

**CONTEXTUALISING METAL-DETECTED DISCOVERIES:
THE STAFFORDSHIRE ANGLO-SAXON HOARD**



Four views of the pommel now reconstructed from K005, K596-7, K604, K1374 and K1968 - Photo montage - Lucy Martin



NEWSLETTER 8

JUNE 19, 2015

Hello, once more, with this the eighth Staffordshire Hoard Newsletter. It is a great pleasure to be editing the newsletter again and catching up with all the new developments and discoveries about the Hoard, welcoming new personnel to the team and saying farewell to others.

As summer is here (apart from the weather) I thought you might be amused by the following, particularly all those who have been labouring to categorise the various foils.



As ever, thank you to all the contributors.

NOTES FROM THE PROJECT MANAGER

It is a year since our last Newsletter at the end of Stage 1. At that point the first version of the project design had been submitted, and we were waiting to see whether what had been proposed for Stage 2 could be afforded. The rest of the summer and autumn passed in various discussions resulting in three further versions of the PD to accommodate some structural changes to the management of the project, and various other matters.

This was all brought to a happy conclusion early this year when EH (now Historic England) commissioned Barbican to carry out Stage 2. We are now five months into the 30 month programme, and the final report is due to be submitted to the referees two years from now.

The Barbican website has a wealth of detail about what was achieved in Stage 1 and what we hope to do in Stage 2. It also has the final Project Design for this stage of the project which includes the Assessment Chris wrote summarising our state of knowledge at the end of Stage 1. All of this can be accessed at <http://www.barbicanra.co.uk/staffordshire-hoard.html> together with details of who is in the team carrying out Stage 2.

If you read the PD, and get as far as Section 16, you will discover that we don't have all the money needed to complete the project as originally scoped. Though we have over £300,000 for this stage guaranteed, another £100,000 or so is needed. The owners are embarking on a vigorous fund-raising campaign, so we are hoping they are successful. We shall be making the decision of what can be done, and what has to be excluded, at the end of this year when we see how the fund-raising is going.

Stage 1 was front-loaded with the scientific work, and so the focus was due to shift to the typology and art historical aspects in Stage 2 with only small amounts of further scientific analysis. This has changed because the Birmingham Museum Trust was awarded a grant from the Esmée Fairbairn Foundation. This has enabled them to employ two archaeological scientists for a total of 18 months. This means we are being able to explore such organics as are associated with the objects in more detail, and to continue the analysis of the metalwork. We are extremely grateful for this bonus. Below Pieta introduces the full

team now at work in Birmingham. This includes three new conservators who are busy joining the fragments. Some of the results can be seen in these pages.

Given the new strands of scientific analysis being undertaken, it was felt a formal post of scientific advisor and internal referee would be useful. I am very pleased to say that Professor Marcos Martinon-Torres from the Institute of Archaeology UCL has agreed to undertake this work.

We are also being joined by Lucy Martin of Cotswold Archaeology who will be taking the photographs of the objects for the final publication. She introduces herself below and has produced the cover image for this Newsletter. Some of you may recognise one element of that as having been a cover image on one of our Newsletters before (no. 4 – February 2013, K005). Now it can be seen as forming part of a gilded cast silver pommel along with K596-7, K604, K1374 and K1968.

The typology team which was just Chris for Stage 1, has been augmented by George Speake who is taking responsibility for the die-impressed sheets. He and Giovanna tell you what is going on with these below.

Finally, I am happy to tell you that the first refereed journal article from the research project will appear later this year. Ellie Blakelock has written up the pilot study on the gold that showed the phenomenon of deliberate surface enrichment (see Newsletter 5 June 2013), and this has been accepted for publication in *Archaeometry*.

Hilary Cool

SHEET GROUPING

A useful 3-day grouping exercise took place in April, attended by Chris Fern and George Speake, to reassess the many die-impressed gilt-silver fragments and associated reeded strips. This project, one of the priorities of Stage 2, is being carried out in the Conservation Lab at BMAG, and builds on the initial conservation and joining that started at the British Museum, reported on by Fleur Shearman in earlier newsletters. The grouping and sorting is proving to be a tantalizing and challenging task, but has been aided by the appointment of Giovanni Fragni, under the supervision of Pieta Greaves. Acknowledgement should be given to the careful boxing and labelling at the British Museum and to Fleur Shearman's detailed conservation report, which has facilitated the task of classifying and identifying the many different fragments. Progress has been made, with new associations and discoveries coming to light in recent weeks.

The die-impressed sheets present us with a range of figural and zoomorphic designs. We can be reasonably certain that the majority of the warrior panels and friezes and some zoomorphic designs once enhanced at least one splendid Anglo-Saxon helmet, but not all sheets can be confidently associated with a helmet. The linked moustached heads, for example could have been the part of the rim mount of a drinking vessel. It is clear that some of the initial groupings and classifications are no longer valid. The report in Newsletter 7 that there appear to be *c.* 17 different die-impressed friezes now needs to be modified. Significantly the provisional grouping of so-called marching warrior friezes 1-6 has now been reduced down to two and the use of two distinctive dies. One panel shows three helmeted warriors with spear, swords and shields moving to the left. The other panel shows armed, helmeted



Warriors moving to the left

warriors, with smaller up-raised shields, kneeling warriors, or it derived from an-
 moving to the right (see composite other helmet.
 photographs above and below). Whilst we
 cannot be certain how these panels were
 arranged, parallels with Swedish helmets
 would suggest that they were positioned
 above the helmet-band, each side of the
 helmet showing the warriors marching in
 sequence towards the front. Progress has
 also been made in locating and
 positioning more fragments of the
 encircling helmet-band of kneeling
 warriors, and the containing silver 'tray'
 which was secured to the helmet rim. The
 overall length of the helmet-band will
 provide some indication of the size of the
 helmet. It is surmise at present whether
 the zoomorphic frieze of linked 'beaked'
 quadrupeds was positioned above the

There is much sorting and interpretation
 still to be undertaken. Challenges lie
 ahead, particularly in relation to the range
 of Style II decoration, but significant new
 pieces have been located to add to our
 understanding and appreciation of the
 iconography and stylistic variety of the
 die-impressed sheets. More fragments
 associated with the equestrian warrior are
 presenting intriguing possibilities that
 there were further figures in the panel.

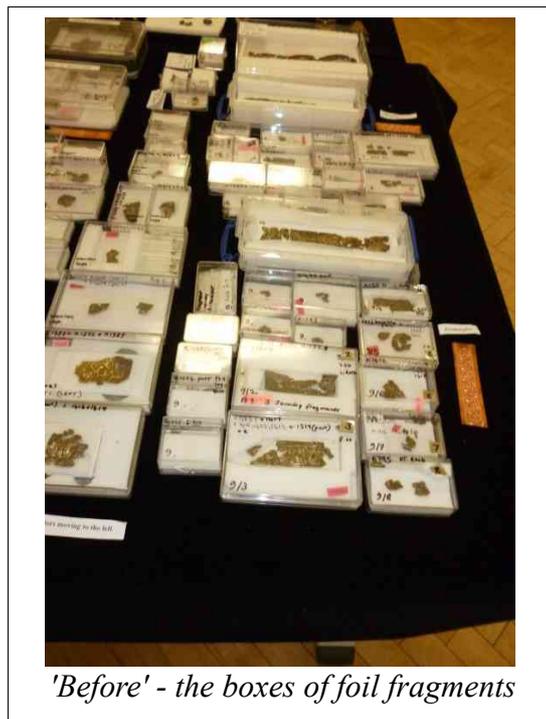
George Speake



CONSERVATION AND RECONSTRUCTION OF THE HOARD HELMET FOILS.

It's been an intense couple of months working on the foils of the Staffordshire Hoard. When I started on 1 April, I was confronted with a stack of boxes filled with smaller boxes that all contained fragments of embossed foil, some less than a square millimetre.

While reconstructing these fragments of gold and silver was a new project for me, I've worked with precious metals for a long time. Before returning to university I was an independent jeweller, designing and creating works in silver and gold. Later as an undergraduate I had the opportunity to curate a collection of bronze axes, some of which were 5,000



years old. From that moment on I was hooked on ancient metals. I worked in the university arts and sculpture foundry in order to cast my own replica axes, and I had an internship at the Science Museum of Minnesota where I re-catalogued and conserved the metals collection there.

After getting my degree in Minnesota, I came to the University of Sheffield to complete a masters and PhD in archaeometallurgy. I moved on from bronze axes, and for my thesis I explored the tools and techniques used by the metal artisans of the Bronze Age. Now I've jumped ahead to Anglo Saxon times to apply my skills as a metalsmith and archaeologist to reassemble the foils that are part of the Staffordshire Hoard.

are long and snaky, and if you look closely, they have a sort of skinny foreleg that wraps around the body of the next creature. Unlike the Warrior foils there wasn't a border marking the beginning or end of each section, so the first part of the task was to figure out what the original design looked like. In order to make these foils, a metalsmith makes a die, a sturdy plate made of bronze or perhaps bone or antler. The design can be directly carved onto the surface of the die, or a die can be made of wax and then cast in bronze. Once the die is made, the smith takes a thin sheet of metal and places it over the die. A piece of leather or lead is placed over the sheet metal and then the layers are hammered so that the sheet metal is pushed into the die, making an impressed design on the surface.

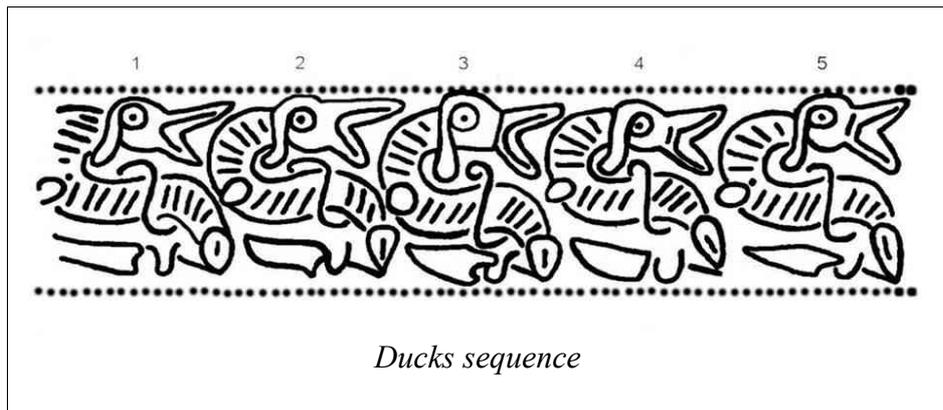


Meet the experts day 2015: sharing the foils with the public

I started by getting familiar with each and every fragment and it wasn't long before I could recognise and sort them into the different friezes. The first project I worked on was the Frieze of the Beaked Quadrupeds, also known affectionately as the Ducks. It's hard to imagine what else they could be, unless they're geese. They have long quacking beaks, a curved neck, and paddle-shaped feet, but their bodies

there are no borders dividing the design into sections, the incomplete duck at the beginning of the die would have to fit closely to the last duck in order to continue the sequence. In addition, the beaded border above the last duck had a couple of slightly larger beads. They were larger because the smith had used them to line the foil up for the next

In order to figure out what the die looked like, I had to sort out all the duck-like creatures. It didn't take long to notice that they had individual features. Some had round heads and others were cone-shaped. Some had long, skinny feet; some had short, fat feet. I made a list of all the different features I could recognise and then looked to see how often they repeated. One duck was different than the rest in that his back and foot were incomplete. I recognised that this must have been the first duck on the die. Because the ducks are interlaced and



sequence in the continuing design. Once I had found one edge of the die it was relatively easy to get my ducks in a row - in fact row after row. An entire sequence of five ducks was repeated to make a long, narrow foil of about 57 centimetres, which is pretty close to the length needed for a foil to go around the edge of a helmet. What a helmet that must have been!

The steel helmet would have been covered in gleaming gold foils and panels held in place by heavier gold strips. The panels depicted scenes of marching warriors with spears and swords. In another panel, warriors attack a horse and rider. And then finally we have a gold frieze of... *ducks*? Well, we call them ducks, or beaked quadrupeds, but maybe they really are geese. Or perhaps they are dragons or some other fierce mythical Anglo Saxon beasts. But whether they're ducks or dragons, they are another fascinating piece in the story of the Staffordshire Hoard.

Dr Giovanna Fregni

BMAG NEWS
The team at BMAG is now at full strength, we have:-

Peter McElhinney who is looking at the organic and inorganic remains in the hoard.

Giovanna Fregni who is reconstructing the die impressed strips.

Ellie Blakelock who is looking at the silver alloys and some of the gold construction elements.

We also have two conservators, *Kayleigh Fuller*, and *Lizzie Miller* who is reconstructing and conserving the pieces, along with student *Rachel Altpeter* who has come to us from UCL for 10 months.

The team has also carried out a meet the experts day at BMAG, where the public



Ellie and Rachel preparing the SEM

had the opportunity to ask questions and discuss our progress, there was also a chance for people to learn some conservation techniques with a pop-up conservation table.



Peter, Kayleigh and Lizzie with future conservators



K1387: niello x 30

Great progress has been made on all fronts with new discoveries and objects coming together week by week. A couple of the highlights include, the frieze Giovanna has described, and the elaborate pommel K1387 (illustrated below) with niello biting animals on one side.

*Pieta Greaves:
Conservation Coordinator*



K1387: Niello snakes design



Pommel K1387

A POSSIBLE SWORD HILT SET

This pommel [K39, K1007] and pair of hilt-collars [K160, K186, K1364, K595, K953, K304] in silver represents a possible set from a sword-hilt. One of the collars was whole, but the other parts have been reassembled from seven fragments.

each collar. The Style II art dates the set to the late 6th or early 7th century. Whilst it is possible the suite was made in an Anglo-Saxon workshop, parallels for the pommel from the Continent and Scandinavia, mean that it might possibly indicate an imported sword.

Chris Fern



Pommel K39/K1007 and hilt collars

THE STAFFORDSHIRE HOARD PROGRAMME: NEWS AND EVENTS

*Dr David Symons, Curator of Archaeology and Numismatics at Birmingham Museums Trust retired in March. Dave has been involved with the hoard since it arrived at the museum in 2009, and was a long-standing member of the Research Advisory Panel. More recently, he was responsible for curating the new Staffordshire Hoard gallery at Birmingham Museum which opened in October, and is attracting large numbers of visitors.

* History West Midlands have produced a series of three podcasts about the hoard, in which members of the research project and museum staff discuss what they're learning through the research and conservation project.

They were cast and all are decorated in sunken relief with abstract animal art of Style II. All the parts were probably gilded originally, traces of which remain, and all the animal body elements were inlaid with black niello, which would have created a striking contrast of black and gold. The pommel bears on its surviving side two back-to-back zoomorphs, with a further creature on the remaining pommel shoulder. The collars have panelled animals and animal body parts that were different on each side of

<http://historywm.com/podcast/>

* BMT have been running a competition in conjunction with the School of Jewellery at Birmingham City University and three local jewellery firms (Weston Beamor, Fattorini, Hockley Mint) to produce jewellery inspired by the hoard. The final designs will be on sale in the museum shop.

* The New Vic Theatre in Newcastle-under-Lyme held/ is holding a five week festival of new theatre shows inspired by the Staffordshire Hoard. They've been working closely with The Potteries Museum and Art Gallery to create the new works, including a documentary piece about the discovery of the hoard, featuring actors playing members of museum staff. <http://www.newvichoardfestival.org.uk/>

Jenni Butterworth
SH Programme Co-ordinator

skills acquired during this time have further informed my artefact photography. By coincidence this period was my first encounter with the Hoard as, whilst I was at Liverpool, I was involved in the radiography of the blocks of soil to make an initial assessment of the quantity of precious metal in them for the Treasure process. I take particular pleasure in post-processing and my personal photography is highly textured and manipulated; much of my personal work can be viewed at roundography.com, along with a few examples of my professional work.



**INTRODUCING LUCY MARTIN:
 PHOTOGRAPHER AND ILLUSTRATOR**

I am the Senior Illustrator at Cotswold Archaeology, based near Cirencester. I have been an archaeological illustrator for thirteen years, during which time my photography has taken on a gradually more prominent role in my professional (and personal) life. Between 2009 and 2012 I studied and practised cultural heritage radiography, with a focus on exploring the range of filmless capture systems on the market, and many of the

END NOTE

I would just like to add to Jenni's valediction to Dave Symons. We were at university together and he seemed like a permanent fixture at BMT and was always most helpful in providing access to the museum collections. I know he has thoroughly enjoyed his time with the Hoard as one of the many 'foil sorters', amongst many other things, and as a regular speaker to local societies. We wish him well in his retirement.