

Chapter 2

String Figures and Ethnography

2.1 First Surveys: Context and Issues

After his studies at Christ's College, Cambridge, Alfred Cort Haddon was appointed Professor of Zoology at the College of Science in Dublin. In 1888, he took part as a zoologist in the first expedition to the Torres Strait Islands, located between Papua New Guinea and Australia. It seems that his interest was drawn to both anthropology and string figures during this fieldwork in Oceania:

In the summer of 1888 I went to Torres Strait to investigate the structure and fauna of the coral reefs of that district. Very soon after my arrival in the Straits I found that the natives of the islands had of late years been greatly reduced in number, and that, with the exception of but one or two individuals, none of the white residents knew anything about the customs of the natives, and not a single person cared about them personally. [...] So it was made clear to me that if I neglected to avail myself of the present opportunity of collecting, information on the ethnography of the islanders, it was extremely probable that knowledge would never be gleaned [...] I felt it my duty to fill up all the time not actually employed in my zoological researches in anthropological studies [...] (Haddon 1890, pp. 297–298)

In 1906, Haddon wrote:

In ethnology, as in other sciences, nothing is too insignificant to receive attention. Indeed it is a matter of common experience among scientific men that apparently trivial objects or operations have an interest and importance that are by no means commensurate with the estimation in which they are ordinarily held¹ (Jayne 1962, p. v).

So it is no surprise that Haddon became interested in string figure-making upon meeting Torres Strait islanders. They played a game very close to the cat's cradle string game he used to play in his childhood—though theirs was infinitely more sophisticated. In her book *Cat's Cradles From Many Lands*, which I will discuss

¹Haddon wrote this in the introduction of Caroline Furness Jayne's *String Figures* (1906), the first book ever published on the topic of string figures. See Chap. 4.

later, Kathleen Haddon² mentions that Haddon brought back a few string figures from the 1888 expedition, probably fixed on a rigid support, but without recording the methods by which they were made (Haddon 1911, p. xii).

Upon his return to Britain in 1890, Haddon showed a growing interest in so-called “Primitive Arts” and particularly in the drawings, engravings and motifs produced by these arts. Anthropologist Carlo Severi pointed out that Haddon’s scientific approach in this domain came from the academic discipline called “biology of images” or “biology of ornaments”, initiated by General Pitt Rivers in the mid-nineteenth century (Severi 2007, p. 48). The general idea of this theory was to study art objects “scientifically”, just as living beings are studied within the framework of the theory of evolution. According to the “biology of images” theory, art objects created by people from different geographical areas could have a common origin, and, following the principle of “natural selection”, these objects could evolve or disappear depending on the “milieu” in which they are produced. Even though this approach survived until the 1930s, for instance in the work of Aby Warburg (1866–1929), Haddon was one of the last researcher who explicitly inscribed his research on primitive arts within the “biology of images” field (Severi 2007, pp. 34–46). We can reasonably assume that his studies in zoology, adding to his interest in cultural phenomena, naturally led him to embrace this theory. In 1895, Haddon published a book entitled *Evolution in Art: As illustrated the Life-Histories of Designs* in which he explains his approach:

The fundamental law in biology is that expressed in the well known aphorism, *Omne vivum e vivo* (“All life from life”) [...] In studying savage art we are irresistibly forced to an analogous conclusion. By carefully studying a number of designs we find, providing the series is sufficiently extensive, that a complex, or even an apparently simple pattern, is the result of a long series of variations from a quite dissimilar original. The latter may in very many cases be proved to be a direct copy or representation of a natural or artificial object. From this it is clear that a large number of patterns can be shown to be natural developments from a realistic representation of an actual object, and not to be a mental creation on the part of the artist. (Haddon 1895, p. 308)³

In order to emphasize these iconographic sequences, Haddon recommends to study the patterns’ geographical distribution, as biology had begun to do for living beings:

No part of the study of Biology is more fascinating than which deals with the geographical of organisms [...]. The geographical distribution of art is as yet uninvestigated, but with careful and capable handling we may expect it to yield results not less interesting than those of distribution of animals (Haddon 1895, p. 319).

In this book, Haddon does not mention the activity of string figure-making that he had observed a few years before in Papua New Guinea, probably because

²Kathleen Haddon (1888–1961) was Haddon’s daughter. He passed on his interest in string figures to her. As a photographer, she accompanied her father in the field many times.

³See also the chapter “The scientific method of studying decorative art” (Haddon 1895, pp. 306–338).

he had not yet collected sufficient data. Nevertheless, it was in this scientific context that Haddon returned to that matter later on. He did so in collaboration with English anthropologist, neurologist and psychiatrist, William H. R. Rivers (1864–1922), during the second Cambridge ethnographic expedition (1898) which Haddon conducted in the Torres Strait Islands. Publications by Boas (1888) and Smith (1900), as well as observations made by Haddon in Papua New Guinea in 1888, suggested that string figure-making was practiced in various culturally and geographically distant societies. Haddon thought that a large number of collections of string figures, gathered on every continent, would allow to carry out a comparative study in order to enable a better understanding of the origins and evolution of this practice. To undertake such a research, it became necessary to develop a method for recording the full process leading to a string figure.

It became evident to me that no progress could be made in comparative study of string figures and tricks⁴ until a definite nomenclature had been devised which would indicate with precision all stages involved in making a figure (Jayne 1962, p. xii).

His use of the term “nomenclature” seems to indicate that Haddon considered the study of string figure-making as a genuine discipline in its own right. It was thus necessary to establish a specific vocabulary to define its specificity. Furthermore, by mentioning “all stages”, he shows his interest in the “procedure” leading to the final figure, beyond the final figure itself. The point was therefore not only to record the final figures, but also to describe accurately each step of the procedure used to reproduce a figure with a loop of string.

Haddon and Rivers implemented this recording method during their 1898 ethnographic mission and tested its effectiveness while collecting thirty-one string figure procedures, all of which were included in the expedition’s report (Haddon 1912). Upon their return, Haddon and Rivers published the seminal article “A Method of Recording String Figures and Tricks” (1902). In this paper, the authors introduce six adjectives that define the six perpendicular directions of the space in relation to the different parts of the hand (see below Sect. 2.2). These adjectives, in addition to some action verbs (“picking up”, “hooking up” the string, etc.), enabled Haddon and Rivers to write down the succession of operations applied to the string step by step. Moreover, they proved their nomenclature’s efficiency by writing down the making of 12 Torres Strait string figures. Haddon and Rivers’ article was meant to attract other anthropologists’ attention to the topic and help them to collect string figures in their own fields:

Our object is to induce field workers to pay attention to the subject and to record the method of making the figures, and to assist them in this we offer the following nomenclature and method of description. We have little doubt that those who interest themselves in this simple amusement will find that their labour has not been in vain (Haddon and Rivers 1902, p. 147).

⁴Tricks are generally knot or complicated arrangements of the strings which run out freely when pulled (Haddon and Rivers 1902, p. 147).

This actually happened, as shown by the numerous collections of string figures published over the twentieth century in journals of anthropology, using Haddon and Rivers' nomenclature or closely related ones. In particular, anthropologists Diamond Jenness (1920s), James Hornell (1930s) and Thomas Paterson (1940s)—all of which we shall encounter in the course of this book—have documented the practice of string figure-making and published articles using Haddon and Rivers' methodology. That is how many papers and a few seminal books on string figures were published during the twentieth century. In the following pages, many examples will be extracted from these publications.

On the basis of these published collections of string figures, some authors have undertaken comparative analyses in the first half of the twentieth century. These studies, conducted in the context of diffusionism, led them to compare corpora collected in various societies. By doing so, they aimed at acquiring a better understanding of circulation and contacts between these populations. They found that identical string figures collected from distant areas are quite rare: given the unlimited number of figures which can theoretically be made with a loop of string, they considered it very unlikely that exactly the same string figure could have been independently invented in two separate regions of the world. This argument can be found in the work of missionary Guy Mary-Rousselière. In the 1960s, he stayed among the Netsilik Eskimos and documented the practice of string figure-making by the *Arviligjuarmiut* of Pelly Bay, Canadian Arctic (1969). Mary-Rousselière writes that if an ethnographer observes similar string figures in different geographical areas, he

can usually infer that they have a common origin. [...] When these geographical areas are adjacent, these common features can be easily explained by contacts between the two groups. And when these string games are found in geographically distant areas, more ancient contacts or a common origin can be generally admitted, as in the case of two identical harpoons found in two distant areas (Mary-Rousselière 1969, p. 135) - my translation.

This idea was also put forward in the 1930s by French ethnographer and explorer Paul-Emile Victor who collected string figures on the east coast of Greenland among the Angmagssalik Eskimos. Victor hypothesizes that string figures “are part of the elements that will throw light on contacts between different populations and, therefore, will facilitate the study of migrations” (Victor 1940, p. 207)-(my translation).

A few studies deal with that issue: one can quote the work of Thomas Thomson Paterson (1909–1994), who was head of Cambridge's Archaeology and Ethnology Museum in the 1950s. In 1949, he published the long paper *Eskimo String Figures and their Origin*. After having recorded a large number of string figures on the West coast of Greenland and the Northern Baffin Island (covering 1,500 kilometres in Northern Canada and Eastern Greenland), Paterson undertook a comparative study of Inuit string figures, based on the entire data published at that time. He compiled these data, obtaining statistical outcomes relating to the distribution of these figures in the Arctic area (Paterson 1949). On the basis of these numerical

data, Paterson suggested that transmission of string figures could have occasionally occurred between different “Eskimo” groups:

The transmission of figures demands the closest of contact between group and group. It is plain that the intricacy of some figures cannot be learned quickly, and therefore this element of culture cannot be handed on like a material object, a riddle or such. The sharing of leisure is demanded, for it is then that figures are practised. The distribution of figures itself demonstrates this point. Though there are a great number (105) with only local occurrence, that is, confined to one area, there are very few (10) found only in two adjoining areas, and a similar number (9) in three adjoining areas. Whereas there are a great many (90) found widespread. It appears therefore, that figures arising locally do not seem to be transmitted readily, contrasting strongly with the ease with which figures must have been dispersed at an earlier period. This dispersion can be most easily explained by assuming that one group of people dispersed and took the figures with them (Paterson 1949, p. 50).

According to Paterson, it could consequently be assumed that the number of string figures known in a given region will evolve, either by local invention of new string figure procedures or by integrating new groups likely to pass on their own knowledge.

Beyond this diffusionist comparative approach, some ethnologists and anthropologists also aimed to better understand how this practice is embedded within different cultures. In particular, some ethnographers have recorded the songs or stories that sometimes accompany string figure-making. These materials give a few elements about the cultural context of this practice in different societies (function, right time for making string figures, gender, prescription and prohibition, ritual efficacy) (Jenness 1924; Andersen 1927; Hornell 1927; Dickey 1928; Maude and Emory 1979).

It has been observed in particular that string figures could be sometimes performed for their positive or negative ritual efficacy. In the 1910s, anthropologist G. Landtman noticed such a phenomenon among the Kiwai Papuans, British New Guinea. In this society, it was the string itself, after having performed Cat’s Cradles (string figures) with it, that was considered to have a magical power and a positive impact on the growing of yams:

On the whole cat’s cradles are regarded by the Kiwai people purely as play, but in certain cases a more particular interest attaches to them. The game is most commonly played when stalks of the newly planted yams begin to shoot up from the earth. Sticks are put in the ground to support the winding tendrils, and the first few stems are tied to them by means of pieces of strings which have been used for making cat’s cradle. It is sufficient, however, to hang pieces of these strings on top of the first few sticks without actually tying the stalks with them, and some people merely throw a few pieces of cat’s cradle strings here and there on the ground in their gardens. In each case the purpose is to “help” the stalks of the yams to grow well and wind in the right way (Landtman 1914, p. 221).

Was it the making of any string figure (as this extract suggests), or, on the contrary, the making of a particular string figure that gave its magical power to the string? It is difficult to tell, but there are a few ethnographical sources that seem to show that the making of certain string figures in Melanesia was used in a ritual context.

In the 1920s, anthropologist Diamond Jenness⁵ made a similar observation (benefit for the yams gardens) in the Goodenough Islands, an archipelago located off the East coast of Papua New Guinea (see Chap. 8). He also noticed other contexts where string figures appear to be connected with magic in this society:

The native use the string bags (*walia'va*) to carry their vegetables home from gardens. Whenever any of the vegetables in it were stolen they should employ a string figure, *walia'va* (N° XXV) to discover the thief. An incantation was first sung, then the figure was made. As the name of each suspected person was pronounced, the right hand was jerked downwards between the loops. If it passed through freely he was innocent, but if it stuck he was guilty. Another figure, *bu'ibui*, which I have not recorded, is performed only when the clouds seem to prophecy fine weather; the word itself means a certain type of cloud, the cumulus. Probably this figure also has a magical significance (Jenness 1924, p. 301).

In Inuit societies, some ethnographical data collected in the 1910s and the 1920s—in particular during the Canadian Arctic Expedition of 1913–1918 and the Fifth Thule Expedition of 1921–1924—attest that the practice of string figure-making was generally embedded into a system of prohibitions and prescriptions. For instance, in most of these societies, from Alaska to Greenland, playing string figures (lit. *ajaraaq* in Inuktitut, the Inuit language) was prohibited in the presence of sunlight, since it was generally believed that the game could hinder the rise of the sun (Rasmussen 1929, p. 183). Conversely, this practice was indeed encouraged in period of darkness.

In the region of Iglulik (Canadian Arctic), such prohibition sought to prevent hunting incidents. Anthropologist Knud Rasmussen noticed that “boys who have not yet caught bearded seal or walrus must not play cat’s cradle (string figures). If they do, then they are liable to get their fingers entangled in the harpoon lines and be dragged out into the sea” (Rasmussen 1929, p. 177). The Inuit refer to an entity named *Tuutarjuk* (also named *Tuutannguaq* or *Tuutannguarjuk*, depending on the society) as the spirit of string figures. In the 1920s, Rasmussen recorded the following story among the Netsilik Eskimos:

Tuutannguarjuk is the spirit of the string figures. It has its name after a certain string figure that is called by the very name of tuutannguarjuk. It is a dangerous spirit that sometimes attacks women, and may even carry away those who become too eager to play with string figures. There was once a child who at night, instead of sleeping, lay awake and made string figures on the platform. While the child lay there tuutannguarjuk came in and started to make string figures too, using his own intestine as string. When he was in the middle of one of the figures he said suddenly: “Let us see which of us can make tuutannguarjuk quickest.” The people of the house were asleep, that is why tuutannguarjuk was so bold. He was finished first, and was just going to spring at the child when one of the sleeping men awoke suddenly and sat up. At the same moment tuutannguarjuk jumped to his feet and fled out through the passage, and the man’s light sleep thus saved the child from being carried away (Rasmussen 1931, p. 248).

⁵New Zealand anthropologist Diamond Jenness (1886–1969), studied at the University of Wellington in New Zealand and the Balliol College, Oxford. It was during his years at Oxford that he made a one year field study (between 1911 and 1912) in the Goodenough Islands, off the coast of Papua New Guinea. Subsequently he became a specialist of the Arctic and participated in several polar expeditions. In 1926, he was appointed director of the National Museum of Anthropology Ottawa.

Beyond the connection of string figure-making with that dangerous spirit *tuutan-nguarjuk*, this story suggests that there is (or was) a quest for performance, i.e. competition to preform string figures in a quicker way than a “partner”.

Some ethnographical studies on string figures suggest that an ethnolinguistic approach could also be of great interest. Among the Inuit, for instance, string figures have often retained their original name. After years, the meaning of these names were sometimes lost, whereas people have continued to use them. According to Mary-Rousselière, these names testify to a forgotten vocabulary.

It is likely that the gathering of a complete collection of string games of the Central and Eastern Eskimos East with their names and their accompanying oral texts—a task that has yet to be achieved—would throw some interesting light on paleolinguistics (Mary-Rousseliere 1969, p. 130)- my translation.

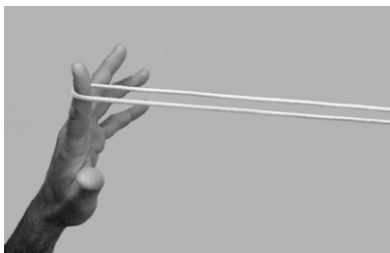
According to this author, such a survey would certainly enable researchers to go back in time and obtain information about changes in the Inuit language. I will refer several times to these anthropological and ethnolinguistic issues in the course of this book. And in Part IV, I will present and analyse my own ethnographic data.

Let us now turn to Haddon and Rivers' method of recording the whole process leading to a string figure. This methodology will enable the reader to make the string figures that I will refer to and analyse in the following. In order to try out by himself all string figures described in this book I now invite the reader to knot the ends of a flexible piece of string (one to two meter long) and make a loop. It is indeed only by practising string figure-making that one can get an in-depth understanding of the processes involved in the creation of these figures.

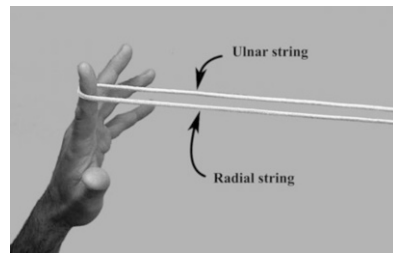
2.2 Haddon and Rivers' Terminology

Most string figure operations are made by using the fingers. I will therefore constantly refer to the thumb, the index, the middle, ring and little fingers of both left or right hands.

The string passing around a finger forms a loop. Picture 2a shows a loop carried by the left index. A loop consists in two strings, both of them starting from the finger which carries the loop.



2a – Left index loop



2b – Ulnar and radial strings

Anything which lies towards the thumb is said to be “radial”, and anything which lies towards the little finger is said to be “ulnar”. A loop is thus made of one radial and one ulnar string (picture 2b).

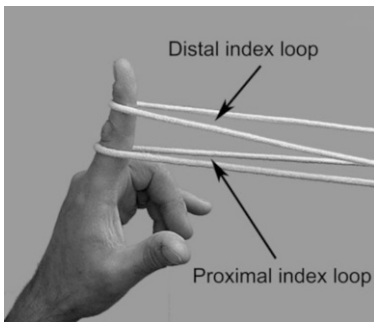
Using the names of the 5 fingers and the terms “radial”, “ulnar”, “left” and “right” makes it possible to define any of the 20 potential strings that can be extended between the 2 hands.

Anything which lies towards the palm is said to be “palmar”, whereas anything lying towards the back of the hand is said to be “dorsal”.

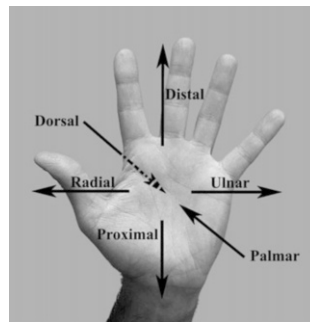
We will distinguish anything lying towards the wrist from anything lying towards the tip of the fingers, by describing them as “distal” and “proximal” respectively.

Each finger has therefore a “palmar” and a “dorsal” side, a “radial” and an “ulnar” side, and finally, a “proximal” and a “distal” zone. From time to time, one finger may carry two loops: one will be the “proximal” loop and the other the “distal” one (picture 3a).

These six adjectives match the six perpendicular directions of the space, defined in relation to the different parts of the hand (picture 3b).



3a – Distal and proximal loops

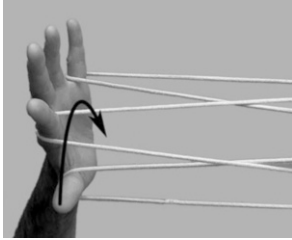


3b – The six perpendicular directions of the space

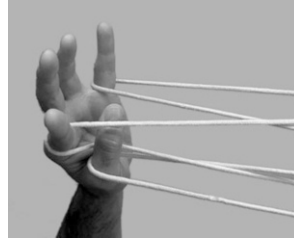
Summary of the terminology	
Adjectives	Part of the hand
Radial	Towards the thumb
Ulnar	Towards the little finger
Palmar	Across the palm
Dorsal	Across the back of the hand
Distal	Near the tip of finger
Proximal	Near the wrist

When a finger is inserted into a loop, it is specified whether the insertion is done “from the distal side” or “from the proximal side” of the loop (pictures 3c and 3d). When the hands face each other, fingers pointing up, these two expressions

correspond to the expressions “from below” and “from above” respectively. However, the adjectives “distal” and “proximal” will be preferred since they do not depend on the position of the hands.



3c – Inserting from distal side



3d – Done

2.2.1 *Position I and Opening A*

Haddon and Rivers chose to define as “Position I” a starting position for the making of many string figures, in the Torres Strait Islands as in many other societies all over the world.

Position I.- This name may be applied to the position in which the string is placed on the hands when beginning most of the figures.

Place the string over the thumbs and little fingers of both hands so that on each hand the string passes from the ulnar side of the hand round of the back of the little finger, then between the little fingers and ring fingers and across the palm; then between index and thumb and round the back of the thumb to the radial side of the hand. When the hands are drawn apart the result is a single radial thumb string and a single ulnar little finger string on each hand with a string lying across the palm [picture 4a] (Haddon and Rivers 1902, p. 148).



4a – Position I

From this position, the same sequence of movements is involved in the making of many string figures (in the Torres Strait and elsewhere). Haddon and Rivers called it “Opening A”.

Opening A.- This name may be applied to the manipulation which form the most frequent starting point of the various figures. Place string on hands in Position I. With the back of the index of the right hand take up from proximal side (or from below) the left palmar string and return. There will now be a loop on the right index, formed by strings passing from the radial side of the little finger and the ulnar side of the thumb (...) [pictures 4b and 4c].

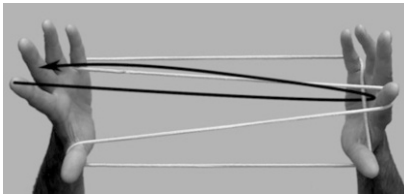
Then, pass the left index through the right index loop from the distal side (personal indication),

with the back of the index of left hand take up from proximal side (or from below) the right palmar string and return, while keeping the index with the right index loop so that the string now joining the loop on the left index lies within the right index loop.

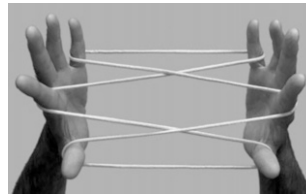
The figure now consists of six loops on the thumb, index, and little finger of the two hands [pictures 4c and 4d] (Haddon and Rivers 1902, p. 148).



4b



4c



4d

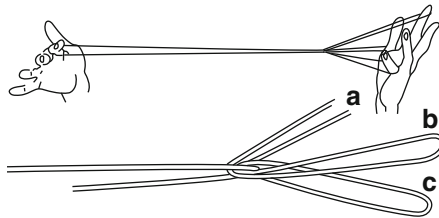
There are many other possible starting positions and openings. Although some of them, as Position I and Opening A, have been observed in many societies, we will see later that certain of these starting positions and openings seem to be characteristic of a cultural area.

2.2.2 *String Figure Fish-Spear*

In order to familiarize the reader with Haddon and Rivers' terminology, let's quote the instructions given by these authors to describe the making of the Torres Strait string figure called *baur* (Fish-Spear):

2.2.2.1 The Fish-Spear

Position I. Take up, with the right index, the transverse string on the left palm from its proximal side, give one (or two) twist and return. Pass the left index through the right index loop from the distal side and take up the transverse palmar string of the right hand from the proximal side and return. Drop the thumb and little finger loops of the right hand and pull the hands apart (Haddon and Rivers 1902, p. 149).

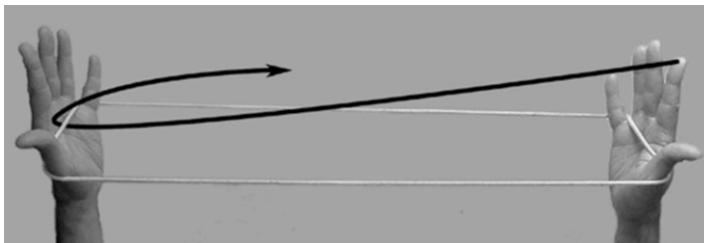


5a – *baur* (Fish-Spear) (Haddon and Rivers 1902, p. 149)

These instructions are followed by a drawing of the final figure (picture 5a). This is the only drawn figure: the text is assumed to be precise enough to teach how to make this string figure. However, the sketches are always made with great precision. When two strings intersect, one can identify their relative positions. The reader can then follow—more or less easily—the path on the string, and thus validate his own construction.

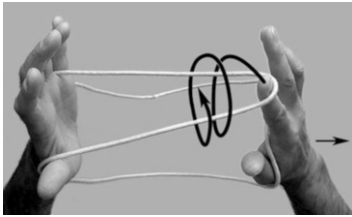
To facilitate the reading and memorizing of such instructions, further authors had the idea of dividing the instructions into successive numbered steps. This presentation is more appropriate, especially for long descriptions. In order to help the reader to make figures more easily, I have include pictures to illustrate most string figure-making instructions featured in this book. The making of figure “Fish-Spear” can be described by the following illustrated sequence:

1. Position I (picture 5b).

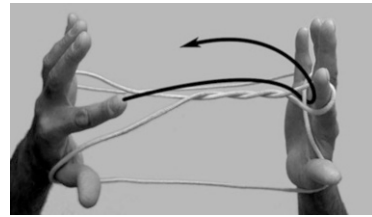


5b

2. Take up, with the right index, the transverse string on the left palm from its proximal side, give one (or two) twist and return (picture 5c).

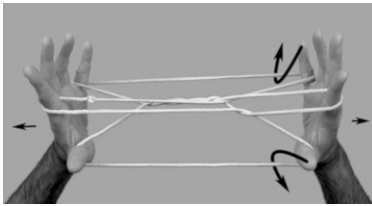


5c

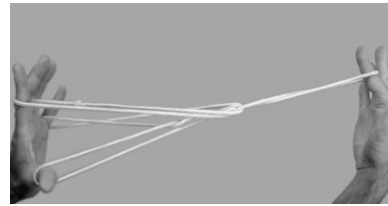


5d

3. Pass the left index through the right index loop from the distal side and take up the transverse palmar string of the right hand from the proximal side and return (picture 5d).
4. Drop the thumb and little finger loops of the right hand and pull the hands apart (pictures 5e and 5f).



5e

5f – Final figure of *baur* (Fish-Spear)

In the next chapter, I will come back on this way of writing down string figure instructions as a sequence. We shall see how the different steps ethnographers have noted down in the field were most certainly inspired by string games practitioners themselves. For now, let us look into a first conceptualization of string figure-making.

References

- Andersen J (1927) Maori string figures. Board of Maori Ethnological Research, Memoirs, vol 2. Wellington. (Reprint edition 1979, New York: AMS Press)
- Boas F (1888) The game of Cat's cradle. *Int Arch Ethnogr* 1:229
- Dickey LA (1928) String figures from Hawaii, including some from New Hebrides and Gilberts Islands. Bishop Museum, Honolulu. (Reprint Edition 1985, Germantown, New York ed., vol Bulletin n° 54)
- Haddon AC (1890) The ethnography of the western tribe of torres straits. *J Anthropol Inst G B Irel* 19:297-440

- Haddon AC (1895) *Evolution in art: as illustrated by the life-histories of designs*. W. Scott, London
- Haddon K (1911) *Cat's Cradles from many lands*. Albert Saifer, Watchung
- Haddon AC (1912) *String figures and tricks*. In: *Reports of the Cambridge anthropological expedition to the Torres Straits*, vol 4. Cambridge University Press, Cambridge, 320–341
- Haddon AC, Rivers WH (1902) *A method of recording string figures and tricks*. *Man* 2:146–149
- Hornell J (1927) *String figures from Fiji and Western Polynesia*. Bishop Museum, vol 39. The Museum, Honolulu. (Reprint edition 1971, Germantown, New York: Periodicals Service Co)
- Jayne CF (1962) *String figures and how to make them: a study of Cat's Cradle in many lands*. Dover Edition, New York. (A reprint of the 1906 edition entitled "String Figures", published by Charles Scribner's Sons, New York)
- Jenness D (1924) *Eskimo string figures*. Report of the Canadian Arctic expedition 1913–1918, Part B, vol XIII. F.A. Acland, Ottawa
- Landtman G (1914) *Cat's cradle of the Kiwai Papuans, British New Guinea*. *Anthropos* 9:221–232
- Mary-Rousseliere G (1969) *Les jeux de ficelles des Arviligjuarmiut*. Bulletin n°233. Musées nationaux du Canada, Ottawa
- Maude H, Emory K (1979) *String figures of the Tuamotus*. Homa Press, Canberra
- Paterson TT (1949) *Eskimo string figures and their origin*. *Acta arctica*, fasc. 3. E. Munksgaard, København
- Rasmussen K (1929) *Intellectual culture of the Iglulik Eskimos*, vol VII, n° 1. Gyldendalske Boghandel, Copenhagen.
- Rasmussen K (1931) *The Netsilik Eskimos. Social life and spiritual culture*, vol VIII, n° 1–2. Gyldendalske Boghandel, Copenhagen.
- Smith HI (1900) *The Thompson Indians of British Colombia: publications of the Jesup Pacific expedition*, by James Teit. *Memoirs of the American Museum of Natural History*, vol 2, Anthropology I:281. Fig 270
- Severi C (2007) *Le principe de la chimère: une anthropologie de la mémoire*. Editions Rue d'Ulm/Presses de l'École normale supérieure, Paris
- Victor P-E (1940) *Jeux d'enfants et jeux d'adultes chez les Eskimo d'Angmassalik: Les jeux de ficelle*. *Meddelelser om Gronland* 125(7):1–212. Copenhagen

<http://www.springer.com/978-3-319-11993-9>

String Figures as Mathematics?

An Anthropological Approach to String Figure-making in Oral
Tradition Societies

Vandendriessche, E.

2015, XIX, 392 p. 1234 illus., 134 illus. in color.,

Hardcover

ISBN: 978-3-319-11993-9