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L-M BRIC News

Special Issue

Loop-Manipulation as a Technique for Making Single-Course Twining

A single-course twining is formed when an element penetrates through the eye of a half twist of each of plied cords and binds them (Note 1). The row of plied cords completely covers the binder forming a surface of a rib-weave pattern.

There are two types: Type 1: structures with two sets of elements, surface components acting as warp and binder as weft. Type 2: a one-set structure of the single-course oblique twining (SCOT). SCOT braids more often consist of two sections forming a chevron pattern (Note 2). Both type 1 and type 2 are seen among archeological finds as well as those produced today.

Construction methods using finger-held loop-manipulation (F-H L-M) for Type 1 have been reported since early 20th c (Note 3). They all are essentially the same as one shown in "Illustrated Instruction Series" in this issue. Type 1 braids may also be made using "ayatakedai," one of Japanese stand-&-bobbin (S&B) tools as well as by card weaving.

Procedures for type 2 braids using the F-H L-M technique have been found in various 15th c. English household records, such as "Tollemache Book of Secrets (Note 4). M. Frame and M. Kinoshita each independently proposed procedures for making type 2 braids using the hand-held (H-H) L-M technique. The former proposed one used in ancient Peru and the latter one used in Japan before the 17th c (Note 5). Procedures using the F-H L-M and H-H L-M are in principle the same. There's no report of the L-M techniques being used for making the SCOT in the Andes today although SCOT braids have been spotted.

Other techniques used for making them are marudai, ply-split (P-S) braiding, and free-hanging hand braiding methods (Note 6).

F-H L-M OF Hunza PEOPLE: Reports from Ray Napier (UK)

The Hunzas of northern Pakistan make 8-ridge Type 1 braid using F-H L-M for the edge trimming of a cap (Photo 1). Ray reports that they also make 10-ridge braids using all ten fingers. Those made using L-M always have 2-ply twines of S- and Z-twist next each other. Type 1 braids are used widely as trimmings for hats, clothes, bags, etc.,

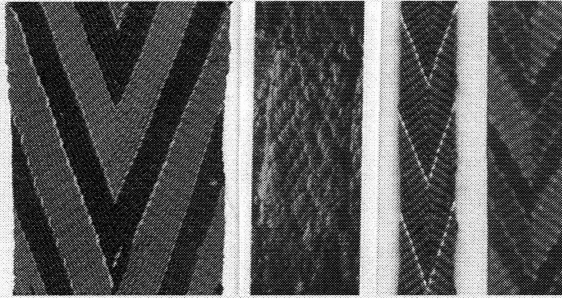


Photo 1: Cap of the HUNZA Tribe
 A cap covered with brightly colored cross-stitch flowers has an edge trimming of loop-manipulated warp-twining.
 経緯連組織組紐で縁取りしたフンザ族の帽子。クロスステッチの花で全面を飾る。
 Photo: M. Kinoshita © 2002 L-M BRIC News ©

often stitched on with the weft thread as they are made.

Card-woven bands are also used for this purpose, for which four-ply twines are more often used. Arrangement of S- and Z-twist twines may not necessarily be next to each other. More subtle distinction between those made using cards and those of loops would be worth exploring.

SCOT Braids from Fifth-century Japanese Burial Mounds



M. Inoue, N. Kizawa, M. Omura and N. Ueda (Japan) presented a poster session, "Braids on Excavated Iron Swords" at WOAM

International Conference, Stockholm, Sweden, 2001 (Note 7).

In this research, Inoue, et al., have found, through careful examination of the pseudomorphs of braids on the scabbard of an iron sword and an iron armor, that the braids were constructed in high possibility using the L-M technique.

Recognizing the surface pattern of the pseudomorph on the scabbard as that of the two-section SCOT braid, they compared the oblique angle of the axis components to the spine of the braid to that of extant braid specimens from the 7th and 8th centuries and found their similarity. While the oblique angle of the ribb pattern on SCOT braids may be only one of the determining factors of this type of braids, the similarity in the appearance of the specimens to those of the 7th century braids is quite obvious (Photo2). Regardless as to whether the excavated braids were imported or made in Japan, if it is established to be correct, the earliest date for the L-M technique used for making SCOT braids could be pushed back by about two centuries.

The Yaos in Thai practice the 5 loops inner-finger-operated F-H L-M

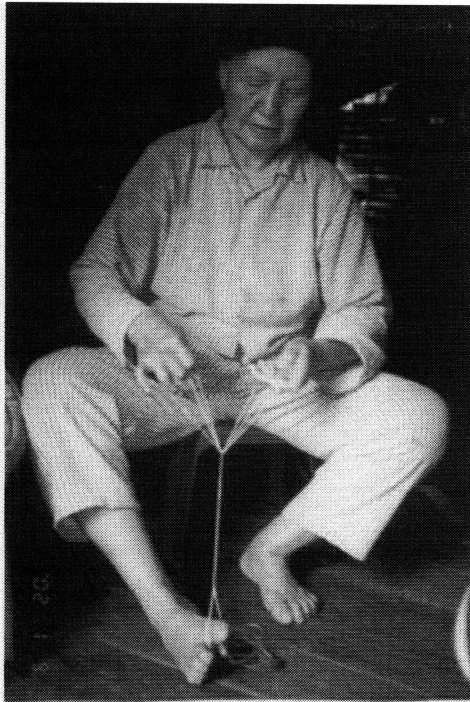


Photo 3:
Mrs. Zhao Lai-long demonstrating L-M braiding.
依田さんが編み方を習った元村長夫人の趙さん
Photo: A. Yoda © 2001 L-M BRIC News ©

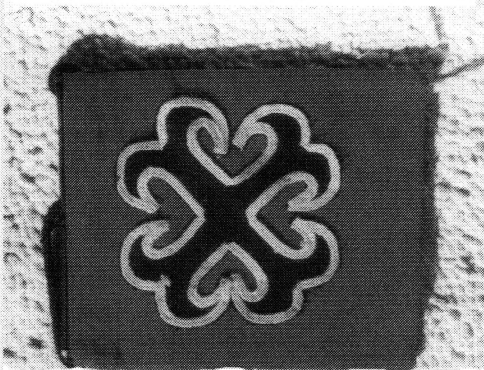


Photo 4 : Shoulder bag made of recycled bridal saddle blanket. Four-ridge flat braids trim around a stylized pond-skater.
4 畝綾織組織平組紐で縁取りした婚礼用ケーブリサイクル小物入れ。模様はアメンポー
Photo: A. Yoda © 2001 L-M BRIC News ©

Akiko Yoda (Japan) reports that Mrs. Zhao who demonstrated how to make 'two 2-ridge flat,' 'square' and '4-ridge flat' braids used "Palms-up operating with the ring finger" (Method #2) method of F-H L-M (Note 8)(Photo3). She used red, black or white mercerized cotton one-color loops. She also made vertical-stripe square braid using two-color loops. To make two-color loops, she tied the ends of red and black threads. The Yaos don't make braids with an unorthodox-pattern. The braids are used for edge trimmings of caps, clothes, bags and bridal saddle blankets (Photo4). They also are used for button loops.

The L-M used in India has been found to be 'inner-finger operated' method

Remember the copy of a drawing of an Indian gold braider in fig. 4 of

L-M BRIC News No. 1? I speculated that the technique used was likely to be Method 2, that is, 'Palms-up and inner-finger operated' (V-fell) F-H L-M. This is exactly what 12-year old Zoe K. Williams, one of the authors of *Fingerloop Braids!*

The majority of reports so far on method 2 have come from eastern countries, China, Japan and Thai. On this, now another from Asia joined. The one from the eastern Slav region of Russia is the only exception.

Mystery of a Beater Stand Illustrated on the Face of a Cypress-strip Fan

Setsuko Sumiura and Kyoko Tanaka (Japan) informed me of the illustration on a fan accompanying replicas of gorgeous kimonos shown at the Sixteenth-century Costume Exhibit at the Kyoto Traditional Crafts Information Center Gallery (Photo 5). Sumiura reports: according to the Gallery curator, Mr. Kitagawa, the fans placed on the floor beside the hem of the kimonos were made at the time when the kimonos were reproduced by a collaboration of the best Kyoto textile artisans in 1931-4 for a large textile expo. The research

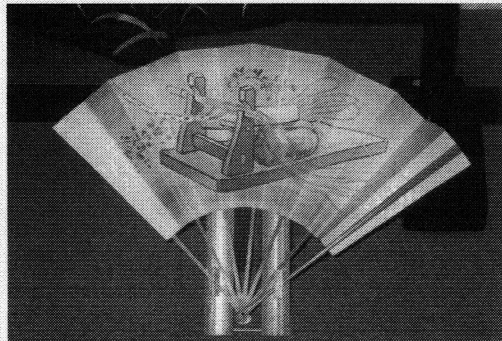


Photo 5 The beater stand illustrated on a fan.
足打台を描く「室町・桃山時代の衣裳展」の検票
Photo: K. Tanaka © 2001
L-M BRIC News © 2002

and works on the kimonos were fully documented, but nothing for the fans which were meant to be mere accessories to the kimonos.

The beater stand depicted on the fan is similar to those seen in several 16th- to 19th-c. illustrations. This one, however, depicts the stand standing alone unlike all others in which a

woman braids using the beater. A pincer which holds the loops freed from the hands has been deposited on the cut-outs of the side posts of the stand. The cut-outs can be seen in no other documents but "Soshun Biko," the original document from which Kinoshita reconstructed the Japanese H-H L-M, kute-uchi. The detail of the drawing assures me of the authenticity of the source. Is there anybody out there who knows of the source of the illustration?

About Single Course Twining:

A weave pattern is determined by assigning each end of the weft either to go over or under the warp at each crossing of warp and weft. In the counter-cross twining structure, the pattern is determined by assigning each twined cord either to penetrate or be penetrated at each crossing of the cords in the countered courses (Note 9).

In the single course twining, a twined cord successively penetrates through several cords in the countered courses. It does not have to penetrate from one selvage to the other.

Single Course Twining with 2 Sets of Elements:

Braids called 'ayatakegumi' in kumihimo have a structure very much like card-woven bands, with their twining elements bound together by an element that runs perpendicular to them. Shouldn't they, then, be grouped in weaving? If they are seen, however, as a degenerate form of a group of solid braids often known by names suffixed with Genji with a structure in which two sets of twine elements reciprocally

penetrate and bind each other, it is clear that they don't belong to weaving.

Single Course Oblique Twining (SCOT):

A SCOT braid is formed when a pair of elements (J) penetrates through a row of twined pairs of elements (K, L, M,) and lines itself at the end of the row (K, L, M,J), then pair K follows in the same manner, and so on. In constructing SCOT, the pairs of elements may be plied beforehand as in the case of ply-split technique or may be twisted as the work progresses as in the case of marudai, L-M or free-hanging free-hand methods.

Ancient Japanese SCOT braids and Kute-uchi:

In proving in high probability that the L-M had been the method used to construct the silk braids from the 7th to 8th c. in the Horyuji and Shosoin collections, there was a fortunate circumstance that:

1. Over 200 braid specimens have been surveyed by the Shosoin Office,
2. Result of the survey has been published,
3. which includes many close-up photos, as well as other excellent sources of photographic images (Note 10).

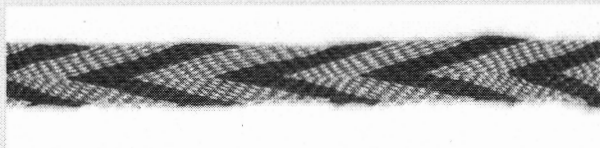
My own survey from these sources provided a statistical basis that many characteristics of the braids came from the working mechanism of their construction technique itself. While not being able to examine actual specimens by yourself might be a disadvantage, photo images allow you to spend the time as long as you want and make repeated observations.

These ancient braids have long been considered having been constructed using kumihimo (S&B) technique. Their features; some are less than 2 mm wide, and/or several meters long, and the material used for most of them are degummed silk thread with little twist, eliminate the possibility of free-hanging free-hand techniques having been used. The only possibility known then was S&B. Some characteristics which do not fit in to those constructed using S&B, such as that they are not as firm or the stitches are not as uniform, and certain methodological problems, however, have never been discussed in depth.

Overview of the ancient SCOT specimens from the 7th and 8th centuries (Note 11)

- a. Oblique angles of the surface elements and those of axis to the spine of the braid are narrower than those made using S&B,
- b. Surface pattern has an irregularity that is not present on those made using S&B,
- c. Braid width narrows where the rib stitches are tighter, and widens where they are looser.

The above characteristics show that there is a correlation between the take up of the surface elements and the core elements. They can be explained as the take-up mechanism of the L-M technique. Conversely, these characteristics appear naturally on all 2-s SCOT braids made using F-H L-M or kute-uchi (Photo 6).



On the other hand, the S&B procedures produce a firm 2-s SCOT braid with a uniform

surface pattern regulated by the balance between the weight of the bobbins and the counter-weight. The width of the braid, however, has to be controlled by the braider at every repeat of the procedure to keep it uniform. Obviously there is no correlation between the take up of the surface elements and the axial elements. Compared to the training it takes for a braider to master the skill to control the width of SCOT braids, it is minimal with L-M, whereas you need to learn to keep a steady beating.

The ply-split technique could not have been the production technique of the ancient Japanese SCOT braids. This is because the majority of the specimens are composed of Z-2-ply elements which are paired and twisted in the Z direction. It is impossible to make this kind of twist pattern when plied strings are used as basic unit of construction as in the case of P-S.

ILLUSTRATED INSTRUCTION SERIES:

INTRODUCTION

INSTRUCTION NO. 5

Warp Single Course Twining,
Single Course Oblique Twining (SCOT)

LIST OF OBSERVATION POINTS FOR RECORDING L-M TECHNIQUES

The list shows what to look for when you happen to encounter a person who knows l-m braiding and is willing to answer your questions. It will be greatly appreciated if you take such a record and send it to us.

Publications relating to L-M techniques:

? Dyer, Anne, *Purse Strings Unravelling: A Serious Look at Our Loopy Ancestors*, Craven Arms: Priv. Pub., 1997. £20.00+postage*. Dyer reconstructed F-H L-M from four 17th-c. English records which overlap Speiser's works. She, however, gave two recipes for each braid, one for palms-up and the other palms-down, both operating with index finger, on the ground that these were two possible interpretations of the records. To these she added the third recipe for using an implement with pegs, courtesy of late Ernie Henshall, for those who wish to have a larger number of fingers. ? Swales, Lois and Williams, Zoe K., *Fingerloop Braids (The Compleat Anachronist #108)*, Mipitas: The Society of Creative Anachronism, Inc., 2000. \$4.50*. Williams learned L-M braiding from an Indian (East) woman, and Swales from E. Franquemont, specialist on Andean textile arts. The authors reconstructed recipes from several 15th-c. English records which are similar to but not so well organized as the "Tollemache" record. The recipe for the Maskell lace is wrong which turned out to have originated from a copy mistake in their source material*. Included are instructions for producing aglets, points and eyelets needed for making medieval costumes. ? Speiser, N., 'Pondering over Tiny Tatters,' *Strands* 2001, issue 8, 2001*. Speiser ponders over a tiny 12th-c. lace fragment which may or may not be the maskell lace.

Internet:

o <http://www.geocities.com/lmbric/index.html> Now you can view L-M BRIC News No.1. The rest will follow. o <http://www.cs.vassar.edu/~cadorman/fingerloop.html>, Priest-Dorman, C., *Sample Fingerloop Braids from a Fifteen-Century Manuscript*, 1997-2000. She offers a visual aid to fingerloop braids made using the same source of the Swales-Williams recipes.

*: For further information, please get in touch with the News editor.

Activities (April, 2001 to March 2001) :

Exhibit: Sample notebook for Tellemache and kute-uchi techniques at The Annual Exhibits of C. Kawabe's Natural Dye Studio.

Workshops: C. Kawabe, Otani Women's Junior College. One of the students in the class said that she had learned L-M while participating in a high school activity. While she did not at all remember details, this incident may prove to be a sign that there is somebody in western Japan who knows the ancient L-M

technique. (Those that have been collected so far came from eastern Japan.); Senhoku Greens Institute (horticultural group) Wreaths making incorporating L-M braids with flowers (Photo 7); N. Speiser, workshop and lecture at Ray Napier's Studio for The Braid Society, England; M. Kinoshita, workshops and lectures, Boston Weavers' Guild, Shuttle Club Hokkaido Branch, Ooin Kaikan, Izumi Ootsu Municipal Textile Museum.

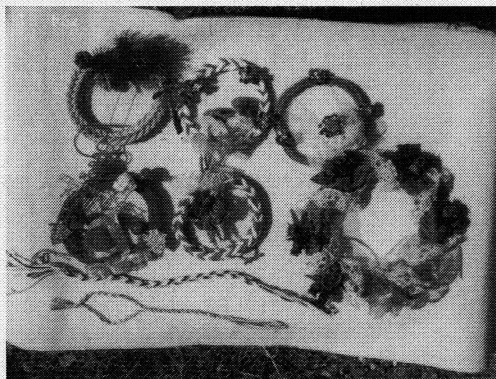


Photo 7 Wreath incorporating l-m braids with flowers
ループ組紐に花を組みこんで作ったリース
Photo: Chizuko Akita. L-M BRIC News © 2002

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Editor's note: The number of pages of the hard copy version of this issue has increased from 4 to 6. It has been prompted by no other reason but the increase of the weight limit from 1/2 oz (14g) to 1oz (28g) when the minimum postage for international airmail was raised from 60 ¢ to 80¢.

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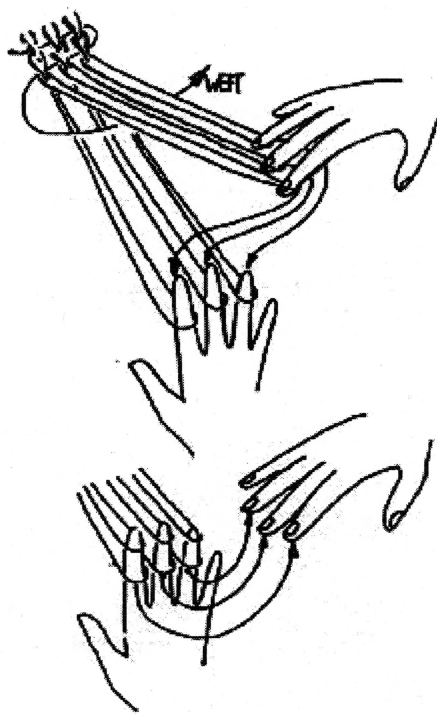
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ILLUSTRATED INSTRUCTION SERIES: No. 5

Single Course Twining

1. Edge Trimming Braid for a cap used by the Hunza People.



One person works at the warp (Wp) and another at the weft (Wf).

Number of loops: 8

Tie the yarn at the head end together in a overhand knot and secure it on a support.

Fingers are numbered as indicated in INTRODUCTION.

Wp: Mount the loops one each on the 4 fingers, 1, 2, 3, 4 of both hands. Hold the hands in front of you, palms facing each other in vertical position.

Wf: Take a small ball of weft yarn or if the braid is sewn on as a trimming, thread the weft (cut in a convenient length) through the eye of a needle.

Step 1: Wp transfers the 4 loops on the right hand to above the loops on the left corresponding fingers. (Fig. 1 top)

Step 2: Using the right hand Wp hooks up the lower loops on the left corresponding fingers. (Fig. 1 bottom)

Open the shed by raising the right arm and lowering the left arm.

Step 3: Wf Beats the shed and insert the weft.

Repeat Steps 1-3.

After the loops on the fingers of the right hand and left have been exchanged, the right-hand-side shanks and those of the left-hand-side of exchanged loops cross. The cross on one side is in S direction and the other in Z. By repeating the steps you get four each of S- and Z-inclined ridges staggered in every other row.

Figure 1: Copied from The Manual of Braiding
Courtesy of Noémi Speiser. Noémi Speiser © 1983

2. Loop-Manipulation Procedure for Making SCOT

Here, we introduce 'Chevron Broad of 8 bows,' #30 of "The Tollemache Book of Secrets: Treatise for Making of Laces."

16-loop 2-SECTION SCOT procedure



16-element 2-section SCOT with a Chevron pattern

- No. of loops: 8 4 each of colors P and Q
- Mount loops on the four fingers of both hands; PPQQ QQPP.
- Mount loop R1 farther away from the tip. (This loop is R11)

Procedure:

Step 1: Insert R1 through the loops L4, L3, L2 and take the loop L1 by scooping up the top shank. (Now loop L1 is loop R1-2)

Shift the loops on the left hand vacating the loop L4.

L4 takes loop R1-2 by scooping up the top shank.

Step 2: Follow Step 1 but in the mirror-image movement.

Step 3: Exchange the loops L4 and R4. The loop R4 goes through the loop L4 while being careful that the upper shanks of the loops remain the same after the exchange.

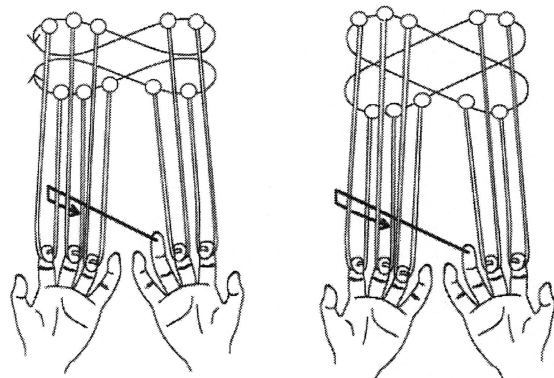
Beat the cross of loops R4 and L4.

Step 4: Twist the left loops counterclockwise and the right loops clockwise.

Beat at the crosses of the twisted loops and repeat from Step 1. Fig. 2

Up to 8-loop are used with one-person finger-held method for this procedure. With the h-h method, up to 20 or a larger number of loops may be used. (It depends on the size of the hands.) The number goes up if two or more braiders cooperate. An assistant or a beater stand is needed unless the braid being made is shorter than a half of your height.

3. The Yao's method: Palms-up and operating with the ring finger



The number of loops: 5 Mount the loops on L1, L2, L3, R1 and R2.

Recipe 1. Two 5-element pig-tail braids (2-ridge braids at one shot)

Step 1: Using R3, go through loops L3, L2. Scoop the left-hand-side shank of loop L4 and take it out through the loops L2, L3. Shift the loops on the left hand.

Step 2: The same as above but in the mirror-image movement. Beat the fell to tighten.

Repeat Steps 1 and 2.

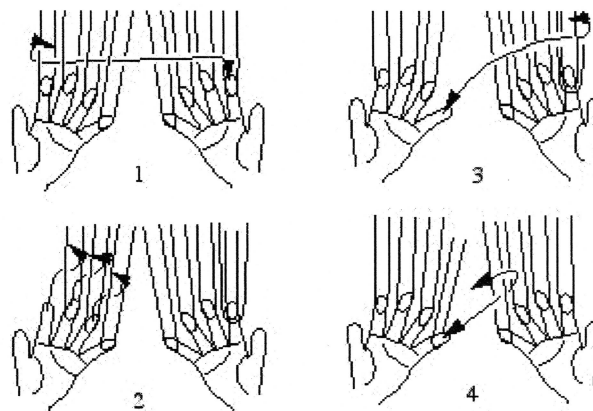
(Fig. 3 Recipe 1 at above left, Recipe 2 at above right)

Recipe 2. 5-element Square braid

Step 1-2: The same as above but hook from above the left-hand-side shank of loop L1

Recipe 3. 5-element 4-ridge flat braid

Step 1: Follow Step 1 of the pig-tail braid instruction.



First half of the 8-step procedure. The second half is the mirror-image of the first half.

Fig. 2

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Step 2: Follow Step 2 of the **square braid** instruction.