NEWSLETTER 48 AUTUMN 2008

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LETTER FROM THE CHAIRMAN

Dear All

It was so good to see so many of you at the Annual General Meeting in the Dunn Village Hall at Rushake Green near Heathfield. We all enjoyed a splendid and informative talk by Molly Beswick on the Iron Industry centred around Warbleton Priory Furnace. Many of you visited the site in the afternoon. Our thanks are also due to David Brown for his efficiency especially with regard to the lunch arrangements.

After the talk the business meeting took place and I am pleased to report that Tim Cornish and Simon Stevens have now joined the committee. It is always good to have new members who will bring new ideas and help to run WIRG in an efficient way. The accounts and annual reports were presented and agreed. As usual I must express my thanks to my fellow trustees for their help, friendship and commitment.

I must remind you of a very important word within the title of our Group – Research. I urge you to think about this and look at the list that Jeremy has produced which will spur you on to do some. If you feel that you need some guidance please get in touch. Of course some funding is also available from the Tebbutt Research Fund towards expenses such as postage, photocopying etc.

Congratulations to Jeremy for his splendid book, *The Wealden Iron Industry*. A much needed book to be enjoyed by all.

I look forward to seeing you at the Winter Meeting on 24th January 2009 at the usual venue. Alex Hildred from the Mary Rose Trust is to give the talk on the ship's ordnance.

Best wishes for Christmas and the New Year

Shiela Broomfield

REG HOUGHTON
1928 - 2008

Reg's sudden death in June has robbed WIRG of a loyal servant whose skills brought a new understanding of the technology of iron making.

An architect by profession, he joined the group in 1977 and was elected to the committee as Hon. Treasurer four years later, a post he was to hold for 22 years. From early on his surveying skills were brought to bear as the Field Group embarked on a series of detailed studies of water-powered iron sites. His survey plans, all published in the Bulletin, included the sites at St Leonard's Lower forge, Frith furnace, Northchapel, Warren furnace and, most recently, Bungehurst furnace. As the years crept on and fieldwork became less easy for him, Reg turned his attention to the exemplification of the structure and engineering of water-powered ironworks. A succession of axonometric drawings of blast furnaces (which even included one of Rockley furnace, in Yorkshire) and of a finery forge were outstanding for their carefully researched, meticulous detail, which he elaborated upon in the Bulletin and at a recent Winter Meeting. They were not merely cold architectural plans, though. Close examination reveals that Reg revelled in incorporating human touches: the spade casually left behind by an absent workman, a discarded pipe and mug of beer, the fireback with a friend's initials, and his personal trademark: a

loose roofing tile. Taking note of the alterations made to sites, he would also include the faint traces of such features, like the stonework of an abandoned wheel pit poking above the weeds. His plans are much sought-after for exhibitions and book illustrations. He could also lay claim to have designed the first blast furnace to obtain planning permission in the Weald, for the aborted Historic Ironworking Centre at Horam.

Reg was irrepressibly sociable, and he took pleasure in manning the Group's exhibition stand at Local History fairs, engaging visitors with a fund of experiences gained through his involvement with WIRG and a lifetime working with old buildings. His passing leaves WIRG the poorer.

WIRG ON THE WEB

As mentioned in Newsletter 47 (Spring 2008, p.2), a short video sequence was filmed during the Field Group's foray in January of this year. An edited version of that footage has now been published on the website of the High Weald Area of Outstanding Natural Beauty. To see the clip, log on to their website - **www.highweald.org** - and follow the path >Your Involvement > Take Pride, or go directly to the video at **www.highweald.org/text.asp?PageId=356**.

With the kind permission of the High Weald Unit an edited version of the video can now be seen on the WIRG Website. The address to type in is: **www. wealdeniron.org.uk/Jano8Foray.wmv**

ALAN SCOTT

Alan Scott, who died this summer, was a member of WIRG from its early days, taking a leading role among the members from the Hastings area when WIRG was a federation of semi-autonomous groups. He was a member of the Committee until 1990, and Vice-Chairman for many years. A builder by trade, his involvement was often of a practical nature, and many older members will have memories of the shed he provided for the Group and which served as a store for equipment at digs. He represented WIRG on the Council for Kentish Archaeology and provided a useful link with our colleagues in that county. We extend our sympathy to his family.

AGM 2008

A member's impressions (with help from knowledgeable friends) of our AGM held on July 19th 2008 at the Dunn Hall, Rushlake Green, Warbleton.

The weather forecast had, as usual for this time of year, been a little uncertain and on the drive down the clouds darkened and even a few spots of rain fell on the windscreen just before we arrived. The hall was well appointed and comfortable, well suited to our gathering. Chris Broomfield organised a radio microphone arrangement which worked well.

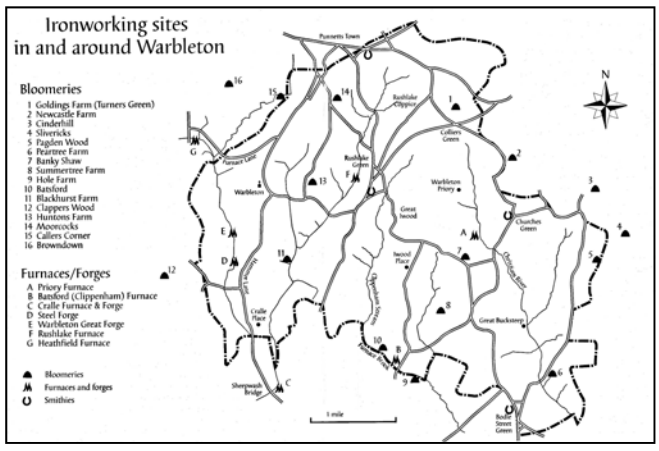
The Speaker, Molly Beswick, an active member of WIRG and a prominent local historian and historical author, gave an excellent talk which covered all of the known ironworking activity of the Warbleton district from sparse records, ranging from a smith at Cowbeech (south of Rushlake Green) in the 13th century to the final demise of the Cralle Furnace in 1664. Molly's late husband, Wilfrid, who had been a founder of the local History Group, was responsible for leading much of the work investigating the iron industry of the district. Her own speciality is historic bricks and brickwork not ironwork She explained during our foray in the afternoon that Wilfrid was a great and enthusiastic ironwork researcher but shedid most of his collation, paper research and documentation, hence her considerable local knowledge about the extensive iron industry in this specific area.

Molly has just reissued her booklet, *Ironworking in Warbleton*, published by Warbleton & District History Group (Publication No.15, 2003).

Members viewing Warbleton Priory furnace

In the afternoon, after the usual good lunch, we were shown the site of Warbleton Priory furnace. A complicated site to interpret, the consensus seemed to be that the works had developed in two stages, with a small, and probably inadequate, pond having been formed by the construction of a high bay in the first instance. Later, a long leat was dug from a pond further upstream, by-passing the original bay and providing the water supply via a new wheel pit parallel to the original bay.

John Baillie



The following Officers and Committee were elected at the AGM:

Chairman and Hon. Treasurer:
Shiela Broomfield
Vice-Chairman: Jeremy Hodgkinson
Hon. Secretary: David Brown
Committee: John Baillie, Ashley Brown, Ann Callow, Tim Cornish, Brian Herbert, Tony Singleton, Tim Smith and Simon Stevens.

WIRG PHOTO ARCHIVE

Did you take a photograph of our visit to Fernhurst Furnace site last summer? A copy of it could become part of the WIRG photographic archive. Why not let David Brown know about it and he will get in touch to borrow it so it can be scanned?

A foray to Sedlescombe in the 1980s

Have you got photos of other events at Summer Meetings? Remember Ashburnham, or Pevensey Castle? If you took your camera, there may be some interesting shots we could use. David's contact details are on the back page.

WEALDEN IRON RESEARCH SUGGESTIONS

On of the key words in WIRG's name is the word, Research, and one of the Group's principal aims is '*to promote investigation ... concerning the Wealden iron industry*'.

The Tebbutt Research Fund, established in celebration of its first President, was aimed at encouraging just such research. Often, past recipients of Tebbutt grants have been people who have been on the periphery of the Group, but recent discussions about the value of the Tebbutt Research Fund has prompted the Committee to encourage you, the members, to consider engaging in some research to further our knowledge of the iron industry in the Weald. According the following list of topics is offered to whet your appetite.

The suggestions below do not form a definitive list, nor are they arranged in any order. Where possible the source of documents is shown. Some suggestions are desk-top exercises, others involve fieldwork. Ultimately, the aim should be to publish the results. If you are considering tackling one of them and baulk at the cost of obtaining photocopies or making long journeys to a record office, the Tebbutt Fund exists to help you.

Don't be put off because you have not engaged in research before. There are members of the Committee who will be only too pleased to advise you, as will the staffs at libraries and record offices. If recent Bulletins are anything to go by, the number of people who are doing research into the iron industry is too few, and there is still much to be done. We don't have all the answers!

- Robertsbridge/Beech furnace accounts [ESRO microfilm];
- Minepit mapping - mapping iron ore extraction sites in a parish or larger area.;
- Pelham ironworks accounts (Waldron furnace, Bivelham & Brightling/Glazier's forges) [British Library Add Mss 33154-6];
- Ironworking landscapes – case studies of ironworks and the landscapes that supplied them with fuel, ore, labour, transport etc. (e.g. Fernhurst, Ashburnham);
- Identifying charcoal and ore sources for individual furnaces and forges;
- Horsmonden family, scythe makers, of Goudhurst [ESRO Courthope Mss SAS/CO];
- Humphrey Tuckey - Alexander Courthope correspondence [ESRO Courthope Mss SAS/CO];
- Case studies of individual ironworks - their sites, raw material sources, water management, personnel and operating history;
- Case studies of ironmasters or families of ironmasters;
- Affray at Plaistow 1580 - background to a dispute between ironworkers, resulting in a death [R. F. Hunnisett, 1996, *Sussex Coroners' Inquests 1558-1603* (Public Record Office), 53];
- Records of Holmsted Forge, Cuckfield, in the records of the Manor of Plumpton;
- Ironworks of John de Lynleghe at Withyham 1320 [National Archives SC6/1146/2];
- Dispute involving an 'iron mine' near East Grinstead,1263, between Agnes Malameins and Isabel de Aldham [National Archives JUST1/912a, m. 17d];
- Finding out documentary records related to the locations of forthcoming forays.

You may be able to suggest other subjects for research; if so, please contact the Editor. Further ideas can be published in subsequent Newsletters.

WIRG BULLETIN 29 (2009)

Articles for next year's Bulletin should be sent to David Crossley by 31st March 2009.

WHERE DID ALL THAT ORE COME FROM?

I am working on a short book on iron ore extraction in the Weald and would appreciate members' help and suggestions. In particular, I would greatly appreciate criticisms of the ideas below. Counter-examples are invaluable.

First, it seems that ore pits and other ore sources come in a range of shapes and sizes. Small shaft-pits, stream-bank excavation, linear surface mining and large open pits all seem to be associated with iron production in the Weald. In addition it seems likely that, in some places, whole surfaces have been "scalped" to win ore (examples, criticisms please!). A common factor that creates a pattern helping us to understand mine-pits is drainage: clearly no large deep pits can be dug without drainage. Small pits can be dug quickly and abandoned with little loss if flooded by rain or ground water. The depth to which the digger goes is determined by the depth of the ore, so there must be a trade-off between pit size, shape, surface slope and ore depth.

Second, the received wisdom is that large open pits are associated with Roman and Romano-British production, but it seems quite clear that some very big pits were dug to service the blast furnaces. Similarly, small shaft pits of the type that left "small saucer shaped depressions" in the ground are explicitly described by Fuller (circa 1740), but they have also been tied to a mediaeval context. A possible inference is that smelters got their ore where, when and how they could.

The exploitation of stream-side outcrops by bloomery workers is widely asserted, but poorly evidenced. In at least two cases bloomeries are associated with large circular holes at the heads of ghylls beginning at the Wadhurst Clay/Ashdown boundary. Is there a natural process that accounts for these?

Third, there is a spatial pattern of minepit types. In the Western Weald, both on the sand and the Weald Clay, there seems to be an absence of large pits. In the high Weald, with its finely dissected and hilly terrain, large pits are the norm, although areas of densely packed small shaft pits occur in the flat areas. Areas that are sparsely pitted can connect areas with large pits or areas densely packed with small pits. These may represent areas of test-pitting by prospectors. On the eastern part of the Weald Clay there are huge numbers of large, flooded pits. There is no reason to connect these with the iron industry.

There are seaside outcrops of ore; coastal changes make these problematic but probable sources.

Fourth, on comparing the estimates of iron production in the Weald with the number of identified mine pits we see a huge discrepancy. This is particularly true of the high Weald. We clearly need a more systematic approach to the identification of ore sources, and this approach must be evidence-based. Some lines of evidence suggest themselves:

An Eighteenth century illustration of ore digging and washing

- written references (e.g. accounts, correspondence)
- arguments from geology, including:
  - presence of known ore seams
  - sequences of holes following geological structures
  - for elimination purposes, the absence of ore (e.g. Purbeck beds)
  - dip/depth/water table argument
- direct roads and tracks from holes to furnaces
- immediate proximity
- argument from statistics, e.g. holes clustered round furnaces
- loose ore and/or limonite waste in or around pits

and, the biggest class, arguments for elimination like known brickworks.

I want to add to this list.

I believe that it must be accepted that in most cases pits and other sources must be judged on a 'balance of probabilities' basis, but that whatever the shape or location of a putative source, the same evidence requirement must be applied. It is not sufficient to say that a hole in the ground is a mine pit because it's like Straker's description of a minepit.

Fifth, It is probably time to draw together the sparse information about the ore diggers. These first became visible as people with names in the Sidney Ironworks accounts, but perhaps we can make inferences about the workforce under the *Classis Britannica,* or even about mediaeval ironworkers.

Sixth, part of developing a methodology for identifying and describing ore sources is working out how to identify holes dug for other purposes. These include:

Brickworks
Sand pits (for mortar and, perhaps, glassworks)
Tile works and potteries
Quarries for building stone and/or road stone
Wattle-and-daub infill
Material for pond bay construction (and by extension) any major earthwork like moats and castles
Lime (for mortar and also for agricultural use)
Saw-pits
Cart pits
Deliberate water holes/ponds
Fuller's earth extraction
truncated circular depressions where big trees fall

I would like to add to this list (particularly if there is any evidence!).

I hope this project commends itself to members and elicits their critical help.

Jonathan Prus
jonathan@avens.co.uk

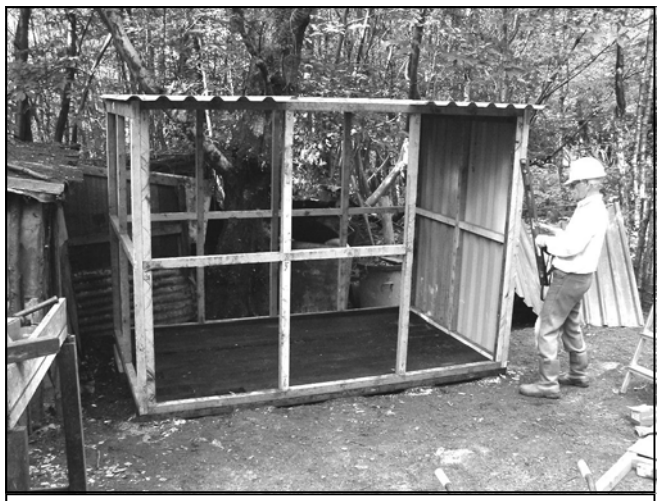
SMELTING TEAM REPORT

It has been a very quiet year from the point of view of smelting because the leaking charcoal store was ruining the charcoal, which is our biggest expenditure. Consideration was given to buying a metal shed, but after comparing volume versus price, off-the-shelf sheds seemed rather pathetic compared to the size of shed we were used to. This was still being discussed when the storms of early 2008 nearly did for the bloomery furnace and cover (see below). Fortunately, this precarious situation did not worsen before John Baillie and myself decided that the problem would not go away and, armed with ropes and a two-man hand-saw and axe, we spent a several hours tackling the eight trees. It would have been easy to cut the trees down but it was vital for them not to fall on to the furnace. Fortunately, no blood was spilt nor hands squashed, just barked shins due to hurried retreats amongst the tangle of branches.

The treasurer also spent a worrying day in case we made a claim on WIRG's insurance!

Trees overhanging the WIRG bloomery

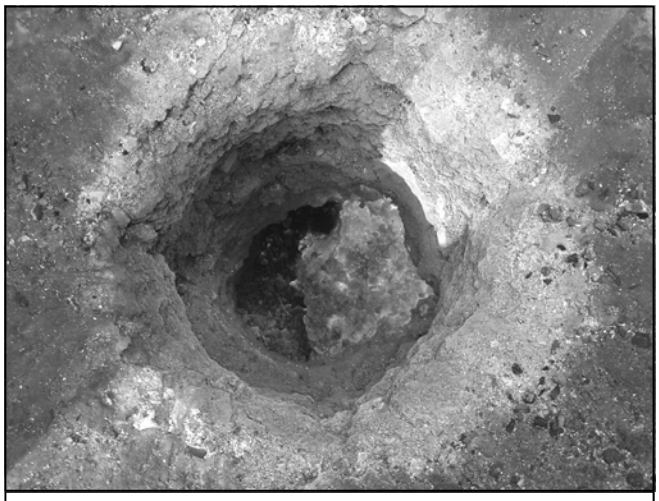
The 2008 storms did WIRG a good turn (although not the flooded-out residences of Forest Row) with a supply of 4-in x 2-in rafters and even floorboards; thanks to sharp-eyed Peter Goodall (who was not flooded). But, how to move the wood and where to carry out the work of shed building? Again, we are fortunate that John Collett has a small (but adequate) van and many outbuildings on his farm in Nutfield, Surrey, in which to build a shed.... not to mention his vast range of tools and the invaluable practical help he would provided. The shed design was drawn-up by John Baillie using sophisticated software to ensure that each of the separate sides would actually fit when assembled on-site at Pippingford. The following picture of the shed's near-final construction shows a framework of cut-down rafters, complete with halving joints, some 8' 10" wide, 6' 2" deep and 6' 3" high. Finally a tongued & grooved floor and a cladding of painted, hot-dipped zinc steel sheeting, covered the framework; once again left-overs from when John Collett's farm buildings were re-clad. There is one sheet of transparent sheeting in the roof, originally for light but which incidentally introduces a considerable amount of heat, whilst the door is simply a lift-in variety with slide locks to keep it in place. All in all, a superior shed that is dry, and with room to store the bellows and much else.... and a place to shelter from the weather.



The (nearly-completed) shed

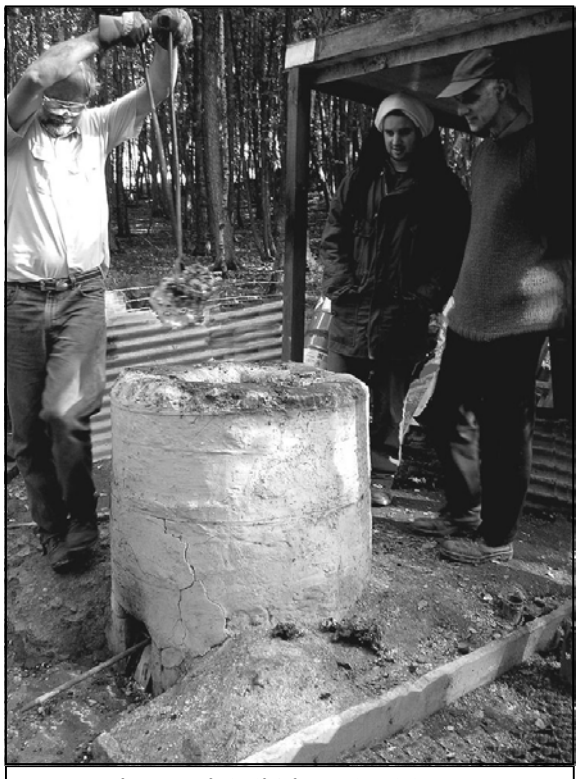
With the charcoal store completed, 6, 10-kg bags of charcoal were bought, enough for 2 smelts with some left over for forging. The only wood available was lime, but there is no archaeological record of it having been used for smelting. Only a subjective account of this charcoal can be given, as there is no known data concerning its calorific value (kW-hrs/kg or jouls/kg). An earlier bag of slightly moist charcoal was used for preheating the furnace, although it had had wood burning in it since the previous evening. Once this old charcoal had burned through, whilst pumping at 10 litres/sec, eventually the upper thermocouple reached about 850°C and the lime charcoal was added along with the roasted ore at a 1:1 weight ratio and pumping reduced to 4 litres/sec; the usual rate. At this point, the upper thermocouple slowly cooled, indicating

more air was required, and for the remainder of the smelt the air supply had to be increased to 5 or 6 litres/sec; this suggests that the calorific value of lime charcoal is less than hazel.



Looking down at the very hot bloom in the furnace; the tuyere is to the right

After 16 kg of ore had been charged, a final 1 kg of charcoal was used to cover the last charge and pumping continued to ensure that all the ore passed through the furnace. Meanwhile, the forging hearth was heating-up, once again using lime charcoal. John Baillie noticed that the charcoal formed a white ash over the surface when blowing stopped, thus slowing the rate of burning. However, as soon as blowing started again, the charcoal sprang into life to produce a very hot heart (the burning charcoal in front of the tuyere). Both these observations suggest that lime charcoal is ideal for smithing.



Tim Smith lifting the bloom

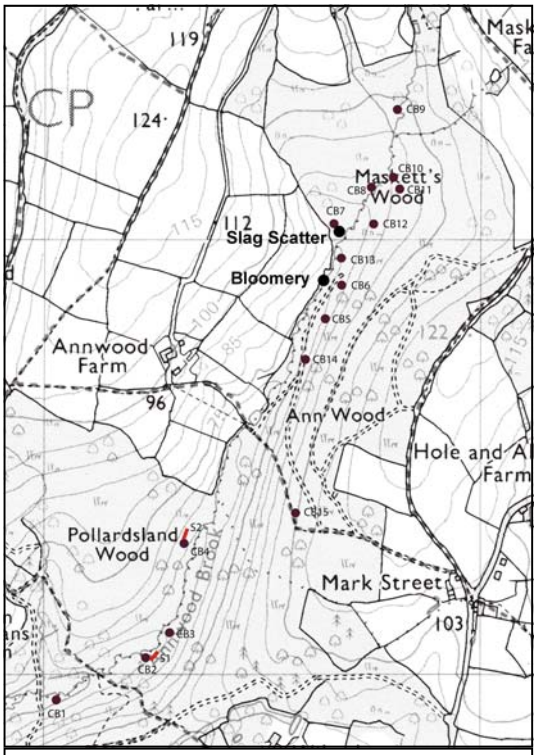
The bloom was withdrawn from the furnace, which, considering the amount of slag found in the forging hearth, meant that there was much slag adhering to it; thus the actual iron content about 1.5kg.

Forging the bloom proved to be the usual delicate process, where much of the iron is lost due to it burning away in the hearth. Nevertheless, after the bloom broke into two pieces two pieces, each was consolidated separately. It is planned to use this iron to make a copy of a Roman nail, but on another occasion.

Brian Herbert

FORAY TO ANN WOOD, FLETCHING March 2008

The foray to Ann Wood was a continuation of the foray, in December 2006, to Sheffield Forest; part of WIRG's collaboration with the University of Sussex Ouse Valley Project. The primary objective was to identify any water management features, but the search for evidence of iron making was, of course, high on our list.



Iron working and woodland production sites in Ann Wood, Fletching

Of water features only a debateable bank close to the Ann Brook, which some thought might have been a pond bay, was seen. Of greater interest was a scatter of bloomery slag at TQ 4267 2804 between two branches of the stream. Further downstream a more concentrated area of slag was found in the west bank of the brook, at TQ 4262 2791, and traced, by probing, into the adjoining field. We did not have the benefit of Brian Herbert's slag detector in this foray, but it was good for the confidence of those taking part

that we were still able to find iron-working evidence using traditional methods.

Other woodland archaeology was recorded by David Brown, as can be seen from the accompanying map; **CB** marks a charcoal platform, and **S** a sawpit. As the earlier foray to Sheffield Forest had shown, extensive use had been made of these woods for wood products. The charcoal production would, almost certainly, have been used to supply Sheffield furnace, a short distance downstream, which was in operation from about 1544. Although it went our of use in the early 1570s other ironworks in the neighbourhood would have continued the demand.

The following April, a small group returned to Ann Wood, with the slag detector, to confirm the discoveries.

JSH

FORAY TO THE CROSS IN HAND AREA April 2008

The foray was instigated by Kevin Isted who approached Brian Herbert. Kevin discovered that a property near Cross-in-Hand was the former Isted, referred to in 13th and 14th century documents, that was held by people of the same surname. He also discovered that a *neif* (a person who was not free but bound to the land) living on the property in 1285 was named Faber (Latin for 'smith'). In view of this, and the Isted's known involvement in the iron industry of the 16th century (Richard, Joan and Thomas Isted, ironmasters of Mayfield), he wondered whether there may have been a longer family tradition of ironworking and whether there may be surviving evidence of medieval bloomeries on the property. WIRG had previously identified a number of bloomeries in the locality.

The area covered by the foray broadly followed the stream west from Duddesland Farm (TQ 5561 2267) with digressions north and south of the stream. The stream was bounded on the north by meadows and to the south by ancient semi-natural woodland (as defined in the Ancient Woodland Inventory of 1989, updated in 2006). Ownership of the woodland was divided up into long, thin strips running from the road called Mayfield Flat (B2102) down to the stream with houses situated at the road end.

The area fell in the upper regions of the Ashdown Beds which is described as having 'impersistent clays and sands' (Lewes Area Memoirs). Evidence of superficial drainage patterns and local spring lines tended to suggest a preponderance of clay rather than sand in the area searched.

A new bloomery site was found, defined by a substantial sub-surface area of slag at TQ 5533 2226 with a length of about 15m and a width of 6m. This was located on a mound to the east of a small stream not marked on the 1:25000 map and in the property named Maigarth Farm.

A further area of slag was found at TQ 5503 2213 where it was evident in the main E-W stream and on the north bank of the stream. Close to this point a side-stream from the south flowed into the main stream where a small amount of slag was found. On following the side stream upstream (in a south-easterly direction) a substantial layer of slag was found at TQ 5505 2209 and a scattering at TQ 5511 2201 on the north-east bank. No slag was found in the stream any further south. All three areas were within 130m and were located within the property named Brackenwood.

In 1978 Fred Tebbutt (WIRG Bulletin 1st series Vol 13, pp 10, 12) described Flat Farm bloomery in the position relative to the stream that we found the slag, but with a map reference at least 100m further east (TQ 552220). The grid square for this reference does not contain a stream, so it remained unclear whether the slag we had detected was part of the site Fred Tebbutt excavated. The owner of Brackenwood had been a boy of seven living there in 1978 and does not have any memory of someone excavating on the property.

The probable area of Isted-owned land contains seven undated bloomery sites and two Roman bloomery sites.

Also found on the foray were charcoal burners' platforms at: TQ 5529 2230, TQ 5537 2224 and TQ 5529 2223, a sunken trackway at TQ 5518 2219, and a ditch-and-bank boundary at TQ 5501 2209, which appears to be the original western boundary of the wood, and a line of three mature/veteran beech trees on an interrupted bank at TQ 5510 2205.

On a later visit, two further sunken trackways were found at Brackenwood leading from a worked area beside the stream at approximately TQ 5522 2194 up towards Mayfield Flat, but they petered out at a point about 30m from the road.

David Brown

FORAY TO FORGE WOOD, BRIGHTLING September 2008

The start of a new season of WIRG forays was well attended by 12 members and took us to Forge Wood, near Glazier's Forge, Sussex, and confirmed the long tradition of an iron industry in the area from the Roman period to the 1700s. A bloomery furnace site was found some three years ago on a small mound no more that 3m in diameter and located at TQ 6507 2102. There was a concentration of bloomery furnace slag on the mound including pieces of the furnace structure. However most of the slag had tumbled towards the river valley to the west.

A trench, some 3.4m x 1.25m, was dug just below the top of the mound, which was topped by small trees. As this is Site of Special Scientific Interest (SSSI), tree roots were not to be disturbed and the site returned to its original state; this was easily managed in 5 minutes to WIRG's high standards. After a slow start, fourteen pieces of East Sussex ware were eventually found, with six pieces later found to join up. These have been dated to the 1st century AD, in the late-Pre-Roman or Roman Iron Age.

Part of a cooking pot, reconstructed from sherds excavated at Forge Wood (scale 10cm)

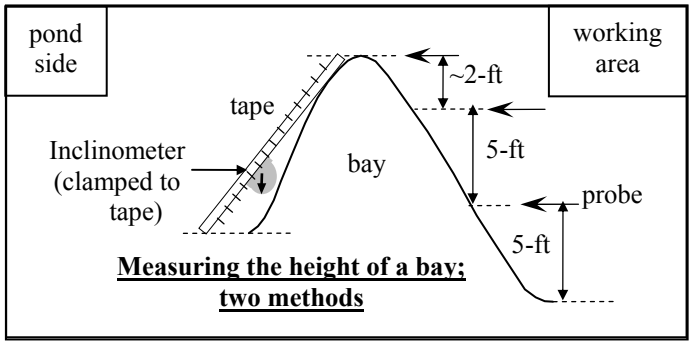
Three large, deep pits were found close by, in the Ashdown Sand, but it was felt that they were excessively large for iron ore pits, considering the small quantity of slag remaining on the site.

Brian Herbert

AN INCLINOMETER FOR MEASURING THE HEIGHT OF POND BAYS

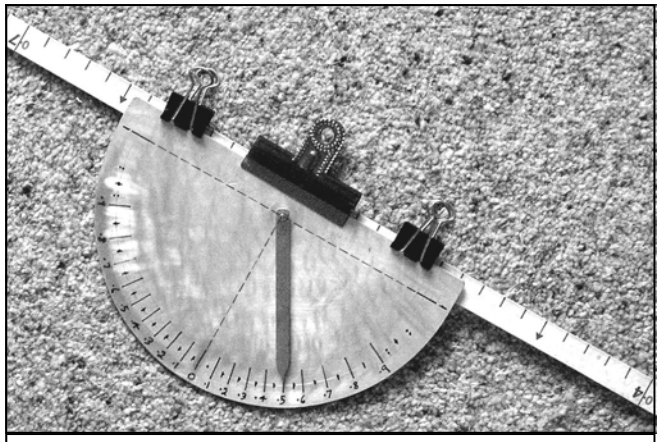
Over the previous 40 years, the heights of pond bays associated with water-powered sites have been measured by sighting along a horizontal pole (such as a probe) to a point on the side of the bay. The pole is held at a known distance above the ground, say 5-ft (see diagram). By taking a succession of measurements up the side of the bay, the height can be estimated.

To improve the accuracy of measuring the vertical height of a bay, an instrument is here suggested that uses a home-made inclinometer; however, both top and bottom of the bay must be accessible (see diagram).



Measuring the height of a bay; two methods

The body of this inclinometer, which resembles a protractor, may be constructed from aluminium sheet, say, but where it would normally be marked in degrees, this is replaced by a 'multiplier' scale as on the chart below. It is not possible to guess the angle accurately although a bigger protractor will help. A heavy-ish pendulum-pointer is pivoted where the dashed lines between the two 0° marks and the extended 90° mark coincide (see photograph). The 'multiplier' scale is repeated on the left side of the inclinometer scale so that it may be read when attached to either side of the tape.



The inclinometer scale and pointer

In use, the slope-height of the bay is measured with a taut tape and with the inclinometer clamped parallel to the tape (see photograph). The vertical height is calculated by multiplying the slope height by the 'multiplier factor indicated by the pointer.

Angle	Multiplier
0.00	1.000
12.84	0.975
18.19	0.950
22.33	0.925
25.84	0.900
31.79	0.850
36.87	0.800
41.41	0.750
45.57	0.700
49.46	0.650
53.13	0.600
56.63	0.550
60.00	0.500
63.26	0.450
66.42	0.400
69.51	0.350
72.54	0.300
75.52	0.250
78.46	0.200
81.37	0.150
84.26	0.100
87.13	0.050
90.00	0.000

Brian Herbert

FIELD GROUP PROGRAMME PLANNING MEETING

Members of the Field Group are asked to note that, henceforth, the meeting to plan the programme for the next season of forays will be held during the 'indoor' foray in May, and no longer at a separate meeting in September.

A ROMANTIC DESCRIPTION OF A LATE-18TH CENTURY WEALDEN FORGEMAN

In 1788, James Hurdis the curate of Burwash in the Sussex Weald, wrote an epic poem on the village year. The poet's purpose was to draw morals from his detailed descriptions of the village year. He included in his summer section the following account of a forgeman at work. He is not shy of using cliché, and is well aware of the notion of the dignity of labour. But his account may be worth reproducing for its view of the hard and technically-skilled work from which the smith earned a meagre living. Hurdis was an Oxford scholar who eventually became Professor of Poetry at the University.

Burwash Forge, south of the village in Forge Wood, was owned by the Fuller family from 1700 until production ceased in 1803. In 1787, the year before Hurdis's poem was published, output was 30 tons. (*The Iron Industry of the Weald* H. Cleere and D. Crossley p 321).

The text of the whole poem had been digitised by Google and can be viewed online.

Tim Cornish

From THE VILLAGE CURATE
by James Hurdis 1788

...Mark the distant forge
Deep in the valley, jutting its low roof
Against the stream, close by the trickling floodgate.
See, pale and hollow-eyed, in his blue shirt
Before the scorching furnace, reeking stands
The weary smith. A thundering waterwheel
Alternately uplifts his pondrous pair
Of bellows. He torments the coal
And stirs the melting ore, till all resolv'd
Into a perfect lump; then seizes fast
With his strong forceps the unwieldy mass
And drags it glowing to the anvil. Eye
Can scarce attend to it, and with one arm lets loose
The impatient stream. The heavy wheel moves round
And awful hammer, that confounds the ear,
And makes the firm earth shake. He turns the mass,
And works it into shape; till cooler grown
He stops his wheel, and once again provokes
The dying cinders, and his half-done work
Buries in fire. Again he drags it forth,
And once more lifts it to the sturdy anvil.
There beaten long and often turn'd, at length
'Tis done. He bears it hissing to the light,
An iron bar. Behold it well. What is't,
But just an emblem of the lot of virtue.
For in this naughty world he cannot live,
Nor rust contract nor mingle with alloy.
So the great Judge, to make her worthy heaven,
Submits her to the furnace and the anvil;
'Till molten, bruis'd, and batter'd, she becomes
Spotless and pure, and leaves her dross behind.
And who shall grieve and think his lot severe
Who well considers this? The slaving smith
That wipes his flowing brow so fast, his bread
Earns at the bitter cost, expense of health.
In summer's hottest day he feeds his forge,
And stands expos'd to the distressful fire
That almost broils him dead. Yet what complaint
Makes he at fortune? He is well content
To toil at his infernal work, and breathe
A torrid atmosphere, so he may earn
A scant subsistence in this pinching world.
Ye idle rich, consider this, nor aim
At places, pensions, titles, coronets.
Ye lazy clerks, consider this nor sue
For benefices, canonries, and mitres.
All might inherit ease, would they not long
To fill a braver office, and at times
Look down, and see how hard the drudging poor
Toils for a bare subsistence. Be content
And happiness shall turn and follow you.

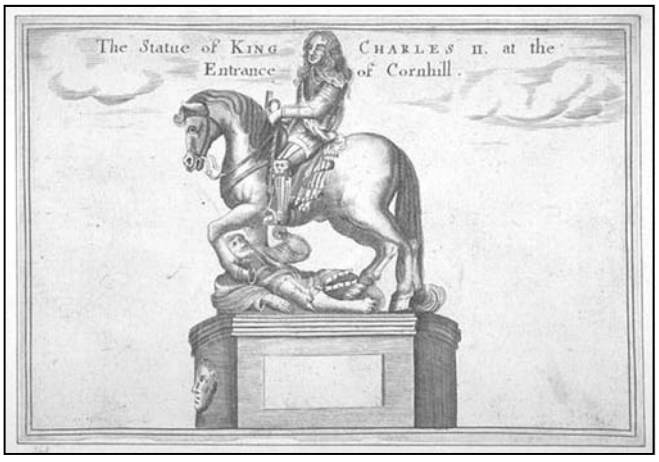
A CHARLES II FIREBACK

Two versions are known of a seventeenth-century cast-iron fireback which portrays an equestrian figure trampling a supine victim. The whole is mounted on a plinth beside which two figures are seated, holding baskets of fruit or flowers. The pictorial panel is surrounded by a bead edging of 'Palladian' or 'Venetian' shape, on either side of which stand twisted Corinthian columns, with trailing vine decoration, supporting a fillet-edged border surmounted by a crown between two reposing figures. On one of the two versions of this fireback are the letters CC R, with one of the 'Cs' reversed and interlinked with the other. The 'R' is significantly larger than the other letters.

The other version differs in that there is only

one letter 'C', the plinth appears to be slightly smaller, and the date, 1674 (with the'7' and '4' reversed), is placed on the front of the plinth. It also appears to be slightly narrower, although no comparative measurements are available at the time of writing. Although not dissimilar to continental firebacks of the mid to late seventeenth century, the scene has a quality which is more characteristic of some English firebacks. This is borne out when the source for the equestrian figure is known.

In the late 1660s Sir Robert Vyner, banker to the king and soon to be Lord Mayor of London, acquired an unfinished marble statue of Jan Sobieski, the then commander of the Polish armies in their war against the Turks. Purchased from a stonemason's in Leghorn (Livorno) in Italy, the statue showed the figure of the soldier, who was crowned king of Poland in 1676, seated on a charger, riding down the figure of a Turk. Shipping the statue to England, Vyner, it is said, had the face of Sobieski altered to look like King Charles II, and the face of the Turk changed to resemble that of Oliver Cromwell, albeit with the Turk's turban still in place. Vyner then had the statue erected in the City of London. On 29th October 1672 it was placed on a high plinth in Stocks Market, Poultry, near the western end of Cornhill, where the Mansion House now stands. Because of its less than flattering likeness to King Charles, the statue became the



subject of a certain amount of derision, and not least in a satirical poem by Andrew Marvell. It was taken down in 1736, when the Mansion House was built, and re-erected in an inn yard nearby. Later presented to one of Vyner's descendants, it is now at Newby Hall, near Ripon in Yorkshire.

If any reader can supply me with a photograph of the statue at Newby Hall, I should be most grateful.

Jeremy Hodgkinson

CATALOGUING BRITISH FIREBACKS
An appeal

In the first half of the last century articles about firebacks in country houses were published, from time to time, in journals like *Country Life* and *The Connoisseur*. Sometimes they appeared in the pages of the county archaeological journals or in *Notes & Queries*, their writers seeking information about the arms displayed on them or the identities of the initials they bore. This interest was not confined to the British Isles; in 1912 Henri Carpentier published his *Plaques de Cheminées*, a compendious volume of French firebacks. Other writers followed, particularly in Germany, but in this country, apart from John Mainwaring Baines' little booklet, *Wealden Firebacks*, published 50 years ago by Hastings Museum, these ubiquitous pieces of hearth furniture have been relegated to a few pages in general books about decorative ironwork.

Britain possesses iron firebacks of enormous variety, and their popularity remains undiminished; reproductions are available for sale and examples are to found in auction houses and on eBay. Many - possibly a majority - were cast in the Weald. A book revealing the variety of British fireback designs and styles seems long overdue.

I have long harboured an ambition to compile a catalogue of British firebacks. To do so I will have to record as many different examples as I can, from collections in museums, from houses open to the public (in particular those belonging to the National Trust, an inventory of whose firebacks I have already obtained), and in pubs and private houses. It is the last of these that poses the greatest challenge, for tracking down examples for whom no other record exists is proving difficult.

It is in this particular quest that I would like to enlist the help of readers. Many of you have already proved enormously helpful in providing me with locations of firebacks in publicly accessible places. It is the privately owned ones I now seek. Hearing about these may have to rely on the 'friend of a friend' network. Owners of such firebacks are naturally concerned that should their property be displayed in a published work, they may become prey to others taking an unhealthy interest in their homes; I am happy to assure anyone thus concerned that no locations of firebacks in private ownership will be revealed.

This research project is not going to be completed in the near future, but with your help and that of your friends, families and acquaintances, it will be as thorough as possible.

Jeremy Hodgkinson

BOOK REVIEWS

***History of the Iron Industry in West Hoathly*, pub. West Hoathly Local History Group (no ISBN no.), £5.50, available from Sharpthorne Garage.**

This is a professionally produced and attractively laid out book (A4 portrait) of 36 pages containing 31 illustrations, including photographs (black & white and colour), line drawings, maps and a table of data. The introduction, including 3 photographs, is not paginated (?).

The book is divided into two parts, "The Wealden Iron Industry and West Hoathly" written by WIRG's own Jeremy Hodgkinson (22 pages) and the second part devoted to blacksmithing in the parish. This includes an oral history of the village forge by Ethelwyn Newnham (6 pages) and a short account of "The Blacksmith in the 21st Century" (3 pages describing the work of 'Anvils Blacksmiths', established in 1997). I would suggest that a record of the latter, worthwhile though it may be to record for posterity, is not history and two or three people working in a forge now or a century ago hardly constitute an "industry"; if there are two cobblers in a village, is this a shoe-repairing industry? Perhaps the book would have been more accurately titled "Iron-working in West Hoathly".

Cast-iron threshold at West Hoathly Priest House, supposedly to deter witches

As WIRG members might expect, Jeremy writes a most readable and comprehensive description of iron-making in the West Hoathly area from bloomeries to water-powered sites, with details of gun-casting, firebacks and graveslabs. The references to the latter two in the 'Priest's House' in the village and the parish church of St. Margaret, respectively, should inspire readers to visit these buildings. Then follow detailed accounts (as far as records will allow) of the three water-powered sites within the old West Hoathly parish boundary, Stumbletts, Chittingly and Gravetye, although most of the second is concerned with the difficulties of identifying its owners and occupiers in the late 16th century (!). The article includes references to the detailed carrier's accounts of Robert Knight which have survived in the WSRO at Chichester; one extract is reproduced in an appendix. This appendix (not headed as such but listed on the contents page) also contains the inventory of the furnace and forge of Richard Maynerd, yeoman of Rotherfield, 'aprised' in 1618. Presumably this is included to show the typical stock (with valuations) at iron-working sites but it is not stated whether or not they are in West Hoathly.

By complete contrast, the second part of the book starts with an oral history of the village forge, written in 1976 by the wife of the last blacksmith, and which concentrates on the two generations of Newnhams who were blacksmiths there during the twentieth century. It is a pleasant read but much is given over to a general description of the blacksmith's trade which I imagine is well-known to the most readers. A great opportunity seems to have been missed here by the West Hoathly Local History Group of augmenting Mrs Newnham's account with other research, both oral and document-based, to give a more comprehensive account of the forge in the parish. For example, the book includes two photographs of 20th century blacksmiths at the forge, Mr Cave and George Still, but no biographical information is given. Moreover, it would have been easy enough to search trade directories, parish records, rate books and censuses to trace the history of the village forge and its owners and occupiers back to at least 1841, probably earlier. Mrs Newnham's account claims that the deeds give a date of 1654 for the building of the forge (although the photograph on page 23 would suggest otherwise) and an owner and tenant are given at that time, another line of enquiry which has not been pursued.

The "house style" of presentation of the last section of the book differs from the first, e.g. titling, and paragraph indenting in Mrs Newnham's oral history varies from zero to five characters. This should have been corrected with careful proof-reading along with the four 'typos' and/or grammatical errors I spotted in the book.

I was pleased to see a list of further reading at the back but a serious omission is the lack of an index of personal (and possibly place-) names. With the rise of interest in family history, many potential purchasers would, I am sure, wish to see if their antecedents are mentioned between the covers. Jeremy Hodgkinson's article is well researched and a mine of information but the rest could have been so much better and does not reflect well on the research capabilities or knowledge base of members of the West Hoathly Local History Group.

Tony Singleton

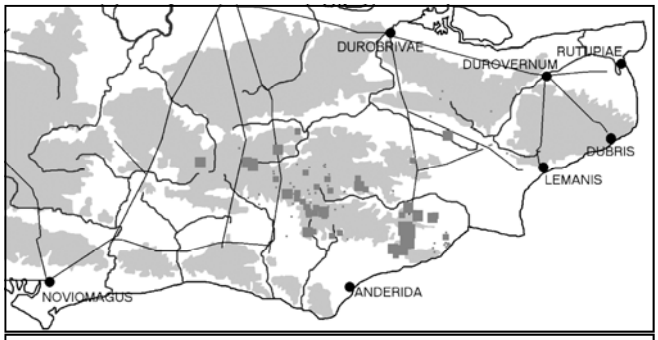
***Metals and Metalworking, A research framework for archaeometallurgy,* HMS Occasional Publication No 6; ISBN 978-0-9560225-0-9. Available from HMS Publication Sales, 22 Windley Crescent, Darley Abbey, Derby DE22 1BZ Price £6-50 incl. p&p in UK or £8-00 incl. p&p overseas.**

The Historical Metallurgy Society has recently published a detailed analysis of archaeometallurgy taking place in the UK.

Divided into four parts, the aim of this publication is to provide a framework for research for archaeometallurgy in UK as well as a review of past and current activity and to outline a strategy for the future. While these laudable aims are targeted at professionals in the fields of archaeology and those responsible for conservation, the 85 page A4 booklet provides an excellent and well illustrated summary drawing on examples of the metallurgical history of England and Wales to illustrate measures of recording and preserving sites. In all, there are 89 illustrations – mostly in colour, a bibliography of approximately 400 references plus 32 in 'Further Reading' and numerous web site references scattered throughout the text. There is also a detailed index.

Part 1 identifies the nature the resource drawing on evidence from landscapes, sites, structures, artefacts, residues from production and documentation.

Part 2 looks at methods of investigation, going beyond the laboratory to include field archaeology, landscapes, surveying, geo-prospecting and experimental archaeology.



Roman sites in the Weald; the size of the squares reflects the relative sizes of the sites

Section 3 reviews metalworking in the past drawing on illustrations to demonstrate current progress and identify work still to be done. Examples start with Bronze Age mining, while in the Iron Age the focus is on the use of iron as an everyday metal, but overlapping with the continued use of bronze implements. The Roman period reflects increasing use of metals and hence metalworking. Bloomery ironmaking in the Weald is selected as one of the two examples of this period. In the medieval period, methods of iron production are discussed and the early production of steel. In the Industrial Revolution, the rapid expansion of iron production is considered along with the advent of documentation.

The final and much shorter fourth section identifies major gaps in knowledge and suggests ways of filling these by scientific examination and fieldwork. The section also outlines methods of best practice.

Tim Smith

RECENT PUBLICATIONS

The Roman Roadside Settlement at Westhawk Farm, Ashford, Kent
by Paul Booth, Anne-Marie Bingham and Steve Lawrence
Westhawk Farm is the site of a large Roman settlement established at an important road junction shortly after the Roman conquest, discovered and partly excavated in advance of housing development. The settlement contained contrasting groups of carefully laid out plots and unplanned areas. Excavated timber buildings included circular and rectilinear structures and a polygonal shrine. The main concerns of the inhabitants were apparently agriculture and market services. Iron production was important, but probably only of local significance, although the settlement may have had a role in the administration the iron industry. Activity at the site had declined greatly by the mid 3rd century; a striking pattern reflected elsewhere in the region but still of uncertain significance.
Oxford Monographs 2, Oxford Archaeology (2008) - 420p - Hardback - £25.00
ISBN 0904220486 - ISBN-13 9780904220483

The Great Guns Like Thunder: The Cannon from the City of Derry
by B.G. Scott , R.R. Brown , A.G. Leacock , C.J. Salter
A detailed account of the iron cannon that can be seen on the walls of the city of Derry, in Northern Ireland. The book describes their historical and technological background, their use and origins [many were cast in the Weald], as well as their deployment and recent conservation.
Guildhall Press (2008) - 276p - Hardback - £25.00
ISBN 1906271100 - ISBN-13 9781906271107

AN APPEAL FROM THE HON. SECRETARY

Anyone who has recently become email-attached and would be keen to receive information by email, rather than post, please let me know. Also anyone whose email address has changed in the last year. Bulletins and Newsletters will continue to be sent by post.

David Brown

WIRG on DVD

A DVD of an edited version of the ITV programme, *Country Lives*, shown in February, is available for WIRG members only, for £4:00 by post (£3.00 at meetings). It consists of 11 minutes about an artist-blacksmith at work and 11 minutes featuring a WIRG smelt and bloomery dating dig at Blackham, Sussex. **Available from Brian Herbert** (see back page).

The Unluckiest Ironworker?

Burial 21 August 1666, of 'Thomas Lambe of Lamberhurst, who died at the furnace in Horsmonden parish, being there maimed so that his leg was cut off, having also there lost his other leg formerly'.
(from Brenchley Parish Burial Register)

please contact the Executive officer for Archaeology on: 020 7631 6627 or email:
archaeology@fce.bbk.ac.uk

To enquire about the above courses please telephone the Executive Officer for Archaeology, Brett O'Shaughnessy on 020 7631 6627.

You can also find full details about our courses on our website:
www.bbk.ac.uk/study/all_courses/archaeology.html

For a 2008-09 Archaeology or Egyptology Full Course Prospectus ring 020 7631 6627
Other enquiries to:
archaeology@FLL.bbk.ac.uk
or FLL Archaeology, 26 Russell Square, London, WC1B 5DQ 020 7631 6627.

Overheard at the AGM:
"I'll have to go home and check my Cross and Clerely."

NEW MEMBERS

We are pleased to welcome the following new members to WIRG:

Dr A F Davies (Ash Green, Aldershot)
Paul Dunkley (West Molesey)
Miss A Stuart-Hutcheson (London)
Douglas Malcolm-Brown (London)

WIRG CONTACTS

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EDITOR'S NOTE

Thank you for your contributions and please keep them coming. Newsletters are published in March and November each year. Items for publication, normally not exceeding 500 words, should be received by February 14 and October 14, respectively, for inclusion in the forthcoming issue. Please send by email preferably, by floppy disc or CD, or hard copy; I can work with most PC formats. Monochrome line drawings and photographs are welcome. Please send them separately, not embedded in the text. Digital images need to be at least as big as their expected published size, ideally at 300 dpi or more.

PUBLICATIONS FOR SALE

	PRICE	BY POST (UK)	**AT MEETINGS**
Excavations of a Late 16th./Early 17th. C. Gun Casting Furnace at Maynard's Gate, Crowborough, Sussex, 1975-1976, O. Bedwin.		1.90	**1.50**
A Middle-Saxon Iron Smelting Furnace Site at Millbrook, Ashdown Forest, Sussex, C.F. Tebbutt.		1.60	**1.20**
The Fieldwalker's Guide and an Introduction to the Iron Industries of the Weald, B.K. Herbert.		4.00	**3.50**
Guns Carried on East Indiamen, 1600 – 1800, Ruth Rhynas Brown.		0.80	**0.50**
Identifying 18th. Century Trunnion Marks on British Iron Guns; a discussion, Ruth Rhynas Brown,		0.80	**0.50**
Parson Levett and English Cannon Founding, Brian G. Awty.		1.30	**1.00**
Metallurgical Analysis of Ferrous Alloy Produced in a Primitive Furnace. R. C. D. Sampson & B. K. Herbert.		5.00	**4.00**
Fernhurst Furnace. Chichester District Archaeology No. 2, J. Magilton (ed.).		13.70	**12.00**
CD of Series 1 *Wealden Iron* Bulletins, Vols. 1 to 17, with searchable index.		6.00	**5.00**
Second series Bulletins: -			
Volumes 1 to 17 (1981 to 1997)		1.50	**1.00**
Volumes 18 to 28 (1997 to 2008)		2.00	**1.50**
Note: Vols. 5, 10, 15, 20 & 25 have 5-volume cumulative indexes. Vols 21 onwards are separately indexed			
Index for *Wealden Iron*, Bulletin of the Wealden Iron Research Group 1st ser. Vols 1-17 and 2nd ser. 1-20		2.50	**2.00**

Publications are available from the Publications Officer, Brian Herbert (see Contact List above)