

## A LATE-ANTIQUÉ TAPESTRY MEDALLION

*A Contribution to the History of Gold Thread Used in Textiles*

By VIVI SYLWAN

*Translated by R. J. Charleston from the Yearbook of the  
Röhss Museum of Arts and Crafts, Gothenburg, 1932\**

**A**MONG the textiles acquired by the Röhss Museum of Arts and Crafts in 1930 should be noted the medallion, executed in tapestry technique, which is here illustrated in Fig. 1. It has interwoven in it threads of pure gold, and therefore forms a valuable addition to the Museum's collection of late-Antique textiles belonging to the well-known types obtained from Egyptian grave-finds of the first millennium A.D.

The medallion, which was cut from a larger cloth after excavation, is in excellent condition. It was never in contact with any part of the body. Judging from its size—30.4 by 30.3 centimeters—it cannot have been a tunic ornament. It is most likely to have formed part of a drapery—a coverlet or the like—which had been placed as the topmost grave-cloth over the body. Interwoven or applied ornaments of this type—of circular, quadrangular, or other shapes, but exclusive of borders—are called by the Latin writers *segmenta*.

The following points concerning technique and material may be mentioned here. The textile of which the medallion formed part was of plain-woven linen, in the light golden-brown natural tones characteristic of the linen-weaves of these grave-finds (a little scrap survives, but is not visible in the illustration). The linen threads of both warp and weft are S-spun.<sup>1</sup> There are thirty warp-threads per centimeter, and the wefts of the main cloth are somewhat more widely spaced. In the medallion the warps of the original cloth are grouped in threes to form warp-strands; there are, accordingly, ten of these strands per centimeter. The medallion was woven

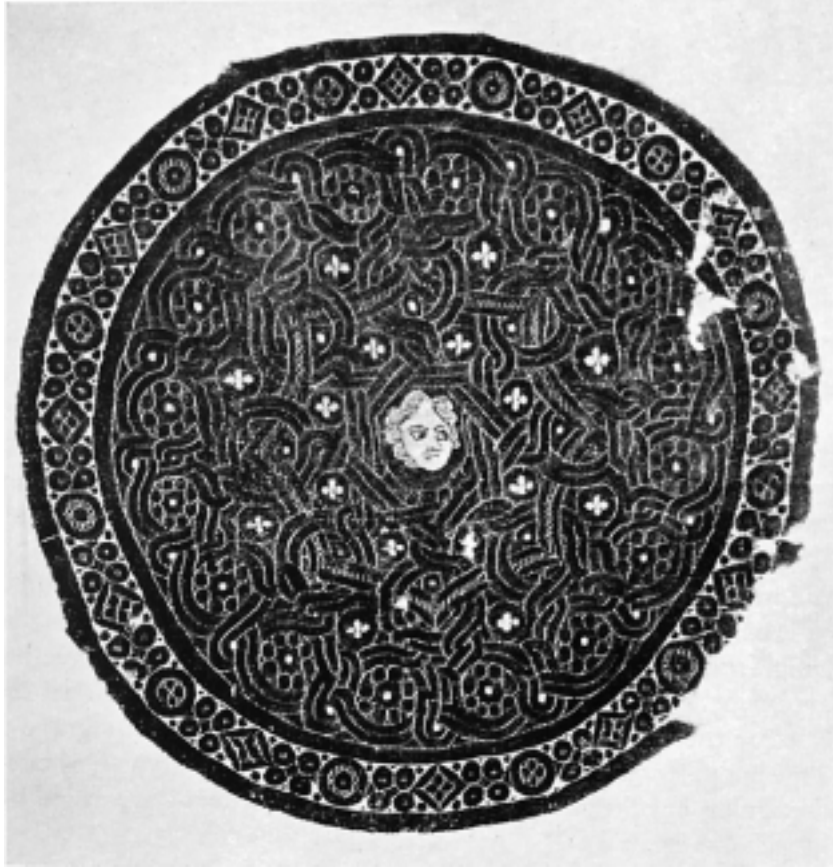


FIG. 1. TAPESTRY-WOVEN MEDALLION. PORTION OF A LARGER CLOTH.  
EGYPT, 4TH-6TH CENTURIES, A.D.

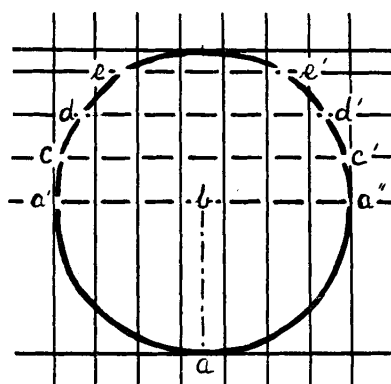


FIG. 2. DIAGRAM OF THE METHOD BY WHICH THE MEDALLION WAS WOVEN.

simultaneously with the main cloth in which it is set. The method of weaving was as follows (cf. the schematic diagram, Fig. 2): the weft, having been woven up to the line  $a'-b-a''$ , was cut up from  $a$  to  $b$ , and the threads were drawn out so as to form the rounded contour  $a'-a-a''$ . On the warp laid bare in this way—three threads to every warp-strand—the medallion was woven up to  $a'-b-a''$ , after which the remaining portion was woven in different stages—from  $a'-a''$  to  $c-c'$ , from  $c-c'$  to  $d-d'$ , etc. Concurrently with the weaving of each section of the tapestry, the weft of the main cloth was inserted to the full width of the material, but, it should be noted, *under* the medallion and its warp-strands, which were lifted up. This procedure is represented on the diagram by the broken lines  $a'-a''$ ,  $c-c'$ , etc. When the cloth was finished, the weft-threads floating loose on the reverse were cut away—a procedure which was not so rash as might appear, for the close texture of late-Antique weaves of this sort ensured that they remained firm despite this.

The wefts used for the tapestry-work consist of Z-spun<sup>1</sup> blue-violet (not shellfish purple) wool yarn, natural S-spun<sup>1</sup> linen, and gold thread. This last consists of a core, as it were, made of Z-twisted silk thread and measuring approximately .3 millimeter in thickness; this is spirally encircled by narrow strips of sheet-gold which has been beaten out extremely thin (gold-foil). The gold is crumpled, and a large proportion has dropped away.<sup>2</sup> The wefts of the tapestry follow the outlines of the pattern when these depart from the general rule of lying at right-angles to the warp (see Fig. 3). The wool thread forms the background in the inner field

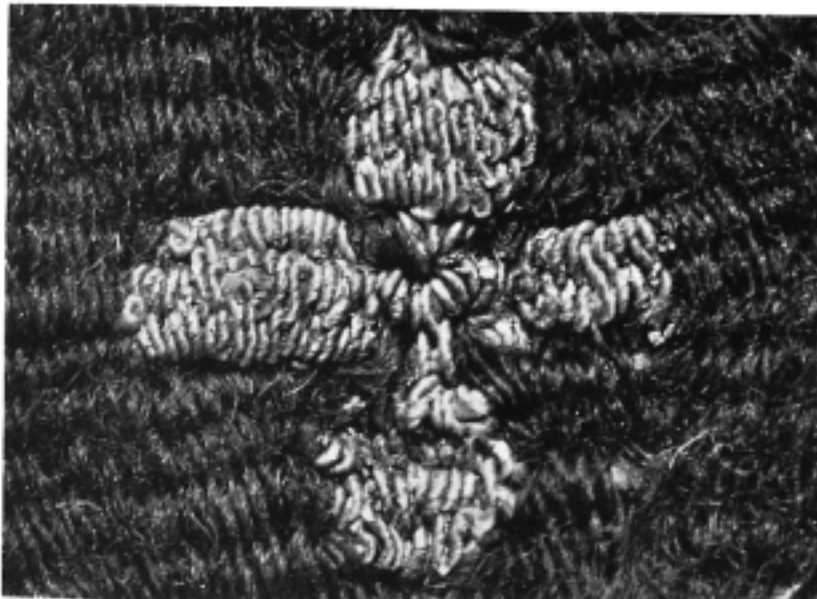


FIG. 3. ROSETTE EXECUTED IN THIN GOLD-THREAD ON A WOOL GROUND. DETAIL OF FIG. 1, ENLARGED APPROXIMATELY EIGHT TIMES.

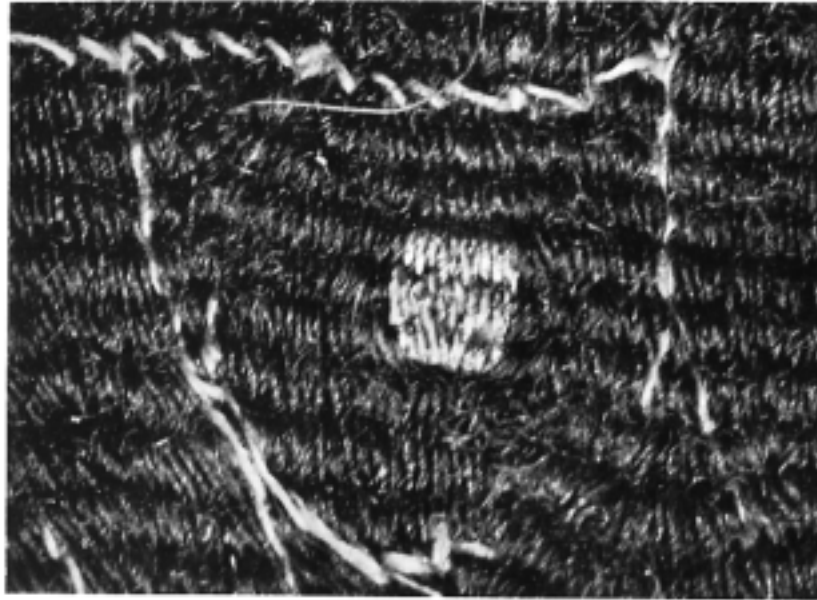


FIG. 4. ORNAMENT EXECUTED IN THIN GOLD-THREAD ON A WOOL GROUND. DETAIL OF FIG. 1, ENLARGED APPROXIMATELY EIGHT TIMES.

of the design, and the pattern in the border, where the linen thread provides the background. In addition, the linen thread is used for the details of the pattern both there and in the central field. The thread used for the fine line-drawing is twined in free-hand and often jumps over a number of weft-threads (Fig. 4), but seldom over more than one warp-strand. This twining-in of the thread, which in the finished weave resembles more than anything an uneven line of stem-stitch, was called "the flying needle" by earlier investigators in this field, apparently as far back as the 1880's. The name hits off excellently its characteristic decorative appearance, but is erroneous as a designation of the technique; a needle was never used, the work being carried out with free threads, which may perhaps have been wound on some kind of small bobbins or the like. In the medallion the head is executed in gold thread, with details in the woolen yarn of the background (Fig. 5). The small quatrefoils and dots are similarly of gold thread. Figures 3 and 4 show how these were carried out.

The medallion acquires its individual character by reason of the head set in the middle of the roundel. It has been raised somewhat above the mid-line, and in this way has acquired a freedom of pose which enhances the strangely vivid expression of the eyes. The decoration which frames it (cf. Fig. 6) grows from an octagon, and consists of ribbon-motives and highly stylized, even geometrical, flower-forms. At the extreme edge a ribbon passes through a series of rings, usually oval in shape and enclosing a dot executed in gold thread, of which every other one links with a triangular ring. Through these rings pass ribbons which intertwine over and under one another and are held together by an octagonal figure. They terminate in the central part of the pattern around the head. In the lower part of the plain central field appears a small additional frame put in with regard to the placing of the head. The interstices between the interlacing ribbons are filled with flower-motives, those on the circumference being eight-petaled with pistils in gold; those nearer the center quatrefoil, gold rosettes in circles. Even the roundels with gold dots in the center, which are placed in the internal angles of the octagon, are conceived as flowers (note in Fig. 1 the little stalk running in from the external point of the octagon to join the circle). The outer border repeats in the main the flower-motives of the central field, but without the use of gold.

The motive of the head, executed in gold thread picked out with a dark tone, is, so far as I know, as great a rarity as the use of gold thread. The closely curled (but disproportionately large) coiffure has a conspicuously marked parting or ringlet at the point where the hair divides over the



FIG. 5. HEAD AND ROSETTES IN THIN GOLD-THREAD.  
DETAIL OF FIG. 1, ENLARGED. (ACTUAL WIDTH, 5.5 CM.)

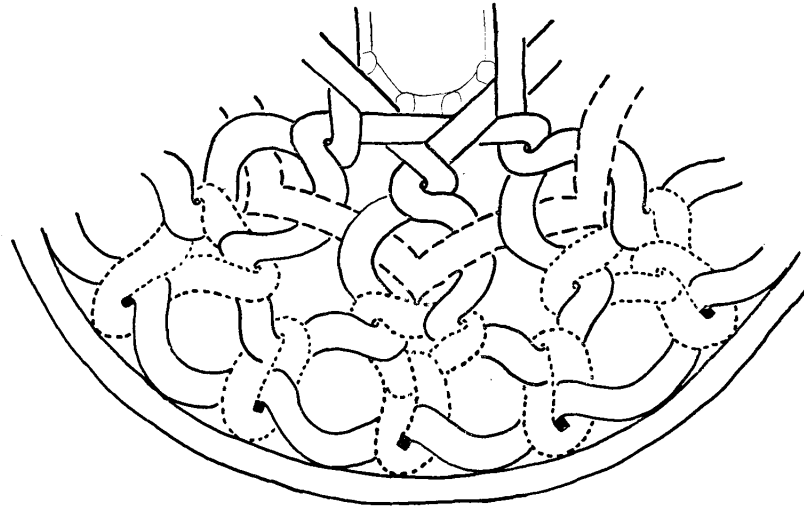


FIG. 6. DESIGN OF THE RIBBON-PATTERN ON FIG. 1, LOWER HALF.

center of the forehead. It should be noted that one warp-strand is left bare, while the wefts turn back on the strands to right and left of it. The rendering of the hair may be referred to a type familiar from the beardless, youthful heads of Greek sculpture—Apollo or Hermes or Alexander. The type recurs, indeed, in many representations of Antinöus, and one may ask whether it was not some picture of Hadrian's celebrated favorite which served as the original model for the head on the medallion. An argument for the immediate Egyptian origin of the head lies in the great wide-open eyes, familiar from late Hellenistic and early Byzantine portrait-painting in Egypt. The medallion is probably assignable to the 4th-5th centuries, a period when the manufacture in Egypt of textiles with a Hellenistic stamp was as yet relatively unaffected by oriental influence. During this period, ribbon- and interlace-patterns are very general, not only in the textile art but also in mosaic-designs. In particular, the black-and-white ribbon patterns of the floor mosaics are closely akin to the type to which our pattern belongs. There is no doubt that the same artists were at work in both these spheres. For the Greeks, the textile art was not a thing apart, as it is with us. Weaving, painting, or the making of mosaics were for them but different vehicles of artistic expression. In the textile art of the late-Antique period this concept emerges most clearly in figural and naturalistic motifs. These seldom display what one might call a

textile character. The weaver's aim has been to realize the artist's idea in the woven pattern. The point of view which finds expression in our phrase "thinking in terms of textiles" was entirely alien both to the Greek artist and to the Greek craftsman.

The medallion's greatest interest for research, however, lies in the use made in it of real gold thread. Thread of this, or a similar sort, would appear to have been used in woven textiles until about 1000 A.D., in embroideries and braids two hundred years or so longer. The gold thread used in textiles of the later Middle Ages and more recent times consists of gilt materials of one kind or another—that is to say, it is a counterfeit of, or to use a more lenient expression, a substitute for the real gold thread.

Very few textiles with gold interwoven have been preserved from Antiquity or the early Middle Ages. This is certainly, to a great extent, due to the fact that (when the grave was being robbed, for example, or the corpse being removed elsewhere) good care was taken of the always-serviceable gold, while the textile material was destroyed. O. von Falke, in his work on the history of silk weaving, states that the National Museum of Hungary owns a fragment, found in a sarcophagus, which bears a woman's figure woven entirely in gold on a fine net. This fragment can be referred on stylistic grounds to the 4th-5th centuries—that is to say, to approximately the same period as our medallion. Falke also mentions two other late-Antique (Egyptian) tapestry fragments with "gold rosettes"(!) in the textile collections of the Berlin Kunstgewerbemuseum.<sup>3</sup> The gold thread in all these fragments is of the same type as in ours. Although having no direct bearing on the gold thread of classical times considered here, mention may be made, as exemplifying another type of gold thread used in Antiquity, of an as yet unstudied find which I had the opportunity of examining in the Leyden Rijksmuseum van Oudenheden in the autumn of 1931. In a sarcophagus, which had been excavated in Holland somewhat earlier in the year, and in association with a number of particularly elegant objects which had belonged to a noble lady, probably a Roman, there was found a little pile of extremely fine threads of solid gold. These had probably formed decorative bands in a veil which had lain on the dead woman's breast. A faint trace of a border with a geometrical pattern is now discernible only in one place amid the jumble of gold threads. Fr. Bock informs us that remains of threads made of solid drawn gold wire and deriving from ancient textiles, are to be found in the Museum at Lyons and in the Museo Barbonico in Naples. It is not inconceivable that other remains of such



gold threads are preserved, but no assemblage of thoroughly sifted and authoritative information about such finds is yet available.

The classical authors who give accounts of the gold garments and the materials interwoven with gold used by the Greeks, Romans and oriental peoples, scarcely ever touch on the technical aspect of the matter. When they do, their notices usually strike us as vague. This may be to some extent because the expressions and explanatory words used by these authors are terms which it has not been possible to translate or gloss satisfactorily. The fact that gold thread used for textile purposes has seldom been preserved from these remote times has naturally also in a large measure contributed to the obscurity which still envelopes the problems involved.

In this connection there are two passages describing the preparation of gold thread which are utilized in the specialized literature of the subject and which are of interest here. The first of them, and the only description of the preparation of gold thread which is known to date back to the pre-Christian period, is the notice of the way in which Aaron's sacerdotal garments were made. In *Exodus*, Chap. 39, verse 3, it states: "And they hammered out the plates of gold and cut them into pieces for wires, to work them in the blue-purple and in the red-purple and in the crimson and in the fine linen—the work of a master weaver."<sup>4</sup> We are not told, unfortunately, whether the gold strips were woven flat or twisted around a core. The second quotation is taken from a poem composed about 400 A.D. by the Latin writer Claudianus. Since he was a native of Alexandria, the methods of manufacture which he describes relate no doubt to the sort of gold thread which is used in our medallion and in the fragments adduced by Falke and mentioned above. The poem relates how Proba, the old mother of the two consuls, Probinus and Olybrius, with her own hands makes ready the gold-embellished purple cloaks which formed part of her sons' official dress. Concerning the gold thread, it says:

Et longum tenues tractus producit in aurum  
Filaque concreto cogit squalere metallo.

In translation, this runs: "She draws out the wires [strips] until they fine down into *long gold* [author's own italics], and compels the threads to be rough with [*i.e.*, wound around by] the stiff metal." One may ask oneself whether *aurum longum* here may not be the Latin term for what we term "gold tinsel" (*i.e.*, gold in strip form). It is interesting that both these pieces of information concerning the preparation of gold thread in ancient

times—probably the most explicit that survive—originate in the same quarter, namely, Egypt. The Jewish crafts of Moses' time may have had Egyptian origins. Does the tradition of the type of gold thread found in our medallion hark back to the crafts of ancient Egypt?

In the papal inventory of the *Liber pontificalis* of the year 1295 this type of gold thread is called, according to Falke, by the name *aurum tractitium*\*(!), but only in connection with embroideries. In silk weaves, as Falke rightly points out, another type of gold thread, the so-called *aurum filatum*, or thread made of gilt membrane, had been in use for at least two or three centuries. A thread of this type consisted, as is known, of a strip of gilt membrane twisted around a thread core.

Although it would be of the greatest value for us to know in greater detail the methods of manufacturing gold thread which obtained in Antiquity and in the Near East during the pre-Hellenistic period, it seems to me that greater interest attaches to the problem of how *aurum tractitium* vanished from silk weaving and gilt membrane thread<sup>5</sup> first made its appearance, and what was the origin of the latter. It is true that these problems are touched upon here and there in the specialized literature on the subject, but nevertheless they remain as yet unsolved. Nor is this the place to institute a closer inquiry. In the meantime, two points which to the best of my knowledge have never yet been considered, seem worth noting.

Falke considers that the gilt membrane thread comes from Byzantium (that is to say, from Greek manufactories) and not, as maintained by a previous theory, from the East. As a proof of the correctness of this view, he adduces three medieval brocades from the eleventh century, which must be the oldest silk materials interwoven with gilt membrane thread at present known. He is of the opinion that all three are Byzantine work. In the case of two of them—the so-called Siviard textile in Sens (Falke, Fig. 244) and a gryphon with horses' hoofs from the collections of the Berlin Museum (Falke, Fig. 246)—he is undoubtedly right. As for the third, however—a brocade in the St. Waldburg monastery at Eichstedt (Lessing, Plates 71 and 72)—one may feel doubtful. It is true that this textile, which may be dated by the circumstances of its finding to the middle of the eleventh century, has a pattern closely allied to the Persian-Byzantine type, although greatly degenerated; but its texture, as far as I can discover, is quite foreign to the Byzantine silk industry. The twill

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\* Drawn gold.

“polymita” weave<sup>6</sup> still dominated the Byzantine workshops in the twelfth century. The thin, flimsy type of weave used in the St. Waldburg brocade, however, does not seem to have won acceptance there. This brocade, a damask-like silk textile using plain cloth for the ground weave and a rib “polymita” for the pattern,<sup>7</sup> would seem to be related to Syrian work of as far back as the 9th century, in the Islamic textiles which were manufactured in Syria but which drew their technical inspiration from China. Falke’s evidence, based essentially on the three textiles mentioned, seems very unsatisfactory, especially when one remembers how little is known of Syria’s prolific silk industry in the Middle Ages. As a further support for his view, he advances the opinion that certain well-known Andalusian, Mesopotamian and Sicilian brocades are later than the Byzantine textiles mentioned. This argument cannot be considered to hold good either, at least in so far as the first category is concerned. Indeed, the traditions of the Andalusian silk industry go back to the foundation of the Caliphate in Cordova (755 A.D.) and the first Omayyad invasion of Spain. During the first period, at least, a lively connection was maintained with the mother country.

One of the arguments which weighs most heavily with Falke is the fact that Cyprus, which was the main purveyor of gold thread to Western Europe during the Middle Ages, belonged to the Byzantine sphere of influence in artistic matters. He argues that the papal inventory of 1295 mentioned above deals with two different sorts of gilt membrane thread—*aurum filatum de opere Romanie* (Byzantine gold thread) and *aurum filatum de opere ciprensi* (Cyprian gold thread). By comparing Byzantine brocades and Cyprian embroideries, he arrives at the conclusion that the first term mentioned above refers to a heavily gilded membrane strip wound round a *silk* thread, while the latter term may be assigned to a type of thread consisting of a more lightly gilded, but quite broad, strip of membrane wound round a coarse *linen* thread. By the 13th century—again following Falke—gilt membrane thread of the Cyprian type was already being manufactured in the silk-producing towns of Italy.<sup>8</sup> “Cyprian gold thread” became a general term for gilt membrane thread. The island was indeed renowned for its gold-work in general, and the term came to denote, erroneously and possibly as a trade-name, types of different origin—even types with a silk core. One may therefore presume that the term “Cyprian” in the year 1295 referred to gold thread of a specific type, but not to the place where the thread was manufactured. It seems to me, therefore, that the quotations from the papal inventory cited

above scarcely tell us anything about the place where the actual technique—the method of winding a strip of gilt membrane around a thread core—was discovered.

The fact that gold thread made by twisting real gold around a thread core is found in Greek-inspired Egyptian textiles of the 4th-5th centuries, does not entitle us to ascribe to that country the origins of this form of gold thread.<sup>9</sup> On the other hand, it is likely that both the “Cyprian” and the “Byzantine” types of gilt membrane thread were imitations of real gold thread of this type.

It is possibly correct, with Falke, to connect the discovery of gilt membrane thread with the manufacture of gold leaf and the use for that purpose of gold-beater’s skin. But it is also noteworthy that the gold in the oldest known Chinese brocades was composed of strips of gilt leather. The weavers of the Han period do not appear to have woven gold thread into their silk textiles (a process which would hardly have been practicable in view of the fact that their patterned silks were produced by warp effects), and it is possible that they pasted gold-foil direct onto the silk. This process appears on some silks of the T’ang period found by the Hedin Sino-Swedish Expedition to Sinkiang.<sup>10</sup> It appears to me a feasible proposition that when the Chinese began to use the weft instead of the warp for the pattern effects on the face of the cloth in their silk fabrics, they used for the weft strips of leather with gold pasted on.

By reason of the evidence which it has been possible to adduce above concerning the use of gold and gold thread in the textiles of the late-Antique period and of the Han and T’ang dynasties in China, one is inclined to consider the real gold thread twisted round a thread core as a product of the Mediterranean countries. The questions of the time and place in which the counterfeit gilt membrane thread appeared, however, should be left open for the time being.

*Works consulted:*<sup>11</sup>

Fr. Bock, Geschichte der liturgischen Gewänder des Mittelalters, Bonn, 1859, Vol. I, p. 2.

L. Dietrichson, Antinoos. Eine Kunstarchäologische Untersuchung, Christiania, 1884.

O. v. Falke, Kunstgeschichte der Seidenweverei, Leipzig, 1913, Vol. II, pp. 22-24.

J. Karabacek, Die persische Nadelmalerei Susanschird, Leipzig, 1881, pp. 12 ff., 191.

Id. Über einige Benennungen mittelalterlicher Gewebe, Vienna, 1882.

A. F. Kendrick, Textiles from Burying Grounds in Egypt, London, Vol. I, 1920, Vol. II, 1921.

J. Lessing, Die Gewebesammlung des K. Kunstgewerbemuseums, Berlin, Pls. 71, 72.

J. Marquardt, Das Privatleben der Römer, Leipzig, 1886, pp. 543-550, 534-536.

Daniel Rock, Textile Fabrics, a Descriptive Catalogue, London, 1870, Introduction, pp. XVIII, XXV-XXXVI.<sup>12</sup>

V. Sylwan and A. Geijer, Siden och Brokader, Stockholm, 1932, pp. 16, 48-49, 55

J. Wilkinson, The Manners and Customs of the Ancient Egyptians, London, 1878, Vol. II, pp. 166, 233-244.

## NOTES

- \* (Vivi Sylwan, *En Senantik Gobelinmedaljong*, from *Röhsska Konstslöjdmuseets Årstryck*, 1932, pp. 49-64. The paper has been revised and brought up to date by Fröken Sylwan in the light of subsequent discoveries. It is a pleasure here to express lively gratitude to the authorities of the Röhss Museum for their generosity in loaning all the blocks used for the illustration of this article. The Röhss Museum, one of the best-equipped and most comprehensive Museums of the Arts and Crafts in Sweden, has a particularly rich collection of textiles. The medallion here discussed is only one piece in an especially fine representative collection, acquired in Egypt, of ancient textiles of the Greco-Roman, Coptic, and Islamic periods.—ED.)
1. The terms "S-spun" and "Z-spun" are conveniently used with reference to the diagonal position of the fibres in a single-ply thread when held vertical. If these run from lower left to upper right they resemble the middle member of the letter Z; if from lower right to upper left, that of the letter S.
  2. The gold thread was kindly examined by M. R. Pfister, of Paris, who reported that the "core" has a Z-twist, is very brittle, disintegrating when immersed in water, and is a thread of Chinese silk. The gold strips are also Z-twisted and do not splay out when hammered (not even in water), and are therefore of metallic gold without backing.
  3. It is not known whether these textiles have survived the war.
  4. Translation kindly provided by Professor Pontus Leander.
  5. That is, a gilt membrane strip twisted around a thread of some textile fibre.
  6. That is, a compound weft twill in which alternate warps do not interlace but merely lie as internal warps between the binding-warps, the latter interlacing in the 2:1 twill.
  7. That is, the ground in plain weave, with the patterned portions of the fabric in a rib effect produced by a compound plain weave in which an internal warp lies between each pair of binding-warps. Thus one weft will pass over an even binder-warp and two internal warps, then under one odd binder-warp; the next weft will pass over one *odd* binder-warp and two internal warps, then under one *even* binder-warp, etc.
  8. Lucca would appear to have been the first Italian town to produce Cyprian gold thread. Its overseas manufactories were situated in Syria and Spain. The patterns in the Lucca diaper brocades of the thirteenth and fourteenth centuries have marked Islamic traits, and the animal forms in these patterns are palpably of Persian ancestry.
  9. There are no gold thread makers among the textile workers enumerated by Th. Reil in the work incorporating his research entitled *Beiträge zur Kenntnis des Gewerbes im hellenistischen Egypten*, Leipzig, 1913.

10. F. Bergman, *Archæological Researches in Sinkiang*, Stockholm, 1939, pp. 110, 114 (6.A.10), 115 (6.A.14), and 116 (6.C.1).
11. Medieval literature—least of all Arabic and Persian—has never, as far as I know, been studied with regard to the problems concerning the use of gold thread in textiles which are discussed here.
12. A number of classical quotations from Rock and Marquardt have been scrutinized, Mr. Tønnes Kleberg, fil.lic., having been good enough to provide translations of the original texts.