

HMS NEWS

Historical Metallurgy Society
75 Summer 2010

From the Editor

It seems like winter has hardly passed yet summer is already upon us and for many members it brings the prospects of travel and field visits to a number of heritage sites relating to metallurgy. Many members will already be well advanced in their summer itinerary with planning to be done for visits to both near and far flung places in pursuit of historical metallurgy.

I would then like to appeal to these members and ask that they include in their plans a thought for the wider membership, especially those who cannot spend the summer gallivanting across slag heaps or down mines, and think about updating us all on their summer adventures.

The interests of the society have always been broad both in terms of time period and geographic extent meaning we have a diverse and hence very interesting membership. Like any organisation its dynamism can only be equal to that of its membership and the newsletter is an ideal medium through which to demonstrate the interests of the society to a wider audience. Whilst mining historians, academics, and practicing metallurgists can all contribute to the contents of the journal, whether members or not, HMS News is very much led by members interests and exists as a means for the rapid dissemination of short but relevant items of metallurgical interest.

Over the years the bulletin has been the first place that many important discoveries have been announced or controversial opinions first aired. Often such items are later developed in to articles for the journal and as such the role of the newsletter remains important.

The newsletter is here for members to air their views, thoughts or even ask for assistance in metallurgical mysteries. There is a tradition of short research reports and items of interest that do not quite warrant a journal article. I would therefore urge all members to think about making a contribution to the newsletter. The editorial team are happy to receive articles in ANY format and are willing to work on images, editing and proof-reading submissions. In the meantime I do hope members enjoy this issue and will indeed find something to comment on.

Roger Doonan

The next edition of the HMS Newsletter will be published in November 2010. Contributions are welcome and should be emailed to r.doonan@shef.ac.uk by 1st November 2010.

Rio Tinto Mines: A Yorkshire connection?

A collection of photographs and drawings relating to the Rio Tinto mines was recently rescued from a residential skip in the Wincobank district of Sheffield. The rescuer was uncertain of the subject matter and by chance passed them on to the newsletter editor. The collection is particularly interesting and was instantly recognised as relating to the War Memorial adjacent to Rio Tinto's English Village at Bella Vista. Further inspection found that the album includes not only photographs but



J Targett's drawing of the Bella Vista war memorial

architect's drawings of the war memorial which commemorates five employees at Rio Tinto lost during WWI.

The first part of the album contains a detailed photographic log of the building of the monument, including the cutting of stone and clearing of ground. The monument is dedicated to five employees (Wilfred Valentine Gilbert., Alphonse Emile Le Grand, John Todd Glenn, Stephen Johns, and Harold Vardy). Judging from the dates in the album the monument seems to have been erected in 1922 on top of a Roman Slag heap adjacent to the English Village. It was fashioned from Roman masonry fragments recovered from the site whilst the bronze plaque was cast from the remelted axle of the Roman waterwheel!

The second half of the album covers miscellaneous features from Rio Tinto including images of a Roman waterwheel being excavated. In addition there are photographs of timber-lined shafts presumed to be Roman and a number of images of shafts and adits having been cut through with steam hammers.

Several names are mentioned in the album including a photograph of four men which is annotated Bodenham, Rogers, Thomas and Targett. Targett is presumably the J Targett who has

signed the architects drawing of the memorial. One photograph which includes the lower legs of a slight woman has been annotated Dame E Wishaw. Preliminary research suggests that this could be a Dame Enid Wishaw of Cheltenham but this is at present unconfirmed.

In an other photograph of a recovered Roman ladder two sets of legs are annotated Drewitt and Wyatt. It seems likely that the photographer was part of a group who either worked at Rio Tinto or was visiting to build the war memorial having lost friends in the war.



Whoever compiled the album was sufficiently knowledgeable in matters metallurgical to photograph a number of archaeometallurgical landscapes, including many

Recovered Roman ladder flanked by Drewitt and Wyatt slag heaps, Roman adits and Roman mining tools along with images of the waterwheels during excavation. The findspot coupled with the subject matter, not least the annotations of numerous slag heaps, suggests that the photographer may have gained their metallurgical knowledge whilst working in the Sheffield industries.



Roman waterwheel in the process of being excavated

As such the album is not only a document of events at Rio Tinto but also one which relates to the local history of Sheffield and is of particular interest to The Friends of Wincobank Hill.

The album is currently being digitised and conserved. If any member believes that they can throw light on any of the individuals mentioned or the subject matter then do please contact the editor.

Roger Doonan

Websites of interest

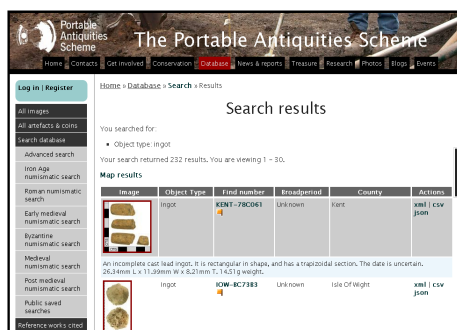
The Comité pour la Sidérurgie Ancienne (CPSA) de l'Union Internationale de Sciences Préhistoriques et Protohistoriques (UISPP) has relaunched its website and is happy to receive news and announcements.

For those not aware of its activities the CPSA is an international group of scholars who specialize in the study of ancient ironworking. The Comité was established in Prague in 1966, with Dr Radomír Pleiner as Secretary who edited all CPSA communications from 1967 until his retirement in 2005. CPSA communications have been published twice yearly in the journal *Archaeologické Rozhledy*. These Communications provide a bibliography and abstracts of material which has been published in a very wide range of journals, monographs and conference proceedings. In addition they include information on excavations, experiments and archaeometallurgical projects throughout Europe and elsewhere in the world. Over 2,500 items have been listed, providing a unique resource for scholars of early ironworking. The last of these Communications, No. 67, was published in 2002 and is available on the website of the Institute of Archaeology, Prague ([comite_67.pdf](#)).

Since 2002 the President of CPSA has been HMS member Peter Crew with Dr Janet Lang taking over as secretarial duties from Dr Pleiner.

The new website (<http://cpsa.webplus.net/>) hopes to invigorate the organisation and any contributions (however brief) of news, reviews, information about meetings (past or future), excavations, pictures, research and publications would be welcomed.

The newly renovated Portable Antiquities Scheme website is also now available <http://www.finds.org.uk/>. Those who were frustrated by the old site will be delighted by the improvements made. The database now contains over 500,000 objects and about 250,000 images and is easily searched either by find number, artefact type, location or period. Navigation is quick and information is easily accessible. Instead of being presented with a text list, the search now brings up a page displaying images of each object, their find number and a brief description. The find number is linked to a webpage for the object with more details along with a section for individuals to make comments. The database also has direct links to a bibliography, and specific popular searches, such as hoards and numismatics.



PAS's new look site

The PAS also hosts a series of blogs focussed on regional and academic categories each with its own RSS feed, a calendar of events, and research currently being conducted using the database.

The new site is a vast improvement over the old one and will be a considerable help for researchers. It is understandable why the site was nominated by the BAA for an award in the 'best archaeological innovation' category.

Roger Doonan.
Giovanna Fregni

Help with unusual bale seals.

Bale seals are common finds from the 13th to 19th century as they were widely used to indicate ownership and/or origin as well as being used for quality control purposes in the transport of a variety of goods.

The most common and indeed most documented are cloth seals which were typically two disc seals joined by a connecting strip. The malleability of lead means that they can be folded around each side of a textile and stamped closed with a specific impression to indicate ownership or origin.

The lead bales shown here were recovered from what is believed to be a mid to late 19th century shipwreck and is thought likely to be European in origin. The investigator, Andrew Pietruszka, would be grateful for any help that members can offer in identifying these particular stamp impressions.



Members can contact Andrew directly at andrew-pietruszka@yahoo.com.

Roger Doonan

Hofstaðir: Excavations of a Viking Age Feasting Hall in North-Eastern Iceland

Work done by HMS member Gerry McDonnell has now been published by the Icelandic Institute of Archaeology. The award winning volume includes contributions from an international group of 45 archaeologists providing an in-depth and detailed analysis and interpretation of the 1992-2002 investigations of this classic site.

At about 500 pages with over 200 illustrations, the volume represents a landmark in Icelandic archaeology and will set a new standard for excavation monographs. The monograph is in English with an extended Icelandic summary. The work offers many new insights into the Viking period in Iceland, the nature of the settlement and human-environment relations in 9th-11th century Iceland. Any members who wish to get a taster of what is in the book can visit Gerry's website at <http://archmetals.org.uk/page70.html> or use the adjacent QR code.



Roger Doonan

Two recently discovered ornament horizon pins from Horton, Berkshire

Excavations at Kingsmead Quarry, Horton have revealed parts of an archaeological landscape with a rich history of development from before 4000 BC to the post-medieval period. Several items of metalwork were associated with various periods across the site, including coins, several awls, ingots and slag. However, two MBA ornate pins stand out due to their rarity and importance.

A copper alloy Picardy pin, was recovered from a segmented boundary ditch, and features incised linear motifs covering the top third of the shaft. Despite its rarity, the depositional context of the pin, its location and form are all paralleled elsewhere. Such pins are relatively rare, distributed throughout central-southern England and eastern England as well as north-west France. Made from tin bronze (13.6% Sn), the principal impuri-



The upper part of the Picardy pin showing incised design and bulbous head

ties are 0.08% Fe, 0.35% Ni, 0.41% As, 0.04% Sb, 0.04% Pb and 0.06% S, with traces of Co, Ag, and Bi. A glue-like substance was found on the head and possibly used for holding amber.

A complete quoit-headed pin (c. 1400-1250 BC) was also recovered. The pin has a thin shank, shaped to a curved point at one end, and with a large ring at the other end. Most likely used to fasten a cloak or a piece of clothing, it represents an unusual find, with such items more associated with hoard deposits. Analysis has shown that the pin was formed from tin bronze (11.0% Sn) with the main impurities being 0.20%



The range of metalwork recovered from Horton

nickel, 0.35% arsenic and 0.18% lead, along with traces of iron, cobalt, zinc, silver, bismuth and sulphur.

The discovery of the pins has been both exciting and important. They represent some of the only examples found within stratified contexts on settlements whilst compositional analysis suggest connections with both British and Continental metalworking industries. Further, stylistic assessment is confirmed by C14 dating, securing the dates to the 15th to 14th centuries BC, the start of the Taunton period of the Middle Bronze Age.

Gareth Chaffey, Alistair Barclay, Peter Northover, Ben Roberts

Recent conferences

Iron and Change in Europe *the first 2000 Years*

26-28 March 2010

This invitation workshop was convened by Dr Peter Halkon of Hull University and Professor Vincent Serneels of the University of Fribourg under the auspices of the European Science Foundation's Standing Committee for the Humanities.

Whilst the focus was firmly on the scientific, analytical and technological aspects of iron, a wide range of practitioners from geologists to archaeometrists to field archaeologists were present with representatives from fifteen European countries joining in on discussions that focused on iron metallurgy between 1000 BC and AD 1000.

The initial session involved presentations on the current understanding of early iron from each country, and was followed by sessions on new methodologies, open discussions and the drafting of proposals for future work. What became immediately clear was the high level of disparity not only in the knowledge present on individual countries, but in access to analytical equipment and support. Academic cultures also varied in the techniques chosen, and the overall relations between the providers of scientific analysis and the national archaeological communities. These were recognised as a distinct barrier to both comparative work and collaboration, and the network members will have to work hard to overcome these if iron research is to see a more coherent international agenda.

One of the dominant research issues of the weekend was that of trade and exchange. Vincent Serneels, Michael Brauns and Philippe Dilmann were all able to give examples of positive work on the 'Holy Grail' of provenancing, but the conclusion was that it remains expensive and time-consuming and research would need to be carefully targeted. As a result the suggested focus for future research was objects from early in the production system, such as ingots or bar iron. It was also suggested that material from Mediterranean countries such as Greece, Spain and Portugal should receive attention as little work has yet been done in these places.

Whilst plans were made to apply for further ESF funding for a formal research network, as well as potentially seeking funding for a European-wide research project, the most immediate outcome of the workshop is the publication of the articles and presentations given by the delegates. These summarise the current understanding of iron production, use, and the social, economic and environmental impacts in each of the fifteen countries, and will prove invaluable not only for those interested in iron technology but for a wider selection of students and researchers. As I heard one of the delegates saying, it was worth attending the workshop just to receive this handbook, and I look forward with interest to its online-publication in a few months.

Ruth Fillery-Travis

Forthcoming conferences

Accidental and Experimental Archaeometallurgy HMS Annual Conference 2nd-3rd September 2010



Things are moving rapidly for the next HMS Annual conference set to take place at West Dean College, West Sussex. Organisers have received many applications already and speakers and experimenters have been confirmed.

The conference promises to be a unique experience and the first time that so many experimenters will be reconstructing such a variety of processes in a single place. Experiments planned include a number of iron bloomery smelts, a copper matte conversion, and a basic copper mineral reduction.

The presentations will address a number of themes ranging from the role of experimentation in archaeometallurgy to experiments in medieval assaying techniques. The event promises to have something that will interest virtually every member.

With overnight accommodation being provided on site members can be certain of carrying on discussions and participation in experiments well in to the night in what will be the perfect event in the a near perfect environment. More details of the event can be found at the HMS website. HMS website at <http://hist-met.org/conf2010.html>

Newsletter submissions are welcome at any time, but deadlines for each issue are

1st March, 1st July 1st November

Contributions can be sent in any format (hand-written, typed, email, floppy disk, CD-ROM, etc).

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