

HMSNEWS

Historical Metallurgy Society 64 Autumn 2006

HMS SPRING MEETING AND AGM

19th–20th May 2007
Camborne School of Mines
University of Exeter, Cornwall Campus
Tremough, Penryn., TR10 9EZ
Cornwall, UK

Organisers

Dr Gill Juleff, Department of Archaeology
email: G.Juleff@exeter.ac.uk
Dr Jens Andersen, Camborne School of Mines
email: J.C.Andersen@exeter.ac.uk

Outline programme

The annual general meeting (Saturday 19th) will be followed by a series of invited lectures. Confirmed talks include an introduction to the Cornish Mining World Heritage Site, developments in the micro-characterisation of metals and materials, and recent progress on the Exmoor iron project. A tour will be arranged of new facilities at Camborne School of Mines including the museum, a demonstration of modern digital surveying instruments and the modern suite of micro-analytical instruments. Delegates will have an opportunity to present research posters. A one-day field excursion will be arranged on Sunday 20th to historical locations related to mining in West Cornwall.

Charges

AGM, free
Spring meeting, £25
Boat trip and Conference dinner, £18
Field excursion, £8

See enclosed flyer for further details

At the AGM there will be vacancies for the chairman and two ordinary members of council. Members of the society can nominate people for these positions. Forms are available from the Honorary General Secretary, Peter Hutchison at 22, Easterfield Drive, Southgate, Swansea SA3 2DB

HMS Annual Conference 2007

Dublin

14th–16th September 2007

In 2007 the HMS conference will be held in Dublin and is being organised with the Mining Heritage Trust of Ireland. Most of Saturday and Sunday will be spent hearing about aspects of Irish metalworking, and visiting the National Museum's spectacular collections of metalwork. The archaeological treasures range from large amounts of Bronze Age gold, through Early Christian metalwork such as the Tara brooch, to Viking silver hoards and metalworking finds. For those interested in more recent periods, there are major collections of Irish pewter and silver. It is planned to arrange accommodation in Trinity College, which is very close to the Museum in Kildare Street. Most of the lectures will be in the other branch of the Museum, at Collins Barracks, which is just a bus ride away.

See enclosed flyer for further details

Grants

The society awards grants from the **Coghlan Bequest** and **R.F. Tylecote Memorial Fund** for research and travel. Members are encouraged to apply by completing forms available on the society's website (www.hist-met.org) and sending them to the Hon. Treasurer. The Coghlan Bequest was set up to facilitate any research into historical metallurgy, including fieldwork, experiments, analysis and travel. Money from the fund is **awarded once a year in March**; applications must be received by the end of the preceding January to be considered. The R.F. Tylecote Memorial Fund commemorates the renowned archaeometallurgist who was a founder member of the HMS and edited the Journal from its beginning until his death. It takes the form of Annual Travel Bursaries to help pay for travel, subsistence and conference fees, which will further the aims of the Society, including research, conferences, seminars, excavations, fieldwork and experimental workings. Money from the fund is **awarded in March and November**; applications must be received by the end of the preceding January and September. As a guide £100–£150 is usually awarded in each round. Following an award, the results of the research undertaken or a report on the study visit must be sent to the HMS for possible inclusion in the Journal of the HMS or in the HMS newsletter. Any unused funds must be returned to the HMS.

Application forms may be obtained from Michael Cowell, Hon. Treasurer, "Little Gables", 17A Thorncote Road, Northill, Bedfordshire SG18 9AQ.

Damage to an Important Metallurgy Site

The nationally important metallurgical site at Warmley has recently been damaged by earthmoving activities. The Warmley site was occupied by William Champion, who patented a method for the manufacture of metallic zinc, from the 1740s until he was declared bankrupt in 1769. William Champion had established copper smelting furnaces, brass cementation furnaces and zinc smelting furnaces on the site (see Day 1973 for further details). The site also had a battery works, a wire works, a wind-mill used to grind zinc ore, and a Newcomen engine used to augment the water supply.

3.75 hectares of the site was scheduled as an Ancient Monument in 1997. Unfortunately scheduling does not always protect a site and in this case works to a factory site at the junction of Tower Lane and Tower Road North involved the removal of over 6000 cubic metres of soil and possibly archaeologically important deposits. Staff at the Kingswood Museum notified the local authority archaeological team who asked English Heritage to undertake emergency recording of the newly exposed section. This revealed a number of stone and brick structures and a culvert partially constructed from slag blocks. An extensive deposit of what appeared to be copper smelting slag was also recorded. This is not the first time that re-development in Kingswood has led to damage to archaeologically important remains of the William Champion brass works (Day 1988).

If you know of any important sites which are under threat then notify the Society's Conservation Officer

Day, J 1973 *Bristol Brass. The history of the industry.* Newton Abbot: David and Charles

Day, J 1988 'The Bristol brass industry: furnace structures and their associated remains'. *Historical Metallurgy* 22, 24-41



Anyone who visits Warmley should take the opportunity to see this remarkable statue of Neptune which once stood on an island in the middle of the millpond

HMS Conservation Officer

Paul Belford

The role of the Conservation Officer is to keep a 'watching brief' on sites of metallurgical interest in the UK which might be threatened by decay, demolition or redevelopment. Normally, these sites will be appropriately dealt with by local authority planning officers under the aegis of planning regulations – as enshrined in PPG15 and PPG16. However, there may be cases where, for one reason or another, measures have not – or can not – be taken within this framework. For instance, the local planning authority may be unaware of the significance of a particular site: it may have been overlooked by previous work, or it may not be on the Sites and Monuments Record. In other cases a site may not be threatened by redevelopment, but might be in an advanced state of decay or dereliction.

I can assist local members when a case arises, either by talking to local planning officers about the significance of a particular site, or, by writing officially to express concern on behalf of the society. Indeed, I am reliant on members throughout the country to keep me up to date on these matters.

I would therefore appreciate information about any sites which appear to be under threat. Before making a balanced judgement on the action that may need to be taken, I will need:

- A synopsis of the recent planning history (if relevant)
- A location map and/or plan of the site
- Some photographs if possible
- A brief description of the historical background and significance of the site
- Notes on who to contact (site owner, planning officer, etc.)

Usually a successful outcome can be achieved through a series of phone calls or emails to the appropriate people. Only in exceptional circumstances will there be a need for a formal written objection to a particular scheme. We need to be very careful as a society about the proportionality of our response to any particular case.

To contact the HMS Conservation Officer please write to:–

Paul Belford
HMS Conservation Officer
c/o Ironbridge Gorge Museum Trust, Coalbrookdale
Telford, TF8 7DQ

Subsequent correspondence may be by telephone or email, but the initial contact must be in writing, please.

Culduthel: an Iron Age smelting site near Inverness

Ross Murray

A spectacular Iron Age settlement has been discovered at Culduthel, just south of Inverness, during work for a new housing development. The excavation by Headland Archaeology focused on a circular enclosure that was visible on aerial photographs as a cropmark. Once excavation began it was clear that the enclosure was part of a much bigger settlement which included seventeen roundhouses. All were located outside the circular enclosure and several of the buildings were exceptionally well preserved by the hillwash that sealed a large area of Iron Age archaeology.



Figure 1. Members of the excavation team standing in the postholes of one of the roundhouses at Culduthel

The roundhouses (Figure 1) were part of a large settlement, without any boundary in the form of a defensive ditch and bank, situated on a terrace overlooking Inverness, commanding clear views across the valley at the top of the Great Glen. The houses belonged to different phases of the settlement but were all built in the same way with a ring of posts. The largest, with a diameter of twenty metres, is one of the largest roundhouses found in Scotland.

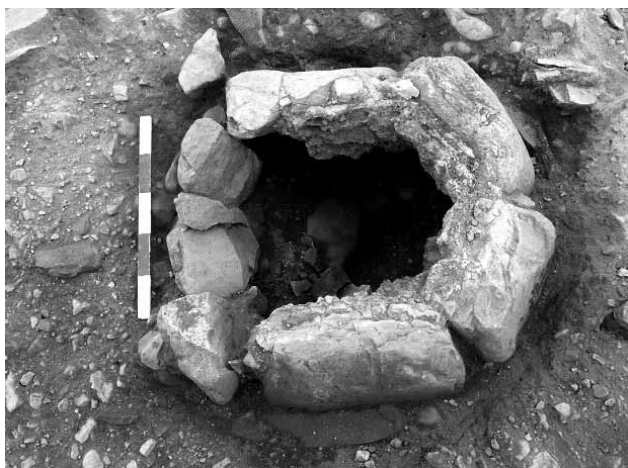


Figure 2. One of the bloomery iron smelting furnaces

Many of the buildings were identified as having had an industrial function. Five buildings were bloomeries or smithies, identified by the presence of well preserved iron-smelting furnaces. It was clear that these were not domestic hearths as they were constructed with large edge-set stones forming a box, designed to collect the slag and iron bloom. The tops of these stones were fused together by a crust of iron slag (Figure 2) and, in some cases, the remains of a baked wattle and daub superstructure was also present. One building contained a series of three inter-cutting furnaces (Figure 3).

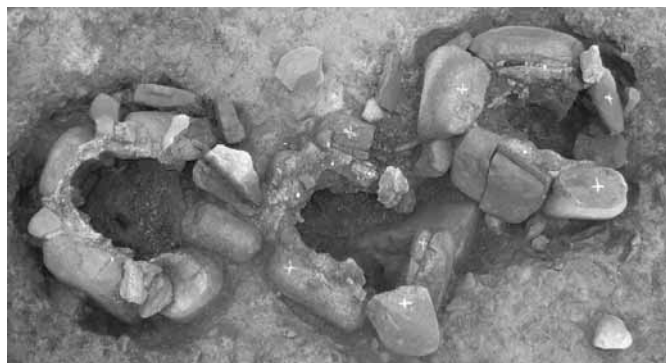


Figure 3. Three inter-cutting furnaces

The surrounding deposits contained large amounts of iron slag and other metal-working debris, including clay furnace lining and iron bloom. Small amounts of copper slag were also recovered from these deposits as well as numerous crucible fragments and several clay moulds. One of the most unusual finds was a rotary quern stone that had been re-used with two ingot moulds on one surface and a unique 'fish-tailed' mould on the other for casting a mysterious copper alloy object.

The settlement was rich in artefact types that are unusual in Iron Age sites in Scotland. The presence of these coupled with the size of the roundhouses indicates that the settlement was of extremely high status. A few small Roman coins were recovered from one roundhouse. Iron objects were found in abundance and were very well preserved. As well as the weapons mentioned above, there were also woodworking tools (chisels and awls), bolts for joining wood, and smaller decorative objects.

The discovery at Culduthel will shed light on many aspects of Scottish Iron Age society. The industrial activity is on a scale not seen before in prehistoric Scotland. All the evidence suggests that the occupants of this settlement controlled the production of an important resource and appear to have been in contact with the Roman world to the south.

Email: ross@headlandarchaeology.com

Swalwell: Pre-Construct Archaeology

Robin Taylor-Wilson

An archaeological excavation was undertaken by Pre-Construct Archaeology in advance of the development of a site at Sands Road, Swalwell, Gateshead. The site was formerly occupied by Sir Ambrose Crowley's Iron Works, which were founded in the early 18th century and became one of the largest and most important ironworks in Europe.

Ambrose Crowley was born at Stourbridge, Worcester in 1658. His father was a successful ironmonger and a pioneer in the Black Country steelmaking industry. In 1681, after finishing his apprenticeship as an ironmonger, Crowley set up in business on his own account for the manufacturing of frying-pans, nails and other miscellaneous items of ironware in London. After quarrelling with the midland merchants who supplied his raw materials, Crowley transferred his large-scale manufactory to Sunderland in 1683. In 1690 he moved his operations to Winlaton, south of the river Tyne, and by 1707 (the year in which he was knighted) had bought out the operations of a rival partnership at Swalwell, west of Gateshead. He later became a director of the South Sea Company and, in 1713, he was elected MP for Andover. Before he could take his seat he died suddenly in October 1713.

There is a good technical description of the site in the mid-18th century by Reinhold Angerstein¹. This states that the pig iron (from England and America) was unloaded at the wharfs on the Derwent, the finished goods were then loaded onto the empty boats. The pig iron was refined in charcoal-fired finery hearths and coal-fired chaferies and forged into bars (with a yearly output of 150 tons). The main products at this stage were agricultural tools for the colonial market (such as hoes and machetes) and ship's equipment (such as anchors, chains and cables). In addition, there were steel cementation furnaces, slitting mills, and an iron foundry.

The excavation area contained the majority of a building shown on the 1718 map of Crowley's Ironworks as a 'wharf building' to the east of the 'Grand Warehouse', and shown on a plan dated 1870 as an 'iron warehouse'. Built with handmade red bricks, the external dimensions of the building were 25.6m by 6.3m. Trenches excavated through the floor revealed a cobbled surface and several layers of cemented iron slag deposits, which are likely to represent successive floor levels associated with late 18th century and early 19th century use of the structure. The sandstone

foundations of the wharf building were also exposed at the southern end of the structure.

To the north and east of the wharf building, the southern edge of a former water channel, shown on the 1718 map as a 'corn mill race', was located and a section of retaining wall was exposed. The retaining wall had been subject to considerable rebuilding and repair and a wide range of materials had been utilised for this, including several substantial grinding stones, presumably derived from the ironworks.

To the east of the wharf building, was a brick and sandstone structure, which measured 16.4m by 7.5m. The south-eastern wall of this structure was of similar construction to the wharf building and is likely to have originated from Crowley's Ironworks (i.e. the 18th century). The 1718 map shows a rectangular building in this location annotated as 'Half Forge' and this is also shown on a map dated 1802. The 1870 plan of the ironworks shows a similar layout to the excavated remains, with a building narrower at its northern end. Within this building were the remains of a furnace identified as the chimney end of a probable puddling furnace. The puddling furnace was patented by Henry Cort in 1783-4 and was designed to create wrought iron from pig iron produced in a blast furnace. The structural remains surviving at Swalwell comprised a main outer skin of bricks with several phases of inner brick skins that represented repairs and replacements to the structure over time.



The remains of part of the puddling furnace at Swalwell

Email: info.north@pre-construct.com

¹ Berg, T & Berg, P (eds) 2001 *R R Angerstein's Illustrated Travel Diary, 1753-1755*. London: Science Museum

CONFERENCE REPORT

Robert Smith

Annual HMS conference 2006

The Forest of Dean, Wye Valley and South East Wales

Some 42 members and guests attended this year's annual conference which was a return visit to the Forest of Dean area. Accommodation in the Dean area has always been a problem but we were suitably housed in the Dean Field Studies Centre in Parkend, near Lydney. Most of us arrived during the afternoon of Friday 15th September and after dinner were told some of the background to the area and to some of the sites we were to visit on the Saturday field trip. Tim Young introduced us to iron making in the region down to 1500 and managed to make the all-important geology of the area clear, in a way that even I, with very little knowledge of geology, was able to understand. Joan Day gave an insight into the Bristol connections in the area. Ian Standing then gave us a masterful survey with many personal insights of the iron production in the Dean and Wye Valley area from the middle of the 16th century to around 1900.

After breakfast on Saturday and collection of the all-important packed lunch, we set off for a full day of site visits, beginning with a route which took us from Parkend via the valley of the Newarne Brook to Lydney. Below Parkend the brook powered one or more 17th century charcoal iron forges before entering the Lydney Estate, on which were its Upper, Middle and Lower Forges. It seems that the first Lydney Furnace of the Wintours also used the brook. In later years, the valley hosted tinplate manufacture, collieries and, in 1927, a coal-fired power station. Unfortunately there was not time in our schedule to stop at Chepstow, a once important Marcher Lordship with castle, walled town and important port. The old road bridge, built in 1816 of cast iron by John Raistrick, carried the London to South Wales road traffic until 1966.

Our first stop, Tintern, was the site of the first water-powered wire works in Britain, in about 1556. The works were controlled by the Mineral & Battery Company. Wrought iron for wire drawing required ductility and this was supplied as 'Osmond Iron' by the Monkwood Furnace between Usk and Pontypool. There appear to have been two furnaces at Tintern; one near the river built on land of the Earl of Worcester and first documented in 1629. The second, which we visited, was a site well up the Angiddy Brook. It is first mentioned, in 1669, in the Foley accounts and by 1707 John Hanbury and George White were supplying pig iron to the Knight's Stour partnership. The furnace was long lived, eventually closing around 1828. Towards the

end, David Mushet used it for experimental smelting of Indian wootz ore. The site was excavated and conserved under the direction of John Pickin in 1979–80 who fortunately was with us for the conference and we benefited from his guidance². The site, once a meticulously excavated site, was now very overgrown and a good example of what happens to sites if they are not looked after and conserved regularly.

From Tintern our route took us up the river Wye, which we crossed at Bigsweir on a single arch bridge cast at Merthyr Tydfil in 1826, and on to Redbrook. Two powerful streams reach the Wye at Upper and Lower Redbrook, where from about 1800 to 1961 stood the Redbrook Tinplate Works. Although a traditional hand rolling mill it survived for a long time by producing ultra-thin plate — at 0.0025ins, it was said to be the world's thinnest. The works were served by a branch of the Monmouth-Coleford tramroad, via the self acting incline at Upper Redbrook. After 1876 it was supplied by the Wye Valley Railway.

The Upper Redbrook valley was equally industrialised with charcoal blast furnaces, from 1604 to 1816 and copper smelting from 1690 to 1730. From 1774, a further tinplate works (on a former copper works site) operated in conjunction with the Lower Tinplate Works; also a foundry and a brewery. Kings or Quick's Mill is recorded from at least 1400 and finished life as the Wye Valley Flour Mills. A reminder of past activities were the black slag blocks, from copper smelting, used in local walls and buildings.



Conference delegates at the Whitecliff furnace

From Redbrook we drove to Coleford, a small settlement around a ford over the Collar Brook. The settlement extended down the Whitecliff Valley and, in

² Pickin, J 1982 'Excavations at Abbey Tintern Furnace' *Historical Metallurgy* **16:1**, 1–21;

Pickin, J 1983 'Excavations at Abbey Tintern Furnace: Part 2' *Historical Metallurgy* **17:1**, 4–11

the 15th century it contained an 'orehall', 'oresmyths', 'colsmyshts' and 'hondsmyths' all of which were buildings, not people. Two old roads leading to Coleford were once called the orewey and the colway. Nearby is a settlement entitled The Scowles. The earliest written appearance of the place-name is 1434 which gives some indication of the antiquity of the mining there.

We then stopped at Whitecliff furnace, a cold blast, coke fuelled furnace stack, built and rebuilt 1798 to 1810. The surviving stack is probably the second furnace and was refurbished by David Mushet between 1809 and 1811. A massive inclined way from the valley floor gave access to the charging platform. An abutment for a charging bridge indicates that a third furnace was planned. The site also accommodated a paint works and several interesting personalities. Mushet's endeavours were not successful and the works failed before 1816. The stack has received five stages of conservation repairs and more are planned by the owners, Dean Heritage Museum Trust. I am sure that many members remember the fund-raising efforts of the Society to ensure that the site was bought and preserved and it was good to hear that the site is being cared for and it was particularly appropriate we should visit as a society.

Seeing a road sign to something called Puzzle Wood would not have elicited any positive response from me — probably just a children's playground. How wrong can one be! It is a semi-natural ancient woodland the extent of which is defined by the scowles it contains. Scowles are weathered, ancient surface workings for iron-ore and they date from early times to the late medieval period. The wood was turned into a rustic maze around 1900 and it is easy to get completely lost. This was one of the highlights of the trip and one could easily agree that it was one of the inspirations for Tolkien in writing about the forests in his books.

Clearwell Caves are underground workings for iron-ore, now open as a well lit show mine. The upper workings may be of early date although some of them were reworked, probably more than once. From about 1800 onwards, shafts and pumping gave access to previously submerged ore bodies. It is worth recalling that around 8 million tons of Dean ore were won by hand and about half of that was carried to surface on the backs of miners. After 1800, the deep mines won a further 4 million tons of ore, all of which was wound up shafts to the surface. The Caves are now open to the public and on the afternoon of our visit we were able to watch an experimental smelt in progress.

From Whitecliff we went on to Darkhill ironworks where we were guided round the site by local historian Keith Webb. David Mushet survived the failure of

Whitecliff because he had invested in collieries. By 1818 he was also associated with Darkhill and built a cupola furnace there. This was probably for experimental work as well as for production. There was a crucible steel works and, by about 1840, a blast furnace lower down the site. There was also a brickworks and the site was served by a branch of the Severn & Wye tramroad and, after 1875, by the railway.

Robert Mushet, son of David, also used the Darkhill Works. He produced crucible steel and like his father he was an experimenter and inventor. He provided a solution for the original failure of the Bessemer Process. Later, at his adjacent Titanic Steelworks, he invented and developed the first tool steels —RMS. This was taken up by the Osborn Company of Sheffield and proved successful.

From Darkhill some of the party walked back to the Field Centre by foot and were rewarded by a route, mostly on the former railway, passing quarries, old tramroads and varied tree crops. Those of us too tired by a superb day of visits, enlivened all the way by the amusing, anecdotal commentary from Ian Standing, returned in the coach!

At dinner on Saturday night, served by an enthusiastic and very helpful staff, we were able to toast the 85th birthday of Robson Davies, one of the longest surviving members of the Society and someone who helped to keep the Society going in the early days.

Afterwards we were treated to a series of short contributions from members. David Cranstone spoke about some recent work he had carried out at Wilson House in Cumbria, the site of John Wilkinson's model farm where he has tentatively identified the site where he kept an iron boat. Jeremy Hodgkinson then told us about the exciting discovery of a 2nd century Wealden bloomery currently under excavation by the Wealden Iron Research Group. Just as in the best serials at the very end of the last day of the current excavation a second, and even more promising site, was discovered which they hope to excavate next year. St Brievals has long been known as site where the iron heads for crossbow bolts, quarrels, were made, and local historian, Alf Webb, shared his local knowledge and enthusiasm of a fascinating medieval industry. Mike Davies-Shiel then told us about his work, Fieldwork, Parish Registers and Bloomery Sites in Cumbria. Joan Day showed a short video of the Salford Brass Mill and the work that has gone on to preserve and present this unique site to the public. Finally Alan Freer presented a paper on his work on preserving Roaring Meg, a cast-iron mortar cast for the siege of Goodrich Castle during the English Civil War and the model he has expertly cast of the gun.

Sunday morning was devoted to longer papers. First was Jon Hoyle on the problems of interpreting field evidence for the early period, in which he told us about new ways to carry out survey work by a new method called LIDAR. This aerial technique, which aroused a great deal of interest, has been used for extensive survey work by the Environmental Agency.

Unfortunately Maurice Febry was unable to present his paper on the Dean iron-ore miners but Ian Standing gave us an impromptu survey of the miners of the Forest. Finally Robert Protheroe Jones brought the whole story up to date with a presentation called: From State Intervention to Multinational Rationalisation: Llanwern and Ebbw Vale Works, 1935–2001.

This memorable and highly enjoyable conference was a great success due in very large measure to the hard work of Ian and Diane Standing who were ably assisted throughout the weekend by Alan and Di Freer – one which I am sure will be remembered by those fortunate to attend.

CONFERENCE REPORT

Matthew Nicholas

Pots and Pans: domestic artefacts of base metal 23rd September 2006

On Saturday 23rd of September 2006 at Somerset County Museum in Taunton Castle the Finds Research Group AD 700–1700 held a one day conference on copper alloy cauldrons and other domestic vessels.

Somerset County Museum is home to an impressive collection of cauldrons, posnets and skillets. This collection was built up by Roderick and Valentine Butler during a lifetime of collecting and is today considered to be one of the largest and most representative collections in existence. The vessels range in date from the medieval period to the 19th century and research by the Butlers showed many of the vessels to have been produced by founders within the South West. This remarkable collection was purchased by the Museum in 2004 and is now on display along with some authentic recipes you might like to try in your own cauldron (anyone for a calves head hashed?).

This collection formed the start of the day with a tour of the gallery display of English bronze cooking vessels, items from the reserve collection and an opportunity to handle the artefacts at close quarters. This was led by Stephen Minnitt, Head of Museums for Somerset County Council.

Following this was a talk by Dr Christopher Green (Honorary Research Fellow, Royal Holloway, University of London) entitled ‘Six hundred years of bronze cooking pots’. Unfortunately due to the machinations of Virgin Trains I missed the tour of the museum and a large proportion of Dr Greens talk.

After lunch the conference continued with a presentation by Marc Meltonville (Project co-ordinator, Historic Royal Kitchens, Hampton Court) entitled ‘Can you learn new tricks from an old pot? experimental archaeology at Hampton Court kitchens’. All too often it is easy for the archaeologist struggling with stratigraphical or elemental enigmas to forget the people behind the pots. Marc presented a fascinating insight into the use of these vessels and the difficulties those using them may have faced. It was also interesting to hear of the projects success in the production of authentic pewter vessels and utensils with the help of a small company of casters who possess and use moulds dating back to the 17th century.

Danielle Wootton (PAS Finds Liaison Officer, Devon) then presented some of the cauldrons, posnets and skillets recorded by the Portable Antiquities Scheme showing the increasing amount of material being recorded around the country. The day concluded with talks on ‘The Wenlock Jug’ by Marian Campbell (Senior Curator of Metalwork, Victoria and Albert Museum) and Geoff Egan (Museum of London/Portable Antiquities Scheme) on ‘Highly decorated early pewter ware and other domestic items’. This allowed the opportunity to see some exquisite examples of pewter ware and copper alloy vessels, and it was especially good to be able to see photos of the Wenlock Jug (now safely ensconced in Luton Museum) alongside comparable vessels in the British Museum and the Victoria and Albert Museum.

This conference proved to be a valuable insight into some of the impressive work that has increased knowledge on the production and use of these amazing objects, and that which remains to be done. Thanks go to the Finds Research Group AD 700–1700 for organizing an interesting and stimulating day.

Henry Cort website

Eric Alexander, who has made a special study of Henry Cort and various other contemporary figures, has launched a website (www.henrycort.net/) devoted to the man who patented a method of converting cast iron into malleable iron. The site contains numerous entries that provide information that has come to light since the publication of the Mott and Singer book in 1983.

2nd International Conference on Archaeometallurgy in Europe 2007

Aquileia and Grado, 17–21 June 2007

On the basis of several indications and requests sent to AIM, the Organizing Committee has decided to postpone the deadlines:

- Titles and abstracts are due by 15th January 2007
- Notification of acceptance of the papers or posters will be sent by 1st March 2007
- Final manuscript will be due by 2nd April 2007 to publish the proceedings of the Conference on a CD-ROM, that will be issued to delegates on arrival at the conference; a peer reviewed volume will be published by AIM, after the Conference.

For further information, please visit the Conference website: www.aimnet.it/archaeometallurgy2.htm or contact the Conference Secretariat.

Early Iron in Europe Prehistoric and Roman Iron Production

Hüttenberg, 8–11 September 2008

The conference aims to cover all main aspects of prehistoric and Roman iron production in Europe, focusing on results of archaeological excavations of smelting and smithing sites and archaeometallurgical studies of furnaces, slags, blooms and iron objects. The conference is meant to offer a forum for established scholars, graduate students and younger colleagues to present and discuss the results of their research and the problems they encountered. The conference language is English.

The registration fee will be €120 and accommodation is available from about €25–30 (both the fee and accommodation costs may be subject to minor changes. Papers accepted for presentation (oral or poster) will be invited for submission to a fully refereed volume of Conference Proceedings.

Deadlines

Submission of titles and abstracts October 31st, 2007
Notification of acceptance January 31st, 2008
Firm registration for attendance April 30th, 2008
Final abstracts for inclusion in booklet June 30th, 2008

Contact address

Brigitte Cech, Quaringasse 22/3/7, A-1100 Wien, Austria. Phone: ++43/1/607 13 60
e-mail: cech.conference@gmx.at
Conference website: www.huetttenberg.at

B O O K R E V I E W

Meredith, J 2006. *The Iron Industry of the Forest of Dean*. Stroud: Tempus

The latest Tempus publication of interest to HMS readers is this volume which provides an account of the evidence for iron production in the Forest of Dean. While archaeological evidence for the production of iron has been detected in almost every English county, there are some regions, like the Forest of Dean, which continue to hold our attention (perfectly illustrated by this year's HMS annual meeting, see page 5). Meredith's book is divided into eight chapters; the first contains an overview of the bloomery smelting process while the others cover the prehistoric period up to the 19th century. While there is lots of information contained within this book it is never really brought together to provide a coherent narrative. The book does not provide the synthesis and interpretation that is needed. The reader is also hampered by an inconsistent writing style and by inadequate referencing.

IMPORTANT NOTICE for members making payments by credit card

Many members pay their annual subscriptions by credit card but processes these payments is becoming increasingly difficult due to increased security.

When making credit card payments please include Card Security Code, i.e. the last three digits on the signature strip on the back of the card

While submissions to the Newsletter are welcome at any time, if you want to have something in a specific issue of the newsletter then it needs to be with me by the following deadlines.

1st March, 1st July 1st November

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

Newsletter Editor, David Dungworth,

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