Coptic Knotwork in Manuscripts
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Introduction to Knotwork
The article assumes that the reader is familiar with the dots method of creating panels of knotted or interlaced strands. [1] All diagrams showing dot-and-break patterns are author reconstructions.

Coptic Manuscripts in General
Most of the very early Coptic manuscripts are versions of the Bible and various Gnostic texts. Though often written on papyrus, they are codices (books), not scrolls. Later ones tend to be written on vellum, or even paper. Not all are decorated, of course. Some particularly valuable collections of Coptic manuscripts are in Rome, Paris, the Morgan Library in New York, and the British Museum/ British Library. Most of the pieces in these collections are fragments of books and of uncertain origin.

The Catholic Encyclopedia notes that the circumstances of most of the discoveries contribute to the fragmentary nature. That is, treasures found by Arab tribesmen are divided among the members, for each to sell or keep as desired. This can be nearly fatal to ancient manuscripts.

Thus, the discovery of complete volumes in an archaeological context is particularly valuable. The most important such find in the last century was that of 58 volumes in the Monastery of St. Michael in the Fayûm, in the spring of 1910. Most were sold in Paris to J. Pierpont Morgan in Dec. 1911. They are now in the Morgan Library. Besides being whole, the volumes have a known provenance, which is not true of the scattered leaves that appear on the art and archaeological market. [2]

Coptic codices have been discovered as recently as February 2005. Three complete manuscripts dating back to the 6th century were found by a team from the Polish Centre for Mediterranean Archaeology. There were excavating remains of a 6th century monastery located in front of a Middle Kingdom tomb, located on Luxor’s west bank. This is particularly important because the manuscripts are not broken up as individual leaves. One codex “includes no less than 50 papers coated with a partly deteriorated leather cover bearing geometrical drawings. In the middle, a squared cross 32cm long and 26cm wide is found.” [3] They are currently being conserved, and it may be some time before photos are released.

A Note on Dating
Coptic and Assyrian Christians date their calendars from 254 AD, the "Era of the Martyrs." This was the start of the reign of the bitterly anti-Christian emperor
Diocletian, and it recognizes the severe persecution of the Church that began then.

The dates given here are expressed as AD, short for *Anno Domini* (in the year of our Lord). The more common modern usage is to use the same years identified as CE, for *Common Era*. However, the quotations use AD, and it seemed confusing to use two identical but differently notated dating systems in one short article, on top of the calendar start point difference.

**Knotwork in Coptic Manuscripts**

Some Coptic manuscripts are decorated. The most common forms of decoration are an opening page with either a portrait or a cross, and chapter headers above the text. Occasionally a portrait may have simple knotwork for a border. Crosses often have panels of knotwork either within the cross, or surrounding it.

The chapter header may be just a rectangle, or it may be a band with tabs down either side, forming a sort of stepped archway. The chapter header may be filled with a knotwork design. The interlaced ornament on the cross pages and the chapter headers were clearly created using the dots method, because the dots are often very prominent.

The next several paragraphs summarize the manuscripts that will be examined in more detail in the remainder of this article.

The earliest decorated manuscript with interlacing to which authors such as J. J. G. Alexander have pointed, is the Pierpont Morgan Library’s Glazier Codex 67. This codex is dated to ca. 400 - 500 AD on paleographic grounds. Folio 215 has an ankh cross filled with interlacing, with the whole design surrounded by birds.

The Pierpont Morgan Library also owns a manuscript found in the remains of the Monastery of St. Michael near the present day al-Haulli. The monastery closed in the 9th or 10th c., so that is the latest date it could have been written. It is written in the name of Saint Cyril of Jerusalem (ca. 313 – 386 AD), so that is the earliest time in which it could have been written.

The Metropolitan Museum ms. 19.196.5, datable to ca. 700 – 900 AD, is on display on their web site. It is open to a two-page spread with a knotwork decorated cross on one side and text on the other. The text begins with a chapter header done as a 3-part arcade, also filled with knotwork.

The *Qasr el-Wizz Codex* (aka Kasr el-Wizz, or Qasr Elwiz) was found as part of the archaeological excavations in the 1960s, when the Aswan Dam was being constructed to create Lake Nassar. A team from the Oriental Institute of the University of Chicago excavated a Christian monastery at Qasr el-Wizz (Palace of the Wild Goose), and found this small parchment manuscript, now in the Nubian Museum in Aswan. This portion is referred to as “The Word of Our Savior and Our Master Jesus Christ to the Apostles Before He Was Raised to Heaven,” detailing a conversation between Jesus and the apostle Peter after the Crucifixion and before the Ascension. Size is 11.6 cm x 16.5 cm. The first source in which I found this listed it as ca. 10th century, but the Nubia Museum lists it as ca. 4th – 6th c.
Manuscripts in the British Library’s collection of Coptic manuscripts vary from the 4th century to the 11th century AD. These probably all come from the Monastery of St. Mercurius in the desert west of Edfû (Upper Egypt). I observed British Library ms. Or. 6782 when it was on display on 29 Sept 1992. That manuscript was listed as being “copied and painted on vellum by Philotheos the Deacon at Hrit-e-phiom (Ihrit al-Charbiyyah in the Fayyum) in the year 706 of the Era of the Martyrs (AD 989/90).” It has a chapter header filled with knotwork.

The J. Paul Getty ms. 12 is a 10th century leaf, and may be seen during one of their periodic manuscript displays. I saw it on August 15, 1993, when it was on display in Malibu. This chapter header was a simple rectangle filled with knots.

University of Birmingham, ms Christian Arabic 61 Coptic 2 (14c.) is in the Mingana collection. All the website tells us is: “An Egyptian manuscript from the 14th century. Contains a Consecration Ritual for a new Coptic church in Coptic and Arabic. Illustrations (frontispiece, headpieces); ornamented capital letters and bird and foliage.”

Two Vatican manuscripts with knotwork panels were found on the web. One, Vat. copt. 9 orient14 AH.72, has a simple twist design around the portrait of Mark the Evangelist. And that’s about all there is to say about its use of knotwork.

The other manuscript, Vat. etiop. 20 orient05 AH.0, is actually from Ethiopia. Assyria, as it was known then, has its own distinct but similar Bible decoration tradition. It is included here because it appears to be related, and pictures of Ethiopian mss. are even more elusive than those of Coptic mss.

The information about the provenance, from the University of Pennsylvania website, is given below.

How this Ethiopic Psalter came into the Vatican Library in the late fifteenth century is still unclear. Perhaps it was brought by the Ethiopian delegates at the Council of Ferrara-Florence, probably from the Ethiopian convent in Jerusalem. Or perhaps it was donated by Giovanni Battista Brocchi from Imola, who accompanied a Franciscan mission to Ethiopia in 1482. The first folio of the codex shows the First Psalm between two strapwork bands.

The last example here from our period of study is the Medicea-Laurenziana di Firenze ms. Orient 81, a 16th c. Persian copy of an earlier copy of Tatian’s Diatessaron. Nordenfalk clearly feels that this is a faithful copy of the decoration in the manuscript from which this was copied, and that the decoration is as much a part of the transmission of the Diatessaron as the words. [4]

This section closes with the headers from Leiden University Library, Or.18.13, no date given. The description says,

Coptic, with some Arabic, paper, 216 ff., full leather binding, with blind tooled ornamentation (borders, diagonals), numerous illuminated pages (strapwork, capital, introducing new texts). Coptic Prayer Book, with short Arabic notes and headings. A few texts are bilingual (beginning on ff. 201b, 203a). Abrupt end.
Provenance: Purchased by auction on June 20, 1983, from Sotheby’s, London (Sotheby’s catalogue No. 168).

Orient 14.544, from the year 1792. It shows that the tradition of using the dots method of knotwork, and even manuscript transmission of books, continued well past the invention of the printing press.

**Qasr el-Wizz Codex, 4th – 6th century**

The knotwork here is clearly created using the dots method. The interior dots are small empty circles, giving the knotwork a slightly airy feel. The edge dots may have been just black dots, but some of the outer edge dots on the left of the squared arch appear to be lighter in the center, as if they, too, were drawn as circles, rather than dots.

The colors used in the knotwork are white (uncolored vellum), dark green, and earthy red. In general, each knot has a color, which is then woven through the other knots.

**Folio 1 – Cross**

This is designed as an equal-armed cross attached to a long horizontal base. There are several places where the breaks have been arranged to leave a circle around a dot. There are eight such circles on the base, and one in the center of each arm save the top one. Where it occurs, the circle is left white.

The knots themselves are colored an orange-red, medium dull green, and left the white color of the parchment.

The figure is outlined with a narrow strip of white (uncolored vellum) defined with a black outline. Outside that are bands of color without black outlines.

**Folio 2 – Squared Arch**

It is designed in three panels: the top and each side, with a strong line demarcating the separations among them. Each panel is four dots wide. The left panel is fifteen dots long, the top is twelve dots long, and the right panel is seventeen dots long. The break patterns of the left panel form five crosses in the center, with the central circle blacked in. The break pattern on the right forms seven small white circles around their inner circle-dots.
In the top panel, one of the red knots is left uncolored for a portion of its path, leaving a white M shape centered in the knot.

There is a narrow white border around the outside of the knotwork, but the portion next to the lettering does not have that border. All the outer points have pointed loops radiating into the margin, in a way reminiscent of the loops on the edges of Insular carpet pages.

**Pierpont Morgan Library, Glazier Codex 67, ca. 400 - 500 AD**

The evidence for the Copts using interlace designs early on can be seen in this manuscript. The Ankh Cross on the opening page is filled with knotwork. The dots that control the knots can be seen clearly in several instances. The knotwork does not have breaks, and the right arm is shorter by one repetition than the left.

The perfectly circular top is filled with a single twist. There are 16 dots around the center. That may seem like a lot to figure out the spacing for, particularly on a ring. However, it is easy to reconstruct. On the inner circle, first put dots top and bottom (2 total), then side to side (now 4 total). Place dots halfway between them (that’s 8) and then dots halfway between these (16 dots, evenly spaced by eye). Place the matching dots on the outside circle radially opposite these, and then place the dots in the middle.

Colors of the strands are red, dark green, and yellow. This is shown as Figure 12, in black and white, of J. J. G. Alexander’s book, and can be found on the web in color.

**Pierpont Morgan Library, ms from Monastery of St. Michael, pre-10th c.**

This manuscript has at least two pages with knotwork, a cross page and a page with a text header.

**Cross Page**

The knotwork is in the shape of a Latin cross potent, though the base limb is just slightly longer than the others, and there is an extra step of knotwork on the bottom, making it look slightly more like a mound than just an echo of the other limbs. There are also protrusions at the center of the...
cross, very similar to the Pictish carved stone cross-slabs of approximately the same time period, but quite some distance away.

The cross is outlined with a thin yellow band, and that is then elaborated with protrusions that look something like flowers of plants, with large deer or rabbits in the spaces between the limbs. These are not evangelist symbols, which would be more expected in this context.

The colors of the knotwork are yellow, a dull red, and an olive green. There are several areas where it looks like the knots are incompletely drawn, or the paint was applied over the knot and surrounding area, leaving some odd shapes with hooks.

The cross ends have breaks arranged so that the inner part of the knot interlaces with the rest only where it joins the main limb. So there are no isolated areas of knotwork, but it is very close to that.

Text Header

The photo of this is slightly blurred, and the page is badly worn, so the design is difficult to describe. The box has some knotwork inside, but there is also knotwork in one of the protrusions from the edge of the box, which is unusual. There is also a twist of knotwork in the decoration of what looks like the letter “d” at the top of the neighboring column.

**Metropolitan Museum, Ms.19.196.5, ca. 700 – 900 AD**

The Metropolitan Museum of Art owns a Coptic manuscript from ca. 700 – 900 AD. It is possibly from the Kasr Deir es Surian (Castle of the Monastery of the Syrians), in Wadi an-Natrun, Egypt, and was written and illustrated in Egypt. Inscribed in abbreviated Coptic: *Jesus Christ Victorious* Ink and colored inks on parchment; 5 7/8 x 3 15/16 in. (14.9 x 10 cm) Rogers Fund, 1919 (19.196.5) [5]

The two folios shown are both decorated with interlacing. The dots between the knots are highly emphasized, and there are many horizontal and vertical breaks. The knotwork panel is outlined in ink, and the large dots are clearly visible on the edges, as well as inside. The left (recto) page has a large cross filled with interlacing and some letters in the spaces around it. The right (verso) page has a chapter heading that fills almost half the page, then, of course, the writing of the chapter. Photoshop has been used to “straighten out” the pictures, since they are presented on the website as an open book.
Chapter Header

The chapter heading design clearly illustrates some of the most common kinds of break patterns. If you look at the break-pattern-only illustration, you can clearly see two large hollow cross shapes made of breaks. They each have a box in the middle, and are entirely self-contained. That is, the strands within the hollow cross do not leave the cross. This is further emphasized in the manuscript by leaving the D-shaped loops white, and coloring the circle that joins them dark.

At the center of the design, the breaks form a series of concentric circles, with two strands crossing in the center. This design was hard to analyze because the photo is low-resolution, and the dark color of some of the strands blends with the dots.

But beyond these, it appears that the scribe may have messed up on the right hand side. It stops on a “half box” of dots. Parts of the design simply do not work. The two lower boxes are offset by one row. The diagonals from the center circle clip the edge of the hollow cross on the right side, but are bent under that same shape on the left side.

Cross Potent Page

The full page cross filled with knots is a shape that heralds call a Latin Cross Potent. Two colors were used for coloring the strands: red and white (uncolored). Uncolored white strands on the cross form internal circles on each arm, evenly spaced along the diagonals. There is also an internal cross in the very center. A half-circle at the armpits are white, making the cross look as if it were indented there. The armpits are actually part of a white line that goes down half of one one side of the cross. The rippling white strand almost looks like a snake.

The break pattern only is shown in this illustration, with one strand (center of the top limb) drawn in to indicate the chirality.
(handedness) of the knotting. The design in the center of the lower limb is hard to make out in the photograph. It is more complex than what is indicated, but it is hard to tell by how much.

**British Library ms. Or. 6782, from 989/990 AD**

The colors are maroon, sky blue, and orange. The header of the page had a band of knotwork. The colors alternate in maroon, blue, and orange. All colors were rather dull. The knots were fat, dots and lines clear. There are dots on the edges. The vertical figures alternate maroon and sky blue, and the looped line that goes through it all is orange. I only noted the break pattern, leaving the actual knotting for later.

**J. Paul Getty Museum, ms. 12, ca. 10th century**

This is listed as probably Tutan, a 10th c. leaf from “The Life of St. Samuel” in Coptic. It was on display 15 August 1993, when I saw it. The colors are red, yellow, white, and a dark, almost black green. The stylization is quite “squared” with some of the interior dots in a circle of white. There are brown pen dots in the body of the strands, as if the scribe were not too careful, or needed to move the strands. There are some half-breaks, allowing the vertical interlace.

**Vatican etiop. 20 fol. 1 recto orient05 AH.06, prior to 1482**

This is an Ethiopian manuscript, not Coptic, but is clearly related. It also uses the dots method to create interlaced designs. The interior of the knots are left uncolored. The knot itself is drawn in red.
There appears to be a long knotted panel joining the top and bottom designs, but it is badly rubbed and only bits are discernable.

The top panel has several circles created by drawing a box around a dot of the grid, just like those found in Coptic mss. Discussed previously.

**University of Birmingham, ms Christian Arabic 61 Coptic 2 (14c.)**

The two pages on the Birmingham site show a Cross on the page on the left, and a header block on the page on the right.

**Cross**

This is shaped as a Latin cross potent. In addition to the stepped ends of each limb, the center of the cross is also built up. The outside edge is outlined with a band of white the same width as the strands of the interior knotwork, delineated in black. From the points of the stepped shapes, are little pyramids of three circles, the bottom two colored green and red, and the top one white.

In the center is an equal-armed cross potent, uncolored. In each arm is a break pattern forming equal-armed crosses potent, also uncolored. They can be used to gauge the lengths of each limb – the top limb is 2 crosses high, the bottom limb is three crosses, and each side limb has one cross.

On either side of the central large cross is a break pattern defining a large square. Inside each square is small design or letters, and the background is painted red.

**Header block**

This square panel has break patterns that create a pattern of alternating equal-armed crosses and double circles. There are nine crosses. Each cross is a knot unto itself inside but unconnected to the larger panel of knotwork.

There is a tenth partial cross at the lower right edge, and possibly an eleventh partial cross at the upper right edge. The break pattern there appears somewhat confused,
or at least difficult to make out in a low-resolution photo.

The panel is mostly uncolored, with the circles partially colored along the outside of their strands in red. The circle within each cross is striped with red, in an unusual manner – instead of the stripes following the strand around, the stripes are perpendicular to the edges.

**Medicea-Laurenziana di Firenze, ms. Orient 81, ca. 16th century**

This manuscript, a copy of Tatian’s *Diatessaron*, is in the Medicea-Laurenziana Library in Florence. Nordenfalk identifies this manuscript as a sixteenth century Persian copy of the original.

**Cross Carpet Page**

Figure 9 shows a cross carpet page, f. 127v of the manuscript. It is Figure 13 in Alexander, and p. 20 in Nordenfalk. The shape of the voided area is a Latin Cross Crosslet on Steps.

Note that the knotwork is placed in individual compartments of interlocking crosses and squares. The cross is voided, and all the decoration surrounds it. Also note in the upper right quadrant, in the top of the right arm of the voided cross. There are dots placed there, as if the scribe were going to add more knotwork, then realized that this was supposed to be left blank, not knotted.

What looks like a scribal problem with the knot in the upper left corner is just the transition to a very narrow vertical plait. It is a scribal problem with spacing, not with getting the plaits to form continuous lines.

The plaits are colored to the edges, in what appears to be three colors. My source is in black and white, so I cannot be sure if there are only three colors, or what they are.

**Leiden University Library, ms. Or 18.139, date not given**

The dots are very prominent, without being circled. Breaks define separate, disconnected areas in the shape of crosses with large square centers. Colors are white and redish brown.

There is also a 4-lobed knot above the header, tipped with red.
Fig. 14, Leiden ms. OR 18.139

Leiden University Library, ms. Or 14.544, from 1792 AD

This much later manuscript is in Coptic with Arabic commentary. The knots themselves are done in dark ink, and the knotwork designs are colored in yellow, red, and white (uncolored). The dots on the edges are particularly prominent. Note that though this date is well after the invention of the printing press, it was written and decorated by hand.

The information identifying this on the website is here quoted in full. [6]

Summary

All of these examples, except occasional simple twists, show the use of the dots method to lay out knotwork panels. The characteristics observed in these examples are:

- The dots are often treated as a design element in themselves, and may be quite prominent.
- Some knots do not have break patterns. (Morgan ms.)
- Most knots do have horizontal or vertical breaks (all others)
- Sometimes the breaks are arranged in a square to form a small box. This box may be
  - left blank, with the dot clearly seen in the middle, (Qasr el-Wizz Codex, Leiden University Library, ms. Or 18.139)
  - itself decorated (Met ms. header)
- Often breaks are arranged to form separate hollow cross-shaped boxes set within the larger panel of knotwork. These have knots inside them of the same handedness as the surrounding knot, but unconnected to it. (Met ms., M-L ms. cross)
- Often breaks are arranged to form a series of concentric circles, with diagonals through the center that extend throughout the panel without encountering a break until it hits the edge.
- There are occasional examples of switch knots, where the strands change from diagonal to vertical and horizontal. (Getty ms., Cairo ms.)
- Coloring patterns are often chosen to emphasize certain shapes within the panel, such as the hollow cross shape and concentric circles.
- Common colors are white, red, green, and sometimes yellow.
Here endeth the lesson.

Endnotes

[1] I recommend the books by Aidan Meehan, Mark van Stone, and my own brief article in the Known World Handbook. All of these sources are listed in the bibliography.


[3] This information was released by the secretary-general of Egypt’s Supreme Council of Antiquities (SCA). My source is the website of Al-Ahram Weekly for 17 - 23 February 2005, Issue No. 730, The link was still active June 2014: <http://weekly.ahram.org.eg/2005/730/he1.htm>


Sources

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