

ISSN 0341-5910

PUBLIKATIONEN ZU WISSENSCHAFTLICHEN FILMEN

SEKTION
ETHNOLOGIE

SERIE 7 · NUMMER 16 · 1977
FILM E 2213



INSTITUT FÜR DEN WISSENSCHAFTLICHEN FILM · GÖTTINGEN

Film Data:

Silent film, 16 mm, colour, 178 m, 16¹/₂ min (24 f/s). Produced 1964/65, published 1975.

The film is a research document and has been issued for use in research and higher education. The film was shot by H. SCHULTZ, Museu Paulista, São Paulo, S.P., and arranged by V. CHIARA SCHULTZ, Figeac (France). Edited and published by the Institut für den Wissenschaftlichen Film, Göttingen, D. KLEINDIENST-ANDRÉE, M. A.; cutting: G. BAUCH.

Form of Citation:

SCHULTZ, H., and V. CHIARA SCHULTZ: Krahó (Brazil, Tocantins Region) – String Figures. Film E 2213 of the IWF, Göttingen 1975. Publication by V. CHIARA SCHULTZ, Publ. Wiss. Film., Sekt. Ethnol., Ser. 7, No. 16/E 2213 (1977), 29 pp.

Address of the Author of the Publication:

V. CHIARA SCHULTZ, La Boule Blanche, Cardaillac, F-46100 Figeac.

PUBLIKATIONEN ZU WISSENSCHAFTLICHEN FILMEN

Sektion BIOLOGIE

Sektion TECHNISCHE WISSENSCHAFTEN

Sektion MEDIZIN

NATURWISSENSCHAFTEN

Sektion ETHNOLOGIE

Sektion GESCHICHTE · PUBLIZISTIK

Herausgeber: H.-K. GALLE · Schriftleitung: G. BEKOW, E. BETZ, I. SIMON

PUBLIKATIONEN ZU WISSENSCHAFTLICHEN FILMEN sind die schriftlichen Ergänzungen zu den Filmen des Instituts für den Wissenschaftlichen Film und der Encyclopaedia Cinematographica. Sie enthalten jeweils eine Einführung in das im Film behandelte Thema und die Begleitumstände des Films sowie eine genaue Beschreibung des Filminhalts. Film und Publikation zusammen stellen die wissenschaftliche Veröffentlichung dar.

PUBLIKATIONEN ZU WISSENSCHAFTLICHEN FILMEN werden in deutscher, englischer oder französischer Sprache herausgegeben. Sie erscheinen als Einzelhefte, die in den fachlichen Sektionen zu Serien von etwa 500 Seiten zusammengefaßt und im Abonnement bezogen werden können. Jede Serie besteht aus 4 Lieferungen mit einer entsprechenden Zahl von Einzelheften; jährlich erscheinen 1–4 Lieferungen in jeder Sektion.

Bestellungen und Anfragen an: Institut für den Wissenschaftlichen Film
Nonnenstieg 72 · D-3400 Göttingen
Tel. (05 51) 2 10 34

HARALD SCHULTZ, São Paulo, and VILMA CHIARA SCHULTZ, Figeac (France):

Film E 2213

Krahó (Brazil, Tocantins Region) – String Figures

Author of the Publication: VILMA CHIARA SCHULTZ

With 33 Figures

Summary of the Film:

Krahó (Brazil, Tocantins Region) – String Figures. Four young Krahó men show the making of traditional string figures, representing special animals, parts of animals or objects. There are 26 rigid string figures, one moving figure, and two string games.

Inhalt des Films:

Krahó (Brasilien, Tocantins-Gebiet) – Fadenspiele. Vier junge Männer der Krahó zeigen traditionelle Fadenspiele, deren Endfiguren bestimmte Tiere, Teile von Tieren oder Gegenstände darstellen. 26 Fadenspiele haben unbewegte Endfiguren, eines eine bewegte Endfigur, zwei sind Fadenspieltricks.

Résumé du Film:

Krahó (Brésil, Tocantins Région) – Jeux de ficelles. Quatre jeunes hommes Krahó exécutent des jeux traditionnels de ficelle. Les figures représentent des animaux, des parties d'animaux ou des objets formées. Il s'agit de 26 figures rigides, d'une figure animée et de deux jeux à dénouement imprévu.

General Preliminary Remarks

String figures are not often mentioned in ethnographical literature on Brazilian Indians. WALTER EDMUND ROTH [5] describes detailed ones in his work on Guiana Indians. CURT NIMUENDAJÚ [3] mentions, but briefly, that Eastern Timbira (Krahó included) play cat's cradle¹.

¹ The name "cat's cradle" is referred to by W.W. ROUSE BALL [6] as a special type of figure known in Korea, Japan, the Asiatic Islands, China, and Northern Europe. I must add also in Brazil (Southern States). This author names it as an Asiatic method, in which two players are needed and only four figures occur over and over again. The string figures made only by one person are named after Oceanic methods and our Krahó ones are of this type.

The Krahó Indians were pacified in 1810 and from then on have been in close contact with civilization, we do not know which, if any, of the string figures they know were introduced by white people. Only Krahó men make string figures. Women and girls show no interest; when I wished to learn, they always sent me to the men. They even found it very amusing that I, a woman, was interested in such a game. Some of the boys and adolescents remember how to play very easily. When older, the Krahó men have to concentrate in order to remember some of them.

Making string figures is not a very popular game, even among boys and adolescents, at least in the summer or dry season. It must be said, however, that we have always been there at this time of the year. We noticed, on those occasions, that games outside with bow and arrows, toy guns of bamboo and other similar toys were preferred. Sometimes, boys would come to me and ask to be taught a special figure. This was the only occasion when we saw anyone busy with string figures.

In general, this game is not related to any myth, story or to any special situation. The only figure that has some contact with Krahó mythology is the one named *Koierê*, the anchor-shaped axe. This stone anchor-shaped axe taught the Krahó's ancestors how to sing (SCHULTZ [7]). Nevertheless, this figure is made with no special comment.

Notes on Making of the Film

This film on string figures was made by my husband HARALD SCHULTZ in São Paulo when two men on two different occasions came to pay us a visit: PÓKRÓK (aged about 28 years) and APRÁK (about 15) in 1964, and VALÉRIO (about 28) and KAKRÓ (about 19) in 1965. They left their village on foot and travelled by truck and train for about one month to get to São Paulo. There they stayed for two months before returning to their village.

When the filming began, the Indians tried to remember as much as they could and made more figures than those I had been taught during my stay in their village in 1964.

Most of the string figures shown in the film are made by VALÉRIO (Nos 1, 2, 5, 6, 8, 10–12, 14–16, 18–20, 22–29), three figures by KAKRÓ (Nos 3, 9, 13), three by PÓKRÓK (Nos 4, 17, 21), and one figure by APRÁK (No. 7).

On the Krahó culture there have been published a further 21 films (and accompanying publications) which were made by HARALD SCHULTZ in the Krahó village in the years 1949, 1959, 1960, and 1965 (see [12]–[32]).

Description of Film

The games here described belong to three categories: rigid string figures, moving string figures, and string games, which end up with a surprise. Most of the figures are rigid string figures, except one figure, "The Drying Lake", which moves, showing how the quadrangular shape of the lake, in the centre of the figure, shrinks into a small knot. Two are string games, the "Surprise Game" and the "Trap or Lasso".

Nomenclature

In order to explain the several positions of the string while in manipulation, we shall conventionalize the chief ones.

Radial string

The string nearer the body on the thumb side of the hand and also referring to the string of any loop.

Ulnar string

The string further away from the body on the little finger side of the hand and also referring to the string of any loop.

Proximal

Refers to what is nearer the palm of the hands.

Distal

Refers to what is nearer the tips of the fingers.

B. H.

B. H. is used when both hands make the same movement.

Position I (see Fig. 1)

B. H. String is stretched only over both little fingers.

Position II (see Fig. 3)

B. H. String is placed around index finger and middle finger both hands.

Position III (see Fig. 5)

B. H. String is placed around both wrists.

Position IV (see Fig. 7)

String is placed over the left hand.

Position V (see Fig. 8)

The string hangs from left hand passing behind little finger, across palm and behind thumb.

Position VI (see Fig. 12)

B. H. String is placed around the back of little finger and thumb, across the palm of hand.

Opening A (see Fig. 14)

With the right index finger hook up from proximal side palmar string from left hand, returning to place. Repeat with left index finger.

Opening A twisted (see Fig. 30)

Opening A. (Be sure that you have begun with the right index finger!) Draw left thumb up into left index finger loop in order to grip and remove the string which is on the back of the right index finger. The right index finger then hooks under the

string on the back of left index finger. Put loop held by left index finger and thumb over index finger and hands return to place. The index fingers have now changed places and there is a twist in both crossed strings.

Development a 1

B. H. Release thumb loop.

Development a 2 (see Fig. 19)

B. H. Going over all strings, thumb goes under ulnar string and takes it from little finger but do not draw it immediately to radial position; this movement is only an intermediary one, because the same string then passes directly from the tip of the thumb to the tip of index finger.

When possible and in order to simplify descriptions, common words are used, such as near, far, upper, and lower.

String Figure 1

Fork of a Tree (pĩ yékëyéék – Forquilha)¹

1. Position I (Fig. 1).

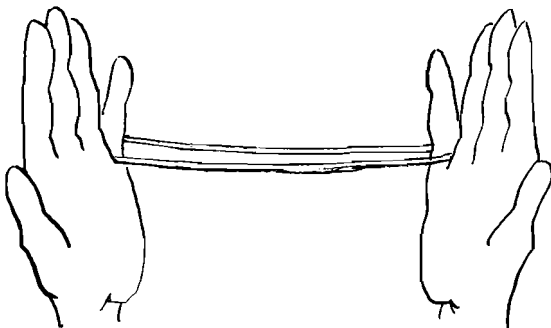


Fig. 1. Position I

2. B. H. Thumb goes over nearer string and hooks the further one bringing it to radial position. Now there is a palmar string.
3. With left index finger and thumb, pull the string between little finger and ring finger without freeing little finger and place it over thumb. Repeat this movement on the other hand.
4. B. H. Thumb makes a circular movement beginning downwards over the string in front of it and under the radial string. To complete the figure, hands, thumbs, and little fingers make movements stretching strings thereby bringing both long strings together (Fig. 2).

¹ The headlines in *italics* correspond with the subtitles in the film. Added are the names of the string figures in Krahó and Portuguese.

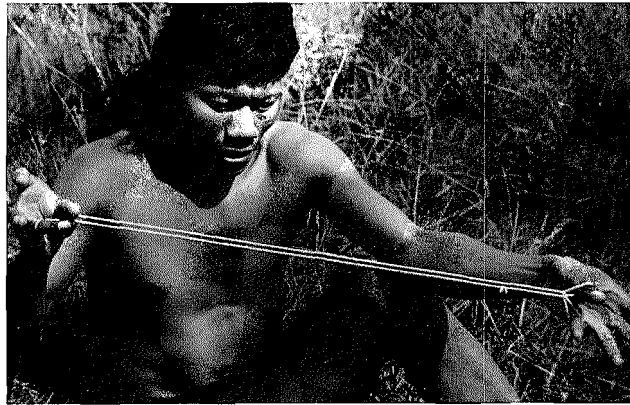


Fig. 2. Fork of a Tree

String Figure 2

A Tall Tree (Hukó – Arvore alta)

(The Krahó talked of a tall tree from the gallery forest called Hukó.)

1. Position II (Fig. 3).

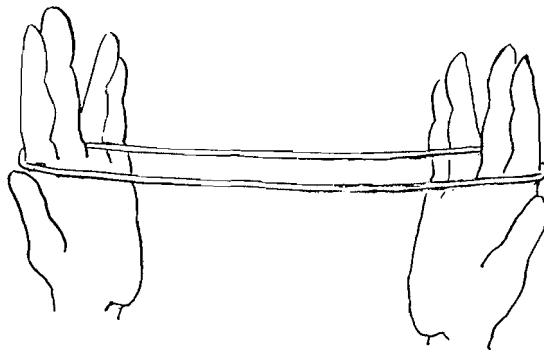


Fig. 3. Position II

2. B. H. Thumb goes over radial string and hooks up ulnar one, bringing it to radial position.
3. Right ring finger and little finger hold down ulnar string.
4. With left thumb and middle finger place right index finger and middle finger loop over right thumb, as well, holding it while right thumb, index finger, and middle finger take hold of dorsal left loop and bring it through right loop around right middle finger and right index finger, bringing the two fingers upright. Put left index finger inside left loop stretching it as far as possible.
5. With left hand place right little finger and ring finger loop on little finger.
6. Place right thumb inside right middle finger and index finger loop from below.
7. Right thumb then makes a circular movement beginning downwards over the string in front of it and under the radial string.

8. With left thumb and index finger take off the loop from right little finger from ulnar side and place it on the string that comes from the fork between right middle finger and ring finger, hooking this string through the loop and place it over little finger (Fig. 4).

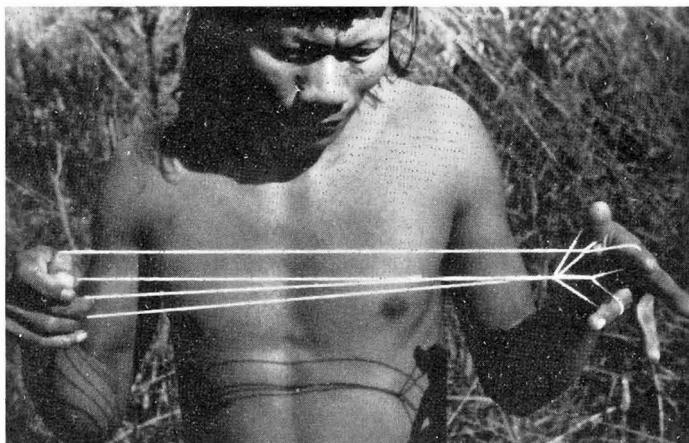


Fig. 4. A Tall Tree

String Figure 3

Rattlesnake or Four Fish or Anaconda (kangā-kohí or ... or ló-tí – Cascavel or Quatro Peixes or Sucurijú)

(One figure with three different names.)

1. Position III (Fig. 5).

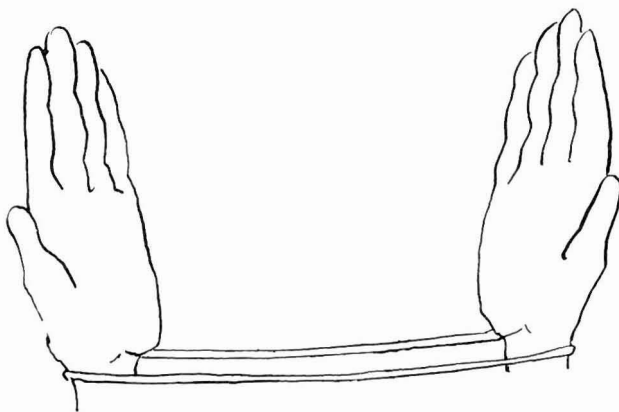
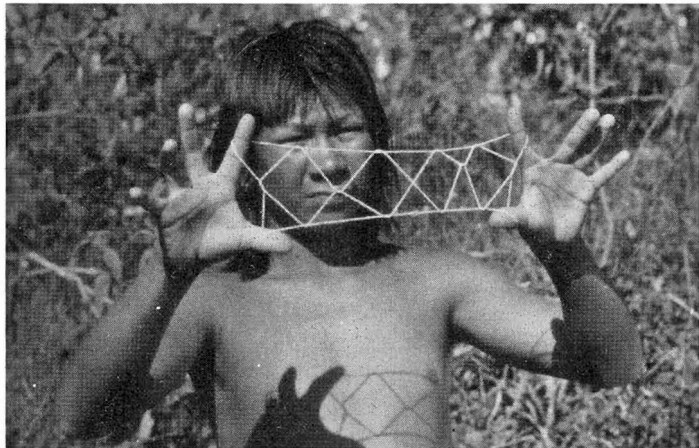


Fig. 5. Position III

2. Left little finger goes under radial string, hooks ulnar string from above. Pull hands apart.
3. From proximal side, right little finger hooks up left palmar string. Pull hands apart.

4. Place loop from back of left hand on index finger of same hand. Repeat on right hand.
5. B. H. Thumb goes over all strings and hooks up nearer string of little finger's loop and takes it to radial side of thumb.
6. B. H. Place index finger loop over index finger and thumb.
7. B. H. Thumb makes a circular movement beginning downwards over the string in front of it and under radial string.
8. B. H. Put index finger through triangle in front of thumb and press it into the palm. At the same time release little finger from its own loop.
9. Rotate hands downwards, away from you, and up again so that their backs face you. Stretch index fingers and thumbs apart as much as possible (Fig. 6).



Fi. 6. Rattlesnake or Four Fish or Anaconda

String Figure 4

Surprise Game (Truque)

1. Position IV (Fig. 7).

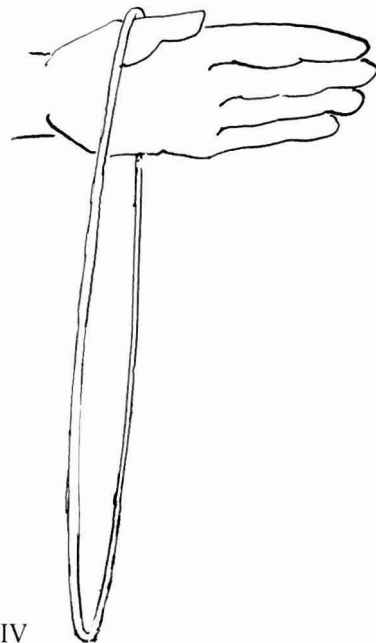


Fig. 7. Position IV

2. With right index finger passed under front of palm string, hook up the dorsal string through the fork between thumb and index finger, and after once twisting clockwise the loop so drawn out, hang it over the index finger. With right index finger passed under the same front string, hook the dorsal string through fork between index finger and middle finger, and treat it in the same way. Continue now until all remaining fingers are lopped.
3. Slip loop out of thumb and pull sharply on the nearer string, hanging from little finger, when all the fingers will be freed.

String Figure 5

Man (Man's Skelet) (mē-hi – Esqueleto)

(Position V is the beginning of three figures (Nos 5–7), the second being a development of the first and the third of the second. However, each figure is begun independently and directly from the basic position. This is true also referring to all Krahó string figures. They never develop from the preceding one as is known in other parts of the world.)

1. Position V (Fig. 8).

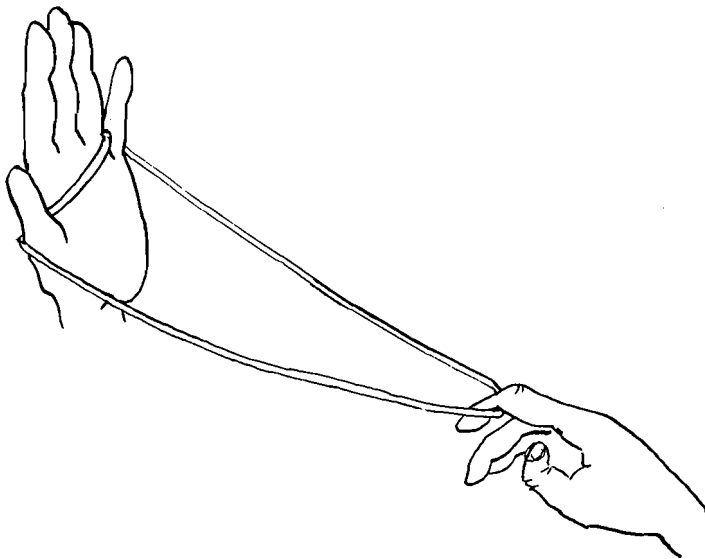


Fig. 8. Position V

2. With right index finger pull palm string down as far as it will go.
3. Repeat, pulling string through hanging loop.
4. Put right hand inside hanging loop and with middle finger hook little finger loop from above and with index finger hook thumb loop in the same way. Pull these loops down through hanging loop. This leaves two hanging loops.

5. With index finger hook up lower palm string from below. With right hand twist and replace index finger loop (Fig. 9).

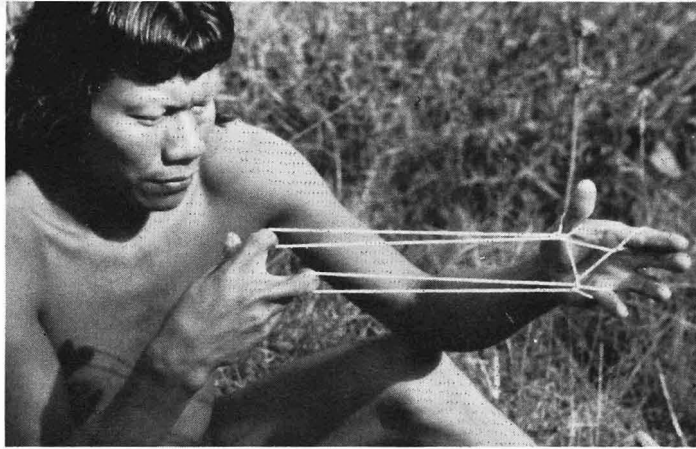


Fig. 9. Man

String Figure 6

Hand (bones) (hũkrá-hí – Ossos da Mão)

1. Position V.
2. Follow first movements 2.–4. of the “Man” figure (String Figure 5).
3. Lifting the two hanging loops with the right hand place them over index finger and ring finger respectively pulling them tight.
4. Going under lower palm string, pull down the strings between the index finger and middle finger, and middle finger and ring finger.
5. Twist the two hanging loops, so formed, clockwise (Fig. 10).



Fig. 10. Hand

String Figure 7

Frog (tómhóg – Gia)

1. Position V.
2. Follow first movements 2.–4. of the “Man” figure (String Figure 5). You then have two hanging loops.
3. Lifting the two hanging loops with the right hand, place them over index finger and ring finger respectively, as in movement 3. of the “Hand” figure (String Figure 6).
4. From proximal dorsal side, hook up dorsal loops of index finger and ring finger with right index finger and middle finger respectively. Press dorsal sides of fingers together.
5. With a sharp movement of both hands allow the two hanging loops on the back of left hand to flick over on to the back of the right hand. Retaining thumb and little finger loops, pull the two loops on right index finger and middle finger down, releasing hanging left index finger and ring finger loops. Pull tight. Now you have a lozenge shape in the middle of the figure.
6. Place right hand loops over left index finger and middle finger. There should now be two strings hanging between index finger and middle finger which curl around another string, which we shall use in the next movement.
7. From proximal side right index finger and middle finger go under lower palm strings and hook over the string described in movement 6., to the right and left of the point where the hanging strings curl round this string. Pull these strings down tight.
8. Lift the two right hand loops over left index finger and middle finger respectively allowing them to hang down behind the back of the hand.
9. From proximal side hook index finger and middle finger loops with right index finger and middle finger. Retaining thumb and little finger loops, pull the loops on right index finger and middle finger down, releasing the two hanging left index finger and ring finger loops. Pull tight. Then, you have the “Frog” figure represented by the lozenge as the body and two legs on top of it (Fig. 11).

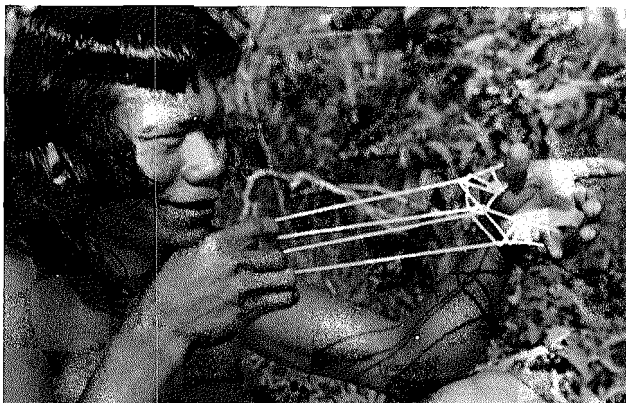


Fig. 11. Frog

String Figure 8

Emu's Foot (mã pare – Pé de Ema)

1. Position VI (Fig. 12).

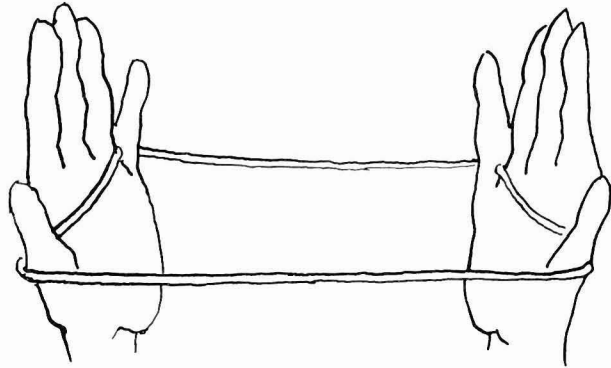


Fig. 12. Position VI

2. With the back of the tip of the right index finger hook the palmar string from proximal side from the left hand. While drawing it back, twist it once clockwise.
3. With the back of the tip of the left index finger hook up from proximal side right palmar string beneath right index finger loop. While drawing it back, release loops of right thumb and little finger. Right hand stays on top and left one below, facing each other. The three loops in the left hand represent the toes of the emu (Fig. 13).

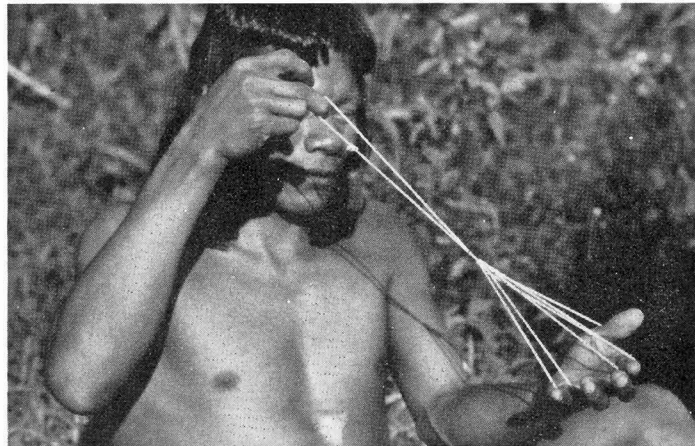


Fig. 13. Emu's Foot

String Figure 9

Spider's Web or Bridge (heré-yōče or pĩ teł – Teia de aranha or Ponte)

(One figure with two different names.)

1. Position VI.

2. Opening A (Fig. 14).

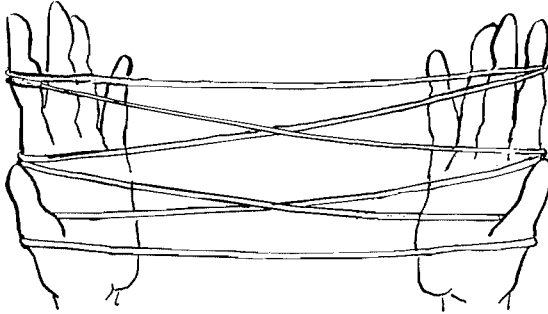


Fig. 14. Position VI, Opening A

3. B. H. Thumb goes over all strings, hooks ulnar string from below and brings it back to radial side of thumb. You have now two radial strings.
4. B. H. Place index finger loop over index finger and thumb.
5. B. H. Thumb makes a circular movement beginning downwards over the string in front of it and under radial string.
6. B. H. Put index finger through triangle in front of thumb and press it into the palm. At the same time release little finger from its own loop. Now, rotate the hands downwards away from you and up again so that their backs face you. Stretch index fingers and thumbs apart as much as possible (Fig. 15).

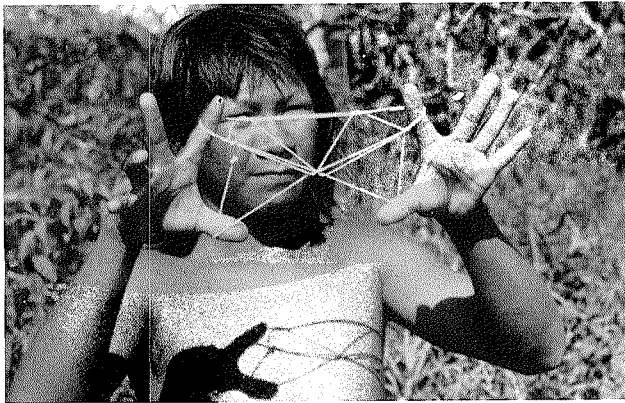


Fig. 15. Spider's Web or Bridge

String Figure 10

Trap or Lasso (he-kré - Laço)

(A string game. As explained by the Indian it represents a lasso for catching young seriema birds.)

1. Position VI.

2. Opening A.
3. B. H. Thumb crosses over strings and hooks up and away the loops from little fingers and returns so that thumb now has two loops.
4. B. H. Middle finger goes under strings and hooks down top thumb loop, releasing it from the thumb and this is then held down by ring finger and little finger.
5. Middle finger holds down the index finger loop while index finger goes over and under radial string, releasing the thumb loop thus forming another loop on index finger. Release middle finger holding the other string.
6. Another person puts a finger in the space below the upper string on the index fingers.
7. B. H. Thumbs then go under the lower index finger loop, pulling the upper index finger loop through and drawing out the figure rapidly, thereby catching the other person's finger.

String Figure 11

Water (ko – Agua)

1. Position VI.
2. Opening A.
3. Development a 1.
4. B. H. Thumb goes over all strings and hooks up ulnar one from below, returning and bringing ulnar string to radial position.
5. B. H. Place index finger loop over index finger and thumb.
6. B. H. Thumb makes a circular movement beginning downwards over the string in front of it and under the radial string.
7. B. H. Put index finger through triangle in front of thumb and press it into the palm. At the same time release little finger from its own loop.
8. Rotate hands downwards, away from you, and up again so that their backs face you. Stretch index fingers and thumbs apart as much as possible (Fig. 16).

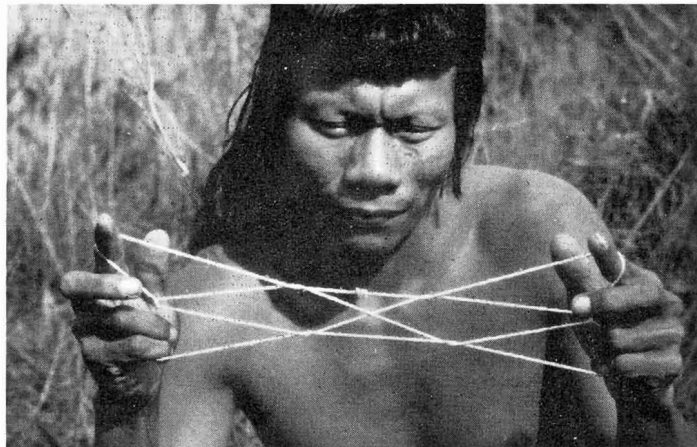


Fig. 16. *Water*

String Figure 12

Small River (ko paré – Ribeiraõsinho)

(Variation of String Figure 11 “Water”.)

1. Position VI.
2. Opening A.
3. Development a 1.
4. Repeat the “Water” figure.
5. Turn hands so that palms face each other.
6. Thumbs are substituted by ring finger and little finger so that thumbs may then stretch the two lozenge-shaped holes of the figure wide apart (Fig. 17).

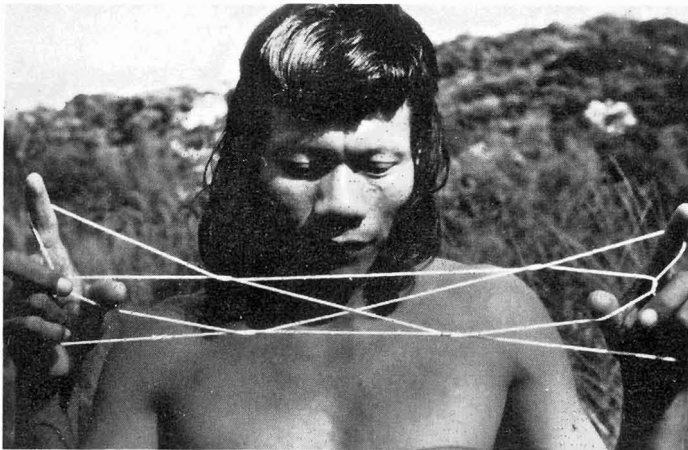


Fig. 17. Small River

String Figure 13

Fish (téb – Peixe)

1. Position VI.
2. Opening A.
3. Development a 1.
4. Right thumb goes over and under all strings in order to hook ulnar string, pulling it through to radial position.
5. Left thumb goes under right thumb loop and pulls the string towards left hand.
6. Grip left little finger loop at its crossing point. Take it up from little finger, put it on top of the string that comes from between index finger and middle finger and hook this string through the loop and place it over same little finger.
7. Repeat on the other hand.
8. B. H. Place index finger loop over index finger and thumb.
9. B. H. Thumb makes a circular movement beginning downwards over the string in front of it and under the radial string.

10. Put index finger through triangle in front of thumb and press it into the palm. Rotate hands down and away from you, stretching hands apart¹ (Fig. 18).

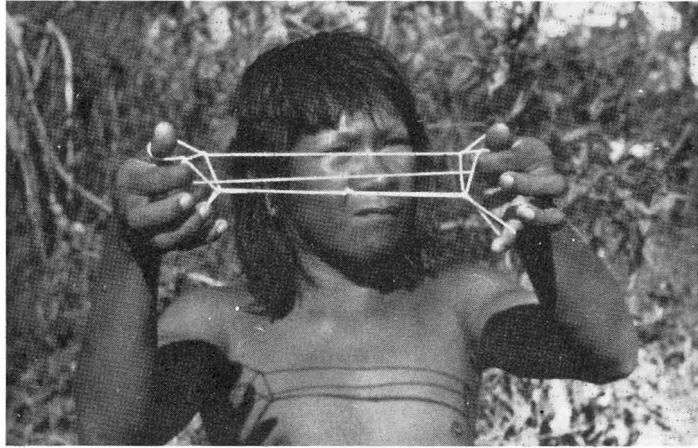


Fig. 18. Fish

String Figure 14

Anchor-Shaped Axe (kheieré – Machado de ancora)

1. Position VI.
2. Opening A.
3. Development a 2 (Fig. 19).

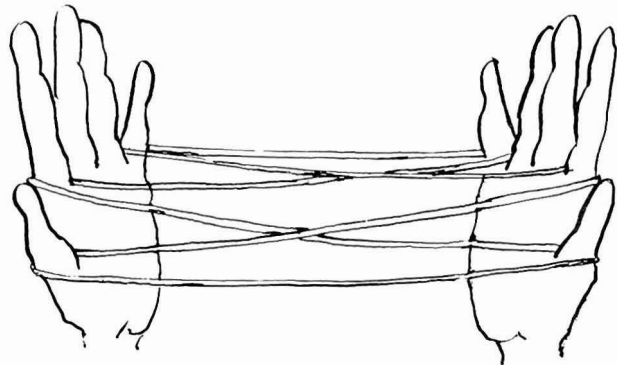


Fig. 19. Position VI, Opening A, Development a 2

4. B. H. Middle finger, ring finger, and little finger come from behind into thumb loop. They hook the upper near index finger string and pull it down and backwards, freeing index finger. Now index finger has only one loop.

¹ On the film the third manipulation is made after the fourth, fifth, and sixth in spite of the obvious difficulties that this entails.

5. B. H. Middle finger comes up from behind into index finger loop and with the index finger grips radial string drawing it backwards through index finger loop, releasing thumb and stretching index finger, ring finger, and little finger apart as much as possible. The ring finger and little finger large loop represents the stone axe and the top index finger loops the wooden handle (Fig. 20).



Fig. 20. Anchor-Shaped Axe

String Figure 15

The Caninana Snake (kangā-pōhití – Caninana)

1. Position VI.
2. Opening A.
3. Development a 2.
4. B. H. Thumb hooks from behind the lower string from the crossed farther strings and returns to place, stretching as much as possible.
5. B. H. Middle finger comes from behind between the two crossed strings in front of thumb and hooks from behind index finger string and pulls it down and through.
6. B. H. Substitute middle finger by ring finger and little finger.
7. B. H. Middle finger comes from behind into index finger loop and with index finger grips the radial string, pulling it through index finger loop, releasing thumb. This figure represents the snake's skin pattern (Fig. 21).

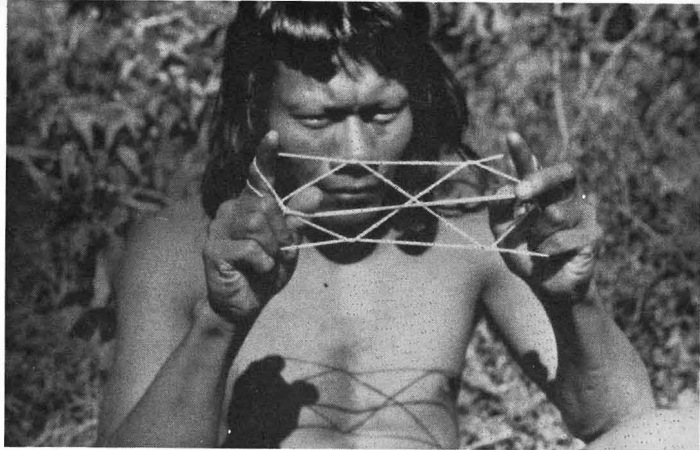


Fig. 21. The Caninana Snake

String Figure 16

House by the Lake (hipó yōkwá – Casa na lagôa)

1. Position VI.
2. Opening A.
3. Development a 2.
4. B. H. Middle finger, ring finger, and little finger come from behind into the space between lower index finger and thumb loops. They hook the upper index finger loop from behind and pull it down and backwards, releasing index finger. Now, index finger has only one loop.
5. B. H. Middle finger comes up from behind into index finger loop and the radial string is gripped between index finger and middle finger, releasing the thumb and drawing the string backwards through index finger loop, rotating the hands so that their backs face you. Stretch index finger, ring finger, and little finger as much as possible (Fig. 22).

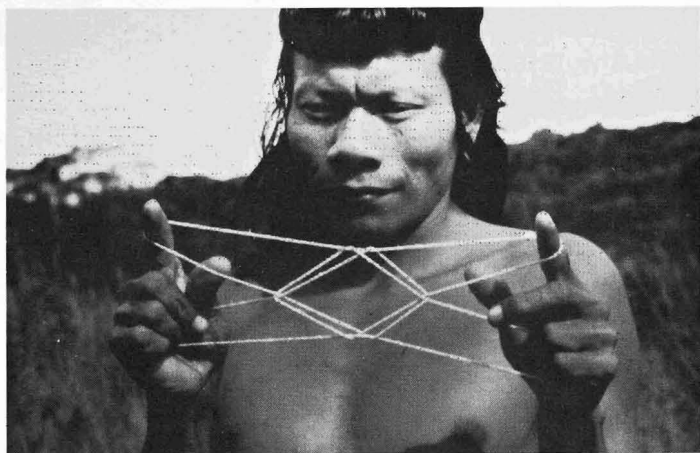


Fig. 22. House by the Lake

String Figure 17

The Drying Lake (hipó – Lago que seca)

(A moving figure, variation of String Figure 16 “House by the Lake”.)

1. Make the “House by the Lake” figure.
2. B. H. Move all loops gently pulling hands more and more apart. The central lozenge figure will become smaller and smaller, until it becomes a knot. This movement represents the drying up of the lake (Fig. 23).

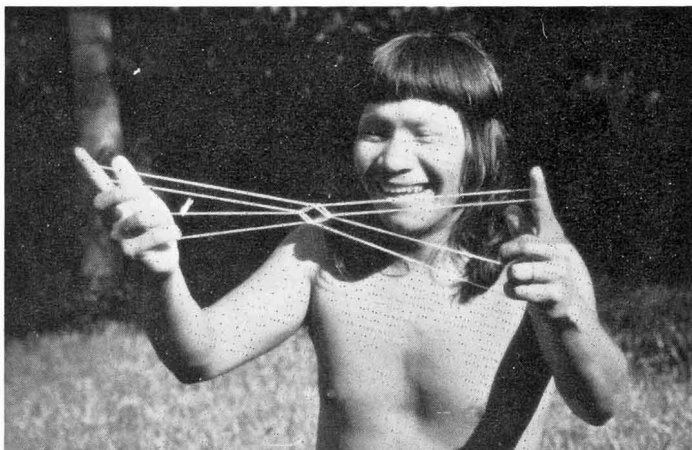


Fig. 23. The Drying Lake

String Figure 18

The Open Belly of the Anteater (pót tú – Bucho de Tamanduá bandeira)

(Variation of String Figure 16 “House by the Lake”.)

1. Make the “House by the Lake” figure.
2. B. H. When the lozenge is seen in centre of figure, put thumbs inside it and pull towards the hands, as much as possible. This stretched lozenge shape is said to be the open belly of the anteater (Fig. 24).

String Figure 19

Hoof of Cattle (příkok-ňičwa – Pé de gado)

1. Position VI.
2. Opening A.
3. Development a 2.
4. B. H. Middle finger, ring finger, and little finger come from behind and pull down the two further crossed strings.
5. B. H. Middle finger comes into the space between lower index finger and thumb loops and goes behind and over the upper near index finger string, and pulls it

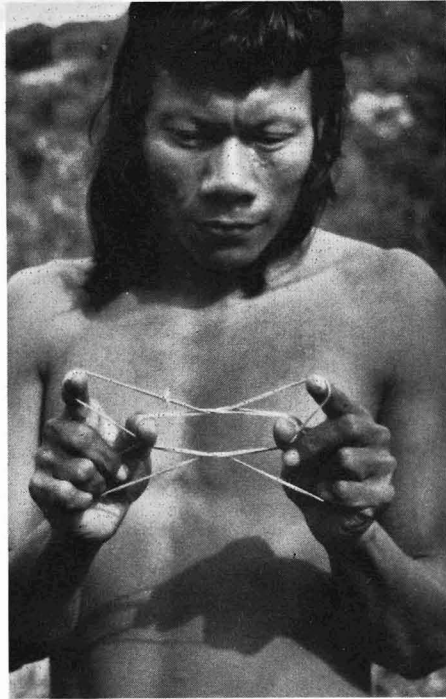


Fig. 24. The Open Belly of the Anteater

down and behind the ring finger and little finger strings, releasing them at the same time.

6. B.H. Middle finger is substituted by ring finger and little finger.
7. B.H. While middle finger holds all strings down, index finger in a circular movement goes over and under radial string so that the back of the hand faces you, releasing thumb. Open middle finger and stretch hands apart (Fig. 25).

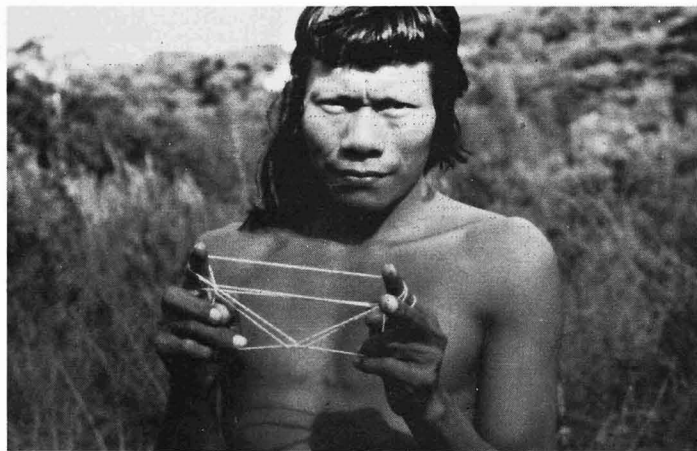


Fig. 25. Hoof of Cattle

String Figure 20

Hoof of Deer (pó ñičwá – Unha de veado)

(Variation of String Figure 19 “Hoof of Cattle”.)

1. Make the “Hoof of Cattle” figure. Now you have three loops on the index fingers.
2. With right hand take off the lowest loop and put it over index finger. Repeat with other hand.
3. B. H. Thumb goes under lower index finger loop, pulling upper loop downwards and through. Stretch hands apart (Fig. 26).



Fig. 26. Hoof of Deer

House (ikré – Casa)

1. Position VI.
2. Opening A.
3. Development a 2.
4. B. H. Put middle finger between the nearer crossed strings in order to catch from behind the two lower strings from the farther crossed ones and pull them down.
5. B. H. Substitute middle finger by ring finger and little finger.
6. B. H. Middle finger comes from behind into ring finger and little finger loop through thumb loop and catches the upper index finger loop and draws it down through ring finger and little finger loop, releasing ring finger and little finger loop.
7. B. H. Substitute middle finger by ring finger and little finger.
8. B. H. Middle finger comes from behind into index finger loop and with index finger grips thumb string, drawing it backwards through index finger loop, releasing thumb, rotating hands so that their backs face you.

String Figure 22

Bridge made of a Tree Trunk (polyapó – Pinguela)

1. Position VI.
2. Opening A.
3. Development a 2.
4. B.H. Middle finger, ring finger, and little finger come from behind, through further crossed strings, they then go under and through nearer crossed strings. While ring finger and little finger hold down the two lower strings, middle finger catches from behind the index finger string, drawing it down and backwards through the space held by ring finger and little finger, freeing these fingers.
5. B.H. Middle finger is substituted by ring finger and little finger.
6. B.H. Now index finger has two loops. Thumb is introduced from proximal side into lower index finger loop and grips with index finger upper loop, drawing it down through the lower one. Index finger returns to upward position.
7. B.H. Middle finger comes from behind and holds down all strings except radial so that index finger may come over and under radial string in a circular movement so that the back of the hand faces you, releasing thumb. Open middle finger and stretch hands apart. The string on top represents a tree trunk across the banks of the river (Fig. 27).

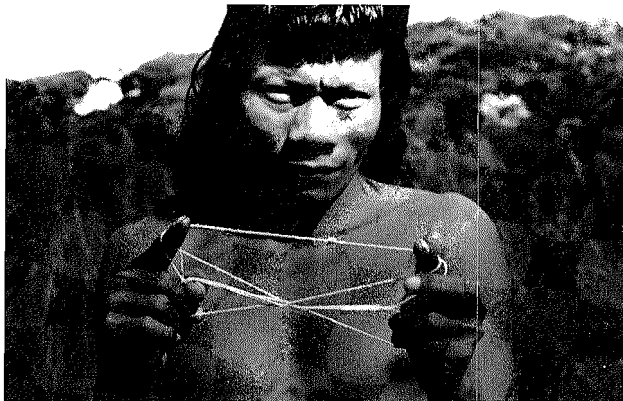


Fig. 27. Bridge made of a Tree Trunk

String Figure 23

Liana (akrú – Cipó)

(Variation of String Figure 22 “Bridge made of a Tree Trunk”.)

1. Make the “Bridge made of a Tree Trunk” figure. In this figure you have two index finger loops.
2. Thumb is introduced into the lower loop and grips with index finger the upper loop, drawing it down and through the lower one, releasing thumb. Index finger returns to upright position (Fig. 28).

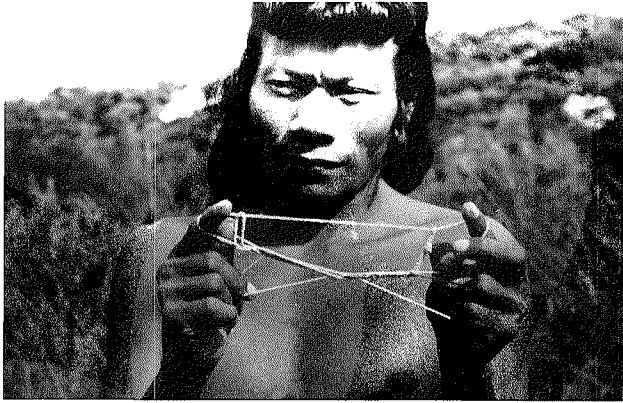


Fig.28. Liana

String Figure 24

Subaquatic Plant (kóyabči – Planta sub-aquática)

1. Position VI.
2. Opening A.
3. Development a 2.
4. Follow first movements 4. and 5. of the “Bridge made of a Tree Trunk” figure (String Figure 22).
5. B.H. Middle finger comes from behind into index finger loop and with index finger grips radial string, drawing it through index finger loop and backwards, freeing thumb, while hands rotate so that their backs face you.
6. Now index finger has two loops. Thumb comes from proximal side into lower index finger loop and with index finger grips the upper loop drawing it down and through the lower loop. Stretch hands apart (Fig. 29).



Fig.29. Subaquatic Plant

String Figure 25

Tip of a Bow (kuhé-potuáhi – Ponta de arco)

1. Position VI.
2. Opening A twisted (Fig. 30).

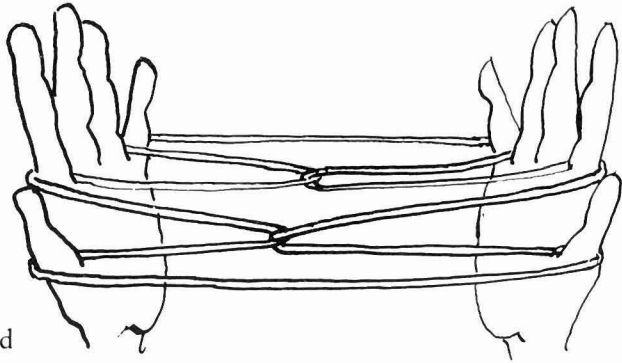


Fig. 30. Position VI, Opening A twisted

3. Left hand: Put middle finger over and through index finger loop, releasing index finger. Put ring finger over and through little finger loop, releasing little finger, which then goes over into the same loop. Index finger goes over and through thumb loop, releasing thumb. The fingers of the left hand should now be curled round the loops.
4. Pulling tightly on the loops, release middle finger loop (Fig. 31).

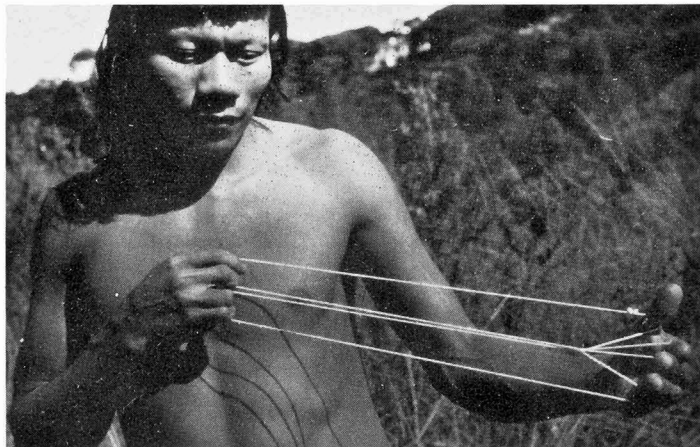


Fig. 31. Tip of a Bow

On the film, while making “Opening A twisted”, instead of putting loop held by left index finger and thumb over index finger, the Indian hooks right index finger loop from proximal side, while index finger loops are changing place. He then

turns index finger up, twisting the loop and after placing the loop over right middle finger, hooks it up again from there.

String Figure 26

Liver (impá – Figado)

(Variation of String Figure 16 “House by the Lake”.)

1. Position VI.
2. Opening A twisted.
3. Development a 2.
4. Follow movements 4. and 5. of the “House by the Lake” figure (Fig. 32).



Fig. 32. Liver

String Figure 27

Ham (pó ñõ kyé – Quarto de veado)

(Variation of String Figure 26 “Liver”.)

1. Position VI.
2. Opening A twisted.
3. Development a 2.
4. Follow movement 4. of the “House by the Lake” figure (String Figure 16).
5. B.H. Middle finger comes up from behind into index finger loop and the radial string is gripped between index finger and middle finger releasing the thumb and pressing it on the middle finger tip. Rotate hands so that their backs face you. While stretching fingers and hands apart, pull thumb loops downwards (Fig. 33).

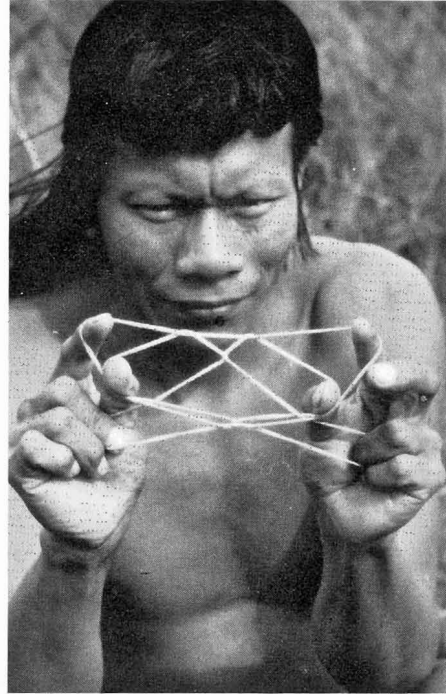


Fig.33. Ham

String Figure 28

Butterfly (vevé – Borboleta)

(Variation of String Figure 26 “Liver”.)

1. Follow first movements 1.–4. of the “Ham” figure (String Figure 27).
2. B.H. Middle finger comes up from behind into index finger loop and the radial string is gripped between index finger and middle finger, drawing the string backwards through index finger loop. Rotate hands so that their backs face you. Stretch thumb loops apart.

String Figure 29

Head of a Fish (teb-erá – Cabeça de peixe)

1. Position VI.
2. Opening A twisted.
3. Development a 2.
4. B.H. Middle finger, ring finger, and little finger come from behind into the space between lower index finger loop and thumb loop. Middle finger hooks the upper index finger string from behind and pulls it down and backwards.
5. B.H. Middle finger is substituted by ring finger and little finger.
6. Left index finger only, releases its upper loop.
7. B.H. Middle finger comes from behind into index finger loop and the radial string is gripped between index finger and middle finger, drawing the string

- backwards through index finger loop. Rotate hands so that their backs face you. Stretch hands gently apart.
8. Right thumb holds down the nearest transversal string, drawing it downwards, being held there by ring finger, releasing thumb.
 9. Right thumb pushes upward the string from the same ring finger loop, pressing it against index finger, keeping it in this position. On the left side of the figure there is an angle which represents the fish's head.

Bibliography

- [1] Dictionnaire des Jeux. Ed. CLAUDE TCHOU. Paris 1964.
- [2] HADDON, A. C.: A few American string figures and tricks. *Amer. Anthropologist*, N.S., 5, 2 (1903), 213–223.
- [3] NIMUENDAJÚ, C.: The Eastern Timbira. Univ. of California Publ. Amer. Archaeol. and Ethnol. 41, Berkeley and Los Angeles 1946.
- [4] RIVERS, M. D., and A. C. HADDON: A method of recording string figures and tricks. *Man* 1 (1902), 146–153.
- [5] ROTH, W. E.: An introductory study of the arts, crafts, and customs of the Guiana Indians. 38th Annual Rep. of the Bureau of Amer. Ethnol. 1916–17. Washington 1924, pp. 25–745 (String figures: pp. 500–550).
- [6] ROUSE BALL, W. W.: String figures. An amusement for everybody. Cambridge 1929. 72 pp.
- [7] SCHULTZ, H.: Lendas dos indios Krahó. *Rev. Mus. Paulista*, N.S., 4, São Paulo 1950.

Filmography

- [8] HAEFELFINGER, H. R.: Mitteleuropa, Basel-Land – Fadenspiele. Film E 1736 of the Enc. Cin., Göttingen 1975. Publication by H. R. HAEFELFINGER and R. HAEFELFINGER-REINHARDT; IWF, Göttingen 1975, 21 pp.
- [9] KOCH, G.: Mikronesier (Gilbert-Inseln, Tabiteuea) – Fadenspiele. Film E 883 of the IWF, Göttingen 1965. Publication by H. MAUDE and G. KOCH; IWF, Göttingen 1968, 29 pp.
- [10] KOCH, G.: Mikronesier (Gilbert-Inseln, Onotoa) – Fadenspiele. Film E 884 of the IWF, Göttingen 1965. Publication by H. MAUDE and G. KOCH; IWF, Göttingen 1968, 25 pp.
- [11] KOCH, G.: Polynesier (Ellice-Inseln, Niutao) – Fadenspiele. Film E 885 of the IWF, Göttingen 1965. Publication by H. MAUDE and G. KOCH; IWF, Göttingen 1969, 22 pp.
- [12] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Zubereitung eines großen Maniokkuchens aus Anlaß eines Festes. Film E 101 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 11 pp.
- [13] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Morgenzeremonie. Film E 114 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 11 pp.
- [14] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Brandrodung. Film E 115 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 8 pp.
- [15] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Ritueller Stafettenlauf mit Holzklötzen. Film E 116 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 12 pp.
- [16] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Spinnen eines Baumwollfadens. Film E 430 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 9 pp.

- [17] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Weben eines Kindertraggurtes. Film E 431 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1965, 9 pp.
- [18] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Flechten eines Tragkorbes. Film E 432 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 8 pp.
- [19] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Flechten einer Kokrit-Maske. Film E 433 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 11 pp.
- [20] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Herstellen eines Pfeiles. Film E 434 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 9 pp.
- [21] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Fischzug. Film E 435 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 13 pp.
- [22] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Krankenbehandlung. Film E 436 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 10 pp.
- [23] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Jagdzug der beiden Zeremonialgruppen. Film E 437 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 14 pp.
- [24] SCHULTZ, H.: Krahó (Brasilien, Tocantinsgebiet) – Tanz der Kokrit-Masken. Film E 438 of the IWF, Göttingen 1962. Publication by H. SCHULTZ; IWF, Göttingen 1964, 9 pp.
- [25] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Flechten eines Korbes. Film E 1175 of the IWF, Göttingen 1967.
- [26] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Fladenbacken. Film E 1176 of the IWF, Göttingen 1967.
- [27] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Körperbemalung. Film E 1177 of the IWF, Göttingen 1967.
- [28] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Anspitzen der Zähne. Film E 1178 of the IWF, Göttingen 1967.
- [29] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Durchstechen der Ohr läppchen. Film E 1179 of the IWF, Göttingen 1967.
- [30] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Zubereiten von Palmfrüchten. Film E 1321 of the IWF, Göttingen 1968.
- [31] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Sammeln und Zubereiten von Schildkröten. Film E 1322 of the IWF, Göttingen 1968.
- [32] SCHULTZ, H.: Krahó (Brasilien, Tocantins-Gebiet) – Anfertigen von Spielzeug aus Palmblättern. Film E 1323 of the IWF, Göttingen 1968.

Sources of the Figures

Fig. 1, 3, 5, 7, 8, 12, 14, 19, 30: graphic V. CHIARA SCHULTZ; Fig. 2, 4, 6, 9–11, 13, 15–18, 20–29, 31–33: photography HARÁLD SCHULTZ.