of the other player's hand because, as the first player calls Koka, he releases his fingers and pulls the strings. This frees the second player but tricks him, since he is presumed to have thought his hand was enmeshed. In some contexts the language used here could be suggestive sexually⁽²⁾, but I was told definitely that this was not the case here.

39 In the middle of the figure 'Path to the dark' (No. 38) there is a simple chant

Ara ki te popouri

Ara ki te marama.

Path to the dark, 4

Path to the light.

This was explained as referring to upper and lower strings in the figure. This chant may possibly be aligned with the sector of figures referring to constellations. The term marama, light, also is one phase of the figure Tofa, while another figure, Kai po tasi, may mean a one night tale.

53 The ideas of darkness and light may also be picked up again perhaps in another form, that of sleeping and waking (the term for waking (ara) is a homophone with that for path). There are indications here of obscure mystical references which modern generations of Tikopia have seemed to ignore. But for one figure, Kume (No. 51), the references are more clear. This figure involves tightening a knot and opening it out, which is seen as an analogy to sleeping and waking. When the central

(2) A number of words with "l" have sexual significance - see my "L and R in Tikopia Language", Oceanic Linguistics, Vol. 2, 1963, pp. 49-61. In preparing this article I overlooked my material on string figures, so that polo should be added to the list of "l" words. See also the Table in my "Meaning of Pali in Tikopia", In Memory of J.R. Firth, ed. C.E. Basell et al, London, 1966, p. 103.

knot is already tight

- 7 -

knot is pulled tight it is said "There, it has gone to sleep" and the chant is

Ku me, ku me, ku me,

Ku me ngiti rei.

It has slept, slept, slept,

It has slept and is tight.

When the knot on the bottom is opened out it is said "There, it has awoken." There is a play on words here. The ordinary Tikopia word for sleep is me, rendered in fuller form as moe. But ku me, has slept, also can be Kume, the name of a female spirit. I was specifically told when given this figure that it was connected with the myth of Rata. Later, this explanation was expanded. It was said that the basis of string figures in Tikopia lay in Nau Taufiti, the wife of Rata, and that the original figure was that in Kume (said in some versions to be her sister and also a wife of Rata). It was associated with the dance song of the privilege ceremonies of the lineage of Marinoa. According to this account the string figure game Kume referred to a pretence of Rata while in sleep to appear still to be awake, by sticking white shells over his eyelids. By the flickering light of the fire in the house these appeared to be his open eyeballs and so prevented Nau Taufiti from devouring him as she wished⁽³⁾.

By another account, however, string figures were associated in origin with the gods Pu Ma and linked particularly with the lineage of Korokoro, in whose temple Pu Ma had a special place. One of the songs in the privilege ceremonies of Korokoro refers to string figures in the heavens, and it is stated that it was taboo for people of Korokoro to

(3) Tikopia Ritual and Belief, 1967, pp. 88-90. (In Durrad's notes Kume is translated "eye", which I think is a misunderstanding.)

play string figure games in their temple on pain of blindness⁽⁴⁾. However, it was said that of old string games were not played at night, e tapu aki. It was taboo. Again, one figure is called Pupu ma singano, a title applied elsewhere to the pair of goddesses of which Nau Taufiti is one, while two forms of the interlaced pattern are known as Takaro sa runga, the game of a combination of spirits known as "the above".

I cannot completely unravel this tangle of traditional ideas about gods and goddesses, night, sleep and blindness in reference to string figures on the information I have available, and I could get no further data from Tikopia. It would be possible to construct a series of equivalences and oppositions which might express Tikopia attitudes and ideas but there is no evidence for confirmation. But even without this type of speculative interpretation which would impose a very formal classification on the material, it is evident that string figures in Tikopia had a definite religious component. As far as I can ascertain they did not operate specifically as ritual performances in the way in which dances did. But to perform them seems to have been regarded in some circumstances as an act of mystical import.

Moreover, in the actual playing of string games reference might be made to mythical figures. I was told by a girl that when the strings got tangled in trying to make a figure, one could chant

Matara matara feaki

Ko Pu Tekarupe

Ka oko mai

Ma te tokotoko

Ma te fakanifo

Nai serea serea

Ko tou ate.

(4) Ibid, pp. 83-4.

Pu Tekarupe was described as a man-eating spirit who comes with his staff and drives it into a person's liver and bites at the liver with his teeth. The "person" was said to be a metaphor for the tangled strings, so in effect the spirit was asked to release the knots. The song may be translated

Loosen, loosen quickly
Pu Tekarupe
Will arrive
With his staff
With his array of teeth
He cuts, cuts
Your liver.

"When the string figure is tangled and is to be freed, sing, sing that it may be loosened. Great is its correctness." In other words, the song was regarded as having ritual effect. Another mythical reference might occur in the release of any figure which involved the drawing apart of two loops. This was termed Mavae ko Pu Peka ma Tinirau - the parting of Pu Peka and Tinirau, said to be a reference to a traditional tale.

One of the most striking features of Tikopia string figures is the overt recognition of inventiveness in them. Tikopia are not remarkable for aesthetic creation in the graphic arts⁽⁵⁾. But as in their songs so in their string figures they have recognised individual creativity by the attribution to specific persons^{of} responsibility for particular examples. I discovered this at the beginning of my acquaintance with string figures in Tikopia. The first figure which

(5) See my article "Tikopia Art and Society" in a volume on Primitive Art and Society, ed. Anthony Forge (in preparation).

was demonstrated to me, No. 1, was made by Seremata, a young man then a bachelor whom I knew a generation later as Pa Maneve. On subsequent occasions I was puzzled to find that no other player recognised this figure when I set it up. Various informants asked me for the name of the person from whom I had obtained it, and when I told them said "Oh, it is his own figure which he has made." Later, I found this was correct. It was the result of his own experimentation. I took it down as Foi nupu, a pool. When I asked him about it afterwards Seremata said that he had not actually given it a name. He supposed it was Foi nupu (a pool) or perhaps Foi taringa (ear) or Foi atu (bonito). Each name referred to the central diamond. If it were broad and full, a rhomboid, then it was termed a pool; if long and narrow it was ear or bonito. This was the first indication which made me realise that string games in Tikopia constituted a living art in which new figures were invented or traditional ones modified. Later, I found about a dozen and a half figures known in each case by the name of the person who was regarded as having invented them. About half were attributed to people of past generations and the others to people then living. About two-thirds were invented by men and about one-third by women. (It is of interest to note that not only did women invent string figures; they were also acknowledged by society at large as inventors.)

In their experimentation Tikopia interested in string figures would produce a variety of forms, some of which would not seem to be of particular significance and which would remain nameless. When a form was produced which did appear to be significant, i.e. to be classifiable as a design, it was given a name. But it is interesting to note that Tikopia inventiveness in modern times did not appear to involve the invention of new names for new figures. Figures newly created were

aligned in terms of already recognised patterns and were known as variants of such patterns conjoined with the name of the person responsible for the new variant. So when Seremata constructed his new pattern he assimilated it to the "pool" type, and it was known by his name. There was already in existence another "pool" (Foi nupu) attributed to Pu Taumako, a former chief. (As Honor Maude points out, the pool type of figure is widely known ethnographically and there are many ways of constructing it, that of Pu Taumako apparently being a specific one.)

Tikopia who were skilled in making string figures had quite a taxonomic interest in patterns produced. They recognised Kautukeniva (Milky Way), Manini (reef fish), etc. as generic types differing specifically according to the shape and number of diamonds in the particular form. When I was collecting figures I listened to various discussions as to how many Kautukeniva or other named types there might be, and how many diamonds or other distinguishing marks in each. It was said, for example, that there were three Kaukupenga only: those of Pa Koroatu (No. 14), Pu Atafu (No. 15) and Pa Rangifuri (No. 16). The first was said to be a development from Vai ngutu rua (No. 4), the second and third from Vai ngutu toru (Nos. 5 and 6). The last pair were distinguished by the one having no looped strings at the middle corners of the centre diamond and the other having such. So, apart from their concern with the technical procedures of pattern making, Tikopia interested in these figures took an abstracting, generalising view of the patterns, classifying them into a relatively small set of major types by recognised structural criteria.

The String Figures of Tikopia

Introduction

This collection of string figures, though possibly not complete, probably represents a larger percentage of locally known figures than is contained in any hitherto published work on the patterns for a particular Pacific area.

Almost half the 54 figures recorded are known elsewhere in the Pacific region (which includes New Guinea and Australia as well as the Pacific Islands proper); constructions are not always identical, however, and particularly with the series for two players there are a number of interesting variations on a common basic theme.

Counts made of figures recorded from other parts of the Pacific which are identical (or virtually identical) with those found on Tikopia are as follows:

Gilbert Islands	-	17
Australia	-	8
New Guinea	-	7
Fiji	-	6
Society Islands	-	6
Caroline Islands	-	5
New Caledonia	-	5
Marquesas	-	4

Three figures, Raukape, Tofa and Foi Nupu Pu ^{Uma} Taremeke, are found widespread throughout the Pacific.

Too much importance should not be placed on these counts since the percentage of those collected to those known varies very considerably from place to place, while in whole groups of islands, such as Tonga and the Ellice in Polynesia or the Solomons and New Hebrides in Melanesia, only a few figures have as yet been published. It is worth noting, however, that in two localities - Hawaii and Nauru - where the collection ratio is high, the patterns and techniques show little resemblance to those found on Tikopia; in the latter case probably because, even more than on Tikopia, there was a marked and relatively recent development on purely local lines.¹

The conclusion suggested by a comparative study of Tikopian string figures patterns and techniques is that the original immigrants brought with them a number of basic Polynesian-type figures, many of which were, however, known throughout most of the Pacific region; that superimposed on those ~~are~~^{is} found an interesting group of Micronesian figures, possibly derived from the Gilbert Group (direct, or via the Ellice Islands, where a large percentage of Gilbertese figures are known); while yet a third group apparently came from Melanesia, presumably as a result of canoe traffic. This last conclusion is based on the assumption that the New Guinea and Australian figures found did not travel direct but would be found in the Santa Cruz and other neighbouring Melanesian islands if field surveys were undertaken.

Comparative Notes on some basic Pacific Figures.

Although in every Pacific area the basic patterns, handed down from generation to generation, tend to form the core of the string figure maker's repertoire, they often show variations due in many cases, as field workers soon discover, to imperfect transmission at some period or periods. Even where it is known, or later becomes known, that the variation is traditionally incorrect it may, furthermore, be retained because it is considered an improvement in technique or to result in a more satisfying design. While a comparative study of basic Pacific figures has still to be written, it is hoped that the following brief notes may convey an idea of the extent of similarity and variation in final designs and, even more important, in the techniques by which they are reached.

(1) Raukape, one of the ^{three} ~~two~~ most widely known Pacific figures, is known as Koukape in the Marquesas and Loukape in Tonga. ² Elsewhere the name is quite different but the construction (except for a minor move which achieves the same result) is identical, except in North Queensland, where the opening is different and the Navahoing is done on the little fingers instead of the thumbs, but the basic theme remains the same. ³

(2) The second widely known figure is Tofa, and also Ti Tasi. These are really the same figure but the latter is made by two players from the beginning while in the case of the former the

The String Figures of Tikopia

Introduction

To be inserted on page 4 between end of paragraph and (3).

(3) The third figure which is known throughout the Pacific is Foi Nupu. This is a particularly interesting figure for comparative study since it can be made in a variety of ~~di~~ ways and each area tends to use the dominant local technique; in the case of the Tikopians their tao and ta sequence which is employed to make two versions: one the usual design and the other having both sides knotted. The Nauruans, with their characteristic virtuosity, make it in no less than three different ways.



The original (3), (4), (5), (6) and (7) to be changed to (4), (5), (6), (7) and (8).



Alteration in Footnote 11:

.....Australian Institute of Aboriginal Studies.

second player only joins in towards the end of the construction. There are many variations in the method of making this figure in different places but the result is essentially the same everywhere. Only in Tikopia, the Gilbert Islands, northern New Guinea and the Solomon Islands do we find it made by two players; ⁴ on some islands the three diamond stage only is reached; while others finish the figure but end with a variant finale. It is also one of the few oceanic figures found outside the area: an identical pattern is recorded from Angola, though the method of reaching the three diamonds is rather complicated; ⁵ while on the Gold Coast not only is the method of forming the diamonds equally complicated but they are then picked up ⁶ differently before the figure is turned over and over as usual.

(3) →

(4) The series of figures called Manini is also known over a wide area, with many variations. In the Gilbert Islands the series is identical and in Uvea it is the same except for the making of the first figure. ⁷

(5) Te Kaunga Sikotara is known in the Gilbert Islands and a number of other places; ⁸ some go no further than the first figure; others have one or two continuations made by the same person; but only in Tikopia is it found as a series for two players.

(6) Te Aforau is, or was, probably known in many more places than have been recorded, as those known cover much of Polynesia, Melanesia and Micronesia. There are slight variations in construction but

everywhere except Arnhem Land (where they end with a disappointing flat figure) the three sided figure is made.⁹

(7) The series of figures called Vae Atua is fairly widely known but is sometimes preceded by other figures. In Northern New Guinea the series begins with a three diamond figure made by a unique method and proceeds through a complicated series to the same figure;¹⁰ this is also the case in the Torres Strait Islands, and through a similar series but beginning with the well known Murray Island Little Fishes.¹¹ Furthermore the sequence of figures varies from place ^{to place} after the second figure.

(8) Rau a Kera is a combination of two figures which are fairly widespread throughout the Pacific. The first is often a pattern which is suddenly released, as Rau a Kera is finally dissolved, and the second figure has a variety of openings and endings.

Tao and Ta

If the widely spread, traditional patterns provide the basic core, nowhere in the Pacific do we find the islanders' repertoire a static one; without exception, so far as we know, it was supplemented over the centuries by innovations learnt from immigrants or visitors, the chance discovery of a supposed resemblance to some already-known figure, or by deliberate invention.

While the Tikopians were certainly no mere copyists, as evidenced

by the fact that some three-quarters of their figures are unrecorded elsewhere, to the specialist the most interesting feature of their indigenous constructions is the fact that they represent to a unique degree variations in the possibilities obtainable from the experimental development of a single technique complex: the series of movements beginning with tao and ta. These are used for nearly half their figures, thus providing a characteristic technique pattern which has not hitherto been found to be predominant in any other locality.

Like the Navaho Indian who, on being shown an intricate and beautiful Nauruan design, replied that, 'It is not a string figure', the islanders too have their aesthetic conceptions of what constitutes a perfect pattern; and to the Tikopian it would seem that perfection lay in variations on a single theme -- the tao and ta complex.

The movements involved in making tao and ta consist of holding down one, two or three strings with thumbs, and picking up one, two or three strings with index fingers, a varying number of times, with finally a uniform sequence of movements to finish off and extend each figure. In its simplest form, i.e. holding down one string and picking up two strings once only, the tao and ta sequence was seen on Banaba in 1932, when three such figures were collected, but the extensive use and repetition of the movements in a single figure was quite unknown; as was the Tikopian practice of interposing the sequence with other manipulations, thus creating a great variety

of pleasing designs.

On Nauru, where the figures were perhaps more intricate than anywhere else, tao and ta, again in its simplest form, was only used as an ending or finishing off for their complicated patterns. The Nauruans used one word, Eongatubabo, for the entire sequence; the Gilbertese did not use it in their constructions; while the Banabans, who did, had no name for it. Hence when writing up the Gilbertese figures, including those from Banaba, and before I had been to Nauru, I called it the Banaban Movement which, as now appears, was a
12
misnomer.

In ^{Rogers} Professor Firth's notes the tao and ta sequence is merely referred to as such and as I was able to work out the figures without difficulty I have retained this procedure in describing the construction of each figure. For the beginner the movements are set out in detail in the section on Terminology and should not be hard to master.

Perhaps it may be mentioned here that another unusual practice is to twist loops in a radial direction. For example Vai Ngutu Toru is identical with the Banaban Tema ni Maniba except that on Banaba the indices and little fingers were rotated in an ulnar direction, resulting in three double diamonds without the attractive central
13
twists of the Tikopia figure.

Concluding Notes.

- (1) The string used on Tikopia was made of [?], very

long and thin, and about a fathom and a half (9 feet) when doubled.

(2) The terminology devised by HADDON and RIVERS is used throughout, supplemented by the local Tikopia¹⁴ terms.

Honor Maude

Canberra, Australia,
7th January, 1967.

.....

TERMINOLOGY USED IN MAKING THE STRING FIGURES OF TIKOPIA

Palmar and Dorsal - The part of a string which lies across the palm of a hand is described as palmar, the part lying across the back of the hand as dorsal.

Radial and Ulnar - Anything on the thumb side of the hand is called radial, anything on the little finger side is called ulnar.

Since a string passing round a finger or fingers forms a loop, each such loop is composed of a radial string and an ulnar string.

Proximal and Distal - Of two strings or loops on the same finger, the one nearer the palm of the hand is called proximal, the one nearer the finger tip is called distal. Furthermore, a loop may be entered or a string picked up either from the proximal side (or underneath) or from the distal side (or above).

Position 1 - Tips of thumbs and little fingers of each hand are put together and then inserted into loop of string, separate thumbs and little fingers and extend hands (strings must not be crossed).

Opening A - Position 1. Palmar string of each hand is picked up on back of index of opposite hand, right index first and left index through right index ^{loop} from distal side.

Murray Opening - Hold string between thumbs and indices, hands being about six inches apart with remainder of loop hanging down; make a small hanging loop with the six inches of string by bringing hands together, right over left, insert indices towards you into this loop,

continue movement until indices are upright, draw hands apart and there will be a distal and a proximal loop on each index; radial strings should be parallel and ulnar strings crossed.

Navaho Opening - Hold string between thumbs and indices, hands being about six inches apart, with remainder of loop hanging down; make a small upright loop with the six inches of string by bringing hands together, right over left, insert indices away from you into this loop and thumbs, also away from you, into large hanging loop, draw hands apart and turn them upright with fingers well spread out.

Navaho - When there are two strings on a digit, one proximal and the other distal, the proximal string is lifted over the ^{distal} proximal string, over the tip of the finger and dropped on the other side.

Tao - Hold (or press) down with thumbs a given number of strings (these do not include ulnar thumb string, which is not counted).

Tao sogotasi - hold down one (radial index string).

Tao e rua - hold down two (radial and ulnar index strings).

Tao e toru - hold down three (radial and ulnar index and radial little finger strings).

Ta - Manipulate; continuation of Tao. Index fingers, pointing down, bring towards you the number of strings indicated, distal to thumb loops, then reversing their direction they pick up radial thumb strings and return to position.

Ta sogotasi - manipulate one. If a single string is held down (radial index) then a single ta is made with ulnar index string. If two strings are held down (radial and ulnar index) then a single ta is made with ^{radial} ~~ulnar~~ little finger string.

Ta e rua - manipulate two. If this follows a single tao then ulnar index and radial little finger strings are brought forward. If this follows the dual tao both little finger strings are brought forward.

Ta e toru - manipulate three. This can only follow a single tao, i.e. radial index is held down, ulnar index and both little finger strings are brought forward.

Kape ake - gouging up. Thumbs return with ulnar little finger strings as immediate completion of ta movement. Thumbs retain strings picked up at beginning of Tao movement, and passing proximal to any intervening strings, including little finger loops, return with ulnar little finger strings.

Fakamau - to make fast. An alternative movement used when kape ake is not mentioned: in this case thumbs are freed and used to recover one or other little finger string, ^{usually ulnar little finger string,} i.e. thumbs pass, ^{from} distal side, through proximal index loops and proximal to little finger loops returning with ulnar little finger strings; little fingers are released.

[R.F. to insert translation]

Furifuri ifo - Turning loops from one finger to another, generally from indices to little fingers, by inserting little fingers, from distal side, into distal index loops and transferring distal loops to little fingers. ~~it is used in this sense throughout the following figures.~~

Fakafiti i tua - make spring. Indices are inserted, from distal side, into thumb loops, they pick up radial thumb strings on their tips, press thumbs against indices to prevent strings slipping; ~~and~~ palms are turned away, thus giving a pre-view of the final design; thumbs are released. This technique of showing a figure provisionally, before completing ~~Caroline~~ the extension, is a very common feature in the construction of Tikopian figures; ~~its objective~~ is to satisfy the player in advance that his movements have been performed accurately before giving the final and more finished display of the figure.

Asu - to scoop. Thumbs pass proximal to index loops, enter little finger loops from proximal side, return with radial little finger strings and are then inserted into index loops also from proximal side and indices ~~are~~ released.

Fakafiti i roto - Caroline Extension, i.e., Indices are inserted, from proximal side, into thumb loops; they pick up ulnar thumb strings and, pressing thumbs against indices to prevent ulnar thumb-radial index strings from slipping, palms are turned away.

OTHER TIKOPIA TERMS

Ka pena - Position 1.

Ka tii - Opening A.

Titaki (titikak^e?) - indices under opposite palmar strings, ^{i.e.} the conversion of Position 1 to Opening A.

Taotao ifo - Transferring a loop from one finger to another without turning it over.

Kati - Navaho (generally done with mouth).

Tata - Push little loops towards centre of figure.

Moto kini - String held in mouth.

Fakalemo - release.

Mioi - twist a finger loop; mioi ki tua, twist in ulnar direction; mioi ki roto, twist in radial direction.

Ti mioi - insert a finger down behind opposite palmar string and return with a twist.

Penapena - the opening movement of a figure, to 'set up' in general.

Takaro - a figure (literally a game).

Rau - a single string of a figure.

Sikosiko - string figures as a whole and also the cord used.

Fai sikosiko - ^{to} make string figures.

5] 'Siko' - term used to another person to take the figure and manipulate it when it is a series for two players, an invitation to enter into the game.

Fifisuka - ^A Movement used also in Malaika and other Solomon Islands, ^{identical with} as 3 - 8 of ^{the figure} Fifisuka, No. 28?

Unu ko a rau - ^{to} pull out loops in a figure to allow of its extension.

Names of fingers -

Matikao (^mMaikao) matua - thumb.

Matikao tusi - index.

Matikao ^{to} Laukanya - middle finger.

Matikao ^{to} Ato - ring finger.

Matikao tama - little finger.

Nataina - [?]

Sara - [?]

Manini - single diamonds. [?]

Kupenga - double diamonds. [?]

LIST OF FIGURES

1. Foi Nupu.
2. Foi Nupu pu ~~Tapeko~~^{Ua} ~~Tapeko~~. *Taumako*
3. Foi Atu.
4. Vai Ngutu Rua.
5. Vai Ngutu Toru I.
6. Vai Ngutu Toru II.
7. Niu Tako Toru.
8. Kanga Tete.
9. Kaunga Tete.
10. Vai Ngutu Fitu.
11. Kau Kupenga. I
12. Vai Ngutu Tasi Fai Ofa I.
13. Vai Ngutu Tasi Fai Ofa II.
14. Kau Kupenga II
15. Kau Kupenga III
16. Kau Kupenga IM.
17. ~~Kau~~ Kautika Niva. I
18. Kau Tuke Niva II.
19. Kau Tuke Niva III.
20. Kau Tuke Niva IM.
21. Kau Tuke Niva IV.
22. Kau Tuka Niva V.
23. Manini I.
24. Manini II.
- ✓ 25. Takaro Mavae.

26. Manini a Rongo.
27. Pupunga Moana.
28. Tere i Tane.
29. Fifisuka.
30. Raukape I
31. Raunisikeo.
32. Vae Atua. a, b, c, d.
33. Takaro Peni Potutasi.
34. Tauranga a Rupe.
35. Kaunga Tete Maori.
36. Kumete.
37. Pupu ma Singano.
38. Raukape II.
39. Ara ~~Te~~^{Ki} te Popouri. a, b.
40. Rau a Kera. a, b, c.
41. Te Utokotoko. a, b.
42. Takaro sa Runga.
43. Umufe e Rua.
- ✓ 44. Takaro pa Tekofe.
45. Te Aforau.
46. Foma.
47. Te Kaunga Sikotara. a, b, c, d, e, f, g.
48. Manini III. a, b, c, d, e, f, g.
49. Manini from Marama. a, b.
50. Tofa i a Marama. a, b, c.
51. Ti Tasi. a, b, c, d.
52. Fetaka.
53. Kume. 54 Kai Poloki

1.

1. FOI NUPU

1. Opening A.
2. Exchange index loops; right loop through left loop.
3. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
4. Furifuri ifo.
5. Insert index into opposite index loop from distal side and push little loops towards centre of figure to make a better figure.
6. Tao sogotasi, ta e rua, ^{kape ake} ~~fakamau~~ and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, asu, fakafiti i roto.



FIG. 1

done

U A
u A

2 FOI NUPU PU TAREMEKO.

1. Opening A.
2. Tao sogotasi, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Release indices.
6. Fakafiti i tua, asu, fakafiti i roti.



FIG 2

The design of this figure is known throughout the world, but it is made by many different methods. This method is unique to Tahiti.

3 FOI ATU.

1. Opening A.
2. Tao sogotasi, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
6. Furifuri ifo.
7. Release indices.
8. Fakafiti i tua, asu, fakafiti i roti.



Fig 3

Note here

Ng
A. VAI ~~Z~~TUTU RUA.

1. Opening A.
2. Tao sogotasi, ta e toru and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
6. Furifuri ifo.
7. Release indices.
8. Fakafiti i tua, asu, fakafiti i roti.



FIG 4

This is beginning of KAU KUPEGA PA KOROAT^N~~U~~.[?]

5
 NG
 VAI ZUTU TORU.

1. Opening A.
2. Twist all loops by rotating fingers *in radial direction* ~~towards you, down, away~~ ~~and up.~~
3. Tao sogotasi, ta e rua, *kape ake* fakamau and release little fingers.
4. Furifuri ifo.
5. Release indices.
6. Fakafiti i tua, asu, fakafiti i roti.



FIG 5a



FIG 5b

Your diagram suggests lower illustration but instructions upper illustration.

6
~~NG~~
 VAI ~~ZUTU~~ TORU.

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. Fakafiti i roti and release thumbs.
4. Pass thumbs from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
5. Furifuri ifo.
6. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, asu, fakafiti i roti.



Fig 6

Note here.

7. NIU TAKO TORU

1. Opening A.
2. Twist left little finger loop and right thumb loop once clockwise.
3. Tao sogotasi, ta e rua, ^{kape ake}~~fakamau~~ and release little fingers.
4. Furifuri ifo.
5. Release indices.
6. Fakafiti i tua, asu, fakafiti i roti.



FIG. 7

done

8 ^{Ng} KAUJA TETE.

1. Opening A.
2. Tao sogotasi, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little fingers ^{strings}; release little fingers.
4. Furifuri ifo.
5. Repeat 2, 3 and 4 twice.
6. Release indices.
7. Fakafiti i tua, asu, fakafiti i roti.



FIG 8

Each repetition of movements 2, 3 and 4 produces another diamond.

12.

See also No. 47 with different ending.
" " No. 21

9. ^{NG} KAU ZA TETE

Falfovanu

1. Opening A.
2. Tao sogotasi, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Repeat 2, 3 and 4 three times.
6. Tao e rua, ta sogotasi; release proximal index strings from thumbs, then, with distal ulnar index strings still held down pass thumbs proximal to proximal index loops, return with ulnar little finger strings and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, asu, fakafiti i roti.



Fig 9

10. VAI ^{Ng} ZUTU FITU
RAU ^{Ng} ZUTU FITU

1. Opening A.
2. Tao sogotasi, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Repeat 2, 3 and 4 four times.
6. Tao sogotasi, ta e rua, ^{Kape ake} fakamau and release little fingers .
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, asu, fakafiti i roti.



FIG 10

10. Lay figure down and carefully release hands. With palms facing one another insert thumbs at a,a, and indices at b,b, and pick up the top and bottom strings of the figure. Extend hands.
11. Repeat ~~movement 9~~ ⁷. Figure reduced by two diamonds.
12. *Fakafiti i solo and release thumbs; asu, fakafiti i solo.*
 Movements 2, 3 and 4 are usually repeated seven times, with a very long string eight or ten times.

^N
 // KAU KUPEGA. I
_"

1. Opening A.
2. Twist each loop once rotating fingers ^{in radial direction} ~~towards you, down, away~~ and up.
3. Tao sogotasi, ta sogotasi and release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
5. Furifuri ifo.
6. Tao sogotasi, ta e rua, ^{Rape ake} fakamau and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, asu, fakafiti i roto.



FIG 11

NG
12 VAIZUTU TASI FAI OFA.
h

1. Opening A. *in radial direction*
2. Twist all loops once rotating fingers ~~towards you, down,~~
~~away and up.~~
3. Tao sogotasi, ta e toru and release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
5. Furifuri ifo.
6. Twist thumbs and little finger loops, ~~rotating outwards.~~ *in ulnar direction.*
7. Tao sogotasi, ta e rua, ^{Rape ake} fakamau and release little fingers.
8. Furifuri ifo.
9. Release indices.
10. Fakafiti i tua, asu, fakafiti i roti.



FIG 12

13 NCo

#6 VAI/TUTU TASI FAI OFA.

2nd Method.

1. Opening A.
2. Twist indices, ~~towards you, down, away and up.~~ *away, down, towards you and up.* ~~towards you, down, away and up in ulnar direction.~~
3. Tao sogotasi, ta e toru and release thumbs.
4. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
5. Furifuri ifo.
6. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i tua, ^{asu,} fakafiti i roti.



FIG 13

14. KAU KUPEKA. I

1. Opening A.
2. Tao sogotasi, ta e toru and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
6. Furifuri ifo.
7. Push little loops towards centre of figure.
8. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
9. Furifuri ifo.
10. Release indices.
11. Fakafiti i tua, ^{asu,} fakafiti i roti.



FIG 14

There is a note here - and dance song of Kua?

15
~~14~~ TE KAU KUPEGA 11

1. Opening A.
 2. Twist all loops once, *in ulnar direction.* ~~away from you, down, towards you and up.~~
 3. Tao sogotasi, ta e rua, *kape ake* fakamau and release. *little fingers.*
 4. Furifuri ifo.
 5. Push little loops towards centre of figure.
 6. Tao sogotasi, ta e rua, *kape ake* fakamau and release. *little fingers.*
 7. Furifuri ifo.
 8. Release indices.
- q. Fakafiti i tua, asu, fakafiti i roti.



FIG. 16

Notes on page above this appear to refer to nos 28, 29.

16. ^N
~~15.~~ KAU KUPEGA III

1. Opening A.
2. Tao e rua, ta sogotasi and release thumbs.
3. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
4. Furifuri ifo.
5. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
6. Furifuri ifo.
7. Push little loops towards centre of figure.
8. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
9. Furifuri ifo.
10. Release indices.
11. Fakafiti i tua, asu, fakafiti i roti.



FIG 16

Something here about number 2

15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.

17. TE KAUTIKA NIVA. I

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, twist towards you and up and extend; perform same movement with left index; inserting from distal side through right index loop.
3. Tao sogotasi, ta e toru and release thumbs.
4. *Fakamaui* { Pass thumbs, from distal side, through proximal index loops and proximal to little finger loops, return with ulnar little finger strings and release little fingers.
5. Furifuri ifo.
6. Tao sogotasi, ta e rua, ^{kape ake} ~~fakamaui~~ and release little fingers.
7. Furifuri ifo.
8. Release indices.
9. Fakafiti i ~~tua~~, asu, fakafiti i roto.



Fig. 17

*dme**Note here about inverted*

18 KAU TUKE NIVA. II

1. Position 1.
2. Insert right index, from distal side, behind left palmar string, , twist towards you and up and return to right; perform same movement with left hand.
3. Twist little finger and thumb loops once, *in radial direction.* ~~rotating inwards.~~
4. Tao sogotasi, ta e toru and release thumbs.
5. Pass thumbs, from distal side, through proximal index loops proximal to little finger loops and return with ulnar little finger strings; release little fingers.
6. Furifuri ifo.
7. Twist little finger and thumb loops once *in ulnar direction.* ~~rotating away from you.~~
8. Tao sogotasi, ta e rua, ^{Kape ake} fakamau and release little fingers.
9. Furifuri ifo.
10. Release indices.
11. Fakafiti i tua, asu, fakafiti i roti.



FIG 18

Note here

19. KAU TUKE NIVA III

1. Opening A.
2. Tao sogotasi, ta e toru and release thumbs.
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 and ~~Navaho~~ thumbs.
5. Release distal index loops.
6. Tao sogotasi, ta e toru and release thumbs.
7. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
8. Furifuri ifo.
9. Tao sogotasi, ta e rua, ^{Kape ake} fakamau and release little fingers.
10. Furifuri ifo.
11. Release indices
12. Fakafiti i tua, asu, ~~and~~ fakafiti i roti.



FIG 19

1. Opening A.
2. Bring indices towards you, distal to thumb loops, then away from you proximal to thumb and index loops, insert into little finger loops from proximal side, return with ulnar little finger strings and release little fingers.
3. Bring ring and little fingers towards you proximal to index loops, grasp ulnar thumb string between them and return allowing string to slip over little fingers.
4. Insert little fingers, from proximal side into distal index loops and navaho little fingers.
5. Release indices from distal loops.
6. ~~Tao~~ sogotasi, ta e toru and release thumbs.
7. Pass thumbs, from distal side, through proximal index loops proximal to little finger loops, return with ulnar little finger strings and release little fingers.
8. Furifuri ifo.
9. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
10. Furifuri ifo.
11. Release indices.
12. Fakafiti i tua, asu, fakafiti i roti.



FIG 20

Notes after this

1. Opening A.
2. Tao sogotasi, ta e toru, but indices hook back radial index strings.
3. Transfer distal index loops to thumbs.
4. Insert middle fingers, from distal side, into thumb loops and pass indices towards you between proximal and distal radial thumb strings; with tips of indices hook back proximal radial thumb strings and return to position.
5. Release thumbs.
6. Pass thumbs, from distal side, through proximal index loops and return to position with with proximal and distal ulnar index strings.
7. Navaho thumbs and release distal loops from indices.
8. Pass thumbs, from proximal side, through index loops, insert into little finger loops from proximal side and return with radial little finger strings.
9. Fakafiti i roti and release thumbs.
10. Pass thumbs, from proximal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
11. Transfer distal index loops to little fingers.
12. Insert thumbs, from proximal side, into index loops and hold down ulnar index strings; insert indices, from distal side, into little finger loops, hook up radial little finger strings and allow original index loop to drop off; bring indices towards you, still pointing down, distal to radial thumb strings then hook these back and straighten indices; pass thumbs, still holding down ulnar index strings, proximal to ulnar little finger

54. Continued.

strings and hook them back through thumb loops.

13. Release little fingers.

14. Furifuri ifo.

15. Fakafiti i tua, ^{asu,} fakafiti i roti.



FIG 21

Reducing channels and areas
Note these

16.

1. Opening A.
2. Insert indices, from proximal side, into little finger loops and transfer these loops to tips of indices.
3. Insert thumbs, from proximal side, into distal index loops; with ring and little fingers hook down distal ulnar index strings and proximal index loops; pass middle fingers distal to distal radial thumb strings and proximal to proximal radial thumb strings, ~~and~~ lift proximal loops off thumbs; straighten ring and little fingers and allow distal index loops to slip off indices; transfer middle finger loops to tips of indices.
4. Repeat 3, three times.
5. Insert little fingers, from proximal side, into distal index loops and transfer these loops to little fingers.
6. Tao sogotasi, ta e toru and release thumbs.
7. Pass thumbs, from distal side, through proximal index loops, proximal to little finger loops and return with ulnar little finger strings; release little fingers.
8. Furifuri ifo.
9. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
10. Furifuri ifo.
11. Release indices.
12. Fakafiti i ~~roti~~ tua, asu, fakafiti i roti.



FIG. 22

23 MANINI. I

1. Position 1.
2. Bring right hand to left, insert right index, from distal side, behind left palmar string, turn index ^{towards you} ~~away~~ and up and return to position. Repeat with other hand.
3. Twist all loops once, ^{left in radial direction} ~~right~~ hand clockwise, ^{right} ~~left~~ hand ~~anti-~~ clockwise.
4. Tao sogotasi, ta e rua, ^{Rape ake} fakamau and release little fingers.
5. Furifuri ifo.
6. Push little loops towards centre of figure.
7. Taosogotasi, ta e rua, ^{Rape ake} fakamau and release little fingers.
8. Furifuri ifo.
9. Release indices.
10. Fakafiti i tua, asu, fakafiti i roti.



FIG 23

This is termed MANINI though it has.....?.....kupega

24 MANINI, II

1. Insert right thumb and left thumb and index into loop.
2. Bring right hand to left, pass index between left thumb and index, distal to string running between them, then hook back this string with right index turning finger away and up; ~~return to position.~~ *extend hands.*
3. Pass little fingers proximal to index loops and insert ring fingers into index loops from proximal side, clasp radial index strings between these two fingers and return to position with radial index strings on backs of little fingers; release ring fingers.
4. Release indices.
5. Ta sogotasi (with radial little finger strings) and release thumbs.
6. Transfer index loops to thumbs.
7. Ta e rua (with both little finger strings) and release thumbs.
8. Transfer index loops to thumbs.
9. Ta sogotasi (as above), *kape ake* fakamau and release little fingers.
10. Furifuri ifo.
11. Fakafiti i tua, asu, fakafiti i roti.



Fig 24

26 MANINI A ROZO. ^{NG}
 a short or doubled

1. Hold string in both hands with hands about 6 inches apart, bring right hand to left thus making a small loop with right hand string lying over left hand string; give loop another twist in the same direction and hold looped strings in mouth.
2. Insert hands, away from you, into long hanging loop, grasp tight and lay it over strings already in mouth; insert little fingers, from proximal side, into small mouth loop, release all strings from mouth and extend.
3. Transfer wrist loops to thumbs.
4. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
5. Fakafiti i roti.



Fig 26

This is the same as MANINI No. 18, with additional

27 ^{Ng-} PUPUZA MOANA.

1. Opening A.
2. Rotate right hand twice clockwise wrapping strings round wrist:
 With right thumb and index remove loop from left index, rotate left hand once anti-clockwise and replace index loop.
 Unwind both hands.
3. Repeat 2 with opposite hands and opposite directions.
4. Tao sogotasi, ta e rua, ^{kape ake} fakamau and release little fingers.
5. Furifuri ifo.
6. Fakafiti i tua, asu, fakafiti i roti.



FIG. 27

28. TERE I TANE.

1. Murray opening.
2. Insert little fingers, from distal side, into distal index loops, hook down distal ulnar index strings, then insert into proximal loops from proximal side and return with proximal ulnar index strings.
3. Pass thumbs, from distal side, through proximal index loops and return with distal ulnar index strings.
4. Bring middle fingers towards you distal to distal radial index strings, catch up on their backs proximal radial index strings and return to position.
5. Keeping strings hanging loosely release thumbs, and then, passing thumbs distal to released string and proximal to distal radial index strings, return to position with distal radial index strings on their backs.
6. With little fingers hook down ulnar middle finger strings and release middle fingers; turn little fingers away and up to position; turn thumbs down towards you and spreading fingers wide, turn palms outwards.



FIG. 28

Release little fingers and thumbs then pull hands quickly apart; this leaves a double string on indices only.

29. FIFISUKA

1. Opening A.
2. Transfer index loops to wrists.
3. Insert indices, from distal side, into thumb loops, pick up ulnar thumb strings on their tips then insert indices into little finger loops, also from distal side and pick up radial little finger strings dropping ulnar thumb strings as you do so; turn hands with palms upwards.
4. With opposite index and thumb take hold of ulnar thumb and radial index strings where they join on palm of hand and release thumb, index and little finger. Insert little fingers away from you into near loop then pass thumb distal to radial little finger strings and insert towards you into far loop.
5. Repeat 3 and 4 twice.
6. Repeat 3.
7. With opposite hand pick up radial wrist strings and drop over thumb; with opposite index and thumb take hold of radial index string and dorsal string and release all but thumb; drop dorsal string and insert little finger into remaining loop pointing towards opposite hand.
8. Fakafiti i tua, asu, fakafiti i roti.



Fig 29

7.

30. RAUKAPE.

1. Opening A.
2. Release thumbs.
3. With mouth, pick up, from distal side, ulnar little finger string and pull towards you.
4. Insert left index, from distal side, into mouth loop, pick up right mouth string on it's back and return to left, pass right index between your body and left mouth string, return to right with string on back of finger and release string from mouth.
Extend hands keeping proximal and distal index loops well apart.
5. Pass thumbs proximal 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 distal index loops and Navaho thumbs with lips.
7. Release indices from distal loops and transfer thumb loops to indices, keeping these loops distal.
8. Repeat 5 and 6.
9. Pass middle fingers distal to distal ulnar index strings, insert into proximal index loops from distal side and pick up proximal radial index strings.
10. Release little fingers and turn palms away with fingers wide apart.



FIG 30

done

1. Insert thumbs into loop so that radial thumb string is about six inches long, the rest of the loop hangs loosely down.
2. Pass left little finger to right and towards you, distal to radial thumb string, pick up on it's back right radial thumb string and return to left. Pass right little finger to left and towards you distal to right radial thumb string, insert into left thumb loop from proximal side and extend hands.
3. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
4. Fakafiti i roti.
5. Navaho thumbs with hanging loop.
6. Put tips of thumbs and indices together and transfer index loops to thumbs.
7. Fakafiti i roti.
8. Navaho thumbs.
9. Release little fingers, rotate thumbs towards you and down and turn palms outwards, thus extending figure



FIG 31

Should we show the first 3 figures, have they no names?

See page 47

A better extension is achieved by releasing little fingers at movement 9, then transferring index loops to little fingers followed by fakafiti i tua, asu and fakafiti i roti.

1. Insert thumbs into loop so that radial thumb string is about $\frac{3}{8}$ inches long, the rest of the loop hangs loosely down.
2. Pass right little finger to left and towards you, distal to radial thumb string, pick up on it's back, radial thumb string close to left thumb and return to right. Pass left little finger to right and towards you, distal to left radial thumb string, insert into right thumb loop from proximal side and return to left with right radial thumb string. Draw hands apart until strings are taut.
3. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
4. Fakafiti i roti



FIG 32a

5. Navaho thumbs with hanging radial thumb string.
6. Place tips of thumbs and indices together and allow index loops to slip onto thumbs.
7. Fakafiti i roti.

47. Continued.



FIG 32b

8. Release little fingers.
9. Transfer index loops to little fingers.
10. Fakafiti i roti.



FIG. 32c

11. Release little fingers.
12. Transfer index loops to little fingers.
13. Fakafiti i roti.



FIG 32d

See also No. 20 which is the same except for last figure.

33 TAKARO PENI POTUTASI

1. Position 1 with ~~double index~~ string *doubled*.
 2. Insert right index, from proximal side, behind left palmar string and return.
- LEFT HAND, —
3. Insert thumb, from proximal side, into little finger loop and return with radial little finger string.
 4. Insert index, from proximal side, into thumb loop, return with ulnar thumb string and release thumb. (Keep index loop near tip of finger.)
 5. Pass thumb proximal to index loop, insert into little finger loop from distal side, twist down, towards you and up, carrying with it radial little finger string and release little finger.
 6. Transfer index loop to little finger.
 7. Repeat 3, 4, 5 & 6.
 8. Repeat 3, 4, 5 & 6.
 9. Repeat 3.
 10. Fakafiti i roti.
 11. Release right index.



single line please.

FIG 33

16
34. TAURANA A RUPE

1. Opening A.
 2. Transfer index loops to middle fingers and thumb loops to indices.
 3. Take radial index string in mouth; insert right thumb, from distal side, into mouth loop and return with left mouth string; pass left hand to right proximal to mouth loop then insert into mouth loop from distal side and return with right mouth string releasing string from mouth.
 4. Transfer thumb loops to indices and middle fingers; transfer little finger loops also to indices and middle fingers.
 5. Navaho indices with proximal radial strings and Navaho middle fingers with proximal ulnar middle finger strings.
 6. Grasp left hand strings in right hand and lift gently off, turn loops over away from you and place over thumb and little finger. Repeat with other hand.
 7. Stretch fingers wide apart and pull figure taut.
 8. With indices pick up towards you the two straight strings which lie across figure.
 9. Release thumbs then insert them, from distal side, into index loops and release indices.
 10. Insert thumbs, from proximal side, into little finger loops, return with radial little finger strings and Navaho thumbs - the figure emerges again.
- The process may be repeated indefinitely,

Illustration
here



The ~~TAURANA~~^A RUPE () is the double string separate from the rest.

35 KAUWA TETE MAORI.

1. Opening A.
2. Pass thumbs distal to index loops and proximal to little finger loops and return with ulnar and radial little finger strings.
3. Insert indices, from distal side, into thumb loops, turn them away and up and release thumbs.
4. Pass thumbs proximal to three distal radial ^{index} and one distal ulnar ^{index} strings, hold distal ulnar strings between thumbs and indices and twist indices down, towards you and up distal to proximal ulnar index strings; release thumbs.
5. Pass thumbs, from proximal side, through proximal index loops, then proximal to distal ulnar index strings, hold these strings against indices then twist indices down through distal and proximal loops towards you and up retaining original distal loops only.
6. Pass thumbs proximal to index loops, insert into little finger loops from proximal side and return with radial little finger strings; then insert into index loops, also from proximal side and release indices.
7. Fakafiti i roti.



FIG 35

36 KUMETE.

1. Opening A.
2. Insert indices, from distal side, into little finger loops, rotate them towards you and up, between indices and thumbs, carrying with them radial little finger strings; release little fingers.
3. Insert middle, ring and little fingers, from distal side, into index loops and pull down ulnar index strings.
4. Holding figure loosely gently release thumbs then insert them into the dropped loop# from distal side; next insert them into figure close to tips of middle fingers and pick up from proximal side proximal radial index strings.

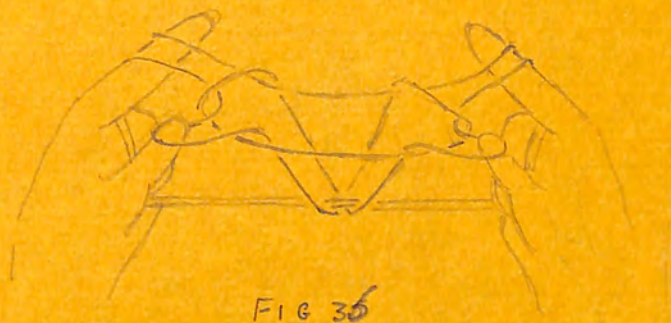


Fig 36

Nalaku Bagolu?

19.

37 PUPU MA SIZANO
OR
SAUMA AZI.

1. Opening A.
2. Insert indices, from distal side, into little finger loops, twist towards you and up between indices and thumbs carrying with them radial little finger strings and ulnar index strings; release little fingers.
3. Twist index loops once more.
4. Insert middle, ring and little fingers, from distal side, into index loops; with middle finger push up that radial index string which runs from hand to hand and at the same time release tension on thumb strings by turning hands away from you, this shows figure of four diamonds.
5. Gently release thumbs, then insert into released loops from distal side and pick up on their backs the radial index strings which form the lower outer diagonals of diamonds.
6. Gently release thumbs again, then insert into released loops from distal side, pass them proximal to double ^{palmar strings} little finger strings and return with them on backs of thumbs; release little and ring fingers and turn hands outwards with fingers spread wide.



Fig 37

51.

38 RAUKAPE.

11

1. Insert thumbs only into loop.
2. With left hand hold strings near right hand and rotate right thumb ~~away, down, towards you and up~~ ^{once in ulnar direction} and release strings held in left hand.
3. Insert little fingers, from proximal side, into thumb loops and return with ulnar thumb strings.
4. Insert right index, from proximal side, behind left palmar string and return to right; insert left index, from distal side, into right index loop and from proximal side behind right palmar string and return to left. (As in opening A.)
5. Insert indices, from distal side, into little finger loops, rotate towards you and up carrying with them radial little finger strings and ulnar index strings; release little fingers.
6. With ring and little fingers hold ulnar index strings against palms.
7. Pass middle fingers proximal to radial index strings and insert into thumb loops from proximal side; release thumbs carefully then pass them from distal side through middle finger loops, hook back radial index strings which cross figure diagonally to base and release middle fingers.
8. Repeat 7; but thumbs hook back double ^{palmar} strings at ~~base of~~ figure.
9. Release ring and little fingers; pass middle fingers towards you, proximal to distal radial index strings which run from hand to hand and hook back this string; then stretching fingers wide turn hands palms away from you.

51. (cont.)



FIG. 38

notes here.

1. Opening A.
2. Take in mouth ulnar index and radial little finger strings where they cross.
3. Insert right index, from distal side, into mouth loop, pick up left mouth strings and return to right; pass left index between your body and right mouth strings, pick up these strings on back of index and return to left; release strings from mouth.
4. Pass thumbs proximal to index loops, insert into little finger loops from proximal side, twist thumbs away, down, towards you and up carrying with them ulnar little finger strings and release little fingers.
5. Pass ring and little fingers proximal to index loops and hook down ulnar thumb strings then insert thumbs from proximal side into index loops; there are now two proximal and two distal radial thumb strings with a single radial string between them; insert middle fingers, from proximal side, into index loops, pass them distal to distal radial thumb strings and Navaho thumbs with double proximal strings.
6. Insert thumbs, from distal side, into index loops and transfer these loops to thumbs.
7. Fakafiti i roti and release thumbs.



Fig 39a

Loose strings on top are called ARA IRI TE MARAMA - path to light,
those in centre of figure ARA IRI TE POPOURI

"ARA IRI TE POPOURI E
ARA IRI TE MARAMA"

Continuation:- PAPAKA

8. With backs of thumbs in lower half of figure pick up ulnar index strings which run to base of figure, release little fingers, then turning palms away from you pick up with little fingers diagonal strings lying close behind them, (Continuation of one of the loose top strings).
9. Release indices and extend hands fully.
10. Asu, fakafiti i roti. Proceed to MANINI as in RAU A KERA.



Fig 39b

40 RAU A KERA

1. Opening A.
2. Pass thumbs proximal to index loops, insert into little finger loops from proximal side, twist thumbs away, down, towards you and up, carrying with them ulnar little finger strings, and release little fingers.
3. Pass middle, ring and little fingers proximal to index loops and hold down ulnar thumb strings; insert thumbs, from proximal side, into index loops and Navaho thumbs.
4. Insert thumbs, from distal side, into index loops and transfer these loops to thumbs.
5. Fakafiti i roti and release thumbs.



FIG. 40 a

Continuation PAPAKA

6. With backs of thumbs inserted through end diamonds pick up ulnar index index strings which run diagonally to base of figure, release little fingers then turning hands away from you pick up with little fingers strings lying close behind them (outer lower strings of end diamonds)
7. Release indices.
8. Asu, fakafiti i roti.



FIG 40 b

Continuation: MANINI

9. Release thumbs; ~~and~~ then pass them proximal to index and little finger loops, return with both little finger strings and insert into index loops from proximal side; twist thumbs away, down, towards you and up carrying with them ulnar index strings; release indices.

10. Asu, fakafiti i roti.

This termed MANINI still though now four central diamonds.

~~10. Repeat 7 and 8.~~

MANINI always has four diamonds or more?



FIG 40 c

Process is repeated until there are 8 or 10 diamonds.

SARA release indices and pull out.

1. Opening A.
2. Tao sogotasi, ta e rua, kape ake and release little fingers.
3. Furifuri ifo.
4. Release indices.
5. Fakafiti i tua, asu, fakafiti i roti.

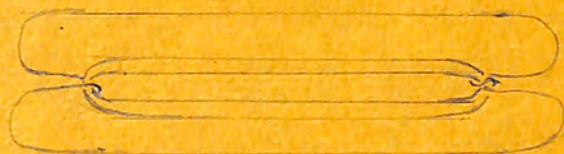


Fig 41a

36. Continuation: MOMONA.

6. Release indices, then insert them towards you between double strings in centre of figure and release thumbs and little fingers.
7. Transfer index loops to thumbs.
8. Arrange strings so that radial thumb strings are crossed then insert little fingers, from proximal side, into proximal thumb loops and return with proximal ulnar thumb strings.
9. Fakafiti i roti and release thumbs.
10. Pass thumbs proximal to index and little finger loops, return with both little finger strings and insert into index loops from proximal side; rotate thumbs away, down, towards you and up and release indices.

11. Insert thumbs, from proximal side, into little finger loops and return with radial little finger strings.
12. Fakafiti i roti.



Fig 4b

Movement 10, may be repeated as many times as desired.

1. With feet about 6 inches apart put one end of loop over two big toes; hold other end in right hand and pull taut. With left hand grasp string between toes and pull up beside right hand. (Remove loop from left toe, turn over and replace so that strings do not cross.) *Instruction in bracket inserted by me.*
2. Lay strings on lap; pick up central crossed strings near to you, one in each hand, and cross again; then carry them outside side strings and with palms facing down pick up side strings with backs of thumbs and pull taut.
3. Repeat movement 2 about 6 times.
4. To extend, insert right hand little finger, from proximal side, into right hand loop and thumb into left hand loop. Insert left little finger, from proximal side, into right toe loop and thumb into left toe loop.
5. Fakafiti i tua, asu, fakafiti i roti.



FIG 42

425 my reconstruction

43. UNUFE E RUA.

1. Hold string between thumbs and indices, hands being about 6 inches apart; make a small loop by bringing right hand to left and away from you and hold double string in mouth; insert hands away from you into large hanging loop and extend hands, then put ulnar wrist string in mouth proximal to small mouth loop; insert little fingers, from proximal side into small mouth loop and release strings from mouth.
2. Bend thumbs down towards you then away from you proximal to radial wrist strings and distal to ulnar wrist strings, bend thumbs down, towards you and up bringing with them ulnar wrist strings.
3. Remove loops from wrists and drop.
4. Fakafiti i rotD, asu, fakafiti i rotD



FIG. 43

Continuation:- Three, Five, Seven or more unufe.

5. *Push loops towards center of figure and release indices.*
 Release indices.

46. Continued.

6. Pass right hand away from you proximal to all strings of left hand, grasp ulnar little finger string, bring it back proximal to all strings, then away from you distal to all strings and drop over little finger; Navaho little finger. Repeat with other hand.
7. Remove from thumbs the loops whose ulnar strings cross radial little finger strings.
8. With opposite hand remove thumb loop by grasping radial strings, turn over and replace on thumb so that original radial thumb string becomes the ulnar string.
9. Fakafiti i tua, asu, fakafiti i roti.

As the strings appear to be twisted when in fact they are not, the figure needs arranging or alternatively, pull radial thumb strings two or three inches towards you before extending figure, thus shortening ulnar thumb strings which form top of figure and allowing more string for the design.

1. Position 1.
2. With ~~left~~ hands about six inches apart pass right hand to ulnar side of left hand, insert into loop from proximal side and return to position. Pass left hand to ulnar side of right hand, insert into distal loop from proximal side and draw hands apart.
3. With right index finger take up, from proximal side, left palmar string and return; insert left index finger, from distal side, through right index loop, pick up from proximal side right palmar string and return.
4. Transfer index loops to wrists.
5. Insert indices, from distal side, into little finger loops, hook up radial little finger strings and, with fingers still pointing downwards, insert them from distal side into thumb loops; pick up on their backs ulnar thumb strings.
6. Release thumbs.
7. Transfer index loops to thumbs.
8. Transfer wrist loops to Position 1, on thumbs and little fingers.
9. Repeat 5.
10. Release little fingers.
11. Insert little fingers, from distal side, into index loops and transfer index loops to little fingers.
12. A loop will now be seen depending from each palmar string; insert indices, from distal side, into these loops and hook up the strings which run diagonally across figure to opposite thumb; still keeping indices pointing downwards, insert them from distal side between the two ulnar thumb strings so that

11. Continued.

they hook up those ulnar thumb strings which are already held on the index finger of opposite hand.

13. Holding figure loosely, gently release thumbs then take up on their backs hanging string close to indices. Spread fingers wide and a three sided figure appears; the double index strings represent the ridge pole of the canoe shed.



FIG. 45

See my book p. 135
but draw single lines

46 FONU

1. Two players with a string each make Opening A;
Player 1 has ^ashorter string than Player 2.
2. Facing each other Player 1 inserts his whole hand, from distal side, into index loops of Player 2 and returns with these loops on his wrists; Player 2 does the same.
3. Player 1 removes his hands from all loops, gathers up the strings hanging from Player 2's hands and wraps them round and round strings between latter's hands, with a clockwise movement of right hand.
4. Player 1 holds the remainder of string between his two hands and rubs them calling--

"Milimili ta zalizati"

tata tou isu"

and touches Player 2's nose.

He rubs strings again and calls again towards nose of someone else near and so on - a good joke.

5. Player 1 takes loops from Player 2's left hand, lifting thumb loops in right hand and little finger loops in left hand; Player 2 releases his left hand from 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 former little finger loop.
Players draw hands apart.
6. Both players saw alternate hands and sing -

"Fonu E
Fonu tenei
Te uru o
Te fonu tenei"

24. FONU (cont.)

Notes here in Tikopian

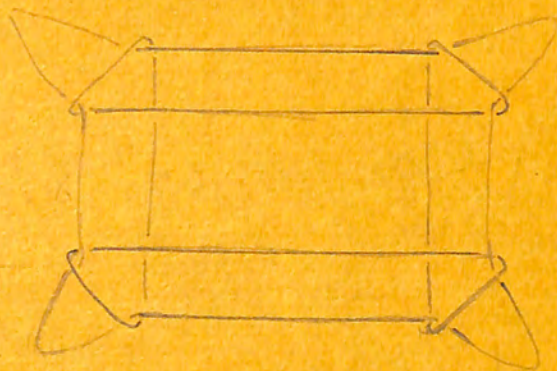


FIG 46

7. Allow figure to go slack & then shake towards centre.
8. Player 2 picks up string nearest to Player 1 and pulls to release -



FIG 45 R

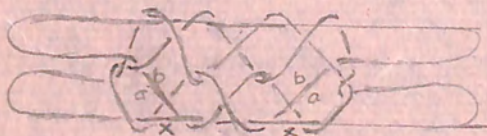


FIG 45 Q

ab = little fingers away from player
x = thumbs towards player

22. Second player



FIG. 45d.

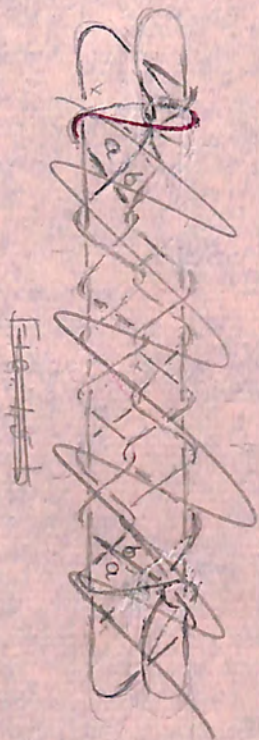


FIG. 45e.



FIG. 45e.

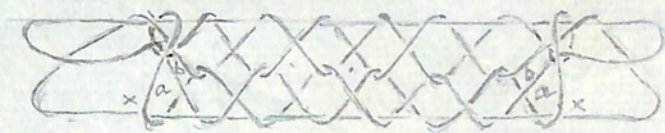


FIG 45 C

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. Pass thumbs, from distal side, through proximal index loops, insert into little finger loops from proximal side, and return with radial little finger strings, and release little fingers.
5. With little fingers hook down distal ulnar index strings then pass them proximal to proximal index loops, insert into thumb loops from proximal side, return with ulnar thumb strings and release thumbs.
6. Pass thumbs, from distal side, through proximal index loops, hook back proximal and distal ulnar index strings and return proximal to distal radial index strings.
7. Navaho thumbs and release indices from distal loops.
8. Pass thumbs distal to index loops, insert into little finger loops from proximal side and return with radial little finger strings.
9. Fakafiti i roti.



Fig 17a

8. Continued.

10. Take ulnar string of right index in mouth, ~~and~~ release index then insert into mouth loop from proximal side and release string from mouth. Repeat with left hand.
11. Release thumbs.
12. Pass thumbs, from distal side, through proximal index loops, insert into little finger loops from proximal side, return with radial little finger strings and release little fingers.
13. With little fingers hook down distal ulnar index strings then pass them proximal to proximal index loops, insert into thumb loops from proximal side, ~~and~~ return with ulnar thumb strings and release thumbs.
14. Pass thumbs, f from distal side, through proximal index loops, hook back proximal and distal ulnar index strings and return proximal to distal radial index strings.
15. Navaho thumbs and release indices from distal loops.
16. Pass thumbs, from distal side, through index loops, insert into little finger loops from proximal side and return with radial little finger strings.
17. Fakafiti i roti.



FIG 470

If a very long string is used movements 10, to 17, may be repeated a number of times until there are many diamonds.

1. Hold string between thumbs and indices, hands being about six inches apart; make a small loop by bringing right hand to left and away from you; hold double string in mouth. With hands between hanging strings and your body, pick up middle of long hanging loop and put in mouth above strings already there.
2. Right and left hands have each a long loop; insert little fingers from proximal side, into mouth loop and release strings from mouth.
3. Transfer wrist loops to thumbs.
4. Insert thumbs, from proximal side, into thumb loops and return with radial little finger strings.

5. Fakafiti i rotu.

Continuation:

MOA

Space for illustration

6. First player lowers hands to hold figure horizontal.
7. Second player inserts little fingers from above, into triangles a,a, near first player's indices and brings them through diamonds b,b; He then inserts thumbs into diamonds b,b, and brings them up in triangles c,c. First player releases his hands.
8. Asu and fakafiti irotu.



FIG 48a



FIG 48b

Continuation:

KOLAO

9. Second player keeps hands in upright position.

18.

10. First player inserts little fingers at a,a, and holds radial thumb strings and ulnar index strings between little and ring fingers; he then inserts thumbs at a,a, and hooks back outer arms of central W.

Second player releases hands.

11. Fakafiti i roti.



Fig 48c

Continuation: KAI PO TUSI

12. First player holds figure horizontal.

13. Second player inserts four fingers of each hand, from below, at a,a, and thumbs at b,b. First player releases hands.

14. Fakafiti i roti.

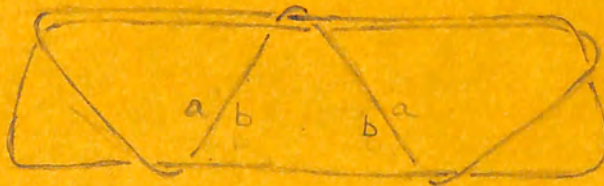


Fig 48d

Continuation: NO NAME?

15. Second player keeps hands in upright position.
 16. First player inserts little fingers at a,a, and brings them out at b,b, hooks up the diagonal strings and then inserts thumbs at b,b, and picks up base of figure (i.e. second player's ulnar little finger strings).
 Second player releases hands.
 17. Asu, ~~and~~ fakafiti i roti.



FIG 48e

Continuation: MARAMA

18. First player holds figure horizontal.
 19. Second player inserts little fingers, from above, at a,a, and brings them up at b,b; he then inserts thumbs at b,b, and brings them up at c,c.
 First player releases hands.
 20. Asu, ~~and~~ fakafiti i roti.



FIG 48f

Continuation:

TARO

21. Second player keeps hands in upright position.
22. First player inserts little fingers at a,a, and holds radial thumb strings and ulnar index strings between little and ring fingers; he then inserts thumbs at a,a, and hooks back arms of central V.
- Second player releases hands.
23. Fakafiti i roti.



FIG 48 g

Continuation:

MANINI

24. First player keeps hands upright.
25. Second player inserts little fingers towards himself at a,a, each little finger hooks up the two strings of hanging loops then brings them up above upper horizontal string (i.e. ulnar index string) hooks up that string towards himself allowing double strings to slip off. He then inserts thumbs away from himself at b,b, and hooks up lower horizontal string.
- First player releases hands.
26. Asu, fakafiti i roti.

34B. ?

49 MANINI FROM MARAMA.

1. Navaho opening.
2. Insert middle, ring and little fingers, from proximal side into index loops; close fingers over radial dorsal strings and let ulnar dorsal strings slip onto thumbs, but do not release string from crook of middle, ring and little fingers.
3. Caroline Extension.



MARAMA

Fig 49a

4. Lay figure down, fingers pointing downwards, and release hands.
5. Insert little fingers at a, a, pick up crossed strings and top string of figure, at the same time pick up with thumb strings forming arms of central "V" and extend.
6. Fakafiti i roti.



TARO

Fig 49b

Second player takes figure as in MANINI.

6.

670 TOFA I A MARAMA.

1. Navaho Opening.
2. Insert middle, ring and little fingers, from proximal side, into index loops; close fingers over radial dorsal strings and let ulnar dorsal strings slip onto thumbs, but do not release string from crook of middle, ring and little fingers.
3. Fakafiti i roti. This makes KO MARAMA



Fig. 50a

4. Release thumbs, then pass them proximal to index loops, distal to little finger, middle and ring finger loops (in this case underneath) and return to position with ulnar little finger strings; release middle, ring and little fingers.
5. Repeat 2.
6. Fakafiti i roti; turn palms away from you, then bring right hand down, towards you and up, and bring the left hand up towards the right, and then down and away from you.
This makes TOFA.

6. continued.(TOFA I A MARAMA)



FIG 50 b

7. The figure now consists of ^{three} interior diamonds and eight exterior triangles, the latter based upon the two strings running from hand to hand. A second player, with palms facing each other, inserts little fingers from above into the two triangles close to your left hand, at a, a; into the next pair, at b, b, he inserts his thumbs, also from distal side; he pushes his thumbs onwards, under the intermediate central diamond and brings them up into the third pair of triangles away from him, at c, c; his little fingers he brings up through the triangles nearest your left hand, at d, d.
8. First player releases his hands, second player extends figure.
9. First player inserts hand into central diamond and enlarges it, then withdraws hand.
10. Second player presents back of right hand to partner who inserts one thumb, from proximal side, into second player's right little finger loop and the other thumb into his thumb loop; second player releases right hand then takes left thumb loop on right thumb and left little finger loop on left thumb.

11. Insert all fingers into loops beside thumbs, then with middle or index fingers pull down double strings of central diamond and release all other fingers; replace thumbs in loops and repeat process.

Plays chant - or count?



Fig 50c

12. Lay figure down carefully and note that it consists of an upper and lower figure. Carefully lift top layer at first player's right hand and second player's left hand and spread out figure to make ^{TOFA?} MARAMA once more.

There are no details of how this is picked up ready for fakapili or Sike again. Shall I do it as in Gabel's?

Two players sit opposite one another with hands facing.

1. Position 1 on left hand of Player A; loop on right hand little finger of Player B.
 2. Player B inserts right thumb, from distal side, behind palmar string of Player A, ^{turns it up towards himself} and returns to position.
 3. ^{Both players insert thumbs, from proximal side, into little finger} Asu, both players and ~~fakafiti i roti~~, ^{loops & return with radial little finger string.}
- A. Fakafiti i eoto.



Fig 51a

- 5 4. Player A, now works with right hand, Player B, with left hand; ~~A~~ Pass little finger through figure distal to double radial thumb strings, and pick up ulnar little finger string from proximal side; then turning palm of hand to face partner pass thumb, proximal to ulnar index string and release hand originally holding figure.
- 6+7. Asu, fakafiti i roti.



FIG 51b

6. Keeping figure extended Player A_f makes^a clockwise, Player B_f an anticlockwise sweep through half a circle, thus turning figure over; it is now termed Ta tua.

7. Both players, with free hand, insert thumb and little finger, from above, into triangles close to hand holding figure, thumb into figure near thumb, little fingers ~~near~~ near index; ~~Push~~ hand, thumb and little finger ~~pointing~~ pointing down towards partner, scooping up all intermediate strings until hands meet in centre, clasp hands, fingers interlacing and withdraw other hand.

8. Player B_f with left hand picks up on back of Player A_f's left hand ~~the~~ the strings between Player A_f's index and thumb and his

~~and his~~ little finger and ring finger by turning half right and putting his hand on top of Player A's hand pointing in the same direction; ~~Player B~~ inserts little finger and thumb between the above¹mentioned strings and picks up thumb string with thumb and little finger string with little finger.

9. Player A releases hand; ^P~~Player B~~ performs asu^P and fakafiti i roti.

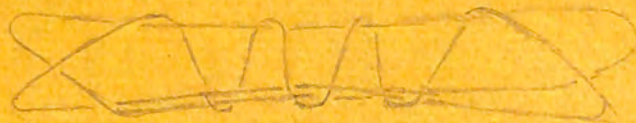


FIG 51c

10. Player A, with indices and thumbs, ^{presses}~~passes~~ strings of figure together, hands about ^{six}~~6~~ inches apart; this causes two little loops to stand up in centre of figure; Player B releases thumbs and indices, inserts thumbs towards one another into loops and extends hands.

11. Each palmar string now has a loop depending from it; with opposite hand grasp distal string of this loop, release thumb and insert away from you into loop held by opposite hand.

12. Asu, fakafiti i roti.

13. To reveal figure, turn each hand clockwise for quarter of a circle, then bring right hand palm down towards you and lower left hand, palm down, until figure is displayed on horizontal plane.



FIG. 51 d

This is the same figure as TORA I AMARABMA
 No. 6. & this is the way it is done in the Gilberts,
 with slight variation at the beginning - also in the Solomons.
 Do they slip as above in Tikopia?

FINGER AND THUMB FIGURE.

Cannot do it.

Song chanted when strings are tangled.

"Matara matara feaki

Ko pu te karupe

Ka oko mai

Ma te tokotoko

Ma te fakanifo

Nai serea serea

Ko tou ate serea"

These are notes here.

52. FETAKA

1. Insert thumbs into doubled loops.
2. Pass little fingers proximal to thumb loops and return with both thumb strings.
3. With right index pick up, from proximal side, four left hand palmar strings and return; with left index, pick up, from proximal side and between ulnar and radial strings of right index, four right hand palmar strings.
4. Insert thumbs, from proximal side, into index loops and Navaho thumbs.
5. Release indices and pull strings taut until knot in centre is drawn tight.
6. Release left hand then take right ulnar little finger string in left hand and release right hand.
7. Hold figure up^{and} while tapping on knot with right index
"Count many children"

" Ta ta foi fetaka" -

"Ta ta foi fetaka" -

tapping on knot for each repetition. Lastly,

"Fakaoti bi a"

and strike the knot hard enough to break it.

Metaphor from striking.....nuts to open them.



FIG. 52

5.

53 KUME

1. Position 1 on left hand. (Best made with string doubled.)
2. Insert right hand, from proximal side, into hanging loop, grasp left palmar string and pull out to full extent and drop.
3. Repeat 2.
4. Insert right hand, from proximal side, into hanging loop, then insert middle finger, from distal side, into left little finger loop and hook up ulnar little finger string, then insert loop and from proximal and radial side into left thumb loop, pull out to full extent releasing right hand from wrist loop.
5. Insert all fingers of right hand into loop beside right middle finger.

Chart -

6. By pulling on little finger side of double loop and slacking thumb side the loop opens out.



5. continued. (KUME)

7. By pulling on thumb side and slacking little finger side
the knot tightens.

chant -

54 KAI POLOKI

1. Position 1 with left hand only.
2. Insert right forefinger, from distal side, behind left palmar string and pull out to full extent and drop.
3. Insert right forefinger, from distal side, behind left palmar string, ~~and~~ between ulnar thumb and radial little finger strings, pull out to full extent and drop, then insert right thumb and little finger into hanging loop from proximal side, (i.e. in Position 1).
4. Insert right index, from proximal side, behind left palmar string and return to right with palmar string.
5. Insert left thumb, from proximal side, into little finger loop and return with radial little finger string; pass right thumb distal to radial index string, proximal to ulnar index string and return with ulnar string.
6. Fakafiti and Navaho thumbs.
7. Release little fingers.
8. Spread thumbs and indices wide apart and turn hands palms away from you



Fig. 54

Second Player inserts hand through centre diamond.

First player sings:- "Kai polo ki
 Kou polo ka
 Koki koka"

not taraja paruki? See your note book

As he calls Koka he releases his left hand and pulls figure to right which frees second player.

TIKOPIA

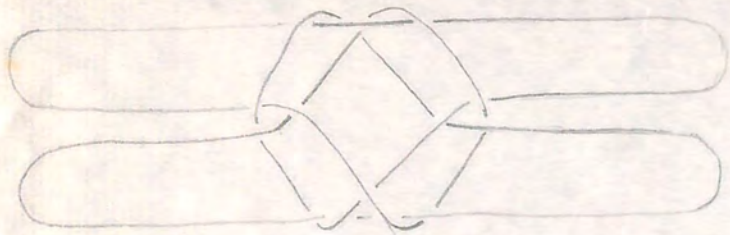


Fig. 2



Fig. 27

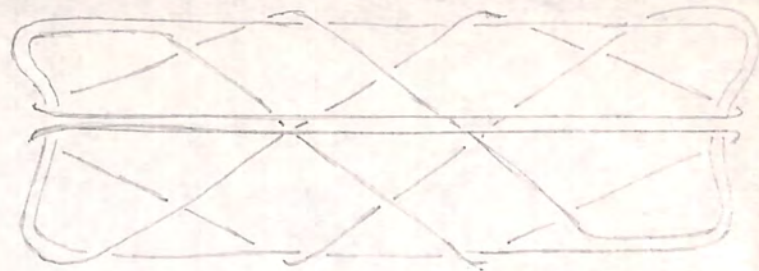


Fig. 31

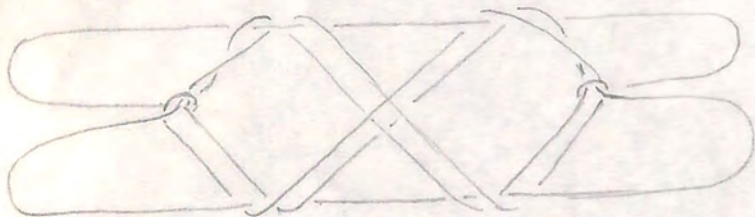


Fig. 4

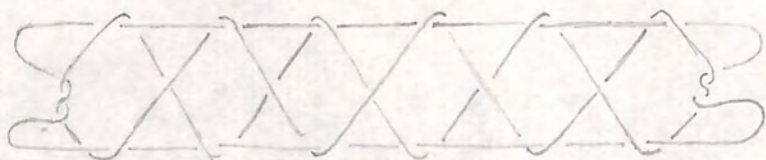


Fig. 24

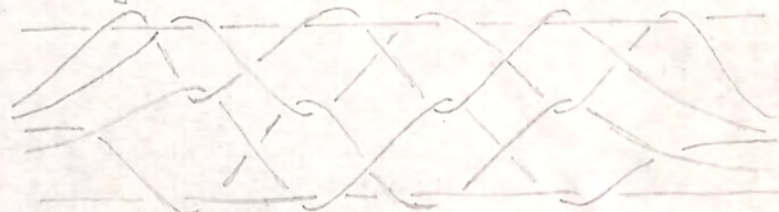


Fig. 47a

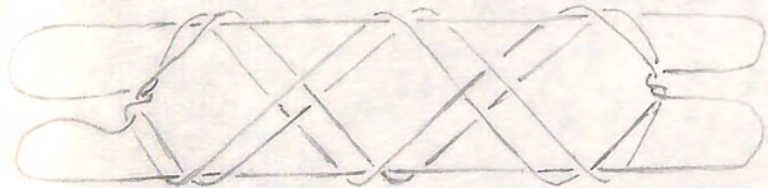


Fig. 5b

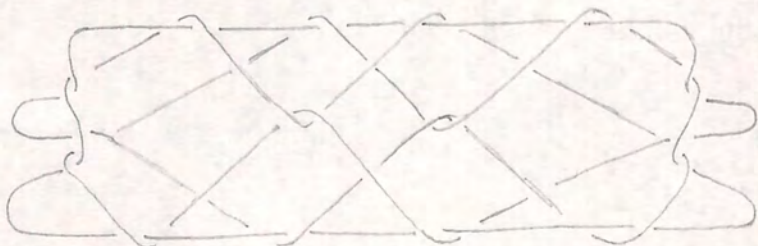


Fig. 30

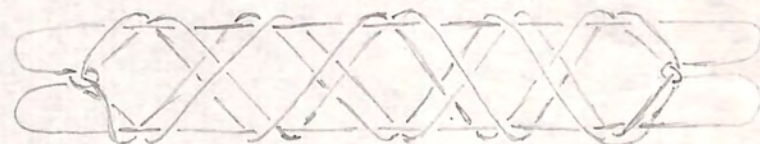


Fig. 10

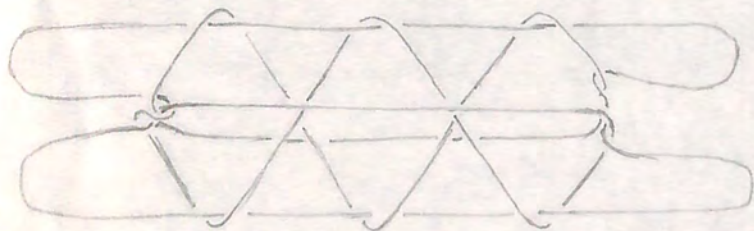


Fig. 7

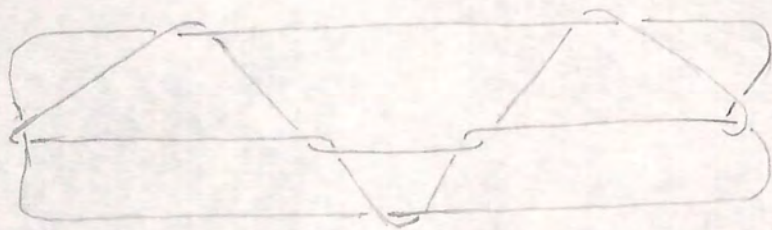


Fig. 32b

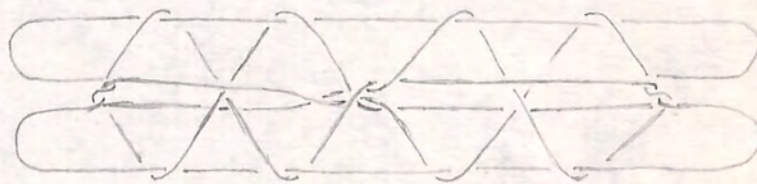


Fig. 18



Fig. 26

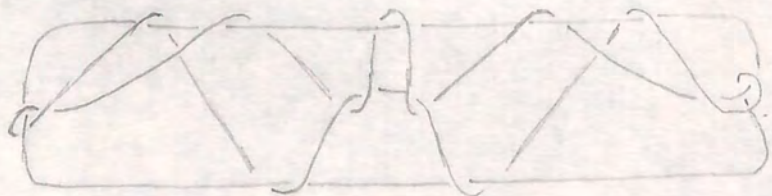


Fig. 32c

