

CULTURAL CONTACTS BETWEEN THE EAST MEDITERRANEAN COASTAL AREA AND MESOPOTAMIA IN

A.D. 1ST–3RD CENTURIES

—The Marked Characteristics of the Textiles Unearthed from at-Tar Caves, Iraq—

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This is the full text of the report lectured at the First International Conference on the Conservation and Enhancement of Archaeological Heritage of the Arabian Peninsula which was held under the auspices of IsMEO in Rome on May 27–31, 1991. It is to be published here by the courteous permission of *the Hellenistic Centers around Arabia: Arabia Antiqua*. And its summary in Arabic was presented to *Arabia Antiqua*. Moreover, here are some additional views given on the recent research study of the material uncovered at other sites.

Preface

At-Tar Site, groups of caves, which was discovered by Hideo Fujii in September, 1969, is located along the precipice line some 35 km to the southwest of Kerbala in the Republic of Iraq. And at the request of the Iraqi Government, the Expedition began the excavation of Hill-A in March, 1971. Later in the period from that time up to the sixth survey of 1984, we carried out the excavations of all the Caves of Hill-A, and Cave C-12 (Corridor), Cave C-17, Cave C-16 and Cave C-12 (Inner Room) of Hill-C.

In the first place, the textiles found in each cave were in the situation that rugs (pile textiles and rush mats) have been laid under the dead body [Fujii and Others, 1991: p. 157], and the dead had been covered with or wrapped up in the fabric which he or she seems to have been wearing while alive. What deserves attention is that most of the caves contain the pile textiles with some combinations of different pile yarn knotting types each.

In particular, A-2 type pile yarn knotting method is so unusual that we have never seen it in the reports on pile yarn knotting methods made public so far. It is especially worthy of notice that A-2 type is peculiar to at-Tar Caves as far as we are concerned (Fig. 1) [Fujii and Sakamoto, 1990: pp. 49–51].

What matters is the problem that over 4,000 fragmentary textiles have been uncovered together with lots of date-palm seeds, leather goods, bivalves which are native to the East Mediterranean coastal area, or the Arabian Gulf coastal area, a number of Roman glass bowls, Roman glass beads, iron arrowheads, date-palm baskets, woodenware, pottery and potsherds. Most of these fragmentary textiles have been discovered accompanied with human remains. So, they are regarded as the ones which were associated with burials.

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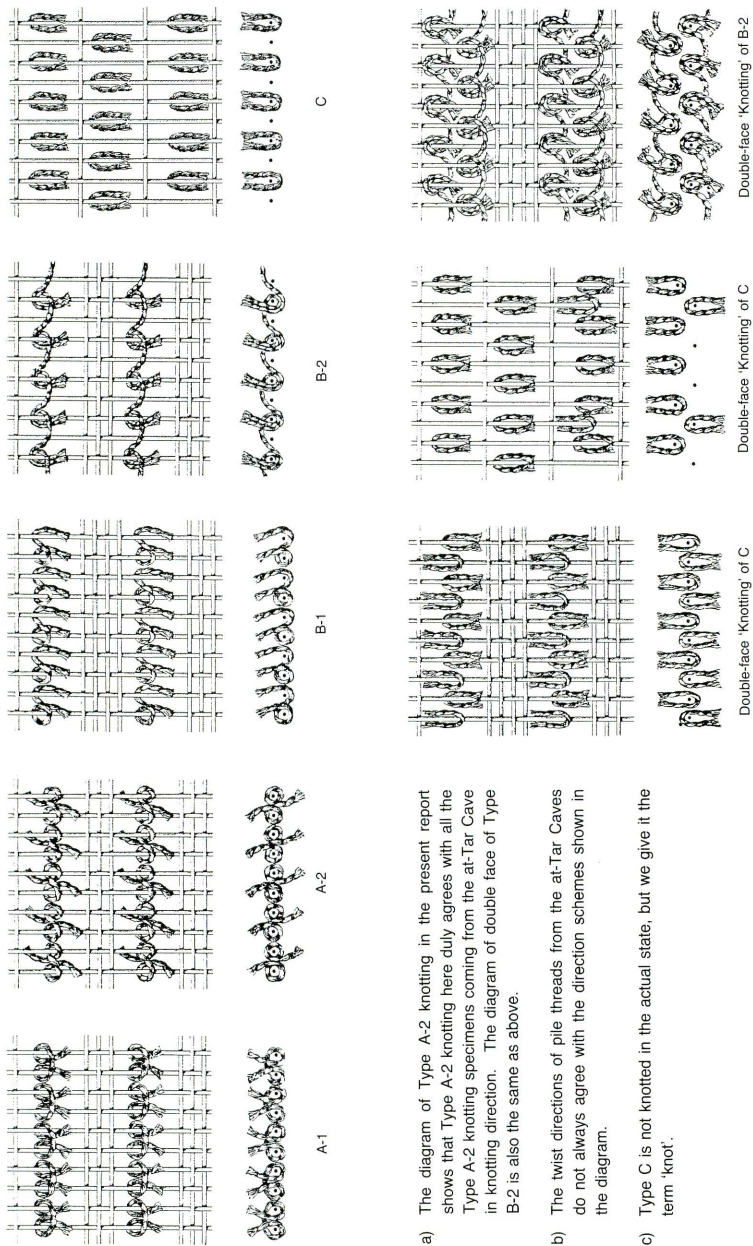


Fig. 1 Pile-knotting Types

- a) The diagram of Type A-2 knotting in the present report shows that Type A-2 knotting here duly agrees with all the Type A-2 knotting specimens coming from the at-Tar Cave in knotting direction. The diagram of double face of Type B-2 is also the same as above.
- b) The twist directions of pile threads from the at-Tar Caves do not always agree with the direction schemes shown in the diagram.
- c) Type C is not knotted in the actual state, but we give it the term 'knot'.

Marked features of the uncovered textiles

(1) Material

Of all the uncovered specimens, the ratio of wool is about 90 percent, followed by cotton and linen products, respectively. No silk textiles have been evidenced. The fabrics are mostly of sheep-wool. Some rough ones are the produce from goat-hair.

And grandrelle thread is often used for the warps of pile textiles and rush mats. Grandrelle thread is made by plying sheep yarn and camel yarn or sheep yarn and cashmere yarn or sheep yarn and alpaca yarn together, or by plying the bright color sheep yarn and dark color sheep yarn together (Fibers & Textiles Laboratoris, Toray Industries, Inc., 1990: pp. 70–71; Fujii and Others, 1991: p. 164).

As for the sheep fiber, crimps are more remarkably visible, thereby making it more elastic and larger in milling because of its more crenated scale shape in longitudinal view, where change in size is more apt to occur, accordingly. As for the other beast fiber, on the other hand, crimps are less remarkably visible, thereby making it less elastic and smaller in milling because of its more flattened scale shape, where change in size hardly occurs, accordingly.

The predominant use of the grandrelle thread evidenced in the warp threads of pile textiles and rush mats may have been firstly because of the necessity required for warp toughness.

At the same time, with a view to realizing their combined effects onto a single plied yarn, the ancients probably intended to make better use of such excellent properties as the toughness and less milling of camel, cashmere and alpaca fibers in order to make up for the milling caused by sheep's scales (Fujii and Sakamoto, 1990: p. 48).

(2) Design composition

There are several features in the composition of the pattern bands. In particular, the horizontal stripe composition that the wave pattern bands and the shaded color bands are symmetrically arranged above and below with the central plant bands such as flower and/or tree patterns inserted in-between, and the monochrome stripes woven further outside of them is also common to that of the textiles uncovered at Palmyra and Dura-Europos. In reference to the plant patterns, there are grapevine scroll pattern (Reference: NIHRA: Second son of SANATRUQ I, Hatra, wearing the tunic with grapevine scroll pattern, Iraq Museum, IM 73001), sacred tree pattern and several kinds of flower patterns identified. The shaded color band is observed to gradually change its tint from light to dark, starting beside the central pattern bands (Fujii, Sakamoto and Ichihashi, 1989: pp. 122–125, 127, 128).

We have found some fragments with combinations of the wave patterns and shaded color bands, and a piece of extremely thin, large cloth where several kinds of patterns are widely woven in the warp direction along the selvages of checkered pattern ground. Moreover, there are some pieces of large, thin cloth with H-shape patterns, (Reference: The priest wearing the mantle with H-shape pattern, Hatra, No. Six Shrine, Iraq Museum, IM58085), and a piece of large, thin cloth with gamma patterns. The former ones have a set of three square patterns along the selvaige each arranged near the four corners (Fujii, Sakamoto and Ichihashi, 1989: pp. 130–133). They are observed to have been dyed by using tyrian purple and a compound of kermes or madder and indigo.

There are two kinds of wappen-like patterns where human figures have been symbolized in very unique way. The first one is a portrait which is surrounded with double rectangle frames, inner one of which is woven with red color thread. And inside the inner frame, we see an upper-half of a female with a scroll-like crown on her head, wearing a hair ornament of grape leaves and red bunches, and facing slightly

rightward with her eyes extremely toward the right. This lady seems to represent the image of Dionysos. Between the inner frame and the outer frame, there are parapet motif lines running above and below, and indented geometric designs seen on both right and left sides. The vertical direction of the portrait well agrees with the warp threads in direction. In addition, it is clearly known that there are three more fragments of female portraits wearing hair ornaments with border decorations, which are similar to the above [Fujii, ed., 1976: pp. 124–125, Pls. Textile Nos. 84, 86, 87, 88; Fujii, ed., 1980: pp. 108–114, 128–135; Fujii and Sakamoto 1987: pp. 221–222]. The second are two portraits upper bodies with wave pattern borders, facing left with their eyes directed further left; one of whom wears a golden crown and the other, a decorative cap on their heads, respectively. Both of them are seen hanging so big earrings as doves' eggs from their ears [Fujii and Sakamoto, 1987: p. 223]. We see warp threads pass in the horizontal direction of the very portraits. Also, it has been confirmed that there is another similar female wearing a decorative cap without earrings [Fujii, ed., 1976: p. 125, Pl. Textile No. 85; Fujii, ed., 1980: pp. 136–137]. Moreover, there are three more such fragments, which have not been cleared yet. The similarity among them is that Hellenistic human figures have been woven by using the non-horizontal weft, tapestry weave technique [Fujii, ed., 1980: pp. 109–114].

In the pile textiles uncovered at at-Tar Caves, there are several types of designs such as stripe, square, chequered, staircase, and the combination of wave and geometric patterns. The chequered pattern is composed of alternate shifting of comb patterns (picket-fence patterns) one by one into two rows up and down in the weft direction. The stripe and checkered patterns are depicted along the unpiled weave start and weave finish of the pile textiles for the use of floor-rug as border decoration. All the border decorations of the at-Tar pile textiles are seen only at the starting and finishing portions, except for the double face pile textile (Type C) from Cave F-6, Hill A (C-04-3), where square patterns of different colors are designed along the selvage [Fujii, ed., 1976: p. 182, Textile No. 132; Fujii ed., 1980: p. 65] (Fig. 1). Among the specimens from Dura-Europos, there are some ones which seem to be of unpiled border decoration (Nos. 231, 225) [Pfister and Bellinger, 1945: pp. 47–49, Pls. IV, XXII].

A well-preserved rug has the four corners and border decorations at the weave start and weave finish. The corners of the field are delimited by a staircase design to form triangles. This is an intermediate stage of carpet design in the development from the simple border at both ends of the weave start and weave finish to the more complicated design including a field, field corners and a surrounding border.

It is considered that most of pile textiles were used for floor rug, and a few for clothing and saddle cloth [Fujii and Sakamoto, 1990: pp. 45–65, Pls. 1–3].

(3) Weave features

Given below are the weave features to be especially worthy of notice among the uncovered specimens [Fujii, Sakamoto and Ichihashi, 1989: pp. 113–116]:

- a. Patterns are frequently woven by using tapestry weave technique which is classified into non-horizontal weft technique, slit type and dovetailed type. The dovetailed type is also observed in the making of decorative selvages.
- b. Large, thin fabrics with H-shape patterns and other large, thin fabrics have the method of altering weave and crossing warps before the shifting zone from the ground to the pattern portion. For instance, this is ground (warp 1) → pattern (warp 2). It is just the reverse after the shifting zone from the pattern portion to the ground (Fig. 3).
- c. One of the weave-start techniques is a cord-like making method, where weft threads pass through looped warp threads by weft-crossing.
- d. There are three warp-finish methods: 1) fringe, 2) hemstitch, 3) warp cord finish. In the method

- 3), two pairs of a few warp threads each are first twisted in the same direction, and then the resultant pair is plied in the opposite direction, while adding the next two or three warps at one time respectively to be finally plied into a cord-like finish.
- e. There are four kinds of selvage-making methods: Firstly, a simple return work of the thread; the second two are the ones for selvage reinforcement by using additional thread in one case and by repeating use of the weft threads in the other case; the fourth is a decorative use in addition to selvage reinforcement.

Weave alteration and warp crossing

Weave alteration means that in process of weaving on the loom, the weave system is turned from plain weave into its variation (warp 2, weft 1), from variation of plain weave (warp 1, weft 2) into its variation (warp 2, weft 1), or from twill into variation of plain weave (warp 1 or 2, weft 1), and vice versa, for some purpose. We often see warp threads cross on the alteration line of the weave system, which is termed 'warp crossing'. This is frequently observed in altering the ground and pattern structures, which occurs in association with the warp moving order.

At-Tar has such types of weave alterations as Type A, Type B, Type C and Type D (Fig. 2). And among them, warp crossing is used in Type A, Type B and Type C.

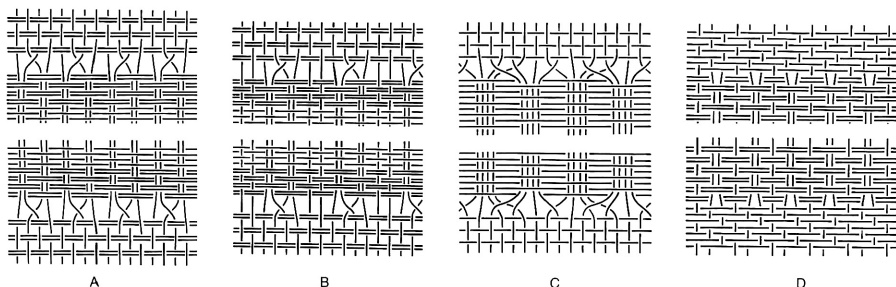


Fig. 2 Weave Alteration

At-Tar textiles vary in weave technique according to their uses (tunic, mantle, veil or scarf) at the time when their production program has been drawn up. For example, some fabrics require a smooth, soft feel, and others, a slightly hard feel. The mantle and the scarf must be excellent in soft, draping quality. In this case, it is essential that the pattern and ground textures are well balanced there.

Large, thin fabrics with H-shape patterns and other large, thin fabrics have the method of crossing warps before the shifting zone from the ground to the pattern portion (Fig. 3). For instance, this is ground (warp 1) → warp crossing → shifting zone (warp 2) → pattern (warp 2) → shifting zone (warp 2) → warp crossing → ground (warp 1). The pattern must be densely woven into weft-faced one in order to make pattern clear. By doing so, however, hardening would occur on the pattern part.

Passing of many weft threads into warp threads on the plain weave where a single warp alternately moves will surely make the pattern portion thicker and harder in touch. This is caused by the increase of intercrossing and interlacing points.

Therefore, the adoption of two or more warps instead of a single warp, as is often observed in pattern portion, will lessen the above problem, resulting in keeping balance between ground and pattern in texture

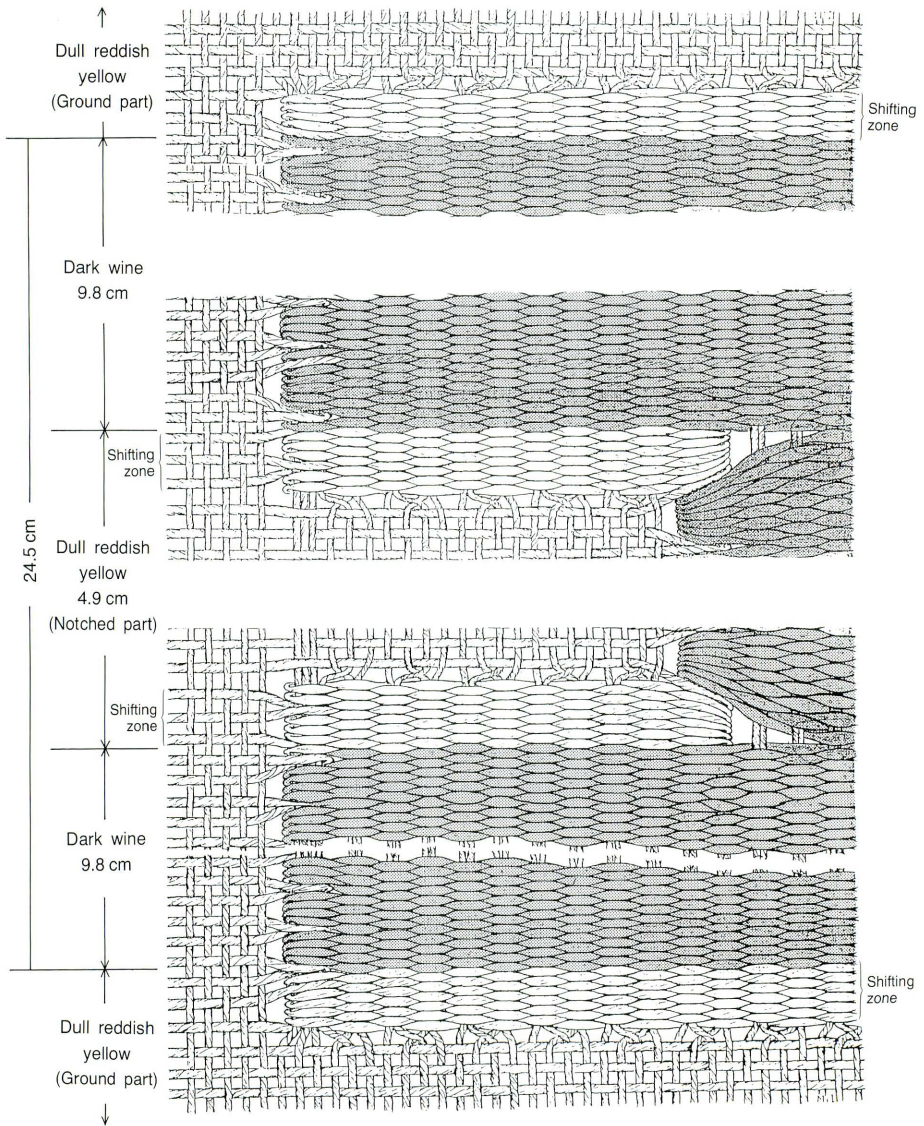


Fig. 3 Structure of H-shape pattern, Specimens Cave F4-C-31, 31'

and giving the cloth a soft feel. It seems that this is one of the reasons why the ancients altered their weave procedures.

At-Tar is abundant in specimens which use warp crossing in weave alteration. That may be due to the following reason, besides the moving order of warp (one over and one under the weft in plain weaving), where heddles work:

When the cloth is woven starting from the gauze-like ground portion of less weft density with the use of thin warp and weft threads successively into the pattern portion of thick weft density, the weft threads directly worked into the beginning of the pattern portion will come to be very unstable, and finally get out of shape.

To avoid its occurrence, it is necessary to take the following measures before getting into the first row of the pattern portion:

- 1) Warp crossing is first done before the shifting zone (Fig. 3) from the ground to the pattern portion.
- 2) And then, on the very zone, some rows of densely-woven ground weft threads follow next.

The warp crossing will prevent the weft straight line for the pattern contour from waving too large. But for the very zone, a minor zigzag line would still occur, affected by the warp crossing. Thus, the use of the same colored weft threads on the zone as those in the ground will result in this kind of zigzag line nearly vanishing from sight.

It is thought that the above measures will effectively prevent the pattern portion from running loose, thus finally leading to a neat external appearance to be given on the alignment of the pattern-making. This is the technique to be required when the difference between the weft density of the ground and that of the pattern is large [Fujii, Sakamoto and Ichihashi, 1989: pp. 140–146, Pls. 31, 32-c].

We find it extremely important to trace such warp crossing technique from among the data uncovered at the neighboring sites of at-Tar Caves when thinking over the matter of ‘cultural diffusion’ and ‘racial exchange’. Researches made so far by us have shown that the warp crossing of No. 14 (1933-503) from Dura-Europos [Pfister and Bellinger, 1945: p. 19, Pl. IX] and No. 145 (Q594/Q2288A) from Nubia Grave Site [Thurman and Williams, 1979: p. 126] technically corresponds to that of Textile 14, Textile 16 from Cave 12, Hill C, at-Tar and F4-C-31, 31’ from Cave 4, Hill A, at-Tar. In addition, the warp crossing technique can also be seen among some wool textiles of the Coptic textile collection preserved in the Field Museum, Chicago, though it is still uncertain as to their uncovered place and age.

Among the specimens coming from Tomb No. 64 which were exhibited in the Palmyra Museum in April, 1992, there is a wool textile with its pattern depicted with tapestry weave technique on it, which has been accompanied with a drawing to explain warp crossing technique used there. The drawing tells us that warp crossing makes its weave altered from plain weave (warp 1, weft 1) to variation of plain weave (warp 2, weft 1) slightly before the shifting point from ground to pattern [Schmidt-Colinet, 1992: Abb. 1]¹⁾.

As for the warp crossing done in the above specimen, however, we see all the adjacent warps crossed into paired warps. And, directly after that, those paired threads repeat the same motion (up and down or backward and forward) at the same time. This kind of warp crossing adopted in the above specimen is different from that of the at-Tar specimens in the crossing method and the warp motion after crossing (Fig. 2).

As already stated, there are some reasons as to why weave alteration and warp crossing are conducted. This kind of method adopted in the above specimen will be able to answer the purpose of keeping balance between ground and pattern in texture, but this method cannot work for retaining the contour of the pattern portion in shape. This is because the warps which kept working separately come to turn into the same kind of motion after weave alteration, that is, one of the paired warps will not keep their moving order [Sakamoto, 1992: pp. 55–56]. Accordingly, there is no reason why the warp crossing was

adopted in this specimen.

Conclusion

As the result of our study, the textiles have shown resemblance to those from Dura-Europos, Palmyra, the Cave of Letters and the sites of Nubia along the East Mediterranean coastal area in their weave type, weave structure, feature and composition of the pattern. With them kept under closer observation, however, the at-Tar textiles have such complex cultural traits as are markedly distinctive from them in the concrete. In this connection, the writers are of the opinion that outstanding textile cultures which had been brought in through the following routes used to flourish here in at-Tar area all through the period of 1st–3rd centuries A.D.: eastward progress of the Roman culture from the Mediterranean coastal area → establishment of the Syrian cultural traits caused by locality-transformation → further, their eastward advance and arrival in Mesopotamia → finally, their contact with the native Mesopotamian culture. What is more, the existence of these at-Tar textiles fully makes us consider that most of them were not merely the imported ones by trade through the desert road, but also the ones produced here by some groups of people who were engaged in spinning and dyeing with skillful weave technique at some fixed workshop, while settling somewhere around at-Tar Caves and leading a considerable scale of social life. To be brief, the second problem is to solve precisely where around at-Tar Caves the people had had their group life, based on the fact that some groups of people who owned such elaborate textiles have been found buried here in at-Tar Caves.

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Notes

- 1) The textile being taken up by us here has been dealt with as the one excavated from Tomb No. 64, depending on the explanation for the objects displayed at the Palmyra Museum and the pamphlet, 'Ancient Textiles from Palmyra'. On the other hand, however, it is found in the paper, 'Bericht über die Arbeiten in Palmyra 1992' that this specimen has been defined as the one from Kitôt Grab, with the addition of the diagram showing weave alteration which interests us.

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