

Coptic Knotwork on Ostraca

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Examples of Coptic knotwork, or at least the knotwork doodles, survive to this day on the “scratch paper” of ancient Egypt: potshards and flat pebbles. Archaeologists know these as *ostraca* (singular: *ostrakon*). More formally defined, they are “potsherds and stone flakes bearing writing and/or depictions. They are very common in New Kingdom Thebes and then again in the Ptolemaic, Roman and Coptic Period. The sherds and stone flakes were used as cheaper substitute for the expensive papyrus. Writings on ostraca are often short notes, accounts or literary excerpts, in some cases possibly written by pupils.” [1] Bone or wood were used occasionally instead of pottery.

Most ostraca are written with ink, but some are incised with a sharp instrument. As an aside, when one votes to exile someone by marking an ostrakon, that is *ostracation* and the process is *ostracism*[2]. Thus, our modern language still retains an echo of this usage of potshards.

Four ostraca in the collection of the Coptic Museum in Cairo, and on display at their web site, show various kinds of knots. These three were all written on limestone rocks some time between the 4th and the 7th century. Though the rationale for the given dating is not given, it appears to reflect the time period of the common usage of the Coptic alphabet. That is, the alphabet distinguished itself from Greek in the 300s, and Arabs invaded Egypt in 642 CE.

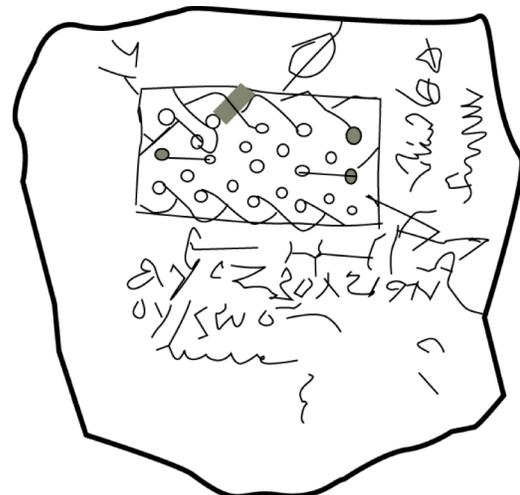
The website information does not indicate if these ostraca were found together. If they were, that might imply that they were one person’s doodles, or perhaps those of students of a single teacher.

The drawings are done with a dark ink that sometimes fades to very pale. These variations in intensity are not shown in the drawings below, but could perhaps provide information about strokes and order that are not explored in this paper.

CM Ostrakon 4748

The clearest example of a set of dots being used to guide the creation of a knot is on Ostrakon 4748 in the Coptic Museum in Cairo.

The web site describes this as an “Ostrakon, representing geometrical and floral designs with Coptic text.” The provenance is given as Egyptian Museum. The Coptic Museum calls this piece “geometrical and floral designs.” It is unclear if the circle at the top is a sketched leaf or the letter phi. By the



given name, the museum seems to interpret it as a leaf.

The gray areas in the figure as drawn here are areas where the ink appears smeared.

The stone's surface is not perfectly smooth, but the imperfections have not been reflected in the figure – the marks all represent ink. There are some additional smudges outside the area of the knotwork that I didn't include.

Besides the writing, CM Ostrakon 4748 appears to be an unfinished practice piece. Because it is unfinished, we can make some observations about the order in which the scribe worked when transforming a grid of dots into a knot. The enclosing square, the grid of dots, and the breaks were done before the knot.

For the knot itself, the scribe worked from the outside in. Note that he sometimes drew outside the boundaries of the enclosing square, implying this was done quickly.

Like Insular knotwork, this knot is laid out with a regular grid of dots. Unlike Insular knotwork, the dots are empty circles, not points. These circle-dots would disappear entirely at knot completion. This grid has two breaks, expressed as horizontal lines joining adjacent dots. The breaks go from the center of one circle to the center of the next. Again unlike Insular knotwork, the lines of this knot touch the edges of the circles. The line forms a tangent connecting two diagonally adjacent circles.

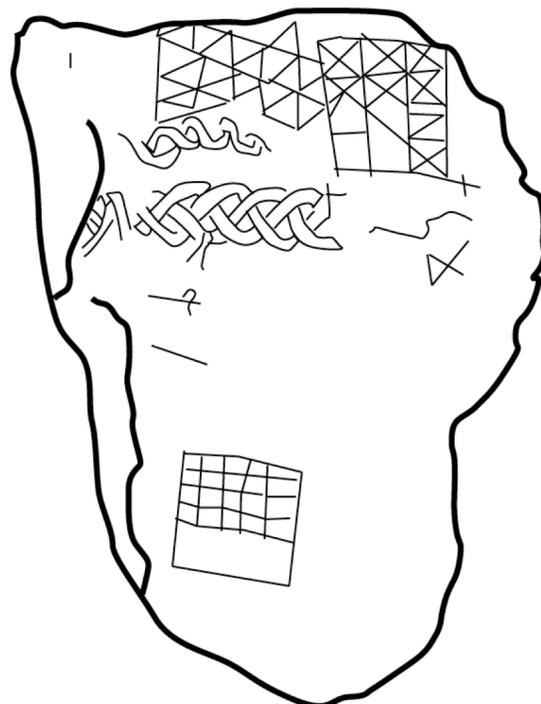
Is the knot unfinished because the artisan got confused? Possibly. The fourth row of dots are placed a bit low for total knotting comfort. There is not much room for the strands. But I don't think he'd gotten there yet.

Notice in the upper left corner where the scribe curved a line between dots, instead of drawing a straight tangent. He may have gotten confused there and quit. Perhaps he knew that line was wrong, and because he could not erase, he threw away the shard for someone to find 2 millennia later.

CM Ostrakon 4397

CM Ostrakon 4397 has a twist and a simple braid drawn on the surface, among other designs. These both may appear in knotwork panels, but it does not appear that this doodler was using the dots method to create them.

The web site describes this as "Ostrakon showing geometrical design: interlaced triangle, two braids and small squares." It names the piece "Geometrical designs," without a provenance.



The dark lines in this drawing of the ostracon represent edges of the rock where pieces have flaked away.

It looks like the scribe was playing with shapes. One of the shapes he doodled appears to be the “lazy S” shapes that combined to form an open twist. Most of the play is done with the squares divided into triangles.

These doodles would be at home in the notebooks of any student today.

CM Ostracon 4661

Ostracon 4661 has a 6 pointed star that appears to be in the midst of being turned into a knotted star. There is also a four-lobed knot at the side that may have been created by geometric means, but not with the dots method.

The web site describes this as “a fragment of ostracon representing a star in the middle of floral and geometrical designs, and a Coptic inscription.” It names the piece Star, and gives no provenance. I see no floral design unless the 4-lobed knot at the side is interpreted as a flower, rather than a geometric design.

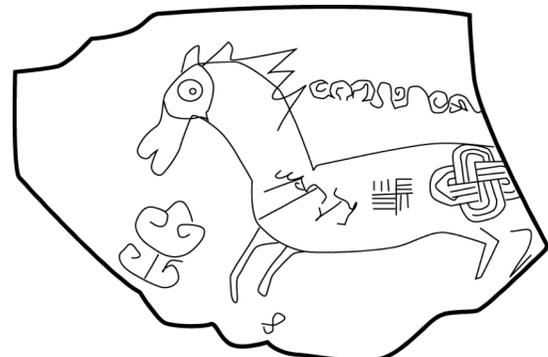
The heavy lines in this drawing reflect the wide, heavy ink lines in the original.

It appears that the scribe first drew the large crossed triangles with small triangles on the corners, then added the curvilinear lines that turns the design into a series of loops. It is not really knotwork, but is close. It is very similar to a textile example from the same era.



CM Ostracon 4746

The last example has a primitive horse with a large four-lobed knot on its flanks. The web site describes this as “A rectangular ostracon, irregular shape, representing a running horse. Its body depicts Coptic letters, geometrical designs and a flower in front of it. A motif of interlaced ornament is in the middle of the Upper part.” It names the piece “Drawing of a Horse,” and gives a provenance of Zawiet el-Erian.



CM Ostracon 4746

An interesting feature of the interlaced ornament is that there is a drawing immediately to the left that looks like the first stage. This shows that multiple straight lines emanating from the center are drawn first.

The curves are added later. What cannot be seen on this drawing, but what is visible on the ostrakon itself, is that the pattern of dark and light ink also shows that the curved lines are added separately.

This is clearly not done with the dots method, but it is done with a mechanical method – first do a cross. Then join the ends to the next set of lines. This is a method that is simple and easily taught.

Summary / Conclusions

We have seen that trial pieces can be most enlightening when it comes to showing how a scribe worked. It has also been fascinating for me, looking for ostraca, which are scribal resources that had escaped my notice until now. ❖

Endnotes

[1] Digital Egypt for Universities, Copyright © 2003 University College London.
<http://www.digitalegypt.ucl.ac.uk/ostraka/>

[2] Many thanks to Master Bruce Draconarius for pointing this out.

Sources

< all links were last referenced October 27, 2005 >

Coptic Museum, Cairo,

http://www.copticmuseum.gov.eg/English/internal/gallery_z1.asp?piece_id=125§ion_ID=8

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<http://www.digitalegypt.ucl.ac.uk/ostraka/>