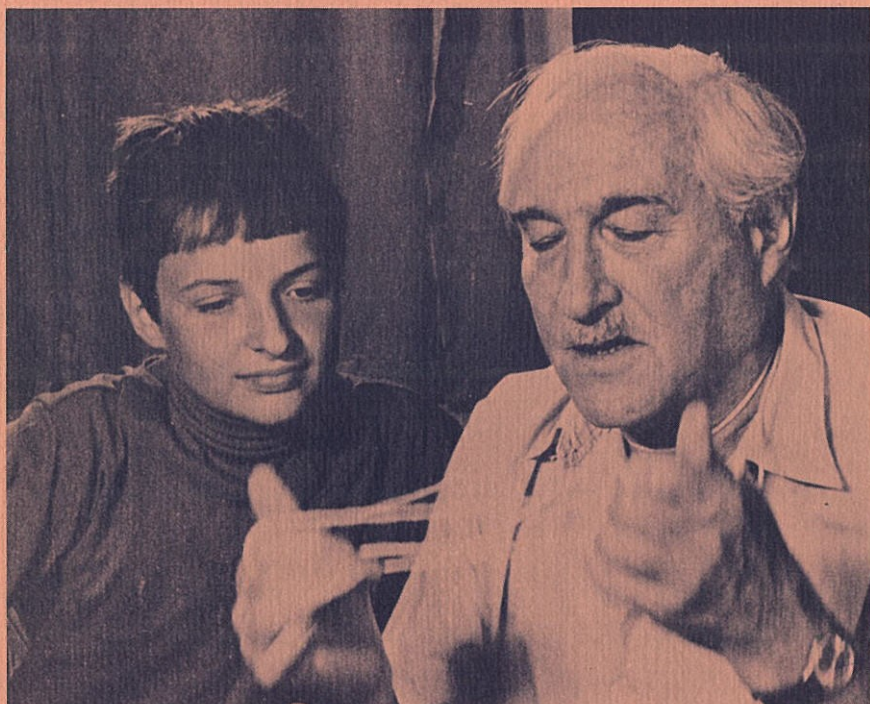


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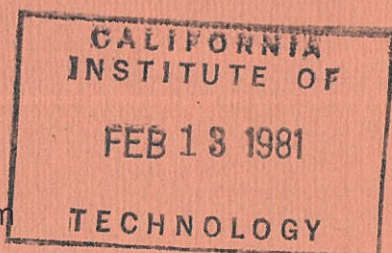
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Reproduction of
"Some String Figures from
North East Angola"



M.D. and L.S.B. Leakey

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"Some String Figures from
North East Angola"

M.D. and L.S.B. Leakey

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Cover Illustration: Louis Leakey explaining how to make string figures to a grandson.
Photograph courtesy of the L.S.B. Leakey Foundation.



PREFACE

The String Figures of Angola was one small but delicious fruit of the Leakeys' 1947 visit to the then Portuguese territory. The original publication had a limited readership: few people read English in Portugal or Angola, and Portuguese publications have a limited circulation in English-speaking countries.

Thus this entrancing piece of scholarship is probably the least known of the numerous Leakey publications and one of the hardest to obtain. When it does turn up in a rare bookshop a price of over fifty dollars is justified.

Mary Leakey's pleasure in having the study made available to a new and wider audience is evident in the following letter:

OLDUVAI GORGE

P.O. Box 30239
Nairobi, Kenya
Tel: Nairobi 22648

P. O. Box 7
Ngorongoro, Tanzania
Radio Call 3681

Oct. 21st 1980

Dear Ned,

I would be delighted for you to reprint the paper book and I wrote on the Angolan string figures. It was a most enjoyable exercise, learning them, drawing them and making the diagrams. So, please go ahead.

Although I am in Nairobi, your letter has only reached me today!

Looking forward to seeing you next year,

Yours sincerely,

Mary,

(M.D. Leakey)



Louis Leakey and his grandchildren, Andrew and Allison
Photography courtesy Dave Siddon

A NOTE ON THE AUTHORS

Dr. Mary Leakey is a scientist's scientist, devoted to her field work, eschewing personal publicity, and possessing an indefatigable drive for understanding early man. If archaeological genius is nine-tenths patience, Mary Leakey is a true genius.

In the years since the Angolan study, her own career has gone on to greater and greater heights. Her discovery of the world's oldest hominoid footprints at Laetoli, Tanzania, in 1978, dating from about 3.6 million years, followed on her seminal discoveries at nearby Olduvai Gorge.

Mary Leakey's artistic skill in drawing the Angolan string figures comes to her naturally. Mary's father was the well-known British landscape painter, Erskine E. Nicol. Much of her early childhood was spent in southern France where the abundance of early cave paintings fueled her interest in prehistory.

After she married her teacher, Louis S.B. Leakey in 1936, Mary Leakey devoted herself to African prehistory, as well as to bringing up a distinguished family. To me she has always been a person for great admiration. I like her laconic nature; her shrewd, if sometimes biting, observations on the foibles of mankind; her absolute lack of pretense; and her ability to sit back, light up a cigar, pour drinks and swap stories with old friends. When I think of Mary Leakey, picaresque images spring up like Tommy gazelles from the tall grass. When Mary heard that a reporter and cameraman from Playboy Magazine were coming to interview her, local friends report she took to the hills with a small tent until the intruders had departed.

Although she often stood in the shadows as the silent but hard-working partner of her husband in the early years, Mary Leakey has been increasingly recognized as an eminent scientist.

In 1955 the Henry Stopes Medal of the British Geological Association was awarded jointly to Mary and Louis Leakey, the first time it had been awarded for work done outside of Great Britain.

One of her first individual honors was a doctorate awarded by the University of the Witwatersrand in 1968. The university's preience was due largely to Dr. Phillip Tobias, now Dean of the Medical School, who had been selected at an early age to do anatomical work for the Leakeys and had become a dear friend.

More recently, in 1978, Mary Leakey was awarded the Linnaeus Medal of 1760 by the Royal Swedish Academy of Sciences for her "outstanding contribution to science."

Louis Leakey (1903-1972), co-author and co-worker, was born in Kenya, grew up among the Kikuyu he has written about so extensively, and became a great lion of a man with a white mane to match. Louis was a man of divers enthusiasms, a meandering mien, and a capacity to inspire great loyalty. His radiant charisma not only sparked constructive controversy among academics, but served him in great stead when it came to fundraising in Europe and particularly in America.

Louis Leakey's first European tutor in string figures was the Cambridge Reader in archaeology, Dr. A. C. Haddon, who had written on them. As will be noted below, Haddon asserted that there were no string figures in Africa. On the Angolan trip, Louis delighted in finding a particularly complicated one known as the "fowl's anus."

The L.S.B. Leakey Foundation for the Study of Man's Origins, Behavior and Survival was named in honor of Louis Leakey and has grown into a major American foundation source of funds for "stones and bones" and for primatological research.

Louis Leakey, who loved to marinate himself in life's juices, had both a penchant and a talent for mentoring promising young people. This led to the successful careers of three pioneering women who are working on the Great Apes: Jane Goodall on chimpanzees in Tanzania, Dian Fossey on gorillas in the Ruwenzori Range of Rwanda, and Birute Galdikas on the orangutan in Kalimantan, Indonesia.

Louis Leakey was always fascinated by and fascinating to young people. His wide repertoire of string figures was a never-ending source of delight and education to children on three continents. The National Geographic Society film of Louis Leakey's life, premiered on the Public Broadcasting System on January 9, 1978, included a sequence provided by the Leakey Foundation that showed him teaching his grandchildren how to make string figures. I have edited his remarks on that occasion and on his autobiography, where he refers to Angola, to form a coherent account.

We take great pride in reproducing this almost lost study of the Leakeys and have gone to extra expense to make sure that the drawings of the string figures are well reproduced. We appreciate the permission by Mary Leakey, the interest of Priscilla Leakey Davies, the efforts of Joan Travis and Mary Pechanec, and the production skills of Paula Hill in republishing this study.

Ned Munger

STRING FIGURES: SOME PERSONAL REMINISCENCES

L.S.B. Leakey

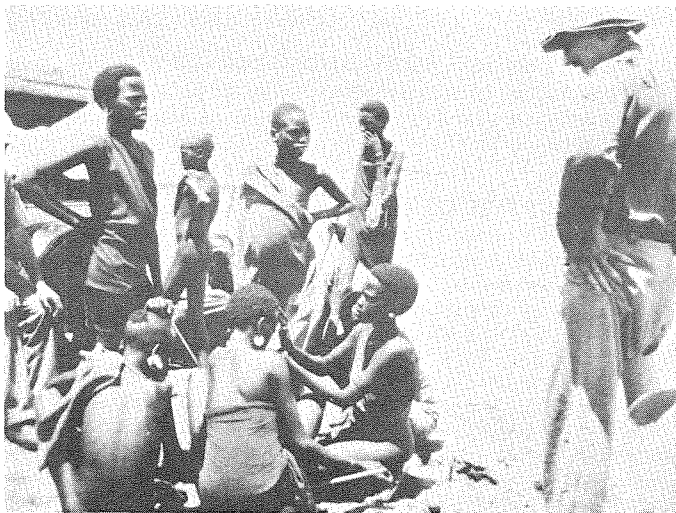
Years ago, towards the end of the last century, anthropologists and travelers in Melanesia, Australia, and the Far East had recorded a large number of string figures. One of my professors at Cambridge, Dr. A. C. Haddon, was foremost among the recorders, and he devised a special nomenclature for the task. Studies in the United States followed, and in 1906 Jayne published a monumental book on all of the then known string figures of the world. In the preface he wrote for this book, Dr. Haddon noted: "So far no string figures from Africa have been recorded, but recently my friend Cunningham has written to me that he has found some at the south end of Lake Tanganyika."

Today, probably more string figures are known from the African continent than from any other. One of the strange things, however, is that a few tribes, like my own, the Kikuyu, do string tricks rather than figures. Some of these, which I learned as a child, I discovered were being performed on the stage in England in the early 1920s by British conjurers.

Another interesting fact about string figures is that although there are a few in Great Britain and Ireland that are almost certainly indigenous, the best known, such as "the cat's cradle," originated in China and Korea and were most probably brought to Europe long ago by those who sailed the China seas. From Great Britain they were taken by the Pilgrim Fathers to America; in the United States today these are commonly referred to as "English string figures," to differentiate them from the native Indian ones.

I've found string figures exceedingly useful in Africa. They may have saved my life in 1929. I had been invited to a conference in Johannesburg. It was a long journey by lorry and car and we got stuck in what is now Zambia with a broken axle. People kept moving up and down the road and I kept addressing them in Swahili, "Jambo . . . havari?" But nobody understood a word.

Finally, a well dressed young man came along and I said, "Good Morning. Can you help me, please?" He didn't understand a word I was saying. Then I remembered what my Cambridge mentor, Dr. Haddon, had said and I took out a string and made a figure. A big crowd was standing around and they smiled at the figure. So I did another one -- a string figure which in the Congo is a password for a secret society. If you can do that in the Congo no one will ever murder or hurt you. You will immediately be persona grata and people will help you.



Leakey Observing String Figures on a Safari

The people in Zambia smiled at the figure and quite suddenly a shriveled old woman of about 70 put her finger into her waist belt, pulled out a bit of string, and began doing a string figure. I moved up close to her and when she did a figure very, very quickly, I made signs for her to repeat it. I started to follow her. She hadn't started the ordinary way and used an opening I had never seen in Africa before. She went so fast I couldn't get it. Finally, she took notice of my distress and did it a third time slowly. After about five attempts on my part, I was able to reproduce a figure I had never seen before. When I finally got it just right with a flourish the crowd around me went, "Aaaaaaaah."

Then the young man who had pretended not to hear a word I had said in English spoke up:

"Oh Sir, I think you were wanting some help."

I thought to myself that he damn well knew I wanted help -- some kind of transport to go for a spare wheel and axle. He went on:

"I think the chief has a lorry, I will go and see."

So off he went and by that time the whole crowd had come around and was doing string figures as hard as we could go. The chief came back with his lorry and said:

"If you want the lorry you can take the lorry, sir, to go and get a spare axle."

I thanked him and told my traveling companions, "You stay here and I'll be back as quick as I can with the spare parts. Meanwhile you can make a camp."

I would have hesitated to leave the women in a place where they couldn't speak a word of the local languages, but once they had string figures, they had friends. When I got back they'd been given eggs, chickens, and other food. Every possible help had been given to them. They had been accepted as fellow Africans and friends and not as beastly white people. The difference was string figures.

A strange thing happened when we went to Angola in 1947. Mary and I had dinner with Dr. J. Redinha, who had studied the tribes there for thirty years and had published books on seven of them. I told him that although string figures are common in East Africa, my own tribe, the Kikuyu, had only a small repertoire of them and asked him:

"What string figures do your people do here?"

He replied: "My people do not do string figures. There are no string figures in Angola."

I was astonished with Redinha's reply. To me, this was almost beyond belief. The biggest ethnic groups north of Angola and in Northern Rhodesia, to the east, all had particularly large repertoires of string figures and tricks. Since there were so many cultural resemblances in other respects between these groups and those of northeast Angola, I found it hard to believe that no Angolan tribe practiced this art. However, I did not wish to argue with my host, since he seemed so sure of his facts.

But after dinner when we had retired to his sitting room, I pulled out a string from my pocket. I almost always carry a suitable piece of string wherever I go in Africa. As I sat on the sofa waiting for the coffee and liqueurs to be brought in, I proceeded to demonstrate some of our East African string figures. I was in the middle of a very complicated figure known as "the bed," which is very common in Africa and is known in the United States as "the tent flap," when a servant came through the door carrying a tray loaded with coffee cups, a silver coffeepot,

brandy glasses, brandy, and cigars. When he saw me his face turned to utter consternation. A white man doing string figures! He virtually dropped the tray on the table and fled as though in fear of his life.

My host was, naturally, shocked by this display of uncontrolled behavior in one of his highly trained house servants. Redinha was about to rush after the man when I stopped him to explain that I was sure the poor servant had suffered a terrible shock and had better be left alone. He had just seen a foreigner engaged in doing something he probably regarded as sacred and known only to his own people. I also sensed that there was a strong taboo against performing in front of strangers. But I couldn't resist asking my host,

"Are you sure that people here don't know string figures?"

"Yes," Redinha replied, "I'm quite sure. I've been here thirty years now and there are no string figures in Angola."

I said, "Wait. We will see." Then Mary, who is adept at string figures, and I began to show our host and his other guests a large number of string figures from Melanesia, Alaska, Canada, and Australia, as well as from Africa. As I was doing an Eskimo one and then a South Seas one called "kite (the bird) flying," I noticed the door at the far end of the room open very slowly, to admit the head of the African waiter. Next, at the level of his waist, his wife's face appeared, and below her the faces of three children. A few minutes later the door opened wider, and the cook and his family and a whole bevy of servants were watching. I watched them in silence. Then I asked my host,

"You won't mind if they come in?"

He looked distressed. An African invasion of his sitting room! And by menial staff at that! I motioned the staff to come in and began doing more figures, beginning with the bed again. The Africans watched in silence for a while. They were wide-eyed as I showed them more figures, especially from the adjoining territories of the Congo and Northern Rhodesia.

Finally, I tossed my string to one of the men, and Mary gave hers to one of the women. They hesitated a few minutes and then, as one took the lead from the other, we were given a fascinating display of Angolan string figures, many of them absolutely new to us.

I turned to my anthropologist friend, "No string figures in Angola -- Sir?"

Redinha's face was an absolute mask. Neither surprise nor anger showed -- just blank, staring amazement. Finally he relaxed and began to question the members of his staff in their own language.

He was completely at a loss to know how he could have lived in the country for so long without ever having seen the people he was studying making such figures.

The reason he hadn't seen them was that in Angola string figures can only be done at night. One is forbidden to do them in the day time, possibly because they have religious or magical properties. Or it could be because once you start doing them neither you nor your fascinated audience does any work.

Everyone in the traditional society has to work by day but after supper, sitting by a fire, string figures are done. Often they illustrate stories. Western people might take out a writing pad for a drawing or use a photograph to illustrate a story. In societies without them a string figure does the trick. In parts of New Guinea, for example, many houses are built on poles sticking out of the water. To get away from mosquitoes and to give ventilation in the steamy climate, houses are open at both ends. I could illustrate a story about such a house using string figures with my elbows as the stilts.

Mary and I had become used to being referred to as "Dr. Leakey and Mr. Leakey." The reason for this was that Mary was a heavy smoker, wore her field outfit of Khaki slacks most of the time, and had her hair cut relatively short. In Angola, at that time, the wives of the Portuguese in the mines did not smoke -- at least, not in public -- nor were they ever allowed to wear trousers or drive cars. Consequently, Mary's apparel plus her smoking and the fact that she drove a car, cause consternation among many men we met, who were afraid that their wives would be influenced by her behavior. We were, therefore, usually introduced to workman as "Dr. and Mr. Leakey," and most of them probably assumed that Mary was my brother.

After the evening with the string figures, Africans were also consternated by us. The news that there were two visiting white "men" who knew how to do string figures spread rapidly through the district. In many places thereafter we were referred to as "white gods." Again and again, as we sat down under a tree to have a quiet smoke or eat our sandwiches, people would appear suddenly from nowhere and stand around staring at us. At first they would be a little apprehensive, but as they gained confidence they would shyly produced strings that had been tucked into their belts and do some string figures for us, to which we in our turn would respond by doing some for them. In this way Mary and I learned many new string figures.

On our last day in Dundo, the president of the diamond company held a dinner party in our honor. I described how the people all over the area had been showing us string figures. After dinner we were asked to demonstrate some of these, and before long we had about sixteen people, including our host, sitting on the carpet with pieces of string learning some elementary African string figures!

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E ETNOGRAFIA DOS POVOS DA LUNDA



“Some String Figures from North East Angola”

By

M. D. and L. S. B. LEAKEY
NAIROBI-KENYA



LISBOA
1 9 4 9

Some String Figures from North East Angola

During our visit to N. E. Angola on the invitation of the Companhia de Diamantes de Angola, in January-February 1948, to study the Prehistory of the area, we spent a few hours when rain interfered with our work in learning some string figures from natives of the Tuchokwe tribe, with a view to placing them on record.

The figures described in these notes are the result of these investigations and there can be no doubt that if anyone had enough time and interest to devote to the work, a very large number of hitherto unrecorded string figures would come to light in this area.

At same time, many of the figures already known from other parts of Africa would also be found.

One of the most interesting features of our brief study was the fact that in a number of cases the Tuchokwe natives of N. E. Angola have «serial» figures in which the successive stages seem to represent the illustrations of a story. Without any knowledge of the local language and without time for detailed study, we failed to get the stories which accompany these «serial» figures.

For example, the string figure NAKAIJIMU, which starts with a pregnant woman, followed successively by a new moon, a waning moon, a temporary hut in the bush and a hammock, has all the hallmark of being the illustrations of a simple story comparable to the New Guinea «serial» figure of a man who caught a turtle, or the Esquimau «serial figure» of the man who went to catch a salmon.

So far as I know, such «serial» figures are relatively scarce in Africa, which makes those of Angola all the more worth studying and it is to be hoped that this brief report will result in someone else continuing the investigations and making a fuller report.



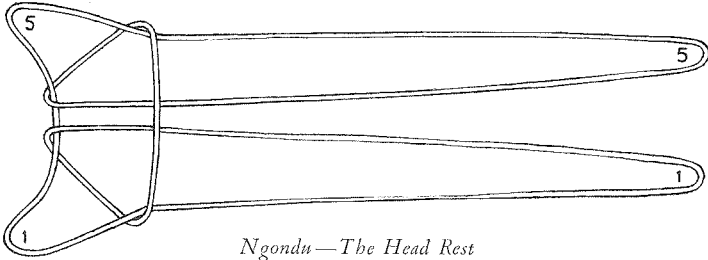
NGONDU *The Head Rest*

Place string on left hand in Position I. With right thumb and index finger pick up the pendant loop and pass it distally behind the palmar string on the left hand and draw out. Pass pendant loop over left hand on to the wrist.

Insert right thumb proximally into left thumb loop and pick up radial string. Then insert right little finger proximally into the left little finger loop and pick up the ulnar string. Extend.

With right thumb and index finger pick up the left wrist string and pass it over the left hand. Extend.

(Note : The finished figure is the same as «The Scissors» from Great Britain, published in *Cat's Cradles from Many Lands*, by Kathleen Haddon).

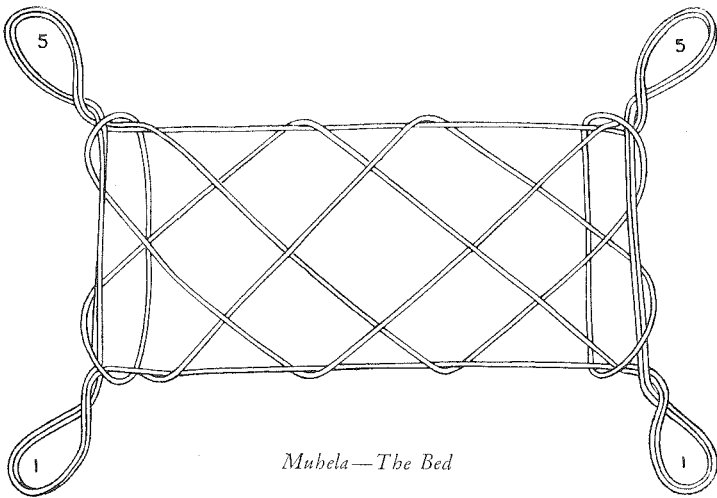


Ngondu—The Head Rest



MUHELA
The Bed

Opening A. Insert middle, ring and little fingers proximally into index loops and let the ulnar index strings slip over on to the backs of the hands. Then insert thumbs proximally into the index loops and let the radial index strings slip over their backs, so that the original index loops become wrist strings.



Mubela—The Bed

Insert thumbs proximally into little finger loops, pick up radial strings and return.

Insert little fingers proximally into the thumb loops, pick up ulnar strings and return.

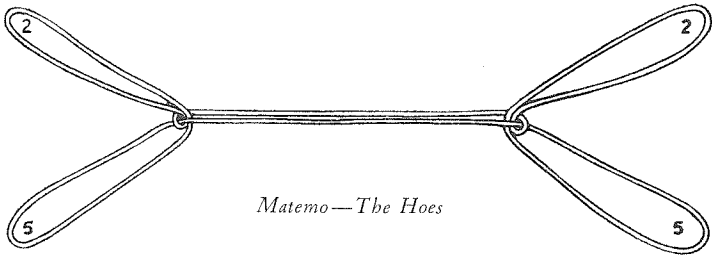
With right thumb and index finger grasp all the strings which cross the centre of the figure and pass them anti-clockwise, from the palmar to the dorsal side, between the left thumb and index finger. Pick up the double loop on the left thumb, withdraw thumb (retaining the wrist loop), and replace the double loop without twisting it and allowing the strings which were between the thumb and index finger to slip off on to the palm. Repeat with opposite hand.

Then bring the wrist loops over the tips of the fingers, clap the hands and extend.

MATEMO
The Hoes

Place the string over both feet, then, keeping feet apart so that string is taut, hook the little fingers over the proximal string. Pass the indices proximal to this string and distal to the far string pulling it towards the body.

Insert the thumbs from the proximal side into the closed loop in the centre of the figure,



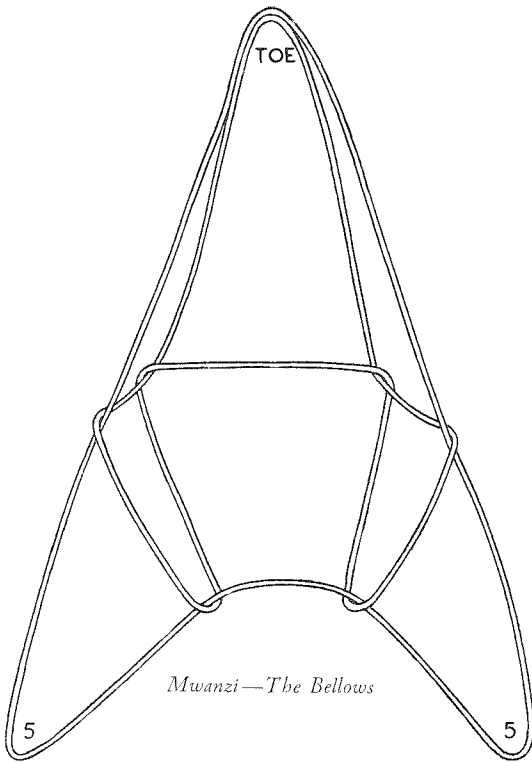
withdraw indices and insert them again from the proximal side. Release thumbs. Hook indices into the foot loops from above and draw out the ulnar string releasing feet. Extend.

(Note: This figure is identical with «The Leashing of Lochiel's Hounds», published in *Cat's Cradles from Many Lands*).

MWANZI
The Bellows

Pass string clockwise round the right big toe. Draw the rest of the string upwards towards the body and insert both hands proximally into the long loop, letting the string fall on to the wrists. Rotate hands outwards and then upwards towards the body so that each wrist is encir-

pled by a loop. Insert the little fingers proximally into the big toe loop and draw out, letting the wrist loops slip over the hands.



Mwanzi—The Bellows

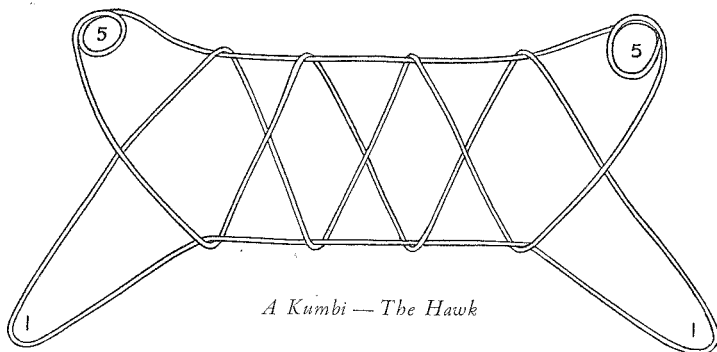
A KUMBI
The Hawk

Pass the string clockwise round the right big toe to form a complete loop round the toe, then draw the rest of the string upwards towards the body and insert both hands proximally into the long loop, letting the string fall on to the wrists. Rotate the hands outwards and then upwards, so that each wrist is encircled by a loop. Then insert little fingers proximally into the big toe loop and draw out, releasing the big toe.

With the right thumb and index finger pick up the ulnar string on the left little finger

and bring it round the back of the hand to the radial side of the wrist, distal to the wrist loop. Repeat on the right hand.

With right thumb and index pick up the left wrist string and pass it between the thumb and index. Repeat on the right hand.



Wind the left little finger string round the base of the finger anticlockwise and let it hang between the ring and little finger. Repeat on the right hand, winding the string clockwise.

Pick up with the mouth the two strings which pass from the centre of the figure to the right thumb, then hold all the fingers of the right hand together and pass it downwards through the triangle between the little finger and thumb loops, turning the palm outwards. Repeat with the left hand extend.

MUJINGO
The Hen's Vent

The string is placed on one hand only for this figure. Hang the string over the back of the left index finger, letting the pendant loop hang on the palmar side. Pick up the ulnar index string with the finger and thumb of the opposite hand and wind it clockwise right round the index finger so that it hangs between the thumb and index finger on the dorsal aspect of the hand.

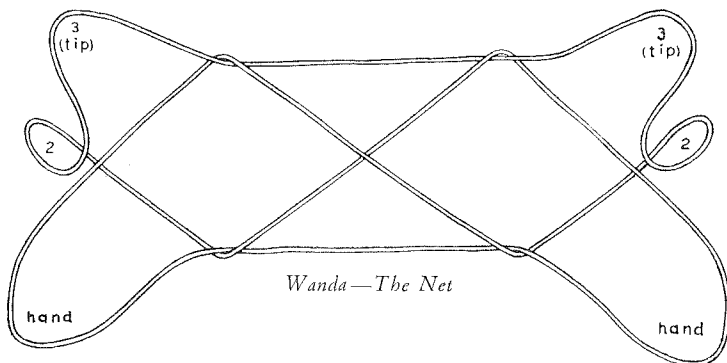


Mujingo — The Hen's Vent

Insert the left thumb proximally into the index loops and draw it out to about 2 inches long; keeping the thumb pointing towards the body, pass the palmar thumb string over the closed loop between index and thumb and let it hang on the radial side of the thumb. Then pass the

radial thumb string across the closed loop and let it hang on the ulnar side of the thumb. With the thumb and finger of the opposite hand grasp the two pendant strings and pull and slacken so the diamonds between index and thumb open and close.

WANDA I
The Net



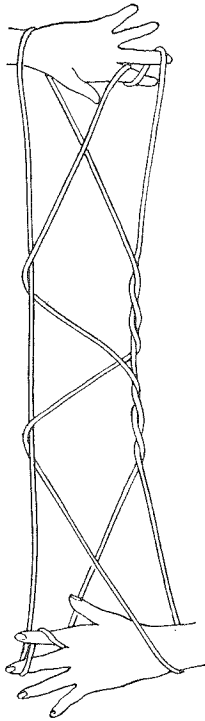
This figure is in two parts, the second stage being called KITENDE.

Place string over both wrists. Pick up the proximal straight string and make a loop, passing the right hand behind the left. Insert thumbs distally into this loop so that there is a single straight string on the radial side of the thumbs.

Remove the left wrist string and insert left middle, ring and little fingers into the thumb loop, removing it and letting it slip over the hand on to the wrist. Then place the wrist string on the thumb. Repeat this movement again on the left hand and then twice on the right hand. Transfer thumb loops to indices.

Insert the tips of the middle fingers distally into the index loops and pick up the radial index strings. Turn the hands away from you and extend.

To make KITENDE, release middle fingers and repeat once more on each hand the movement described above, i. e., remove wrist strings, insert middle, ring and little fingers into index loops letting them slip over the hand and replace wrist loops on indices. Then insert middle fingers into the index loops and with the tips pick up the radial index strings. Rotate the *right* hand inwards and downwards so that the palm faces the body, at the same time rotate the *left* hand outwards and upwards and extend the figure.



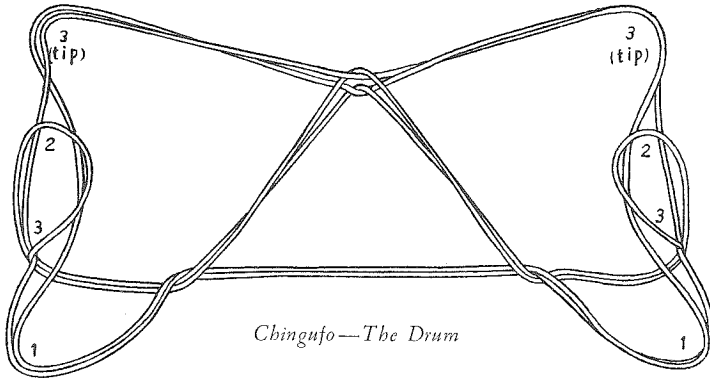
Kitende—The Pond

CHINGUFO
The Drum

Pass one end of the looped string between the index and middle fingers of the left hand, from the palmar to the dorsal side.
Press the index and middle finger together to retain the string and return the string over

the tips of the fingers to form a palmar loop across the two fingers. Repeat on the right hand, being careful not to twist the string.

Insert the right hand from the proximal side into the palmar loop on the left index and middle finger and allow it to slip over the back of the hand on to the wrist. Repeat with left hand.



Lift off the left middle and index finger loops, rotate the hand anticlockwise and replace the loops. Repeat on the opposite hand but rotate the hand clockwise.

Pick up the wrist loops and place them over the index and middle fingers of their respective hands.

Pass the thumbs proximally into the index loops and hook down the ulnar index string and the radial middle finger string.

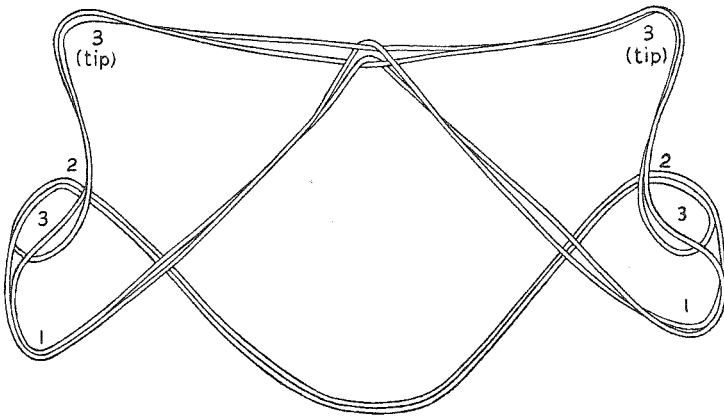
Bend the middle fingers into the index loops and pick up the two radial index strings with the tips. Turn hands palms outwards and extend.

NAKAIJIMU

This is a serial figure in five parts to illustrate a story which it was unfortunately impossible to record. The five stages are as follows:

- 1) NAKAIJIMU — The Pregnant woman
- 2) KAKWEJI — The Crescent Moon
- 3) KAKWEJI YA TETAMA — The Waning Moon
- 4) TCHIBANGO — The Temporary Hut
- 5) TIPOYA — The Hammock

1) To make NAKAIJIMU proceed as for CHINGUFO until the last two movements, then, instead of hooking down the ulnar index and radial middle finger strings, hook down with the thumbs the two ulnar middle finger strings and insert tips of middle fingers distally into double index loops, pick up the double radial string and extend turning the hands away from you, palms outwards.



Nakaijimu — The pregnant Woman

2) KAKWEJI — The Crescent Moon:

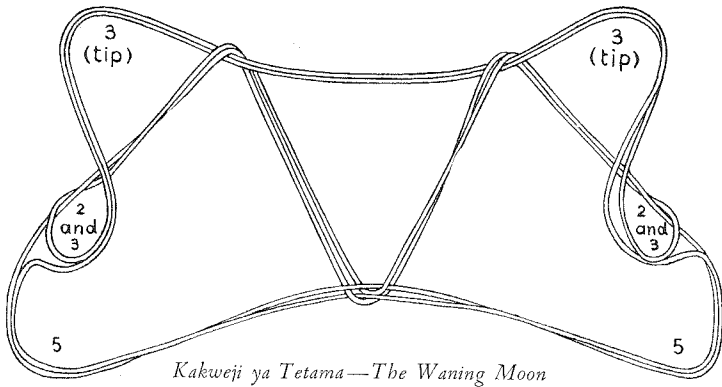
This figure is identical to CHINGUFO. Release the two ulnar middle finger strings and instead hook down the ulnar index and radial middle fingers strings as in CHINGUFO.

3) KAKWEJI YA TETAMA — The Waning Moon:

Release thumbs and tips of middle fingers. With right thumb and index finger pick up the left index radial strings and pass them over the tips of the index, middle and ring fingers, to become the ulnar ring finger strings. Repeat on the opposite hand.

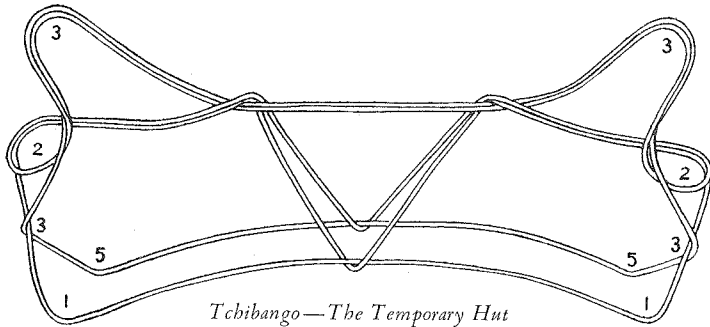
With thumb and index finger of right hand grasp all the left hand loops and remove from the fingers. Then insert index and middle fingers into the loops that were previously on the middle and ring fingers. Repeat on the opposite hand.

Hook down with the little fingers both ulnar middle finger strings into the palms and with the tips of the middle fingers raise the radial index strings. Turn the hands away from you and extend. (This figure is in reality the same as KAKWEJI, but with the central triangle, which represents the moon, in reverse).



4) TCHIBANGO — The Temporary Hut:

Insert the thumbs from the proximal side between the two lower horizontal strings, one on each side of the nearest central triangle, and return. At the same time, release this string from the little fingers, taking care that the other horizontal string held by the little fingers does not slip off. Extend.



5) TIPOYA — The Hammock:

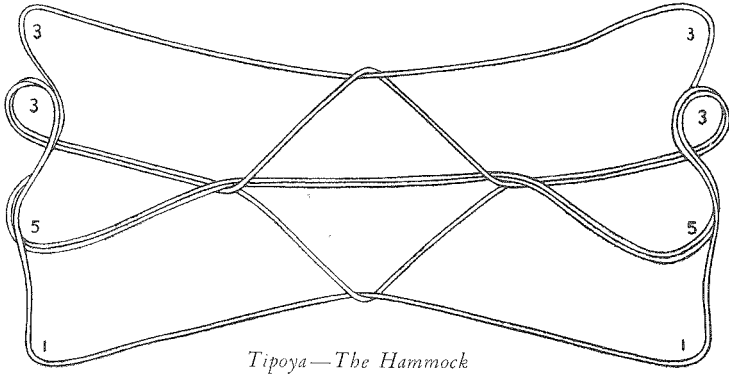
Release little fingers, thumbs and tips of middle fingers. With right thumb and index finger grasp all the strings of the left hand near the palm and withdraw middle and index fingers, replace their loops on the middle and ring fingers respectively, (thus replacing them as they were before KAKWEJI YA TETAMA was made). Repeat on the opposite hand.

Pick up the ulnar strings on the left ring finger and pass them towards you, over the tips of the other fingers, to become the left index radial strings. Repeat on the opposite hand.

Make KAKWEJI, The Crescent Moon, by hooking down with the thumbs the ulnar index and radial middle finger strings and picking up the double radial index strings with the tips of the middle fingers.

Insert the little fingers from the distal side into the triangles held by the thumbs and release the thumbs.

Pass the thumbs from the proximal side between the two upper horizontal strings



running across the figure from the tip of each middle finger and with the tips draw out the straight strings which passes through the near central triangle. Remove this string carefully from the middle fingers without releasing the second horizontal string. Extend. (This figure is *The Temporary Hut* in reverse, as in the case of the *Crescent Moon* and *The Waning Moon*).

WANDA II

This is another serial figure in five parts, again presumably illustrating a story. The five stages are as follows:

- 1) WANDA II — The Net Trap
- 2) PIASSA — The Birds
- 3) WATU — The Canoe
- 4) TSHITWAMA JA WATU WARI — The Double Chair
- 5) MAKOMBO — The Brooms

1) WANDA II — The Net Trap:

Place the string on the dorsal aspect of the index and middle fingers of both hands. With the thumb and index finger of the right hand pick up the left hand dorsal string and bring it

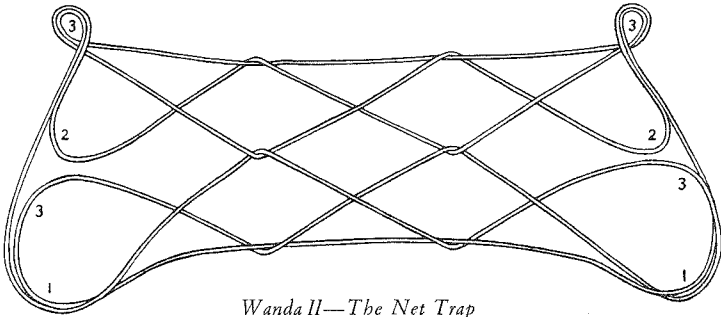
between the index and middle finger. Put the right hand through this loop and let it slip on to the wrist. Repeat with the left hand.

With the right thumb and index finger pick up together, near the base of the fingers, the left ulnar index and radial middle finger strings, lifting the loops off the fingers. Rotate the left hand away from you downwards and then upwards towards the body to twist the wrist loop. Then replace the index and middle finger loops. Repeat on the right hand.

Bring the wrist loops on to the backs of the middle and index fingers of their respective hands.

Pass the thumbs below the index loops and insert from the proximal side into the middle finger loops, pressing down with their tips the two ulnar middle finger strings. Pass the tips of the middle fingers distally into the index loops and pick up the two radial index strings without releasing indices.

Turn the hands away from you, palms outwards, and extend.



Wanda II—The Net Trap

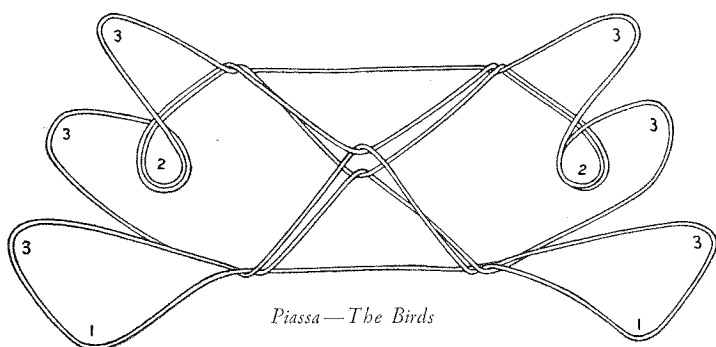
2) PIASSA — The Birds:

Release thumbs and tips of middle fingers, returning to previous position.

Pick up with the right thumb and index finger the dorsal string which passes behind the index and middle fingers of the left hand, remove it and then pass it from the palmar to dorsal side between the left index and middle fingers. Press the two fingers together, and, drawing out the string slightly, pass the tips upwards into the loop which passes between them. Repeat on the right hand and extend. (There should now be a palmar string across the index and middle finger of each hand).

Insert the thumbs proximally into the triangles at the bases of the middle fingers and with the tips of the thumbs press down the ulnar middle finger strings on to the palms. Bend the tips of the middle fingers towards you and insert distally into the index loops, picking up the radial index strings on their tips.

Turn hands away from you, palms outwards, and extend.



Piassa—The Birds

3) WATU — The Canoe:

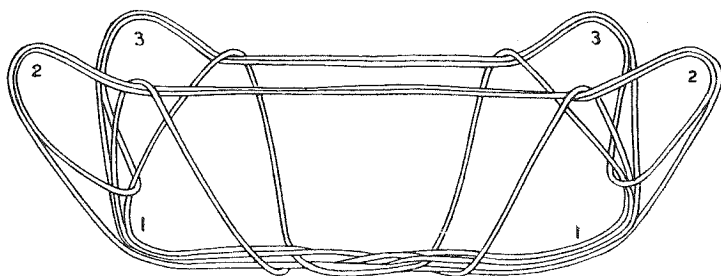
Release the thumbs and tips of middle fingers.

Hold together the index and middle fingers and insert their tips from the proximal side into the single loop on the palmar aspect of the opposite index and middle fingers. Extend. (Ease and adjust the strings in the centre of the figure, which will appear tangled).

Insert the thumbs proximally into the middle finger loops and press down the diagonal ulnar strings which run from the base of the fingers to the centre of the figure.

Bend tips of middle fingers away from you over the double ulnar strings and insert them distally into the loops held by the thumbs.

Pick up the single string with the tips of the middle fingers and return releasing thumbs.



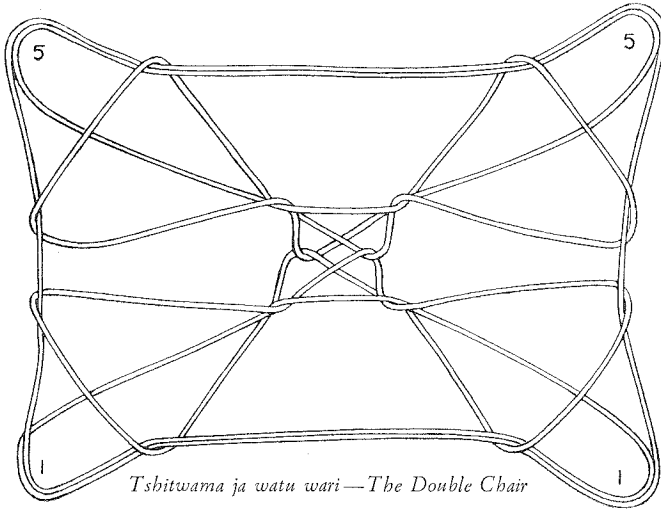
Watu—The Canoe

Insert the thumbs proximally into the index finger loops and draw out the single diagonal radial strings which run to the centre of the figure. Bend the tips of the index fingers towards you, over the double radial strings, and pass them distally into the loops held by the thumbs. Pick up the single string which is on the backs of the thumbs and return. Release thumbs.

With the tips of the thumbs press down into the palms the four strings which pass across the centre of the figure and extend.

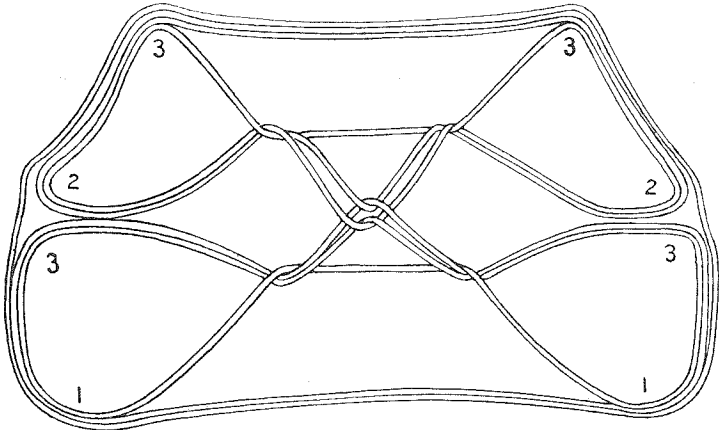
4) TSHITWAMA JA WATU WARI — The Double Chair:

Release the thumbs. Transfer the index loops to the thumbs and the middle finger loops to the little fingers. Spread the fingers wide apart and extend.



5) MAKOMBO — The Brooms:

Return the thumb loops to the indices and the little finger loops to the middle fingers.



Makombo — The Brooms

Then, with the tips of fingers pointing downwards, place the figure on the knee and carefully withdraw the fingers. Re-insert the indices and middle fingers into the upper and lower triangles on their respective loops so that there are four strings passing between the indices and middle fingers. Pick up the figure and extend.

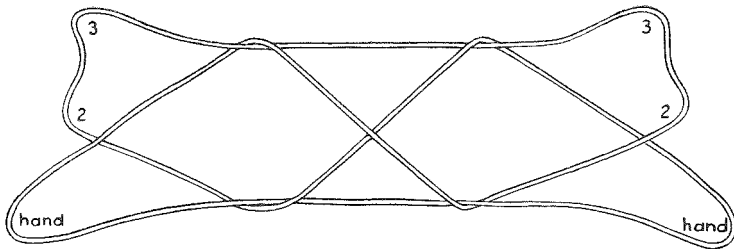
Pass the thumbs proximally into the middle finger loops and press down the ulnar middle finger strings and hold them against the palms.

Insert the tips of the middle fingers distally into the index loops and pick up the radial strings. Turn the hands outwards and extend.

■

MAPÓ AWANA
The Women (Grinding Corn)

This figure requires two players, who will be termed *A* and *B* in the following description. The final stage of the figure represents «The Women Grinding Corn», but this is preceded by three preliminary stages.



Player A :

Place the string over both wrists. Pick up the radial straight string and form a loop by passing the right hand behind the left. Insert the thumbs distally into this loop over the crossed strings, so that there is a single straight string on the radial side of the thumbs.

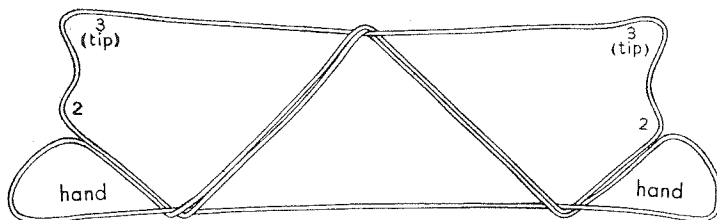
Player B :

Take the crossed strings in the centre of the figure and draw out.

Player A :

Withdraw the hands from the wrist loops, retaining only the thumb loops, and then insert both the hands from the proximal side into the thumb loops.

Pass indices distally into the wrist loops and with the tips pick up the diagonal strings and return.



Stage 2

Player B :

Release the crossed strings.

Player A :

Extend the figure. With the right thumb and finger pick up and remove the left wrist loop. Pass the middle, ring and little fingers of the left hand into the index loop and then place the wrist loop on the index finger. Repeat on the right hand. (It is important to remove the wrist loop before transferring the index loop to the other fingers).

Insert the tips of the middle fingers distally into the index loops and pick up the radial index strings on the tips, without releasing indices. Turn the hands away from you, palms outwards, and extend. (End of Stage 1).

Place the figure on the knees and carefully withdraw indices and middle fingers, retaining the loops which pass across the backs of the hands.

Pass the indices from above into the two diamonds and hook up on their tips the lower parts of the two diagonal strings which cross the centre of the figure. Turn the hands upwards and outwards and extend.

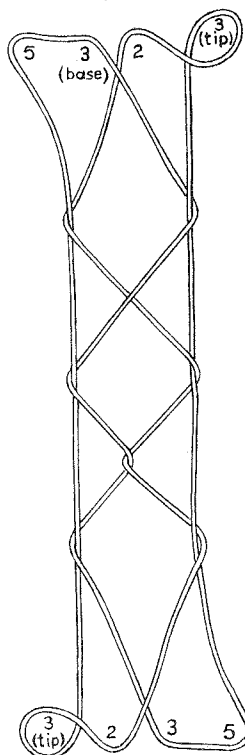
Insert the tips of the middle fingers distally into the index loops, pick up the radial index strings on their tips and extend, turning the palms outwards. (End of Stage 2).

Release middle fingers and jerk the hands apart until the central triangle contracts and disappears.

Transfer the index loops to the middle fingers, then with the right thumb and index finger, pick up the loop which passes across the back of the left hand and place it on the left index finger. Repeat on the opposite hand.

Insert the tips of the middle fingers distally into the index loops, pick up the radial index strings and return. With the little fingers hook down against the palms the ulnar middle finger strings.

Left hand



Right hand

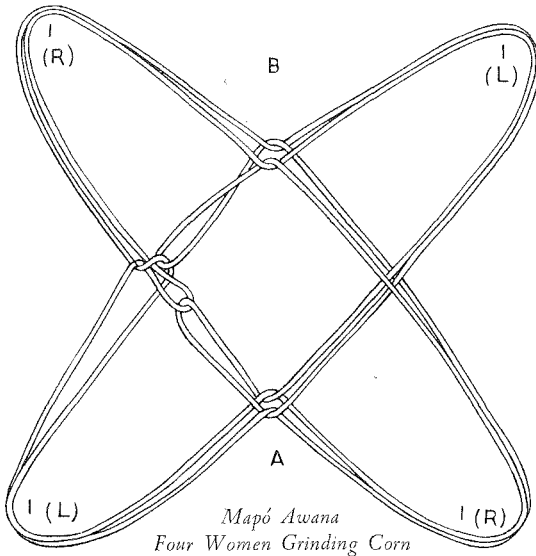
Stage 3

Extend the figure by turning the *right* hand downwards with the palm facing the body and the *left* hand upwards and outwards with the palm facing away from you. (This method of extending is similar to that of KITENDE except that the little and ring fingers are bent against the palms).

The Women Grinding Corn

Player B :

Insert the little fingers into the triangles at the base of the figure and the thumbs into the next pair of triangles (not the central diamonds), bend the tips of the thumbs towards you and



insert from the opposite direction into the next pair of triangles and the little fingers into the uppermost pair.

(During this movement *A* has to assist *B* bending the figure whilst *B* is inserting his fingers).

Both players together :

A releases whilst *B* extends. *A* inserts right thumb into *B*'s right thumb loop and his left thumb into *B*'s right little finger loop, removing both loops from *B*. *B* then inserts his right thumb into his left thumb loop and his left thumb into his left little finger loop, removing

both the loops. (The two players should now have a loop on each thumb with all the other fingers free).

The following movement is carried out simultaneously by both players who compete as to who can play longest without making a mistake.

Insert the indices proximally into the thumb loops and press down the diagonal double strings which cross the thumb loops, releasing thumbs. While removing the thumbs extend the figure and then insert the thumbs again into the index loops from the proximal side, releasing indices and extending. Repeat and repeat until one player fails.

THE END

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