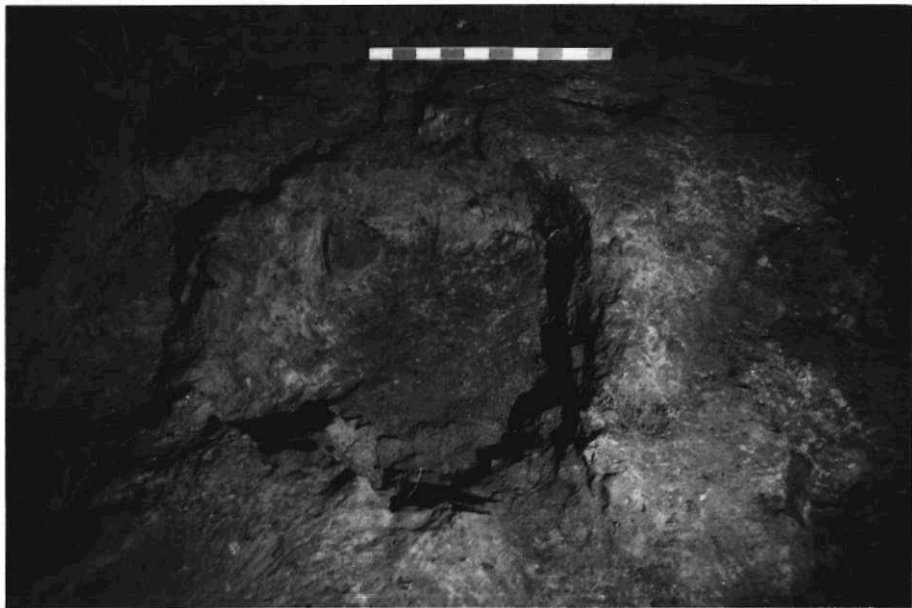
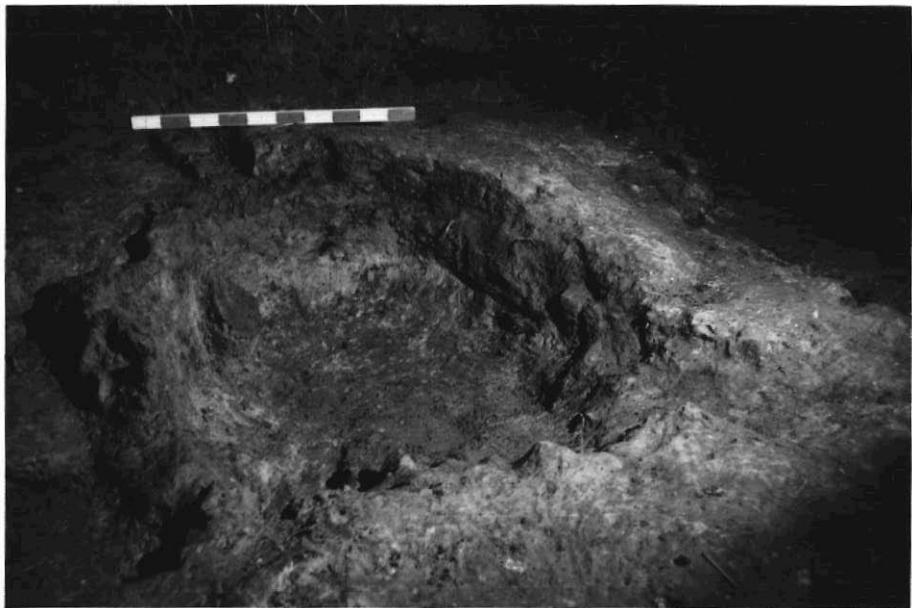




Smythford Blooming. Worth pt
July 1981

(36)



Smythford Blooming, Worth p4.
July 1981

(37)

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SUSSEX ARCHAEOLOGICAL FIELD UNIT

Field Director:

MR. P. L. DREWETT, B.Sc.



Telephone:

01-387 6052 (3 lines)

27 March 1984

J.S. Hodgkinson
20 Spinney Close
Crawley Down, Crawley
Sussex RH10 4PF

Dear Mr Hodgkinson,

I have identified the charcoal
samples which you submitted from Smythford RB iron-
working site, as follows:

Sample 1 Quercus sp. oak
Sample 2 Crataegus sp. hawthorn
Sample 3 Quercus sp.
Sample 4 Quercus sp.
(no sample 5 received)
Sample 6 Quercus sp.

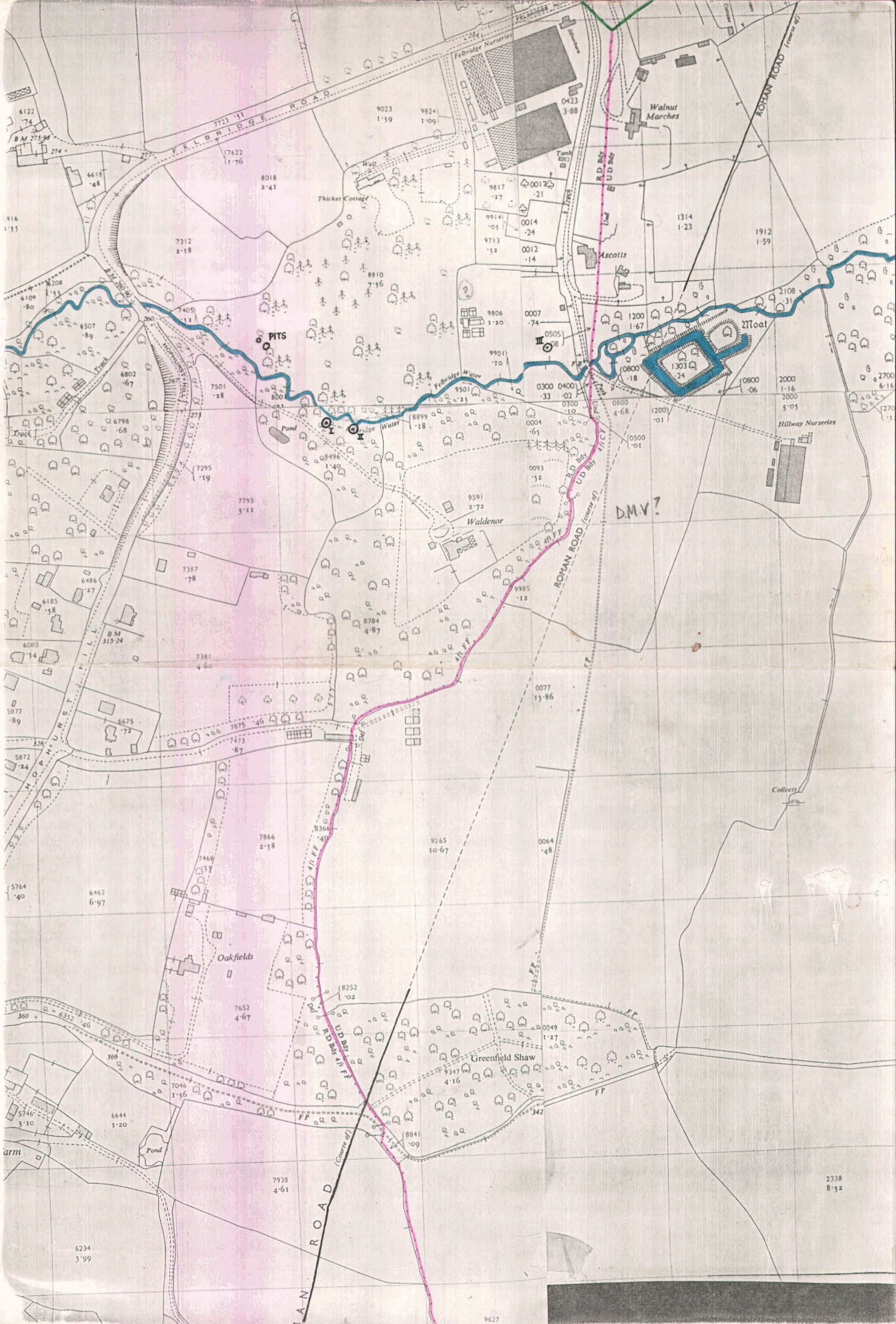
I hope these results are of interest and useful in the
interpretation of the site. Please do not hesitate to
contact me if I can be of further assistance.

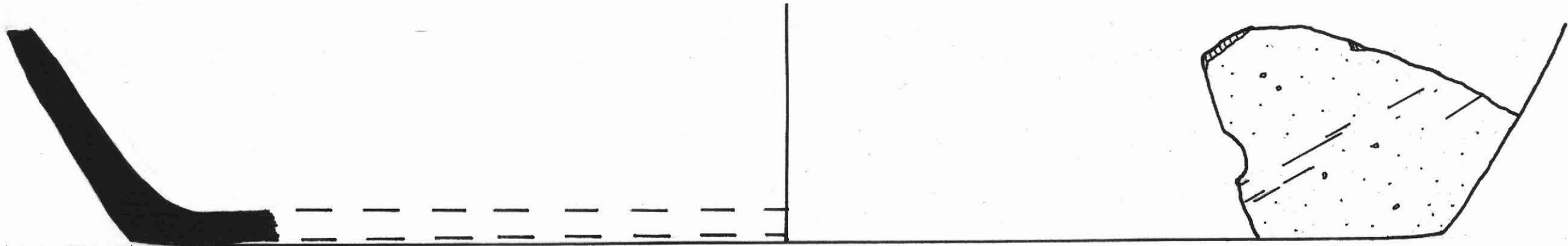
Yours sincerely,

Caroline Cartwright

Caroline R. Cartwright

Research Officer, Field Archaeology Unit





WIRG.

Excavations at 'Walden', Hophurst Hill, Crawley Down
Sussex.

"Smelterford" Romano-British Iron Smelting Site

J.S. Hodgkinson,
20 Spinney Close,
Crawley Down,
CRAWLEY
Sussex.
R410 4PF

Copied 7/3544

Tray along the Felbridge Water

January 5th 1980

From TQ 353391 to TQ 361390

Finds: 3 Blooming sites.

1. Smythford 1 TQ 35843899. Worth pa. (by kind permission of Mr A. Fenton)

About 10 yards South of stream on slightly sloping ground above a steep stream bank. Blooming slag at depth 9"-1'.

2. Smythford 2 TQ 35863898 Worth pa. (by kind permission of Mr A. Fenton)

About 2 yards ~~to~~ South of stream on sloping ground above the stream. The stream has cut into the bank immediately below the site revealing a horizon of dark material, and several large lumps of slag in the stream (up to 9" across) Blooming slag at depth 6"-9"

3. Ascotts TQ 36023905 Worth pa. (by kind permission of Mr Hill)

About 15 yards north of stream on gently sloping ground, close to a line of small trees. Blooming slag at depth 9". Local folk memory recalls the finding, on this site, periodically, of black lumps which were then thought to be of meteoric origin. Being somewhat metallic, the slag would easily be mistaken for meteorites by those who could know no better.

February 16th 1980

'Walden', Hoplunest Hill. par. of Worth. W. Fr.
by permission of H. L. Fenton Esq.

Exploratory excavation for the purposes of dating

see also IV:39

Smythford I. A trench was dug E-W about 2m x 1m.
This was extended to 4m x 2m as evidence became apparent that below lay the robbed remains of a furnace or hearth. The gradation of burnt clay, from yellow through to red, stopped short of the final grey which indicates the greatest temperature.

Excavation of this site will continue.

Smythford II A trench was dug N-S about 2m x 1m
A fair amount of lap slag and cinder was present and some charcoal and a little burnt clay. Further digging is necessary to reach original base level.

15m east of Smythford II A further area of slag and cinder was investigated with a trench 1m x 0.5m E-W
Large lumps of slag + cinder were found immediately above the subsoil which was bright yellow in colour and only about 8" below the surface. * This pit was then backfilled.

These joined
Mr J. S. Hodgkinson
Mr R. B. Hodgkinson
Mr J. A. Weaver
Mr K. Thompson
Mrs D. A. Hartsnell
(Mr E. D. Hartsnell)
Mr P. Becker
Mrs M. Becker
Miss S. Becker

Mr B. Herbert
Mrs V. Herbert + boy Herbert
Mrs W. Cater
Mr D. Nicoll (?)
Mr C. F. Tebbutt
Mrs H. Tebbutt

* At subsoil level, a flint chip 5cm x 3.5cm was unearthed, however, there was no secondary working.

Excavations at "Dolmen" Hoplunst Hill, Coney Down.

March 1st & March 15th 1980

Smythford I

The trench dug on February 16th 1980 was extended westwards by about 30 cm and a northward extension was dug adjacent to the oval area of the darkened patch at the western end of the excavation.

In the first (W) extension, was found, adjacent to the subsoil, a small sherd of pottery. It is approx. 3 cm across and 0.5 cm thick, pinkish in colour though greyish in the centre of the section. It is coarse grained and contains minute pieces of silica (probably ~~quartz~~ flint). It was sent to Mr C.F. Tebbutt, 'The Pheasantry', Wyck Cross, Ex. who identified the sherd as (almost certainly) medieval, probably not later than 14th century.

In the second extension (N), also dug to reveal the extent of the dark, oval area, a small cylindrical plug of slag was found, adjacent to the subsoil. It is 2.5 cm in diameter and approx. 6 cm long. ~~The~~ Although not hollow, it has the appearance of having been so the outer surface being greater than the solid volume of the plug. It was identified as slag which had formed in the neck of the furnace of a furnace. Conversation with C.F.T. & reference to fieldwork at Clulish Farm*, confirmed this identification.

To the east of the dark oval area is a small depression about 1 m (NW-SW) by 50 cm; it is bounded on the east and south by dumps of slag. To the south of this is a higher area with some burnt clay (red). Over this, and still in evidence in the section at the side of the excavation, was the remains of charcoal burning at a later date.

* MRG Bulletin 13 (1978) p7.

Beyond this small depression, to the east, lies an uninvestigated area.

I On March 15th, the dark, oval area was investigated. It was excavated in quadrants (SE: I; NE: II; SW: III; NW: IV) working from the centre of the oval, a topsoil was removed; it was a mixture of soil, charcoal, slag ~~and~~, sandstone and burnt sandstone & clay. The slag, which amounted to about 225 m^3 , was of an average size of 5 cm. The material removed was about 14 cm deep. Below this was a uniform layer of charcoal dust, about 2 cm thick. Below this was the yellow clay subsoil although there ~~was~~ were some sandstone slabs below the charcoal layer. The quadrant was bounded by sandstone blocks of varied size, together with some slag. There still remains some 15 cm between the sandstone and the edge of the oval, where the subsoil reappears.

II The second quadrant excavated revealed a similar fill, bounded by stone. One or two outlying blocks of sandstone were carefully removed revealing the same uniform charcoal layer underneath, indicating that the blocks must have fallen in on the hearth, subsequently this removal of the sandstone revealed a gap in the north end of the hearth. At present, it is uncertain whether the charcoal layer, in fact, ~~is~~ continues under the boundary ring of sandstone. 200 m^3 of slag was removed amongst the fill which was of the same character as in quadrant I.

III The third quadrant was of a similar nature, but with about 400 m^3 of slag. The same boundary of ~~stone~~ & slag blocks was revealed and the same uniform charcoal layer above the clay subsoil.

IV

The fourth quadrant ~~was~~ was filled with the same material though the volume of slag removed was much greater (approx ¹²⁷⁸⁸⁰ 780 m³). In this quadrant the sandstone area around the edge was thicker and contained more red, burnt sandstone. Also present were several pieces of furnace lining, though not in situ. The same charcoal layer was present and a gap in the boundary ring coincided on the north side with that which appeared in quadrant II.

One small piece of roasted ore was found.

A further block of sandstone on the north side was carefully removed revealing the charcoal layer beneath it, as before.

Summary

The depression excavated (approx 15 cm deep) is clearly a hearth. There is a fair amount of burnt clay and sandstone, of an orange/red colour. However no grey, burnt material has been found which would indicate greater heating (over 1000°). The quantity of slag removed (nearly 1700 m³) would seem to indicate a melting hearth, as would the tuzene ~~put~~ plug and the furnace lining. The size of the depression is comparatively large compared with other excavated bloomeries (1.8 m x 1.8 m).

$$(* 27880 \text{ cm}^3 = 0.02788 \text{ m}^3)$$

[21.3.80 J.S.H.]

(6)

Smaythford IIMarch 1st & March 15th 1980

The slag & other material continued to be removed although problems with the drainage of the excavation were experienced. A seepage of water along the ~~top of~~ top soil / sub soil interface has had to be channelled along the side of the hole to an outlet by the stream.

The ^{top} soil is a dark chocolate brown at this site, in comparison to the lighter colour of the first site. At a depth of between 45 and 60 cm the top soil becomes impregnated with small pieces of charcoal. Lumps of slag of fist size are present, including furnace cinder. Also found, on the north side of the trench, was a lump of furnace lining (about 9 cm x 6 cm).

On March 1st a large mass of slag and cinder was uncovered at the south end of the excavation.

On March 15th the southern half of the trench was extended eastwards, exposing the mass of slag which was found to measure about 1 m x 75 cm. On closer examination the mass was found to be a closely packed mass and not conglomeration.

No attempt has been made to investigate this site further.

[23.3.80 J.S.H.]

Excavations at 'Walden', Hoplurst Hill, Crawley Down.

March 29th 1980

Smythford I

Attention was paid to the area immediately adjacent, on the east, to the hearth excavated ~~last week~~ on the 15th March. After the remaining topsoil was worked off with a shovel, it became evident that a second hearth was present. On the southern side, a ring of reddened clay around an area of charcoal impregnated soil had a similar appearance to the hearth previously excavated. A larger amount of cinder was still in situ. As the surrounding ring of reddened clay was incomplete, it was difficult to establish exactly the bounds of this hearth. However the cinder covered a large area.

To the east side of this hearth there appeared two curious arrangements of stone and a stopped or sloping ~~off~~ surface to the subsoil.

(In this first hearth was an amount of grey burnt sandstone which was not in evidence in the other hearth).

Smythford II

Excavation of this site continued in an attempt to establish any shape to the subsoil around the mass of slag discovered earlier. No regular pattern was identified. So it was decided to section the slag to discover what, if anything, lay beneath it. It then became apparent that this was, as originally suspected, a slag heap. The slag depth varied between 30 cm and 5 cm but there was no stratification and no uniform area of burnt material.

The heap was not large, but sloped northwards towards the stream.

(20.8.80 J.S.H.)

Excavations at "Walden", Hophurst Hill, Crawley Down.

April 19~~th~~ 1980

Smithford I

During the morning a trench was dug, westwards from the existing excavation, approximately 4m long, leaving a bank of about 30cm against the original hole. This was done to ascertain if there was any further structure below the soil in this area. It appeared that there was not. However, a sherd of pottery was located. In fact it was located very close to where the only other sherd was discovered, and about 3m west of the centre of the first hearth uncovered. The sherd was of a similar coarse, flint impregnated pottery. It was pinkish in colour on the outer edge, turning to ~~dark~~ grey on the inside. The piece represented a section of the bottom and one side of a vessel, the diameter of which would be in the order of 30 cm. There is some indication of a poor, dark green or black glaze on the side. It has been tentatively dated by C.F. Tebbutt ~~as~~ as being not earlier than c. 13th century AD, and probably from the early 14th century.

The second hearth was scraped and, together with the first hearth, was photographed. ~~It was then~~ It was then travelled to remove what earth it remained, revealing predominantly sandstone blocks. In the centre of the ~~depression~~ hearth was a depression with, on the east side, sandstone blocks with slag adhering to them. It was decided not to do anything more to this hearth until advice had been sought from an authority on the subject.

(9)

Smylethorpe II

Excavation having been completed on this site on the occasion of the last visit, it was backfilled

20.4.80 DH.

Excavations continued

May 24th 1980

The advice was sought of Henry Cleere F.S.A., an authority on early iron workings.

He examined the two hearths ~~remaining uncovered~~ and agreed that it seemed less than likely that the first hearth was for smelting, a fact evidenced by the general lack of high temperature burning. He thought that we ought to section the hearth and completely remove the western half to subsoil level, thus revealing the full extent of the hearth.

Regarding the second hearth, Mr Cleere suggested we completely remove the eastern section to sub-soil level. The fill, he showed, was a rubble mixture which needed removal, demonstrating and then revealing a short section of what he believed to be the fire wall of the hearth. It was of a smooth, grey consistency, indicating the high temperatures of a smelting hearth. He recommended sectioning to establish the contours of the hearth.

Mr Cleere further commented on the particular interest of this site as one of the few established medieval bloomery sites in the Weald; particularly in the context of the settlement site with which it seems to be connected.

24.5.80 DH

Post Script. 25.5.80.

Mr Cleve commented on the small quantity of slag we had found, which he thought indicated that the workings were of a domestic rather than an industrial nature, particularly as they could be associated with the Domestrey settlement of 'Wanlege'. Thus the workings would serve a community or group of communities and be operated intermittently according to specific demand.

He thought, further, that the type would probably conform to his classification B(ii), namely, a domed furnace, ~~to~~ blown by a forced draught, and having provision for the tapping of slag.

[In the connection of a community ironworks, see Brandon "Medieval Sussex" CBA Research Report No 29. p85 where he refers to a third "folk flow" of holders of small land from the mid-13th C, supplementing their income from the land, with (? seasonal) employment in local crafts - iron working could well be one of these local crafts.]

Excavations at "Waldea", Hophurst Hill, Crawley Down.

June 8th 1980

Following the advice of Henry Cleere, the two hearths were sectioned. The western hearth was worked down to the subsoil on the western side, the other hearth on the eastern half.

Hearth I (W)

All that remained before sectioning was an incomplete ring of sandstone surrounding a flat area of subsoil covered with a thin layer of charcoal dust. It was found that the charcoal layer continued beneath the sandstone. The latter was removed, together with a small quantity of soil impregnated with charcoal and small pieces of burnt clay and slag.

It was suggested that the sandstone had originally covered beyond the shallow depression, which at this stage was only about 6cm deep. Owing to the earlier destruction of the upper layers it is not known how deep this depression was.

If the original position of the sandstone was as suggested, they could have formed the basis for a low enclosing wall, which subsequently fell in.

The infilling, which earlier excavation revealed to be a random mixture of sandstone, burnt clay, slag, soil and charcoal, leads one to the conclusion that this hearth was for the reheating of the iron bloom. However, the uniform charcoal layer at the bottom of the depression could be accounted for by there being a charcoal burning hearth there prior to a hearth for another purpose.

Hearth II (E)

This hearth is an entirely different proposition. The short section of possible furnace wall provided the guide for the sectioning. The fill was a mixture of grey, burnt sandstone, red burnt clay and sandstone, soil, slag and glazed furnace lining. The grey burnt sandstone was mainly concentrated at the south end of the depression, near to the exposed furnace wall. The fragments of furnace lining were also predominantly at this end. These fragments were all ~~the~~ detached from their original location, lying in various positions, mainly with ^{the} glazed side facing downwards. At the southern end, there were several indications of furnace ~~through~~ wall, though the red sandstone continued to be ~~as~~ revealed with trowelling.

At the eastern and northern sides, the structure of what it must be concluded was a melting hearth was less clear. At the east there was a gap which may have been the "furnace arch", but evidence of the furnace wall at this point has yet to be found. Also on the north, no indication of a furnace wall has been found.

At a lower level, fragments of charcoal were found amongst the fill at that level, which was mainly red, burnt sandstone & clay. This intermittent banding of charcoal was mainly situated at the north end of the depression.

One substantial piece of furnace lining was uncovered in the SE, which was at first thought to be in situ but this was later disproved when it was found that at a deeper level ~~on~~ to the side, the infilling was still to be found. There is a possibility that this piece of lining is actually in situ, if it was a ~~the~~ ~~found~~ lining of the furnace.

Excavations at "Walden", Hoplurst Hill, Dawby Down.

October 12th 1980

Having lain unattended for over 3 months, some cleaning and tidying was, at first, necessary at the site.

The last occasion on which excavations took place was not recorded, so a summary follows:-

Hearth I

Following the sectioning of the hearth on the western side, a shallow trench (5cm) was dug at the northern end of the hearth in an attempt to detect any limit to the hearth on the north side. No boundary was so discovered.

Hearth II

Having sectioned this hearth and removed the eastern half, it was decided to remove the north western quarter, in an attempt to determine the nature of the northern half of the furnace. The infilling was removed and its contents of slag, burnt clay, earth, sandstone and charcoal fragments were noted as lacking the amounts of furnace lining present in the eastern half of the furnace and particularly in the southern quarter.

Today's excavation was concentrated principally on Hearth II.

The single remaining quadrant, in the south west, was cleared out after it was noted that the fill could be divided roughly into two layers; the top layer being

impregnated much more heavily with slag. The slag concerned was almost entirely of the sinder type, though there was some ~~pieces~~ pieces of a dripped type which were dotry to the touch.

At the bottom of the furnace ~~the~~ the subsoil of Tumbidge Wells ~~and~~ was reached below a charcoal layer and a layer of burnt, red and yellow clay which merged gradually into the general fill. The furnace wall on the south side continued to show a concave section though the walls lacked the clear line of smooth grey material in ~~evidence~~ evidence on the south east side of the furnace. It began to be possible to trace the base of the furnace and its conjunction with the sides.

The occurrence of the largest amount of the furnace lining in the south east quarter begs the question as to whether the fuyere of the furnace was at the opposite ~~side~~ side, namely in the north west. As yet only the tentative appearance of two sandstone blocks lends support to this theory.

12.10.50

Excavations at "Walden", Hophunt Hill, Crawley Down.

November 9th 1980

Hearth II

Work was concentrated on the north side of the hearth in an attempt to identify the form of this side of the structure. There appeared to be a slope from the NW corner, about 30 cm wide. The base was worked down to a mottled red and yellow clay similar in colour and texture to clay found in the lower layers of the fill in other parts of the hearth. Above this, the material removed was also similar to material removed earlier, namely a mixture of burnt clay, slag, cinder and sandstone. It was noticed that beneath the layer of mottled red and yellow clay there was a level of "charcoal", below which was the sandstone floor mottled red-brown and pale yellow. It has been suggested that the "charcoal", which in many instances was burnt wood, was evidence of an attempt to dry the freshly dug cavity prior to packing in a layer of clay upon which the heat would be applied. The uniformity of this layer immediately adjacent to the sandstone of the rock base seems to indicate early burning of the wood in the life of the hearth.

It was found that an area of yellow clay in the north east of the floor of the hearth was not resting upon the "charcoal" layer, and it appeared to rise above the general floor level. However this inference is supported by the appearance of material similar to the general fill of the hearth (burnt clay, sandstone & slag) outside this "lip" of clay and at a lower level. On the north west side the "charcoal" layer followed the general curve of the hollow which had been excavated. The small mass of clay and sandstone in the middle of the north side defies interpretation and advice will be sought.

A possible Conclusion from the excavation so far is of a bowl shaped non-tapping furnace, blown with bellows from the north east corner, and emptied by raking or some other means via the slope in the NW corner.

Hearth!

This was begun to be filled.

While the filling of hearth I was taking place and a search for pottery was continuing at the west end of the excavation, indications of a third hearth were revealed in the extreme SW corner of the excavation. No further investigation took place save to reveal a number of large sandstone blocks and a dark area surrounded by yellow clay. The only comment can be that if ~~if~~ this is a third hearth it is one most associated with the two sheds of pottery so far discovered.

9.11.80

Excavations at 'Walden', Hophurst Hill, Gantley Down.

December 7th 1900

Work during the morning was concentrated on the conservation of Hearth II prior to being left undisturbed for some time.

The method merits recording though it remains to be seen whether it will be successful. To preserve the excavated furnace hearth from damp and, more particularly, frost, the chamber was first lined with polythene. Into the chamber there was placed a number of polythene sacks full of straw to a sufficient number to cause a dome to rise above the general floor level. Then over all ~~were~~ placed a number of polythene sheets which were weighted down with earth and stones. A channel was ~~cut~~ cut down to the stream through one of the earth dumps surrounding the excavation, to allow water to run off.

In the afternoon and, indeed, during part of the morning, the further extent of the apparent third hearth indicated on the last outing, ~~an area~~ was investigated.

The excavation was extended westwards and then ~~westwards~~ southwards as the extent of the darkened area was revealed. The earlier expectation that the conjectured third hearth would conform to the ~~circular~~ oval ~~shape~~ ground plan of the two previously excavated hearths did not seem to be fulfilled, for the shape of the area of darkened soil with slag and reddened clay appeared elongated and rising at the southern end. The lack of an expected shape has led to the speculation that this might be a slag heap.

The site was left uncovered despite it being left for some weeks.

Excavations at "Walden", Hoplurst Hill, Crawley Down.

~~February~~ March 1st 1981

Dr A. J. Clark of the Historic Monuments Laboratory, Department of the Environment, visited the site and took ~~made~~ nineteen samples of the most heavily burnt clay from the south side of Hearth II, having established their level in relation to the horizontal, and ~~to~~ their magnetic orientation.

The purpose of this is to subject these samples to magnetometric analysis and to determine the approximate date of burning by comparison with an established graph of magnetic variation over the centuries.

In completing this task it has been necessary to destroy some of the wall of the hearth but enough remains to indicate the extent of the excavated area and also shows something of the depth of penetration of the burnt clay.

Excavations at "Walden" Hophurst Hill, Cranley Down

July 26th 1981

H.F. Cleere Esq., visited the site and made some comments on future work. Following the results of the archaeomagnetic dating, which revealed a date approximating to the fourth century AD ^{with} ~~with~~ ^{the} ~~possibility~~ of a first century date, Mr Cleere suggested that the excavated hearth ^{II} conformed to the pattern of the hearths excavated at Cow Park, Pippingford and Garden Hill, though it was rather larger and that suggested that attempts had been made to ~~enlarge~~ enlarge the hearth. The curve of the most significantly burnt area of the hearth wall appears to have a smaller radius than the general curve of the hearth wall, and if this smaller radius curve is ~~not~~ extrapolated ~~to~~ to form a smaller oval hearth shape, this shape might approximate to that characteristic of bloomeries of a similar type.

Mr Cleere was uncertain about the ~~final~~ jumble of stone & slag forming the north "wall" of the hearth, and recommended ~~digging~~ ^{digging} ~~borrowing~~ ^{borrowing} into it. The already apparently dismantled state of this hearth also led to the suggestion that the floor of the hearth had been higher than its excavated level although it had been clear when it was excavated that no such higher floor existed.

Mr Cleere suggested that the ~~the~~ fact that the hearth appeared larger than comparable hearths was because attempts had been made to enlarge it, but the lack of heavily fired hearth walls on all

but the south side indicated, ~~possibly~~ possibly, that enlargement was never completed ~~and~~ and the hearth used for some other purpose.

Regarding the area to the west & south west of the hearth I, beyond the infill, Mr Cleere suggested this area be properly excavated. Also he recommended that the area of ground to the south of hearth II be dug up to reveal any features beneath. The encirclement of the site by trees would prevent further excavation.

July 27th

Work was started on a small rectangular area of discolouration to the south west of hearth II. It proved to be a shallow depression of uneven depth slightly deeper on its northern side but with no apparent purpose. A thought that it might have been the site of some sort of animal cache discarded by the lack of anything which could be interpreted as hammer scale around it.

The portion of the hearth II in the middle of the north side was trowelled down and the pieces of stone removed to reveal an inconclusive surface of yellow clay. Apart from possible investigation of the sloping area in the NW of hearth II which appears to have been where material may have been removed from the hearth II, excavation of hearth II seems to be complete.

A brunt area to the west of hearth II was checked and removal of the infill revealed the eastern half of hearth I. ~~The~~ two black & white photographs were taken

July 28th

An area to the south and west was to be excavated next. It is L-shaped and preliminary trowelling revealed a broad area of dark, slag and charcoal impregnated, clay spreading in a SE-NW direction. In the SE corner, the dark area is interrupted by an oval patch of yellow clay impregnated with charcoal and surrounded on the north and east sides by an area of fragments of roasted ore.

The dark area continues in a north easterly direction to a ^{small} depression surrounded by burnt clay and sandstone of the typical grey colour, with associated slag, the depression having a floor of orange heated clay.

Along the south east side there are a number of fairly regularly spaced small blocks of sandstone the purpose of which is not yet established.

The existence of roasted ore leads to the tentative conclusion that in this vicinity was an ore roasting hearth. Further excavation may confirm this.

July 31st

The area excavated on July 28th was partially extended to the south, and the broad (65cm), dark area of charcoal & slag impregnated ^{soil} was seen to continue in a southerly direction. The row of sandstone blocks also continued on the east side of the excavated area.

The oval patch of yellow clay in the south east portion of the area excavated on July 28th was trowelled out and revealed no features save apparently random small blocks of sandstone. The dark area surrounding it and bordering it was seen in section to be no more than 4cm

deep on the west side. On the east side, where the edge of the depression was less clearly defined, the small particles of roasted ore stained the soil to a varying depth (on average about 3 cm). From the lack of any features in this depression, coupled with the scatter of roasted ore fragments, it could, conceivably, have ~~mark~~ marked the site of some sort of container into which was placed ~~ore~~ ore which had been roasted elsewhere, and was then carelessly delivered or falling around the sides of the hypothetical container.

At the north ~~east~~ end of the area excavated on July 28th, the small depression then described, with pieces of slag, grey & red bunt clay was further investigated and revealed that the various pieces of "furnace" material therein were deposited in a chaotic array with no apparent hearth structure yet discernable. Instead the bunt material appeared to face in all directions indicating that they may have fallen, collapsed or been discarded thus.

August 2nd

The excavation was extended further to the south and the dark area was seen to continue in a south-east direction, though the amount of chemical impregnating the soil ~~was~~ decreased to the south. In the south east corner the line of sandstone blocks intensified but no structure has been identified as yet. A section was trowelled on the west side to investigate the possibility of features beneath what had been judged to be the working floor level, but nothing was to be seen. ~~in the~~ In the south east corner, variously sized sandstone blocks appear to be arranged in a rough

~~see~~ are. beside one of these blocks was found a small sherd of reddish, coarse pottery. The sherd has the consistency of the two other sherds which have been found, though it is slightly more red and does not have the dark grey centre of the other two sherds.

To the south of Hearth II a further area was dug out but it has yet to be trowelled down to enough to reveal any significant features.

● August 4th

The southern extension to the area of Hearth II was trowelled down and the bank removed to reveal an irregular line of small pieces of sandstone and, at the eastern end several substantial pieces of slag. From this it was concluded that the earlier made work for this extension, before the removal of the bank, may have been over zealous and descended below the working level. However, no material was removed what digging took place to indicate any significant features.

● To the south west of the site, the southern extent of the excavation was further extended to the west revealing no features save a small hole in the subsoil wherein were found ~~so~~ the remains of several acorns. From their position some 50 cm below the present surface, it was concluded that there may be contemporaneous with the working date for the site and efforts will be made to explore means for establishing a date for these seeds.

Finally, a section 50 cm wide, across the dark "path" line, was trowelled down to explore any features which might be revealed. The dark area was found to be confined to a

narrower one; the remainder of the apparently dark area being seen to be little more than surface staining which might be the result of a general scatter of ~~of~~ furnace refuse over the working floor. Much of the staining was of a pinkish hue caused either by roasted ore or by red burnt clay.

Excavations at 'Walden', Hoplurst Hill, Crawley Down

May 30th 1982 (and May 16th)

A further section at the south side of the excavation was uncovered to explore any southern continuation of the band of small pieces of slag and charcoal and roasted ore staining which was found to run north-south. An area ~~about~~, L-shaped, about 1 m by 2.3 m by 2.1 m. □

Excavation revealed the expected continuation of the coloured area in a southeasterly direction, widening as it went. An apparent line of sandstone blocks, of irregular size and shape, in a broad row across the coloured area, was discovered to be largely superficial.

The indications were that the coloured area was also a largely superficial feature; probably the staining caused by furnace material being trodden into a pathway. However tentative sectioning of a small part of the coloured area revealed an unexpectedly dense content and depth of furnace material beneath the coloured area. Further inspection was postponed until a further opportunity.

June 5th 1982

Following the indications of the small section inspected on May 30th, a further six shallow sections were dug at approx 28 cm intervals ~~along~~ across the dark coloured area. Each section was approximately 28 cm (two spade widths) wide. The sections were dug to an average depth of 10 cm and all revealed a greater concentration and density of the dark material. In section E (see plan for June 5th) a piece of charcoal was removed from beneath a piece of slag, and subsequently retained for possible C14 analysis.

From the indications of the sections being excavated it was clear that the dark coloured area was of a greater

depth than hitherto ~~con~~ imagined. It was decided therefore to dig down into section C (see plan) to remove all the dark material and trowel back to the subsoil. Within the limits of the section, a depression ^{60 cm. wide}, 40 cm ^{deep} below the working surface and approx 81 cm below present ground level was revealed. The depression had a number of substantial sandstone blocks which appear to have fallen in or been present at the time the depression became filled with a varied mixture of ^{sandstone} clay, burnt clay & sand (coloured orange & grey), slag and small pieces of charcoal. A further sample of charcoal was removed from this section for possible C14 analysis.

The indications are that the dark coloured area first revealed in 1981 is, in fact, a ditch which has been filled with the mixture of furnace refuse described above. The purpose of this apparent ditch is not clear yet.

Excavations at 'Walden', Hoplumst Hill, Crawley Down, Ex.
July 10th 1982

During the preceding week or two the site was visited by Mr & Mrs C.F. Tebbutt and by Messrs. James Money, Anthony Meehan and Andrew Webster; the latter being the Directors and Assistant Director, respectively, of the excavation at Garden Hill, on Ashdown Forest.

The discussion with these people concerned, principally, the smelting hearth, and the ditch or gully recently examined.

With regard to the smelting hearth, Mr Money suggested that the area immediately to the north of the hearth be investigated as some largeish stones on the edge of the hearth suggested a similar feature to that noted at Mr Money's excavation at Linsepit Wood in the late 1960's. In that hearth the pit was much more shallow. On an earlier visit Mr Henry Cleare had suggested that the hearth at this site ~~was~~ had been a shaft furnace though this seems less probable.

The other hearth was discussed and no definite conclusion was reached save that it was unusually large for a forging hearth.

With regard to the ditch or gully, further excavation or sections was advised. It was suggested that this might be a drainage feature and that this might be confirmed by examination of the slope above the stream bank in line with a northward extrapolation of the ditch. Whether the ditch was an earlier, contemporary, or later feature than the smelting hearth was also considered and it was suggested that an attempt be made to trace the natural level across the site. This, it was

pointed out, would be difficult owing to the similarity of the colour and texture of the apparent working floor and of the material covering it.

Excavations continued on July 10th with the investigation of three sections at right angles to the line of the 'ditch'. The section excavated on June 5th (Section C) was enlarged to cut at right angles. In each, a similar type of material was encountered, namely charcoal, slag, cinder, furnace lining, burnt clay (red & grey) and burnt sandstone, and a few small fragments of roasted ore. All was mixed in a mixture akin to top soil.

In the middle section, which lies next to an area already examined, and which appeared to be the 'shadow' of some container for sieving roasted ore into, the scattering of roasted ore was further observed, overlying the contents of the ditch, which seems to indicate that ore washing and, consequently, smelting continued after the ditch had fallen out of use and had been filled with furnace refuse.

As suggested by Mr. Money, ~~the~~ a section to the north of the smelting hearth was cleared and examined. Initially, some top slag, larger pieces of roasted ore, and sandstone blocks were discovered though it was not felt that the working floor had been reached. The ~~material~~ parent material removed was of a lighter, more uniform texture than in the 'ditch' area.

The similar nature of the contents of the ditch and of both the hearths, notwithstanding the large fragments of furnace lining in the smelting hearth, suggest that this refuse is from a different furnace, and that the two hearths and the ditch were out of use during smelting operations elsewhere in the vicinity.

Excavations at 'Walden', Hophurst Hill, Crawley Down

August 8th 1982

Three sections in the gully feature were excavated completely and some uniformity was revealed.

Of the filling, the only point of similarity between the three sections excavated seemed to be that the lower part of the fill generally contained a lighter type of material, in colour; mainly burnt clay. The upper part contained a greater proportion of slag in a charcoal impregnated soil. The base of each section in turn indicated a general slope down towards the north. The most northerly section was continued, travelling down to the subsoil. It gradually became shallower, opening out into a shallow bowl shape, though continuing. In the bowl area, there was some evidence of burning, though this may be accounted for by the depositing there of hot furnace material, for, of the pieces of sandstone around the 'bowl', only one had the appearance of being burnt to grey heat and that may have been deposited with the rest of the fill. The fill here is also less dark having very little charcoal in it, ~~only~~ mainly burnt clay and some slag.

Of the other ~~at~~ two sections, the middle one produced a deep 'U' shape with a lens of subsoil near the bottom overlying a further quantity of the fill. This lens would appear to be a section of the gully side which collapsed during filling. In the most southerly of the three sections, there are a number of large pieces of sandstone which cannot, as yet be accounted for. The furnace material filling the gully is darkest and contains the most slag and furnace lining in the area of the middle section.

Further examination was made of the ~~section~~ ^{area} to the north of the smelting hearth, but has, as yet revealed nothing.

MEDIEVAL AND LATER POTTERY IN S.E. ENGLAND: Informal report			Site no.
Site name/location Smythford Bloomeny		Parish/Borough Crawley Down	
County East Sussex	N.G.R. / /	File ref.	

Fabric (for information only)

Red ~~or~~ red-brown core & surfaces; sometimes reduced. Hard harsh texture; rough fracture. Abundant medium and moderate coarse sand temper.

Medieval pottery from Smythford Bloomeny

Three probable medieval body sherds, including one base fragment, were submitted for examination.

The sand temper which includes coarse colourless grains is typical of medieval fabrics found in the northern part of the Weald. Examples of this type have been noted in the Hatfield area, and similar sands occur in medieval pottery from Rergate and among wasters from the neighbouring kiln at Earlswood. It is impossible to judge from such a small sample, however, whether or not these are products of that kiln.

In the absence of rim sherds, dating must remain tentative. The slightly sagging base of the cooking pot would be consistent with a thirteenth- / fourteenth-century date, but not

view of the coarse fabric the material may belong to the earlier thirteenth century.

Discovery of these sherds on a Roman site draws attention to the problems of dating Wealden bloomery sites from surface finds alone. In this case, there is no proof that the sherds are associated with a medieval ironworking site.

Anthony Streeken

October 1983

A. J. CLARK, PH.D. FSA
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21 February 1984

Dear Jeremy,

All remeasurements and calculations have now been done on Smytheford. The final result has come out at AD 70+/-20, at the 68% confidence level.

As I have said, this set of measurements was quite a saga, and I have a full report half written, but I thought you should have the actual result without more ado; indeed, you may not want the full analysis for your publication, and it should perhaps appear somewhere more technical. Please let me know.

The result conjures up comparisons with Pippingford. Could the hearths on that site have had similar superstructures, lost because of its flatness?

I must soon contact Fred Tebbutt, because I have things to do for him that are long overdue. It is difficult to fulfil the great need for this work. I shall certainly set up a magnetic dating service when I retire in 6 years' time, but who wants to wait that long? I shudder to think that you waited half that time, but at least we spent a fair bit of it on development work. Let us hope that the new Historic Buildings and Monuments Commission that we become on 1 April will have a better sense of priorities than the Civil Service: there are faint signs that it will.

With all best wishes.

Tony

SMYTHFORD ROMANO-BRITISH IRONWORKING SITE, Crawley Down, Worth, Sussex.

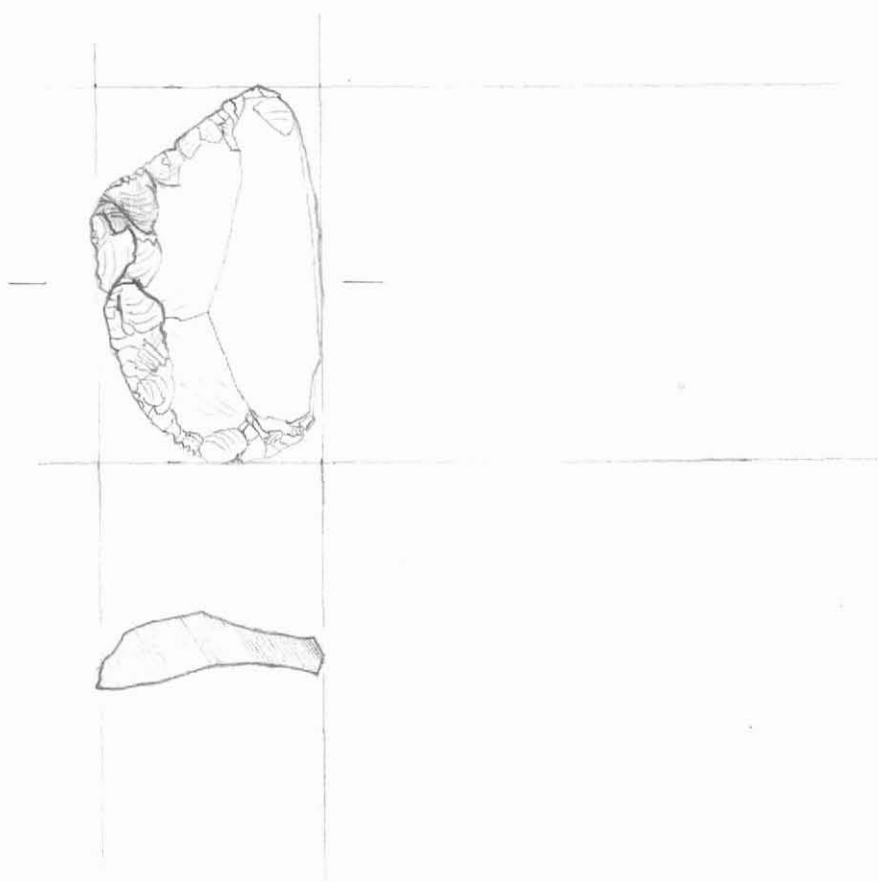
Report on Flint artefact

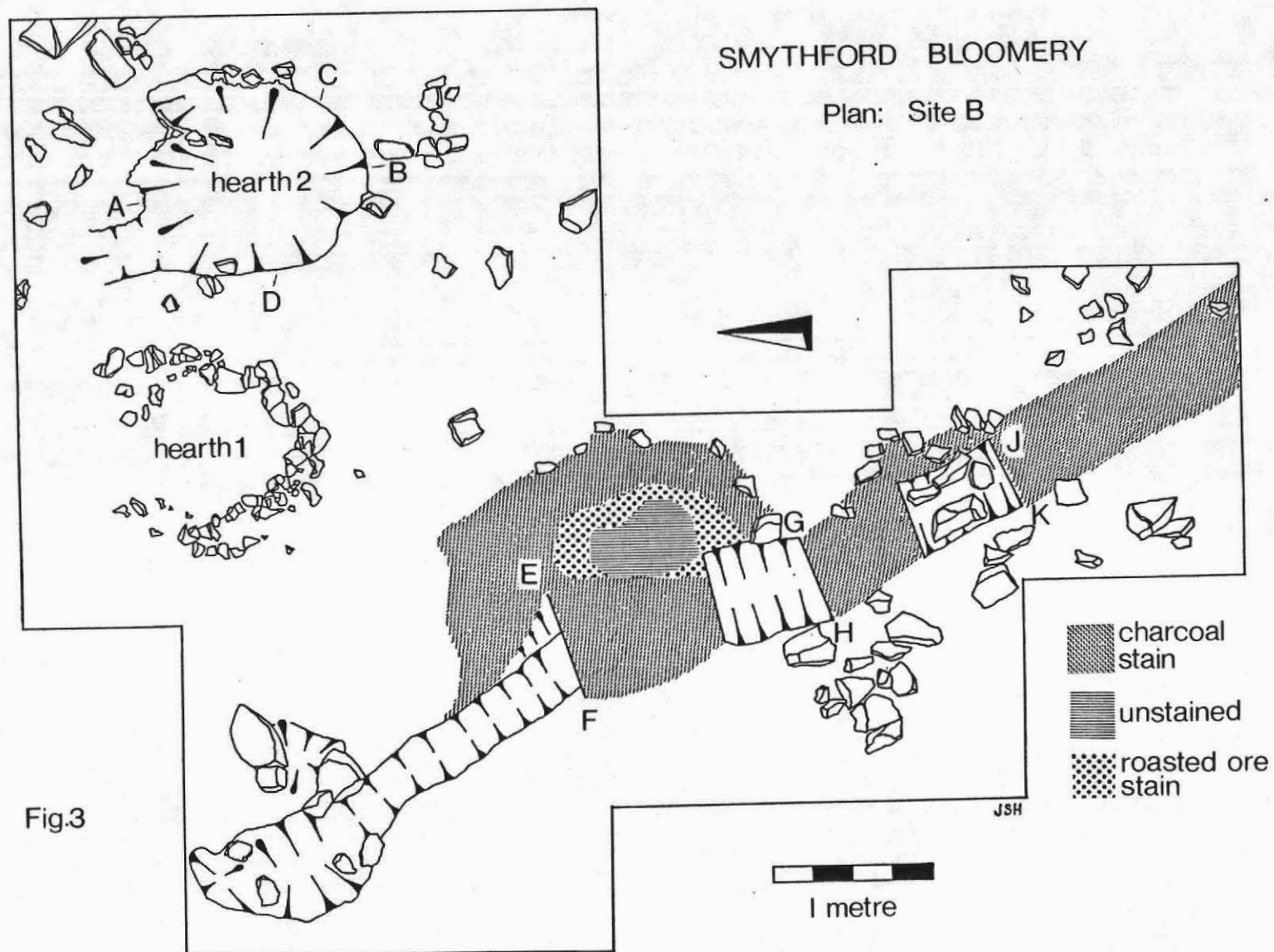
Scraper type:

Not possible to date with any accuracy but the fine quality ripple flaking might suggest a Neolithic or early-Bronze Age date.

A.G.Woodcock, M.A., B.Sc., Ph.D., A.M.A.

(pers. comm.)





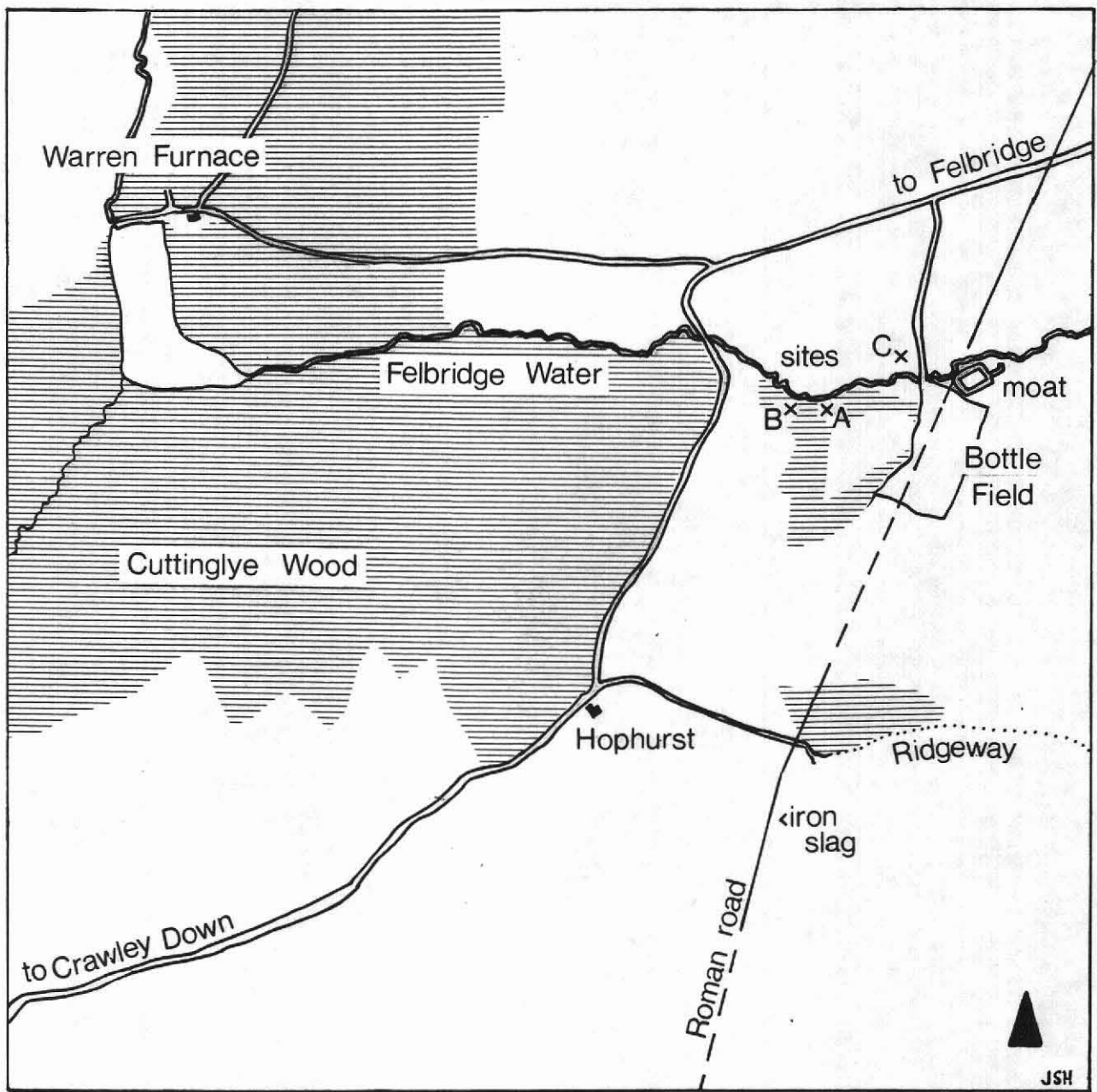


Fig.1

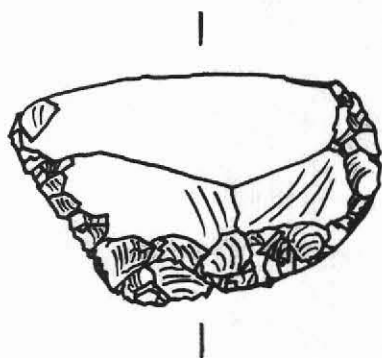


Fig.2

1 cm