EXCAVATIONS AT SUTTON WALLS, HEREFORDSHIRE, 1948–1951

By KATHLEEN M. KENYON

The excavations at Sutton Walls were undertaken on behalf of the Ancient Monuments Department of the Ministry of Works. The Iron Age camp, which is a scheduled Ancient Monument, crowns a low hill which is a valuable source of gravel. Large scale quarrying started in 1935. There is little doubt, however, that the hollow called the King's Cellar, marked as an antiquity on the Ordnance Survey, is an ancient quarry, a fact remarked upon by the modern quarrymen. During the war, quarrying was greatly accelerated, for the gravel was needed for various wartime constructional purposes, and has continued ever since. As a result, the western half of the hill is a shell only. The Ministry of Works has now prevented quarrying from extending to the eastern half of the hill, and from cutting through the ramparts in the western half, but almost the whole of the interior of this end has been removed to a depth of about 20 ft. below the original crest of the hill, where the gravel rests on the underlying clay. (See Pl. I for section, and Pl. IIIA.)

Local archaeologists have done their best to salvage archaeological material from the quarrying operations. The lead was taken by the late Mr. George Marshall, F.S.A., who most generously placed all his material and his copious notes at my disposal shortly before his death. His work was continued in particular by Mr. F. C. Morgan, F.S.A., and Miss M. Wight, who guided the activities of a number of others. Their work was invaluable, for the material collected brought to the notice of archaeologists the importance of the site. As a result, the Ministry of Works attempted to carry out rescue excavations during the war, but nothing could be accomplished owing to shortage of labour. In 1947 the Council for British Archaeology drew the attention of the Ministry to the matter again, and as a result the excavations here reported upon were undertaken.

Digging was spread over four seasons, with an average of four weeks work each year. Over this period, a large number of volunteer workers took part, both local and from a distance. Much of the excavation required meticulous clearance of complicated levels, and all of this was carried out by volunteers. Since the list of helpers is too long to be given *in extenso*, it would be invidious to mention any names, but without these volunteers the work could not have been carried out, for the paid labour obtainable was neither of the quality nor the quantity to make it possible. Mr. Morgan and Miss Wight must, however, be mentioned, for not only did they take unflagging interest in the work, but between them were responsible for the photography. Mr. John Gwynne, the owner of the site, most kindly gave permission for the excavation to be carried out, and his steadily-increasing interest in the results was a great encouragement to the excavators. To him we would all wish to record our thanks. Finally, I must thank Mr. B. H. St. J. O'Neil, F.S.A., Chief Inspector of

Ancient Monuments in the Ministry of Works for asking me to undertake the excavation of an exceedingly interesting site, and Mr. G. C. Dunning, F S.A., Inspector in charge of Excavations, for constant help.

The Site

The ramparts of the Iron Age camp completely encircle the crest of a long, narrow mound of glacial gravel,[1] rising steeply above the flood plain of the River Lugg, here about 200 ft. O.D., to a height of about 330 ft. O.D. (fig. 1). The crest of the mound is 2,540 ft. from east to west, and its average width is 500 ft., the area enclosed by the ramparts being 28.842 acres. The modern contours of the summit of the hill are

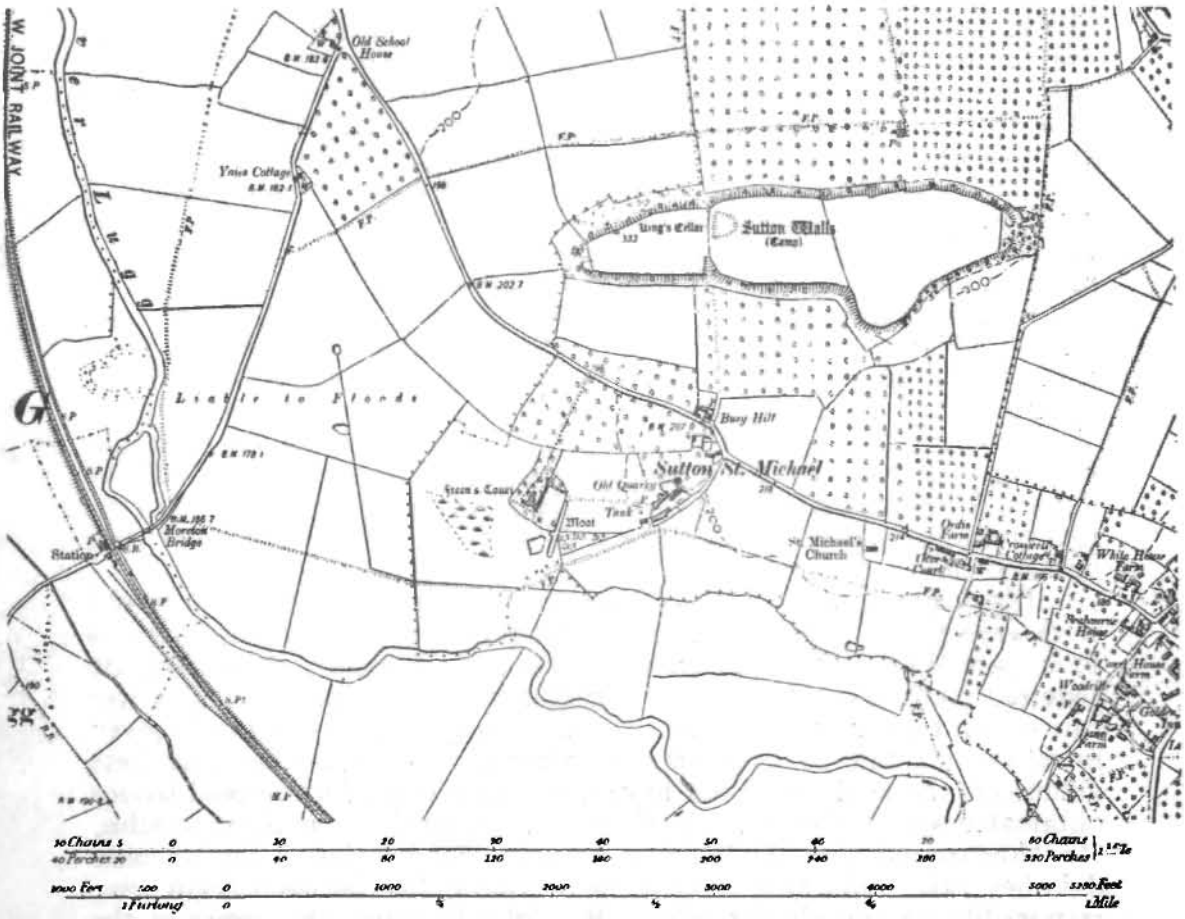
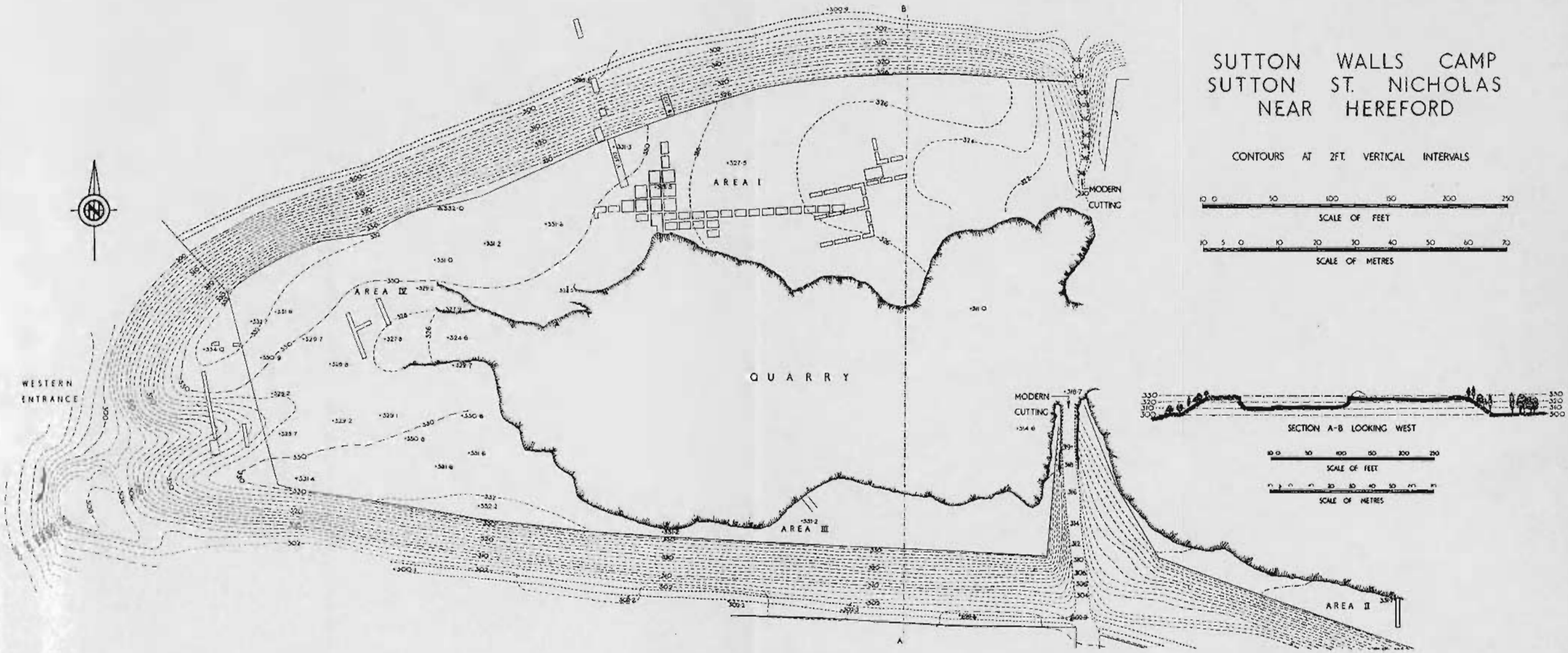


Fig. 1 Plan of Sutton Walls, reproduced from O.S. 6 in. map, Sheets XXVI SE. and XXVII SW. Herefordshire (Reproduced from Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved)

[1] See Appendix I for report on Geology.


SUTTON WALLS CAMP
SUTTON ST. NICHOLAS
NEAR HEREFORD
CONTOURS AT 2FT. VERTICAL INTERVALS
SCALE OF FEET
SCALE OF METRES
SECTION A-B LOOKING WEST
SCALE OF FEET
SCALE OF METRES
WESTERN ENTRANCE
QUARRY
AREA I
AREA II
AREA III
AREA IV
MODERN CUTTING
MODERN CUTTING
A
B

those of a nearly flat plateau, with sides sloping steeply to flat terraces at about the 300 ft. contour (see section Pl. I). Originally, however, the hill was of hog's back outline, sloping gently at first and then steeply from a central spine. Where the slope started to become steep, the Iron Age camp builders placed their ramparts, between the crest of which and the crest of the hill there being originally a shallow trough. As a result of agricultural operations, starting in the late Roman period, and denudation, the crest of the ramparts has been gradually levelled, and the trough filled in, leaving now only an almost imperceptible hollow at the west end, though at the extreme east end the ramparts still rise slightly above the interior level. Similarly, the ditch which originally encircled the steep base of the hill, where the slope becomes more gentle, has become filled in until it is now only represented by the terrace shown on the section, Pl. I.

Geographically, the importance of the site lies in its command of the valley of the Lugg, shown by Miss L. Chitty[1] to form part of the route leading up from the Bristol Channel via the River Wye and on by the valley of the Teme and Clun to the Shropshire uplands and the Welsh Marches, a route important at many periods. To the west, the site looks out towards the Black Mountains, while to the east, the Malverns are visible on the horizon. The camp thus lies almost at the junction of the Lowland and Highland zones of the Midlands. The implications of this position are discussed below (p. 27ff).

Historical Summary

Phase A. The earliest phase in the occupation precedes the erection of the ramparts, though it is possible that there was a timber palisade associated with this period. The occupants belonged to a group of Iron Age B peoples which is found also in Cornwall and the Western Cotswolds. The pottery characteristic of this group is decorated with stamped impressions, some of them in the form of a row of ducks. The distribution of this type of pottery suggests that the users penetrated from Cornwall up the Bristol Channel and the Severn and Wye Valleys. The name of Bristol Channel B is suggested for the group. Pottery similarly decorated has been found in Brittany and the Iberian Peninsula. These people probably arrived in Britain in the middle of the 1st century B.C., having emigrated from the continent as a result of Roman expansion in Gaul.

Phase B is marked by the construction of the ramparts which enclose the 29 acres of the summit. The ramparts were placed on the lip of the steep slope of the hill, and the material for them was obtained in part from the ditch cut in the clay at the foot of the slope, and in part from gravel obtained from wide scoops at the rear of the ramparts. In these scoops huts were built, and in them there was a considerable accumulation of occupation debris.

[1] *Arch. Camb.*, xcii.

In PHASE C the ramparts were raised in height, and the revetment at the west entrance was probably in part rebuilt. The level of the floors of the huts in the scoops at the rear of the ramparts was raised with a thick fill of clay and gravel, and the huts were apparently rebuilt on approximately the same plan. A sherd of Belgic pottery in the rampart make-up suggests that this phase is to be dated about A.D. 25. The huts were rebuilt at least once within this main phase.

PHASE D is marked by the extension of Roman power to the district. In the face of the threat of the Roman advance, the ditch at the west entrance was hurriedly recut. Before any silt had accumulated in the recut ditch, a large number of bodies, some decapitated and others with evidence of wounds, were thrown into the ditch and covered with a thin layer of soil. These were presumably the native defenders of the site. At the same time, the ramparts at the entrance were either slighted or the revetments were allowed to fall rapidly into decay. Occupation, however, continued in the interior of the camp. Two successive layers of huts in the pits are of the same character as the preceding ones, but the deposits contain a little Roman pottery, not closely datable. The occupation material above the highest of these shows an increasing preponderance of Roman wares.

PHASE E. At about the end of the 2nd century A.D., a hut of a more solid character, with stone-paved floor, succeeds the native-type wattle-and-daub hut with earth floor, which had lasted till then. A stone-built corn-drying oven may be contemporary, or may be somewhat earlier. The occupation levels above these structures show that Roman types of pottery had by this date completely superseded the native types, though some of the Roman forms are clearly of native manufacture, in ware closely resembling the Iron Age pottery.

In PHASE F, the site was no longer a village, but was turned over to agriculture. This phase lasted until well into the 4th century A.D.

There are no traces on the site of Dark Age or Saxon occupation, in spite of the legend connecting the site with the murder of Ethelbert by Offa.

THE DEFENCES

The defences consist of a single rampart and ditch, with an entrance at each end of the long axis. The excavation of the defences was of limited scope, for the dig was sponsored by the Ministry of Works as a rescue operation for the area being destroyed by quarrying, and the defences are not immediately threatened. Only enough was therefore done to elucidate the main structural and historical problems. Moreover, except at the entrances, the slope of the ramparts is heavily wooded, and it was impossible anywhere to get a continuous section through the outer face with the resources available.

A. Sutton Walls from the air, from SE (*Photo G. C. Dunning*)

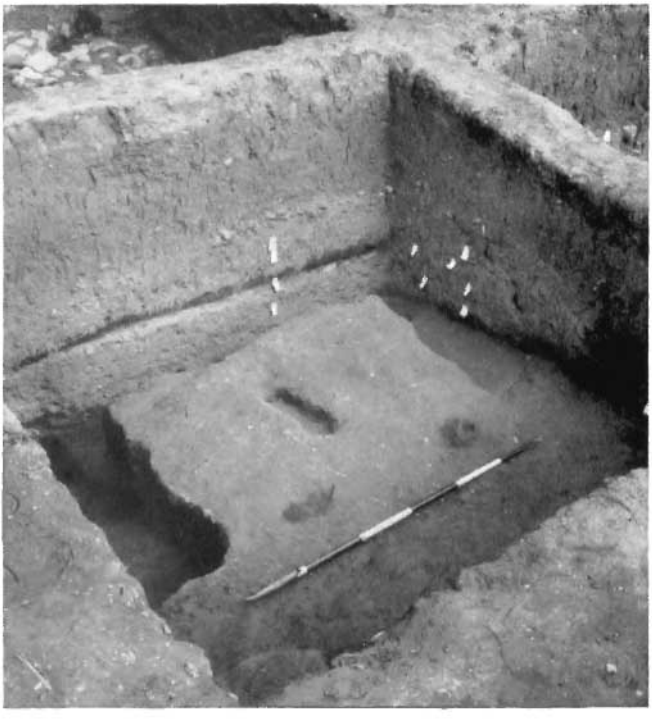
B. N. Rampart, immediately E. of W. Entrance, looking E.

PLATE IV

A. W. Entrance from SW.

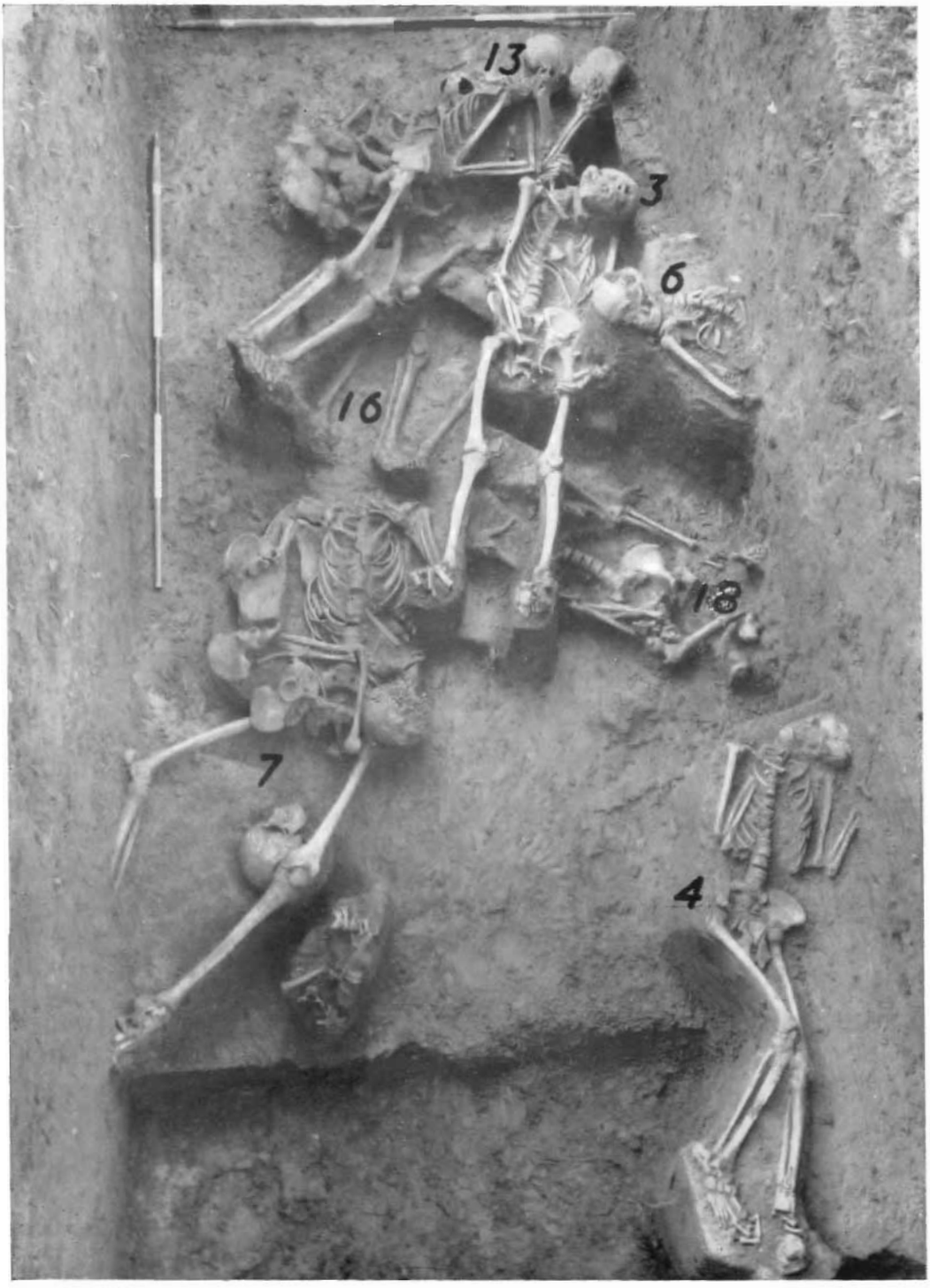
B. View looking W. from W. Entrance

A. Trench X, cut through ditch immediately adjoining W. Entrance, looking NW.



B. Area I, Pit 1, square AA, post-holes in surface of Period II fill

PLATE V



W. Entrance. Trench X, pile of skeletons, from E.

a. West Entrance

Of the entrances, the western one was alone examined (fig. 2). The eastern appears to be similar in plan, except that the entrance way is wider. The west entrance presents a most impressive appearance (Pl. IV). The ramparts to-day rise to a considerable height above a central passage

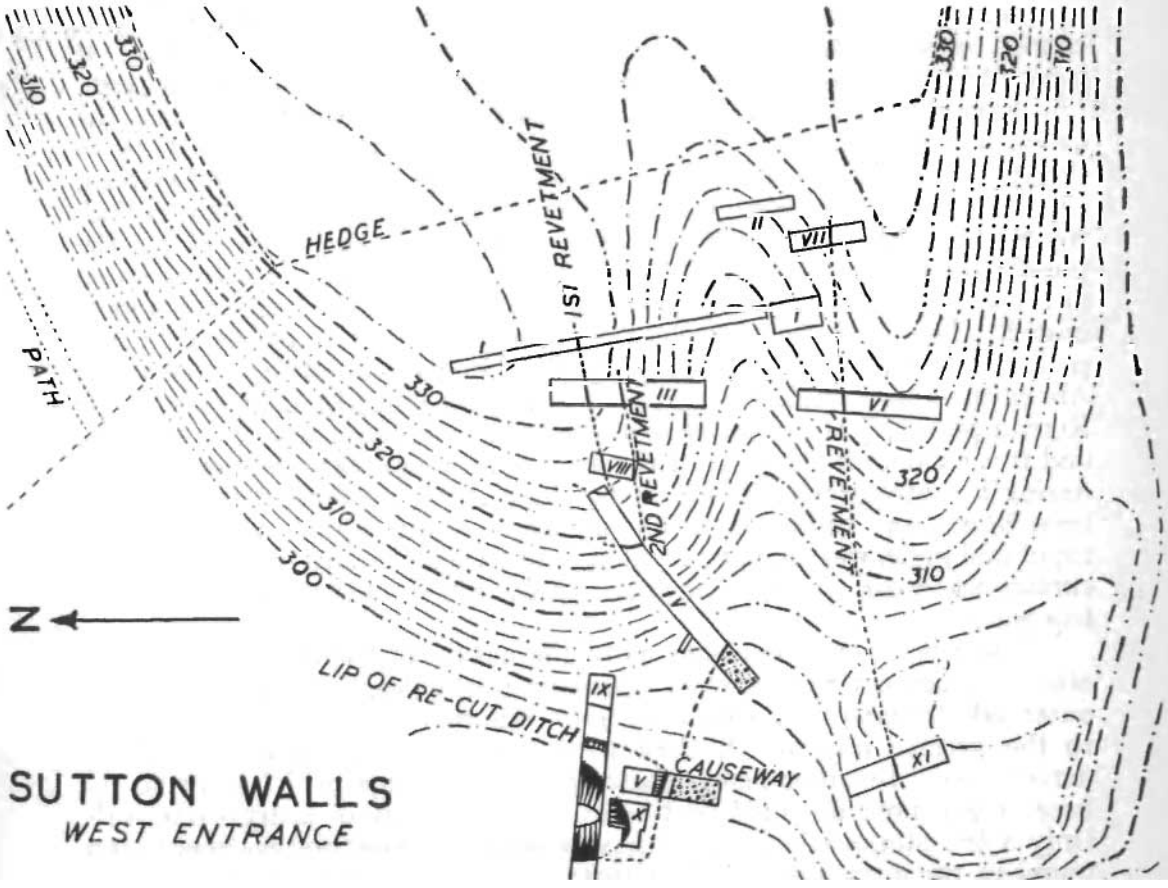


Fig. 2. Plan of W. Entrance

way, giving the impression of out-turned ends to flank the roadway. This impression is slightly misleading. The ramparts in fact maintain their usual position, slightly forward on the slope of the natural hill, and the crests have, again as usual, been flattened backwards. Between them, as will be seen, wear has eaten a hollow-way well back into the original nose of the mound. The modern contours of the two ramparts end on the same line, and beyond the end of the southern is a separate mound. It is, however, clear that the original southern rampart was carried some 90 ft. in advance of the northern, and that the present separation of the extremity is due to the cut-through of a modern path.

Excavation showed that the faces of the ramparts towards the entrance way had vertical revetments (sections, Pl. II). The base of the revetment is now well above the level of the hollow-way in between. The hollow-way, however, was caused by wear during the Roman period, when the defences were presumably dismantled, as is proved by the position of Roman sherds. The revetments could in fact not have stood in connection with the lowest existing surface, for their bases are undermined. The wear thus completely removed the surface of the Iron Age period, to as much as 12 ft. below the level of the base of the revetments. Above the lowest surface are traces of an upper one, also belonging to the Roman period. The revetment of the north rampart shows two periods, and it is clear that the wear of the surface between the revetments began during the prehistoric period, for the base of the revetment had already been worn away before the secondary material was added in front. This rapid and great wear is not surprising, for as soon as any turf or prepared surface was worn through the gravel of the hill would tend to run almost like water.

There is no clear evidence as to the nature of the revetment in this area. In some trenches were traces of post-holes, too shallow on the outer side to have held a post securely, but this again was no doubt due to the surface into which they were driven having been lowered by denudation. In other places there was only a ledge, which may be the base of yet more denuded post-holes, or the seating of a dry-stone wall. Only a few stones which might have collapsed from the revetment were found in the entrance area, but stones were certainly used elsewhere in the facing of the ramparts.

The distance between the original revetments was 66 ft. This of course would make an exceedingly wide entrance. It may be that this was to facilitate the driving-in of cattle, and that it was blocked in times of danger, but it is more probable that originally there was a central feature, dividing the area into a double roadway, as is the case for instance at Maiden Castle, which has disappeared with wear, very likely after slighting at the beginning of the Roman period. No evidence survives, however, of this or any other structural features such as the gateway.

The turn of the revetment to form the outer face of the rampart was traced at the nose of the northern rampart (section Trench IV, fig. 3) but

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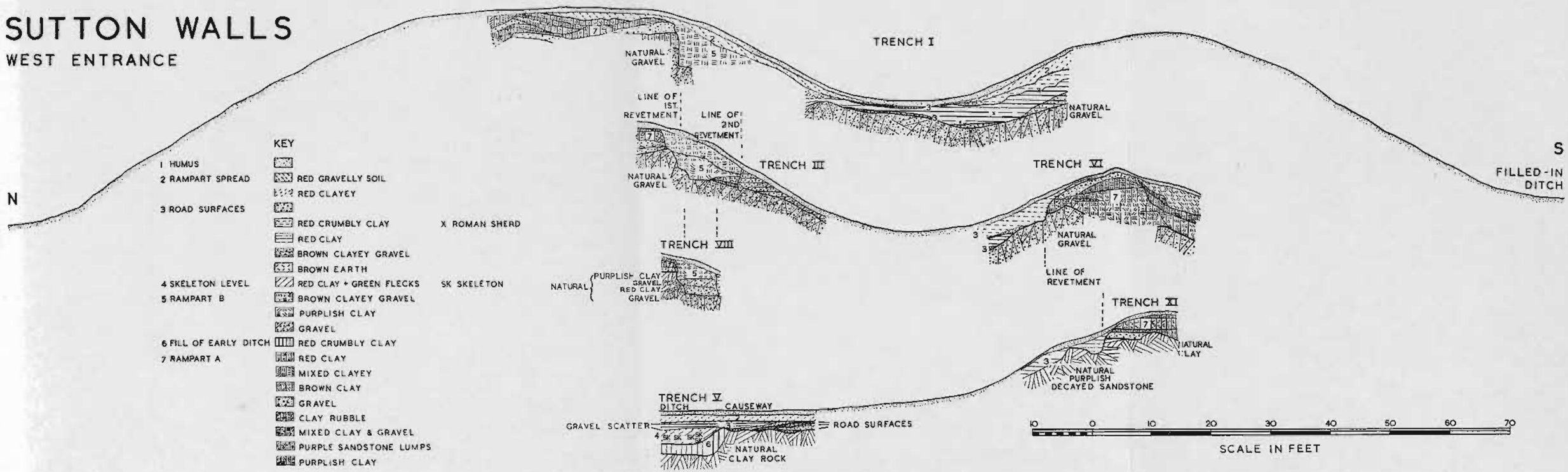
SUTTON WALLS

WEST ENTRANCE



not on the south side, where it ran into an adjoining field. From the foot of the revetment, the natural surface slopes steeply down to the ditch. The lip of the ditch against the causeway was located, but not completely cleared. The cutting of the ditch showed two distinct periods (section Trench IX, fig. 3, and Trench V, Pl. II). The original ditch had a sharply V-cut bottom, which on its outer side sloped up to the ground surface, and on the inner side was continued by a more gradual slope to a berm, which was no doubt cut into the natural slope of the hill to accentuate its slope. Against the causeway, the bottom of the ditch slopes up steeply, but this steep slope is separated from the causeway by a flat ledge, from which there is another steep slope up to the causeway. The nose of the ditch against the causeway appeared to be square.

The bottom of the ditch was filled with hard light brown soil, no doubt representing the rapid silt. Above this was a fill of slabs of stone, undoubtedly derived from the collapse of the rampart on the slopes above. This stage therefore may represent the decay of the original defences. Above is some more silt material and then a layer of the clayey chocolate coloured soil which represents the wash-down of the red clay which forms an important part of the sub-soil of the hill. In this there were some stones, which may possibly relate this fall to the collapse of the secondary revetment, but this is not certain.

Into this layer was cut the secondary ditch. This was a shallow, flat-bottomed affair (section Trench IX, fig. 3, and Trench V, Pl. II) and would not appear to be a formidable obstacle, except that the inner slope against the rampart is slippery and difficult to climb. It may have been a hurriedly executed refurbishing of the defences, possibly unfinished, for the bottom, though level, is ill-defined, or it may be the introduction of the new type of wide, flat-bottomed ditch identified by Mr. J. B. Ward-Perkins[1] as the work of the Belgae in about A.D. 43. In the last stages of the pre-Roman existence of Sutton Walls Camp, Belgic contacts are attested, so the connection is not impossible. The new ditch may exist only near the entrance, for there was no evidence for it at the only other place in which the ditch was excavated, 450 ft. further east.

This recutting of the ditch belongs to the last stage in the history of the camp before a great disaster, and almost certainly to its last stage as a fortified site. Immediately overlying the bottom of the recut ditch was a remarkable conglomeration of human skeletons (Pls. VI–IX). There is not the slightest trace of silting before the first skeletons were thrown in so there can have been no appreciable period of time between the cutting of the ditch and the deposit of the bodies. Some rest on the base of the ditch, while a few are in shallow troughs, which may have been dug as graves, or may be the interrupted beginnings of a deepening of the ditch. The skeletons are at all angles and in all positions, obviously thrown in haphazard. Some lie singly, some in a veritable pile (Pl. VI and fig. 5). At

[1] Excavation in the Iron Age hill-fort of Oldbury, near Ightham, Kent, *Archaeologia*, xc, 139–141.

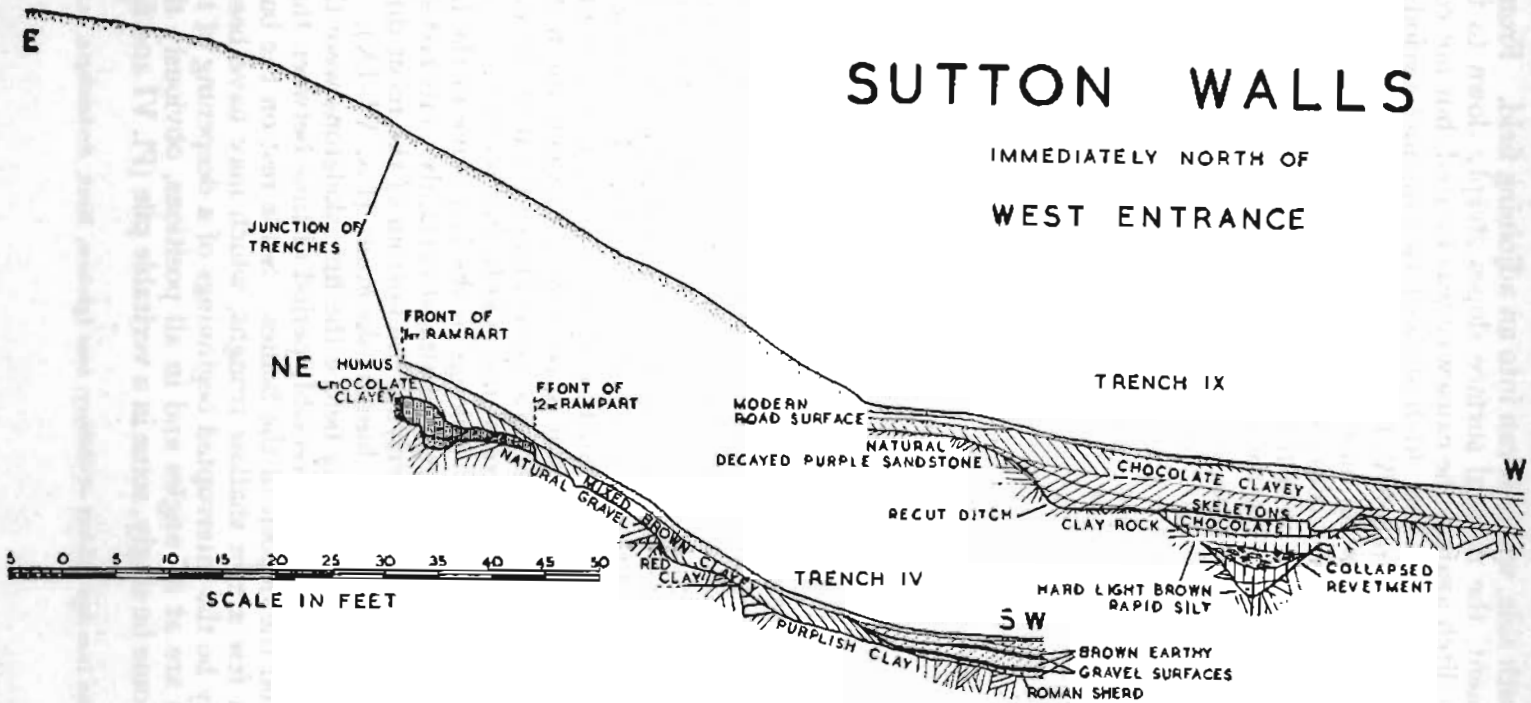


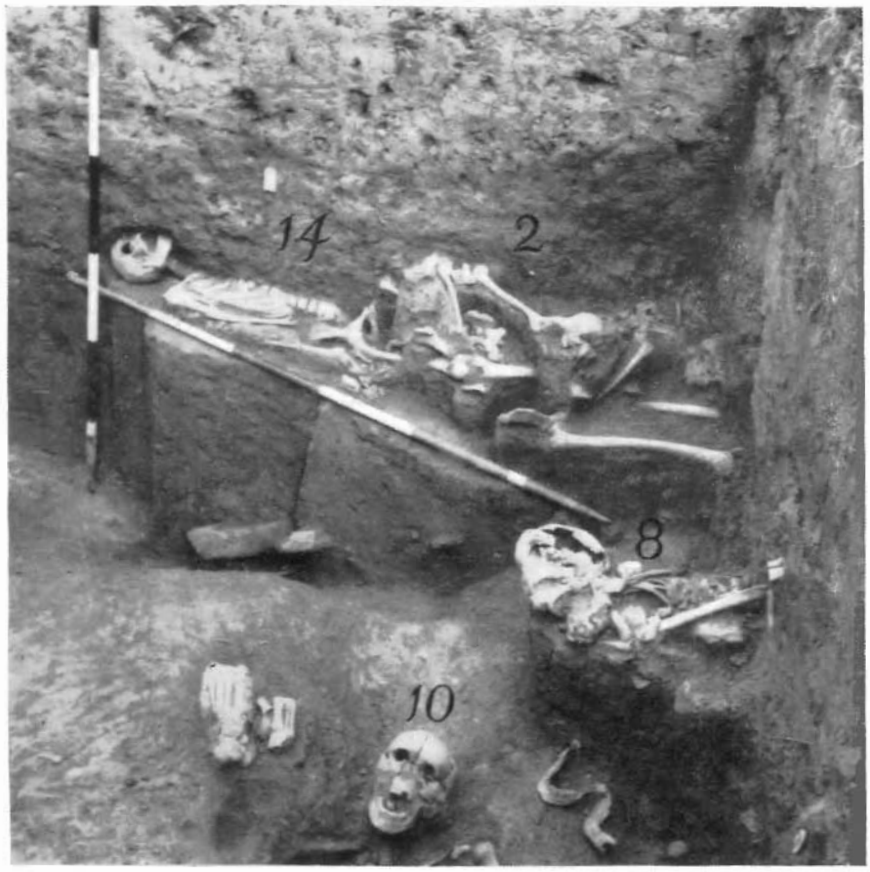
Fig. 3. Sections of Ramparts immediately N. of W. Entrance

A. W. Entrance. Trench X, skeleton 7

B. W. Entrance. Trench IX, Skeleton 10

C. W. Entrance, Trench IV, Skeleton 1, 1950

PLATE VIII



W. Entrance. Trench IX, skeletons 2, 8, 10, 14

A. W. Entrance. Trench X, skeletons 12 and 19

B. W. Entrance. Trench IX, skeletons 5 and 22

PLATE IX

A. Area I, Pit 1, square AA, steep slope at S. edge of Period I surface

C. Area I, Pit 1, stone-paved hut, Period VIa, from W.

PLATE X

B. Area I, Rampart cut A, post-holes in face of rampart

D. Area I, Pit 1, doorway in Period VIa hut, from E.

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least six had been decapitated, and the heads thrown in beside them, and in other cases the head is in a very unnatural position, as if partially severed. Others show wound marks, which are described by Mr. Cornwall (p. 66ff). All appear to be males, mostly in the prime of life. Some earth was thrown in with them, for sometimes 6 ins. or so separates the different layers. The lower bodies were intact, but the topmost layer is much disturbed. They can only have been very slightly covered, for the disturbance is clearly the work of dogs or wolves. A pair of feet (Pl. VIII), in complete articulation, but with no other associated bones, is evidence that the disturbance took place while the flesh was still on them (this is a more likely explanation of the fact than mutilation, since that would not account for the other disturbed bones, found only in the upper layer).

Altogether, twenty-four bodies were identified in a small area in Trenches IX and X. More certainly lie to the north. Another isolated skeleton (1950, No. 1) lay some 50 ft. away, near the bottom of Trench IV (small offset trench on plan, fig. 2). This man had been killed by a violent blow which sliced off a piece of the skull. He lay immediately below the humus, for this was an area in which denudation had taken place, so there was no evidence from stratification.

These dramatic remains are clearly those of war casualties. Some may have died from battle wounds. Those decapitated must have been executed prisoners. The warriors must either have been naked, or were else stripped of everything, for not a single object was found with them.

There is unfortunately no direct evidence to establish the identity or the date of the victims. Since the ditch had been recut immediately previously, a post-Roman date is ruled out, for there is no evidence of any later occupation of the site, which would hardly have been considered worth defending unless it was occupied. A late Roman date is ruled out by the absence of Roman pottery, so very common elsewhere on the site, in the filling. Since the earth thrown in with them filled up the ditch it would suggest that they were defeated defenders, for victorious defenders are unlikely to have obliterated their own defences. The obliteration of the defences suggests that it was the work of the Romans, for their policy of slighting defences is well known. A rival Iron Age group would have been more likely to put them in order again. The Roman subjugation of the district probably took place during the advance of Frontinus into South Wales about A.D. 75. The only piece of direct evidence was a single sherd of Roman pottery probably from the layer immediately below the skeletons. Roman pottery may well have been reaching the district before the actual Roman advance, but unfortunately the sherd was only found after a double-chuck to the surface, so too much reliance cannot be placed on its find-spot. The skeleton layer is overlain by a gravel scatter from the causeway, and though there was no dating evidence in Trench V, the lowest road surface in Trench IV was dated by an underlying Roman sherd. Owing, however, to the problem of the wearing away

of surfaces, there is no proof that this layer was actually the first to be laid down, and that it does not replace a vanished earlier one.

Evidence of a very similar slaughter of prisoners was found by Mrs. Hencken at the camp on Bredon Hill, Gloucestershire,[1] some twenty-eight miles to the east. Mrs. Hencken was reluctant to ascribe the slaughter to the Romans, on the grounds that such barbarity would be unlike them. But Dr. Irmgard Maull has very kindly investigated the evidence for such slaughters by the Romans, and it is clear that they were on occasion responsible for them. The sum of the evidence therefore suggests that the victims were the native defenders of the site, slaughtered by the Romans as Legion II advanced from Glevum to Isca.

b. Ramparts

Cuts were made through the ramparts in two places, in Area I, on the north side and Area II further east, on the south side (sections, Pl. XI). Additional information could be obtained from the quarry face on the south side, which by 1951 ran almost longitudinally through the crest of the rampart, having been straightened off somewhat from the line shown on the plan drawn in 1949. There also, almost due south of Area I, a good section at right angles to the rampart was at one stage visible, and was measured as accurately as the rather perilous and irregular condition of the face would allow (Pl. XI). Only in Area I was a cut, intermittent because of trees, carried right through rampart and ditch, the other sections giving information as to the rampart only. The evidence of all the sections was similar.

Both in Areas I and II there was definite evidence of pre-rampart occupation. In Area I there were several hollows in the natural gravel, probably caused by occupation use, in the fill of which were bones and a little pottery. At the base of one was a post-hole. A very much more substantial post, about 1 ft. in diameter, was driven into the fill of this hollow. This projects up into a layer belonging to the rampart, but only as a broken stump, for it did not continue upwards, and there is no surface at the layer at which it stops. Where it projects up into this rampart level, it is circular, but in the pre-rampart fill it is only semi-circular. The base of the timber, up to the height it was to be driven into the ground, had therefore been cut in half. The considerable size of this timber suggests that it may be part of a pre-rampart-palisade, such as was found at Fridd Faldwyn.[2] No other post was, however, found in the 5 ft. width of the trench, nor in any of the other sections.

In Area II there were several layers of occupation-material on the forward slope of the hill, separated by layers of what looked like turf. If this is so, it suggests a fairly long occupation before the ramparts were erected. Moreover, the position of the levels suggests that there must

[1] *Arch. Journ.*, xcv.

[2] B. H. St. J. O'Neil, *Arch. Camb.*, xcvii.

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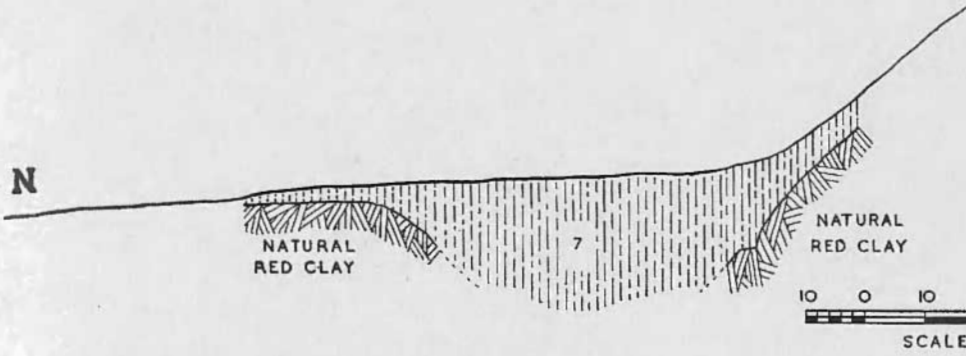
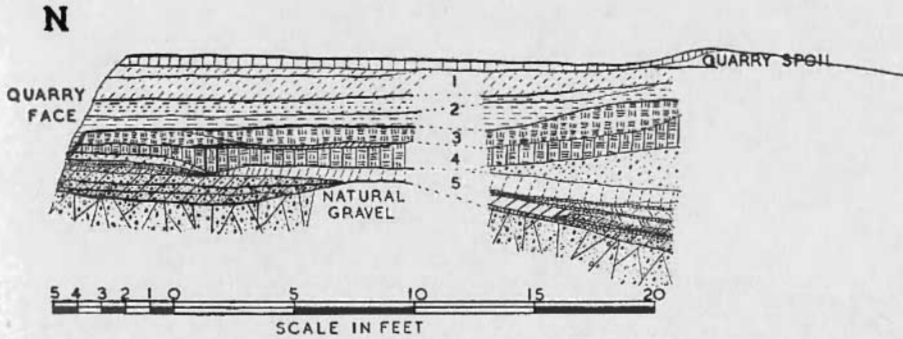
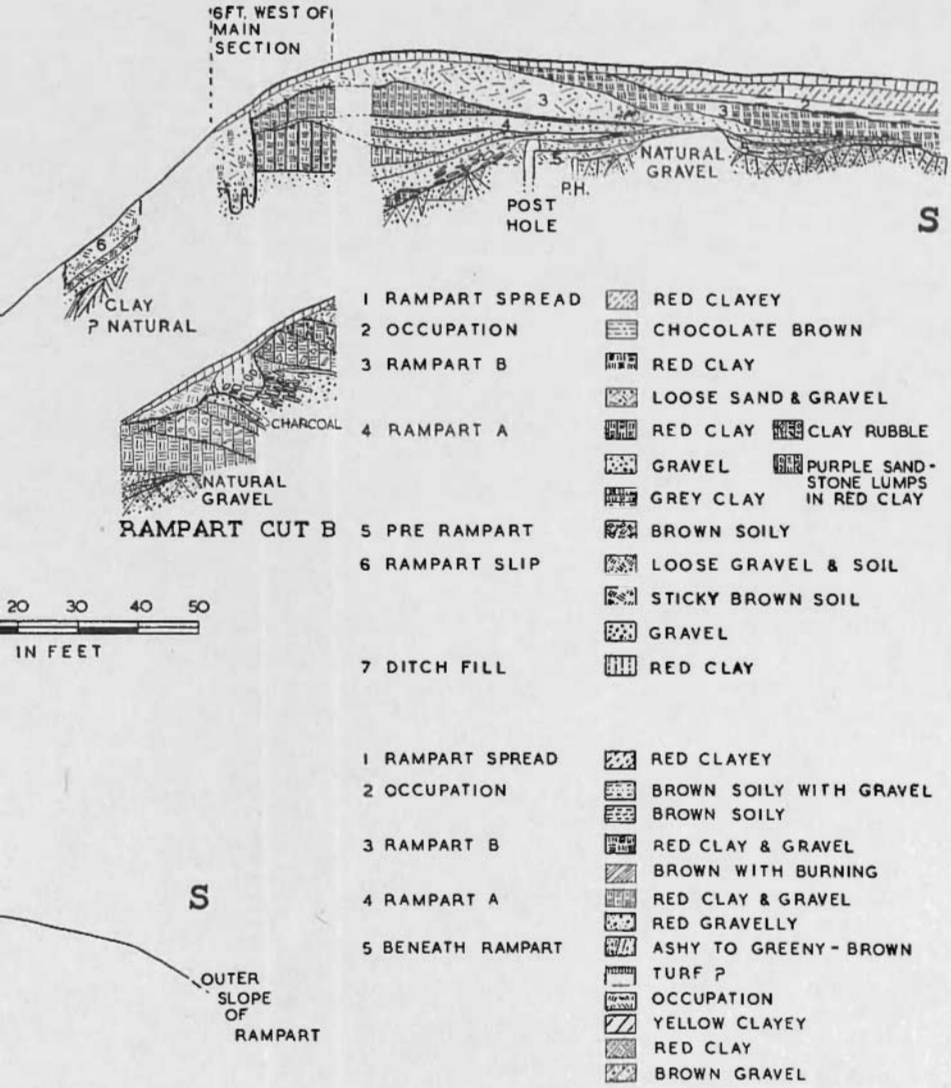
SUTTON WALLS

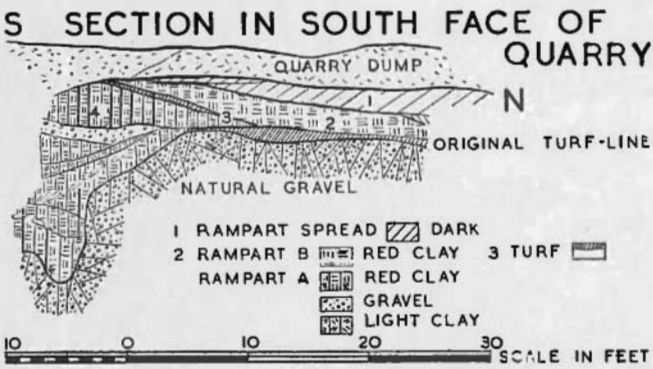
AREA I
RAMPART CUT A



AREA II
RAMPART CUT




6FT. WEST OF MAIN SECTION
NATURAL GRAVEL
P.H.
POST HOLE
S
CLAY
P NATURAL
CHARCOAL
NATURAL GRAVEL
RAMPART CUT B
20 30 40 50
IN FEET
1 RAMPART SPREAD
2 OCCUPATION
3 RAMPART B
4 RAMPART A
5 PRE RAMPART
6 RAMPART SLIP
7 DITCH FILL
RED CLAYEY
CHOCOLATE BROWN
RED CLAY
LOOSE SAND & GRAVEL
RED CLAY
CLAY RUBBLE
GRAVEL
PURPLE SAND-STONE LUMPS IN RED CLAY
GREY CLAY
BROWN SOILY
LOOSE GRAVEL & SOIL
STICKY BROWN SOIL
GRAVEL
RED CLAY
1 RAMPART SPREAD
2 OCCUPATION
3 RAMPART B
4 RAMPART A
5 BENEATH RAMPART
RED CLAYEY
BROWN SOILY WITH GRAVEL
BROWN SOILY
RED CLAY & GRAVEL
BROWN WITH BURNING
RED CLAY & GRAVEL
RED GRAVELLY
ASHY TO GREENY-BROWN
TURF P
OCCUPATION
YELLOW CLAYEY
RED CLAY
BROWN GRAVEL
S
OUTER SLOPE OF RAMPART


S SECTION IN SOUTH FACE OF QUARRY
QUARRY DUMP
N
ORIGINAL TURF-LINE
NATURAL GRAVEL
1 RAMPART SPREAD DARK
2 RAMPART B RED CLAY
3 TURF
RAMPART A RED CLAY
GRAVEL
LIGHT CLAY
10 0 10 20 30
SCALE IN FEET

have been some sort of palisade or revetment further down the hill, which starts to slope steeply just to the south of the excavation area. Unless there was some such palisade, in the lee of which the occupation layers accumulated, the brow of a steep slope would be an odd place for such occupation. In the pre-rampart levels there was a considerable amount of pottery of exactly the same type as that found in the later occupation within the camp, including one sherd with ' duck ' pattern.

The crest of the first stage of the rampart is everywhere set well forward on the steep slope of the hill, so that in order to carry it above the internal level of the camp, a great depth of fill was required, the lower layers gradually levelling up the slope of the hill, and the upper ones sloping down towards the interior. The material consisted of alternating layers of the various kinds of clay and sandstone lumps through which the ditch cut, and of gravel. The evidence about the front of the bank is unfortunately incomplete. A revetment was found about 12 ft. in front of the present crest of the hill. At the very end of the dig it became clear that this was not the face of the rampart, but was based on the lower layers of its make-up. Another revetment must exist, just to the north of the north end of Cut B. The significance of the revetment found is not quite clear. It consists of a combination of post-holes, visible in the section of Cut A (Pl. XB), and dry-stone walling, visible in Cut B, in the other face of which cut there was a post-hole. The dry-stone walling proves that the revetment belongs to the upper part of Rampart A, for the rear portion of the stones interlock with the gravel layer behind, while the front has collapsed forward. It is just possible that Rampart A has two phases, the top of the first phase being represented by two layers of charcoal just beneath the revetment. Owing to tree roots and rabbit holes the evidence was too indefinite for any certainty. The longitudinal section visible in the quarry face on the south side did not support any subdivision of Rampart A, for the fill there showed no sign of a break, and all layers were tipped indiscriminatingly in various directions. The revetment is thus unlikely to represent the face of a second phase in the defences. Alternatively, it may be a subsidiary facing inserted in Rampart A, since if the upward slope of the crest of the rampart were carried forward to the line of the postulated front of the rampart, it would have resulted in a height of about 35 ft., which would have been too much for the revetment to have supported.

The top of Rampart A is a fill of red clay, which in both Area I and Area II has a well-defined surface, and a distinct tail-spread towards the rear. In Area II, the overlying brown layer with burning probably represents occupation on the tail of the rampart. The clearest evidence for two periods, however, came from the section visible in the quarry face on the south side (Pl. XI). Here a well-defined turf line capped the red clay, sloping down to join the original turf at the rear of the rampart. Beneath this red clay the make-up of the rampart, with layers of clay, clay rubble, gravel and slabs of stone, was similar to that found on the

north side. In the longitudinal section, it was clear that at intervals there were pitched slabs of stone, but they did not appear to have any structural significance.

At the base of the quarry section is a hollow in the natural gravel. A little distance to the east a similar hollow was visible, in which a crouched burial was discovered by the quarrymen. The bones were extracted by them and were rescued by Miss Wight, except for the skull, which had been stolen, but the position of the burial was clearly marked in the gravel face. The fill of the hollow was integral with the rampart make-up, and there is no doubt that the burial was made in the course of the rampart construction. Whether it represents a foundation sacrifice or the burial of one of the rampart builders who died in the course of the work, there is no means of telling.

In the fill of Rampart A, particularly in Area II, was a considerable amount of pottery (fig. 9), presumably derived from the pre-rampart occupation.

In all three sections, Rampart A was capped by layers of gravel and red clay representing Rampart B. The extent to which this raised the height of the ramparts is uncertain, for it is clear that its crest has been very substantially denuded. In the fill in Area II was a fair amount of Iron Age pottery. In that in Area I was an important sherd, a portion of the shoulder of a cordoned vessel of Belgic type. A certain number of other Belgic sherds occur on the site, mainly unstratified, confirming the extension of Belgic contacts to the site.

Overlying the tail of Rampart B is a chocolate-brown layer, which in Area I overlies the black late-Roman agricultural layer. It probably represents an early stage in the spread of the rampart crest into the hollow at the rear. Overlying it is a red clayey layer, which merges into a chocolate-brown layer, which spreads all over the area to the rear, thinning out towards the centre of the hill. It is thus clear that during the Roman-period occupation of the site, the ramparts were still substantially standing, and that their levelling is due to comparatively modern agricultural operations.

Summary of History of the Defences

Two phases are represented in all the rampart sections and at the west entrance, and presumably the second rampart phase is everywhere contemporary. Two phases are also represented in the ditch at the west entrance, but there is no evidence as to whether the second phase is contemporary with the second phase of the ramparts. On the whole it appears probable that it is not. In the first place, it is not represented in Cut A. In the second, unless its form was dictated by a new fashion, as is suggested above (p. 7), it seems a slight affair, and would certainly not have provided all the material for the raising of the rampart. It was certainly only cut immediately before the catastrophe indicated by the

skeletons, and was almost certainly executed hurriedly in face of an immediate threat. Rampart B is much too substantial an affair to have been carried out hurriedly. The evidence of the Belgic sherd shows that it was not constructed until after about A.D. 25, the date at which it is probable that Belgic influence spread thus far west, and it may be that it was the Belgae themselves who obtained control of the site and refurbished the defences, as they did at Maiden Castle. The bulk of the inhabitants, however, continued to be the old Iron Age B people, for, as will be seen, their pottery continued in use well into the Roman period.

The excavation of the ramparts therefore suggest five stages in the history of the site (i) Pre-rampart occupation, in which the site may have been surrounded by a palisade ; (ii) Rampart A ; (iii) Rampart B, possibly constructed under Belgic influence after A.D. 25 ; (iv) hurried refortification about A.D. 75, followed by capture by the Romans and the slaughter of the defenders ; (v) continued occupation of the site, with the entrance in decay and probably intentionally slighted, the entrance roadway being much worn and several times re-surfaced, but the rest of the ramparts still standing.

Interior of the Camp

Excavations within the interior of the camp were confined to the western end, which is immediately threatened by quarrying. The only substantial intact area left here was in Area I (plan, Pl. I). When work began, this area extended to the crest of the hill. Exploratory trenches showed that in fact occupation was concentrated in the hollows between the crest and the rear of the ramparts, and there were no structures or occupation sites on the crest of the hill. This fact was confirmed by observation of sections visible in various parts of the quarry face where isolated pillars or spurs reached to the centre of the hill.

It was found that occupation was concentrated in a number of large scoops or hollows at the rear of the rampart. These scoops were sunk into the gravel up to 6 ft. below the original surface, with mainly gently sloping sides, and were as much as 60 ft. across. Three were investigated, Pit 1 in Area I being almost completely excavated, and also a considerable portion of Pit 2, 175 ft. to the east, while Pit 3 in Area IV, about 300 ft. to the west of Pit 1, was trenched. No similar areas existed between Pits 1 and 2, and almost certainly there were none between Pits 1 and 3. In addition some material was obtained from similar scoops visible in the quarry face in Areas II and III.

The scoops were certainly the sites of hut structures. It is, however, probable that they were excavated as quarries for rampart material and not primarily as hut sites. It will be observed that in all sections, Rampart A contained layers of gravel as well as clay, clay rubble and similar material. The clay is derived from the cutting of the ditch, but the gravel cannot have been, since the ditch everywhere lies well below the level of the gravel stratum of the hill. This is well seen in the section

through the hill on Pl. I, where the top of the filled-in ditches is represented by the terraces at either end of the section, and the bottom of the quarry pit in the centre represents the base of the gravel. The trenches at the west entrance confirmed this configuration of the strata of the hill. Substantial excavations must therefore have been made into the gravel of the hill-top for additional rampart material, and it is reasonable to suppose that this was the purpose of the scoops, which lie on lines parallel to the rear of the ramparts. The scoops would have provided conveniently sheltered hut-sites (though the question of drainage must have caused difficulty), and their occupation no doubt dates from immediately after the construction of the ramparts.

Pit 1, Period I

All over the area of the scoop the natural gravel has a hard iron-stained crust. This is found in all the scoops, and nowhere else on the hill, and is probably due to the arrest of infiltrating particles by the hardened occupation surface.[1] In places there are two distinct layers of the crust and others less distinct separated by gravel slip containing occupation material, mainly animal bones. The actual traces of structure are slight, but the few post-holes, and the large quantity of daub in the II fill which must be derived from this I structure, are sufficient evidence that at least part of the scoop was occupied by a structure. The post-holes were all found near the southern edge of the scoop. Here the slope is very much steeper than on the north side, the south face in places being almost vertical for part of its height (Pl. XA), and the south ends of the east and west sides also steep. The difficulty in tracing the structure is obviously partly due to the wearing of the surface. Against a vertical part of the face in Square B were two post-holes (fig. 4). These rest on a kind of ledge in the edge of the pit. They do not penetrate into the hard crust, but cannot belong to Period II, since though they were visible in the lower II fill, they did not reach its surface, and were therefore standing as stumps when the fill was put in. Adjacent to them, at a lower level, and with bases penetrating the crust, were other post-holes, likewise sealed by the top of the II fill. It therefore appears that the ledge on which the upper posts rested must have been below the original floor of the hut, that the level in course of time was worn below their base, but they must have continued in use, with the posts at the lower level inserted as props. The form of the structure may have been some form of lean-to, with a straight, vertical wall along the south side, and lighter timbers sloping away from it, of the bedding of which no trace was visible in the area cleared to the lowest surface.

Above layers of gravel slip was an accumulation of greyish clay concentrated in the lowest part of the scoop, which represents the latest occupation of Period I.

[1] I am indebted to Professor F. E. Zeuner for this explanation.

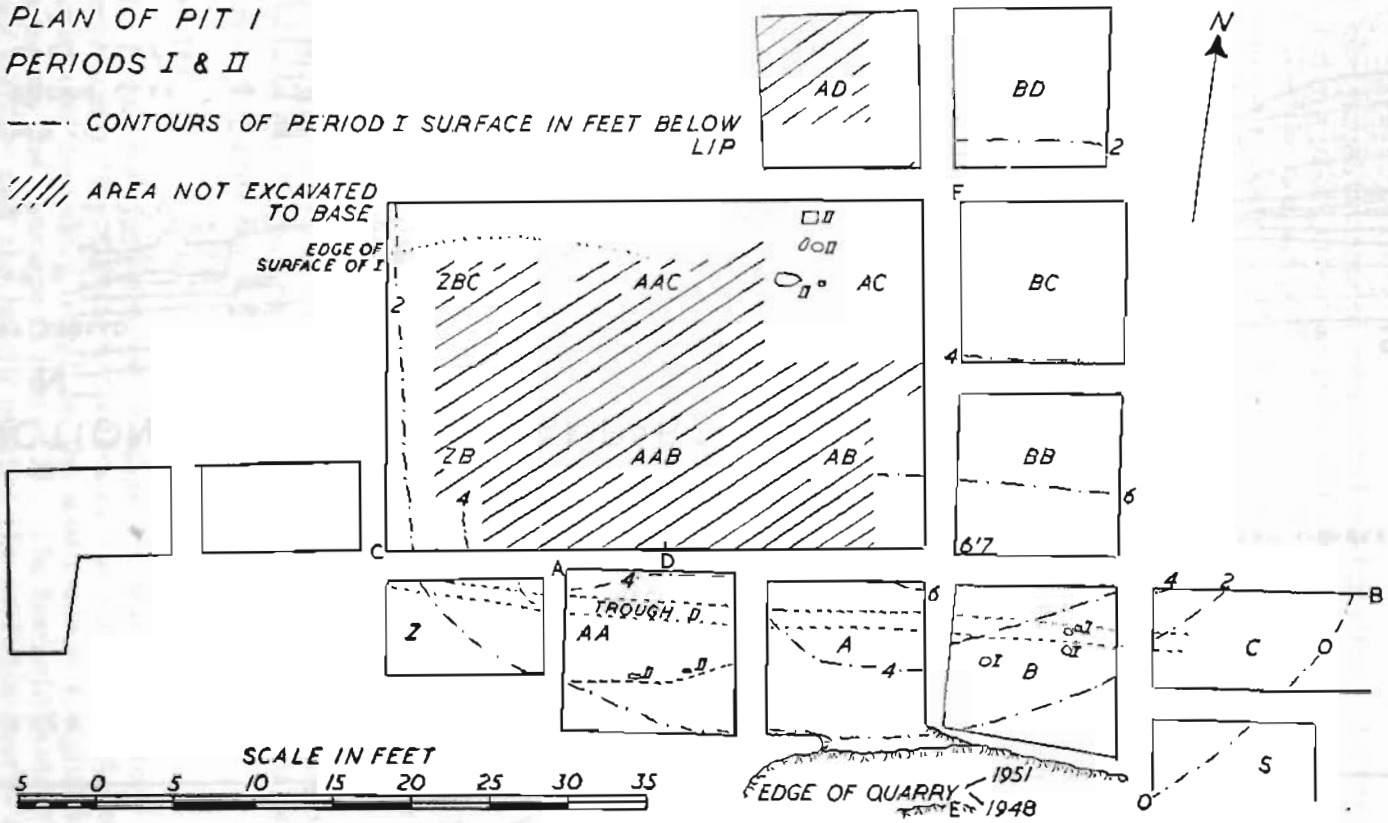


Fig 4. Plan of Area I, Pit 1

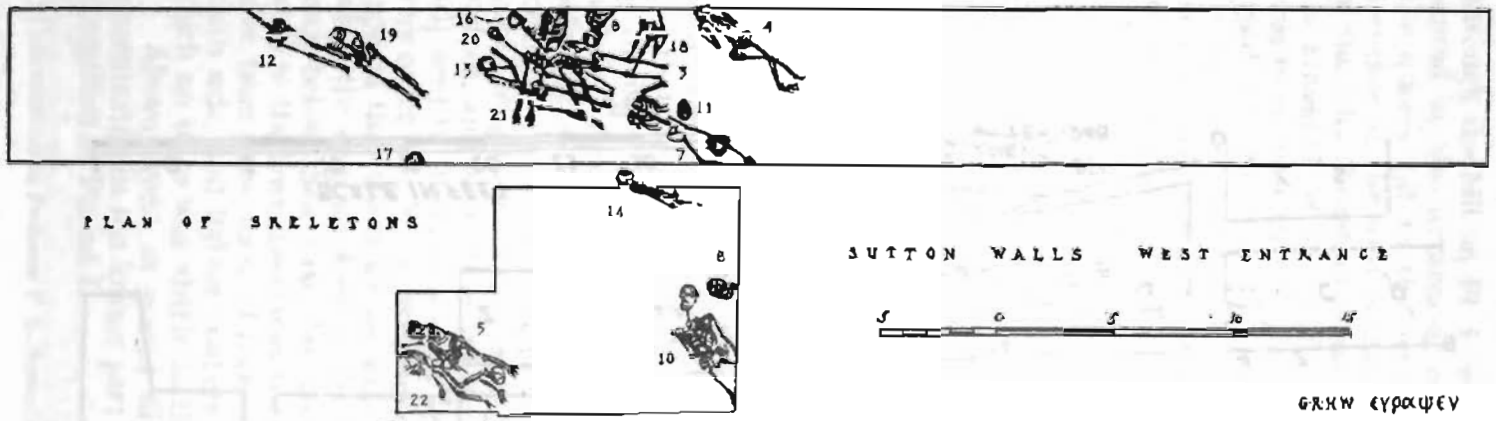


Fig. 5. Plan of Skeletons in Trenches IX and X at W. Entrance

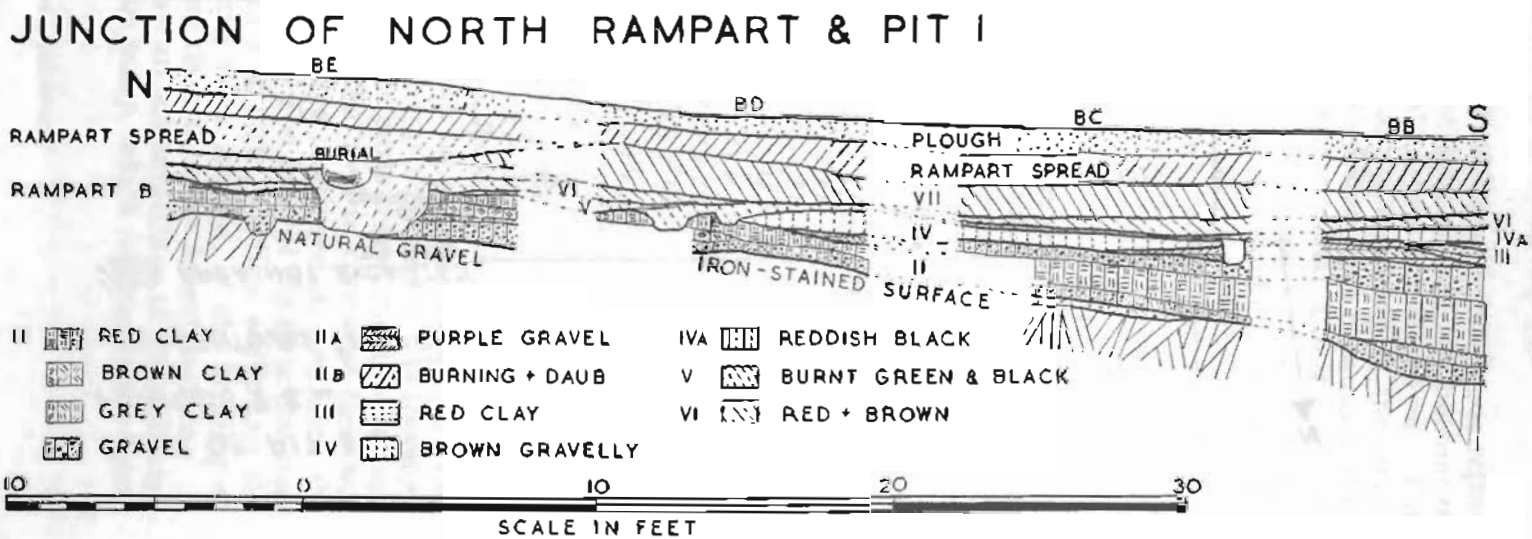


Fig. 6. Section of junction of N. Rampart and Pit I

PERIOD II

The next stage was one of substantial modification. A great fill of tips of red clay and of gravel was put into the scoop. It was up to three feet thick over the deepest part, tapering off to nothing where the edges of the scoop were cleared. This fill still left a hollow over the centre of the scoop, but only two to three feet below the outside surface instead of six feet, and with gently sloping sides. Structural features were equally difficult to trace. In Square AA, a trough, filled with gravel, bounds the edge of the II fill, and immediately inside are two oblong slots filled with burnt material, presumably post-holes (Pl. VB). Inside is a well defined trough in the surface of the II fill, which runs right across the area excavated. It is probably the base of a wall, and a greyish clay in it in places is probably part of a daub or turf wall. The line of this is approximately that of the steep face described above as bounding the scoop on the south side. It therefore looks as if the plan of the II structure was on similar lines to that of I. Inside it, and parallel to it, in Square BB is a sharply cut little pit (Section E–F) which might be the fireplace area.

In Square AC was a group of post-holes which showed in the surface of this II fill. They were sealed by the IV levels, but as the III levels did not survive in this area, it is not certain that they could not have belonged to them.

The pit fill on the north side impinges closely on the tail of Rampart B. The relation of the levels to those of the rampart is not easy, for the same red clay, which forms the tail of Rampart B, reappears at several stages in the fill in the pit. The II fill thins out so much at the edges of the pit, and the upper levels of the pit in places truncate the lower ones, that its identification in the peripheral area is not easy. But the relation of Section E–F to that of Cut A (fig. 6) with which it overlaps (on plan, fig. 4 ; section Pl. XII), makes it almost certain that the construction of Rampart B is contemporary with the II fill of the pit. This is quite consistent with the chronological evidence. As described above (p. 12), there is slight evidence that Rampart B dates from the period of the arrival of Belgic influence (or actual Belgae) about A.D. 25. In Period IV of the pit filling, there are a few Roman sherds, none of them datable. Roman pottery may have started to arrive on the site slightly before the conquest in A.D. 75. A date of about A.D. 25 for Period II, and *c.* A.D. 70 for Period IV, would seem quite reasonable.

PERIOD III

The most prominent feature of stage III was a sandstone hearth. This rested on a clay fill which obliterated the structures of Period II, but has its own boundary trough on the south side at a higher level, on approximately the same line as that of II. The lines of the structure are therefore similar, and the hearth overlies the probable hearth area II. Crushed on the sandstone hearth was the very fine pot illustrated on

fig. 10.8. In several places irregular mounds of red clay overlie the edges of the III levels, and probably represent the material from destroyed daub walls of the period.

Period IV

Period IV is represented by a thickish fill of brown earthy material, which on the west side is capped by a gravel surface. Overlying it is a layer of red clay which may be derived from the collapsed walls of the period. In the north and east parts of the area excavated the IV levels have been truncated by later levels. The IV fill obliterates the last of the gulleys along the south side. A number of small stake holes were traced in Squares AB and AC belonging to this level, but they did not make any intelligible plan. It appears that at this stage, the original plan, with a straight wall along the southern edge, was abandoned, but it is not clear what took its place.

In the fill of this period, a few Roman sherds appear for the first time. They are none of them datable. It is quite possible that Roman wares started to reach the site, possibly from Glevum, before the conquest of the district about A.D. 75. The level could date from A.D. 60–75.

Period V

The fill of Period V survives only in the central area, over the dip in the earlier levels, and round the edges it has been truncated by the later stages. In this central area, there is a well-defined gravel floor. The only structural elements surviving were a N–S trough in Square A, and some substantial post-holes running diagonally NW.–SE. across Square BB. In the packing of one of these was the base of a shale pot (fig. 27). The Roman sherds which were found in this level, together with a considerably greater amount of native ware, were unfortunately again undatable.

Period VI

Over a considerable part of the area was a dark sticky layer, which included many lumps of red clay. This immediately underlay the stone-floored hut of VIA. It is not quite clear whether it is an independent level or represents the churned up occupation and destruction material of V, levelled over to form the basis of VI. It was certainly more extensive than the stone floor, and a few post-holes do seem to belong to it rather than the hut, but it had no good surface. The pottery in it (see p. 46) includes much Roman, which covers a long period, from late 1st-early 2nd centuries to about the end of the 2nd century. On the whole it seems more probable that the pottery is derived from the occupation layer of V, which with the clay from the walls of that period was levelled over immediately prior to the laying down of the stone floor. For the

first time, the sinkage in the centre of the area was completely levelled over. The native pottery in the fill would presumably be derived from the early stages of this occupation level, and Roman wares must have come in in bulk during the later stages.

PERIOD VIA

Immediately above this fill of Period VI was found the stone floor of a hut (plan, fig. 7, Pl. Xc). This covered almost the whole of Squares ZBC, AAC, AC, ZB, AAB, AB, dying out just before the northern edge of the squares, and hardly appearing in the squares to the south. It was thus included in a rectangle 34 ft. by 22 ft., but its edges were very

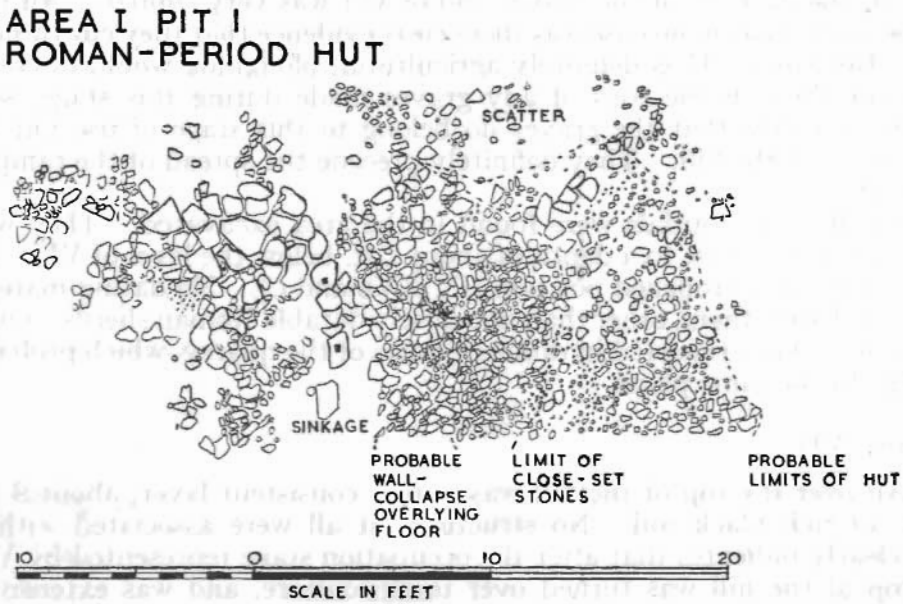


Fig. 7

irregular. The flooring was divided into two halves by a doorway (Pl. XD) marked by a sill of four substantial slabs, in the outermost of which were sockets, 3 ft. apart, and about 3 ins. by 2 ins. across. To the west of this doorway, the flooring was of large slabs. To the east was an area of smaller slabs, packed in with small stones, while to the east again, but not separated by any clear partition, was an area of mainly small stones, with a few larger ones. Outside the limits of the continuous flooring was an irregular scatter of stones. All the stones were rough and unworked slabs.

This is clearly the floor of a hut, either a building with two rooms or a room and a paved courtyard. Of the walls, there is no certain trace. In some places, particularly on the south side, there appears to be a tumble

of stones overlying the actual floor, presumably from dry-stone walling. The tumble and scatter round the edges may likewise be derived from the walls, or may be portions of flooring disturbed in the subsequent agricultural operations.

Crushed on the floor of the hut were some large pots (fig. 18 (5), fig. 19). In the earth in the crevices of the stones, presumably belonging to the occupation period, was pottery going down to the beginning of the 3rd century A.D. Immediately outside the limits of the hut were two infant burials.

The last stage prior to the agricultural operations of Period VII is represented by a number of burials. They are quite definitely cut through the VIA level. It was, however, difficult to establish their relation to VII, for the dark fill of the graves and of VII was very similar. All that can be said is that in no case was there clear evidence that they cut through VII. But since VII is definitely agricultural, ploughing would of course have cut through the tops of any graves made during this stage, so it remains possible that the graves do belong to this stage of use but not occupation of the hill. They definitely precede the spread of the rampart material.

In all, seven burials were found in the area excavated. They were all in definite graves, to a depth of about 2 ft. below the level of VI. The bodies were in a crouched position (Pl. XVB and C). No dating material was found with them, other than not closely datable Roman sherds. Other bodies have been reported in different parts of the quarry, which probably belongs to the same phase.

Period VII

All over the top of the hill was a very consistent layer, about 9 ins. thick, of rich black soil. No structures at all were associated with it. This clearly indicates that after the occupation stage represented by VIA, the top of the hill was turned over to agriculture, and was extensively ploughed. The depth of the plough-soil suggests that a fairly heavy plough was used, for it is very similar to that of a modern plough level.

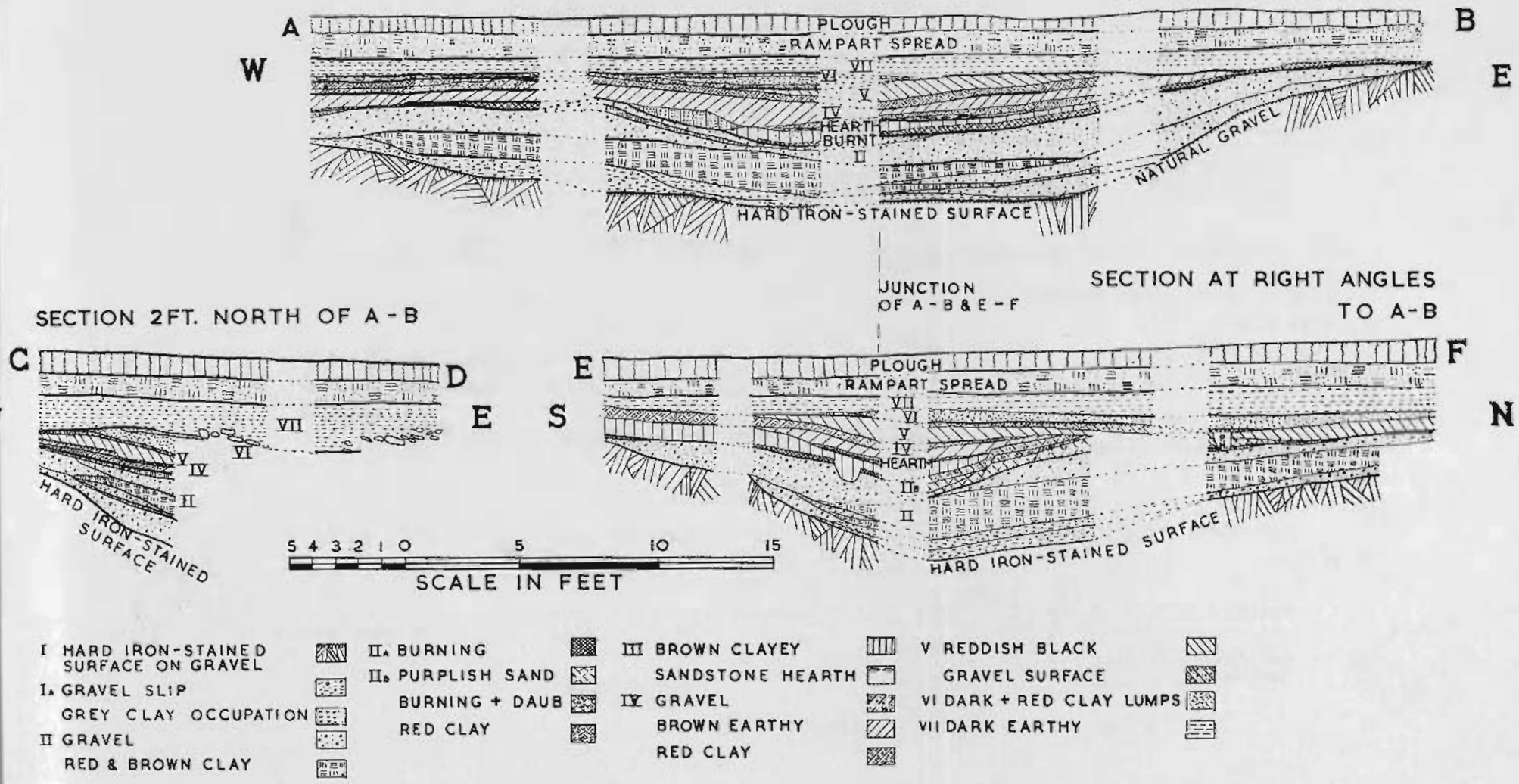
The layer included a very great quantity of Roman pottery (p. 53). The majority of sherds could be derived from the occupation levels of the stage just described. Included in it, however, and in the quarry finds probably derived from it, were some sherds as late as the late 4th century, showing that use probably continued throughout the Roman period. There was, however, a lot of Iron Age pottery, showing that in places the ploughing cut into Iron Age levels.

Period VIII

In Section E–F, the VII layer is just overlaid by the tail of the brownish material which probably represents the first stages in the decay of the ramparts. In the cuts through the ramparts, this is overlaid by a

SUTTON WALLS

AREA I

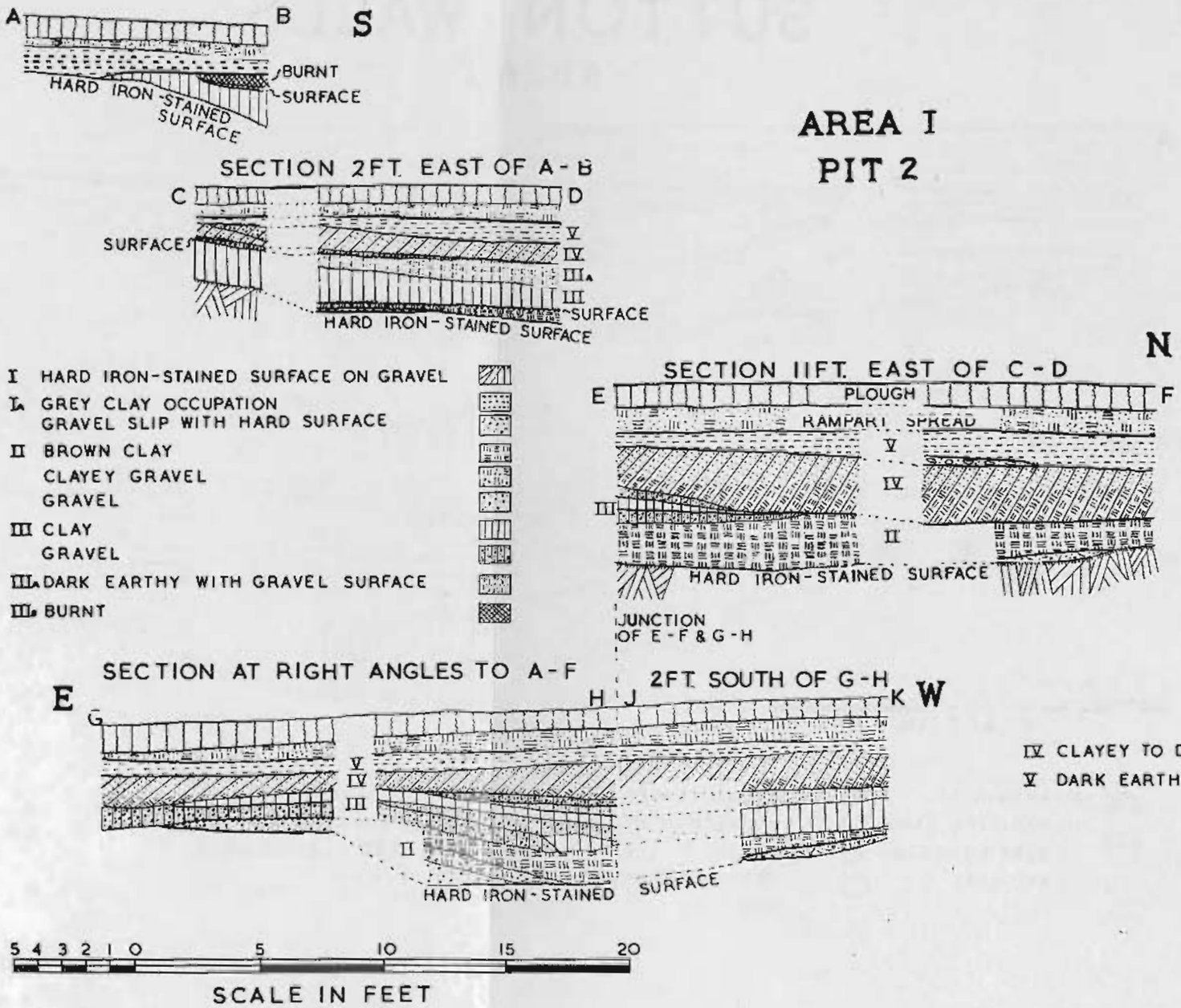


I HARD IRON-STAINED SURFACE ON GRAVEL
IA GRAVEL SLIP
GREY CLAY OCCUPATION
II GRAVEL
RED & BROWN CLAY

IIA BURNING
IIB PURPLISH SAND
BURNING + DAUB
RED CLAY

III BROWN CLAYEY
SANDSTONE HEARTH
IV GRAVEL
BROWN EARTHY
RED CLAY

V REDDISH BLACK
GRAVEL SURFACE
VI DARK + RED CLAY LUMPS
VII DARK EARTHY


A
B
S
BURNT
SURFACE
HARD IRON-STAINED SURFACE
SECTION 2FT. EAST OF A-B
C
D
SURFACE
V
IV
IIIA
III
SURFACE
HARD IRON-STAINED SURFACE
AREA I
PIT 2
N
SECTION 11FT. EAST OF C-D
E
F
PLOUGH
RAMPART SPREAD
V
IV
III
II
HARD IRON-STAINED SURFACE
JUNCTION OF E-F & G-H
I HARD IRON-STAINED SURFACE ON GRAVEL
IA GREY CLAY OCCUPATION
GRAVEL SLIP WITH HARD SURFACE
II BROWN CLAY
CLAYEY GRAVEL
GRAVEL
III CLAY
GRAVEL
IIIA DARK EARTHY WITH GRAVEL SURFACE
IIIB BURNT
SECTION AT RIGHT ANGLES TO A-F
E
G
H
J
K
W
2FT. SOUTH OF G-H
V
IV
III
II
HARD IRON-STAINED
SURFACE
IV CLAYEY TO DARK EARTHY
V DARK EARTH
5 4 3 2 1 0 5 10 15 20
SCALE IN FEET

red clayey material, which merges into a chocolate-coloured layer, which extended all over Area I, thinning out towards the crest of the hill. A very few brown-glazed sherds suggest that this stage in the destruction of the ramparts belongs to the 18th century, and that it was not until then that they were flattened back to fill in the hollow between them and the crest of the hill. Above is the modern plough level.

Area I, Pit 2

The history of Pit 2 (sections, Pl. XIII) seems to be very similar to that of Pit 1, though the stages of occupation were fewer. Even less information was obtained about the structures, for the boundaries of the scoop were only cleared in one area. (Section A–B.)

Period I

As in Pit 1, the base of the scoop was formed by a hard, iron-stained crust on the natural gravel. A second similar surface overlay gravel slip, which contained many bones, and in places there was also a layer of grey occupation material. From the south, the scoop sloped down gradually. On the east there was a much steeper drop. This occurred under the baulk of a square, so the actual angle of the drop was not ascertained. No structural features were recovered, but daub fragments in the fill show again that there must have been a hut.

Period II

The original use of the pit was succeeded by a substantial filling of clay and gravel, again resembling Period II of Pit 1. It did not, however, level over the pit to the same extent as was the case in Pit 1. A hard gravel surface survived over part of the filling. The character of this stage is so similar to that of Pit 1, that it is reasonable to suppose that Periods II of the two pits are contemporary.

Period III

The fill of Period III continued the levelling up process, and was similar in character. It did not extend to the north side of the excavated area, where occupation may have been most intense, and therefore the wear greatest, for no surface surviving here for this stage or that of the underlying Period II. An upper dark layer with a gravel surface, IIIA, may be part of the same fill, or a resurfacing over occupation material. A burnt layer at the southern edge, IIIB, probably represents occupation above this floor.

Period IV

The fill of Period IV almost completes the levelling up process, and the depth of the fill makes it clear that this was the intention. Included

in it was a great quantity of daub, presumably derived from the Period III hut. The pottery included two sherds of Roman ware, so this phase may equate with Period IV of Pit 1.

Period IVa

Into the Period IV fill was sunk a corn drying oven of the typical Roman T-shape (Pl. XVa). It was built of slabs of sandstone, with roughly straight edges forming the faces of the channels, but apart from that completely irregular. The stones were unmortared. The main channel was 2 ft. 4 ins. wide, tapering towards the foot to 1 ft. 10 ins., the left-hand arm of the head of the T 1 ft. 1 in. wide and the right-hand one 10 ins. wide. The length of the channel of the head of the T was 5 ft. 6 ins. The base of the main channel, facing towards the east, was not excavated, the length to the end of the clearance being 6 ft. At a depth of 1 ft. 11 ins. below the surviving top was a layer of soot, indicating the bottom of the channel. Above was 4 ins. of red clay, and above them a thick packing of stones, presumably from the destroyed superstructure.

The Roman sherds in the contemporary filling were unfortunately undatable. The fewness of them here, and also in the destruction fill, suggest that the oven may not be as late as the hut in Pit 1. It is more likely that it corresponds to Period V of that pit.

Periods V and VI

Immediately overlying the destroyed top of the oven is the dark agricultural level of Period VII of Pit 1. This is succeeded by the rampart-spread level, and the modern plough level.

Area IV, Pit 3

The area lay to the west of Pit 1, close inside the west entrance. In this area the upper soil had already been stripped off preparatory to quarrying. The Roman agricultural level had therefore gone and an uncertain amount of the Iron Age fill. A scoop similar to those of Pits 1 and 2 was located, but was only trenched. The course of events was very similar to that of the other pits, and in view of this fact, and the incompleteness of the surviving fill, no sections are published.

The hard iron-stained crust representing *Period I* was present all over the area examined. Over it was a gravel slip, and then a thick burnt layer, Ib, either destruction or occupation. *Period II* is the usual thick filling of clay and gravel. In an occupation layer above this floor was a large quantity of pottery. The fill of *Period III* also adds a considerable amount to the filling and likewise had much pottery. Into the surface of this in *Period IV* at the south edge of the pit, where the fill of the pit was at this stage almost level with the adjacent surface outside the pit, was cut a band of gravel 8 ft. 6 ins. wide, which might be a road leading

towards the west entrance. Two other phases of filling, without any particular features in the area excavated, followed. Neither contained any Roman pottery.

The most interesting find in this area was an iron anvil, 10½ ins. high, with a base 9 ins. square, and of very great weight. When found, it was actually visible on the surface left by the bull-dozer. It lay on the extreme edge of the pit, where the bull-dozer had removed almost all the prehistoric levels. There is therefore some slight doubt as to its position. It is, however, almost certain that it was in the fill of Period II, but it might have come from one of the later fills. It is certainly the finest prehistoric iron object found in Britain (Pl. XVIA).

Supplementary Excavations

In order to compare the type of occupation at Sutton Walls with that of other hill-forts in the neighbourhood, some supplementary excavations were undertaken in 1951, with the aid of a grant from the Research Fund of the Society of Antiquaries. The sole purpose of these excavations was to ascertain the general character of the occupation, and no attempt was made to work out the history of the sites in detail. Mr. J. Mellart was in charge of the excavations at Dinedor, Miss I. Anthony at Credenhill, and Mr. Mellart and Miss M. Bennet-Clark carried out the sounding at Aconbury.

1. Dinedor Camp (Fig. 8)

Dinedor Camp crowns the summit of a hill, rising to 595 ft. O.D., overlooking the valley of the Wye about a mile south-east of Hereford. The hill slopes down steeply to the north and east, and rather less so in other directions. The site was selected since its situation with relation to the Wye resembles that of Sutton Walls to the Lugg, and the character of the ramparts also resembles that of Sutton Walls. It was excavated by kind permission of the Hereford City Council.

The ramparts enclose an area of 12.139 acres. As at Sutton Walls, they are set where the gentle slope of the crown of the hill starts to drop steeply. In the eastern half of the camp they are well preserved, standing up very prominently on the inside, and of a very imposing steepness on the outside. For the rest of the circuit, the summit has been flattened back inwards, to give the interior in this area a plateau-like aspect. The ditch is represented by a terrace at the foot of the ramparts.

There is a single entrance on the east side (Pl. XVIIB). The ends of the ramparts at the entrance are plain, with a faintly out-turned appearance, but this, as at Sutton Walls, may be due to the creation of a hollow-way by wear.

An area approximately 48 ft. square at the rear of the rampart in the north-east corner of the camp was examined, though not fully excavated,

and a trench was also cut slightly to the north-east of this area, running from the edge of the rampart for a distance of 115 ft. towards the crest of the hill in the centre of the camp.

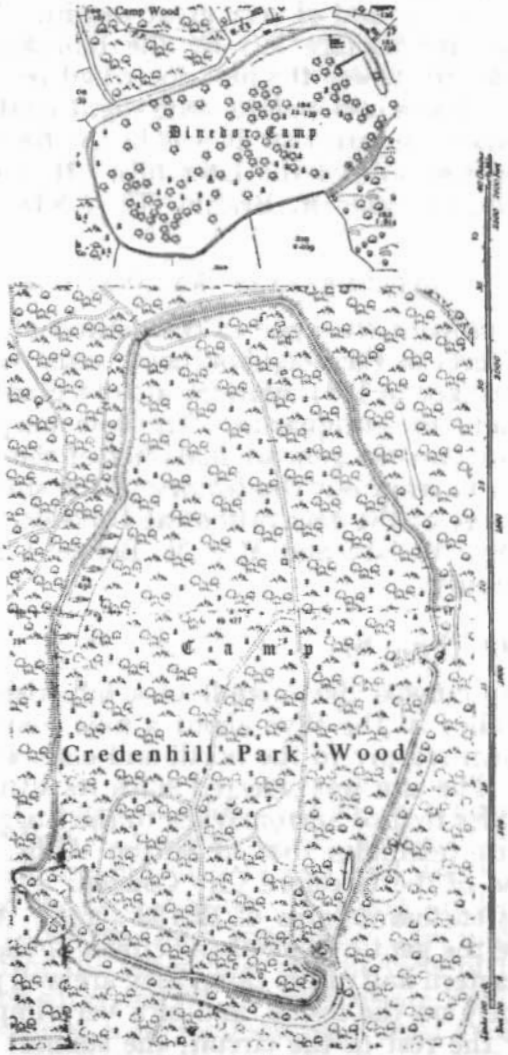


Fig. 8. Plans reproduced from 25 in. O.S. map Herefordshire : Dinedor, Sheet XXXIX, 8, and Credenhill, Sheet XXXIII, 1. (Reproduced from Ordnance Survey Maps with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved)

The results showed that there was comparatively heavy occupation in the rear of the ramparts, but as at Sutton Walls, probably none on the crest of the hill. In the main area of excavation, occupation was heaviest

between 12 ft. and 36 ft. from the rear of the ramparts, while in the long trench it was concentrated in the 12 ft. immediately behind the ramparts, with a very slight scatter between 48 ft. and 72 ft. from them. There were not, however, any traces of quarry scoops to serve as nuclei of occupation areas.

The lowest occupation immediately overlay the natural sandstone of the hill. In the area of heaviest occupation, three successive floors of packed stones were found, with intermediate fills containing much charcoal. One very pronounced spread of ash contained much slag. The area was not excavated sufficiently to indicate any hut plans. A fairly considerable amount of Iron Age pottery was found, with daub, many bones, and several fragments of iron, including a portion of an iron axe-head. Overlying these floors was a level of brown clay, probably derived from the rampart. Above again there was, in the area nearest the rampart, a compact layer of large stones. These may also have been derived from the rampart, but they were so closely packed as to suggest that they had been incorporated into the floor of some structure. A fair number of Roman sherds were found at this level. Above again was a thick level of red clay, representing a later rampart spread.

The ramparts themselves were scarcely examined. The long trench was, however, carried up the slope of the rear of the rampart, and a steep slope of stones was encountered (Pl. XVIIc). This was not sufficiently examined to prove whether it was in position or not, but it showed that stone revetments must have played some part in the rampart construction.

The pottery included a number of sherds of the types found at Sutton Walls, some of which came from the lowest occupation levels. In addition, there was a somewhat larger quantity of a type of ware not found at that site. This was black in colour, and so extremely friable that hardly any shapes could be recovered. The majority of vessels, however, seemed to have gently recurved rims.

The excavations therefore confirmed expectations that the occupation resembles that of Sutton Walls. The Sutton Walls people must have formed at least one element in the original occupation. Not enough is known of comparative material to show whether the other pottery belongs to another immigrant group, or to some earlier occupants of the area.

2. Aconbury Camp

Aconbury lies to the south-west of Dinedor, on the top of a very steep hill. It was examined by kind permission of the Governors of Guy's Hospital. Little more than surface scratching was undertaken here. The material collected, however, was sufficient to suggest that the occupation resembles that of Sutton Walls and Dinedor. Considering the amount of work done, a surprisingly large number of sherds was found. These did not include any rim sherds, but the ware might well be similar

to that of Sutton Walls. Some Roman sherds were also found. The ramparts were solidly built, and examination suggested that they incorporated internal revetments.

3. Credenhill Camp (Fig. 8)

Credenhill lies some 6 miles to the west of Sutton Walls, on a steep hill overlooking the site of the Roman town of Kenchester. The summit of the hill is fairly flat, and the ramparts which crown the steep slopes enclose an area of 49.477 acres. The summit and slopes are to-day thickly wooded. Excavations were carried out by kind permission of Mr. J. C. H. Ecroyd.

The ramparts are extremely imposing, and the ditch and counterscarp fairly well-preserved for most of the circuit. At the south-east corner is a very fine entrance, with strongly-inturned ramparts. Another entrance with inturned ramparts may exist in the centre of the east side. The other breaks are probably modern.

The main area excavated was within the angle of the south side of the south-east entrance and the rampart to the south. A considerable number of small soundings were also made along the whole length of the camp. This work was sufficient to show that the site was totally different in character from the others examined. Not a trace of permanent occupation was found, and the only sherd of pottery found was a minute fragment of Samian in the surface soil. It is therefore clear that the site resembles those of the Welsh March complex (see p. 30).

Summary of Finds at Sutton Walls

The pottery and other finds on the site are dealt with in detail below (p. 34ff). It will, however, be convenient to summarise them here with reference to their bearing on the history of the site.

Pottery was found in very great abundance in both the Iron Age and Roman levels in almost all the areas excavated, and in the quarry debris. A large proportion of the Iron Age pottery is decorated with a continuous line of stamped impressions immediately below the rim. The most decorative type of stamps is a series of S-curves, some thin and upright, some plump and resembling a line of swimming ducks. Other stamps are various arrangements of chevrons, crescents, wedges, slashes and stabs. These characteristics immediately identify the affinities of the pottery and its users. In Britain similar pottery occurs in the Western Cotswolds and in Cornwall, and on the continent in Brittany and in the Iberian Peninsula, and it has been studied in detail by Mrs. Hencken in connection with the excavations at Bredon Hill, Gloucestershire.[1] The plain pottery likewise resembles that found at Bredon.

[1] *Arch. Journ.*, xcv.

At Sutton Walls, the earliest occupation contains pottery of this type. The erection of the ramparts was preceded by occupation on an appreciable scale. The actual intact occupation layers, which were only investigated in restricted areas, did not produce any decorated sherds, but the undecorated vessels and the wares are identical with those in the later levels. In the make-up of the first period rampart, moreover, was a considerable amount of pottery, which must be derived from the pre-existing occupation levels, and this included a number of rims with the characteristic stamped decoration.

This pottery continued in use throughout the earlier phases of the occupation. In the second phase of the ramparts, which is Phase C of occupation, a very little Belgic ware appears, and in Period IV of Pit 1, and corresponding levels in the other pits, Roman pottery begins to appear. The native forms continue in use down to Period VI of Pit 1, a deposit which contains Roman pottery going down to the end of the 2nd century A.D. The deposit, however, probably represents the accumulation of about a century, and within that period the purely Iron Age forms must have died out, for they scarcely appear in the levels associated with the succeeding phase, Period VIA. Their tradition, nevertheless, is continued by vessels of Romanised form, roughly wheel-made and in wares almost identical with that of the Iron Age vessels.

The other finds were numerous, though unfortunately many of the best of them were found in quarry debris. Loom-weights, spindle-whorls and weaving-combs are evidence of a textile industry. Antler cheek-pieces of bridles and the fairly numerous skeletal remains show that horses were in common use. The number of animal bones in the occupation levels was enormous, indicating that the people were rich in herds. There was not much evidence to show that the food-supply was supplemented by hunting, though a number of implements from antlers show that deer were on occasion hunted. Iron must certainly have been worked on the site. A considerable quantity of iron slag was found in most levels, and the anvil of iron is not only in itself one of the finest specimens of prehistoric iron found in Britain, but also one of the best pieces of iron-working equipment found. A considerable number of fragments of iron implements, rings and unidentifiable objects were found, and the two sickles are good specimens of prehistoric workmanship, as well as affording evidence of agriculture, not directly provided by other finds. Bronze objects were also fairly common, and the finding of a small crucible containing traces of bronze suggests that some bronze working was carried out on the site.

The Iron Age Occupation of Sutton Walls in its Geographical and Chronological Setting

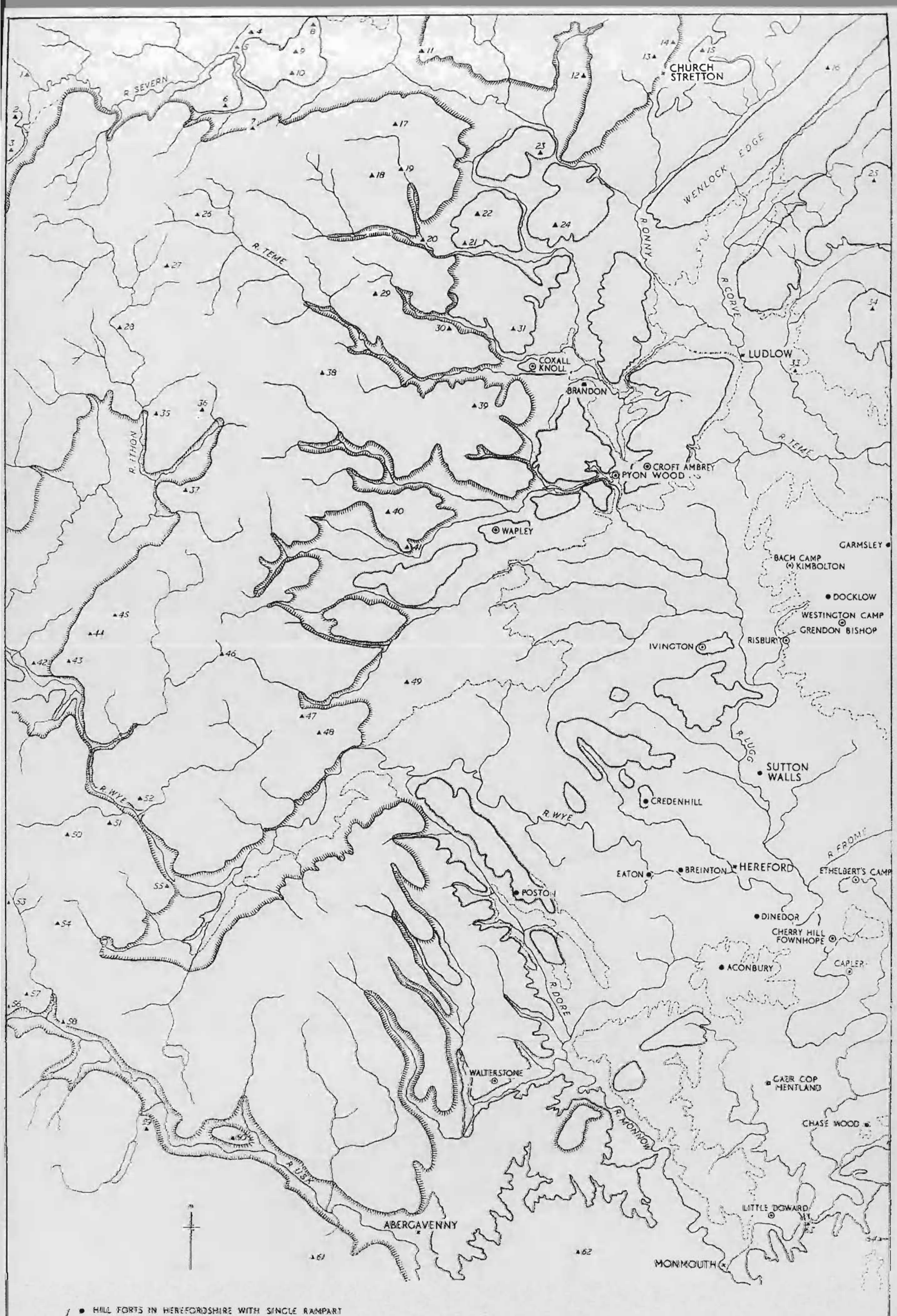
The excavations have thus shown that the Iron Age settlement at Sutton Walls was that of a comparatively rich community, certainly

numerous from the size of the camp and the wide-spread evidence of permanent occupation, certainly well-provided with herds, and probably practising agriculture, though the evidence is not so abundant, with industries which included, besides the usual domestic ones of pot-making and textile-making, iron-working and bronze-working.

The site is the first belonging to the Iron Age in Herefordshire to be extensively excavated. The results show that into that area had penetrated the same group of people as was established on the Western fringes of the Cotswolds in the second stage of the Iron Age. The implications of the distribution of the pottery characteristic of this group have been studied by Mrs. Hencken[1] and Mr. Dunning,[2] and the sites on which it occurs in Britain have been plotted on a map published by Mrs. Hencken.[3] The results need only be summarised here. The British sites, concentrated on the western tip of Cornwall and in the Cotswolds, overlooking the valley of the Severn, with an outlier at Pen Dinas near Aberystwyth on the Cardiganshire coast, show that the penetration of this group into Britain was certainly coast-wise and by river routes. It is suggested that they were particularly interested in trade and the iron industry. With this, the situation at Sutton Walls is entirely in accord. The group would have branched off from the main route up the Bristol channel and the Severn to follow the valleys of the Wye and its tributary the Lugg. Reference has already been made (p. 3) to the importance of the route in prehistoric times.

The group was one of those classified as Iron Age B which reached Britain in the second phase of the British Iron Age, bringing with them some elements of La Tène culture. Mrs. Hencken has shown that the group in question is unlikely to have arrived earlier than 100 to 50 B.C. The finds at Sutton Walls do not provide direct additional dating evidence for the primary settlement. The resemblances of the pottery to that at Bredon are so close, almost every variation of form and pattern being represented at both sites, that it is clear that the two groups must have arrived at approximately the same time. On the whole, the Sutton Walls evidence would tend to depress the date. Mrs. Hencken was breaking new ground in suggesting a 1st century B.C. date for the arrival of this people in Britain, for previously a date as early as the 4th century B.C. had been usually accepted for them in Cornwall. She was therefore cautious about a too drastic lowering of dates, and proposed the late 2nd century B.C. for the arrival of this people in Cornwall, and between 100 and 50 B.C. for their settlement in the Cotswolds. Now, it has been shown that Phase C at Sutton Walls is probably (though the evidence is slender) as late as the arrival of Belgic influence in the west, which is unlikely to be earlier than *c.* A.D. 25. To Phase C belongs Period II of the fill of Pit 1, while Period IV of that pit is marked by the appearance of Roman pottery,

[1] *Arch. Journ.*, xcv.
[2] *Trans. Bristol and Gloucestershire Arch. Soc.*, xlviii.
[3] *Op. cit.*, fig. 13.



Map showing Iron Age Hill-forts and Camps in the Herefordshire Area. Key on p. 84

which may be some time between A.D. 50 and A.D. 75, probably nearer the later date. Period I of Pit 1 and the preceding occupation are not likely, therefore, to carry the occupation back as far as the beginning of the 1st century B.C., particularly since the pottery does not seem to show much development. On these grounds, an initial date for the arrival of these people in the West Midlands in the second half of the 1st century B.C. seems probable, and their first arrival in Britain may well have been caused by the disturbances created in Gaul by Caesar's conquests in the middle of the century, to which the immigration of the Wessex B group is also attributed.[1] It is difficult to find a satisfactory name to describe this group, as Wessex does the group which reached Maiden Castle. Severn B, which has been suggested, neither covers the extension into Herefordshire, nor the Cornish group. Perhaps Bristol Channel B is the most satisfactory, as emphasising the principal route, and the link between Cornwall and the West Midlands.

It remains to consider the settlement at Sutton Walls in relation to the Iron Age occupation of the neighbourhood. The map, Pl. XIV, shows how very large is the number of hill-forts and camps in Herefordshire. The district is in fact typical in this respect of the Welsh March area. Our knowledge of the Iron Age in Herefordshire is very limited. But sufficient is known of Shropshire to the north and the adjacent Welsh borders to show that the occupation of the known sites there has nothing in common with that at Sutton Walls. The evidence from the Wrekin[2] shows the penetration thus far west of degenerate and probably late Iron Age A culture. All the other sites, such as Titterstone Clee,[3] the Breidden[4] and Fridd Faldwyn,[5] and in Cheshire, Maiden Castle, Bickerton,[6] and Castle Hill, Eddisbury,[7] have produced only the most insignificant fragments of Iron Age pottery, and belong to a culture remarkably poor in surviving material remains.

Sutton Walls therefore represents the penetration up the valleys of the Wye and Lugg of an immigrant Iron Age B people, who on present evidence did not reach as far north as the Shropshire area. Mrs. Hencken was inclined to see in the pottery at Bredon evidence of an Iron Age A substratum, which she believed became more prominent in the course of the occupation as the immigrants were absorbed. No evidence of this was found at Sutton Walls, and though the course of events at Bredon, with the increasing preponderance in the later deposits of pottery with simple stamped impressions, and of the type with linear tooled decoration, is not paralleled at Sutton Walls, it is difficult to recognise true Iron Age A elements in them. It seems more probable that all the types of pottery belong to the immigrants, who were not necessarily a completely homogeneous group, and that at Bredon the element of which the pottery with

[1] *Maiden Castle*, 55–7.
[2] *Arch. Journ.*, xcix.
[3] *Arch. Camb.*, lxxxix.
[4] *Arch. Camb.*, xcii.
[5] *Arch. Camb.*, xcvii.
[6] *L.A.A.A.*, xxii, xxiii.
[7] *Trans. Historical Soc. of Lancashire and Cheshire*, cii.

the tooled decoration is characteristic developed at the expense of that to which the stamped pottery belonged. The stamped patterns there certainly show degeneration, and to a certain extent this is so at Sutton Walls, for the simple stab and slash decoration is more common in the later levels, but there the good stamped decoration does not disappear until Roman influence is completely predominant, and the pottery with tooled decoration, which does not appear until Phase D, never becomes common.

It was clearly desirable to obtain information as to the nature of the occupation of other Iron Age sites in Herefordshire. Soundings were therefore undertaken, with the aid of a grant from the Research Fund of the Society of Antiquaries, at two sites, Dinedor, six miles almost due south of Sutton Walls, overlooking the Wye at Hereford, and Credenhill, due west of Sutton Walls, on a steep hill above the Roman town of Kenchester. At Aconbury, to the south of Dinedor, some slight probing was also done. The results are described in detail on p. 23ff. They clearly indicate strong contrasts in the Iron Age culture of the area.

Dinedor broadly resembled Sutton Walls. At the rear of the ramparts there were thick occupation levels with many animal bones, thick char-coal, and an appreciable amount of pottery. Some sherds were definitely of the Sutton Walls type, but rather more were of an extremely crumbly ware, with plain, slightly everted rims, of a type of which the affinities cannot be established. Iron and bone objects were also found. The evidence suggests that the occupation was similar in type to that at Sutton Walls, and that the Sutton Walls people had probably established themselves at Dinedor, which overlooked the Wye as Sutton Walls overlooked the Lugg. Whether the other element represented by the different pottery is immigrant or indigenous cannot be established on the present evidence. A similar situation seems to have existed at Poston Camp, to be published shortly by Miss I. Anthony. Much of the pottery seems to resemble that of Dinedor, while there are a few stamped sherds of the Sutton Walls type.

Little more than surface scratchings were undertaken at Aconbury, but an appreciable number of sherds was found. No rim sherds were included, but the ware could well be that of the Sutton Walls pottery. The number of sherds in the very small amount of material examined does at least make it clear that Iron Age pottery is common on the site, and suggests that the occupation is similar in character to that at Sutton Walls and Dinedor.

Credenhill was a complete contrast. Fairly extensive clearances were made immediately inside the south-west entrance, and numerous soundings at other parts of the hill. Not a single sherd of Iron Age pottery was found (and only one minute sherd of Samian to represent the Roman period), and no sign of structures or real occupation levels. It thus resembles the hill-forts of Shropshire and the Welsh Marches to the north.

Very much remains to be learnt about these Herefordshire sites and those of the adjacent areas. But enough emerges from the investigations here described, and from previous work in the area to the north, to suggest an outline of the general picture. The basic population of the March area is probably represented by the builders of the hill-forts of the type of Credenhill and those to the north. Some have produced evidence of structures and some permanent occupation, others may have been only places of refuge. But whether the sites were temporarily or permanently occupied, the inhabitants were not in the habit of using pottery nor any other material equipment which has survived. Their utensils and containers must have been of wood or skin, and they can have possessed little metal. Most probably they are to be identified as the residual Bronze Age inhabitants, introduced to the Iron Age habit of fort-building by contact with the newcomers to the east, and in part probably impelled to adopt these defensive measures by ever-increasing pressure from that direction. Such pressure would be exemplified by the penetration of the Bristol Channel B people up the Severn and Wye, and possibly the Iron A penetration to the Wrekin, perhaps itself a reflex of the increasing pressure on the Iron Age peoples in the south. All the March sites properly investigated show a succession of periods, usually a primary fortification phase, followed by a period of decay of defences and then a hurried refortification followed by final abandonment. This hurried refortifying is usually held to be against the advance of the Romans. Fear of the Belgae has been suggested as a reason for the earlier fortification phase. Belgic penetration into the West Midland area was, however, both negligible and late, and it seems much more likely that it was in fact at least in part due to the threat of the Bristol Channel B people arriving from the south.

The Roman Period

The evidence from the west entrance makes it clear that, after the slaughter of the defenders which has been assigned to the capture of the site by the Romans, the ditch adjacent to the entrance was filled and the revetment of the ramparts was allowed to decay, if the defences were not purposely slighted. Use of the entrance, however, continued to be heavy, and after wear had reduced the central surface to well below the foot of the ramparts a surface was laid, sealing Roman sherds, which was succeeded, after a considerable accumulation of debris, by at least one more. None of the finds in these levels was datable, but the evidence at least shows use over a prolonged period.

Within the camp the evidence is clear that the site was in fact occupied as a village during the first part of the Roman period. In all the occupation areas, the upper levels, which were similar in character to the lower ones, contain a little Roman pottery together with a much greater quantity of native sherds similar to those found in the lower levels. In the first stage, therefore, after the Roman capture of the site,

the inhabitants continued to live in the same huts. Over the latest of these is a brick layer (Period VI, Pit 1, see p. 18), which must represent the occupation material of the latest hut, but probably levelled over prior to the laying down of the stone floor above Pit 1. This stage in the occupation probably covers the whole of the 2nd century A.D.

The construction of the stone paved hut above Pit 1 represents a further stage in Romanisation. The hut itself is exceedingly crude, and in itself indicates not so much Romanisation as a change in the local building tradition. The contents of the occupation levels do, however, show the complete disappearance of the true native pottery, though the Roman forms in native ware suggest continuity of population. The corn-drying kiln above Pit 2, which is not necessarily as late as the stone-paved hut, also indicates modest Romanisation. It is of a type found in Roman villas, but also in Romano-British villages.[1]

Thus up to the first half of the 3rd century A.D. there was a village at Sutton Walls, doubtless peopled by the descendants of the original inhabitants. Their way of life no doubt differed little from their ancestors, but gradually they came to purchase many of their household requisites (such as pottery) from local Roman markets, instead of making them for themselves. There is evidence that similar communities occupied other hill-forts, for instance Dinedor and Poston Camp near Vowchurch.

There is no clear evidence how long in the 3rd century the site continued to be occupied as a village. As described above (p. 20), the next phase is agricultural. Ploughing certainly levelled off much of the upper occupation levels, so there is no stratigraphical evidence. The material in the agricultural level belongs largely to the 2nd and early 3rd centuries, and it is therefore probable that actual occupation ceased before the end of the century. The few later sherds and the one 4th century coin could be accounted for by the agricultural use.

The Finds

The Iron Age Pottery

The pottery associated with the Iron Age occupation was very uniform in character. The ware was crumbly in texture, with many whitish or grey grits, the core in variations of grey, grey-brown or black, uniformly fired, the surface almost invariably polished black. Since the variations in shade do not appear to be significant, the ware of the individual sherds is not described unless there is something exceptional about it.

The predominant form is a comparatively small jar with flat base, sharp-cut, unsplayed and often rather narrow, the walls gently curving in above, giving a rather squat barrel-shape. The more elegant examples have fairly thin rims with a pronounced internal hollow and a projecting ridge below, as if recessed to take a lid (but no lids were found). From

[1] E. C. Curwen, *Antiquaries Journal*, xiii.

these there are all variations of size of hollow to similar forms without any hollow at all. This general type was by far the most common in the early levels, but there did not appear to be any chronological significance within the period of the occupation of Sutton Walls between the pronounced and the vestigial hollows.

Other forms had recurved or short upstanding rims. The numbers of these became greater in the later levels of the pits, from Period IV of Pit 1 onwards. This is the phase at which Roman pottery begins to appear, and some of the forms merge into those which undoubtedly imitate Roman forms (p. 46), and it is not always possible to differentiate. The general type does, however, begin to appear in the pre-Roman levels, and the modification towards Roman forms is thus easy.

Of the total rim sherds found, almost exactly 50% were decorated and 50% undecorated. But in the phases in which the native ceramic tradition was predominant, that is to say down to and including Period V of Pit 1, the proportion of decorated to undecorated is slightly more than 2 to 1, while in the later levels and the unstratified material this proportion is reversed.

The decoration is stamped just below the external rim, in six main varieties of pattern, S-shaped, crescents, chevrons or wedges, solid wedges, slashes and stabs. It is made up of individual impressions of a single pointed implement, fairly accurately applied in continuous bands. The implement could have been of wood or bone, but since no examples survived, it was probably of wood. Within the main varieties of pattern there are many variations. The S-pattern may be upright or inclined, and thin or plump. In the latter variation it may closely resemble a line of swimming ducks, from which is derived the nick-name applied to similar pottery found in the Cotswolds (p. 26). On the Sutton Walls evidence there is nothing to show that the S-pattern developed into the ducks, or *vice versa*. The wedges and crescents may be arranged at any angle and may be of very varying sizes, and the solid wedges, slashes and stabs show similar mutations.

In the rampart levels and down to and including Period III in Pit 1, and the corresponding levels in the other pits, the S-patterns, crescents and chevrons are overwhelmingly preponderant. The solid wedges appear in Pit 1, Period II, but are not common until IV onwards. The stab and slash patterns appear in Pit 1, Period IV and the equivalent levels, and are common thereafter, though still forming only about one-third of the total specimens.

A few sherds appeared to belong to a different class of vessels, though the ware was very similar. The rims are upstanding or beaded, and beneath is a decoration of tooled lines, usually oblique lines between two encircling ones. This would appear to represent a different tradition of decoration, and the forms on which it is applied are always different from those bearing the stamped decoration. Like the stamped decoration it appears at Bredon and other Cotswold sites. At Bredon it appears in the

early levels, but it is much more common in the later ones. At Sutton Walls it is very rare, and does not appear until Pit 1, Period IV. It is suggested above (p. 29) that this pottery belongs to a second element in the group of immigrants of the Bristol Channel B group, which at Bredon in due course became predominant, but not at Sutton Walls.

FIG. 9

AREA I, RAMPART CUT A

Pit beneath Rampart

1. Plain straight sided jar.

From make-up of Rampart B

Sherd of shoulder of wheel-made pot, with cordons and impressed lines, probably Belgic, together with a considerable number of Iron Age B sherds.

AREA II, RAMPART CUT

Levels beneath Rampart

2. Rim with short internal hollow, wedge pattern to right.

Also rim of form cf. fig. 10(5) ; a considerable number of body sherds ; much daub.

Make-up of Rampart A

3. Internal hollow.
4. Short internal hollow, crescent pattern to left.
5. Short internal hollow, thin rim, wedge-pattern to left ; diam, *c.* 16 cms.
6. Slight internal hollow, solid wedge-pattern, point up ; diam. *c.* 12–14 cms.

Also rim form cf. fig. 13(9), with pattern cf. fig. 13(14) ; rim form cf. fig. 12(10), with pattern cf. fig. 13(8) ; rim form fig. 13(9), with pattern cf. fig. 13(16) ; rim form fig. 14(13).

Occupation on Rampart A

Body sherds only, with one fragment of daub or loom-weight.

Make-up of Rampart B

Rim of form cf. fig. 14(14), and number of body sherds.

Occupation on Rampart B

7. Rim flattened, pattern S-shaped, tall and fine.
8. Rim rounded, tooled linear pattern.
9. Rim very slightly swelling externally.

Also rim of form cf. fig. 14(10) ; rim of form cf. fig. 11(11) ; much Iron Age B pottery, 2 sherds probably Belgic, 3 sherds Roman, a little daub.

AREA I, PIT 1

Period I

From beneath secondary iron-stained crust.

Rim of form cf. fig. 13(3), with pattern cf. fig. 13(8).

Period Ia, occupation on Period I surface

10. Pronounced internal hollow, wedge-pattern to left. Diam. *c.* 22 cms.

Also 2 rims of form cf. fig. 13(5), with similar pattern ; rim of form cf. fig. 13(3), with similar pattern ; rim of form cf. fig. 13(1), with similar pattern ; rim of form cf. fig. 9(13).

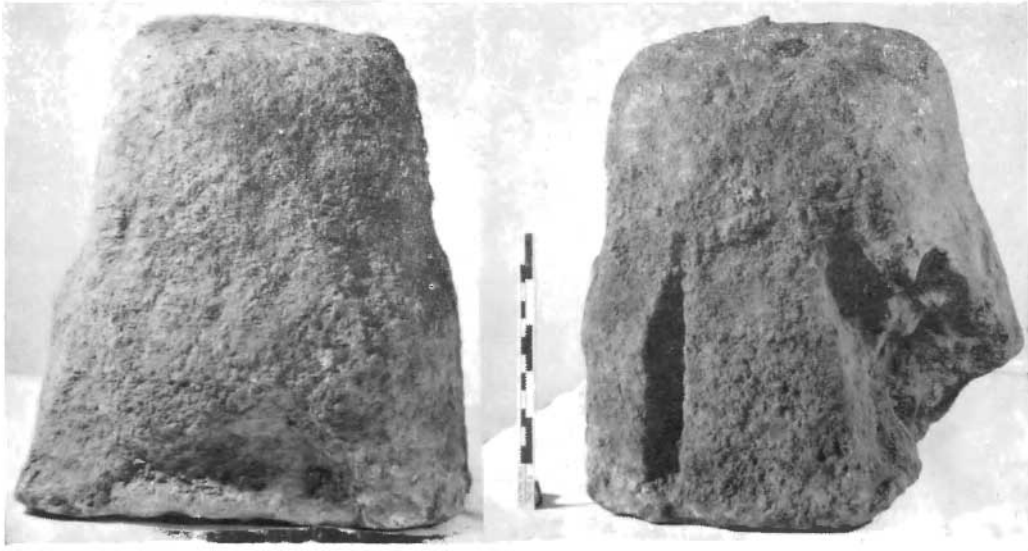
Period II

11. Thin rim, slight internal hollow, wedge-pattern to left. Diam. *c.* 16 cms., but angle, and therefore diam. uncertain.

A. Area I, Pit 2, corn-drying kiln

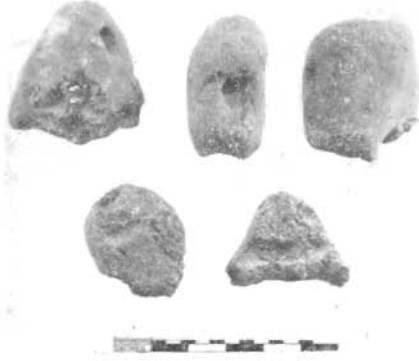
B. Area I, Pit 1, Square AB, burial SW. IV

C. Area I, Pit 1, Square BE, burial SW II

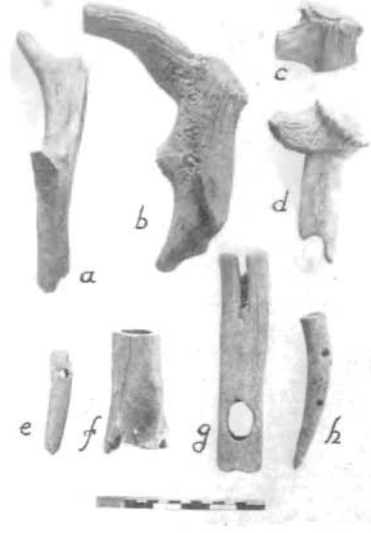


A. Area IV, Pit 3, iron anvil

B. Antler cheek-piece of bridle



C. Loom-weights



D. Objects of antler

r, looking N.

rance, looking NE.

C. Trench up interior face of rampart

DINEDOR CAMP

PLATE XVII

Also many sherds, including rim of form cf. fig. 13(8), with pattern cf. fig. 13(8); similar form with pattern cf. fig. 13(24); rim of form cf. fig. 13(14), similar pattern; rim of form cf. fig. 13(9), similar pattern; similar form with pattern cf. fig. 13(14); rim of form cf. fig. 13(12), with pattern fig. 13(8).

Period IIb, recutting of central pit in II floor

12. Rim out-turned and rounded.

FIG. 10

Period III

1. Large pot, rim hollow, pattern wedge-shaped to left with central rib.

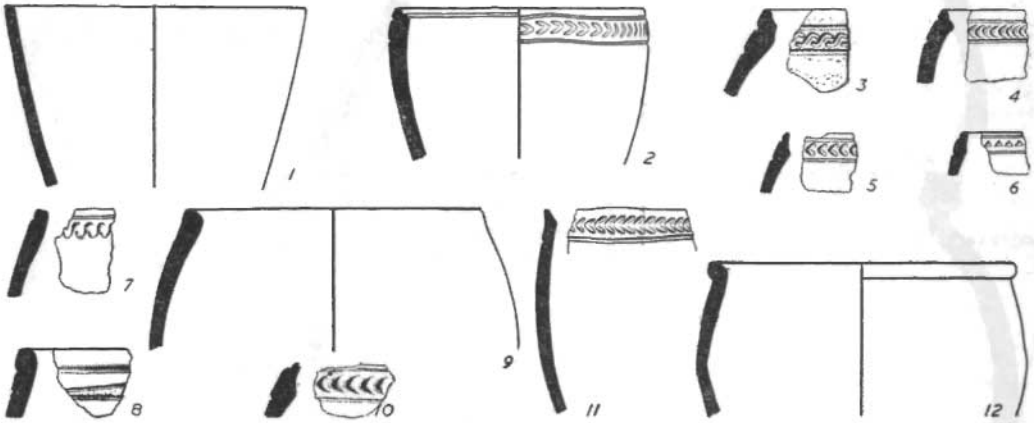


Fig. 9. Pottery from: Area I, Rampart cut A (1); Area II, Rampart cut (2–9); Area I, Area I, Pit 1, Periods I–IIb (10–12). ¼

2. Thin rim, internal hollow, crescent pattern, curve upwards, forming continuous arcade.
3. Short upstanding rim.
4. Short thick upstanding rim, internal hollow.
5. Plain barrel-shaped vessel.
6. Example of number of fragments of curious daub or brick-like fragments, coarse texture, reddish colour, poorly fired, finger smearings and impressions on surface. They must be something of the nature of crucibles, or connected with a furnace.
7. Base of jar, specimen of the usual type. The base shows a number of parallel ridges from the material on which it was set during manufacture.

   Also rim of form cf. fig. 13(3), with pattern cf. fig. 13(19); 3 rims cf. fig. 14(21); rim cf. fig. 10(4).

Period IIIa, occupation on III

8. Very large pot, found crushed on the sandstone hearth of III; heavy knobbed rim with slashed cable pattern on top, and rather angular S-pattern on shoulder. Anciently mended with lead rivet.

FIG. 11

Period IIIb, probable destruction level of III walls

1. Strong external groove demarcating rim, duck pattern to right.

Period IV

2. Thin rim with sharp groove, wedge-pattern with an upward projection, possibly a degenerate 'duck' pattern.

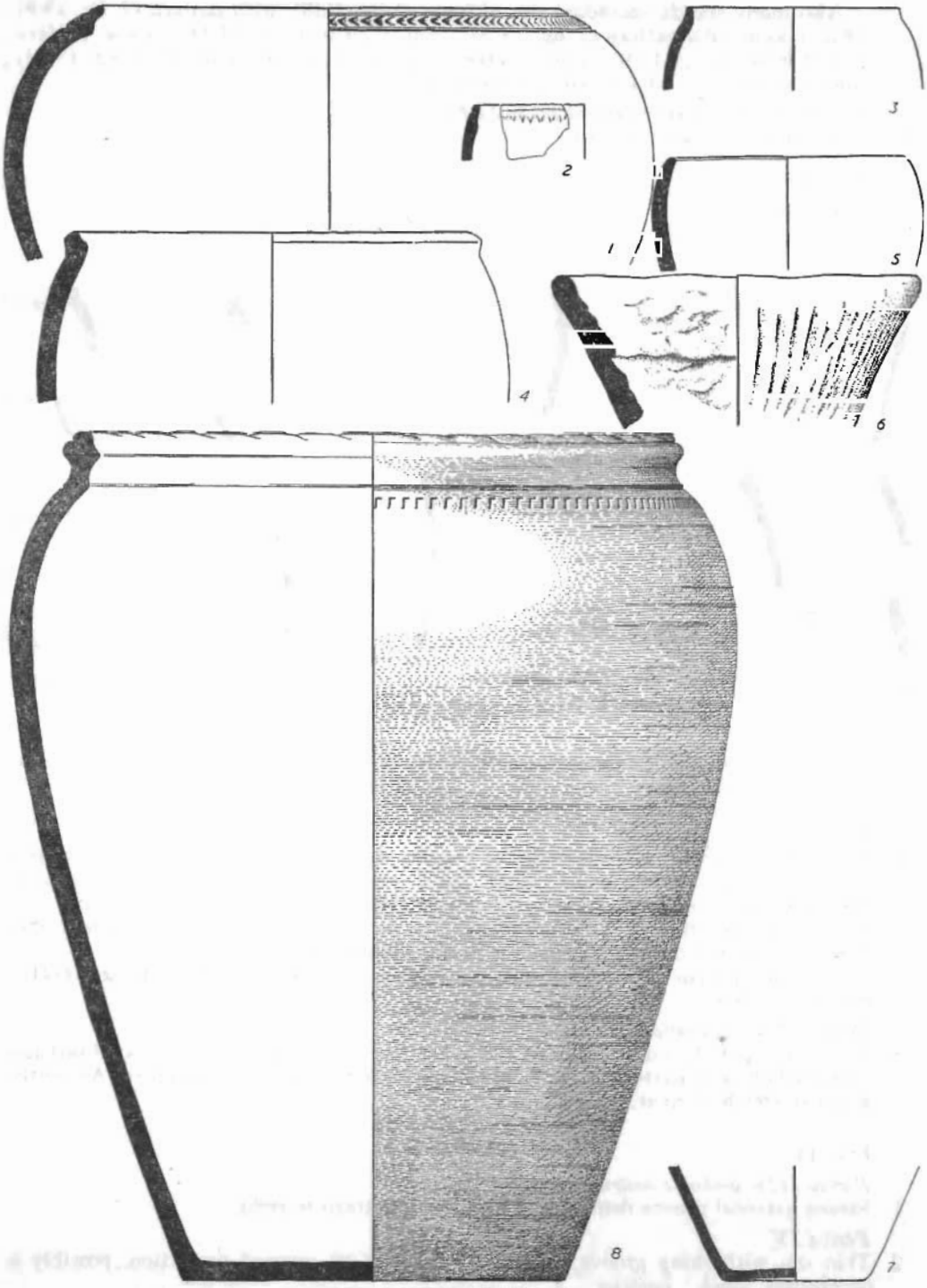


Fig. 10. Pottery from Area I, Pit 1 : Period III (1–7) ; Period IIIa (8). ¼

3. Knobbed rim, slashed pattern.
4. Upstanding rim, rounded on top.

Also 4 sherds of rim form and pattern cf. fig. 13(1) ; rim form cf. fig. 13(9), with similar pattern ; rim form cf. fig. 13(15), with pattern cf. fig. 13(2) ; 3 rims of form cf. fig. 13(1), with pattern cf. fig. 13(7) ; rim form and pattern cf. fig. 13(3) ; similar rim with pattern cf. fig. 13(19) ; rim cf. fig. 13(5), with pattern cf. fig. 13(19) ; rim cf. fig. 13(10), with pattern cf. fig. 13(8) ; fragment with pattern cf. fig. 13(25) ; rim cf. fig. 14(15) ; rim cf. fig. 10(3) ; rim cf. fig. 14(2) ; rim cf. fig. 14(13) ; rim cf. fig. 13(3) ; rim cf. fig. 9(5), with pattern cf. fig. 13(1) ; rim cf. fig. 13(3), with pattern cf. fig. 13(21) ; fragment with pattern cf. fig. 11(19).

A few sherds of Roman ware appear among a great quantity of native ; some daub.

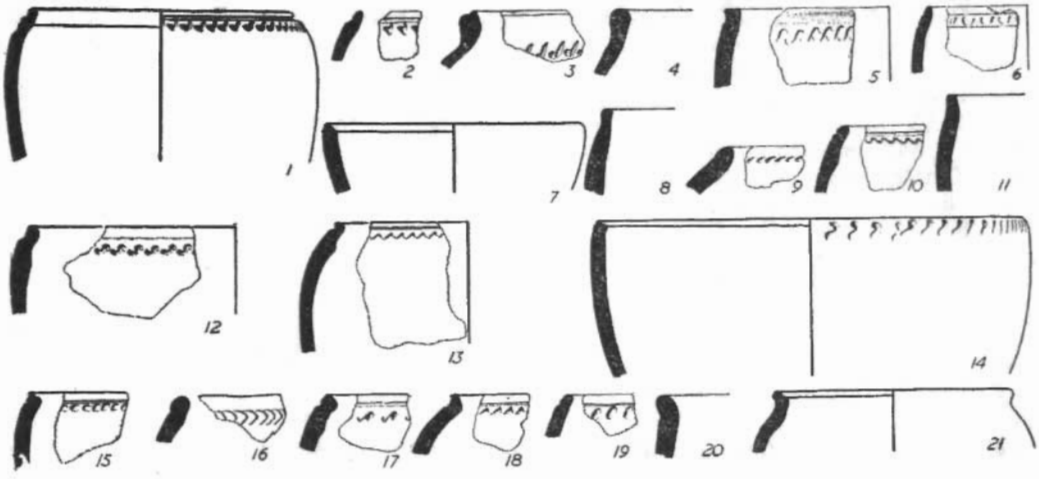


Fig 11. Pottery from Area I, Pit 1. Periods : IIIb (1) ; IV (2–4) ; IVa (5–8) ; V (9) ; VI (10–11) ; VII (12–21). ¼

Period IVa from destroyed IV walls

5. Rim flattened on top, S-pattern to right.
6. Thin rim, short irregular slashes.
7. Plain sided bowl or wide-mouthed jar.

Also rim of form cf. fig. 13(3), with pattern cf. fig. 13(26) ; rim cf. fig. 13(1), with pattern cf. fig. 13(7) ; 2 rims cf. fig. 13(14), with pattern cf. fig. 13 (1) ; rim cf. fig. 14(15); rim cf. fig. 9(13) ; rim cf. fig. 13(3), with pattern cf. fig. 13(19) ; rim cf. fig. 13(5), with pattern of irregular stabs.

Other sherds included a few Roman ; some daub.

8. Short upright rim, rounded on top.

Period V

9. Rim inclined well in, stab pattern.

Also rim cf. fig. 9(13).

Sherds included a few Roman ; some daub.

Period VI

Iron Age material (for Roman see fig. 15).

10. Wide, shallow internal hollow, S-pattern combined into wavy line.
11. Short upright rim, flat on top.

Also rim of form cf. fig. 13(5), pattern fig. 13(26) ; 3 rims cf. fig. 14(14) ; rim cf. fig. 14(13) ; rim cf. fig. 9(9) ; rim cf. fig. 13(3), with pattern of solid wedges ; rim cf.

fig. 11(14), with pattern cf. fig. 11(10) ; rim cf. fig. 13(20), with pattern cf. fig. 11(1) ; rim cf. fig. 13(9), with similar pattern ; rim cf. fig. 12(9), with pattern cf. fig. 11(19).

There were about an equal number of Roman and native sherds. It is uncertain how much of the Iron Age material represents vessels still in use in the 2nd century A.D. and how much is derived from the disturbance of underlying levels, but the proportion suggests that the Iron Age forms did continue in use.

Period VII

Iron Age

This material is certainly all derived from Iron Age levels disturbed in the agricultural operations of Period VII, since the Period VIa material contained a negligible quantity of Iron Age sherds.

12. Rim with slight internal hollow, duck pattern to right.
13. Rim with internal hollow, S-pattern to right, combined in continuous wavy line.
14. Wide-mouthed jar or bowl with flattened rim, thick and degenerate duck pattern.
15. Small internal hollow, stab pattern ; diam. *c.* 16 cms.
16. Rounded rim, wedge-pattern to right ; diam. 18 cms.
17. Thick rim with internal hollow, angular duck pattern to right.
18. Pointed rim with internal bevel, solid wedge-pattern with point to left.
19. Flattened rim, oval stab pattern.
20. Slightly out-turned rim.
21. Small internal hollow.

FIG. 12

AREA I, PIT 2

Period II

1. Rim with slight internal hollow, crescent-pattern to left, elongated.
2. Upright rim, flattened on top, wedge-pattern to right.

Period III

3. Rim with broad internal hollow, S-pattern to right, combined into continuous wavy line.
4. Broad shallow internal hollow, crescent-pattern to left.
5. Thick out-turned rim.
6. Pedestal base of brick-like material. It is probably something in the nature of a crucible. The ware is similar to fig. 10(6).

Also rim of form cf. fig. 11(1), with pattern cf. fig. 13(8) ; rim cf. fig. 9(9).

Period IV

7. Slight internal hollow, thick and duck-like S-pattern to right.
8. Very slight internal hollow, wedge-pattern with points up, combined into continuous arcading.
9. Rounded rim, vestigial hollow, pattern of solid wedges with point upwards to right.
10. Heavy rim, hollowed on top, pattern crescent-shaped, curves to left, with pronounced triangular tongue.
11. Barrel-shaped jar, pattern of double stabs.
12. Rim very slightly recurved.

Also rim of form cf. fig. 12(3), with pattern cf. fig. 12(9) ; rim cf. fig. 13(3), with pattern cf. fig. 13(21).

Period V

This level is the equivalent of Pit I, Period VI (p. 22). The Iron Age sherds are therefore probably derived from disturbed Iron Age levels.

13. Barrel-shaped pot, pattern of wedges, pushed in to the right, giving a rusticated effect.
14. Rim flattened on top, pattern of elongated horse-shoe-like crescents.
15. Bead rim pot, tooled diamond pattern.

Also rim of form and pattern cf. fig. 11(1) ; rim form cf. fig. 11(12), with pattern cf. fig. 12(8) ; rim form cf. fig. 11(11).

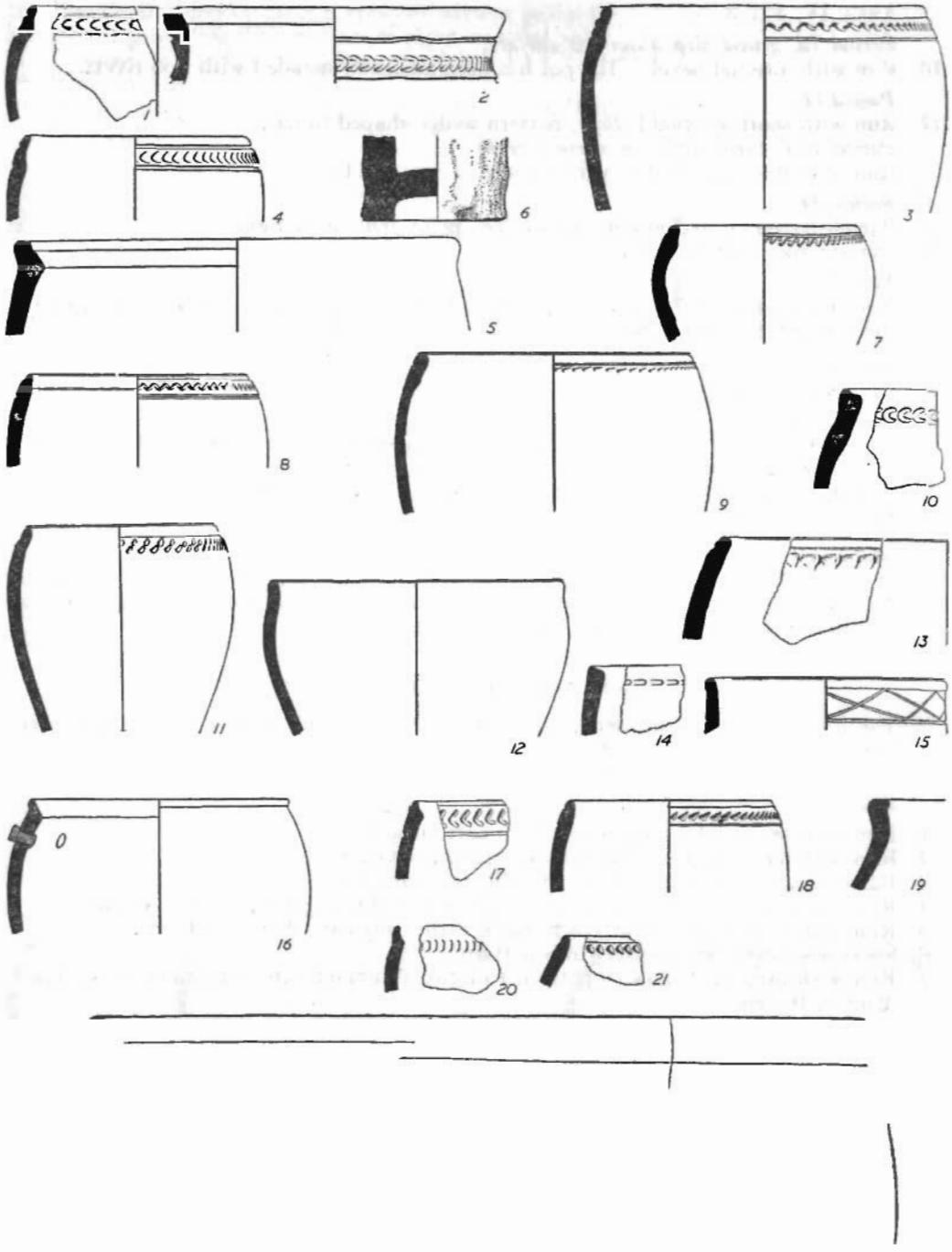


Fig. 12. Pottery : from Area I, Pit 2 (1–15) ; Area IV, Pit 3 (16–21) ; Area III (22). ¼

AREA IV, PIT 3

Period Ia, gravel slip above 1st surface.

16. Rim with internal bevel. The pot has been anciently mended with iron rivets.

Period II

17. Rim with short internal hollow, pattern wedge-shaped to left.

Period IIa, burnt layer on surface of II

Rim of form cf. fig. 11(13), with pattern cf. fig. 13(14).

Period III

18. Barrel-shaped jar, pattern of solid wedges, point upwards to right.
19. Upright rim, flattened on top.

Period IV

Rim of form cf. fig. 11(1), with pattern fig. 13(15) ; fragment with pattern cf. fig. 13(13) ; rim form cf. fig. 13(13).

Period VI

Rim of form cf. fig. 14(10).

Period VII

This corresponds to Pit I, Period VII, and survived only over a small part of the area. The material is therefore derived from disturbed Iron Age levels.

20. Rim with short internal hollow, pattern crescent-shaped, rather flat and angular.
21. Bead rim jar, solid wedge-pattern, point downwards to right.

AREA III

22. A small portion was excavated of a pit visible in the face of the quarry opposite Area I, just inside the south rampart. A considerable portion of a large jar, not reconstructable, was found in a layer low in the pit.

UNSTRATIFIED IRON AGE POTTERY

The great majority of the sherds were found in quarry debris, mainly by local observers, but some during the excavations.

FIG. 13

1. Rim with broad internal hollows, duck pattern to right.
2. Rim with only slight internal hollow, upright S-pattern.
3. Barrel-shaped pot, S-pattern to left, slightly blurred.
4. Rim demarcated by sharp groove, S-pattern to right, angular ; diam. *c.* 16 cms.
5. Rim flattened on top, S-pattern to right, rather angular ; diam. *c.* 14 cms.
6. Short up-curved rim, vestiges of S-pattern.
7. Rim with internal hollow, S-pattern to right, combined into continuous wavy line ; diam. *c.* 16 cms.
8. Knobbed rim, wedge-pattern, point to left.
9. Barrel-shaped, with very slight internal hollow at rim, wedge-pattern to left.
10. Similar form and pattern.
11. Shoulder inclined in, bead rim, similar pattern.
12. Rim demarcated by sharp groove, short internal hollow, pattern wedge-shaped to left.
13. Upstanding rim with pronounced internal hollow, wedge-pattern to right.
14. Barrel-shaped pot with internal hollow at rim, pattern wedge-shaped to left, rather rounded.
15. Short upright rim, pattern wedge-shaped to left, rounded and verging on crescent.
16. Barrel-shaped with very slight internal hollow, pattern wedge-shaped to left, with unequal arms.
17. Barrel-shaped pot, upright crescent pattern.
18. Rounded knob rim, crescent pattern to left.

19. Rim demarcated by groove, crescent pattern to right.
20. Short upstanding rim, crescent to right, unequal arms.
21. Upstanding rim, crescent pattern to right ; diam. *c.* 10 cms.
22. Bowl, multiple crescent pattern.
23. Short upright rim with internal thickening, elongated crescent pattern to right, very faint at tip.

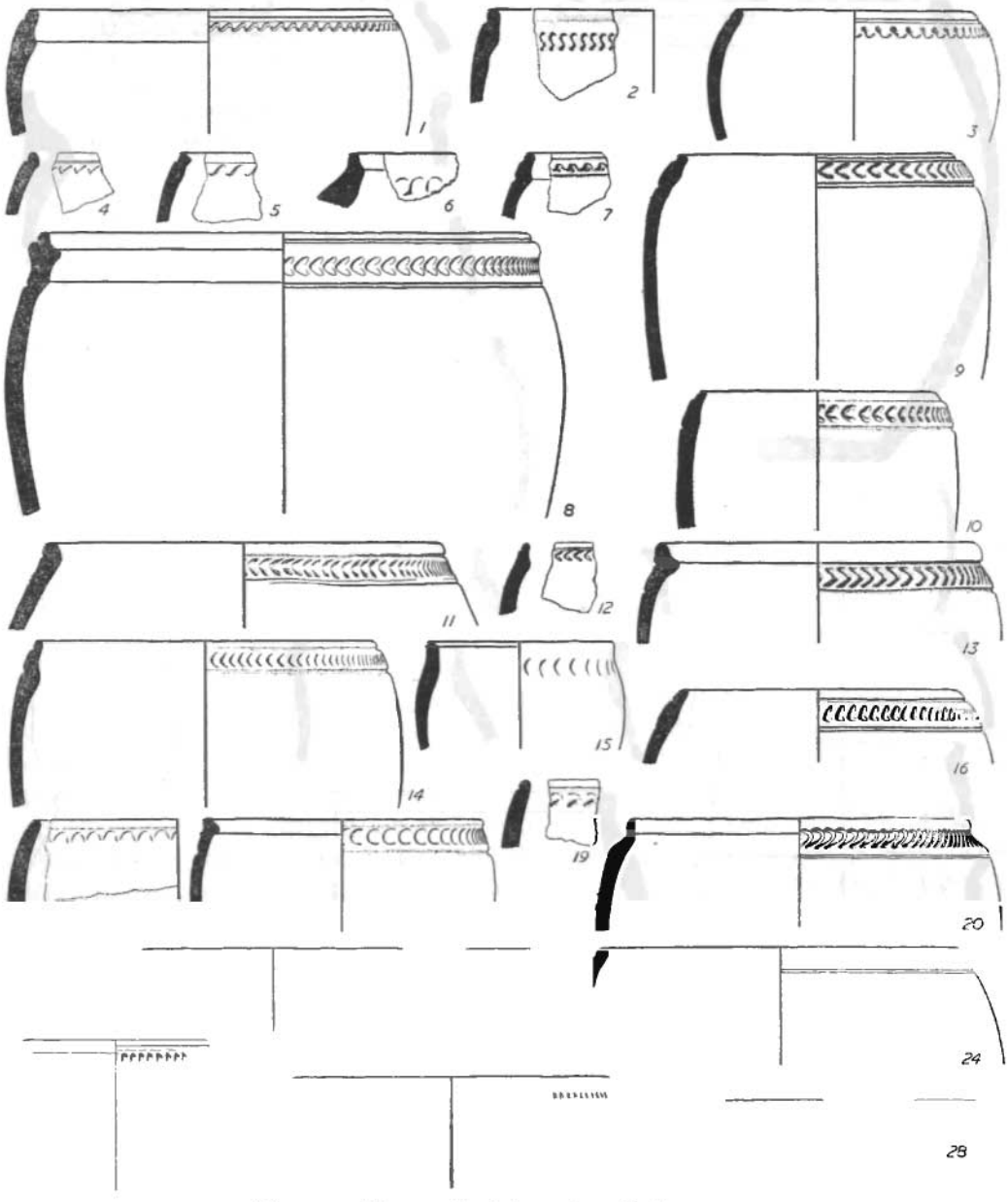


Fig. 13. Unstratified Iron Age Pottery. ¼

24. Barrel-shaped pot, rim with very slight internal hollow, solid wedge-pattern, point upwards.
25. Small barrel-shaped pot, solid wedge-pattern, point downwards to left.
26. Short up-turned rim, stab pattern.
27. Short upright rim, flattened on top, pattern of double stabs.
28. Upright rim, pattern of oblique slashes.

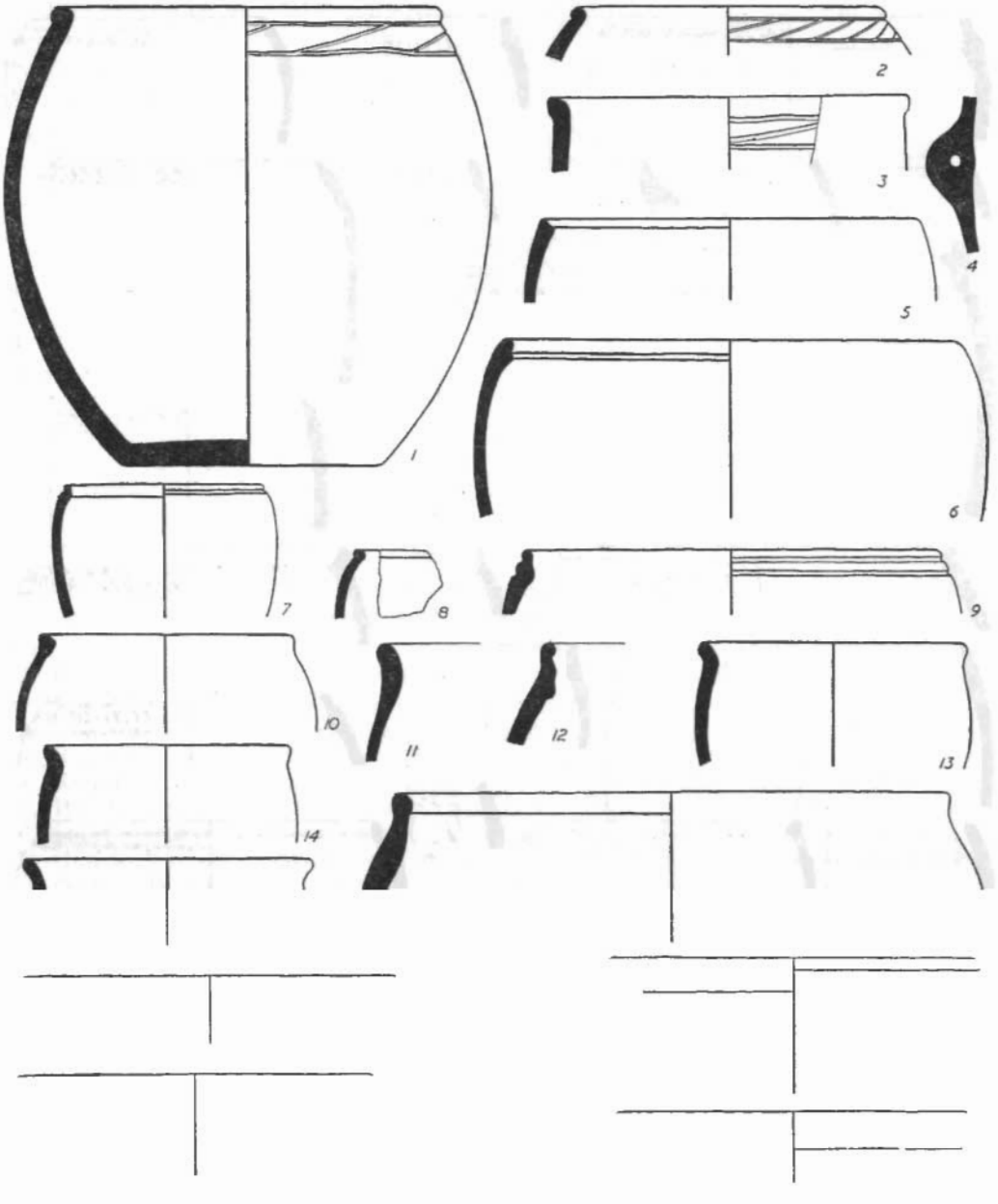


Fig. 14. Unstratified Iron Age Pottery. ¼

FIG. 14

1. Bead rim jar, pattern of horizontal and oblique tooled lines.
2. Similar jar, smaller bead.
3. Upright rim, pattern of horizontal and oblique tooled lines.
4. Handle of jar, very slightly countersunk. The only example found.
5. Barrel-shaped jar, rim with very short internal hollow.
6. Similar jar, slightly larger hollow.
7. Similar bead-rim jar.
8. Similar jar, thicker rim.
9. Similar jar with double groove.
10. Recurved rim, thickened internally.
11. Recurved rim, thick ; diam. *c.* 20 cms.
12. Recurved rim with irregular internal thickening ; diam. 24 cms.
13. Recurved rim.
14. Similar rim, more upright.
15. Higher recurved rim.
16. Upstanding rim, thickened internally.
17. Flattened bead rim.
18. Upright rim, flattened on top.
19. Everted rim.
20. Everted rim, heavy.
21. Similar rim, less everted.
22. Bowl with wall sloping out., diam. *c.* 20 cms.
23. Bowl with curved walls.
24. Plate or bowl with thick upright walls.

ROMAN POTTERY

A very great quantity of Roman pottery was found on the site, and it is clear that occupation was intensive at least until the beginning of the 3rd century A.D. The amount of 1st-century A.D. pottery is not large, and it is probable that full establishment of the sway of Roman ceramic products in Herefordshire was not achieved until the 2nd century A.D. Possibly even well into that century the inhabitants of Sutton Walls continued to manufacture their own products and to use them alongside Roman vessels. Thus, a few Roman sherds appear in Periods IV and V, unfortunately none of recognisable forms, together with an overwhelming preponderance of native types. Only in Period VIA, which must date to the end of the 2nd century (see below, p. 48), does Roman pottery become preponderant. The first structure which breaks away from the native type houses, the stone-floored hut overlying Pit 1 must date from the beginning of the 3rd century, while the corn-drying oven overlying Pit 2 may be somewhat earlier.

Some of the Roman pottery is of types found throughout Roman Britain. The majority, however, is of the type peculiar to the West Midlands, and is quite distinct from that of the north and east. It is marked especially by red and red-brown wares. Unfortunately, there have been very few carefully excavated sites in this area with a good sequence of dated deposits, so few of the forms can be closely dated. It seems worth while to summarise the distribution and existing dating

evidence for the principal types. Most of them appear in Glevum ware (*J.R.S.*, xxxii), and Gloucester is presumably one, but not the only, centre of production.

Mugs

This is a type which does not occur at all in the east or north. The most easterly example traced is at Leicester (*Jewry Wall*, fig. 46(20)) where only one example (with a central zone with trellis decoration) occurred, in Period III, dating to A.D. 180. At Kenchester it is common but not dated. It is very common at Wroxeter, but not yet closely dated ; the range suggested (*Wroxeter*, i, p. 76) being second half 2nd century–3rd century. It does not seem to occur further north at Chester or Holt, nor at Caerhun, but an unusually narrow example occurred at *Segontium*, fig. 76(32), in a rather uncertain 4th-century association. It does not occur at Gelligaer. At *Caerleon, 1927–9*, fig. 63(448), an example was associated with Stone Buildings, and a Trajan-Hadrian date is suggested. It is common on a number of Gloucestershire sites. At Gloucester, in Glevum ware, a type with vertical walls and usually with a central zone vertically burnished, and the top and bottom zones horizontally burnished (*J.R.S.*, xxxii, fig. 1(3)) is common in the late 1st century and lasts into the 2nd century, while a type with splaying walls (*ibid.*, fig. 2(4)) is very common in the 2nd century. A very narrow type may be late 2nd century. The type also extends south into the Cranborne Chase area, where it is found at Woodcuts (*C.C.*, i, Pl. XXXIV, 3).

The Sutton Walls examples include types with plain straight walls, types with plain walls and bead rims, and types with central zones delimited by grooves and decorated with trellis patterns. The available evidence is insufficient to show which features have chronological significance, though the Gloucester evidence suggests that the upright walls may be earlier than the splaying. The type appears to be principally a 2nd century one, with some slight extension at either end.

High-Necked Jars and Bowls in Reddish Ware

The high-necked jars are presumably allied to the Belgic cordoned form, but they seem to develop along different lines in the west, and the ware is quite distinct. The wide-mouthed, deep, bowls are closely allied to the jars, and have the same variation in rim form. The distribution range is very similar to that of the mugs. At *Wroxeter, 1923–7* (fig. 42 (A1)), a jar with a high undercut rim and cordoned body occurs in the Pre-Forum level, together with a rather plumper jar with a more rounded rim (A2). In *Wroxeter, 1936–7*, a high neck with rounded rim is extremely common in the late 2nd–early 3rd century (fig. 10(24)), and undercut rims also occur (fig. 10(25–6)) at the same period. At Gloucester, in Glevum ware, a type with plain outcurved rim is very common in the second half of the 1st century, and a heavier undercut

type (*ibid.*, 23) is probably mid 2nd century. At Caerleon, the reddish ware jars are not of precisely the same form. At *Brecon*, out-curved rim types are dated to A.D. 100–120 (fig. 98(C33)). The chronological range is thus late 1st to early 3rd century, the typological development being again not fixed.

In the case of the wide-mouthed bowls, it is suggested on the Gloucester evidence that the type with plain out-curved rim (*J.R.S.*, xxxii. fig. 3(33–5)) is late 1st–early 2nd century, while that with rolled and undercut rim (*ibid.*, 34–40) lasts throughout the 2nd century. In *Wroxeter, 1936–7* (fig. 9(19)), an example with a plain outcurved rim is dated Hadrian–Early Antonine, and in *Wroxeter, 1923–7*, very similar examples with undercut rims occur in the destruction levels, both of A.D. 160 (fig. 45(B5)) and A.D. 275 (fig. 45(C5)). The conical form of these two vessels may possibly be a late type.

Plates in Reddish Ware

Examples occur at Sutton Walls of the type of plate in red or red-brown ware, with splaying walls and incurved rims, which are common at Caerleon (*Caerleon Amphitheatre*, fig. 20(22–32)). On that site they are very common in the Trajanic–Hadrianic period, with a light extension at either end.

Bowls

The typical bowl form (fig. 16(6, 8)) has a rounded pie-dish rim, sometimes reeded (but quite distinct from the reeded-rim bowl of the east and north), and very often with a slight incurved projection at the rim. This type is very common at Gloucester (*J.R.S.*, xxxii, fig. 4(63–72)), where the reeded forms may be Flavian and the plumper plain ones are 2nd century. In *Wroxeter, 1923–7*, they are common A.D. 130–160 (fig. 44(B8), fig. 45(B9)), and in *Wroxeter, 1936–7* (fig. 10(20)) they are very common late 2nd–early 3rd century. In *Caerleon, 1927–9* (fig. 61(353–365)) they are dated from the late 1st century to the middle of the 4th century. Again, we cannot do much yet towards dating the variations within the period late 1st to early 3rd centuries.

Summary

The above forms are thus the main vessels peculiar to the West Midlands in the 2nd century, with an indefinite extension into the 1st and 3rd centuries. Further excavations are needed to define the forms more closely, and it is unlikely, with the considerable variations of forms, shown for instance at Sutton Walls, that this cannot be done on a suitable site. Work on early sites in Gloucester should provide the earliest evidence, and the earlier levels at Wroxeter the next stages. As regards the final dating, it may be noted that none of these forms appear in the

late 4th century levels at Lydney, where the wares are those common to the south of Britain.

Roman Forms in Native Tradition

Only one other group of pottery requires comment. This consists of vessels which are Roman in form, but entirely native in fabric. The forms are pie-dishes (fig. 17(5)), straight-sided dishes (fig. 15(14–15)), and cooking pots with bead rims (fig. 21(7–12)). The ware is indistinguishable from that from Iron Age levels. They are only very roughly wheel-made, if at all, and the surface is extremely irregular. A number are decorated with a polished trellis pattern. A class of vessels in the same category, though they do not copy common Roman forms, is that of some extremely heavy bowls (figs. 18(5) and 19).

It is clear that these vessels were made on the site by the descendants of the potters of the Iron Age vessels.

Area I, Pit 1, Period VI

Fig. 15

Samian[1]

Form 37. 3 sherds of Form 31, Lezoux ware.

Although the surface is abraded the sherd is undoubtedly in the style of the group of potters associated with RANTO and the D. . . . Potter of Lezoux. The double-bordered ovolo has a slanting tongue ending in a blurred rosette, with a wavy-line border below. The design is similar to a larger unsigned sherd found in London (Matthew's Collection), and consists of a plain double arch resting upon RANTO's characteristic narrow columns. The four prongs or springers on top of the column is just visible on the sherd. To the left is part of the feathery leaf also characteristic of RANTO and his group.

Vessels in the style of this group have been found at Birrens (*PSAS* lxxii, p. 310–3), Chesterholm (AA[4] xiii, p. 259–4, South Shields, York, Brecon (Wheeler, fig. 75, s. 114), and Caersws (*Collections Hist. and Arch. relating to Montgomeryskire*, 1931), fig. 11(8) and fig. 12).

Period of production : c. A.D. 100–125.

Mugs

1. Plain, slightly flaring wall, bead rim. Red-brown ware, firing grey at surface.
   Also rim sherds cf. fig. 20(14) (3) and fig. 21(23).

Carinated Bowl

2. Belgic type. Grey ware.

Straight-sided Dishes

3. Walls inclined slightly out, very slight bead rim. Dark grey ware.
   Also 1 example cf. fig. 16(2).

Pie Dish

1 example cf. fig. 16(3).

Necked Jar

1 example cf. fig. 21(2).

4. Rim sherd of necked jar of normal south-eastern type. Fine hard grey-brown ware, grey slip in and out.

Cavetto-rim Jars

5. Fairly high outcurved rim, rather thick and heavy. Grey ware, polished on shoulder externally and over rim.
6. Short rim, curling well over. Grey ware, polished outside and over rim. Cf. *Jewry Wall*, fig. 26(13), from *c.* A.D. 110 to end 2nd century.
7. High rim, curving well out, bead at edge. Light grey ware, polished surface. Cf. *Jewry Wall*, fig. 26(17), where the type appears in the first half of the 3rd century, but elsewhere may just appear in the Antonine period (*ibid.*, p. 102).
8. Medium high rim, curved over at tip. Fine hard grey ware, polished externally and over rim, polished trellis pattern on body. Cf. *Jewry Wall*, p. 101, Type D, 2nd century.

[1] I am indebted to Miss Grace Simpson for reports on the Samian sherds.

9. Large part of jar with medium high rim. Fine hard grey ware. Polished zones on shoulder, extending over rim and above base. Girth decorated with polished trellis pattern.

EVERTED RIM JARS

10. High rim, swelling slightly externally. Light grey ware. Cf. *Jewry Wall*, p. 105, Type C, *c.* A.D. 100–120.

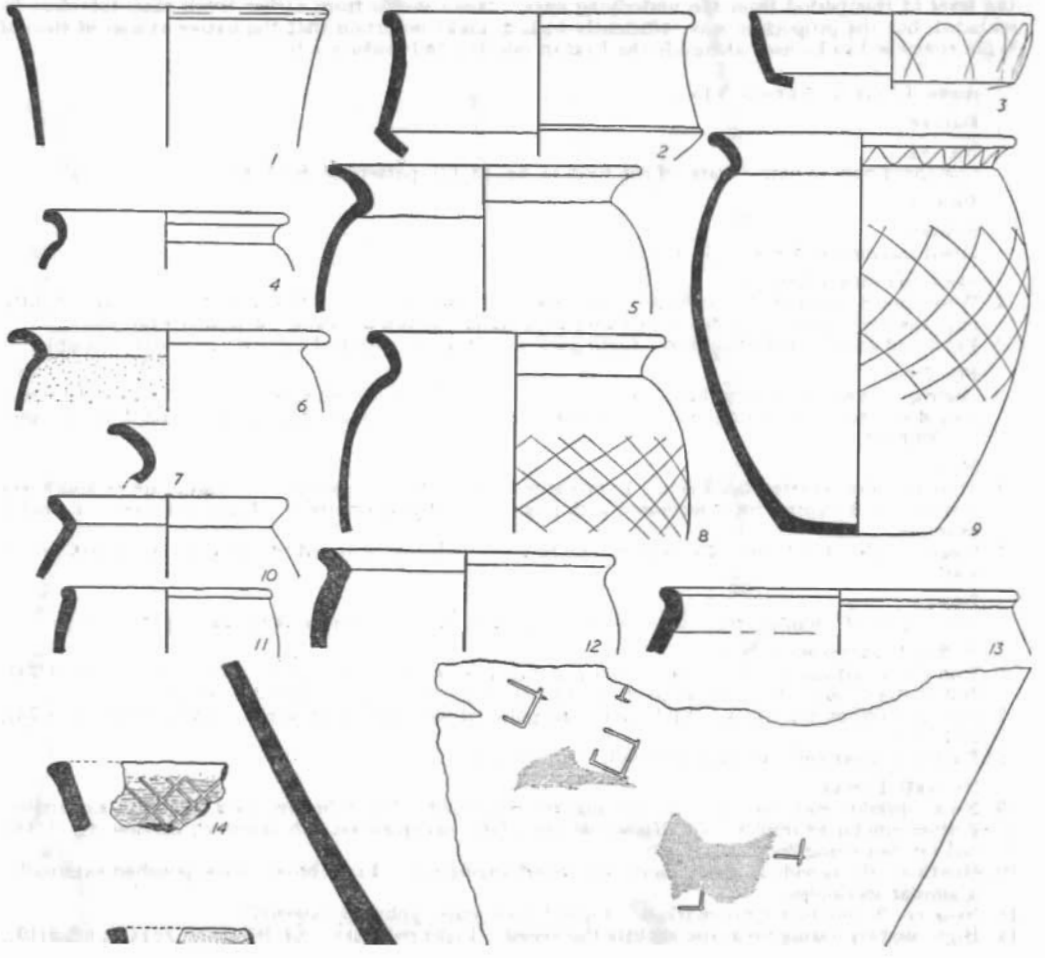


Fig. 15. Roman Pottery from Area I, Pit 1, Period VI.

COOKING POTS, NATIVE TRADITION

11. Rounded bead rim, hard coarse texture, light grey ware.
12. Short, thick everted rim. Coarse grey ware, black polished surface externally, with coating of soot.
13 Thick bead rim, flattened on top. Coarse grey-brown ware, firing grey on surface, many small white grits.

DISHES, NATIVE TRADITION

14. Oblique wall, thickened rim. Coarse red-brown ware, black polished surface in and out, polished trellis pattern.
15. Similar dish, rim less thickened. Similar ware and finish.

16. Many fragments of very large jar. Grey ware, with white grits, firing irregularly grey to light brown on surface, surface polished. A number of rectangular signs have been incised on the surface, probably after firing. A similar sign, not shown, is on the other side of the pot.

DATING

The latest sherd is no. 7, which is late 2nd or early 3rd century. All the other sherds are probably 2nd century, though no. 10 should be early in it. The pottery attributed to this level comprised nearly as much native ware (see p. 37) as Roman. It was not always easy at the edges of the pit to separate the level of this period from the underlying ones. Some sherds from earlier levels may therefore be included, but the proportion was sufficiently high to make it certain that the native vessels of the old types continued to be used alongside the Roman into the 2nd century A.D.

AREA I, PIT 1, PERIOD VIA

FIG. 16

NATIVE

One sherd only of native ware, of rim form cf. fig. 13(12), pattern cf. fig. 9(4).

ROMAN

SAMIAN

Small fragments of Forms 31 and 33.

STRAIGHT-SIDED DISHES

1. Wall almost straight, fairly thick. Grey ware, slightly polished. Decorated outside with lightly impressed interlocking circle on base and wide trellis pattern on walls. 4 similar examples.
2. Finer and smaller dish than last. Light grey ware, slightly polished surface. 2 similar examples.

PIE DISHES

3. Slightly curved rim, rather thick. Light grey ware, slightly polished externally and on rim. External wall decorated with wide, lightly impressed trellis pattern. 1 similar example, and 1 rather finer and thinner.

MUGS

4. Straight sides, everted bead rim. External wall divided into 3 zones by grooves, upper and lower zone polished, central zone decorated with faint polished trellis pattern. Light red ware. 1 similar example.
5. Straight sides, bead rim. Decorated zone of trellis pattern, bounded by flat cordon. Light brown ware.

BOWLS

3 examples of small everted rim bowl cf. fig. 21(16), and 6 examples of the same general type.

HORIZONTAL-RIMMED BOWLS

6. Rim plain and thick. Light brown ware, polished externally and on rim. Cf. *Glevum*, fig. 4(74), 2nd century ; near *Wroxeter, 1936–7*, fig. 10(20), common late 2nd–early 3rd century.
7. Rim grooved on top, thick. Light red ware, polished externally and on rim. Cf. *Glevum*, fig. 4(76), 2nd century.
8. Rather heavier rim, similarly grooved. Similar ware.

NECKED BOWLS

9. Neck upright, rim curved over and slightly thickened. Light brown ware, polished externally. 2 other similar examples. Cf. *Hucclecote*, fig. 25(6), occupied 1st–4th century ; *Glevum*, fig. 5(33), end 1st–beginning 2nd century A.D.
10. Mouth nearly as wide as girth, short neck, overhanging rim. Light brown ware, polished externally. 3 similar examples.
11. Near no. 9, shoulder more marked. Light brown ware, polished externally.
12. High, slightly flaring neck, rim slightly thickened. Light red ware. Cf. *Wroxeter, 1935–7*, fig. 9(19), Hadrianic–early Antonine.
13. High neck, rim curved over, heavy, slightly undercut. Light brown ware.
Also 1 example cf. fig. 20(25), and 1 near fig. 20(27), but smaller.

NECKED JARS

14. Neck curved gently out, rim not thickened. Light brown ware.
15. Similar jar, rather larger. Light brown ware, polished externally. Cf. *Glevum*, fig. 2(20), late 1st century A.D. ; *Wroxeter, 1923–7*, fig. 42(A2) ; *Brecon*, fig. 95(C6), A.D. 100–120.
16. Neck upright, rim curved over and overhanging. Light red ware, polished externally. Cf. *Wroxeter, 1923–7*, fig. 42(A1), A.D. 60–90 ; *Wroxeter, 1936–7*, fig. 10(25), fairly common later 1st–early 2nd century.
17. Neck fairly upright, rim thickened. Light red ware, polished externally. Cf. *Wroxeter, 1936–7*, fig. 10(24), extremely common late 2nd–early 3rd century.
Also 1 example cf. fig. 21(3), and one near fig. 21(4), but smaller.

CAVETTO RIM JARS

18. Short neck, curved well out. Dark grey ware, polished on shoulder externally and over rim, polished trellis pattern on body.

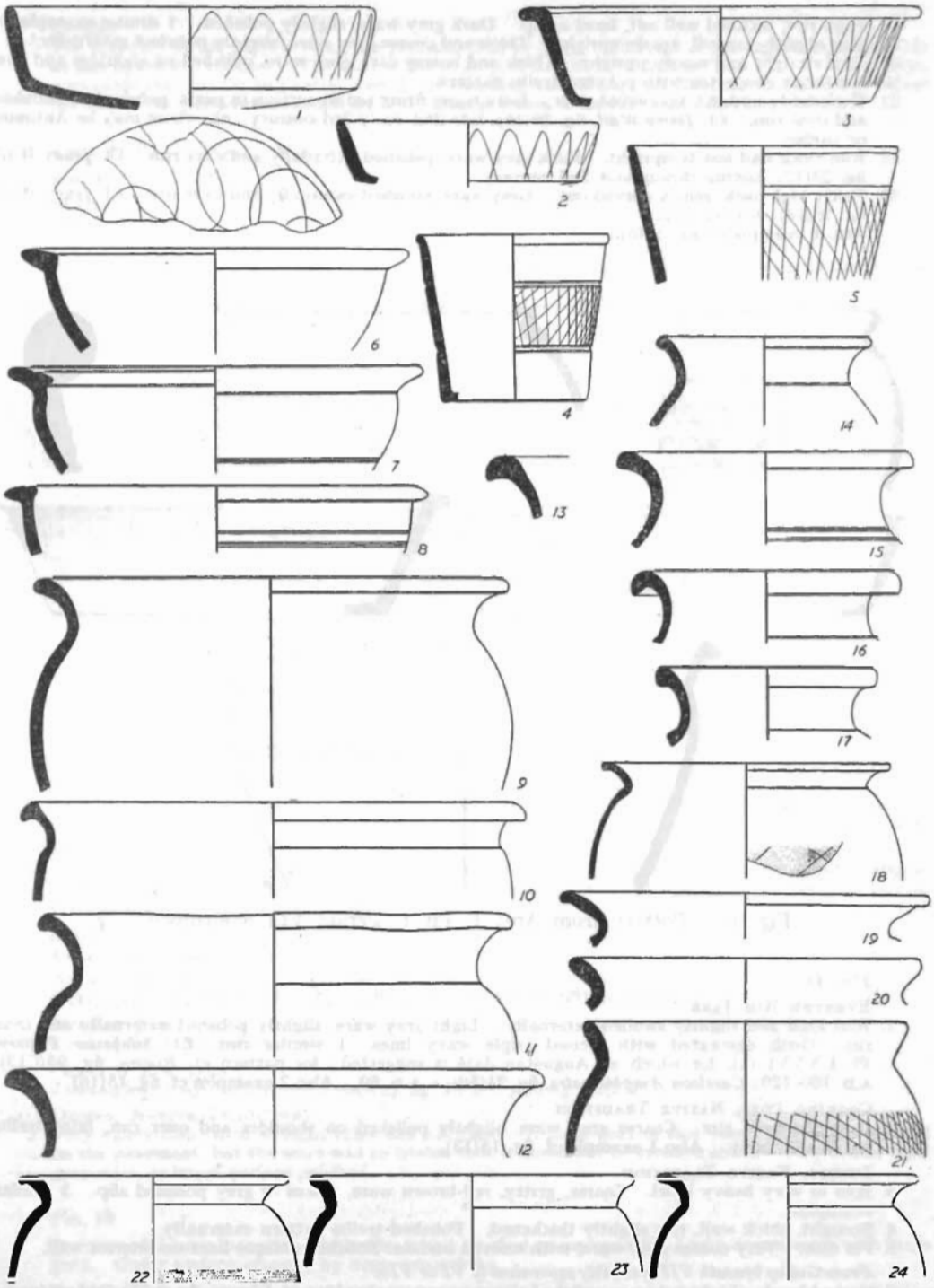


Fig. 16. Pottery from Area I, Pit 1, Period VIa. ¼

19. High rim, inclined well out, bead at lip. Dark grey ware, slightly polished. 1 similar example.
20. Rim slightly curved, nearly upright. Thick and coarse grey ware, slightly polished externally.
21. Rim straight and nearly upright. Thick and coarse dark grey ware, polished on shoulder and over rim, body decorated with polished trellis pattern.
22. Neck fairly upright, lip curved over. Grey ware, firing red at surface in parts, polished on shoulder and over rim. Cf. *Jewry Wall*, fig. 26(16), late 2nd–early 3rd century; elsewhere may be Antonine or earlier.
23. Rim thick and nearly upright. Dark grey ware, polished externally and over rim. Cf. *Jewry Wall*, fig. 26(11), lasting throughout 2nd century.
24. Fairly high neck, gently curved out. Grey ware, polished externally and over rim. Cf. *Jewry Wall*, fig. 26(18), 3rd century.
Also 1 example cf. fig. 15(6).

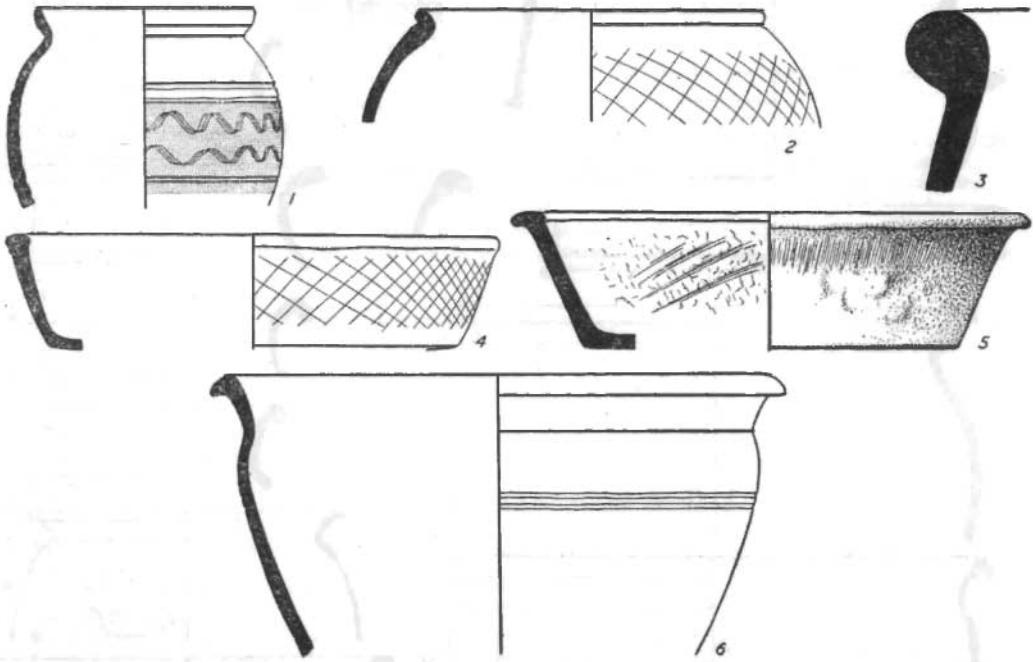


Fig. 17. Pottery from Area I, Pit 1, Period VIa (continued). ¼

FIG. 17

EVERTED RIM JARS

1. Rim high and slightly swollen externally. Light grey ware, slightly polished externally and over rim. Girth decorated with incised triple wavy lines. 1 similar rim. Cf. *Silchester Pottery*, Pl. LXXVI (1), for which an Augustan date is suggested; for pattern cf. *Brecon*, fig. 93(C13), A.D. 100–120; *Caerleon Amphitheatre*, fig. 21(59), *c.* A.D. 80. Also 2 examples cf. fig. 15(16).

COOKING POTS, NATIVE TRADITION

2. Rounded bead rim. Coarse grey ware, slightly polished on shoulder and over rim, faint trellis pattern on body. Also 1 example cf. fig. 15(13).

DISHES, NATIVE TRADITION

3. Rim of very heavy bowl. Coarse, gritty, red-brown ware, traces of grey polished slip. 3 similar examples.
4. Straight, thick wall, rim slightly thickened. Polished trellis pattern externally.
5. Pie dish. Very coarse grey ware, with uneven surface. Polished oblique lines on interior wall.

From Gulley beneath VII, probably equivalent to VI or VIa.

6. Necked bowl. Light red ware, polished above groove on shoulder, cf. *Glevum*, fig. 3(37), 2nd century; *Wroxeter* 1923–7, fig. 48. B5, A.D. 160, C5, A.D. 275.

DATING
The majority of the datable forms are probably 2nd century, with some of the cavetto rims possibly as late as the 3rd century. The level is therefore probably not much later than VI. It is, however, noticeable that hardly any native vessels are included, indicating that their use had died out before the end of the period represented by VI. Roman forms in native ware, however, continue.

AREA I, PIT 1, PERIOD VIB

FIG. 18

SAMIAN
Sherd of Form 33.

STRAIGHT SIDED DISHES
1. Wall oblique, not very thick. Dark grey ware, surface polished. Faint polished trellis pattern on exterior of wall. 2 similar examples.
2. Shallow dish, slight groove below rim externally. Grey ware, surface polished. 3 other similar examples.

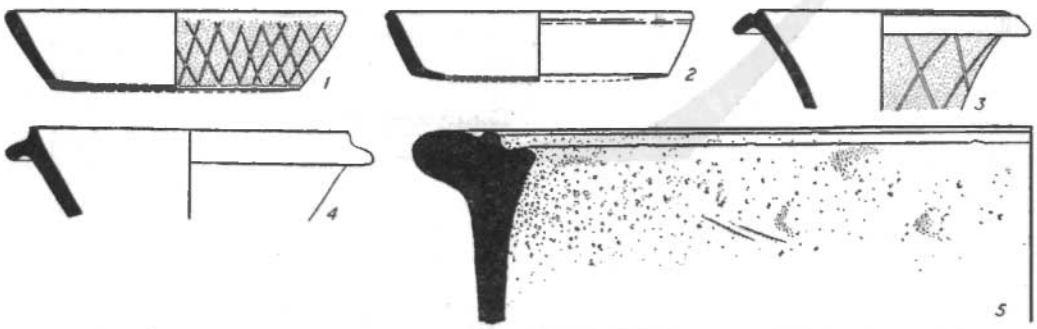


Fig. 18. Pottery from Area I, Pit 1, Period VIb. ¼

PIE DISHES
3. Thin curved rim, with groove at junction with wall. Light grey ware with white grits, rather coarse, surface polished. 1 similar example. Cf. *Jewry Wall*, fig. 19(21), late 2nd–4th century A.D.

FLANGED DISH
4. Narrow flange slightly below rim. Coarse grey ware, surface polished. The type does not appear in the earlier levels. Cf. *Jewry Wall*, fig. 19(28), where it first appears early 4th century, but on other sites it may appear by A.D. 200.

MUGS
4 examples cf. fig. 19(14).

NECKED BOWLS
1 example cf. fig. 19(23), 2 cf. fig. 16(9), and 1 near fig. 19(27), but smaller.

NECKED JARS
2 examples cf. fig. 16(14).

CAVETTO RIM JARS
2 examples cf. fig. 16(23), and 1 each cf. fig. 16(19), and fig. 16(21).

DISHES, NATIVE TRADITION
5. Very heavy dish, with straight sides and flat base. A large part of this vessel was found crushed on the pavement, but the ware was so friable that it could not be reconstructed. Very coarse light grey ware, external surface polished.

FIG. 19

Portions of 2 very heavy, coarse bowls, found crushed on pavement. Light brown ware with large grits. Outer surface grooved by finger-smoothing.

DATING
The amount of material is not large, but may be as late as towards the end of the 3rd century A.D.

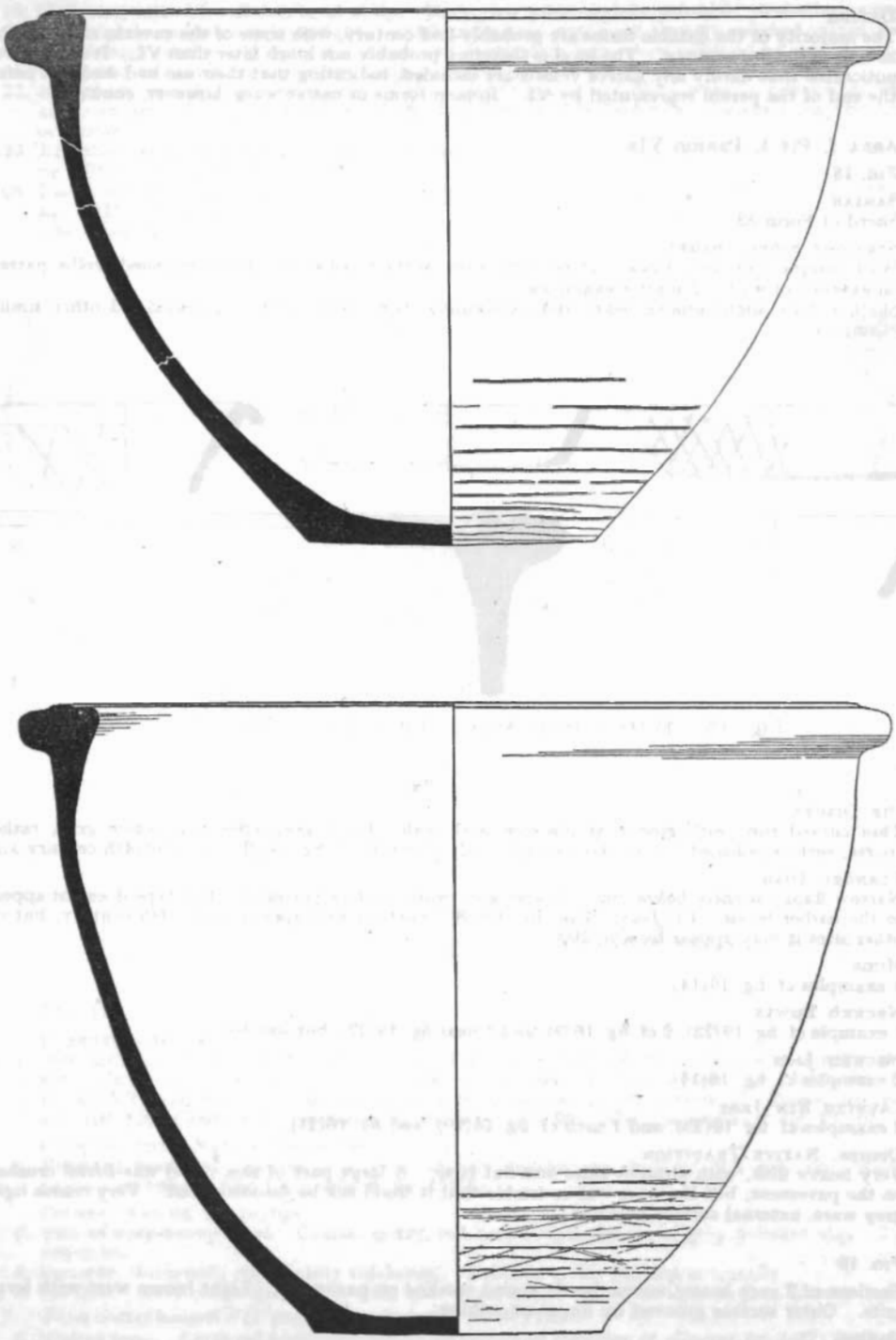


Fig. 19. Two large pots from Area I, Pit 1, found crushed on Period VIa pavement. $\frac{1}{8}$

AREA I, PERIOD VII

FIG. 20

SAMIAN

Base of Form 33, stamp VXOPILLIW. Vxopillvs of Lezoux. Hadrian-Antonine.
Dr. 31 rouletted, with the stamp of [PΦTIT[IN]IM of Lezoux. (Oswald's *Index*, p. 244, Potitinvs). Antonine.
Wall of Form 33, cf. *O. and P.*, Pl. LI (16), Antonine.
1 sherd of Form 27, 2 of Form 33, 9 of Form 18/31, 6 of Form 31, 2 of Form 37, 1 of Form 38, Lezoux ware.
Fragment from a barrel-shaped vessel (*Arch. J.*, lxxxvi, 1929, p. 133-134 and fig. 6). J. A. Stanfield commented that it is difficult to give them precise dates, but their form and absence from scientifically excavated early sites indicate that they were manufactured during the 2nd century.

IMITATION SAMIAN

1. Rim of mortarium, buff ware, good glaze, grits on internal surface.
2. Rim of bowl, probably imitating Form 37. Large rivet hole.
Thick light brown ware, surface polished.
2 rims and a base, imitating Form 31, with 4 sherds probably from similar vessels, all good imitation Samian.

CASTOR WARE

Sherd of beaker of very good, hard, thin pinkish ware, dark brown slip, very glossy externally. Decorated with white barbotine dots.

MORTARIA

3. Short flange below rim, curled under squarely. Creamy buff ware. Plentiful grits. Near *Verulamium Theatre*, fig. 10(10), end 3rd century A.D., perhaps typologically a little earlier than the present example.
4. Similar vessel, flange shorter and thicker. Cf. *Jewry Wall*, p. 80, Type J, 4th century; *Lydney*, fig. 26(18), 4th century.
Also fragment of Flavian hooked-rim type.

STRAIGHT SIDED DISHES

21 examples cf. fig. 15(14).

PIE DISHES

5. Rim slightly curved, fairly thin. Rather coarse grey ware, surface polished. Polished curves externally.
6. Rim tending to triangular section. Grey ware. One similar example. These were the only specimens resembling the northern Antonine form.
Also 1 example cf. fig. 16(3).
Of Pie Dishes with groove on rim, 1 example cf. fig. 18(3), and 4 of the same general type.

FLANGED DISHES

7. Short flange a little below rim. Grey ware, surface polished. 9 examples of the same general type, and 2 similar but smaller.

CARINATED BOWL

8. Everted bead rim, body divided into zones by cordons. Light brown ware, surface much decayed. Cf. *Glevum*, fig. 6(29), in similar soft ware.
Another sherd, with more marked cordons.

MUGS

9. Slightly flaring sides, slight bead rim. Light brown ware.
10. Very slightly flaring sides, bead rim. Light orange-red ware, polished externally. Cf. *Caerleon, 1927–9*, fig. 63(448), Stone Building Period, mainly early 2nd century.
11. High walls, very slightly flaring, bead rim. Light grey ware, polished externally. 12 similar examples.
12. Very slightly flaring sides, bead rim. Light orange-red ware, polished externally. Almost complete. Upper zone polished, central zone decorated with polished trellis pattern. Cf. *Jewry Wall*, fig. 46(20), Period III to A.D. 180.
13. Plain, slightly flaring sides. Grey ware.
14. Straight walls, flat, thin bead rim. Light red ware, polished externally. 23 similar examples.
15. Straight walls, thin rim. Red-brown ware, polished externally. 3 similar examples.

HORIZONTAL-RIMMED BOWLS

16. Deep bowl, plain rim, 2 girth grooves. Light red-brown ware. 1 similar example, and 10 of the same general type.
17. Rim short and thick, slight groove at junction with wall. Light brown ware. 1 other example of the same general type.
18. Shallow bowl, rim reeded. Drab ware. 6 other examples of the same general type. Cf. *Glevum*, fig. 4(65), 2nd century.
19. Deep bowl, rim reeded. Light drab ware. 2 other similar examples.

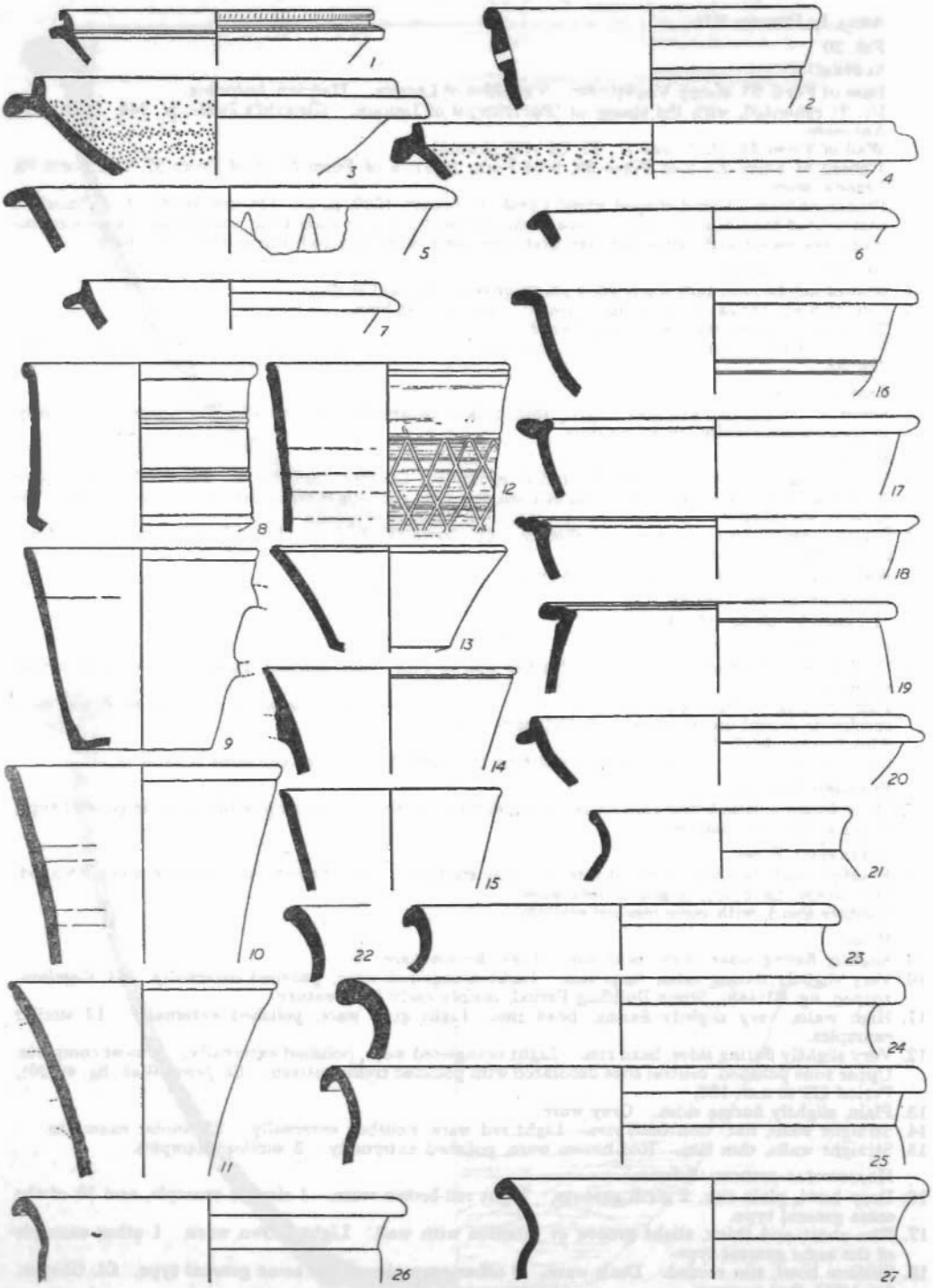


Fig. 20. Roman Pottery from Area I, Period VII. $\frac{1}{4}$

FLANGED BOWL

20. Small bowl, short flange slightly below rim.

NECKED BOWLS

21. Thin neck, slightly curved, rim hardly thickened. Light brown ware.
22. Neck curved out, thickening to rim. Light red ware. 3 other examples of the general type. Cf. *Glevum*, fig. 3(35), end 1st–beginning 2nd century A.D.; *Wroxeter, 1936–7*, fig. 9(19), second quarter 2nd century A.D.
23. Neck nearly upright, rim curved over, slightly undercut. Light red ware. 8 other similar examples, and 6 of the same general type. Cf. *Glevum*, fig. 3(39), end 2nd century A.D.
24. Heavy bowl, rim curved over and thickened. Light red ware, grey in centre at break. 3 other similar examples.
25. Neck inclined slightly out, rim curved strongly over and undercut, body nearly straight with neck. Light red ware. 6 other similar examples and 9 of the same general type.
26. Neck inclined slightly out, rim curved over and undercut, body nearly straight with neck. Light brown ware. 7 other similar examples and 1 of the same general type.
27. Neck inclined out, rim rounded and undercut. Red-brown ware. 4 other examples of the same general type. Cf. *Hucclecote*, fig. 25(18) : *Glevum*, fig. 3(34), end 1st–beginning 2nd century A.D.

FIG. 21

NECKED JARS

1. Neck curved slightly out, rim slightly thickened. Light red ware. 8 other examples of the same general type. Cf. *Wroxeter, 1936–7*, fig. 11(11), late 2nd–early 3rd century.
2. Neck curved out, rim thickened and slightly undercut. Light brown ware, 2 other similar examples, and 4 of the same general type.
3. Neck nearly upright, rim curved well over and undercut. Light red ware. 1 other similar example and 4 of the same general type. Cf. *Glevum*, fig. 2(24), second half 1st century A.D.; *Wroxeter, 1936–7*, fig. 10(26), late 2nd–early 3rd century A.D.
4. Neck nearly upright, heavy rim, curved over and undercut. Light red ware. 2 other similar examples. Cf. *Glevum*, fig. 2(23), mid 2nd century.
5. Short concave neck, collared rim. Light brown ware. 3 other examples of the same general type. Cf. *Hucclecote*, fig. 25(3), site occupied 1st–4th centuries; *Glevum*, fig. 2(26), Flavian type, lasting into 2nd century A.D.

CAVETTO RIM JARS

Of the short, fairly upright curved type of rim, 1 example cf. fig. 16(18), and 4 of the same general type.
Of the similar, slightly higher type of rim, 1 example cf. fig. 16(23), and 10 of the same general type.
Of the fairly high and upright type of rim, 2 examples cf. fig. 16(24), and 4 of the same general type.
Of the high type of rim, inclined well out, 2 examples cf. fig. 15(7), and 7 of the same general type.

POPPY-HEAD BEAKER

6. Medium high neck. Light grey ware, polished externally. The ware is thicker and less fine than that of the normal poppy-head beaker, but the form appears to be the same.

EVERTED RIM JARS

One example cf. fig. 17(1).

COOKING POTS AND DISHES, NATIVE TRADITION

7. Thick bead rim. Coarse grey ware, polished externally. Faint polished trellis pattern on body, beneath horizontal lines with oblique one between, reminiscent of the Iron Age pattern, cf. fig. 14(1-3.)
8. Rim very slightly thickened and rounded. Coarse gritty grey-brown ware, black polished externally, coating of soot.
9. Bead rim jar. Coarse gritty grey-brown ware, black surface, with polished trellis pattern.
10. Dish with thickened rim. Coarse black ware.
11. Jar or bowl with thickened rim. Dark gritty grey ware, black polished externally.
12. Jar with slight bead rim. Gritty grey-brown ware, black polished externally.
13. Jar with everted rim. Gritty grey ware, black polished externally.
14. Rim of very heavy jar. Light grey ware with large white grits.

Also 3 examples cf. fig. 17(2), 2 cf. fig. 15(13), 1 cf. fig. 15(12), and 3 fragments of very heavy bowl rims of the general type of fig. 18(5).

DATING

The pottery consists of a majority of forms which could be 2nd century A.D., though limits of many forms (see p. 45) are ill-defined. The mortarium, fig. 19(4), is, however, probably 4th century, and the imitation Samian mortarium, fig. 19(1), is probably 3rd or 4th century.

AREA I, VIII, RAMPART SPREAD

IMITATION SAMIAN

15. Imitation Form 31. Light red ware, good lustrous brownish-red slip. Cf. *Caerleon, 1939*, fig. 12(34), 4th century.

BOWL

16. Small bowl with everted rim. Light brown ware. Cf. *Wroxeter, 1923–7*, fig. 46(D4), unstratified.

STRAIGHT SIDED DISH

17. Short oblique sides. Light red ware, rather coarse, surface slightly polished. Plates in red ware were rare. Cf. *Caerleon Amphitheatre*, fig. 20(23), Flavian.

UNSTRATIFIED FINDS IN THE QUARRY

18. Mortarium with angular flange. Red ware, bright orange-red red slip. Fairly profuse grits. Cf. *Verulamium Theatre*, fig. 11(30), 4th century; *Great Casterton*, fig. 9(27), late 4th century.

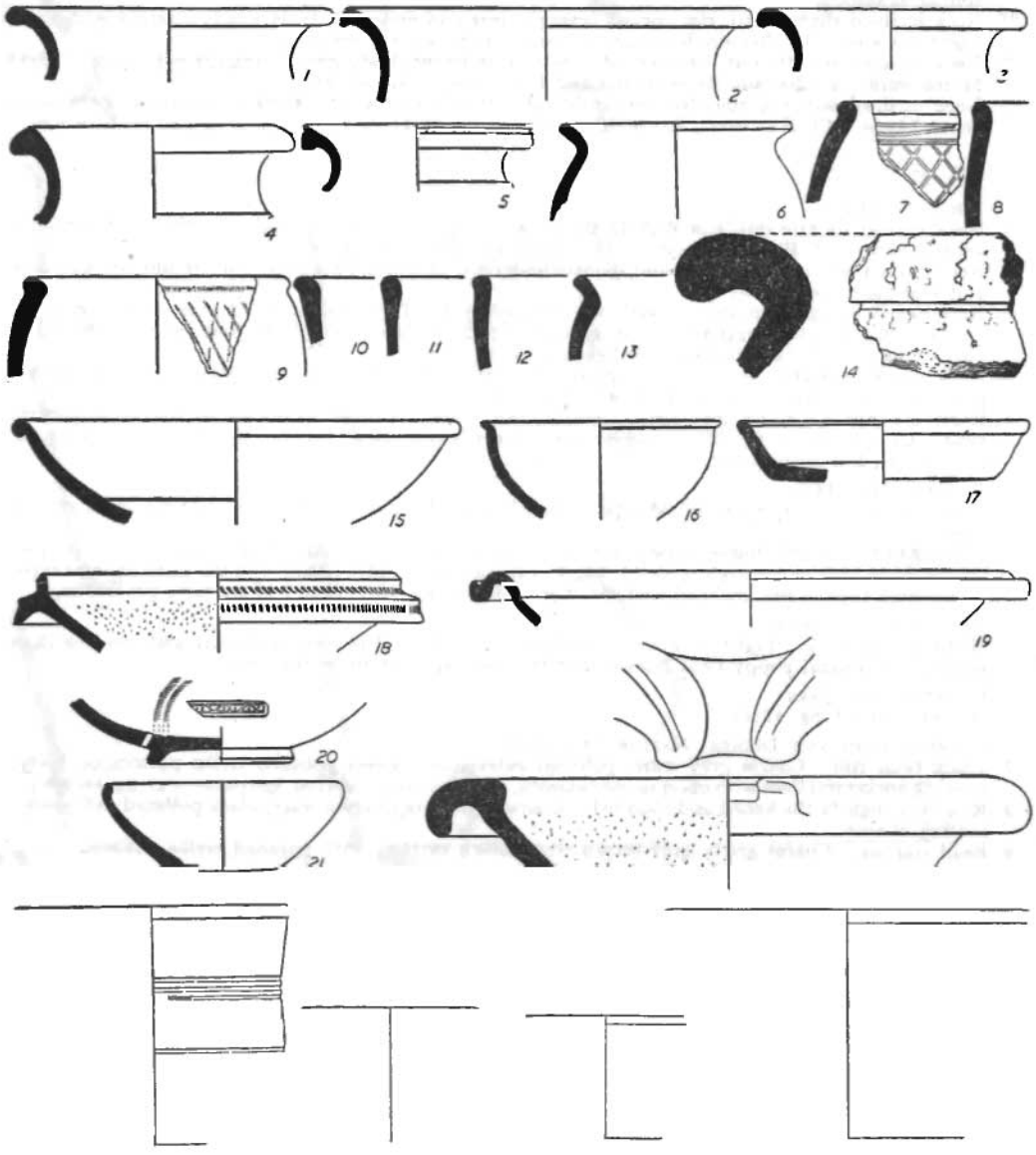


Fig. 21. Roman pottery from Area I, Period VII (1–14); Area I, Period VIII (15–17); and unstratified finds in the Quarry (18–26). ¼. Stamp on (20), ½

19. Rim of bowl. Decorated on rim *en barbotine* with scroll in white, only surviving fragmentarily. Cf. *Lydney*, fig. 26(26), late 4th century ; *Caerleon, 1939*, fig. 12(35), 4th century ; *Silchester Pottery*, Pl. LIV, 96.
Also Imitation Form 38, cf. *Verulamium Theatre*, fig. 11(19), 4th century ; *Lydney*, fig. 26(24), late 4th century ; *Great Casterton*, fig. 9(31), late 4th century.

CASTOR WARE

20. Base of bowl imitating Samian Form 31. Red-brown ware, dark brown slip in and out. Rouletted circles on base. In centre an imitation potter's stamp.

MORTARIUM

21. Wide hooked flange, level with bead. Grey-brown ware, grey slip. Illustrated as the only complete rim-form of this type of mortarium found. Only two other fragments were found and the type of vessel is therefore rare at Sutton Walls. Cf. *Jewry Wall*, Type B2, 2nd century.

CARINATED BOWL

22. Central zone demarcated by grooves and decorated with polished trellis pattern. Orange ware. Complete.

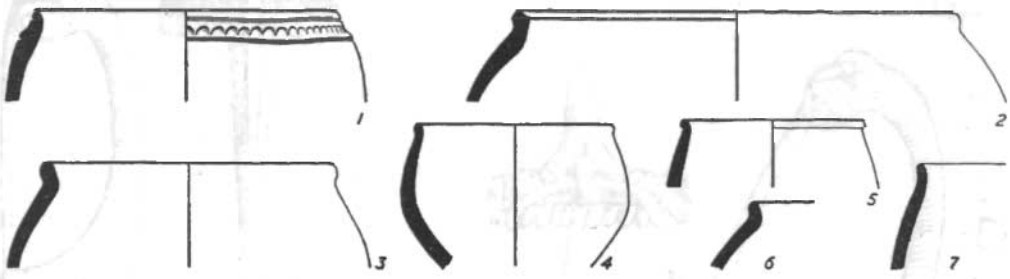


Fig. 22. Pottery from Dinedor. ¼

MUGS

23. Tall flaring wall, plain rim. Light brown ware, grey in centre at break.
24. Very small mug, slightly flaring wall, bead rim. Grey-brown ware, polished externally.
25. Tall flaring wall, flat bead rim. Grey-brown ware, firing red on external surface, polished brown slip externally.

PLATE

26. Oblique wall, curved in at rim. Light red ware, grey in centre at break. Cf. *Gelligaer*, Pl. X, 9, Trajanic ; red ware plates were common at Gelligaer ; *Caerleon Amphitheatre*, fig. 20(28) : the type is predominantly Antonine.

DATING

The stray finds from the quarry thus show that occupation continued until the end of the 4th century. The material includes vessels which are later than those from the stratified deposits. The other vessels, which are earlier, are illustrated as examples of which good specimens do not occur in these deposits.

POTTERY FROM DINEDOR

FIG. 22

1. Plain rim, very slightly recurved. Pattern of horizontal crescents. Grey ware with white grits, slightly polished externally. Ware and type of decoration identical with Sutton Walls vessels.
2. Recurved rim, flattened on top. Grey-brown ware, dark slip partially flaked off ; ware much pitted from calcining out of grits.
3. Similar rim, more everted. Dark grey ware, slightly smoothed externally ; ware extremely soft and friable.
4. Globular pot with bead rim. Dark brownish-grey ware, black polished surface externally ; ware slightly pitted, very soft and friable.
5. Bead rim. Dark grey ware, polished externally and over rim ; soft and slightly pitted.
6. Upturned rim. Dark grey ware, dark slip externally, flaking off ; much pitted and very soft.
7. Dark grey ware, firing slightly reddish in patches, slightly polished externally ; much pitted and very soft.

The ware of numbers 2 to 7 is quite distinct from that of Sutton Walls. It is very much softer and more friable, and the grits have mostly calcined out, leaving the surface pitted and the core honeycombed. The surface tends to be soapy and soft.

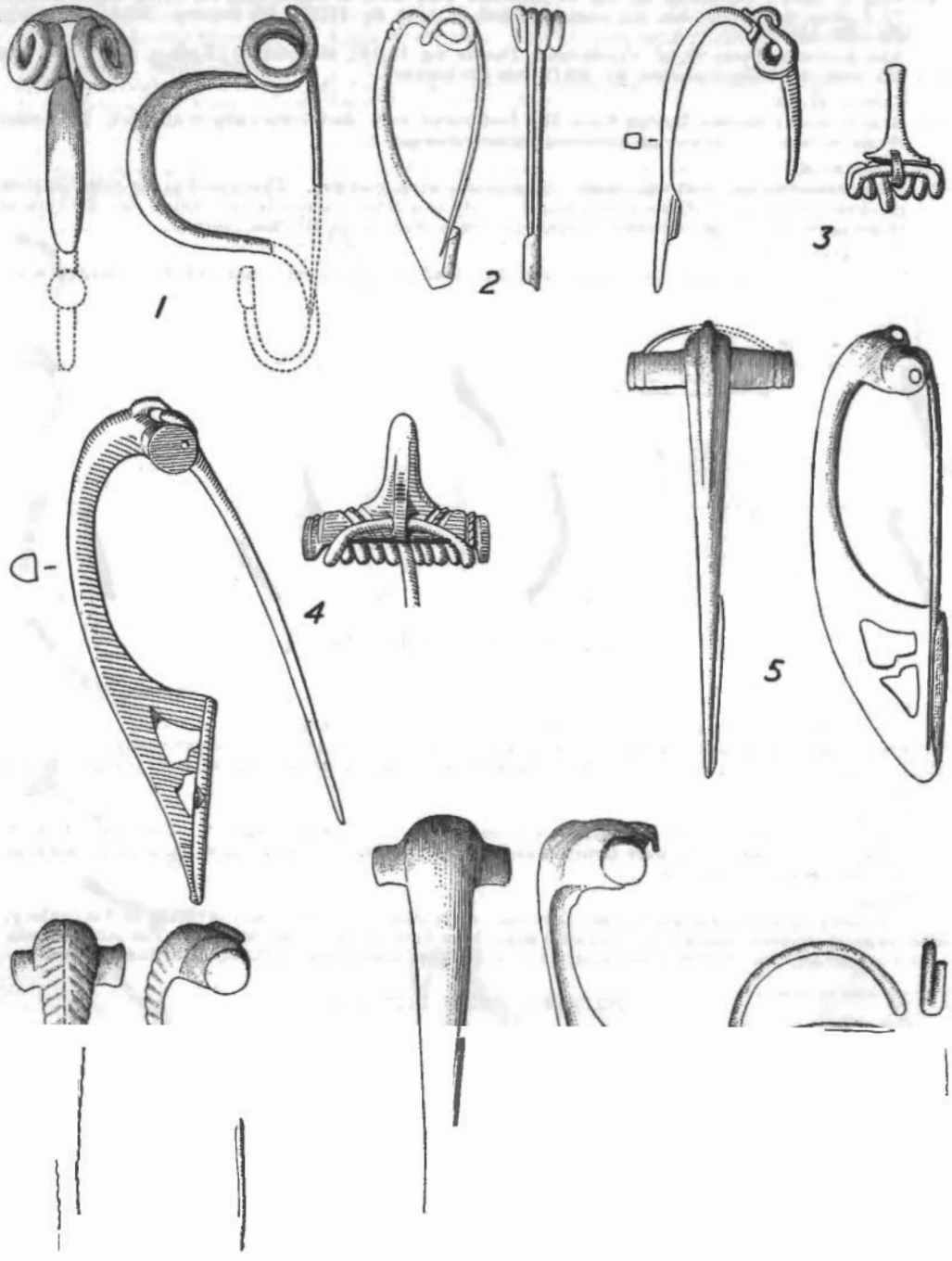


Fig. 23. Bronze fibulae. $\frac{1}{1}$

Small Finds

Fig. 23. Bronze Fibulae

1. La Tène I brooch. Quarry find, identified by Miss L. F. Chitty, F.S.A. who has supplied the original drawing and the following description :

   It is a much corroded bronze example, green in colour, and may well have been of Sir Cyril Fox's Type A (*Arch. Camb.*, lxxv), but the foot is missing and there is nothing to prove what was its form, except that a very slight notch in the bow above the break suggests that the recurved foot approached it closely at the same level as the top of the spring. The bow is steeply rounded on the under side : it may possibly have been lightly ornamented but no certain traces of decoration remain. The head consists of four large coils with a D-shaped external chord pressed closely against them : there is no rivet in the opening. The surviving length of the brooch is 36 mm., with a height of 26 mm. ; the breadth of the chord is 18 mm.

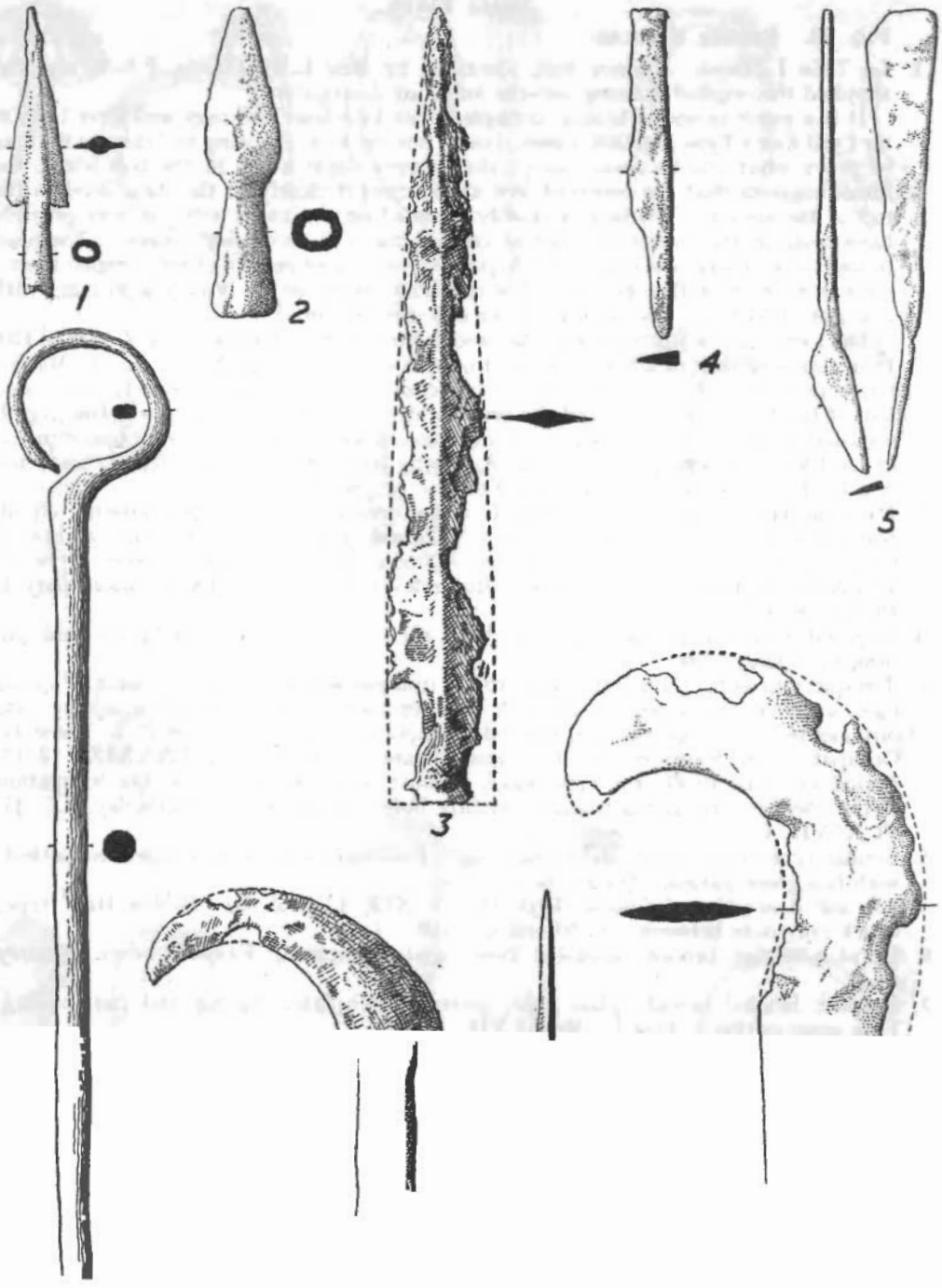
   The form may be fairly close to the brooch from Worth, Hawkes, *Ant. J.*, xx, p. 120. It is also near that of an iron brooch from Maiden Castle, fig. 21(6). In the Maiden Castle report it is shown that La Tène I brooches continued in use at least till the second half of the 1st century B.C., and the brooch referred to came from an early Iron Age B occupation level. The Sutton Walls evidence would confirm the continuance in use of La Tène I brooches, even of Type A, among Iron Age B people. The nearest find of a La Tène I brooch is Chedworth (Fox, *loc. cit.*, no. 2).
2. La Tène III safety-pin type. Simple coiled spring round iron pin, internal chord, plain round wire bow, decorated with 3 incised grooves at head, solid catchplate. Good condition, fine dark green patina. Quarry find. Cf. *Camulodunum*, Type II, Pl. LXXXIX, 4, Period III, A.D. 43–5 ; Rotherley, *C.C.*, II, Pl. XCIX, 7 ; *Glastonbury*, I. Pl. XL, E20.
3. Exposed bilateral spring, external chord secured by catch. Catchplate and pin broken. Quarry find.
4. Two-piece brooch. Multicoil spring round iron pin which is visible at ends of spring case, external chord passing through hole representing vestigial catch, spring case ornamented with rope pattern, pierced catchplate, in which is a cut nick. Area II, Occupation on Rampart B, cf. *Camulodunum*, Type III, Pl. LXXXIX, 12–13, Period IV, A.D. 49–61, the type which is most common throughout the occupation of the Sheepen site, and is probably mainly Belgic in association; Rotherley, *C.C.*, II, Pl. XCVII, 4.
5. Similar type to last, with plain spring case. External chord broken, otherwise perfect, with fine green patina. Quarry find.

   4 and 5 are *Camulodunum*, Type IV, Pl. XCI, 42–3 of the ' Polden Hill ' type, which may date between A.D. 50 and A.D. 100.
6. Dolphin-headed brooch, moulded bow, solid catchplate. Fair condition. Quarry find.
7. Dolphin headed brooch, plain bow, pierced catchplate. Spring and pin missing. Fine green patina. Area I. Period VII.

   6 and 7 are *Camulodunum*, Type V, Pl. XCII, 47–51, dating from A.D. 50 onwards.
8. Penannular brooch, round section, terminals pinched back, undecorated except for groove representing mark of clenching tool. Fair condition. Area I. Period VII. *Camulodunum*, p. 327, Class B, a type already developed in the 1st century A.D.

Fig. 24. Iron Objects

1. Arrowhead, much corroded. The socket seems to extend ⅝ ins. above the surviving end, which is broken. From Area I. Period VII.
2. Spearhead, much corroded. The shaft is a solid mass of corrosion, but where it is broken it is clear that it is socketed. The size of the socket indicates that it is a spear or javelin rather than an arrowhead. From Area I, Pit I, Period IV. Cf. *Maiden Castle*, fig. 91(5), Belgic, *c.* A.D. 25–45.


1
2
3
4
5

3. Point of iron dagger or sword. Much corroded, hilt end missing. Quarry find.
4. Tang and part of blade of single-edged knife. Area I, Level VIII, rampart spread. Cf. *Richborough*, IV, Pl. LX, 333 ; Woodcuts, *C.C.*, I, Pl. XXIII, 3. The type is a common one on Romano-British sites.
5. Iron implement, the two ends twisted, apparently intentionally, into opposite planes. Area F, Level VIII, rampart spread.
6. Rod with ring head, in good condition. Where the rod curves over into the ring it is hammered flat. The thickness of the iron in the ring is about half that in the rod. The base of the rod shows a clean break. From packing of post-hole in Area I, Pit I, Period V.
7. Sickle, socketed. A nail pierces the socket and is curled over to hold haft. Quarry find. A socketed sickle was found at Maiden Castle, fig. 91(3), from a late Biii or early Belgic site ; the form is, however, more clumsy, and the socket apparently wider.
8. Sickle, tanged. Much corroded. Quarry find. *Glastonbury*, II, Pl. LXI, I 33 may be of this type.

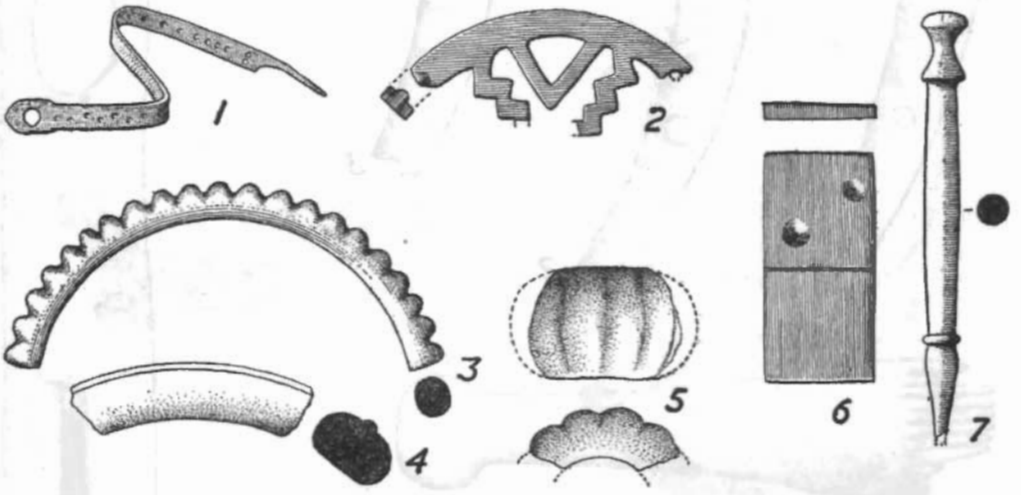


Fig. 25. Objects of bronze (1–3) ; shale (4), glass (5) and bone (6–7). ½

FIG. 25. OBJECTS OF BRONZE, SHALE, GLASS AND BONE

1. Ornamental band of bronze. Presumably it is meant to be fastened by passing the tang (which may originally have been hooked) through the hole. It is, however, much too short to have been a bracelet, even of a child, the total length to the tip of the tang being 2⅞ ins. A finger ring fastening in this way would be unusual. From Area I, Period VII.
2. Bronze ornament. Fine green patina. It appears to have been fastened on to something at the two surviving extremities by small iron pins, one of which is in position at the left-hand end. It may be part of a circular disk, cf. *Richborough*, ii, Pl. XXIII, 64, where it is suggested that such disks were girdle-ornaments. From Area I, Level VIII, rampart spread.
3. Bronze bracelet, rather heavy. Quarry find, Area II.
4. Shale bracelet. From Area I, Pit I, Period II. This resembles *Glastonbury*. I, fig. 52, but is simpler, having only one ridge instead of four. This would agree with an early 1st-century A.D. date, as is suggested by the Sutton Walls find-spot. Cf. also *Maiden Castle*, fig. 92(10), Belgic, A.D. 45, fig. 109(11), Belgic.

5. Melon bead of dark blue glass, much decayed. From Area I, Period VII.
6. Bone domino. Roughly cut, slightly thicker at one end than the other. Surfaces and edges polished. From Area I, Level VIII, rampart spread.
7. Head of bone pin. Finely cut, but not quite sufficiently regular to be lathed-turned, highly polished. From Area I, Pit I, Period IV.

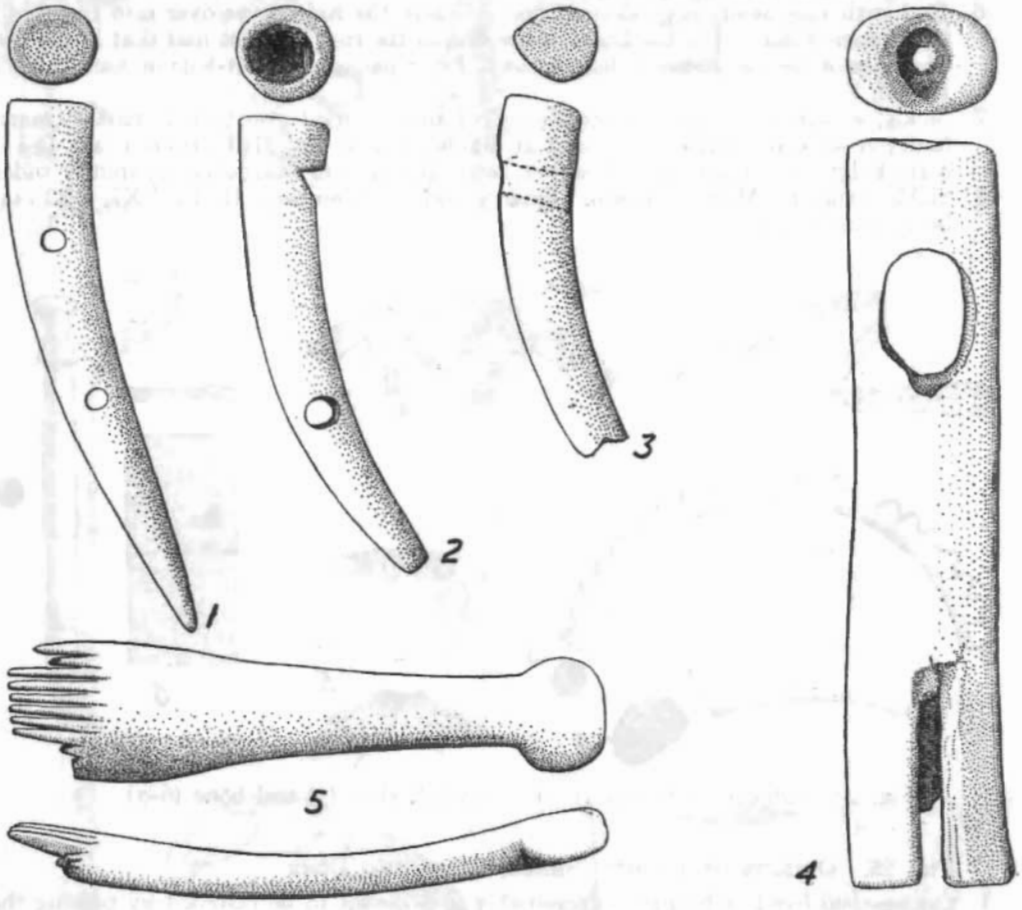


Fig. 26. Objects of antler. ½

FIG. 26. OBJECTS OF ANTLER

1. Cheek-piece of bridle, made from antler tine. Tip of tine intact; sawn off at base where a false cut shows a width of cut of $\frac{1}{16}$ in. Surface well polished. Holes are at right angles to the plane of the curve. The hole nearer the base is $\frac{1}{4}$ in. in diameter on the upper, slightly convex, side of the tine, $\frac{3}{16}$ in. on the lower side. The upper hole is $\frac{3}{16}$ in. on both sides. The lower (basal) hole shows some wear on the bottom edge on the convex side, the upper hole at the top edge on the concave side. From Area B occupation on Rampart B. This example falls into Type B of the Glastonbury classification, *op. cit.*, II, fig. 155.
2. Cheek-piece of bridle, made from antler tine. See also Pl. XVIB. Tip of tine cut off and polished, basal cut also polished. Whole surface very highly polished. Single hole at right angles to the plane of the curve. Near base, a wedge cut out by one

saw-cut at right-angles to tine, base of which shows width of cut of $\frac{1}{16}$ in., and an intersecting oblique cut, which from the angle of the cut surfaces must have been made by two cuts with a chisel. The base of the tine is hollowed out to beyond the top of the wedge, and a strap or thong could therefore have been passed through wedge and out of the base. The hole exhibits considerable wear at both apertures towards the concave curve of the tine. Quarry find. This might be a variation of Type D of the Glastonbury classification, *op. cit.*, ii, fig. 155, with the two holes in the opposite directions. It would agree with Type D in having the tip of the tine removed.

3. Cheek-piece of bridle made from antler tine. Tip broken, and base partly broken. One hole near base, on plane of curve of tine; probably a second, rather diamond-shaped, at right-angles to plane, at place of break near tip. Between the surviving hole and the base, wear has flattened both faces on convex side of curve, forming a sharp crest (see cross-section). A similar and more accentuated crest on the same side has been formed by wear immediately below the break towards the tip. From Area II, occupation on rampart.

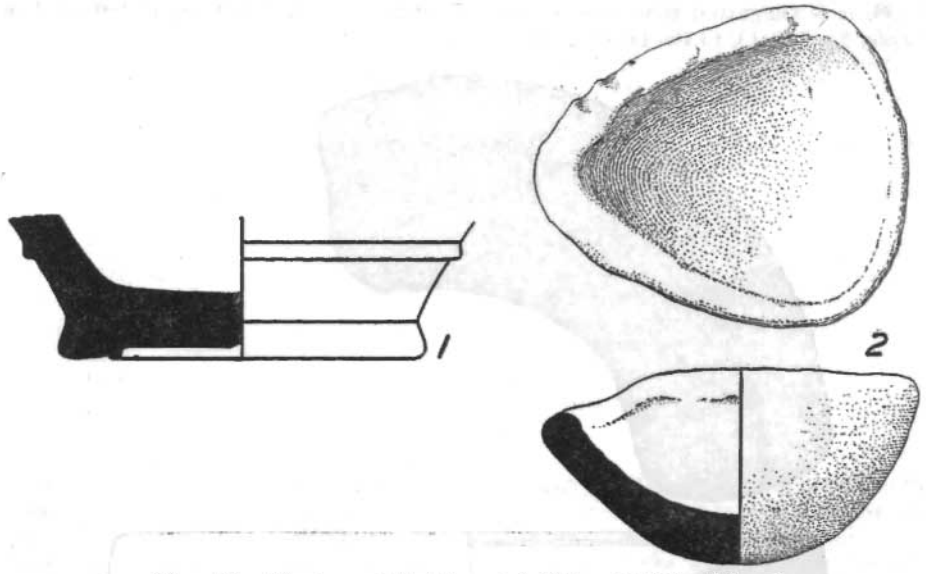


Fig. 27. Shale vessel (1) and hollow crucible (2). $\frac{1}{2}$

4. Implement made from the beam of the antler of a red deer. The antler has been trimmed and polished to a section approximately oblong with rounded angles. Oval hole near one end. From this end a rather irregular hole has been bored through the cancellous tissue, tapering from *c.* $\frac{5}{8}$ in. at this end to *c.* $\frac{1}{4}$ in. at far end. At this end a slot, *c.* $\frac{3}{8}$ in. wide, has been cut down to meet the hole. On the opposite face there are traces of a transverse saw-cut 1 in. from the end, but most of the surface is broken away. There is very considerable polish, probably from wear, on both the broader faces. Quarry find.
5. Weaving comb. Considerable irregularity in thickness of teeth. Tips of teeth markedly worn to a level on top. The surviving edge tooth, however, is worn underneath and not on top. From Area IV, Pit 3, Period IB. This comb, with the oblong enlargement at the end of the handle, would fall into Type 3 of the Glastonbury classification, *op. cit.*, I, p. 276, but does not closely resemble any of the Glastonbury specimens. Cf. *Hunsbury*, Pl. VIII, 4; *Breedon-on-the-Hill*, fig. 6(1). The Sutton Walls examples lacks the line at the base of the teeth of the last two examples; see Breedon, p. 36, for discussion of the type.

FIG. 27. OBJECTS OF SHALE AND POTTERY

1. Base of a shale vessel. Turned on a lathe. The cordons suggest the copy of a Belgic pottery vessel. From Area I, Pit 1, packing of post-hole belonging to Period V. A vessel of shale, similarly lathe-turned, occurred at *Glastonbury*, Pl. LXVIII, K.27. The upper part of a shale vessel with cordons was found at *Maiden Castle*, fig. 110, in a Belgic level, and other fragments of vessels came from Belgic or late Iron Age B levels.
2. Pottery crucible, complete. The pottery has become vitreous from exposure to high temperature. The paste is light grey in colour, and well-levigated with a few micaceous specks. A skin of moulten bronze adheres to one side. From Area I, Pit 2, Period IV. The evidence of much greater heat reaching the lip and the interior, than the lower part of the exterior to which attention is drawn in *Glastonbury*, I, p. 300, is confirmed by the condition of the Sutton Walls specimen, in which the lip especially has a fused appearance. As quoted in Glastonbury from *Archaeologia*, lvi, this was due to the setting of the crucible in a cavity in the ground during firing. The three-cornered form is the dominant Glastonbury type, *ibid.*, Pl. XLIX, CIS. In *Breedon-on-the-Hill*, p. 38, it is suggested that it is a predominantly Iron Age B type, dated at *Maiden Castle*, fig. 119(1), to the late 1st century B.C.

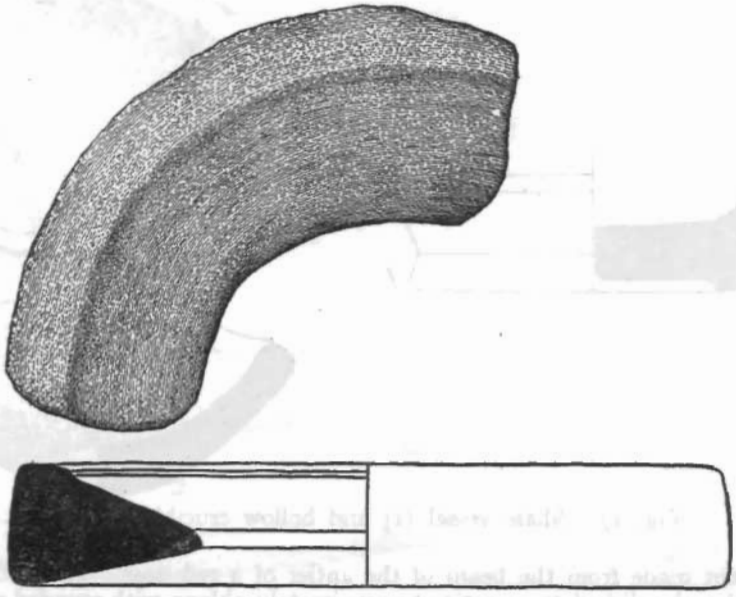


Fig. 28. Quern of Niedermendig lava. ¼

FIG. 28. QUERN

Portion of upper stone of quern. The stone is lava and is soft and porous Niedermendig.[1] The very unusual size of the central hole is probably due to wear. From Area I, Pit 1, Period VIA. Apart from the size of the opening, the type is that of Curwen's fig. 40, from Richborough, *Antiquity*, xi, which is a type peculiar to the use of lava as material. The softness of the stone is due to subsequent exposure.

Pl. XVIA. SMALL FINDS

1. Iron Anvil. Flat square base; flat sides inclined inwards towards the top with a slight waist at mid-height. On one side are two slots in the lower half, probably to

[1] Kindly reported on by Professor F. E. Zeuner.

assist in holding the anvil in position. One slot is approximately vertical, terminating in a round hole approximately ½ in. diameter, 1 in. from edge of base. The second inclines in above before becoming vertical so that the depth of the slot becomes 2½ ins.; the outer edge of this slot is broken away, and some irregular cavities communicating with it may be flaws.

From Area IV, Pit 3, probably Period II (see p. 23).

2. Cheek-piece of bridle. See fig. 26(2).
3. Bone weaving comb. See fig. 26(5).
4. Objects of antler. See also Pl. XVI D.
   a. Antler of red deer. Whole surface very considerably smoothed by wear, especially the upper part in the photograph. The tine branching off to the right at the top has been broken off; the projecting tine at top left and that half-way up have been cut off. From Area I, between Pits 1 and 2, in level probably corresponding to Period VIA.
   b. Antler of red deer with, top left, bez tine, showing that it came from a deer of the European race of red deer, since extinct in Britain. The bez tine and that below it in the photograph have been sawn off, and the lower extremity in the photograph is broken. The bez is worn somewhat smooth. This portion fits the hand well, and may have formed the handle of the implement. From Area II, occupation on Rampart B.
   c. Fragment of base of red deer antler. Both beam and tine are cut. Quarry find.
   d. Base of antler of red deer. The beam, below in photograph, has been shaved to a rectangular section with rounded corners; a portion of a hole *c.* ¾ ins. in diam. surviving at the broken extremity. The tine projecting at top in photograph has apparently been partly severed by oblique cuts, partly broken. Quarry find. Cf. *Glastonbury*, II, Pl. LXIV, H.53, p. 65, H.344.

   These objects would probably come under the classification of hammers in *Glastonbury*, II, p. 4, 35. The use of antler implements continued into the Roman period, cf. Woodyates, *C.C.*, III, p. 135; *Wroxeter*, II, Pl. IX, 2.
   e. Cheek-piece of bridle. See fig. 26(3).
   f. Bone cut to form a socket or sleeve. Quarry find.
   g. Implement of red deer antler. See fig. 26(4).
   h. Cheek-piece of bridle. See fig. 26(1).
5. Pl. XVIc, Clay loomweights, triangular form. Quarry finds. Since none of these objects were found in the excavated area, nor any other evidence of textile working except the one weaving comb, while a considerable number of these loomweights were recovered from quarry debris before the beginning of the excavations, the area in which weaving was carried out was probably localised. Cf. *Hunsbury*, Pl. XI, A.; *Glastonbury*, Pl. II, fig. 171. At *Maiden Castle*, p. 294, such loomweights are shown to occur in Iron Age A, B and C.

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THE HUMAN REMAINS FROM SUTTON WALLS

By I. W. CORNWALL[1]

Some 24 groups of bones were recovered from the excavation, representing approximately this number of skeletons. The burials, however, were in some cases so intermixed that it is not surprising that some of these groups contained parts of three or more different individuals. To segregate remains of each individual completely would have been a task exceedingly difficult and time-consuming in the field, and one almost impossible within the available time in the laboratory. It is probable, therefore, that some individuals are described piecemeal in two or more groups of bones.

The skulls which were reasonably well preserved, and some of the other bones, were painstakingly and skilfully cleaned, and mended as far as practicable, in the Institute's Technical Department, under the direction of, and largely in person by, Miss M. Maitland Howard. Without this preparation examination of the remains would have been very difficult and some interesting details would certainly have escaped notice. Even so, a considerable proportion of the bones had to be examined without proper cleaning, so that the information extracted from them is unlikely to be by any means exhaustive. Six months would not be an over-estimate of the time required for complete restoration and study.

This report on the material has two chief aims : first, to confirm, if possible, the conclusion arrived at in the field that the bodies were those of a group of war-casualties, killed in the defence of the hill-fort against

[1] I am most exceedingly grateful to Dr. Cornwall for his most thorough examination of the skeletons. Mr. Cornwall's notes on the skeletons are preceded by mine on the position of the bodies. K. M. K.

the Romans ; second, to obtain general information about the composition of the population represented, as to stature, skull-characters and bodily proportions.

Most important for the former purpose was roughly to determine the sex and age of as many individuals as possible—it being a fair assumption that war-casualties would consist overwhelmingly of young men in their prime, while victims of a general massacre, for example, could be expected to include individuals of both sexes and of all ages. There was already evidence of violent death in the headlessness of some of the bodies, the corresponding skulls often having been found at some little distance from the rest of the body, but special watch was kept for evidence in the bones themselves of war-wounds, as distinct from decapitation, which could equally well have taken place in a massacre of prisoners or in the execution of ' war-criminals '.

For the second purpose, it was not considered useful in the time available to attempt any metrical study of the skulls, in view of the broken state of most of them and the presence of deformations due to earth-pressure. Salient qualitative features of each reasonably well-preserved specimen are given below, with some measurements in the cases of two or three almost complete, unbroken or restored skulls.

An attempt was made to reconstruct the stature of individuals from the overall dimensions of some long bones. The statures were estimated by applying to such lengths of the right (or, in its absence, the left) femur, tibia, humerus and radius as could be measured the recently published general regression formulae of Dupertuis and Hadden,[1] the ' constant terms ' of which have been adapted to the English system by Boyd and Trevor.[2] In the case of male subjects, the reconstructed statures range from 6 ft. 0¾ in. to 5 ft. 4½ ins., with an average value of 5 ft. 8¼ ins. This last figure may be compared with (a) the stature of between 25 and 30 male Iron Age and Romano-British skeletons from Maiden Castle,[3] viz. 5 ft. 6½ ins., (b) that of a far larger series of male Anglo-Saxons,[4] viz. 5 ft. 8 ins.[5] The average height of modern British men, viz. 5 ft. 7½ ins., appears to have remained constant for the past century, despite a progressively earlier attainment of maximum growth over the same period.[6]

[1] C. Wesley Dupertuis and John A. Hadden, ' On the Reconstruction of Stature from Long Bones ', *American Journal of Physical Anthropology*, New Series, Vol. 9, Part 1, 1951.

[2] J. D. Boyd and J. C. Trevor, ' Race, Sex, Age and Stature from Skeletal Remains ' in *Modern Trends in Forensic Medicine* edited by Keith Simpson, London, Butterworth, 1952.

[3] C. N. Goodman and G. M. Morant, ' The Human Remains of the Iron Age and Other Periods from Maiden Castle, Dorset ', *Biometrika*, Vol. 31, Parts 3 and 4, 1940.

[4] A. Heinrich Münter, ' A Study of the Lengths of the Long Bones of the Arms and Legs in Man, with Special Reference to Anglo-Saxon Skeletons, *Biometrika*, Vol. 28, Parts 3 and 4, 1936.

[5] The Maiden Castle and Anglo-Saxon statures have been recalculated for the present paper by Dr. J. C. Trevor, who applied the Dupertuis-Hadden general formulae to the mean lengths of the same long bones. The values now given are from about 1½ to 2 ins. higher than previously published estimates found by using the formulae of the late Professor Karl Pearson. These appear to be somewhat too low.

[6] G. M. Morant, ' The Heights of British People ', *Biology and Human Affairs*, Vol. 16, No. 1, 1950.

DESCRIPTION OF THE REMAINS EXAMINED

No. 1. Disturbed bones in the top layer. The collection included two atlases and odd humeri and two ossa coxae. Two individuals are probably represented. Long-headed, lightly-built skull. All sutures of the vault obliterated within but still everywhere visible on the outer table. There was a still only partly synostosed metopic suture (separating the frontal bone into left and right halves) and there were present some sutural ossicles, both in sagittal and lambdoid sutures, especially numerous in the latter. Mastoid processes were small and the supraorbital ridges not pronounced, so that sex was uncertain on the skull evidence. The mandible, also, was lightly constructed. All molars, even M3, were much worn, and this would suggest an age at least between 30 and 40, possibly more, despite the relatively slight degree of synostosis of the vault-sutures.

A sutural ossicle at the lambda was missing, the edges of the bones surrounding the gap being stained with the red matrix, suggesting that the fracture was ancient. In view of the presence of similar, apparently punched, fractures of the vault in some other skulls, this is perhaps evidence of the cause of death (but compare no. 10 below).

Of the other bones a humerus and tibia were complete, from which the height was calculated as 5 ft. 4½ ins. (1.635 m.). The os coxae had no pre-auricular sulcus and was, therefore, probably of a male, though the sexing evidence from the skull was inconclusive.

1(a). Another individual was clearly represented by an atlas, humerus, radius and clavicle and by an os coxae. Calculated mean height 5 ft. 9 ins. (1.752 m.). The os coxae was clearly of a male.

No. 2. Bones found considerably disturbed. Skull long-headed, probably male, judging by the development of the mastoids, supraorbital ridges and mental eminence. There was a strong occipital torus rather than a prominent inion, and a pronounced flattening in the lambda region. Vault sutures were almost obliterated internally, visible throughout externally, though with some synostosis near the obelion and in the more lateral parts of the coronal. Only slight wear of M3's. Age between 20 and 30. The stature given by the formulae was 5 ft. 11½ ins. This was a tall man for the group under examination.

Good evidence was forthcoming for the cause of death—a heavy blow in a coronal plane across the right parietal, which had produced a linear fracture 3½ ins. long by ½ in. minimum wide, with the edges of the bones 'flaked' inwards, i.e., the fracture wider internally than externally (Pl. XVIII,1, 2). This damage was apparently produced by a blow from a narrow, but blunt, instrument, being quite different from the clean cuts observed in other skulls, described below ; the fracture was caused rather by the force of the impact.

While the skull fracture was evidently the cause of death, this individual had, apparently, also been wounded by several thrusts of a spear or other pointed weapon in the lower abdomen, for the internal surface of the right ilium bore one deep depressed fracture penetrating the outer table of compact bone and crushing the cancellous tissue within, and other more superficial evidences of violence (Pl. XVIII, 3). This could hardly have happened by chance at the time of burial, as the soft parts would have protected the bone from rocks thrown in in filling the ditch. Nor could it well have happened during or since excavation, for the bone is so brittle that a stabbing blow, as from a pick, for example, would certainly have fractured it right through.

2(a). A radius, too short to articulate with the ulna of the above individual, gave a height-value of 5 ft. 6¾ ins. (1.695 m.).

No. 3. (Pl. VI.) Beneath no. 9. and over no. 18 and no. 20. Lying on back with head inclined sharply to left, resting on *c.* 2 ins. of fill above left humerus.

A much-broken skull, probably male (associated pelvis, mastoids, occipital torus and supraorbital ridges). Gonial angle of mandible everted. Sagittal suture obliterated. Age *c.* 40 years. Height from all four long bones 5 ft. 10½ ins. (1.790 m.).

No. 4. (Pl. VI.) Fairly high in the fill. Lying on back, head bent sharply to the left, touching top of left humerus.

Skull of a child. All sutures open. Smooth forehead, prominent nose. Teeth : M2's, C^1 and Pm_2 just erupting, m_1 still rooted. Femur : all epiphyses unfused. Age : about 12 years. Sex undeterminable from the skull before puberty. No evidence from the skull of the cause of death, but, from the photograph, the cervical vertebrae seem to be dislocated, and what looks like a clean vertical cut through the spinous process of the axis suggests that the neck was perhaps partly severed by a cut-wound. Owing to the loss of the epiphyses of the long bones no estimate of stature was possible, but the photograph suggests a well-grown youngster.

No. 5. (Pl. IXB.) With no. 22 in slight hollow in natural, overlain by gravel layer, probably spread from the causeway. On back, head turned to left. First 3 cervical vertebrae found attached to skull, rest of backbone stuck into lower jaw, so neck presumably partially severed.

Skull of a youth, sutures open, M3 unerupted, age 16–18 years. Height 5 ft. 4¼ ins. (1.631 m.). No long bones. Cause of death not apparent from bones.

No. 6. (Pl. VI.) High up in fill, head on 9 ins. of fill above left arm of 3. Upper part of body only excavated.

Three fragments of skull only. Fragments of ischium and shaft of ulna, 2 metacarpals and the body of a vertebra. Young adult, about 20 years.

No. 7. (Pl. VI.) On back, decapitated. His skull is probably the one resting beneath his left knee (with that of no. 11 on his left hip ?), which was found with 4 cervical vertebrae attached to it.

Skull-fragments of a taller, heavier and older male individual than the above. Stout jaw, M_3 considerably worn. Prominent inion. Age 20–30. This almost certainly belonged to the headless individual (no. 7 in the photograph), while no. 11 is the young man, described under that number, whose skull lay on no. 7's left hip and the rest of his body obliquely across no. 7's right hip. It seems that both these individuals were decapitated, though the remains themselves show no evidence which could be found. Height 5 ft. 7¼ ins. (1.780 m.).

No. 8. (Pl. VIII.) Lying on right side. Position of head, with very sharp curve forward of cervical vertebrae suggests that neck was partially severed. Upper part of body alone excavated.

Long male skull, thick bones, large mastoids, strong supraorbital ridges, powerful mandible, prominent chin, everted gonial angles. Vault-sutures mainly still open, but locally synostosed, even externally, though not obliterated. M_1 and M_2 much worn, but M_3 only very slightly. On the left side of the mandible, M_3 was apparently lost in life, leaving a trace of the healed alveolus. M_2 is separated on both sides by a gap of about 2 mm. from M_1. The upper teeth were in similar condition, the M^3's well up but scarcely worn. Age about 25. Only the upper part of the body was recovered. The height from the arm-bones was 5 ft. 8 ins.

Evidence for the cause of death was clear. There was a deep cut clean across the occipital bone, involving the tip of the left mastoid process, which was shorn off, and reaching the asterion on the right side (Pl. XVIII, 4). The cut was clean and perfectly straight. A straight edge joining the points referred to penetrates the cerebellar fossae to a depth of 1½ ins. Death must have been instantaneous. In the photograph the neck also appears to be dislocated, the bodies of 5 cervical vertebrae being visible below the chin. The atlas, axis and all the vertebrae found seem to be intact, however.

There is a further deep cut transversely across the symphysis of the mandible, between the mental eminence and the alveolar margin (Pl. XVIII, 5). The cut proper extends from the left mental foramen to a point below the root of the right canine, but it seems to have caused at the same time a long crack, extending back along both rami, separating the teeth and the alveolar margin from the body of the mandible as far back as the roots of the M_3's. It is suggested that this shocking injury was the result of a misplaced sword-stroke aimed at decapitating the individual from the front, as was also that on the occipital bone, though in that case certainly fatal. Had either blow fallen an inch or two lower, the cervical vertebrae would have been neatly divided, as happened in the case of other individuals here described. It seems that the executioner in this instance was more muscular than skilful.

No. 9. Fragments of bones high up in fill.

No skull. A small collection, chiefly of vertebrae and ribs, with a fragmentary scapula and a complete humerus and clavicle. The bodies of two lumbar vertebrae showed ankylosis with some slight displacement, apparently of pathological origin (Pl. XVIII, 6A). Height of the individual, from the humerus only, 5 ft. 4½ ins. (1.636 m.).

No. 10. (Pls. VIIB and VIII.) On back, in slight gulley. Head inclined to left. Vertebrae pushed right up into jaw, suggesting dislocation.

Long-headed skull, rather light build, vertical forehead, small supraorbital ridges and mastoids, no prominence at inion, but a slight occipital torus. Marked flattening at lambda. Sutures all visible externally though synostosed within, almost obliterated externally at obelion and vertex and in the median part of the lambdoid. A metopic suture is present but nearly synostosed from glabella to mid-forehead, incompletely near the bregma. Some sutural ossicles are present in the lambdoid suture, mostly well fused with their surroundings. In particular, a large ossicle exists in the left branch of the lambdoid, roughly 4 x 5 mm. in dimensions, partly synostosed but with the surrounding sutures clearly visible. Sutural bones are said to run in families. There is certainly a striking general likeness between this individual and no. 1, though the present specimen is larger and, judging by the wear of the teeth, probably older. A sutural ossicle is missing, but in this instance appears to have fallen out by chance and its absence does not suggest any injury.

The mandible is light, with the marks, in the obliquely-ascending ramus and open angle, of advancing age. This conclusion is borne out by the condition of both upper and lower teeth. In the maxilla all the molars of the right side were lost in life. Incisors, canines and premolars are all much worn down to a common level, exposing large areas of dentine on the occlusal surfaces. On the left side M^1 remains, worn right down to the gum on its lingual side ; the broken alveolus of M^2 shows that this tooth was also present at death. The mandible shows a similar state of affairs. M_3 was lost in life from both sides, and M_1 is almost worn out. On the right side this tooth is decayed—a comparative rarity in this population, save in maturity.

Despite the still somewhat open sutures, this individual must have reached a certain age for the teeth to be so worn. In comparison with others, where the age-determination

is reliably based on suture synostosis as well as on the teeth, he must have reached the age of 50 and perhaps have passed it—a considerable age for those times. In view of the weakness of the development of the male skull-characters the pelvis was examined with particular care. Though lightly built, the absence of female characteristics, and, in particular, the absence of a pre-auricular sulcus confirmed the determination as a male.

Of the long bones, the complete femur, humerus and radius were measured, giving a calculated height of 5 ft. 4½ ins. (1.639 m.). The left hip-joint was apparently dislocated with violence before burial, the head of the femur lying quite outside the acetabulum and the anterior margin of the acetabulum anciently fractured.

10(a). Among the long bones of no. 10 were found immature fitting ulna and radius. The epiphyses were all missing so that a reconstructed height for this individual, aged less than 16 years, could not be calculated.

No. 11. Fragmentary skeleton lying above no. 7, to which probably belonged the decapitated skull lying on no. 7's left hip.

This was a collection of bones containing some remains of three closely-associated individuals. One has already been described as no. 7. The other remains were quite distinct, a youth and a young adult.

Skull, long-headed, thin vault, small mastoids, sutures all open save internally at obelion. Light mandible, small, even teeth. M_3 missing, but M_2 only slightly worn. Long bones with some epiphyses only just fused, the sutures all still visible, others (head of humerus, condyles of femur) still separate. Age about 17–18. Height 6 ft. 0¼ in. (1.838 m.).

11(a). A few fragments of the skull of another individual, probably from the filling above no. 11. Age 20–30.

No. 12. (Pl. IXA.) In gulley on west lip of ditch, with feet above pelvis of 19. Lower part only cleared.

At least four individuals were represented in this collection : the best preserved was no. 12, an adult, complete as to pelvis and lower limbs, all of whose body was not exposed in the excavated area. In the filling above this were found, 12(a) some cranial bones, half a mandible, the distal ends of 2 ulnae, a complete radius, a clavicle and the proximal part of a femur of a youth and 12(b) and 12(c), remains of two other individuals represented by broken right humeri and fragments of skulls, from which no useful measurements could be taken. From the measurements of the femur and humerus, no. 12 was relatively tall, 5 ft. 9½ ins. (1.786 m.).

12(a). Immature long bones of a youth aged 16–17. The absence of epiphyses makes any estimation of stature too hazardous to be useful.

No. 13. (Pl. VI.) Above 20 and legs of 21. Lying on left side.

Long-headed skull, in many fragments, of a male (mastoids, thick bones, large palate, strong jaw). The supraorbital ridges, nevertheless, were not marked. The vault-sutures were mainly obliterated internally, partly synostosed but still visible on the outer table. The teeth, even the M3's, were all somewhat worn. The gonial angles of the mandible were markedly everted. There was a strongly-developed inial protuberance. Age, perhaps 35. Cranial bones many with fractures diverging obliquely inward, suggest ancient injury of the same nature as the parietal fracture in no. 2, but the skull was too fragmentary (perhaps, indeed, because of these fractures, which interrupted contacts between adjacent fragments) to be reconstructed so that the nature and extent of the damage could be clearly seen.

The long bones and the pelvis (the latter clearly male) were stoutly constructed, and the measurements of the four main bones gave a height of 5 ft. 9 ins. (1.704 m.). The first 5 cervical vertebrae were present intact.

13(a). This individual was represented only by the right half of a mandible and a nearly complete maxilla, with some other small skull-fragments. The remains indicate an older individual than the preceding, of light build. All the teeth are greatly worn. In the mandible, M_1 was lost in life. On the right side of the maxilla M^1 was decayed, reduced to a mere shell and the caries had also involved the adjacent premolar. Some other teeth were lost *post mortem*, but those recovered by the excavators were sound, though worn. Age probably over 40. No evidence of sex or cause of death.

No. 14. (Pl. VIII.) On back, head tipped well backwards.

An extremely well-preserved skull of unmistakable male sex. Strong, but not exaggerated, supraorbital ridges, prominent glabella and inion, wide zygomatic arches, high-bridged narrow nose, strong mandible, prominent chin, gonial angles scarcely everted.

Some rough measurements, taken with a slide-gauge, the only available instrument, were as follows :—

Length, glabella/opisthocranion	188 mm.	Cranial Index 74
Maximum breadth	139 „	
Auricular height	109 „	
Minimum postorbital breadth...	97 „	
Bizygomatic breadth	134 „	
Biasteric	120 „	
Bigonial	105 „	
Nasion/prosthion length	71 „	

The vault-sutures were still traceable ; the sagittal synostosed, the lambdoid also, near the lambda ; the coronal, near the bregma still clearly visible, was nearly obliterated in the middle third of its lateral course. Age was probably about 40. The teeth support this conclusion. All are perfect though both upper and lower M3's are lacking on the left side (? never erupted). The right M3's are only slightly worn, so that, from these alone, the estimate of age would have been 10 years less. The M1's and M2's, however, are so worn that an estimate of 40 seems quite reasonable. Perhaps the M3's erupted very late in this individual, a suggestion all the more likely to be correct, since it appears that those on the left side never erupted at all. There is no evidence of their having been lost.

The skull shows no signs of violence, but the body of the 4th cervical vertebra is cut half through from behind. The small fragment is now separate, having been possibly cracked at the time, but the neck was evidently not cut through, although the spinal cord was divided. The attitude of the remains in the photograph, with the skull in position but somewhat awry, supports this conclusion.

The bodies of two of the lower thoracic vertebrae are ankylosed, and one appears to have suffered a collapse before this took place (Pl. XVIII, 6B). The condition may have had a pathological cause, it does not look traumatic.

The standing height of the individual from all four long-bone measurements was 5 ft. 8½ ins., very close to the average height of the group.

No. 15. This collection contained no human remains, the recognisable pieces being a metatarsal and an acetabulum of an ox.

No. 16. (Pl. VI.) Lying on back, with pile of stones over lower body on pelvis, above which are the legs of 21 and the pelvis of no. 13. Head turned to left and downwards, chin resting on left clavicle ; 5 vertebrae attached to the skull, with a gap below, so neck presumably partially severed.

The very long-headed skull of a male individual, practically complete. The supraorbital ridges were massive and prominent, the glabella outstanding, forming, at first appearance, a regular supraorbital torus. The ridges, however, were typically bipartite. The superficial resemblance to a Neanderthaloid skull was enhanced by a narrow forehead behind the massive brow-ridge and a pronounced flattening in the lambda region. There the resemblance ended. The mastoids were large, the vault well arched and of reasonable height, a high-arched squamous suture, and so on. The occiput was prominent and the nuchal lines well marked.

The sagittal suture was completely synostosed, leaving only barely visible traces. The lambdoid was also closed save near the asterion. The coronal was still clearly marked externally, though mainly synostosed. The squamous was completely open still.

All the teeth were present, save the left M_1, lost in life. All were very much worn—even M3 ground down flat. There was no trace of caries. Age : at least in the late 40's, perhaps over 50.

Some measurements were possible, by way of contrast with no. 14 :—

Length, glabella/opisthocranion	195 mm.	Cranial Index 70
Maximum breadth (rather low, on the squamous suture, almost above the ear-holes)	137 ,,	
Minimum postorbital breadth	88 ,,	
Biasteric	122 ,,	

There is what appears to be an ancient perforation of the vault just behind the bregma. (Pl. XIX, 1). Since the sagittal suture is here completely synostosed, an irregular circular hole 10 mm. in diameter does not seem to be likely as the result, for example, of the loss by chance of a sutural ossicle, as in previous instances. At the same time, the margins of the hole are somewhat denticulate, suggesting a sutural surface rather than a fracture across the diploe. There seems no doubt that the hole is ancient and, when the bone was fresh, such an injury must have required some force. It was therefore concluded at first that the perforation was the result of a punching blow from a pointed, and not too blunt weapon, for the fractures did not diverge inwards. Later a cervical vertebra, perhaps C3 or 4, apparently belonging to this individual, was examined. The bone was found in cleaning tne skull at the Institute and its attribution is vouched for. The vertebra has been cleanly sliced (Pl. XIX, 3B), the edge of the weapon having passed neatly between this and the next vertebra below, only removing shavings from the anterior and posterior ' lips ' of the body, from one articular process and from the inferior aspect of the neural arch, removing the spinous process. This is, without doubt, a sword-cut, like others described in this collection. Its discovery makes it unlikely that the skull-perforation referred to above was the cause of death, for decapitation would then have been unnecessary. It may possibly have been a wound which was not immediately fatal.

Further, it seems that the rest of the remains attributed to this individual cannot belong to him, since the cervical vertebrae in collection 16 are complete and intact, save for the atlas, which is missing. There seems to be no doubt that the above sliced cervical vertebra does belong with the skull, so that a mistake must have occurred in associating this with the long bones in 16, which must, provisionally, be described as those of a distinct individual, 16(a).

16(a) The femur of no. 16(a) is very strong, with an enormously developed linea aspera, bespeaking strong adductor muscles. Perhaps the individual was a horseman. The height from all four long bones was 5 ft. 11 ins. (1.803 m.).

16(b). A third adult individual is represented by a fragmentary humerus and tibia.

16(c). Remains of a fourth individual were apparently associated with this group. A mandible fragment was recovered from collection 16 which fitted, and was reunited with, the mandible of an unlabelled broken skull. This skull-collection also included the first four cervical vertebrae, still in the matrix.

The skull was of a heavily-built male with prominent supraorbital ridges, large frontal sinuses, long mastoids, thick bones. and a powerful neck musculature, shown by a marked occipital protuberance and nuchal lines. The thickness at the protuberance was 18 mm. All vault sutures were clearly traceable externally, though synostosis was practically complete in the greater part of the sagittal, in the middle third of each lambdoid branch and in the more lateral parts of the coronal.

The teeth were very large, complete in the maxilla, and moderately worn save for the very large M3's, which were scarcely affected. These had clearly reached the level of the chewing surface only shortly before death. In the mandible, the left M_1 had been lost in life, the right M_1 was badly decayed mesially, as was the distal surface of the premolar before it. Otherwise all were sound.

Despite the unworn condition of the M3's, the extensive synostosis of the sutures and the worn-out M_1's suggest an age of at least 35, perhaps one closer to 40.

In conformity with the skull indications of musculature the cervical vertebrae are very large. Even were it possible, on some grounds, to assign the skull 16 to the long bones 16(a), and to unite the cut cervical vertebra of 16 with those of 16(c) the difference in size would rule this out as a simplification of the difficulty. It seems likely, therefore, that 16(a) and 16(c) belong together.

Evidence of the cause of death in 16(c) is confined to an irregular ancient perforation, some 12 mm. in diameter, at the lambda, which, as before, rather suggests the loss of a sutural ossicle by its irregular margin. However, this skull shows no other indications of sutural ossicles. Moreover, as for (a) the degree of synostosis at this point makes it probable that even to displace such an ossicle would require some violence concentrated in the one small area. This fact makes the perforation less likely to be fortuitous. Nos. 3, 13, 16, 20 and 21 were all closely associated in the excavation so that the correct assignment of the remains has been difficult. It seems possible that 16(c) is the skull of the individual whose bones are described as no. 21.

No. 17. Lying on back, with backbone sharply curved. Not fully cleared.

Skull of a male (long mastoids, rounded slight occipital torus, prominent glabella but small supraorbital ridges, large frontal sinuses, thick bones). Vault sutures mainly still open, with synostosis only beginning near the vertex.

Teeth : a full set in the maxilla and mandible, small and even. The M3's are scarcely worn. The left C_1 has erupted with its buccal surface turned distally, but is not at all crowded by the adjacent teeth. The left M_1 is carious. There is a prominent chin with a marked submental incisure, but the mandible is, on the whole, rather slight in build.

Age is, thus, probably in the early 20's. The decayed molar is unusual at so early an age in this population. There is a long ancient fracture across the left half of the frontal bone which has no contacts reconstructable with the lateral part of the bone. The edges of this fracture are somewhat widened inwards, suggesting that it is, perhaps, one side of a linear injury similar to that observed in no. 2. Unfortunately, many pieces of the skull are missing, and it has been impossible to reconstruct enough of the left frontal region to confirm this. If this was a wound it must have been fatal.

With the skull was a quantity of bones under the same number, obviously including fragmentary remains of two quite distinct individuals. Of those attributable to no. 17, the lightly-built young skull, only the femur was complete. It gave a calculated mean height of 6 ft. 0½ in., and was slender in build. This is the tallest man in the whole series.

In the same collection was a strikingly stout right femur (17(a)) of nearly the same length as that of no. 17 but of much heavier build. Corresponding with it were acetabular fragments of two heavy ossa coxae. The stoutness of this individual is well seen in the comparison of the girth of the middle of the femoral shaft : 4¼ ins. (10.8 cm.), contrasted with 3⅝ ins. (9.2 cm.) in the femur of no. 17. The fellow to this femur was found with no. 20. The height indicated is 5 ft. 9 ins. (1.754 m.).

An interesting feature of this heavy femur is evidence of a deep crushing, rather than cutting, wound on its anterior surface just above the lateral part of the knee-joint (Pl. XIX, 4). Splinters of compact bone have been forced into the cancellous tissue underneath. There is also a clean-edged ancient cut, some 2 mm. deep, just above the lateral condyle on the posterolateral surface. Neither of these injuries could well have occurred by chance while the muscles and ligaments still covered the bone ; they are due either to wounds before death or to pressure of surrounding stones under the weight of the filling since the soft tissues decayed. This bone, as well as many others, bears marks of crushing,

erosion and decay since burial, but the traces referred to seem better-defined and more circumscribed than most of these, and the possibility may be considered that they represent wounds received in battle.

Some other large bones, belonging either to this individual—or to no. 17—were found in a collection labelled '24 and 17'. Humerus and radius were measured, yielding a mean height close to 6 ft. 0 ins. (1.83 m.). This could most easily apply to no. 17, and the remains have been added to the femur described under no. 17. The other individual represented in '24 and 17' was too short to correspond with either of the men in 17 and is described below as no. 24.

No. 18. (Pl. VI.) On back, beneath legs of no. 3. Skull badly crushed. Lower part not excavated.

This was the body of a youth less the legs, which were not exposed in the trench. The skull was represented only by a few fragments.

Age was determined as 18–20, the head of the humerus being still unfused with the shaft while the distal epiphysis was already united. The distal epiphyses of ulna and radius were also wanting. A complete os coxae was of the male type.

Remains of cervical vertebrae 3–7 were found and showed no signs of damage apart from posthumous and recent breaks.

Height calculated from the humerus was 5 ft. 6½ ins. (1.692 m.).

No. 19. (Pl. IXA.) In gulley in west lip of ditch. Lying on back. Skull found resting on left elbow.

Skull of a young man with smooth, rounded forehead, fairly large mastoids, pronounced occipital protuberance. The sutures of the vault were still open save near the vertex and the part of the coronal in the temporal fossa.

The teeth were large, complete both in maxilla and mandible, M3's just beginning to wear, M1's much worn. In the mandible the incisors and canines are crowded and somewhat uneven. The mandible was stout, the gonial angles slightly everted. The mental eminence was sturdy but not prominent, being overshadowed by the slightly procumbent lower incisors, a condition perhaps due to crowding.

The age, from these data, is between 20 and 25. The skull showed no signs of violence.

The accompanying long bones were short and of slight build, the mean of calculations from all four bones giving a height of 5 ft. 6 ins. (1.672 m.). The cause of death was apparently decapitation, the skull having been found resting on the left arm at the elbow, but direct evidence from the vertebrae is now missing. Atlas, axis and cervicals 6 and 7 were recovered intact, but the intervening bones were apparently not seen. It is in vertebrae C3, 4 and 5 that the greater number of cut injuries have been found in the present series of skeletons.

No. 20. Beneath no. 3 and no. 13.

The skull of this individual was apparently not with the bones. The body lay almost directly below no. 13, and in the photograph (Pl. VI), what seems to be a skull, may be seen immediately beneath that of no. 13. A second skull, described above as 13(a) was thought possibly to belong to no. 20, but, after seeing the long bones of the latter, 13(a) is evidently too old to represent the present individual.

In sorting through collection no. 20 a fragment of the left half of a mandible with three molars in position, and an isolated upper medial incisor, cervical vertebrae 2–4 inclusive and two small fragments of the vault of a skull were found. The skull was thin—not more than 5 mm. thick in the thickest part preserved—and the coronal suture as far as it could be seen was quite open.

The teeth were unusually small and the jaw gracile. The M_3 was quite unworn, the M_2 only slightly, while M_1 was beginning to show dentine in all the worn cusps.

The three cervicals recovered included the axis and the following two vertebrae, 3 and 4. The last was cleanly sectioned transversely, but search among the remains showed no trace of the other cut half or of the 5th–7th cervicals. The vertebrae recovered must have been articulated with the skull when buried, but apart from the few fragments mentioned nothing of this has been found.

Among the long bones, the femora had the distal epiphyses still loose, the humeri the proximal. The ulna and radius, though broken, were successfully measured. The os coxae lacked a preauricular sulcus.

A male about 19 years of age is indicated, of medium height and slight build. Four measurements of long bones gave a mean of 5 ft. 9½ ins. (1.760 m.).

20(a). A very heavily-built left femur, lacking the head, neck and trochanters, was strongly reminiscent of the large right femur described as 17(a). When compared, this proved to be almost certainly the missing fellow to 17(a).

An adult humerus, not markedly stout, almost certainly belongs to the same individual. Owing to the loss of its head a measurement was not possible, but the disproportion with 17(a) is evident to the eye and by comparison with humeri of individuals corresponding in build to the owner of the two heavy femora, 17(a) and 20(a), it probably also belongs here.

No. 21. Legs on pile of stones over no. 16 and beneath pelvis of no. 13, body beneath no. 3.

There was no trace of a skull in this collection. The body is represented only by fragments of arm and leg bones. Only a radius was sufficiently complete for measurement and gave a height of 5 ft. 6½ ins. (1.691 m.). Though short, it was stout and muscular, as

were fragments of a femur. Though there is no conclusive evidence of sex, the sex of the individual to whom these bones belonged can hardly be in doubt—a male. It seems possible that skull no. 16(c), also of a strongly-defined male, belongs to this body.

No. 22. (Pl. IXB.) With no. 5, chest resting on arm of latter. Head severed, and found by toes of left foot.

A very long-headed skull : length glabella/opisthocranion 200 mm., maximum breadth 129 mm., cranial index 65. There was a prominent glabella and supraorbital ridges. The frontal sinuses were enormous, extending laterally far above the roofs of the orbits and, in the midline, as high as the origin of the median crest on the cerebral surface of the frontal. The mastoid processes were long and the nuchal lines very high on the occipital squama, but the inion was not prominent. The temporal lines, also, ran very high up the vault. The nose was prominent and high-bridged.

All the marks are of a muscular male individual.

The sutures were open, save near the vertex and in the bregma region, where synostosis had begun.

The palate was large and the teeth were all perfect, as far as preserved, though the M^1's were much worn. The M^3's were only slightly worn. The palate is broken, so that C^1 is loose and Pm^1 missing from the right side.

In the mandible, M_1 on the right side was lost in life, the other teeth being all sound. The mandible itself was very stout, with a prominent cleft chin and strongly everted gonial angles. The age is estimated at 20–25.

There was no evidence in the skull of ancient injury, but, among the bones, cervicals 1–4 are present and intact, together with the lower part of C5 which has been cut cleanly through the body (Pl. XIX, 3A). C6 and 7 are missing, as is the upper cut half of C5.

The long bones are well-muscled but of slender build. Four measurements gave a mean height of 5 ft. 7¼ ins. (1.707 m.).

No. 23. Only skull excavated, rest of body lying beyond edge of trench.

By way of contrast with the preceding, this specimen measured : length 192 mm., breadth 145 mm., cranial index 75.5. The skull had thick, heavy bones, very strong supraorbital ridges and a prominent glabella. The areas for attachment of temporal and nuchal muscles were extensive. There was a prominent occipital protuberance with a raised sagittal ridge running down from it to the opisthion. The mastoids were both long and massive.

The sagittal suture was nearly synostosed but still clearly traceable, as were the lateral halves of the coronal also. The lambdoid was hardly at all fused and included numerous ossicles, both large and small, one of which (now lost) formed a sort of ' pot-lid ' (like the thermal fracture of a frosted flint) just in front of the lambda.

This was a heavily-built, muscular, adult male.

The upper teeth were very large, not as deeply worn as would have been expected at the age estimated from the ossification of the skull alone. The two medial incisors and C^1 and Pm^1 of the right side were lost *post mortem*. The teeth preserved are all quite perfect.

The age was probably no more than 25–30. There were no signs of damage to the skull in life.

A femur found behind the skull gave a height of 5 ft. 10 ins., but there is no evidence either to associate it with, or to dissociate it from, the skull. No other parts of this body were exposed in the excavation.

No. 24. To the right of no. 17. Skull severed and not found. The right side of the body lay under the side of the trench and was not excavated.

Associated with some long bones of 17(a) (see above), but the much smaller dimensions made distinction between the two individuals easy.

There was no skull. The last two cervical vertebrae and the first thoracic were found among the collection, still in position in a block of matrix. They were uninjured. Only the thorax and upper limbs are represented. Measurements of humerus and radius gave a mean height of 5 ft. 8¼ ins. (1.742 m.).

No. SW./I (1950). At base of tip of north rampart, about 50 ft. from main group, but probably to be associated with it. (See p. 9 and Pl. XIX, 2, 5, 6.)

Skull of a young individual with moderate supraorbital ridges, heavy mastoids, thick bones, marked occipital protuberance and nuchal lines. High, narrow nose, wide zygomatic arches and strong, muscular jaw.

The sutures are still mostly open, but synostosis has begun in the sagittal near the vertex and in the coronal in the temporal fossa.

Maxilla : teeth rather crowded, of moderate size. M^1's show dentine in all cusps. M^2's scarcely worn. M^3's not at all, though well up to the chewing level. The left M^3 has been lost *post mortem*.

Mandible : heavily built, strong chin, well marked muscular impressions. All the teeth are present and seem to be less crowded than in the maxilla. M_1's are both carious distally, that on the left reduced to a mere shell and with an abscess laterally at the roots. On both sides M_2 has occupied the space left vacant by the decayed part of the tooth in front. The M_2's are only slightly worn. The M_3's are quite unworn.

The evidence indicates a male aged about 20 years.

As the skull is so complete some measurements were made for comparison with individuals from the second season's excavations :—

Length, glabella/opisthocranion	188 mm.
Maximum breadth	147 „
Cranial index	78 „
Minimum postorbital breadth...	96 „
Bizygomatic breadth	126 „
Biasteric breadth	119 „

Skull-injuries : There was a sword-cut on the left parietal bone in an approximately sagittal plane, inflicted from behind. As found, the whole parietal eminence was detached in a fragment measuring 70 x 55 mm. The actual cut, however, is traceable only for about one third of the length of this fragment. The rest is a fracture, probably initiated by the blow as a crack, but not entirely separating the fragment in life. The fact that the individual was also decapitated points to the conclusion that, as a wound, this injury was not immediately fatal.

Among the cervical vertebrae the atlas and axis were found entire. C3, however, was cleanly cut transversely through body and arch, both of the divided fragments being preserved. C4 was also undamaged. This clearly indicates a cut with a sword or other weapon which divided the neck completely and represents the immediate cause of death.

The long bones were relatively slender but well-muscled. The lines of fusion of the epiphyses with the shafts can still be detected in some cases, supporting the determination of age arrived at by examination of the skull-sutures and the teeth. The mean height of the individual was calculated from measurements of all four long bones as 5 ft. 8¼ ins. (1.731 m.).

Burials Within the Camp

Nos. SW. II–VIII were in regular graves, cut into the latest Roman-period occupation levels, and sealed by the agricultural level (see p. 20). All the burials were contracted, some of them strongly.

SW. II. Area I, Pit 1, Square BE (Pl. XVc).

A skull with smooth forehead and occiput, small mastoids and lightly-built jaw. Probably female. Age, from vault-sutures, 20–30 years. A fairly large (supraoccipital ?) ossicle at the lambda.

Upper teeth : Incisors and canines all preserved, right C^1 decayed distally, both I^1's fractured, not worn, at the cutting edge. P^1's present at death. All the others, save M^3's, lost in life. M^3's perfect and scarcely worn.

Mandible : Incisors and canines all present at death. On the left side P's, M_1 and M_2 preserved, the last decayed distally. Left M_3 lost in life. On the right side P_1 is perfect. P_2 and M_1 are much decayed on adjacent parts, the pulp-cavities exposed in both cases. M_2 and $_3$ both lost in life.

All 4 main long bones were measured, giving a mean calculated height of 5 ft. 3 ins. (1.596 m.), with a maximum difference of 5.5 cms.

SW. IV. Area I, Pit 1, Square AB (Pl. XVb).

The skull, much broken, seemed to be that of a female age 30–40. The pelvis, broken, was not distinctively female. Complete, lightly-built femur, tibia and radius were measured, giving mean height, calculated as for a female, of 5 ft. 3½ ins. (1.611 m.), with a difference between the results of 5 formulae of 11.8 cms. The same measurements were used to recalculate the height as a male, giving 5 ft. 4 ins. with reduction of the difference to 9.9 cms., making it more likely that the individual was a male. The femur was, in any case, very short in comparison with the other bones. The difference in modern men does not usually exceed 7.5 cms.

SW. V. Area I, Pit 2, Square B.

A small piece of the vault of the skull was very thick, so that the individual was possibly a male. Of the long bones, only the humerus was complete enough for measurement, giving a height of 5 ft. 3¼ ins. (1.617 m.).

SW. VI. Area I, Pit 1, Square BF.

No skull. Young adult. Sutures of the long-bone epiphyses still detectable. Sex, from fragmentary pelvis, ? male. All 4 long bones were measured. They were small and lightly built. The mean calculated height was 5 ft. 2¾ ins. (1.593 m.), with a maximum difference in results from 10 formulae of 8.7 cms. This is too large. Recalculated as a female, the mean height amounted to 5 ft. 1½ ins. (1.565 m.), with a difference of only 4.8. The remains were, therefore, probably of a female.

SW. VII. Area I, Pit 1, Square ZB.

The skull was very long and much deformed by earth-pressure *post mortem*. It was apparently of a male aged 30–40. There were sutural ossicles in the lambdoid suture. The mandible was broken. The only teeth remaining in life were, on the left side, I_2 and C_1, on the right C_1 and M_2—all much worn.

A fragment of the pelvis confirmed the male sex. The long bones were too broken to be measurable, but were small and of light build. Height about 5 ft. 3 ins. at a rough guess.

SW. VIII. AREA I, PIT 1, SQUARE BF.

The skull was very thick in the vault and appeared to belong to a male aged about 30. The sex was confirmed from the pelvis.

The mandible was broken at the symphysis, the right I_1 and M_3 missing, as were the left M_2 and $_3$. The left M_1 was distally decayed. All the teeth, even the M_3 were much worn. Of the long bones only tibia and humerus could be measured. These gave a mean height of 5 ft. 4¼ ins. (1.631 m.), with a difference of 2.6 cms.

Infant burial, in AREA I, PIT 1, SQUARE ZBC, immediately outside edge of floor of hut of Period VIA, in very shallow grave below this level. A similar infant burial lay outside the edge of the hut in Square AAB.

Infant, new-born or full-term foetus. Fragmentary long bones, pelvis, clavicle, ribs. Age and condition closely comparable with the remains of infants which are not uncommon in Roman contexts.

Burial beneath the Iron Age rampart on the south side (see p. 12).

Both the skull and the rest of the skeleton were very fragmentary. Apparently a male and, from the teeth, aged possibly about 30 years. The humerus, tibia and radius could be measured, giving a mean height of 5 ft. 5 ins. (1.654 m.), with a maximum difference of 4.9 cms.

No bone-injuries could be found in any of these burials within the camp. It appears that the remains are those of bodies buried in the ordinary course of events, having died from accidental or natural causes.

No.	Skull (+ or —)	Sex.	Age.	Mean Height. Ft.	Ins.	m.	Diff. (cms.)	Remarks.
1	+	m.	30–40	5	4½	1.635	2.0	Tibia, humerus measured.
1a	—	m.	adult	5	9	1.752	0.5	Humerus, radius.
2	+	m.	20–30	5	11½	1.818	3.2	Parietal fracture ? Pelvic wounds ?
2a	—	—	adult	5	6¾	1.695	—	Radius only.
3	+	m.	±40	5	7½	1.719	2.3	Femur, tibia.
4	+	—	±12	—		—	—	Partially decapitated ?
5	+	m.	16–18	5	4¼	1.631	4.6	Height not included in average, owing to immaturity.
6	+	—	±20	—		—	—	
7	+	m.	20–30	5	7¼	1.708	0.3	Tibia and humerus. Decapitated.
8	+	m.	20–30	5	10	1.775	—	Humerus only. Transverse cuts on occiput and mandible.
9	—	—	adult	5	4½	1.636	—	Humerus only. Ankylosed vertebrae.
10	+	m.	50+	5	4½	1.639	10.0	Metopic suture and sutural ossicles.
10a	—	—	16–	—		—	—	Ulna and radius only.
11	+	m.	17–18	6	0½	1.838	6.1	All 4 long bones.
11a	+	—	20–30	—		—	—	Cranial fragments only.
12	—	—	adult	5	10½	1.786	6.6	Femur and humerus.
12(a)	+	m.	16–17	—		—	—	Skull and long-bone fragments.
13	+	m.	±35	5	7	1.704	4.6	All 4 bones. Frontal fracture ?
13(a)	+	m. ?	40+	—		—	—	Maxilla and mandible fragments only.
14	+	m.	±40	5	8½	1.736	6.1	Cut C–vertebra. Ankylosed lumbar vertebrae.

No.	Skull (+ or —)	Sex.	Age.	Mean Height. Ft.	Ins.	m.	Diff. (cms.)	Remarks.
16	+	m.	45–55	—		—	—	Cut C–vertebra. Perforation near bregma.
16(a)	—	—	adult	5	11	1.803	5.6	Long bones only with C–vertebrae. Probably belongs with 16(c).
16(b)	—	—	adult	—		—	—	Fragments humerus and tibia.
16(c)	+	m.	35–40	—		—	—	Skull only. Perforation at lambda. Probably belongs with 16(a).
17	+	m.	20–25	6	0¾	1.847	9.9	Femur, radius, humerus. Left frontal fracture ?
17(a)	—	—	adult	5	9	1.754	—	Femur only. Knee-wound ? (See also no. 20(a).)
18	+	m.	18–20	5	6½	1.692	—	Humerus only.
19	+	m.	20–25	5	6	1.672	3.4	All 4 long bones.
20	+	m.	±19	5	9½	1.760	9.2	All 4 long bones.
20(a)	—	—	—	—		—	—	Broken femur, fellow to 17(a), and a humerus fragment.
21	—	—	adult	5	6½	1.691	—	Only radius measurable.
22	+	m.	20–25	5	7¼	1.707	6.7	C–vertebra cut. All 4 long bones measured.
23	+	m.	25–30	—		—	—	Skull only.
23(a)	—	—	adult	5	10	1.776	—	Femur only. Associated with, but not belonging to, no. 23.
24	—	—	adult	5	8½	1.742	—	No skull. Only thorax and arms.
SW./I	+	m.	±20	5	8¼	1.731	2.4	All 4 long bones. Parietal sword-cut. Cut C–vertebra.
BURIALS WITHIN THE CAMP								
SW./II	+	f.	20–30	5	3	1.596	5.5	All 4 long bones.
SW./III	—	m.	—	5	10½	1.790	5.3	All 4 long bones.
SW./IV	+	m.	30–40	5	4	1.625	9.9	Femur, tibia, radius.
SW./V	—	m.?	adult	5	3½	1.617	—	Humerus only measurable.
Square ZBC	+	—	infant < 6 mths.	—		—	—	Fragments of skull and long bones.
SW./VI	—	f.	adult	5	1½	1.565	4.8	All 4 long bones.
SW./VII	—	m.	30–40	—		—	—	No bones measurable.
SW./VIII	—	m.	±30	5	4¼	1.631	4.9	Humerus, tibia.
No number	—	m.	±30	5	5	1.654	4.9	Skeleton at base of I.A. rampart.

The ' difference ' column in the table refers to the range (in cms.) of differences in the heights calculated from the measured bones by as many as possible of the Dupertuis–Hadden formulae. The maximum difference found in 10 modern individuals cited by these authors is 7.5 cms. It will be seen that, in three cases (10, 17, 20), the differences found in the present series exceed this maximum.

In two cases (18, 20) this is possibly due to wrong attribution of a bone or bones to the individual concerned, but in no. 10 where the attribution is not in doubt, some other explanation must be found. The bone-measurements were checked in all these instances and found to be exempt from gross error. It would appear, then, that no. 10 was notably short in the legs and long in the arms. He stood, in any case, at the lower limit of adult height for the group (5 ft. 4½ ins.) even on the mean calculated from femur, humerus and radius, and he was probably the oldest individual present (perhaps over 50). Moreover, he showed in his skull some anomalies of ossification (sutural bones, persistent metopic suture) so that he may have been something of an oddity in the proportions of his limbs also though there was nothing about the bones to suggest malformation or any pathological changes.

The mean difference for the whole series is 4.93 cms. as compared with 4.53 for the series of 10 modern individuals given by Dupertuis and Hadden, showing that faulty attributions have not played a large part.

Age-distribution in the series, based on 24 individuals for whom an age estimate was possible :—

10–15 years	... ...	1 individual.
15–20 ,,	... ...	6 individuals.
20–30 ,,	... ...	10 ,,
30–40 ,,	... ...	5 ,,
40–50 ,,	... ...	1 individual.
50–+ ,,	... ...	1 ,,

Conclusions

It emerges from this study that the bodies in the hill-fort ditch were, as far as can be determined, exclusively male, chiefly youths and young men in the prime of life, with only two individuals over 40 years of age.

In mean stature they compare fairly closely with the Maiden Castle Iron Age, Anglo-Saxon and modern British populations, the average being perhaps 1 in. taller than the last.

The presence of some undoubted traumatic lesions in skulls and bones points, first, to wounds possibly received in battle and, second, to decapitation and unceremonious burial in the ditch. The latter presumably took place at the hands of the Roman conquerors who executed the survivors of the defence, perhaps as an example to would-be defenders of other native strongholds. A general massacre is probably to be excluded in view of the absence of determinable female remains. The child aged 12 (no. 4) possibly filled the role of mascot, page-boy or messenger to the leading warrior and shared the fate of the rest in that capacity.

Pathological features were apparently confined to carious teeth and two cases found of ankylosis between the bodies of adjacent vertebrae, but whether the latter are of pathological or traumatic origin the writer is not competent to decide.

Pl. XVIII. Illustrations of Bone Injuries in Skeletons in Ditch at West Entrance

1. Skull SW./2, showing the ancient fracture of the right parietal bone.
2. Internal aspect of the fracture in fig. 1, to show the 'flaking' inward of its edges.
3. Right os coxae of SW./2, showing (A, B) marks of apparently ancient damage to the internal surface of the ilium. The smaller (B) is the better defined. These may have been caused by thrust-wounds of the abdomen.
4. Skull SW./8, showing the clean cut across the occipital bone, reaching the asterion on the right and shearing off the extremity of the mastoid process on the left.
5. Mandible of SW./8, frontal aspect, showing the deep cut-wound across the chin and the associated ancient fractures. The damage is consistent with an attempt to behead the individual from the front.
6. Right : Two ankylosed lumbar vertebrae of SW./9, frontal view.
   Left : Ankylosed thoracic vertebrae of SW./14, left lateral view.

Pl. XIX. Illustrations of Bone Injuries in Skeletons in Ditch at West Entrance

1. Skull SW./16. Ancient perforation of the vault close to the bregma, possibly a punched injury in life.
2. SW./I, left lateral view of skull showing detached parietal fragment replaced in its original position.
3. Cervical vertebrae of decapitated individuals.
   A. Surface of a clean cut through body and arch of a vertebra of SW./22.
   B. Left lateral view of vertebra C4 of SW./16, cut through the body, the fragments articulated with the adjacent vertebrae. The plane of the cut passes exactly between the articular facets on either side.
   C. SW./I (1950), the first 4 cervical vertebrae, dorsal view. C3 is cleanly divided through both body and arch. The fragments are correctly articulated with the adjacent vertebrae.
4. Femur of SW./17a. Ancient damage on the anterior surface, close above the knee-joint, possibly due to a battle-wound.
5. SW./I. The same view as in fig 2, but with the parietal fragment removed to show the clean vertical cut behind and the resulting fracture completing its detachment. The internal aspect of the fragment is seen below.
6. SW./I. Frontal view.

(1)

(2)

(3)

(4)

(5)

(b) (6) (a)

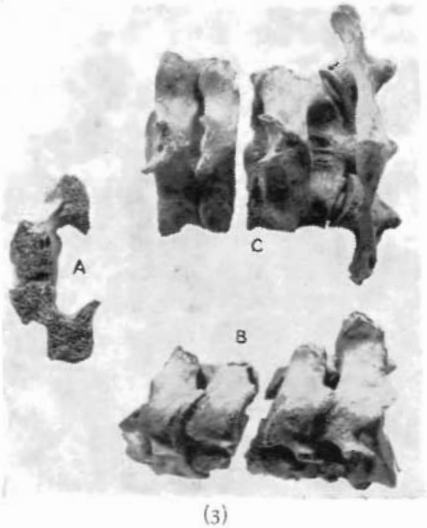
For details see page 78.

(1)

(4)

(2)

(5)



(3)

(6)

For details see page **78**.

ACKNOWLEDGEMENT

My grateful thanks are due to Dr. J. C. Trevor of the Duckworth Laboratory, Cambridge, for advice on the measurement of the bones; for the references to the literature on living-height estimation from dry bones; for the loan of a manuscript copy of his paper (in joint authorship with Boyd) while it was in the press, and for the not inconsiderable task of calculation of heights from my measurements of which he relieved me. Such practical kindness far surpassed my expectations, or even my hopes, and I am happy to acknowledge my indebtedness here.

ANIMAL BONES

The animal bones were sorted and identified by a number of students at the Institute of Archaeology. The identifications were checked by Dr. I. W. Cornwall. I am most grateful to him and to the students, especially to Miss M. Bennet-Clark.

PIT 1, PERIOD I

Dog. 1 medium skull.

Horse. 1 skull, 2 teeth, 2 fragment of pelvis, 5 vertebrae, 2 femora, 1 calcaneum.

Pig. 5 scapulae (1 very young), 2 ulnae, 2 radii, 1 very young femur, 5 tusks, 18 teeth, 31 fragments of jaw, 1 metacarpal, 1 calcaneum, 2 fragments of pelvis, 3 humeri (1 very young), 1 vertebra.

Ox. 7 calcanea (1 young), 2 ulnae, 10 phalanges, 8 astragali, 32 vertebrae, 8 fragments of scapulae (1 young), 23 metacarpals or metatarsals (2 young), 8 humeri, 18 femora, 15 tibiae (3 young), 8 radii, 1 head of ulna and radius fused, 11 fragments pelvis, 16 fragments jaw (2 small), 9 fragments skull, 8 fragments skull with horn.

Sheep. 50 teeth (4 young), 30 fragments jaw (2 young), 3 fragments skull with horn, 1 horncore, 8 scapulae (2 young), 6 fragments pelvis, 10 vertebrae, 4 calcanea, 4 phalanges, 2 femora, 17 humeri (1 young), 1 radius and ulna, 19 radii, 25 tibiae (1 young), 9 metacarpals.

Bird. 2 bones.

PIT 1, PERIOD IA

Ox. 1 radius (large), 1 astragalus, 2 fragments jaw (1 old), 1 calcaneum, 2 humeri, 1 fragment of pelvis, 1 metacarpal, 1 fragment of skull.

Horse. 1 tooth (old).

Sheep. 3 fragments jaw, 3 radii, 3 scapulae, 3 teeth (1 young).

Pig. Mandible with teeth.

PIT 1, PERIOD IAB

Ox. 2 radii, 2 calcanea (1 immature), 2 scapulae, 6 humeri, 4 femora, 3 metacarpals (1 immature), 3 tibiae, 2 phalanges, 1 talus, 1 radius, 1 ulna, 1 fragment of pelvis, 3 fragments of skull, 6 teeth.

Pig. Fragment of pelvis, fragment of mandible with teeth.

Sheep. Fragment of pelvis, 2 tibiae, 2 metacarpals (immature), 1 femur, 1 ulna, 3 humeri, 1 vertebra, 4 mandibles (1 immature), 6 teeth, 1 calcaneum, 1 fragment of scapula, 1 ulna, 2 metapodials (1 immature), 3 fragments of maxila.

PIT 1, PERIOD II

Horse. 2 fragments of pelvis, radius and ulna, 1 metacarpal.

Ox. 8 vertebrae, 8 fragments of skull, 2 fragments of jaw (1 young), 8 teeth, 3 femora, 2 fragments of scapula, 1 tibia, 1 metacarpal, 3 phalanges, 3 fragments of pelvis, 2 mandibles, 2 tibiae, 1 radius, 2 metatarsals, 1 talus, 2 hoof-cores.

Sheep. 4 fragments of jaw, 5 teeth, 2 fragments of skull, 2 fragments of pelvis, 4 metacarpals (1 immature), 3 femora (2 immature), 1 radius (immature), 1 phalanx, 1 talus.

Pig. 11 fragments of jaw, 1 scapula (immature), 1 tibia, 1 femur (immature), 3 metapodials, 1 ulna (immature), 2 teeth.

Goat. 2 horncores.

PIT 1, PERIOD III

Ox. 1 horncore, 1 femur, 2 scapulae, 1 fragment of pelvis, 1 metatarsal, 1 tibia, 1 vertebra.

PIT 1, PERIOD III

Pig. 1 humerus, 2 scapulae, 2 ulnae.
Ox. 1 metatarsal, 1 phalanx, 1 tooth.
Sheep. 2 jaws (1 young), 4 teeth (3 young), 1 vertebra, 1 femur, 2 tibiae, 3 metatarsals.
Horse. 1 tooth.

PIT 1, PERIOD IV

Sheep. 1 fragment of pelvis, 2 tibiae (1 immature), 1 fragment of jaw.
Ox. 1 tooth (very old).
Pig. 1 mandible, 1 ulna (youthful), 1 scapula (very youthful).

PIT 1, PERIOD IVA

Ox. 1 metatarsal, 1 calcaneum.
Pig. 1 humerus, 1 ulna, 1 tooth, 1 mandible.

PIT 1, PERIOD V

Pig. 1 tibia (very large), 1 humerus (immature), 1 maxilla with teeth, 2 teeth.
Ox. 1 fragment of mandible with teeth, 2 fragments of skull.
Sheep. 3 tibiae, 2 metacarpals, 1 femur, 2 vertebrae, 1 calcaneum, 2 fragments of mandible, 2 teeth, 1 phalanx.

PIT 1, PERIOD VI

Ox. 3 fragments of skull, 1 ulna, 1 metatarsal, 1 calcaneum, 6 fragments of mandibles, 3 radii, 1 humerus, 1 phalanx, 3 vertebrae, 6 teeth.
Sheep. 3 vertebrae, 1 radius, 1 tibia, 1 calcaneum, 2 fragments of pelvis, 3 very small immature long bones, 7 fragments of mandibles, 1 scapula (very young), 2 phalanges, 4 teeth.

PIT 1, PERIOD VIB

Ox. 1 scapula, 1 mandible, 1 carpal or tarsal bone, 1 humerus.

PIT 1, PERIOD VIC

Pig. 1 fragment of mandible, 3 teeth, 1 scapula, 1 metapodial.
Ox. 2 tibiae, 1 calcaneum, 1 vertebra, 1 humerus, 1 radius, 2 phalanges, 4 teeth.
Sheep. 2 fragments of mandible with teeth, 1 tooth, 1 calcaneum (immature), 1 fragment of pelvis.
Horse. 1 phalanx, 1 tooth.

PIT 1, PERIOD VID

Horse. 1 phalanx.
Dog. 1 tooth.
Ox. 1 talus, 1 tarsal bone, 2 calcanea, 1 vertebra, 2 humeri, 1 femur, 1 scapula, 1 tooth.
Sheep. 1 fragment of pelvis, 4 teeth.

PIT 2, PERIOD I

Ox. 1 horncore.

PIT 2, PERIOD IA

Sheep. 1 astragalus, 2 teeth.
Ox. 1 fragment of skull, 2 teeth.

PIT 2, PERIOD II

Sheep. 4 fragments of mandible, 2 tibiae.
Ox. 3 femora, 2 tibiae, 1 fibula, 3 radii, 2 humeri, 7 fragments of pelvis, 6 vertebrae, 3 fragments of scapula, 2 horncores, 2 mandibles, 1 phalanx, 3 metacarpals.

Horse. 1 metacarpal, 1 tibia, 1 fragment of pelvis.
Pig. 4 mandibles, 1 tibia, 1 scapula, 1 fragment of pelvis, 1 radius.

PIT 2, PERIOD III

Ox. 6 fragments of mandible (3 young), 4 teeth (3 old), 2 horncores, 2 fragments of skull, 3 vertebrae, 1 femur, 4 humeri, 1 tibia, 1 radius, 2 scapulae, 2 calcanea (1 very small), 4 phalanges.
Pig. 6 fragments of jaw (1 very small), 9 teeth, 1 vertebra, 1 humerus, 1 tibia (with healed fracture), 1 scapula, 1 astragalus.
Sheep. 1 horncore, 15 fragments of jaw (2 small), 3 teeth, 6 vertebrae, 1 scapula, 3 fragments of pelvis, 6 tibiae, 1 femur, 4 radii, 1 humerus, 1 calcaneum.

PIT 2, PERIOD IIIA

Sheep. 3 mandibles (1 very young), 1 femur, 1 metatarsal, 1 scapula.
Pig. 1 mandible, 1 humerus, 1 metacarpal.
Ox. 3 metatarsals, 1 astragalus, 1 vertebra, 1 ulna, 2 mandibles, 1 tibia, 1 scapula, 1 femur, 1 humerus.

PIT 2, PERIOD IIIB

Ox. 2 metacarpals, 1 fragment of scapula.
Pig. 1 femur, 1 tibia, 3 scapulae.
Sheep. 2 metacarpals, 1 scapula, 1 fragment of pelvis, 1 fragment of mandible, 2 teeth, 1 femur.

PIT 2, PERIOD IV

Horse. 1 tooth.
Pig. 2 teeth, 1 humerus, 6 fragments of jaw, 6 scapulae, 8 femora, 1 fragment of pelvis, 1 vertebra, 1 tibia.
Ox. 6 tibiae, 3 metacarpals, 10 fragments of scapula, 1 calcaneum, 2 astragali, 2 vertebrae, 1 radius, 2 fragments of pelvis, 6 femora, 3 humeri, 10 fragments of jaw, 3 teeth, 4 fragments of skull.
Sheep. 2 horncores, 2 scapulae, 2 tibiae, 3 metacarpals, 19 fragments of jaws, 1 tarsal bone, 2 fragments of pelvis, 11 vertebrae, 3 teeth, 1 femur.
Bird. 4 femora, 1 tibia and fibula (fused), 1 radius and ulna.

PIT 2, PERIOD V

Horse. 2 fragments mandible (old), 1 vertebra, 1 tibia, 1 humerus.
Sheep. 3 horncores, 14 mandibles (7 young), 8 teeth (4 young), 3 scapulae, 3 vertebrae, 2 fragments pelvis, 7 tibiae, 2 femora, 3 humeri, 3 radii, 1 metatarsal, 2 metacarpals.
Bird. 1 ilium.
Pig. 7 tusks, 3 teeth, 9 fragments mandible (fairly young), 3 fragments pelvis, 3 scapulae, 2 humeri, 1 ulna, 4 radii (1 very young), 1 metatarsal (very young).
Ox. 4 humeri, 3 horncores, 12 mandibles (3 fairly young), 11 teeth (4 old, 1 milk tooth), 2 fragments skull, 3 radii, 4 fragments pelvis, 6 vertebrae, 3 scapulae, 3 tibiae, 5 metacarpals, 2 metatarsals, 1 ulna, 1 tarsal bone, 1 calcaneum, 1 astragalus, 1 phalanx.

PIT 3, PERIOD IB

Fish. 2 fragments of jawbone.
Sheep. 4 fragments pelvis, 2 mandibles, 1 scapula, 1 metatarsal, 1 tooth, 1 vertebra.
Ox. 1 vertebra, 1 mandible, 1 fragment skull, 1 phalanx, 1 radius and ulna, 1 femur, 1 tibia.
Pig. 1 humerus, 1 mandible, 1 tibia, 1 metatarsal.
Dog. 1 mandible.

PIT 3, PERIOD II

Sheep. 4 mandibles, 1 femur, 2 humeri, 2 scapulae, 1 cannon-bone, 3 tibiae, 6 teeth (2 milk teeth), 3 metatarsals.
Ox. 3 metacarpals, 1 radius, 3 fragments skull, 4 fragments pelvis, 3 scapulae, 4 vertebrae, 1 sternum, 1 calcaneum, 1 femur, 1 metatarsal, 1 humerus, 1 phalanx, 5 tibiae and fibulae.
Pig. 11 mandibles (2 young), 3 humeri, 1 astragalus, 3 tibiae.
Horse. 5 mandibles, 4 teeth.

PIT 3, PERIOD III

Horse. 1 skull (teeth intact) and 1 mandible, 2 scapulae, 1 phalanx, 1 femur, 2 humeri, 1 vertebrae.
Ox. 6 metacarpals, 3 metatarsals, 7 radii (1 small), 3 scapulae, 2 astragali, 5 phalanges (1 small), 2 calcanea, 5 mandibles (2 young), 1 maxila (old), 13 teeth (1 young, 2 milk teeth), 7 fragments skull, 8 horncores (4 very small), 3 tibiae, 1 humerus, 2 femora, 3 vertebrae, 5 fragments pelvis.
Dog. 1 mandible (young).

PIT 3, PERIOD V

Ox. 2 horncores, 3 mandibles, 2 femora, 1 scapula, 2 fragments pelvis, 2 metacarpals, 1 phalanx, 1 fragment skull.
Pig. 1 mandible, 1 radius, 1 tooth.
Sheep. 2 jaws with milk teeth, 1 horncore, 1 metatarsal.
Horse. 4 mandibles (2 old), 7 fragments skull, 7 teeth (1 canine of stallion), 1 tibiae.

PIT 3, PERIOD VI

Sheep. 1 mandible, 2 teeth, 1 metatarsal.
Pig. 1 humerus.
Ox. 2 astragali, 1 femur, 1 scapula, 1 mandible.

PIT 3, PERIOD VII

Pig. 8 mandibles, 9 teeth (1 milk tooth), 4 humeri (1 young), 1 ulna, 1 digit, 2 phalanges.
Horse. 1 tooth.
Goat. 1 horncore.
Sheep. 7 metatarsals, 3 metacarpals, 1 humerus, 3 radii, 1 pelvis, 1 vertebra, 1 horncore, 8 mandibles, 21 teeth.
Ox. 7 teeth, 3 mandibles, 3 fragments skull, 2 horncores, 1 vertebra, 3 ulnae, 2 radii, 3 humeri, 3 metacarpals (1 young), 5 scapulae, 5 astragali, 4 phalanges (2 young), 4 tibiae, 2 tarsal bones, 1 calcaneum.

AREA I, RAMPART CUT A, PRE-RAMPART

Ox. 2 fragments pelvis, 2 fragments skull, 1 femur, 2 metatarsals.
Pig. 2 scapulae, 1 vertebra, 1 metacarpal.
Sheep. 2 fragments pelvis, 2 scapulae, 1 tibia, 1 mandible (fairly young).
Bird. 1 femur.

AREA I, RAMPART CUT A, RAMPART B

Pig. 5 mandibles, 1 tooth, 1 humerus, 1 tibia, 1 radius.
Hare. 1 skull, 2 fragments pelvis, 2 vertebrae, 1 sacrum, 3 tibiae, 1 ulna, 2 humeri, 1 metatarsal.
Horse. 3 tibiae.
Ox. 4 cannon-bones, 2 tibiae, 3 humeri, 2 fragments skull, 1 scapula, 1 vertebra, 2 mandibles, 1 astragalus, 2 teeth, 1 radius.
Sheep. 1 humerus, 5 mandibles, 1 scapula, 2 teeth, 1 pelvis, 1 calcaneum, 2 metacarpals, 2 metatarsals, 3 tibiae.

AREA II, RAMPART CUT, PRE-RAMPART

Sheep. 1 mandible, 7 teeth, 7 tibiae, 1 vertebra, 2 fragments pelvis, 1 fragment skull, 3 humeri, 1 ulna, 1 scapula, 1 femur, 1 metacarpal.

Ox. 4 mandibles, 2 teeth, 1 cannon-bone, 3 tibiae, 3 vertebrae, 1 scapula, 1 femur, 6 phalanges, 1 astragalus, 1 calcaneum, 1 radius, 1 fragment skull, 1 metatarsal.

Goat. 1 horncore.

Dog. 2 mandibles, 1 tooth.

Pig. 2 teeth, 3 fragments pelvis, 11 mandibles, 1 humerus, 5 scapulae, 3 tibiae, 1 radius, 1 metacarpal, 1 phalanx, 1 fragment skull.

AREA II, RAMPART CUT, RAMPART A

Ox. 2 horncores, 1 fragment skull, 2 mandibles, 1 femur, 3 scapulae, 1 fragment pelvis, 2 humeri, 1 calcaneum, 2 phalanges, 1 metatarsal, 1 tibia.

Pig. 8 mandibles, 2 teeth, 3 ulnae, 1 radius, 1 scapula.

Dog. 1 mandible (very old).

Horse. 1 tooth, 1 phalanx.

Sheep. 4 horncores, 2 fragments skull, 8 mandibles (2 small), 4 teeth, 2 scapulae, 3 vertebrae, 2 calcanea, 1 ulna, 2 humeri, 1 femur, 3 tibiae, 1 metatarsal.

AREA II, RAMPART CUT, OCCUPATION ON RAMPART A

Ox. 1 horncore, 3 teeth, 2 mandibles, 3 fragments skull, 3 metatarsals, 4 radii, 3 scapulae, 2 femora, 1 humerus, 1 ulna, 1 vertebra, 1 hoof-core, 3 phalanges.

Pig. 1 tusk, 1 scapula.

Horse. 1 tooth.

Sheep. 3 horncores, 3 fragments skull, 6 mandibles (2 small), 3 teeth, 2 vertebrae, 1 calcaneum, 1 humerus, 1 radius, 1 femur (young), 1 hoof-core.

AREA II, RAMPART CUT, RAMPART B

Ox. 2 cannon-bones, 1 horncore, 1 milk tooth, 3 radii.

Horse. 1 humerus, 1 femur, 1 ulna, 1 tooth, 1 phalanx.

Pig. 3 mandibles.

Sheep. 4 humeri, 1 ulna, 3 mandibles, 1 vertebra, 2 teeth, 2 scapulae, 2 tibiae, 1 femur, 1 calcaneum, 1 fragment skull, 1 metacarpal.

AREA II, RAMPART CUT, OCCUPATION ON RAMPART B

Ox. 4 horncores, 3 fragments skull, 5 mandibles, 13 teeth (1 young), 4 metatarsals, 5 humeri, 1 femur, 2 scapulae, 2 fragments pelvis, 2 vertebrae, 3 calcanea, 1 astragalus, 4 phalanges.

Horse. 1 tooth.

Pig. 14 mandibles, 1 tusk, 3 scapulae, 2 ulnae, 1 radius, 3 humeri, 4 metacarpals, 1 pelvis.

Sheep. 2 fragments skull, 11 mandibles (3 small), 22 teeth (2 young), 5 vertebrae, 2 fragments pelvis, 1 scapula, 2 tibiae, 1 radius, 4 metatarsals (1 very young), 3 humeri (1 young), 3 femora (1 young), 1 phalanx.

COINS

The coins were very kindly reported upon by Mr. B. W. Pearce, with the exception of no. 1, which was reported upon by Mr. H. Mattingley. To both of them I am most grateful.

1. Very worn silver, possibly a legionary denarius of Mark Antony. From Area I, Pit 1, Period VI.
2. Possibly Vespasian, Rev. indeterminate. From Area I, Period VII.
3. Commodus. *R.I.C.*, 494, A.D. 186–7. From Area I, Period VII.
4. Carausius. Pax with vertical sceptre. From Area I, Period VII.
5. Constantine I. VICTORIAE LAETAE PRINC PERP, *c.* 631 ff. From Area I, Period VII.

Key to Sites on Map, Pl. XIV

1. Camp NW. of Caersws
2. Camp SW. of Caersws
3. Camp SW. of Llandinam
4. Camp WSW. of Montgomery
5. Camp NW. of Newtown, Mont.
6. Camp ESE. of Newtown, Mont.
7. Camp ESE. of Newtown, Mont.
8. Camp W. of Montgomery
9. Camp SW. of Montgomery
10. Camp SSW. of Montgomery
11. Castle Ring, Todleth Hill, NNW. of Ryssington
12. Rabury Ring
13. Bodbury Ring
14. Castle Hill, All Stretton
15. Caer Caradoc
16. The Ditches, Wenlock Edge
17. Caerdin, S. of Church Stoke
18. Camp SW. of Mainstone
19. Camp S. of Mainstone
20. Camp NW. of Clun
21. Camp NE. of Clun
22. Bury Ditches, S. of Bishops Castle
23. Billings Ring, SSE. of Bishops Castle
24. Camp W. of Hopesay
25. Abdon Burf on Brown Clee
26. Camp SSE. of Newtown
27. Castell y Blaidel, NE. of Llanbadaw
28. Castell Tintveth, S. of Llanbadaw
29. Camp SE. of Bettws-y-erwyn
30. Caer Caradoc, SE. of Clun
31. Castle Ditches, W. of Bedstone
32. Coxall Knoll
33. Camp Baynham
34. Titterstone Clee Camp
35. Gaer N. of Llanddair Ystradinny
36. Camp NE. of Llanddair Ystradinny
37. Camp E. of Llanbadawn Fawr
38. Camp NE. of Llangunllo
39. Camp ESE. of Knighton
40. Castle Ring, NE. of New Radnor
41. Camp SW. of Presteign
42. Camp NNW. of Builth Wells
43. Caer Fawr NNE. of Builth Wells
44. Camp NE. of Builth Wells
45. Camp SE. of Llandrindod Wells
46. Camp SW. of New Radnor
47. Camp SE. of Newchurch
48. Pen Twyn Camp, SE. of Newchurch
49. The Camp, SSW. of Knighton
50. Camp WNW. of Boughrood
51. Camp NW. of Boughrood
53. Gaer Fach, NNE. of Brecon
54. Twyn Gaer, SW. of Boughrood
55. Camp S. of Boughrood
56. Camp W. of Brecon
57. Pen y Crug Camp, NW. of Brecon
58. Slwch Camp ESE. of Brecon
59. Camp SSW. of Llansantffraid
60. Camp NW. of Crickhowell
61. Camp ENE. of Brynmawr
62. Camp SE. of Llantilio Crossenny
63. Camp W. of English Bicknor
64. Camp NE. of Cinderford

APPENDIX I

REPORT ON THE GEOLOGY OF THE SITE OF SUTTON WALLS AND OF THE BUILDING STONES USED

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The samples of building stones submitted are clean, almost white, somewhat coarse textured Grits and softer fine textured bedded Sandstones, purple and green mottled in colour and somewhat micaceous. All are characteristic Old Red Sandstone forms.

The foundations are in gravels described below.

The hill, on the top of which is the site excavated, is a long steep sided eminence some half mile in length and less than half this in width, the long axis running east to west. It is in the valley of the Lugg about a mile from the river. The hill is capped with gravels which have recently been quarried to a depth of 20 ft. The gravels consist of loose sand and pebbles, false bedded everywhere. The pebbles which are water worn are mostly flat well rounded pebbles from ¼ in. to 1 in., though some are up to 2 ins. across. Most of the pebbles are hard Shales with some Grits and Limestones and a few Quartzites. There are also a fair number of pebbles of Vein Quartz. Surprisingly there are also a few pebbles of quite soft red clay. There is strikingly little local Old Red Sandstone among the pebbles.

There are some layers of pure sand and some layers of a very fine textured red sandy clay, but these do not persist any great distance. The sandy layers are 1 ft. thick at the thickest part and thin out to nothing at distances of about 20 ft. on either side. There is a fair amount of black ferruginous sand.

The whole mass of the gravel is extremely loose and entirely uncemented. In many places, however, it has long cracks in it rather like little faults which have become filled with calcareous material. Such cracking could only take place in such loose material when the whole mass was saturated with water and frozen solid.

In one place the quarrying has gone down to a hard stiff red clay which may be the solid rock. In any case, the gravel lying above this deposit would contain a small but useful quantity of good water.

Occasionally *in situ* in the gravels are large pieces of stone up to 1 ft. across usually unworn and angular. Some of these are igneous rocks, a large piece of Dolerite, for example, was found, and some are sedimentary. Two of these were found to contain fossils, one with the Wenlockian brachiopod *Spirifer plicatellus*, and another with the Ludlovian brachiopod association : *Orthis lunata* Sow. *Camarotoechia nucula* J. de C. Sow, and *Chonetes striatella* Dalman.

There are a number of points which would suggest that these gravels are some form of Glacial Outwash Gravels. The marked cracking of such loose material and the infilling with calcareous matter suggests a very solid freezing. The clay pebbles which now break up between the fingers could only have survived whole if they were frozen solid, and the position of the large angular fragments suggests that they were carried incorporated in floating masses of ice and dropped into the gravels when the ice melted.

The Sutton Gravels are not mentioned by Dwerryhouse and Miller in ' The Glaciation of the Clun Forest '[1] which deals with the whole of this area, presumably because they were not exposed at the time their investigations took place. They do note, however, an exposure of Moraine and Gravel at Franklands Gate, half a mile further east. They also describe some gravels further north at Ludlow and Wooferton to which Prof. W. Watts drew their attention which appear to be similar to these at Sutton. As the Sutton Gravels are on the side of the Lugg Valley it is of interest to record that in their view the Lugg in pre Glacial times flowed through the Sarnesfield Gap to the Wye at Letton, and the present gorge through Dinmore Hill is a Glacial Overflow Channel into a neighbouring valley which the Lugg retained after the end of the Glacial Period.

The whole relationship of the newly-exposed Sutton Gravels to the Glaciation of the area has thus still to be worked out.

[1] Q.J.G.S., 1930.

APPENDIX II

AN INTERPRETATION OF THE SKELETONS IN THE DITCH AT THE WEST ENTRANCE

By IRMGARD MAULL[1]

The skeletons included those of a number of persons who had been decapitated, as well as of others who may have died of war wounds. It is of interest to compare the evidence with known archaeological and historical examples.

Somewhat similar examples which may be ascribed to fearful slaughter or execution by the Romans, by Celts fighting Celts, or by victorious Celts against the Romans,[2] may be found at Bredon Hill, Worlebury, near Weston-super-Mare and Stanwick, where the heads of the victims were placed as trophies on posts in the neighbourhood of the gate.

The Roman might was at all times and in all parts of the Empire unrelenting towards enemies of the State at home or stubborn insurgents in the provinces, in which the defeated could expect no mercy, but the cruelty of their methods had the sanction of a legal basis. This basis was already established in Republican times,[3] when the penalty to be paid by the deserter or the rebel was always heavier than that of opponents in war. Military law was held to apply to peoples of States placed under martial law by Rome, or even with no formal relationship. In this the death penalty by decapitation played the most important part.[4] The phrase *supplicium*, *poena capitis* or *capitalis*, regularly employed in legal language for decapitation, derives from the oldest method of execution with an axe. Under the military rule of the Principate the axe yielded to the sword in executions ordered by the magistrate, that is to say, the military procedure was taken over into the civil criminal proceeding. Decapitation remained the standard form of death punishment, which was also applied to soldiers under the penal code of Imperial times.

When once all the *civitates* of Gaul were subjugated to Rome by treaty or the taking of hostages, they became subject to ordinary Roman law, and all opposition is *rebellio et defectio*.[5] As supreme magistrate of all the inhabitants of the conquered provinces, Caesar, in spite of his well-known mildness, not infrequently resorted to the old Roman custom of execution with scourging and decapitation, to break the spirit of opposition among the Gauls. Thus, he sentenced the counsellors of the Veneti, the Carnutian knight Acco after the suppression of opposition in the district of the Eburones and the warmonger Cotuatus. In the 2nd century A.D., by the same law, the German nobles suffered a similar fate under Marcus Aurelius, as did the counsellors of Zenobia of Palmyra in the 3rd century under Aurelian, after the occupation of the city.[6]

[1] Dr. Maull very kindly undertook research into comparative material bearing on slaughter of defeated opponents by the Romans. In my translation, I have somewhat abbreviated her article, but have I hope retained the main points of her argument.

[2] Slaughter of the Romans by the Celts: Tacitus, *Annals*, xiv, 29–39; Caesar, v, 45, vii, 38; similar action by the Germans: in the battle of Varus, Velleius, ii, 119, 5; cf. Mommsen, *Romische Geschichte*, v, Berlin, 1894, 43, 44 and 54, and for the German war of Drusus, *ibid.*, 23 and 24 f.

[3] The Twelve Tables: Tabula, ix, 5, Marcianus *Dig.* 48, 4, 3; Mommsen, *Romische Strafrecht*, Leipzig, 1899, 539f., 542, 546: punishment of deserters by decapitation: in the war of Hannibal, Livy 30, 43, 14; Val. Max. 6, 7, 12; in the war of Jugurtha, Plutarch *Mar.* 8; Sallust *Jug.* 69.

[4] Laws of war: Mommsen, *Romische Strafrecht*, 541; cf. beheading by the axe in the Illyrian war, L. Annaeus Flavus I 21; legal punishment in the provinces: Mommsen, *ibid.*, 237, 239, 243; the death punishment: Mommsen, *ibid.*, 31, 911 and 916; E. Levy, *Die romische Kapitalstrafe Sitzungsberichte d. Heidelberger Akademie*, 1930–1, 5; K. Latte, *R.E. Suppl.*, vii, 1940, col. 1610 ff.

[5] M. Gelzer, *Vom romischen Staat*, i, Leipzig, 1943, 35–6, Anm., 29–30; Caesar, vii, 1.

[6] Veneti: Caes., iii, 16 (56 B.C.); Acco: vi, 44 (53 B.C.); Cotuatus: viii, 38 (51 B.C.); the German war leaders: E. Petersen—A.v. Domaszewski—T. Calderini, *Die Marcussaule auf Piazza Colonna in Rom*, pl. 70, Scene XI–LXII (A.D. 166–180); the counsellors of Zenobia: cf. Mommsen, *op. cit.*, 439; Zosimus, i, 54f., 61; Biography of Aurelian, *Script. Hist. Aug. Aur.*, 26, 127, 4, 28 (A.D. 273).

Insurgents are subject to military law. The head of the leader is a trophy. This was the outcome of the insurrection of the Treveri and Eburones instigated by Indutiomarus. The latter was captured and immediately beheaded, his head being brought to the Roman camp. Similarly in the Dacian war under Trajan, the heads of the barbarians were brought to the Emperor, and the head of the Dacian king Decebalus was shown to the Army on a shield and later sent to Rome.[1]

In special circumstances, those condemned to execution were brought to Rome for a Triumph. Thus Vercingetorix, who had united the Celtic tribes in opposition, was led through the streets of Rome in triumph five years later, and was beheaded at the foot of the Capitol as high traitor to the Roman nation.[2]

Doubtless Roman might employed these same methods against the opposition of the British. The advance towards the Welsh Marches was a secondary stage in the Roman conquest of Britain, but it followed risings against the Roman power by already conquered tribes, of which the most serious was that of Boudicca in A.D. 61. The tribesmen of the area were the kinsmen of the conquered tribes, and the opposition of the inhabitants of Sutton Walls was *rebellio et defectio*, an offence against Rome, punishable in accordance with old Roman law by execution in front of the walls. Those executed were thrown into the ditch with those killed in war, all stripped of their possessions, as is usual according to Roman writers.[3]

Thus the heavy punishment of rebels, till now only known in the accounts of Roman historians and from pictorial representations in Roman reliefs, is illustrated from the ditch of Sutton Walls, an embodiment of the boundless power-politics of the Roman Imperial might and its legal basis.

[1] Indutiomarus : Caes., v, 58 (54 B.C.) ; the heads of the conquered Dacians : relief on Trajan's Column, Scene from the 1st Dacian War (A.D. 101–102), C. Cichorius, *Die Reliefs der Trajanssäule*, 1896–1900, pl. LI, no. LXXI and LXXII, Scenes 183–184 ; head of Decebalus, *ibid.*, pl. CVIII, Scenes 391–393 ; Dio LXVIII, 14: beheaded Dacians on the Monument of Adamklissi : Gr. G.Tocilesco (in collaboration with O. Benndorf and G. Niemann), Das Monument von Adamklissi. Tropaeum Traiani, Wien, 1895, no. 7, 24, 31.

[2] Caes., vii, 89 (52 B.C.) ; Mommsen, *Romische Geschichte*, short edition Wien–Leipzig, 1932, 840–1.

[3] Ulpian *Dig.*, 48, 20, 6 ; Mommsen, *op. cit.*, 925, Anm. 6.

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