



NEWSLETTER

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WINTER MEETING

The 1999 Winter meeting, held on 23rd January 1999 in Rotherfield Village Hall, East Sussex, was one not to be missed if you had an interest in cannon or armaments. It might have been a typical grey January day outside but inside, some 40 members were treated to a most enthusiastic talk by Charles Trollope entitled 'The Design and Evolution of English Cast Iron Cannon with Special Reference to the Weald'.

The speaker had spent many years researching the types, sizes and construction of smooth-bore cannon, contributing, as he put it, to the call by 'the great and the good' for more research into the evolution of guns. Research at the Public Record Office, where the records were productive for guns manufactured from 1660-1724, but also elsewhere for those dating back to the late 1500s, revealed that guns fell into sets and groups with certain standard measurements. On the whole they became bigger and heavier as more reinforcement was added, and thicker because more powder was being used. The trunnions were moved to retain balance. These principles, and indeed the evolution, were clearly evident from the speaker's impressive slides. We saw how the Pevensey Castle gun (Edward VI) had single reinforcing and how others up to about 1580 had a long cascabel at the back. After this, the cascabel became shorter and more rings became evident on the barrel. At this time the Dutch were arranging for copies of such guns to be cast in Sweden.

Larger and heavier guns continued to be produced and a particularly fine example of a demi-culverin on an original carriage at Windsor Castle was illustrated. However, to see a plethora of such fine guns Charles Trollope tempted his audience to visit Barbados where at one time 400 existed.

In one of his many humorous moments the speaker told of, and illustrated, the firing of a 42lb gun which would have propelled a seven inch cannon ball. On this occasion it set off car alarms on the other side of the river from the test firing site at Chatham and many panes of glass were lost! Apparently the Dutch had only 24-pounders which went to sea in ships which were much more shallow and thus less effective than those of the English.

George I established his own Board of Ordnance which re-

designed the guns and artillery but by 1724 the Navy had become very concerned about guns blowing apart. Some of these ended up as bollards and gate guards and some were even sold to foreign navies! Some fourteen thousand guns had been cast in the Weald, many at places such as Brede furnace but by 1770 it was virtually at an end.

Why was gun casting so successful in this area? One very practical reason was the malleability of the guns themselves. Wealden guns could take quite a lot of punishment and still survive.

By 1800 guns had taken on a much heavier appearance; bulgy and fat was how our speaker described them, in contrast to those slim Wealden models of Tudor times.

Questions were answered from an enthusiastic audience and Tim Smith, in proposing the vote of thanks, spoke on behalf of all of us when he said that we had been treated to a knowledgeable and beautifully illustrated talk.

Ashley Brown

Many thanks to Ashley for the above account. We are all hoping that there will be an opportunity to publish this excellent and very comprehensive research in full. Even an illustrated handbook would be so useful to those of us who cannot resist seeking out ancient guns when we're on holiday!

Our two public meetings each year are always good opportunities for members to meet and indulge in WIRG chat, to buy publications and to partake of Dorothy Hatswell's usual, excellent refreshments, for which we thank her and her helpers.

DMM

BOOK REVIEW

Behind the Scenes at Time Team -Or Archaeology with a JCB

Tim Taylor, producer of the popular television series 'Time Team' has written a fascinating account of the trials and tribulations encountered during the making of some 40 programmes over the past seven years which for many have become compulsive Sunday evening viewing on Channel 4.

On Midsummers day last year, members of the WIRG experimental furnace group assisted Time Team with their 'cameo' a reconstruction of the working of a bloomery furnace relating to the dig at the Roman villa site at Beauport Park, East Sussex.

The programme, with its objective of finding out as much as possible about a site within just three days, seems to polarise the attitudes of both amateur and professional archaeologists as to its merits. On the plus side, according to Tim Taylor, applications for University courses in archaeology have risen 15% in recent years and the general public have become more aware of the value of their heritage - gardeners, for example, are referred to as Britain's largest field walking group and a valuable source of finds for local museums and interest groups. On the down side, the apparent 'bull in a china shop' syndrome - epitomised by the obligatory use of the JCB digger to open a trench - can give a poor impression of how to set about a dig.

To be fair to the programme, a full time archaeologist is now employed to write up all the digs - something missing from earlier site investigations - as well as the use of a regular team of trained diggers in addition to the well known faces of Prof Mick Aston of Bristol University, Phil Harding of Wessex Archaeology and Carenza Lewis of RCHME. This team, along with local County archaeologists and specialists, have undoubtedly enabled the funding of professional and technologically advanced investigation of sites which would otherwise remain known but uninvestigated. The Team also accepts its responsibility to conserve and catalogue all finds and a significant sum is put aside for this where necessary.

Despite how it may appear to the viewer, an extensive amount of research is put into the site prior to Time Team undertaking an excavation, and also 'finds' are not as spontaneous as they appear in the edited version - having myself assisted on the reconstruction of the working of the bloomery furnace at Beauport Park for the Programme, I can vouch for this.

The book, which is liberally illustrated with excellent photographs, follows five digs from the current series to be broadcast in January to March 1999. At times, there is evidence of the undercurrents arising from both the conflicting interests of 'good TV' and getting the job completed, as well as between the approaches of amateur archaeologists and professionals.

The dig at Beauport Park has a chapter devoted to it, and, despite little evidence of associated buildings to the bath house being made, is described as one of the most challenging for the Time Team and illustrative of the approach to a dig where, according to the pro-

gramme, earlier trenches had not been properly recorded. The lack of finds was fortuitous in allowing more programme time for the cameo which successfully reconstructed the production of iron in a hand blown clay furnace built, only a day or two before, by Time Team's imported expert, Jake Keen.

The 192 page book describes more of the process of turning a dig into interesting television, than the archaeology, although each chapter commences with a resume of the history relevant to the period of the site. Some inaccuracies in technical descriptions have survived the proof reading stage. At a price of £18.99, it may be better to ask your local library to order a copy, or wait until it finds its way to the 'Bookstop' chain at cut price.

Behind the scenes at Time Team by Tim Taylor, Channel 4 Books 1998 ISBN 0 7522 1327 X

Reviewer: Tim Smith

NB If you do get hold of a copy, take a magnifying glass to the cover and you will see WIRG members helping around the furnace. Fame at last! An account of our part in the Time Team film shoot appeared in the last WIRG Newsletter, p8: Observations on the smelt at Beauport Park. DMM

Naturally, there has been great interest from those WIRG members who watched the programme and a rather mixed reception. In common with many 'serious' archaeologists, some people find the rather frenetic 'race against time' and exaggerated exclamations at small finds a bit off-putting. On the other hand, this approach may well appeal to those who would not otherwise find the work itself as exciting as we do.

From a WIRG point of view, some acknowledgement of the contribution made by the five members who worked all day on the smelting site would have been appreciated. We did the lion's share of preparing ore and charcoal and pumping the bellows. These bellows from our own site proved to be much more efficient than the ones provided, and meant that it was unnecessary to use the stand-by vacuum-cleaner bellows which were already there. We found the filming interesting and enjoyed the atmosphere - but a 'thank you' would have been nice.

We also feel that with many years' experience of iron-based fieldwork in the Weald, we could have made a valuable contribution to their fieldwork and the assessment of their finds - we would certainly not have mistaken furnace debris for ore roasting!

Perhaps this is partly our own fault. Although we have a long-standing organization with solid achievements

behind us, we do not seem to have achieved a high enough profile to be the automatic choice when people are seeking reliable and up-to-date information on the Wealden iron industry.

Members could perhaps help by publicising WIRG when they can. We have much to be proud of: we have successfully combined field work, properly conducted and published excavations and surveys of iron sites, experimental archaeology, and documentary research. This was publicly acknowledged as early as 1976 when we won the BBC Chronicle Award for the best amateur archaeological project.

Henry Cleere and David Crossley, the original convenors of WIRG, wrote up our research and their own in *The Iron Industry of the Weald*, originally published by Leicester University Press in 1985. This was updated and reprinted by Merton Priory Press in 1995 (ISBN 1 898937 04 4). New research regularly appears in the annual WIRG Bulletin.

We welcome members from all walks of life. Our field group meets once a month throughout the winter months when there is less ground cover and more likelihood of discovering new sites and/or making useful surveys. Notes on these forays appear in the bi-annual WIRG newsletter as well as in the Bulletin. DMM

ANOTHER NON-WEALDEN GRAVESLAB

Miss E Copson of Droitwich, Worcestershire, has sent me details of an iron graveslab in the parish church of Himbleton in the same county. Dated to 1709, it commemorates members of the Fincher family, who were notable in that area.

Phillip Fincher, who was London agent for several Wealden gunfounders in the late 17th century, may have been connected with this family as another Philip is among those whose names are recorded on the graveslab. The slab is incised rather than cast, like that of Thomas Sands, in Mayfield Church, which dates from 1708. JSH

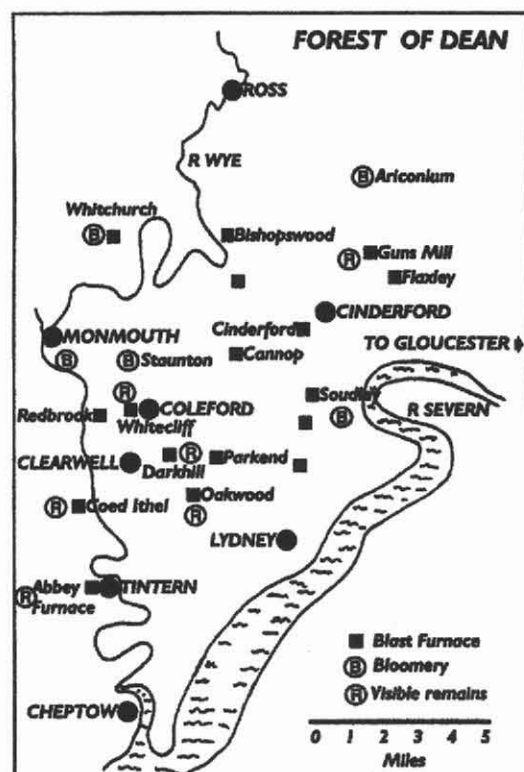
NEWS FROM ELSEWHERE

A WALK IN THE FOREST OF DEAN

By Tim Smith

The Forest of Dean lies in the inverted triangle of land between the river Wye to the west and the Severn to the east. To the west it borders South Wales, while the Forest itself lies within the English county of Gloucestershire. The two rivers largely isolate the region; the town of Gloucester is the first bridging point of the

Severn in the north and the Severn Bridge, near Chepstow, in the south. The Wye is bridged at more frequent locations, Monmouth in the north being the largest town, and Chepstow in the south, soon after which the Wye joins the Severn.



The Forest of Dean was one of the most important ironmaking regions of Britain during Romano-British times and probably superseded the Weald in importance by the late 2nd century (1). The presence of timber and coal as well as iron ore - mainly in the form of haematite and limonite (Fe_2O_3) - enabled the area to continue in its ironmaking importance and become a major blast furnace smelting region from the late 16th century until the early 19th century. Underground mining for ore started on a small scale in Roman times (at Lydney Park) but it was not until around 1650 that the increasing demand from blast furnace operations required large scale underground mining. Shallow ore deposits were exhausted within 50 years and 100 years passed before steam pumps were introduced in around 1800 to exploit deeper deposits.

The Bloomery Period

Little evidence remains to-day of the bloomery period largely due to the re-use of bloomery slag, or 'cinder',* which was still rich in iron, in later blast furnaces. There are, however, traces of former bloomery slag at least 24 locations within the Forest according to Bick (2), including the extensive Romano-British site of Ariconium (c250-350 AD) near Ross-on-Wye in the

north; at Whitchurch, near the centre of the Forest; Monmouth on the north west boundary (where an extensive dig is presently underway just off the High Street) and Staunton to the east of Monmouth. Bick calculates from an estimate of ore removed that 274000t of iron were made in the bloomery period from 2.06 million tons of ore mined. This compares with 1075000t of iron made during the charcoal blast furnace period, from 854000t of ore mined plus bloomery cinder. Bick estimates the amount of cinder to equal the weight of ore used ie 2.06Mt, and this cinder would contain 80% of the iron from the original ore - a most valuable source for later blast furnace operations where the higher temperatures of smelting produce calcium silicate rich slags instead of the iron rich (FeO) slags of the bloomery furnaces. Records of three charcoal blast furnaces operated by Foley in 1702-1714 show that on average 70% by volume of the iron containing burden was cinder(2). Not all of the cinder was used in Dean furnaces, some was exported to Ireland and to the north of England - indeed a levy of 6d per 15 bushels (approx 1.1t) was introduced to stem this (3). Some was used for road building and much still remains around some original bloomery sites such as Ariconium where layers of cinder 20ft (6.1m) thick have been excavated.

The Blast Furnace Period

The first charcoal blast furnace was introduced to the



Fig 1 Guns Mill charcoal furnace
Rebuilt 1683

Forest proper at Lydbrook in about 1595 (viz 1496 for the Weald) and has been attributed to the Earl of Essex. There was already a furnace just outside the Royal Forest, at Whitchurch, built in 1575, and others followed within the Forest at Redbrook and Lydney by 1604. In 1611 Giles Brudges built a furnace (3) and in 1612 William Earl of Pembroke (3), both with the permission of King James 1st. Twenty sites (2) of charcoal fired furnaces are recorded, of which three have surface remains, the most extensive being Guns Mill in the north and the other two, - which strictly lie outside the Forest just inside Wales near Tintern in the south west - are Coed Ithel and Abbey Furnace.

Finding the sites:

Guns Mill (grid reference SO674159 OS sheet 162 Gloucester) is located about two miles north of Cinderford adjacent to the Guns Mill Guest House. It can be viewed from the road, but the structure is in too dangerous a state to permit close inspection (Fig 1). The present structure dates from 1683 and has a shaft square in section, but the hearth is missing(1). The casting arch lies to the south (right arch in picture) and has been modified during a subsequent conversion of the site to a paper mill. The structure on top of the furnace most probably also dates from this conversion. The tuyere arch is to the west and adjacent to this is a large wheel pit. The wheel was overshot and supplied from ponds to the west. An earlier furnace stood on the spot dating from 1628.

The remains of **Coed Ithel Furnace** (reference 527026) are extant albeit overgrown and can be found just above the road. Remains of a square shaft with a circular bosh were recorded by Tylecote when he excavated the site(4). The furnace has been dated as post 1651, corresponding to the second phase of British charcoal furnace design. The furnace was also most probably known as Brockweir(1).

Decline of charcoal furnaces in the Forest of Dean:

Remains of the other furnaces are absent, largely as a result of their demolition on the 'order of the King', who passed an act in 1667 to preserve the timber of the Forest for shipbuilding and promoted ironmaking on the Weald as sufficient to meet the Country's needs. Consequently, furnace leases in Dean were not renewed and most had been dismantled by soon after 1683.

A description of charcoal furnaces dating around 1635 reported by Nicholls(3) says they were built of stone with a square base measuring 22', air being supplied from a pair of bellows measuring 18'x4' powered by a water wheel of diameter less than 22'. Campaigns lasted several months continuously. Forges consisting

of fineries and chaferies were used to refine the pig iron.

The last charcoal blast furnace operating within the Royal Forest was Redbrook which worked until 1816 – the first furnace on the site dated from before 1613. Another furnace known to have operated into the 19C was Flaxley (strictly outside the Royal Forest), and a pig with the date 1811 cast on it is preserved in Flaxley Abbey. These furnaces had been using ore from Lancashire since Forest supplies were largely depleted by this time, and some trials had been made to convert to coke firing.

Coke fired furnaces

Coke was introduced to the Forest for ironmaking in 1798 with the construction of a furnace at Cinderford. Others followed at Parkend (1799) and Whitecliff by 1801/2. The first coke furnace was not introduced to the region until 97 years after Abraham Darby first used coke to smelt iron in Coalbrookdale. Remains of five coke fired furnaces and ironworks have survived, the most intact being Whitecliff (grid ref 570102) about a mile SW of Coleford (Fig 2). This furnace is constructed in the face of an old quarry to assist charging from the top. Two furnaces were built side by side - but only one now stands. The undertaking was commenced by **Samuel Botham** but a flood before completion caused him to sell his share to **Halford and Teague** who completed the work. For a short while, the furnace was managed by the Scot, **David Mushet** (1772-1847), who came to live in Coleford, but it was never a great success - an indication of attempts to improve output being the later insertion of a second tuyere. David Mushet went on to set up his own ironworks (Darkhill) nearby, but the name of Mushet is probably best known for the work of his son, Robert, who recognising that additions of spiegeleisen (ferro-manganese) could be used to de-oxidise Bessemer steel which was otherwise very porous.

To view: Whitecliff furnace now belongs to the Dean Heritage Museum Trust and can be viewed from the road. By requesting permission of the tenants of the house to the right of the furnace, access can be gained to their garden for a better view which, at your own risk, can be extended to entering the furnace. A footpath to the right of the house takes you to the top of the quarry where, leaving the path (permission should be sought from the landowner) the roasting kilns are found and the charging bridge can be viewed.

The furnace measures 40' wide by 45' deep and about 50' tall. The shaft was circular in section. The bosh has been robbed. The blast was supplied by steam engine.

Darkhill Ironworks (ref 593087) was set up by David



Fig 2 The remaining stack of Whitecliff blast furnace c.1804

Mushet following experiments he conducted at nearby Coleford. Mushet's aim was to produce 'refined iron' direct from the blast furnace and in 1815 he took out a patent for this purpose. In 1818-19, he built Darkhill Ironworks with the purpose of putting this patent into practice. Records show that he successfully refined iron practically free from phosphorus and sulphur using local and Cumbrian ores. However, it appears the process had no major impact on the technology of refining and by April 1824 the works were used by **Moses Teague II** (the son of the co-owner of Whitecliff) who was operating a cupola (coke fired melting furnace) on the site as well as a wire mill. Teague successfully developed the use of coke using coal from the Coleford Low Delf seam and transferred the technology to successfully run the Cinderford furnace.

David Mushet died in June 1847 and his son, Robert, entered partnership with Thomas Deykin Clare setting up 'Forest Steel' within the Darkhill site. This included a crucible furnace of ten pots and two - in those days 'old fashioned' - helve hammers. In 1856, a cupola was added to melt iron and supplied one of the earliest Bessemer converters to make steel. It was from this activity that Mushet recognised the value of using ferro-manganese in making sound steel. Mushet went on to establish the 'Titanic Company' a few hundred yards to the WNW which operated until 1871. It was here that the first 'tool steel' was made (RMS Special Steel) which enabled lathe cutting speeds to be doubled.

To view: The extensive remains of **Darkhill** are easily visible from the cycle track to the south and permission to enter the site is obtainable from the Forestry office in Clearwell. The site is difficult to interpret and there is no obvious sign of the furnace. The remains of the Titanic Company were demolished in 1964/5. To the north of Darkhill, where an old tramway joins the road at Milkwall, two large blast furnace bears of unknown origin survive.

Bromley Hill (or Oakwood) furnace (ref 601065) near Mill Hill survives to a height of about 3m. This was a three tuyere furnace built in 1852 and was the last to be built in the Forest. The furnace is built into the side of a cliff. It was fired with a mixture of coke and charcoal and used local ore from Oakwood Deep Level and from Noxon Park.

The remains are situated in a small paddock and can be viewed from the track to the north.

Ore Mining

A visit to the Forest should include a stop at Clearwell Caves (ref 571083) where an underground tour can be taken of the last remaining iron ore mine in the Forest (Tel 01594 832535). Also nearby is 'Puzzle Wood' (ref 579094) which is a 'scowel' consisting of deep gullies formed by surface extraction of veins of ore dating from Romano-British times. No reference is made at the site to its historic significance, and the site is only open during the summer months. Newland church (ref 553095) has an interesting brass depicting a medieval miner. The Dean Heritage Museum (ref 665105) near Soudley in the east of the Forest is a museum of Forest life (coal and forestry as well as ironmaking) and has a small collection of artifacts relating to iron production (Tel 01594 822170). Despite it being custodian of the Whitecliff furnace, there is little reference to iron production in the Forest.

Nearby sites outside the Forest: There are two sites in Wales well worth visiting while in the area. **Abbey Furnace near Tintern** (ref 513002) is just outside the Forest and lies about 1 mile west of the village of Tintern (with its famous Cistercian abbey) on the Angidy Fawr river. This was a highly industrialised valley with some 20 water wheels recorded in the 19th century producing brass and iron. For many years it had the monopoly for wire production in the district. Remains in Tintern itself have largely been lost due to a recent flood relief scheme, but the ironworks higher up the river have survived and have been cleared for public access. The base of the blast furnace, a wheel pit and adjacent wire works are clearly visible. Sadly, the interpretation sign is missing but Fig 3 (on p8) shows a representation of what is believed to have been the layout (5).

There is evidence of much earlier bloomery workings on the site but a charcoal fired blast furnace operated here from the mid 17th century until 1828 and was producing 22-24 tons per week of pig iron(5) in 1698-99 and 28-30 tons per week in later years(6).

In 1647, Thomas Foley of Stourbridge took control of the works but it is uncertain if today's remains are his original furnace (5). To obtain the ductility needed for wire production it was necessary to make highly refined 'osmond' iron (5). This was previously supplied by Monkswood in the Forest of Dean, but its quality of output fell requiring an alternative source to be found, hence the need to build the furnace. In its early days, the charge was low phosphorus limonite ore from Clearwell in the Forest (5), but later the ore used was a blend of 88% Lancashire haematite and 12% Dean ore (5). The blast furnace was in use until 1828, in its latter years it was used by Mushet in experiments to make 'wootz' iron using ore from India, the aim being for India to become an alternative to Sweden and Russia as supplier of refined iron to Britain(5). The wireworks continued in operation until 1901 and was also used to produce tinplate.(6)

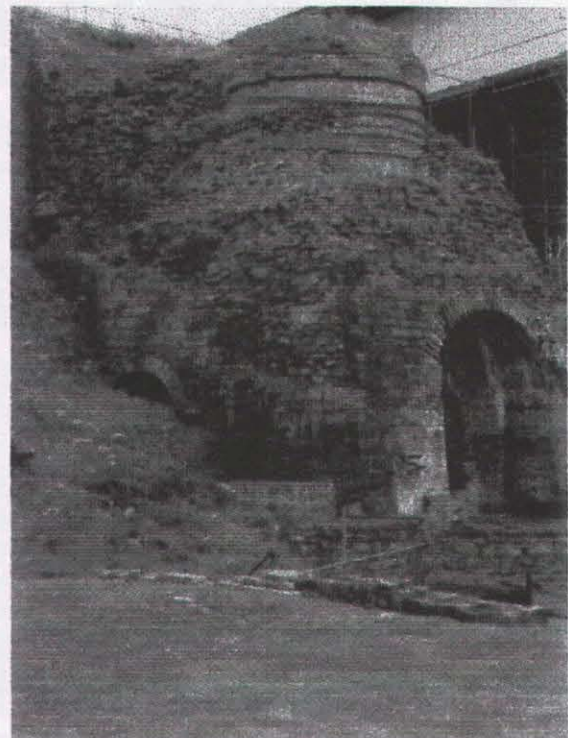


Fig 4 **Blast furnace at Blaenavon ironworks**

Travelling deeper into the South Wales valleys, almost to Ebbw Vale, the remains of an 18th century ironworks at Blaenavon (ref SO 246093) are probably the

most extensive to be found in Britain, and are now in the care of the Welsh Historic Monuments. These can be explored with a guide for a small fee (Fig 4).

The site is also known for being the source of the iron for Bessemer's early experiments on converter steel-making - fortuitously the iron was low in phosphorus and thus enabled Bessemer to succeed in making a ductile steel from the start without appreciating the problems of using a high phosphorus iron. Ironically, it was also at these same works that the phosphorus problem was eventually solved in 1878 by Sydney Gilchrist Thomas. Thomas was not employed at the works, but his cousin, Percy, was work's chemist, and had the resources which enabled Thomas to develop a basic lining for the Bessemer converter using burnt dolomite bonded with tar. This (Thomas) converter could be used to make steel from high phosphorus iron which



Fig 5 Gilchrist Rhomas' experimental converter at Blaenavon

was more abundant in Europe. What is believed to be Gilchrist's experimental converter still remains (Fig 5). The works date from 1789 and operated into the 20th century, by which time a 'modern' ironworks had been built on the opposite side of the valley, remains of which have been totally destroyed(6). Four of the six earliest blast furnaces survive as well as a hydraulic hoist tower. The ruined furnaces clearly show the evolution from the earlier square blast furnaces to the cylindrical free standing form with four being constructed with a square base changing to a circular shaft about

half way up. Only the base of a fifth free standing all cylindrical furnace remains, this newer type being more ruined as a result of a lightening strike while it was in use causing a dramatic explosion. The lining remains intact in one furnace as a result of the final cast being left in the hearth, the slow cooling preserving the brick-work.

The works (6) was established by a banker and two ironmasters from Staffordshire, Hill, Hopkins and Pratt, and in 1796 made 4318 tons of iron. The furnaces were blown by steam engine and by 1805 were making 7846 tons. A forge to refine the iron was not built until 1816, when one was built at Garnddyrys, 1.5 miles to the north where a canal provided convenient access. The hydraulic hoist was built to carry pig iron from the furnaces up to the canal to the forge. In 1823, the works was producing 16882 tons, but this had fallen to 13843 tons by 1830.

The furnaces were about 46' high with a 9' throat and 14' bosh. The hearth had a diameter of 4' 10". The working volume was 5540 cu ft and each could produce 104 tons per week. They were blown with a cold blast which produced a superior iron but at the expense of higher fuel consumption. The furnaces were all open topped but some of the flue gas was collected and directed through a duct under an adjacent row of workers' housing to provide heating (both in summer and winter). Activity at the old works continued until 1900, and at the new works, which had three hot blown blast furnaces and two 8 ton Bessemer converters, until 1938.

Acknowledgement

Thanks are due to Ian Standing a long time industrial historian of the Forest of Dean for his comments on the manuscript and for providing updated information.

References

- (1) Iron Mining and working sites in and around the forest of Dean' N P Bridgewater Historical Metallurgy Society Bulletin 1968
- (2) David Bick HMS Journal Vol 24 No 1 1990 p39-42
- (3) 'Nicholls' Iron making in the Forest of Dean' Facsimile version of 1866 edition ISBN 09505926 84
- (4) Tylecote HMG Bulletin No 3 1969
- (5) J Pickin, HMS Vol 16 No1 1982 p1-21
- (6) The South Wales Iron Industry 1750-1885 by Laurence Ince Ferric Publications ISBN 0 9518165 1 9

* Note: Bloomery slag is referred to as 'cinder' in the Forest and the term 'scruff' is used for blast furnace slag.

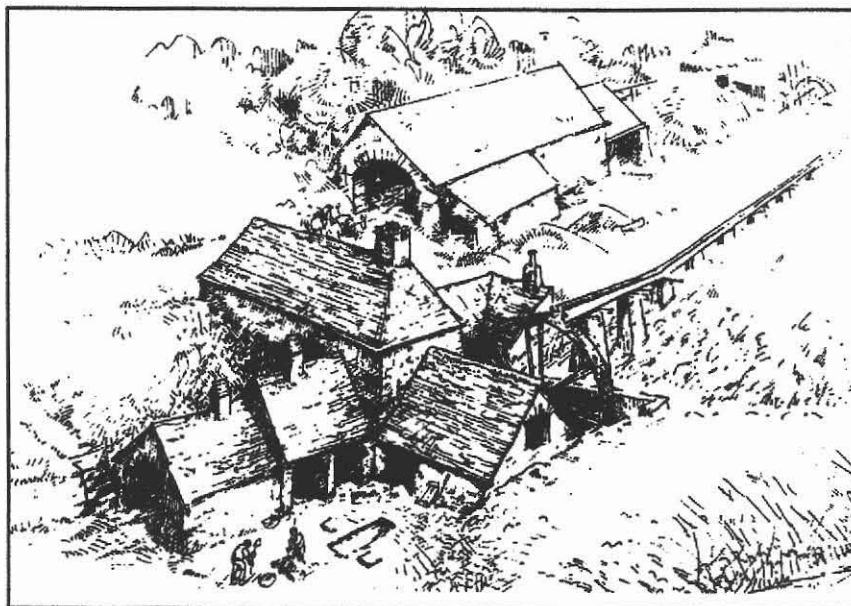


Fig 3 Proposed layout of Tintern Ironworks (5)

Many thanks to Tim for this interesting account of ironworks in and around the Forest of Dean. This kind of above-the-ground evidence of furnaces contemporary with the Weald is valuable in assisting us to interpret our Wealden sites, where so little remains on the surface.

Even reports of later ironworks help to put the Wealden remains into context.

Now, what about some accounts from other members of cannon and other iron or iron-related finds that you see whilst on holiday. Please send in what you can. If you don't feel able to write a full account, some notes and a photograph or two will be fine. DMM

DATES FOR YOUR DIARY

Sunday 25th April 1999.

Council for British Archaeology AGM at The Templeton Room, Juniper Hall, Mickelham, Surrey. There will be the usual AGM business and then a talk about Juniper Hall. Further details from Sheila Broomfield (01732 828698).

Saturday 15th May 1999 Historical Metallurgy Soc Ltd AGM and Spring Meeting at The Institute of Materials, 1 Carlton House Terrace, London SW1Y 5DB. The programme starts at 10.30am with coffee and there will be breaks for lunch and tea. The meeting ends at 4.00pm. Two lectures have been arranged, with the possible option of a guided tour to a disused

section of the London Underground to view Victorian railway engineering.

10-12 September 1999 Historical Metallurgy Society Annual Conference at Ambleside, Cumbria on The Iron Industry of Furness. The meeting will launch the volume setting out the results of the survey of the iron industry of the Furness district by the Royal Commission on the Historical Monuments of England. Members of the Commission's staff have promised to lecture and to guide the Saturday tour. Details and booking forms will be sent to members. The Conference Organiser is David Crossley.

20th & 21st May 2000. A two-day 'day-school' is being planned which will comprise lectures on the Wealden iron industry by Jeremy Hodgkinson at the Isle of Thorns, Chelwood Gate, interspersed, over the two days, by visits to the experimental bloomery where iron will be smelted and forged and where course participants can have some hands-on experience of iron making.

1998/99 FORAY REPORTS

Results from the '98/'99 foray season have been variable with another bloomery site dated, a Straker bloomery site located and a new bloomery site. This compares to two blank forays; not too bad as there are still two forays to go.

The Domesday Ferraraia

In our search for the Domesday Ferraraia, another foray was made to Forest Row in December '98. A field scented on TQ43803520 was methodically searched

or slag, with minimal success. Although there was a scatter of slag all over the field and a concentration beside the hollow way at TQ43883510, it was not felt to be significant enough to organise a dig. The south part of another field was also searched, centred on TQ43253555; once again pieces of slag were found, no doubt due to the field to the south having a great deal slag spread all over it (see the first foray report).

Two Visits to the new search area (Heathfield)

Two visits were made to the new search area; the first one in November '98, where some trial trenches were dug in Tilsmore Wood, TQ57632174, in a search for dateable pottery (this being a bloomery site rediscovered in December '97). Although no pottery was found, it was noted that most of the slag was very near the surface, there being very little top soil. Also, the slaggy area was undulating as if some of it had been removed in recent years. Nevertheless, an area of slag was eventually found about 12" down; however, due to the dreadful weather, poor light, and mutiny in the ranks, this area was just noted for the next visit.

The second visit, in January '99, proved a great success, and the weather was perfect. Two pieces of Romano/British "East Sussex Ware" were found within 2ft of each other; and before dinner! Both pieces had a rim but were from different 7in diameter cooking pots; and to clinch the argument one piece had a lump of slag firmly attached, see below. This latter piece, 1.5"x3.5", also seems to have an inscribed pattern.

In the afternoon, a site in the adjacent valley at TQ 57552184 was investigated; this is where there is a layer of bloomery slag on the bed of the stream for a distance of 15 ft (this being another site discovered in December '97). Several exploratory trenches were dug on the banks without success. It had been hoped that the slag would be the base of a Roman Road, although the steepness of the stream banks (nowadays) would seem to have made it impractical. A new find was the base of a very large charcoal making site, some 100ft upstream; could it be related to the bloomery sites?

It has recently been noticed that all three of the bloomery sites have been found on the Isenhurst estate, Heathfield, and that the German word for iron is "eisen"; could the estate have been named Isenhurst because of these iron working sites? The estate is now looked after by English Woodlands whom we thank for allowing us free access.

Surrey Foray

Stop press. The Straker bloomery site known as

"South Park", Bletchingly, Surrey, has been located at TQ33204823, and a new site was found close by at TQ33854830. Suspected dating, due to slag being near the surface in what was recently woodland, is Mediaeval but this will need additional confirmation. To be continued.... Brian Herbert

EDITOR'S NOTE:

Many thanks once again to our contributors. Please continue to send in anything that may be of interest and relevant to the iron industry – Wealden if possible – otherwise think 'comparative archaeology'.

We were lucky enough to go to St Lucia last year and learned that in the early days the island had frequently changed hands between England and France. Since neither side, on being forced out, wished to leave armaments that might be useful to the incomers, they took care to ruin what they could. The guns below are believed to have been French and have certainly been ruined – they are both broken and twisted. I understand that there are other guns on St Lucia – has anyone any information or photographs of these?

Other iron remains are those of the sugar industry, including a huge water wheel which apparently supplied power for crushers, and some very large cauldrons. A Fuller enterprise, perhaps? DMM
DMM



Broken guns on St Lucia (1997)