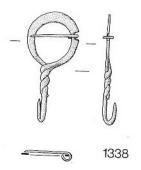
## Brooches – A Set of Wire Brooches Purgatorio AS XL

Copper Hooked Annular Brooch –



Item number 1338 is described as:

"Hooked annular brooch

Copper alloy

1338 SWA81 acc. no. 1493 (context 2113) ceramic phase 12 fig 164

1 29.5 mm, annular frame d 14 mm, with a nick in the side where the wire pin is attached; the ends of the frame extend;

tightly twisted together, at a right angle to the pin; one end is cut off and the other curves round in a hook, which is filed to a point.

The frame and hook are apparently made from a length of drawn wire, which is somewhat thicker than that of the pin; the frame has been hammered flat, and the twisted part has also been slightly hammered."<sup>2</sup>

The section goes on to comment that the purpose of this piece is unknown, but may have been used to hold textiles together or a chain or pendant. The site codes show it as Swan Lane, 95-103, Upper Thames Street, 1981. Ceramic phase 12 is cited as 1400-1450.<sup>3</sup>

I used 14 gauge copper wire for the brooch and 18 gauge copper wire for the pin. To make the brooch, I curved the wire by hand to make the frame first. Then holding the frame in a vise, I twisted the wire by hand to make the neck. The wire was then clipped with wire cutters. They would have used heavy shears or an axe that will cut through copper wire; as it is a soft metal. The end to be tucked in was then filed to an angle so it would sit in tight. The hook end was then bent with the help of pliers and the table top. The hook end was then filed to a point. Metal jewelry files were used, much as a 15<sup>th</sup> C goldsmith would have used. Then the upper part of the frame was hammered flat against an iron anvil (old railroad tie). The twisted part was not hammered as it lay flat without it. A file was then used to make the notch for the pin. The frame was then polished with steel wool, 400 and then 600 count emery paper to remove unwanted marks. The 15<sup>th</sup> C jeweler would have had a rabbit's foot as well as other means to polish objects.

The wire pin was then cut from the 18 gauge with wire cutters. It then underwent filing at the closing end to allow it to be tightened down and the pin end to sharpen it for going

<sup>2</sup> Egan, pg. 256

Technical Science: Brooches Purgatorio AS XL Page 1

<sup>&</sup>lt;sup>1</sup> Egan, p. 254

<sup>&</sup>lt;sup>3</sup> Egan, pg. xi

<sup>4</sup> http://www.ceu.hu/medstud/manual/SRM/technology.htm

<sup>&</sup>quot;a toothed saw and file for gold as well as for gold and silver wire" – Alexander of Neckham, 1157-1217.

through cloth. The closing end was then bent with the aid of pliers. It was set in place and tightened further.

As early as the 10<sup>th</sup> C in Britain the goldsmith and the metalsmith were considered accomplished artisans.<sup>5</sup> By the 14<sup>th</sup> C. most jewelry was made by goldsmiths. It was sold in shops along with various other items for secular and ecclesiastical use. Minor pieces were available for immediate purchase and others were done on commission.<sup>6</sup> While the goldsmith primarily worked in gold, it was not the only metal they worked in to make jewelry. In 1363, Edward III enacted a set of sumptuary laws that forbad the families of artisans and yeomen from wearing gold or silver jewelry.<sup>7</sup>

Alexander of Neckham (c. 1157-1217), was an Englishman who taught the art of jewelry making in Paris. Paris was reputed to have the finest and most fashionable jewelry.<sup>8</sup> In describing the actual procedures for working, he identifies a number of tools including anvil, hammer, tongs, chisel, rabbits foot, toothed saw and file.<sup>9</sup>

## Copper Wire Brooch -

10



There are 4 brooches of this type detailed in the Dress Accessories book, 3 copper alloy and one in gold. They come from 4 different finds (3 London and 1 York) and date from phase 6 (c. 1150-1200) through phase 11 (c.1350-1400).

1340

#1339<sup>11</sup> is a diameter of 26mm in gunmetal with a silver pin from Ceramic phase 6. The frame is a wire ring with

the ends joined by opposing loops. Then a thinner wire "which has been densely spiraled, was then wound in larger spirals". The pin is a "D-section pin".

## #1340

"SWA81 363 (720) 6 or later fig 164

A less-damaged example, similar to the preceding one; the spirals are very neat and regular; frame  $24 \times 22.5$  mm, bronze (AML); the pin has been added at the point where the ends of the outer spirals join; the outer spirals consist of about 35 major loops, each having about seven or eight smaller spirals – ie. some 200 minor loops in all.

Technical Science: Brooches Purgatorio AS XL

<sup>&</sup>lt;sup>5</sup> Williamson, pg. 14

<sup>&</sup>lt;sup>6</sup> Phillips pg. 58

<sup>&</sup>lt;sup>7</sup> Williamson, pg. 44

<sup>&</sup>lt;sup>8</sup> Ibid

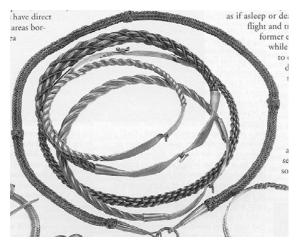
<sup>&</sup>lt;sup>9</sup> see 4 above

<sup>&</sup>lt;sup>10</sup> Egan, pg. 254

<sup>&</sup>lt;sup>11</sup> Egan, pg. 256

The overall effect of the spirals in the two preceding brooches – an apparently complicated, dense decoration – is achieved by the repetition of a very simple process."12

#1341<sup>13</sup> is a diameter of 21mm in brass. The spirals on the brooch are widely spaced and it dates from the 11<sup>th</sup> phase. The book notes that a similar brooch was found in Slagelse and is in the National Museum of Denmark. There is then further note of a similar spiraled wire brooch done in gold that was found in York.



From the description, the method might be either a true spiral or a "knitted" spiral outer ring. Both styles of wire jewelry making exist side by side and from different cultures.

One example is in the Saami (Lapp) Hoard from approximately 700. The large "knitted" wire necklace is Estonian of a Baltic design and the rest, including the twisted wire and link pieces, are trade goods from the Vikings.



15

In this Viking treasure horde picture, the large torc is twisted wire. The bracelet in the upper section is a "knitted" wire style.

The techniques for knitted wire are described in Great Wire Jewelry by Irene From Peterson. In the form I choose as most closely resembling the bracelet in this picture, the wire is worked on a dowel. First a series of loops is formed with the number of loops equaling the number of spirals in the row; in this case seven. Then the working

wire is inserted and hooked on. What follows is similar to doing a buttonhole stitch, but with wire. Working in lengths of about 25 - 30 inches, the wire in worked around in circles through each loop and then down to the next row and around. When you run out of one wire, it is hooked in and another wire hooked on. I choose to use 26 gauge copper

13 Ibid

<sup>15</sup> Fitzhugh pg. 70

<sup>&</sup>lt;sup>12</sup> Ibid

<sup>&</sup>lt;sup>14</sup> Fitzhugh pg. 84

wire to work this project; as I was unable to find both a working and filling wire of brass in the correct gauge.

Once an approximate length of 3.5" was reached, I removed the ½" wood dowel and threaded the 10 gauge copper wire into the open space. The set of wires was then drawn through successive draw holes in a wooden plate until the outer ring sat well against the inner wire. Then the initial set of loops was removed.

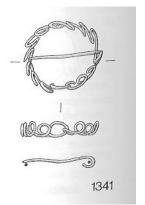


This is believed to be a draw plate found in an excavation in 2004. It is from a Viking Age harbour at Frojel that is on the island of Gotland. The bone piece is approximately 4 cm long. The holes are progressively smaller as you move from left to right. The holes are also larger in the back than in the front of the bone piece. <sup>16</sup>

To complete the brooch, the inner wire was bent until the ends touched. The ends were filed to ensure that they would abut cleanly. Then the loops on the knitted portion were closed with additional 26 gauge wire. The

"D" pin was then made from 18 gauge wire as in the pin above; since 18 gauge is too thick to work through the top layer alone.

Note that there are 7 spirals per row and approximately 35 rows, plus 2 closing rows in the outer ring.



Brass Wire Spiral Brooch –

<sup>17</sup> #1341 is a loosely spiraled wire. The ends are hooked together to close the loop.

Using 20 gauge brass wire, it was bent into spirals with pliers. The ends were cut and filed before linking. The "D" pin was then made from the same wire in the same manner as the pins above.

Since the original was 21 mm in diameter, I also tried doing the brooch in the next smallest brass wire I could find, 26 gauge.

Unfortunately 26 is just too fine.

<sup>17</sup> Egan pg. 254 with description on 256

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 $<sup>^{16}~\</sup>underline{\text{http://www.arkeodok.com/News1.html}}$  Drawplate from Visby 12/1-04 - Gotland

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Page 5