The Excavation of a Romano-British Farmstead and Cemetery on Bradley Hill, Somerton, Somerset

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with contributions by
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The report describes the complete excavation of the buildings and cemetery of a late fourth century Romano-British farmstead built on a site earlier occupied from the Pre-Roman Iron Age to c. *A.D. 100. The farmstead consisted of three buildings; two of these were two- or three-roomed houses, the third was probably built as a byre. Associated with the farmstead were 57 burials, all but four in east–west graves, and including adults, children and infants. The economic and social setting of the farmstead, its population and the religious beliefs of the inhabitants are discussed.*

I. INTRODUCTION

1. GEOLOGY AND SETTING

Bradley Hill, 8·8 km (5½ miles) north-west of Ilchester, is a low hill projecting northwards from the Lower Lias plateau between Somerton and Langport and is capped by a thin band of Rhaetic clay.

The site of the Romano-British farmstead, 53 m (175 ft.) above sea level, is in a prominent and exposed position at NGR ST 4800 3034 (FIG. 1; PL. XVIII A). There are extensive views in all directions, particularly over the valley of the River Cary to the north and over the great expanse of King's Sedgemoor to the west. On the hilltop plateau, the calcareous ploughsoil was 0·20 to 0·25 m in depth, except around the sites of the Romano-British buildings. Here, the soil had

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The author would also like to express his gratitude to the following: the late Mr H. S. L. Dewar, Dr P. J. Fowler and Mr L. C. Hayward for their advice in the course of the excavations: Dr R. Reece for his initial comments on the coins; Mrs V. G. Swan and Dr C. J. Young for commenting on the New Forest and Oxford pottery; Mr E. M. Besly for the report on the coins, for the drawings of most of the finds and much other assistance; Miss D. Charlesworth for the note on the glass; Dr R. F. Everton for his reports on the animal and human bones; Mrs E. Fowler for her note on the fragment of bronze bowl; Mrs M. Guido for her identification of the beads; Professor J. J. Wilkes, Dr W. J. Rodwell and Mrs Pamela Leech for helpful criticism and advice in the preparation of this report.

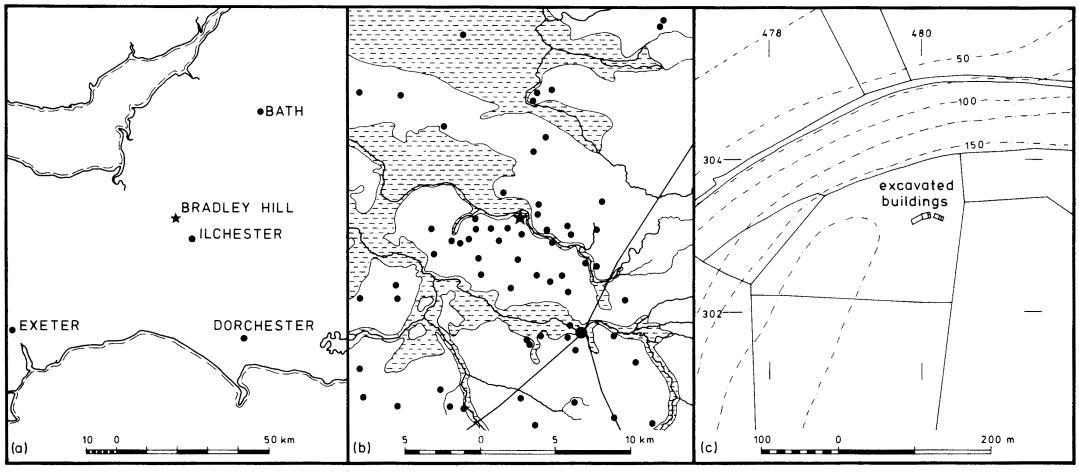

FIG. 1. Bradley Hill, location: (a) southwest England; (b) Bradley Hill (star), Ilchester (large circle), other Romano-British settlements (small circles), floodable land (dashes); (c) excavated buildings in relation to national grid.

built up to depth of 0·50 m in places. This accumulation had occurred in the lee of the wall foundations, and had formed a slight mound in the surface of the present field. Elsewhere, the ploughsoil sealed the surface of the bedrock, which in places could superficially resemble laid paving.

Bradley Hill is one of a large number of Iron Age and Romano-British sites on the calcareous uplands to the north of the Roman town of Ilchester. The relationships between these sites are discussed briefly below, but more fully elsewhere.[1]

2. PREVIOUS ARCHAEOLOGICAL HISTORY

The site on Bradley Hill was first noted in 1832. It appears as No. 16 in a list of villas on a map published by R. C. Hoare,[2] but is one of three sites not referred to at all in the text. The information was supplied mainly by Samuel Hasell, the farmer at Littleton, less than a mile from Bradley Hill. One of his letters, written on 28 December, probably in 1830 or 1831, when he was beginning to tire of his excavations at Pitney, may refer to sites 15 and 16 on the map published by Hoare: 'I have added two more sites to my list, already long, but I never will attempt the excavation of another for with these ruins I intend to bid farewell to antiquarian labour.'[3]

The exact location of the site was re-established in 1950 by H. S. L. Dewar: 'A preliminary excavation has revealed part of the foundations of this villa, comprising the union of a pair of "scissors" walls of blue lias, one "blade" of which has been robbed. The surviving "blade and handle" contains several courses of laterally alternate herringbone and stretcher and header type of masonry, a kind not previously noted in neighbouring villas. The surviving "handle" to the robbed blade consists of squarish, rectangular slabs laid on rough, angular

[1] R. H. Leech, *Romano-British Rural Settlement in South Somerset and North Dorset* (1977), unpublished Ph. D. dissertation, University of Bristol Library.
[2] R. Colt Hoare, *The Pitney Pavement* (1832).
[3] Somerset Record Office DD/S/ST17/6.

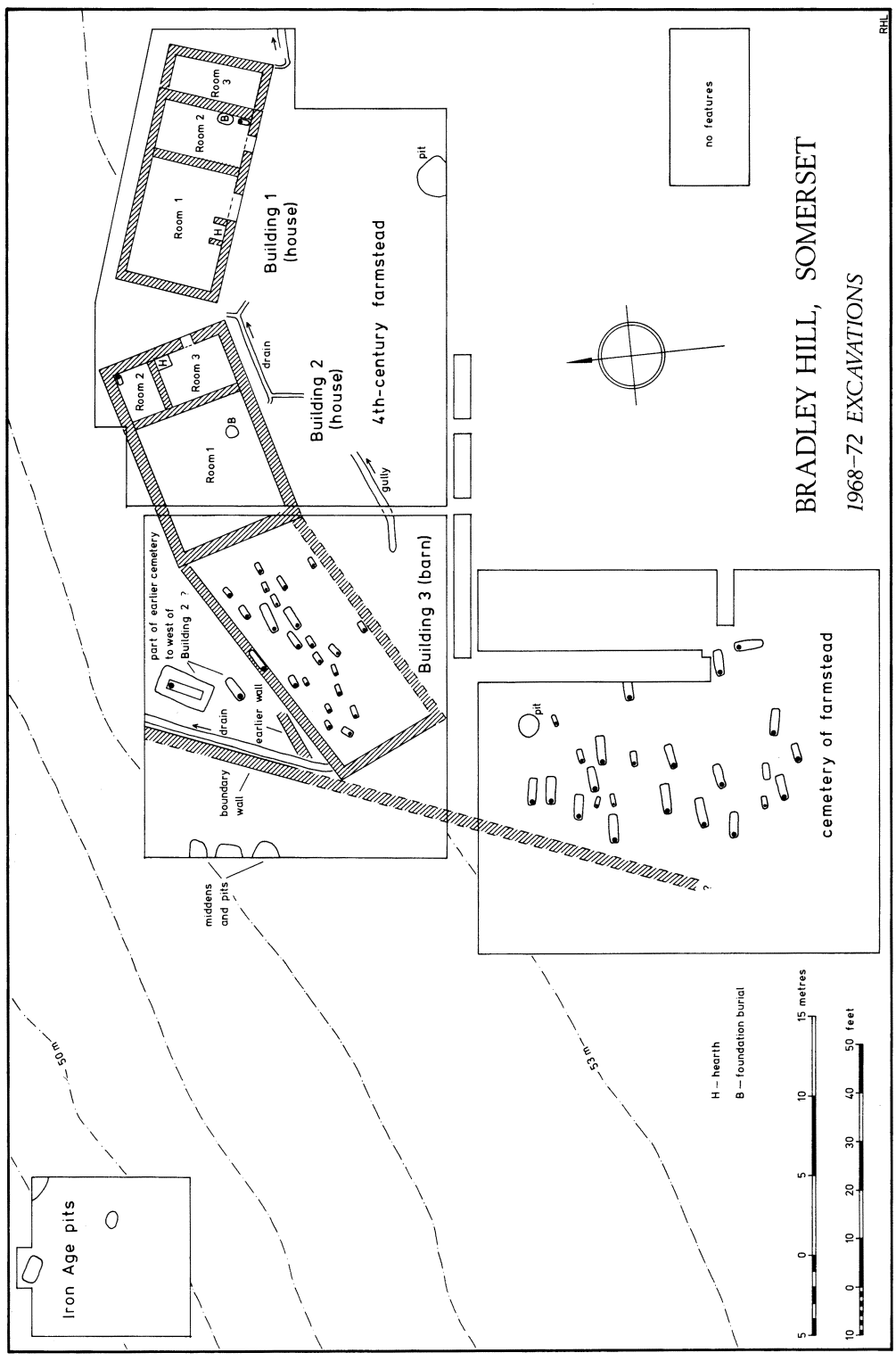

FIG. 2.

pieces of lias, the whole being mortared with coarse, gravelly mortar and bedded on the clay. Neither within nor without these walls was any sign of a floor apparent, but many roofing tiles of lias of the usual type found at Low Ham, Ilchester and Catsgore were noted. Tesserae were not seen either on the surface of the field or in excavating. Pottery was not plentiful, but enough was recovered to enable us to attribute most of it to the fourth century, one sherd alone, recovered from an area some 50 yards to the south-west which had clearly been quarried at some period, being attributable to an earlier period.'[4]

Unfortunately, the plan of this excavation was mislaid, but the 1968–72 excavations showed that it was probably a small trench around the junction of wall F113 with the north wall of Building 3, and extending as far as gully F116.

3. THE EXCAVATIONS OF 1968–72

The purpose of the excavations was to examine completely a small Romano-British settlement, which fieldwalking and evidence from the 1950 excavation had shown was unlikely to be either a villa or other extensive site.

A total area of about 1800 m^2 was examined. Except over the greater part of Building 3, the uppermost 0·25 m of ploughsoil was removed by a mechanical excavator. The excavation of the remaining ploughsoil and sealed deposits was completed by hand.

In 1968, 1969 and 1970, work was carried out mainly at weekends in the months between May and September. In 1968 and 1969, Building 3 and a small part of the cemetery to the south were examined. In 1970, Buildings 1 and 2 were completely excavated. In 1972, excavations over a four-week period in September examined the areas south of Buildings 1 and 2, the cemetery and part of the hillside to the north-west of Building 3.

The excavation records and finds are deposited in the Somerset County Museum, Taunton. A fuller version of this excavation report, including a detailed description of the excavated features, has been lodged both with the excavation records and with the National Monuments Record.

II. DISCUSSION

1. THE IRON AGE AND EARLY ROMAN OCCUPATION (FIGS. 2 and 3)

Evidence for a settlement of the period between the Middle Pre-Roman Iron Age and the early second century A.D. came mainly from the area to the west of Building 3. Almost all the pottery of the Middle to Late Pre-Roman Iron Age came from the fill of pit F153, which also included parts of clay loomweights and the skeletal remains of at least four individuals, whose corpses had been left exposed for a long time before fragments of them were buried in the pit. Since the pit was not completely excavated, it was not possible to determine its original function.

The pottery of ultimate Pre-Roman Iron Age to early second-century date was more widespread, coming not only from the features excavated to the west of the buildings (in F133, 134, and the uppermost part of F152), but also from the middens outside the later buildings and from inside Building 3 (pp. 241–3, Nos. 43, 118, 119). Other objects of early Roman date were a brooch (p. 214, No. 6) and a fragment of bronze bowl (pp. 210–14). Possibly belonging to this period were walls F113 and F164. Further examination of the area to the west of the buildings would clearly be of interest, especially since so few undefended Pre-Roman Iron Age sites have been examined in the surrounding region.

[4] H. S. L. Dewar, *Notes Queries Somerset Dorset* xxv (1950), 293–4; but see also idem, *Procs. Somerset Arch. Nat. Hist. Soc.* xcv (1950), 174–5.

2. OCCUPATION BETWEEN THE SECOND AND FOURTH CENTURIES A.D.

The almost complete absence of pottery of the later second to early fourth centuries indicates an absence of occupation within the areas excavated. The principal evidence for Iron Age and early Roman occupation occurred at some distance from the later farmstead, and occupation of the second to fourth centuries may have occurred elsewhere in the vicinity; repeated field-walking after ploughing produced no indications of buildings or pottery-scatters within the same field other than those described in this report.

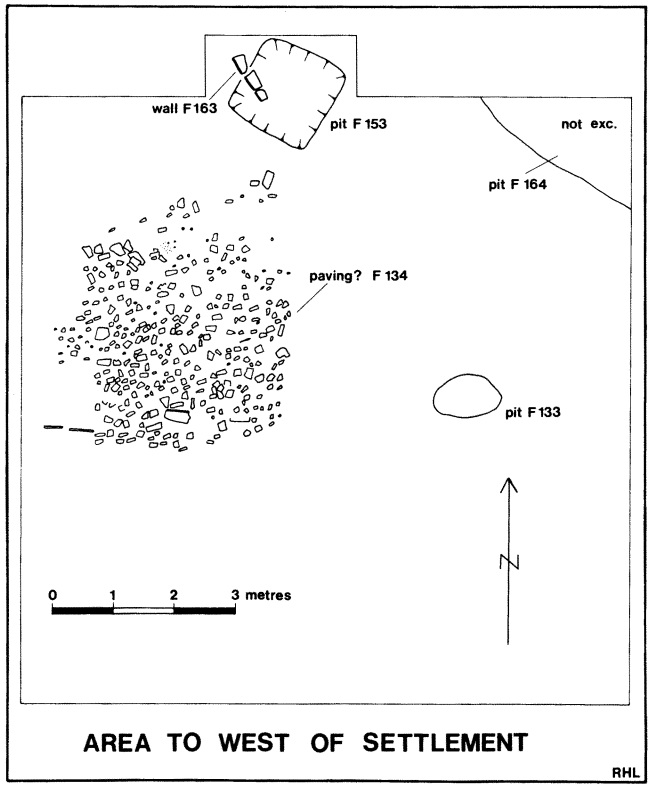

FIG. 3.

3. THE ROMANO-BRITISH FARMSTEAD (FIG. 2)

Buildings 1, 2 and 3 were totally excavated, and together probably formed a single farmstead. The area outside them was mostly ploughed down at least as far as the surface of the bedrock. Observation of the whole field after ploughing indicated that the buildings excavated stood in isolation. The main features recognized outside them were middens, pits, unconnected walls, gullies and burials.

Building 1 (FIGS. 4, 5 and 10; PL. XVIII B)

An expanse of fallen wall (F33) to the south indicated that Building 1 was constructed in stone to the eaves. The external walls were constructed of horizontally-laid blocks on a pitched foundation and in places still stood four courses high; there was no evidence for herringbone construction. The window-frames were probably of Ham Stone with voussoirs forming arches

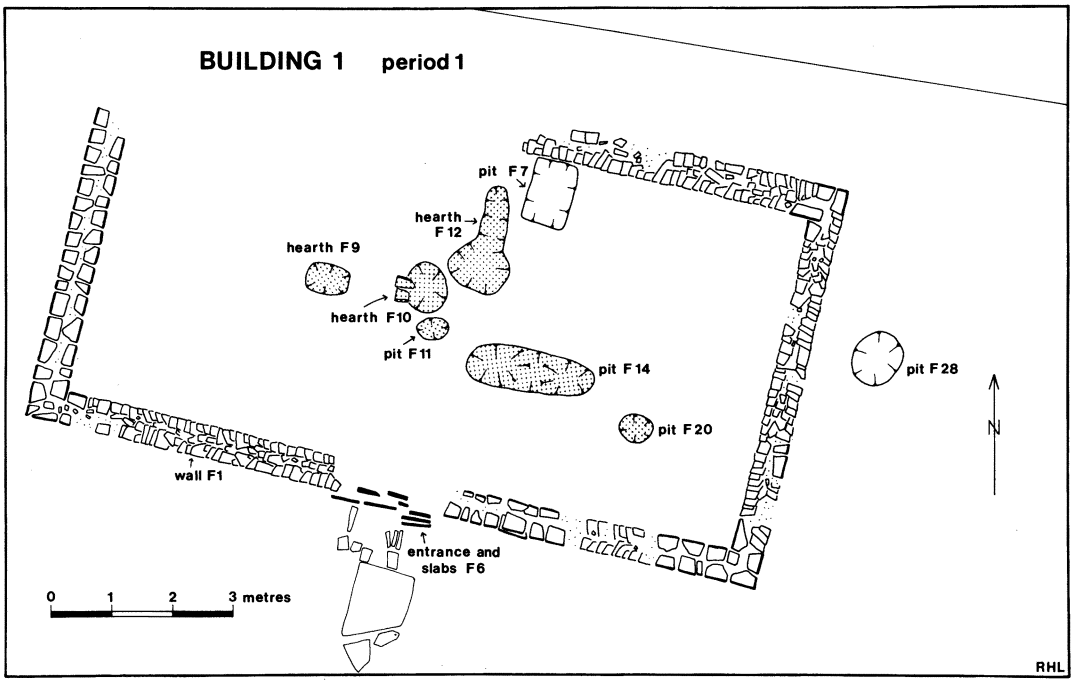

FIG. 4.

over the openings, but no evidence was found for the form of construction of doorways. Except in Period 1, which was probably short, Building 1 was paved with Lias slabs; in Room 1 the slabs were laid directly on the subsoil; in Room 2 they were carefully laid on a foundation of mortar and gravel, and in Room 3 laid irregularly on the surface of the subsoil. Masonry built up against the south wall of Room 1 formed the sides of a fireplace opening.

The roof of Building 1 was covered with hexagonal Lias tiles (p. 247) cut off along the bottom edge to form a straight line. The roof-ridge may have been capped with *imbrices* of red tile of which a number were found (p. 247). The roof structure can have placed no downward thrust on the internal wall (F13 and F2) between Room 1 and Room 2, for this subsequently fell sideways (PL. XIX A). The absence of an eaves-drip gully or drain on the uphill side of the building is surprising. At the south-west and south-east corners, traces of a gully and a drain

(F32 and F63) were evident, but no gully ran between them. This could imply the existence of a gutter at eaves-level.

Unless there had been a complete clearance of the building at the end of Period 1 (FIG. 4) this phase may have been insignificant in the building's history, for little occupation-debris came from the pits and layers sealed by the floors of Period 2 (FIG. 4). It should, however, be noted that the entrance was symmetrically placed in the middle of the south wall in Period 1, possibly indicating that subdivision was not considered at this stage. Yet, the presence of a possible foundation burial (F18) in Period 2 may indicate that Period 1 represented no more than builders' activities.

This burial was in the north-east corner of Room 2, where a large storage-jar containing four coins had been placed in a pit with a further five coins and a complete sheep's skull (p. 220). The coins were dated 268–305 (p. 208), but must have been deposited after 323–4 because the underbedding of the floor into which the burial-pit was cut contained a coin of that date (p. 208). If Period 1 is to be regarded as insignificant, then the construction of Building 1 may be placed *c.* 325 or later. Two coins sealed by the paved floor of Room 1 (p. 208) suggest, indeed, a date of 365 or later, but the slabs which sealed the coins were fragmentary and it is not certain that they were *in situ*. Overall, the numismatic evidence suggests a foundation date between 335 and 350 (p. 210).

In Period 2 (FIG. 5), the building was divided into two rooms with a third (Room 3) added at an uncertain date. All three rooms were paved and each could be entered only from outside the building. There were almost certainly no intercommunicating doors, because the walls dividing the three rooms stood at least one course high above the floors showing no threshold or break. The entrance to each room was on the south side.

Room 1 was the largest with a floor-area of 41 m^2, and was also the only one to contain a properly constructed hearth. Various features (F6) at the entrance to Room 1 and a rectangular pit (F7) in the north-east corner were difficult to interpret. The stratigraphical evidence showed that the internal wall (F13) between Rooms 1 and 2 fell while the paved floor was swept clean, and that occupation continued without any effort to rebuild the wall (F2) or even to remove the debris. The latest coin sealed by the fallen wall was well worn and dated to the period 364–78. A coin of 392–402 above the debris indicated that occupation probably continued into the fifth century.

Room 2 was smaller with a floor-area of 16·5 m^2 and no fireplace. Nevertheless, it was regarded as an important room, for the paved floor was carefully and regularly laid on a thick layer of gravel and mortar, and the worn area of paving in the centre indicated intensive use. Moreover, in the north-east corner were the foundation burial referred to above and an infant burial adjacent (F19) (PL. XIX B). A vertical slab (F21) outside the south wall may have been a footscraper in the entrance, and the robbing of the foundations to a lower level at this point could be explained by the removal of either a threshold slab or a wooden door frame.

Room 3, with a floor-area of 13·75 m^2, was an addition to the original building. The paved floor had been much disturbed, and extensive burning had occurred in the south part of the room. The function of the posthole (F27) in the centre was uncertain, but was probably not associated with the roof structure, because with a lean-to roof the rafters would have spanned only 3·0 m. The door was probably on the south side, just outside of which were several well-worn paving slabs (F29).

The building was probably abandoned in the first half of the fifth century. The pottery included late Roman shell-tempered ware, but did not include post-Roman imported or post-Roman indigenous hand-made types, such as those recognized at South Cadbury[5] or at

[5] L. Alcock, '*By South Cadbury is that Camelot*' . . . *Excavations at Cadbury Castle, 1966–70* (1972).

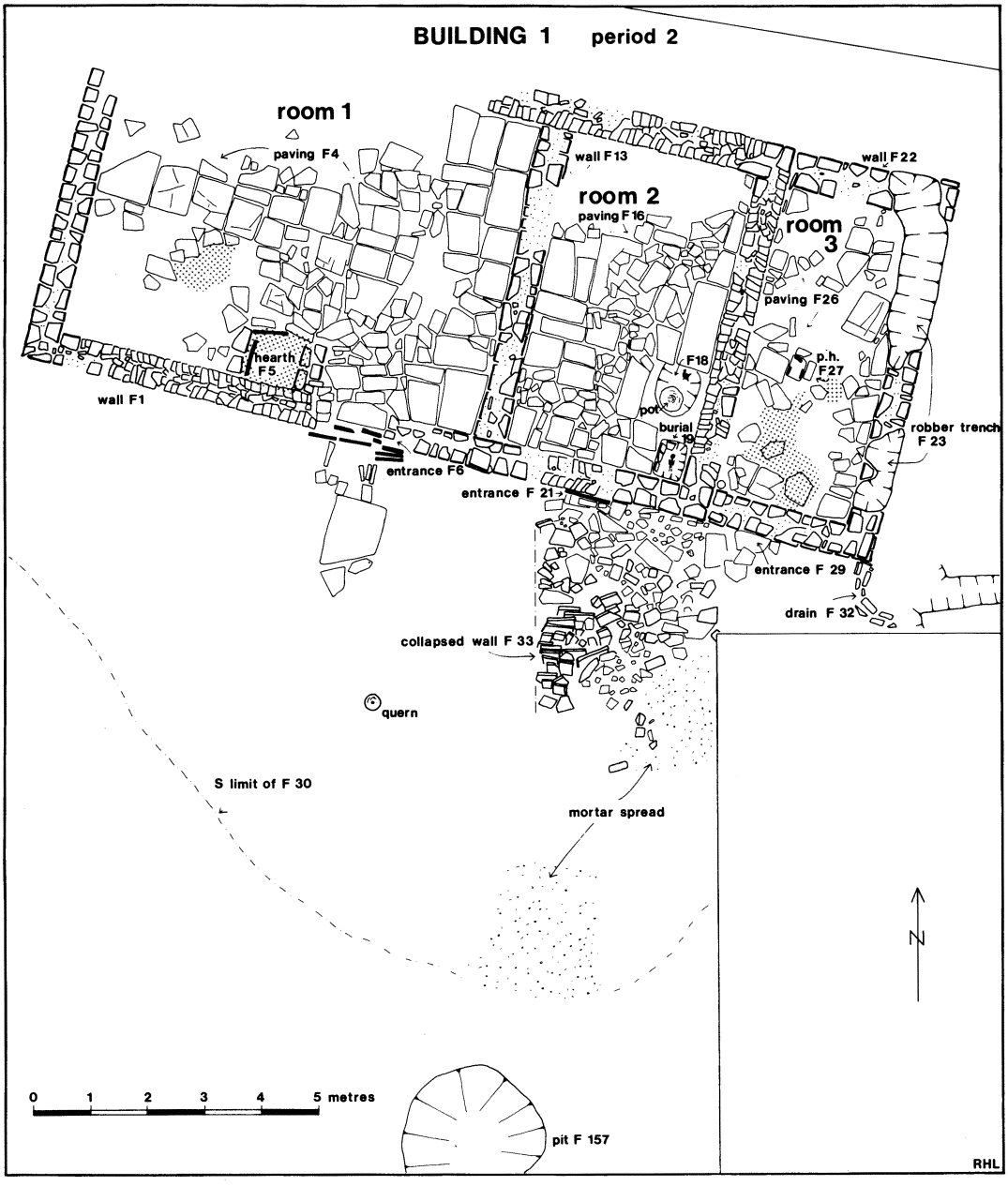

FIG. 5.

Cadbury Congresbury[6] as dating to the later fifth century. The relatively small amount of occupation-debris in the building indicated that it was kept clean until shortly before the abandonment.

[6] P. J. Fowler, K. Gardner and P. Rahtz, *Cadbury Congresbury. An Interim Report on the 1968–70 Excavations* (1970).

The building was probably deliberately demolished. The quantity of roofing slates found was small and these were intermixed with large stone blocks from the walls and much loose mortar. The surviving foundations of the exterior walls were so well built that they would probably have stood for centuries without deliberate demolition. The section of fallen wall to the south of Room 2 was possibly the work of stone robbers. Parts of the exterior wall of Room 3 were certainly robbed to the base of the foundation trench.

To summarize, the small size of each of the rooms and the carefully laid paved floors indicate that Building 1 was probably a dwelling house rather than an agricultural building. Room 1 was the largest; it had a well-built hearth and was probably the main room. Room 2 was smaller, unheated and contained both an infant burial and what was probably a foundation burial. The well-worn floor indicated intensive use. The function of Room 3 is uncertain.

Building 2 (FIGS. 6, 7 and 10; PLS. XX A, XX B, XXI A)

Building 2 was probably similar in construction to Building 1. No expanses of fallen masonry remained to indicate that the walls were stone-built to the eaves, but the foundations were carefully and solidly laid as if to support a masonry wall to eaves height. Small fragments of Ham Stone voussoirs and jambs, hexagonal Lias tiles and red clay tiles indicated that the window openings and roofing materials were similar in construction to those of Building 1. Immediately to the south of the building was a stone-lined eaves drip gully (F63) constructed

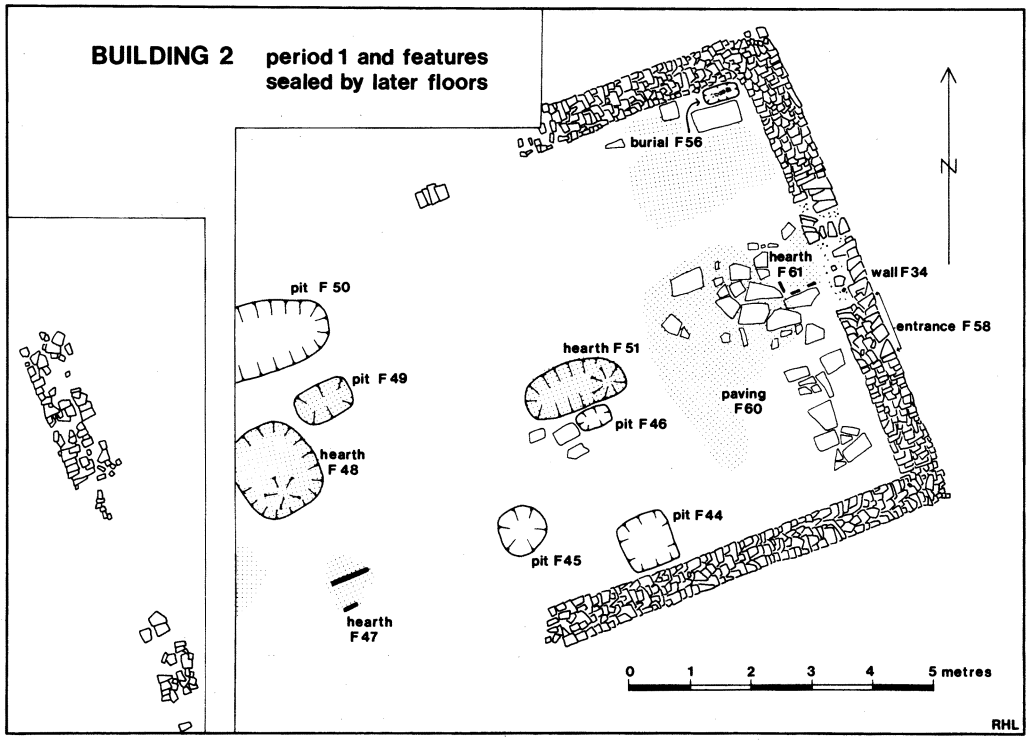

FIG. 6.

after 364–78. This possibly continued further to the west, parallel to the presumed line of the south wall of the building.

As with Building 1, Period 1 was possibly short-lived (FIG. 6). Little occupation debris came from the pits and layers sealed by the floors of Period 2, although this could be explained by the complete clearance of the building at the end of Period 1. The hearths and pits of Period

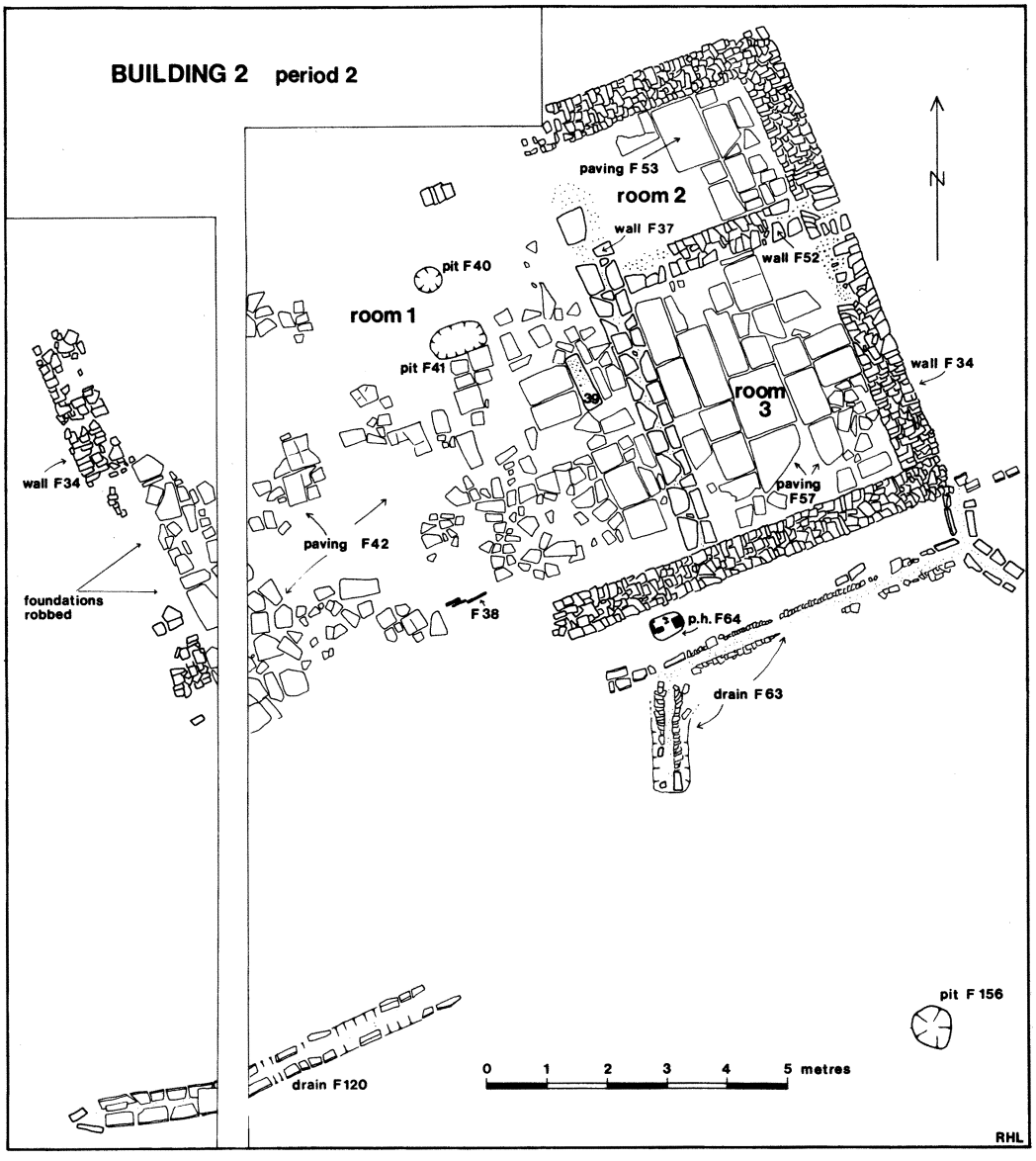

FIG. 7.

1 could represent temporary occupation whilst the building was being completed. These features were sealed by a spread of clean yellow clay (F54, F59) before the internal walls were built and the paving was laid.

In Period 2, the building was subdivided into three rooms each with a carefully laid floor (FIG. 7). The internal walls were robbed to floor-level, and thus it was not possible to determine the presence or location of internal doorways. Period 2 was dated by coins sealed by the paved floors of Rooms 1 and 2 to the years 365–80 or later. The latest closely datable coin sealed by the paving of Room 1 was of 337–41, but a much worn coin of 364–78 was probably sealed by the same floor. The one coin sealed by the floor of Room 3 dates from 330–45.

Room 1 was the largest with a floor area of 56 m^2 (PL. XX A). The paving was much disturbed, but enough remained to indicate that the floor had been carefully laid. Far more occupation debris, including fifteen coins, came from Room 1 than from Rooms 2 and 3. This indicated that, prior to the abandonment of the building, Rooms 2 and 3 were kept clean, whilst Room 1 was not. One possible reason for this was that the floor of Room 1 was much more worn and so difficult to keep completely free of debris. The only features inside the room were three slabs laid end on into the floor, several pits and a Ham Stone slab which could have been a working surface (PL. XX B). The complete absence of paving on the north side of the room was probably caused by plough erosion. A fragment of decorated enamelled bronze bowl (p. 210) found hidden beneath a paving slab was possibly looted and hidden there prior to melting down. A coin of 388–402 indicated that occupation possibly continued into the fifth century.

Room 2 was the smallest with a floor area of 6 m^2 (PL. XXI A). The absence of paving slabs in the north-west corner was probably due to plough erosion. The three infant-burials (F56 a, b, c) sealed by the carefully laid paved floor were possibly interred during Period 2. Very little occupation-debris came from the floor.

Room 3 was larger with a floor area of 13·5 m^2, and was similarly paved. A gap in the north-west corner corresponded to the position of the earlier hearth (F61), but the latter was definitely sealed by the layer of yellow clay, which was in its turn sealed by the paved floor. There were no features inside the room to indicate its earlier function. Ploughing had reached the surface of the paved floor over most of the area, so that any layers formerly sealing the floor were completely disturbed.

The abandonment of the building probably occurred in the late fourth or early fifth century. The sixteen coins found certainly attest occupation in the period 364–78 and to a lesser extent from 388–402. The circumstances of demolition were the same as in Building 1.

The small size of Rooms 2 and 3 and the carefully laid paved floors of all three rooms indicate that Building 2 also was probably a dwelling house rather than an agricultural building. Room 1 was probably the main living room, and it is possible that the absence of a hearth is to be explained by plough erosion on the north and south-west sides of the building. With its infant-burials, Room 2 possibly fulfilled a partly religious function. It should be noted that in both Buildings 1 and 2 the infant-burials were in the smallest room.

Buildings 1 and 2 were similar in plan, each having one large heated room with two smaller paved, unheated rooms. A number of houses of similar plan, dating from the second to the fourth centuries, was excavated at Catsgore. This plan is paralleled elsewhere, for instance at Hibaldstow, Lincolnshire and outside the south gate of Cirencester, and may well prove to be the commonest used for small Romano-British houses.[7]

[7] R. H. Leech, *Excavations at Catsgore, 1970–3*, forthcoming, where two- or three-roomed houses are discussed in greater detail.

Building 3 (FIGS. 8, 9 and 10)

Building 3 was an extension to Building 2, and was probably similar in construction. No expanses of fallen masonry remained to indicate that the walls were stone-built to the eaves, but the foundations were carefully laid as if to support a solid wall. Small fragments of Ham Stone voussoirs and jambs, hexagonal Lias tiles and red clay ridge tiles indicated that the window-openings and roofing materials were similar to those of Buildings 1 and 2. Although the south wall was completely robbed, probably by ploughing, its course was indicated both by two burials and a pit against its inside line and by a horizontal slab at the south end of the west wall, corresponding to a similar slab at the north end of the west wall where it met the north wall. The building was not subdivided and had a floor area of 97 m^2. The length of the

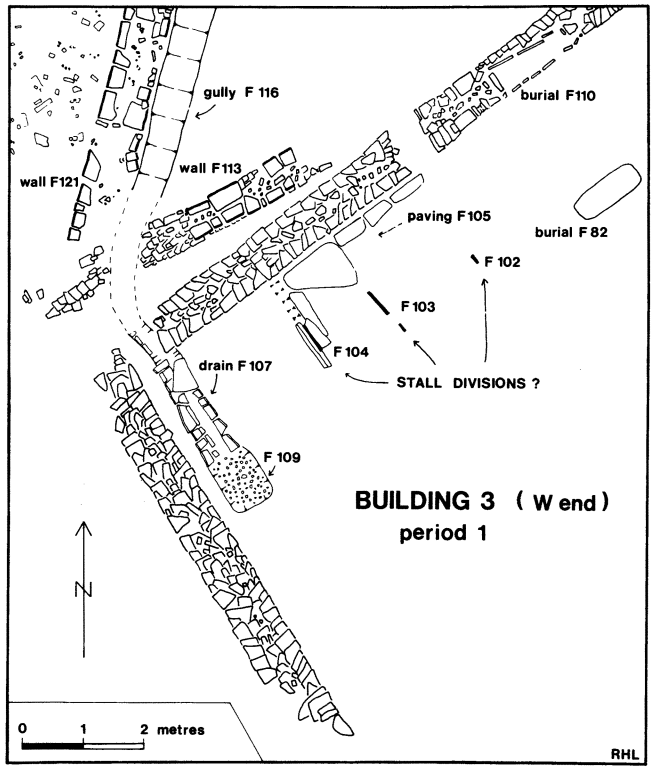

FIG. 8.

building was possibly determined by its having been built as far as the boundary wall (F12), which may have enclosed the settlement area on the west.

The construction of Building 3 must postdate that of Building 2, which has been shown to be of *c.* 365–80 or later. Contemporary with the construction of the walls was an inhumation burial (F110) in the north wall of the building (PL. XXI B). This was certainly a reburial, since most bones were absent, and yet was certainly contemporary with the construction of the wall. It was possibly a deliberate foundation-burial or was simply the reburial of a skeleton that was uncovered during excavation of the foundation trench. The reburial was aligned south-south-west/north-north-east with head to the west, originally with a covering slab, later removed by stone robbers. It might be argued that the construction of Building 3 thus took place at a date when the inhabitants of the settlement had adopted east–west burial rites. However, the only possible alternative was the same alignment but with head to the east.

Two adult burials (F85, F86) and one child-burial (F82) inside Building 3 were also possibly interred before its construction. The backfill of the graves was of clean clay, indicating that there was little occupation-debris to become mixed with the material from the burial pits. Each of these burials was aligned south-west/north-east with head to the west, and each was in a slab-lined grave which had been completely backfilled with freshly excavated soil. These burials, together with a further two (F114, F115) outside the building to the north and the adult burial (F110) re-interred in the north wall, were possibly a small cemetery on the very brow of the hill outside Building 2 before the extension (Building 3) was constructed (FIG. 2). The alignment of the burials could be explained by their being parallel to an earlier wall (F113). After Building 3 was constructed, the adult cemetery was possibly moved to the south of the buildings, where a more extensive flat area was available. Further discussion of the relationships between the various burials will be found below (pp. 195 ff.).

Building 3 was at first possibly a byre (FIG. 8). A series of broken-off vertical slabs may have been stall divisions for three or four animals, and were probably associated with a drain running down the west side of the building. A few surviving slabs showed that the stalls were probably paved. Over the rest of the building, the surface of the natural subsoil was probably used as the floor. The easternmost stall-division was in line with a possible post-base (F72). The area of the building used as a byre may thus have been divided off by a partition. The drain (F107) associated with the stalls was possibly fed by a cistern which would have stood within the rectangular void (F109) at its south end; this cistern could have been filled from the roof. The drain led out from the building on the north side and became a gully (F116) running down the hill along the inside edge of the boundary wall. The drain inside the building probably functioned with covering-slabs in position. The gaps between these would have permitted dirt and debris to filter through, and the slabs could have been periodically lifted so that the drain could be cleaned; similar drains were observed in a second-century byre at Catsgore.[8]

Contemporary with, or after, the building's use as a byre was the interment of 21 infants (FIG. 9). Four of these (F73, 74, 75, 76) post-dated the period of use as a byre, for they were within the area occupied by stalls. One (F74) cut through the line of a former stall division. All 21 burials were sealed by a mass of occupation-debris (F68), and were not recognized until this layer had been completely trowelled through to the surface of the natural subsoil. All the graves were well spaced both from one another and from the three burials which possibly predated the construction of the building. This suggested that the graves had markers though none was recognized. The 21 infant burials differed from the three possibly earlier child- and adult-burials in that all were placed in stone-slab cists with covering-slabs. These cists were completely or in some cases partially filled with fine soil which had seeped in after the date of burial. Like the three possibly earlier burials and the reburial in the north wall, all were aligned approxi-

[8] op. cit. (note 7)

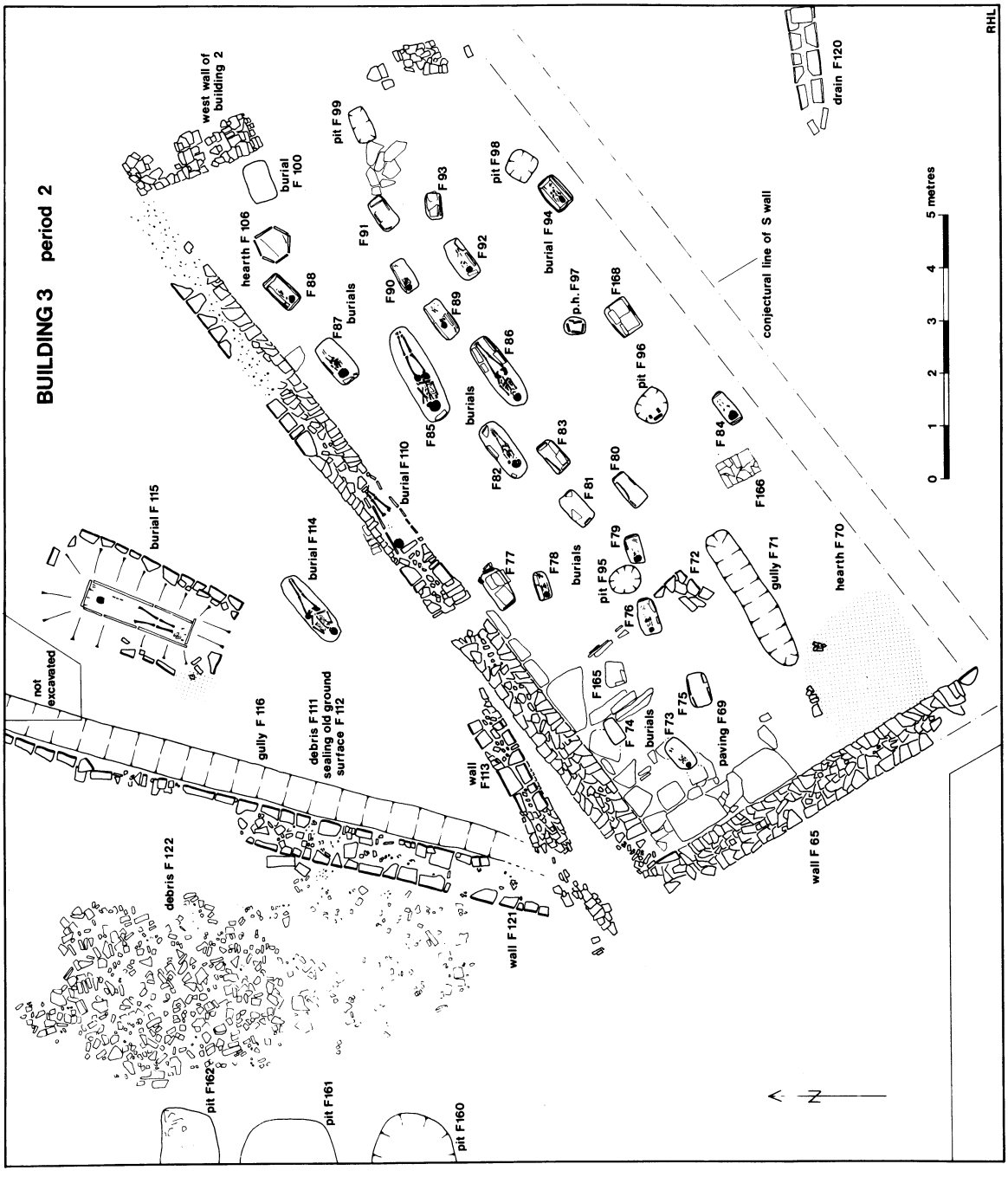

FIG. 9.

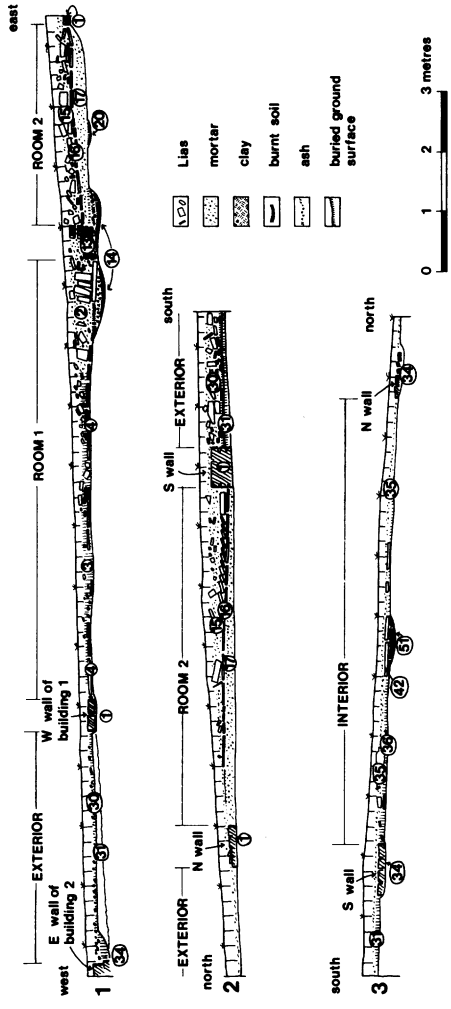

FIG. 10. Sections: Building 1 (1 and 2); Building 2 (3); Building 3 (4).

mately south-west to north-east, with head to the west. All but five were aligned with the north and south walls of the building.

Apart from the infant-burials discussed above, there were a number of other features which dated from Period 2. In the south-west corner of the building was a shallow gully (F71) with some iron slag, which was adjacent to an extensive area of burnt bedrock (F70) and was probably a hearth. There were no infant-burials in this area. In the north-west corner of the building was a double layer of paving which sealed the drain that had served the former byre. In the central part were two further areas devoid of infant-burials. The first, on the north side, might have been caused by an earlier entrance at this point or by the presence of the reburial (F110) in the north wall. The second was centred around two pits (F96, 97), one certainly and the other probably a post-hole. The association between the posts which stood in these pits and the absence of any infant-burials in their vicinity cannot easily be explained. Other features inside Building 3 not assignable to any particular date included three pits (F95, 98, 99) and a well built stone slab-lined hearth (F106).

The build-up of occupation-debris on the floor of Building 3 was substantial compared to that in Buildings 1 and 2. This is best explained by the absence of a paved floor which probably made cleaning much more difficult. Nevertheless, Building 3 was probably cleared out periodically and much of the occupation-debris must be regarded as dating from the final period of use. Of the 21 coins found in the building, nine were dated to after *c.* 368 and one to after *c.* 395. On this evidence, the abandonment of the building probably occurred not earlier than the early fifth century (p. 210). As with Buildings 1 and 2, this abandonment was probably followed at some unknown date by deliberate demolition. Roofing-slates and blocks of masonry were mixed with loose mortar but in relatively small quantities. As in Building 2, the surviving foundations were so well built as to suggest that, in the absence of deliberate demolition, the walls would have stood for a long time.

The initial use as a byre has already been described and the absence of paved floors and internal subdivisions makes it unlikely that it was ever used as a dwelling house. The infant-burials may indicate that it fulfilled a mainly religious function. However, it was normal practice in Roman times for infants to be buried indoors and this would not have prevented the continuing use of the building in other ways, for general storage or domestic tasks such as grinding corn (p. 248) and spinning thread (p. 250). Most probably it served as a general-purpose farm-building and is best designated a barn.

The area south of Building 1 (FIG. 5)

The preservation of part of a former turf-line (F31) contemporary with the occupation of Building 1 is of interest. This layer of dark brown stone-free soil was only 0·05 mm thick and had been preserved through being sealed beneath the later midden (F30). It is unlikely that this layer was significantly compressed between its sealing in the fourth or fifth century and the present.[9] Thus, the soil-cover to the south of the building at the time of its construction was not much more than 0·05 m in depth. Today the average depth of soil sealing the bedrock is 0·20–0·25 m. The surface of this layer was also examined carefully for wheel-ruts and other markings, but none was found.

The midden (F30) sealing this original land surface to the south of the building included pottery and three coins of fourth-century date, the latest of 348–50. An accumulation of rubbish so close to the doors of the building probably occurred late in its history. As has been noted above, the midden was itself sealed by part of the fallen south wall (F33).

The area south of Building 2 (FIG. 7)

In this area, ploughing had everywhere reached the surface of the natural subsoil, so that only

[9] Dr J. G. Evans, personal communication.

features cut into the bedrock were preserved. The eaves-drip gully (F63) immediately south of the building was fed by a drain leading from further south. This was possibly connected with a partly ploughed-away drain (F20) to the south of Building 3, and would have drained the flat area south of the buildings.

The area north and west of Building 3 (FIG. 9)

North of Building 3 and east of the boundary wall, part of a former turf-line was preserved, sealed by a layer of occupation and building-debris (F111). The layer of stone-free soil with flecks of charcoal (F112) beneath the former turf-line sealed the bedrock and was cut by the north wall of Building 3 and the earlier wall (F113). Immediately north of Building 3 the layer was 0·15 m in depth, but, further north and away from the lee of the wall, it had been completely eroded by ploughing. Certainly by the later fourth century, before the construction of Building 3, the depth of soil here was far greater than that to the south of Building 1.

Sealing the former turf-line was a boundary-wall (F121), which continued northwards beyond the excavated area. It may have separated the homestead from its closest fields. The line was parallel to the north–south axis of Building 1, and ran across the north-west corner of Building 3. Building 1 was possibly set out on the same axis as the boundary-wall; other enclosure-walls parallel to or at right angles to it may have existed, but had been totally destroyed by subsequent ploughing. It is also possible that the length of Building 3 was determined by the existing boundary wall.

Wall F113 was earlier than Building 3, for its foundation-trench was cut by the north wall of the building. The relationship of wall F113 to the boundary-wall F121 was not satisfactorily established; although it was cut by the gully F116 which ran parallel to the wall, it was not cut by the wall itself, but continued across the line of the latter, albeit in a fragmentary state. Possibly the boundary-wall was built over the last surviving course of wall F113, and at that point had been eroded by ploughing prior to the excavation. Thus wall F113 was possibly part of an earlier building which occupied the same site as Building 3.

North of Building 3, two burials (see below, p. 198) possibly formed part of a cemetery to the west of Building 2, before Building 3 was constructed (p. 189). The nearest (F114) was aligned on the north wall of the building, with head to the west and dated to *c.* 270 or later. Further away lay a burial in a coffin (F115) dated after *c.* 320, aligned north-east to south-west, set in a stone slab-lined cist and covered by a rectangular mound. The latter and much of its revetment wall had been eroded by ploughing, for the depth of the covering topsoil was only 0·10 m.

Parallel with and immediately east of the boundary wall ran the gully which probably continued the drain (F107) at the west end of Building 3, and which cut wall F113. West of the boundary-wall, the only recognizable features were a layer of occupation debris (F122) and three pits (F160, 161, 162) of which one (F162) was examined. Survey of the ground further west after ploughing revealed occupation debris spread over a considerable area where the steepness of the slope made the presence of buildings unlikely. More middens and pits probably extended across the slope at least as far as the area excavated to the west of the settlement. Here, a wall, which had survived ploughing because it had sunk into the fill of an Iron Age pit (F153), was possibly a boundary contemporary with the fourth-century farmstead if not of earlier date.

The area south of Building 3 (FIGS. 11–13)

Here modern ploughing has reached and in some places penetrated the surface of the bedrock. The only features recorded were all cut into the bedrock, and could originally have been dug from a higher ground-level since eroded.

The most important were 25 burials (PLS. XXII; XXIII). A surrounding area 10 m. wide was

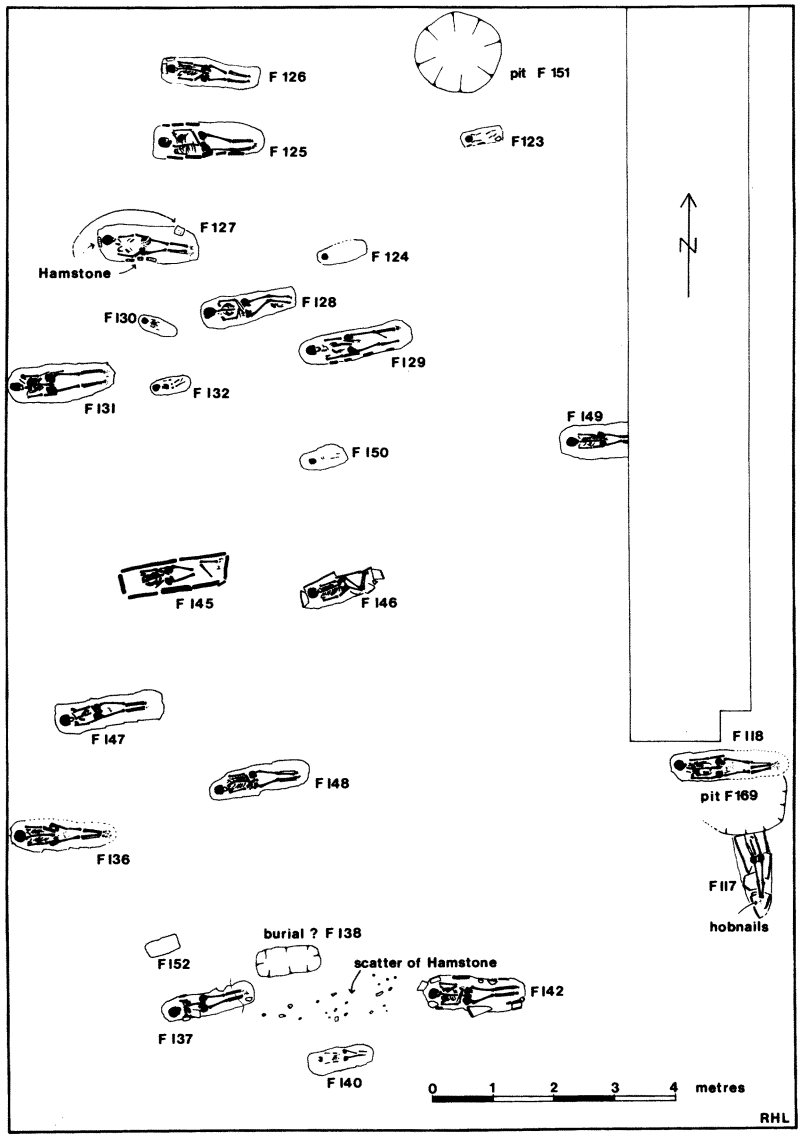

FIG. 11. Cemetery south of Building 3.

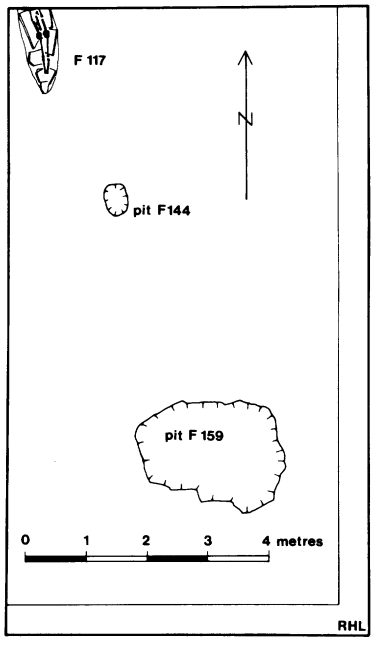

FIG. 12. Area to south-east of cemetery.

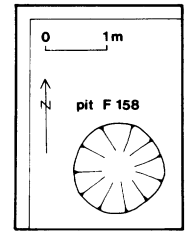

FIG. 13. Area to north-west of cemetery.

stripped to the bedrock but no other features were discovered (FIG. 2). The burials thus seem to form a compact group. No enclosing ditches were found but the westernmost burials lay just inside the continuation of the boundary-wall west of Building 3; and perhaps the cemetery was once enclosed by a stone wall now entirely ploughed away.

One burial, aligned north–south, was accompanied by hobnailed boots. The remaining 24 were aligned roughly east–west, with head to the west, and were not accompanied by grave-goods. There were no traces of coffins although some graves were lined with stone slabs. Further discussion must relate these 25 burials to the 30 recognized elsewhere.

4. THE BURIALS by R. F. Everton and R. H. Leech

Fifty-five burials were associated with the farmstead. Ten were adult males, ten adult females, one a female child and 34 were infants. Details of each burial are set out in TABLE I (pp. 196–204).

Expectancy of life

Sixty-seven per cent of those born died before the age of four. Of the 29 infant-burials submitted for specialist examination, 14 died in the neonatal period, six before the age of six months, a further two before one year and five more between the ages of two and four. Although a child born to this community initially had the bleak prospect of a less than one-in-three chance

TABLE 1

F No.	Depth cut into natural	Description of grave	Fill	Relationship to other features	Alignment	Brief description of burial and associated finds	Specialist report	Age	Sex	Stature	Other notes
19	0 20 m*	lias lining-slabs	dark brown stone-free soil	cut F17	NNE/SSW head to N	infant extended inhumation. Highly fragmentary	Yes	Perin	—	—	
44	see p. 185	in pit F44				fragments of infant burial	Yes	—	—	—	
56a	0 15 m	lias lining-slabs	dark brown stone-free soil	cut F55	ENE/WSW head to E	infant extended inhumation with fragments of two other infants 56b & 56c	Yes	1–	F?	—	
56b								1–	F?	—	
56c								1–	—	—	
68	see p. 189										
73	0 05–10 m	liaslining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE	infant extended inhumation	Yes	3–4 mths			
74	0 22 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68 and cut F104	SW/NE head to W	infant extended inhumation	Yes	0–	M?	—	
75	0 21 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	partly disturbed infant inhumation	No	1–	—	—	
76a	0 22 m	76a rested on natural subsoil with lias lining- and covering-slabs, sealed by 76b	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	infant extended inhumation	No	1–	—	—	
76b		lias lining-slabs, resting on covering-slab of 76a	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	infant extended inhumation	Yes	0–	—	—	
77	0 20 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	No	1–	—	—	
78	0 16 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	much disturbed infant inhumation	No	1–	—	—	
79	0 15 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	partly disturbed infant inhumation	No	1–	—	—	
80	0 07–10 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	partly disturbed infant inhumation	No	1–	—	—	
81	0 15 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	WSW/ENE head to W	much disturbed infant inhumation	No	1–	—	—	
82	0 25 m	lias slabs placed 'tentwise' over burial	clean light brown clayey soil	sealed by F68	SW/NE head to W	child extended inhumation	Yes	3	F	—	
83	0 20 m	lias covering-, lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	Yes	4–5 mths	M	—	
84	0 15 m	lias lining-slabs at ends only	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	No	1–	—	—	
85	0 45 m	no lining- or paving-slabs	clean light-brown clayey soil	sealed by F68	WSW/ENE head to W	adult extended inhumation, upper arms fully extended, lower right arm at right angles over abdomen, lower left arm raised to shoulder	Yes	17–23	M	1640 mm	extensive damage to skull, scapula, ribs, pelvis. Long bones and vertebrae reasonably sound. Age based on teeth.
86	0 42 m	lias lining-slabs	clean light brown clayey soil	sealed by F68	SW/NE head to W	adult extended inhumation, upper left and right arm fully extended, lower right at right angles across abdomen	Yes	45+	F	1506 mm	skull and tibiae damaged post-mortem, pelvis fragmentary. Some evidence of osteoporosis. Age based on teeth.
87	0 28 m	lias covering- and lining-slabs	dark brown fine stone-free soil with coin of 341–8 (SF 246)	sealed by F68	SW/NE head to W	infant extended inhumation	Yes	3	M		
88	0 25 m	double layer of lias covering-slabs with lias lining-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	No	–1?			
89	0 15 m	lias lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	much disturbed infant inhumation	Yes	0	—	—	
90	0 17 m	lias lining-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	Yes				

* depth for F19 refers to depth cut below paved floor.

[continued on page 198.

of surviving infancy, after the age of four he would probably live to be an adult; only one child (F137) died between then and about the age of 19.

The ten male adults lived eleven years longer on average than the ten females. The youngest male died at about 20, the eldest at about 75; 30 per cent of the males died before 35, but 60 per cent lived beyond the average life expectancy of 42·2 years. The youngest female died at about nineteen, the eldest at about 45; 70 per cent of the women died before the age of 35, 80 per cent by the age of 40 and all by the age of 50. The average life-expectancy for a woman at 20 was only 30·9 years. The appreciably lower life-expectancy for women is a reflection of the hazards of pregnancy and parturition, both of which are also shown in the high infant mortality.

Population size

An overall assessment of the population size must assume that birth and death rates were constant over the period that the farmstead was occupied. It is, however, possible that many of the burials occurred within a short space of time, for instance, as a result of epidemics; in which case the following deductions would be invalid. Three other assumptions must be made: firstly, that the homestead was occupied for approximately 100 years, *c.* 350–450 (p. 183); secondly, that two dwelling houses, Buildings 1 and 2, were occupied by two separate families; and thirdly, that there was an interval of 20 years between each generation. Thus, an estimate of the numbers of inhabitants must be conjectural even though most of the burials associated with the homestead were probably excavated. Future research on similar sites could indicate whether the data for the burials at Bradley Hill are typical or not.

The hypothetical estimate is that for each generation of population the average family consisted of two adults, the male living to 42·2 years and the female to 30·9 years, and of six children, four of whom died at birth or in infancy and two who lived to be adults.

Disease

The poor rate of survival in infancy emphasizes the hazards of both childbirth and early childhood, though for most the precise cause of death was uncertain. F123, an infant of about two months, possibly died from Neoplastic disease. Two of the three-year-old children showed the effects of malnutrition or illness in the thinning of the occipital bone and the complete lack of wear on the teeth of one (F87).

Four males died before the age of 40; with one (F118) the wedging of the thoracic vertebrae was possibly the result of an accident, but it is more likely that the virulent diseases such as pneumonia were the main cause of death. The only evidence for an infective disease came from F146, the skeleton of a male with suppuritive arthritis of the right hip-joint, so severe that the leg was flexed permanently in a bent position by the time of death (PL. XXII). The most prevalent disability amongst the adults was osteoarthrosis or rheumatism, a concommitant of advancing age especially in a community involved in heavy manual labour. Poor teeth were also probably a frequent problem; the high incidence of calculus formation, dental caries and abcess formation with consequent tooth loss point to a poor oral hygiene. The higher incidence of dental disease in the males shows that the women took greater care of their teeth than the men.

Sex

In other published groups of Romano-British burials (TABLE 9, p. 226) males predominate over females. This is true of both urban cemeteries such as Trentholme Drive, York (4:1), and Cirencester (2.3:1) and rural groups such as Cranbourne Chase (4:1.3), Frilford (2.6:1) and Maiden Castle (1.5:1). Although at York the disparity between the sexes can be partly explained by a high number of serving or retired soldiers, elsewhere it is perplexing. Again, the lack of excavated cemeteries comparable to Bradley Hill must be emphasized.

TABLE 1—*continued from page 196.*

F No.	Depth cut into natural	Description of grave	Fill	Relationship to other features	Alignment	Brief description of burial and associated finds	Specialist report	Age	Sex	Stature	Other notes
91	0 15 m	lias lining-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	much disturbed infant extended inhumation	No	–1?			
92	0 30 m	lias lining-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	Yes	Perin			
93	0 14 m	lias lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	infant extended inhumation	Yes	Perin			
94	0 21 m	lias lining- and paving-slabs	dark brown fine stone-free soil	sealed by F68	SW/NE head to W	much disturbed infant extended inhumation	Yes	5–6 mths			
100	0 28 m	a layer of black soil with much pottery and a fragment of roofing-slate sealed 2 horizontal and 1 vertical lias slabs; below the slabs was a layer of brown soil with little charcoal but containing pot sherds which came from same vessels as those in upper fill				disturbed scatter of bone in lower filling					
110	0 10 m	lias lining-slabs built into the N. wall of Building 3; a covering-slab had probably been removed (see F67)	hard brown mortar with much gravel, identical to mortar in wall F65	sealed by wall F65	SW/NE head to W	adult extended inhumation, reburial of skull (not mandible), femora, tibiae and fibulae; not all articulated	Yes	17–25	F	1560 mm	calvarium and lower limb bones present, right cuboid and left first metatatarsal and 12th thoracic vertebra embedded at base of calvarium; right upper 1st incisor with lingual pit did not belong to F110. Right temporal region eroded – by dripping water?
114	0 15 m	grave cut 0 40 m from upper surface of old land surface F112, no lining-slabs	dark brown soil with some broken roofing-slates and a coin of 270–90 (SF 239)	sealed by F111	SW/NE head to W	adult extended inhumation	Yes	35–40	F	1570 mm	skull, scapulae, vertebrae and ribs fragmentary, limb bones better preserved.
115	0 45 m	grave cut total of 0 70 m from old land surface F112, with sloping sides as far as surface of natural, below that was rectangular pit 0 57 × 0 24 m covered and lined with lias slabs. The soil displaced by the stone cist formed a low mound rectangular in plan and surrounded by an unmortared revetting wall. Coffin nails at N and S ends of grave	a very small amount of dark brown fine soil had filtered through cracks in the covering-slabs into the grave	cut F112, sealed by ploughsoil	NNE/SSW	adult extended inhumation with hobnails of two boots W of right foot and coin of 320–4 (SF 296) in mouth	Yes	*c.* 50	M	1800 mm	calvarium only present, together with both femora and tibiae which were eroded, possibly due to water action; the right tibia had a healed fracture of the lower third of the shaft. No other bones present
117	0 20 m	sloping sides, lias covering- and lining-slabs most of which had collapsed inwards	dark brown stone-free soil	cut by pit F 169	NNW/SSE head to N	adult extended inhumation. Legs crossed at ankles; scattered beside tibiae were hobnails	Yes	25+	M	1730 mm	All bones damaged post mortem, the vertebrae, scapulae and pelvis very fragmentary. There was a loose central upper incisor which was unassociated and a healed fracture of the lower 5th m/c.

[*continued on page 200.*

Physical characteristics

The skulls of the Bradley Hill people resembled those of other Romano-Britons; all the skulls were relatively low-vaulted and the majority of the males had slightly sloping foreheads. There was a tendency for the female foreheads to be more vertical. The average height of the male adults was 1688 mm (5′ 6½″) compared with 1587 mm (5′ 2½″) for the females, both a little shorter than the people from Trentholme Drive, but a little taller than their modern British equivalents. All the men were muscular in physique, and at least two of them had broad shoulders. The women were also quite well built; one at least was very muscular and another had very strong shoulder muscles. In general, the adult skeletons were of well-nourished people of moderately tall stature and good physique.

Detailed examination of the bones also revealed an unusually high number of cranial and skeletal anomalies common to many individuals and probably best explained as familial traits. Two skeletons (F146, 148) which did not display these anomalies were possibly incoming males. The evidence suggests that the community was inbred to a considerable extent.

Burial rites

Only six burials were not aligned east–west, head to the west. Four of these were infant-burials, one (F19) in Building 1 and three (F56a, b, c) in Building 2. The two adult burials, both females, were aligned approximately north–south. One (F115) was beneath a rectangular burial mound and in a coffin in a stone-lined cist north of Building 3. The other (F117) was in a slab-lined grave on the east edge of the cemetery south of Building 3. Both burials were with head to the north and with arms and legs fully extended. F117 had the legs crossed at the ankles; F115 was buried with a coin of 320–3 in the mouth. Both were buried with hobnailed boots.

The date of these six burials is uncertain. The infant-burials must fall within the dates for the buildings in which they were interred. The burial in Building 1 must be after *c.* 335–50 and that in Building 2 after *c.* 365–80. Burial F115 was certainly after *c.* 320, and may have predated Building 3, which was probably built after *c.* 365–80 but before *c.* 400. Burial F117 could not be closely dated, but was earlier than east–west burial F118.

There are numerous examples from elsewhere in southern Britain of Romano-British burials accompanied by hobnails. In south Somerset, they have been recorded at Upton, Catsgore and Ilchester.[10] Further afield, inhumations with hobnails at the feet are recorded at both Cirencester and Poundbury Camp, Dorchester.[11] At Verulamium, hobnails are recorded both with cremations and inhumations of Romano-British date.[12] At Gatcombe, Avon, a child-cremation was accompanied by hobnails.[13] Although similar burials have been recorded in continental cemeteries of the Roman period, for instance at Sampont, Belgium[14] and at Barisis-aux-Bois (Aisne), France,[15] they do not apparently occur in the Mediterranean lands, and could thus be associated with burial customs exclusive to the Celtic world.

Cemeteries with burials aligned north–south have also been recorded elsewhere: at North Stoke (Somerset), where one such burial was accompanied by hobnails[16]; at Weston-super-Mare, where large numbers of burials in shallow graves included some aligned north–south[17];

[10] op. cit. (note 1), 139.
[11] A. D. McWhirr, *Antiq. Journ.* liii (1973), 199; C. J. S. Green, *Arch. Review* vii (1972), 27–8.
[12] I. Stead, *Antiquity* xliii (1969), 46.
[13] K. Branigan, *Antiq. Journ.* lii (1972), 185–6.
[14] J. Noël, *Arch. Belgica* clxvi (1969), 2.
[15] Abbé B. Lacroix, *Gallia* xii (1954), 378, also citing other examples.
[16] F. J. Poynton, *Procs. Somerset Arch. Nat. Hist. Soc.* xxxiii, 2 (1887), 146–8.
[17] H. G. Tomkin, *Procs. Bath Nat. Hist. Antiq. Field Club* iii (1877), 395.

TABLE 1—*continued from page 198*

F No.	Depth cut into natural	Description of grave	Fill	Relationship to other features	Alignment	Brief description of burial and associated finds	Specialist report	Age	Sex	Stature	Other notes
118	0 15 m	lias covering-slabs, sloping inwards	dark brown stone-free soil	cut by pit F169	E/W head to W	adult extended inhumation	Yes	25–35	M	1736 mm	skull too fragmentary to reconstruct, small bones of hands and feet and long bones well preserved and to lesser extent the pelvis. Early osteoarthritis of neck and hip
123	0 12 m	lias lining-slabs	dark brown soil with some small stones		E/W head to W	infant extended inhumation	Yes	2–3 mths			
124	0 21 m	no covering- or lining-slabs	dark brown soil with some small stones		E/W head to W	much disturbed infant inhumation	Yes	1?			
125	0 42 m	vertical sides, lined with lias slabs, slabs forming floor to grave were undisturbed natural	dark brown soil, some small stones		E/W head to W	adult inhumation, upper arms extended, lower arms folded at right angles across abdomen, legs fully extended. Coins of 337–41 and 3rd–4th century in fill	Yes	45	F	1580 mm	skull fragmentary, vertebrae (upper to mid thoracic) highly fragmentary or missing completely Arm bones damaged. Legs better preserved.
126	0 20 m	vertical sides, 2 lias slabs at N and NW end	dark brown soil, some small stones		E/W head to W	adult inhumation, left arm fully extended, upper right arm extended, lower right arm bent slightly across pelvis, legs fully extended. Coin of 330–5 in fill	Yes	25+	F	1500 mm	skull comminuted, pelvis damaged, limb bones in fair preservation, short broad feet, vertebrae well preserved – showing wedging leading to scoliosis.
127	0 29 m	sides partly lined with unburnt Ham stone blocks (see p 194)	dark brown soil, some small stones		E/W head to W	adult inhumation, left arm fully extended, upper right arm extended, lower right arm bent slightly across pelvis, legs fully extended	Yes	17–20	F	1600 mm	skull comminuted, vertebrae, scapulae and ribs eroded away, limb bones fairly well preserved, infantile facies and metopic suture, the left mastoid process was only 2/3rds size of right
128	0 10 m	vertical sides and floor lined with lias slabs	dark brown soil		E/W head to W	adult inhumation, upper arms fully extended, lower arms folded at right angles across abdomen, left leg fully extended, right leg extended but bent inwards around animal bone deposit One worked flint in fill	Yes	45+	M	1720 mm	much damage to skull, pelvis and lower limb bones, bones of hand and feet well preserved, osteoarthrosis of neck and right wrist, broad strong feet
129	0 15 m	S side lined with lias blocks	dark brown soil		E/W head to W	adult inhumation, right arm extended but bent slightly over pelvis, legs fully extended	Yes	30–35	F	1680 mm	calvarium comminuted, ribs, vertebrae, scapulae and pelvis damaged post-mortem, upper limbs more damaged than lower
130	—	not identified, burial sealed surface of natural bedrock	—		E/W head to W	extended infant inhumation, legs and most of arm bones ploughed away	Yes	6–7 mths	M?		
131	0 13 m	no lining- or covering-slabs	dark brown soil		E/W head to W	adult inhumation, arms and legs fully extended	Yes	45+	M	1720 mm	skull comminuted, leg bones preserved better than arms, scapulae, ribs and vertebrae poorly preserved, some early osteoarthrosis of hips and shoulders.

[*continued on page 202*

at Cirencester[18]; and at Dorchester, both at Poundbury Camp[19] and Weymouth Avenue.[20] As with the practice of placing hobnailed boots in the grave, cemeteries of this type may represent an essentially Celtic rite.

Forty-nine burials aligned north-east to south-west to east-west, all with the head to the west, were located in three separate groups. The first was of five burials which, with one north-south burial, formed a small cemetery to the west of Building 2, possibly before Building 3 was constructed (p. 189). They comprised one adult male, four adult females and one female child, all aligned parallel with Building 3. The second group comprised the 21 infant-burials inside Building 3, all but five aligned parallel with the north and south walls. The third consisted of 25 burials, all aligned approximately east–west, south of Building 3. Eight were adult males, seven adult females and ten infants or children (see TABLE I on pp. 196–204).

It will be seen that the infant-burials inside Building 3 were in stone slab-lined cists, whereas those in the cemetery to the south were not. The adult burials in all three groups were mainly in slab-lined graves, one (F145) in a carefully constructed stone-slab cist but several (F114, 131, 132, 149) were in unlined graves. Most of the graves were dug into thinly bedded Lias and the slabs lining the graves may have been part of the upcast from the pits. All graves were probably marked, for no one burial was cut by another. The marker may have been simply the mound of soil displaced by the buried corpse. A scatter of Ham Stone fragments between burials F137 and F142 may belong to a marker or memorial stone. The deceased were all buried supine though the position of the head and arms varied. Arm positions included both arms extended; hands clasped across the abdomen; one arm across the abdomen or chest and the left arm raised to the shoulder. The incidence of various postures revealed no clear pattern. Comparison of male and female burials showed a concentration of females in the possibly early cemetery west of Building 2, but elsewhere there was an even distribution.

Several east-west burials were dated to the fourth century or later by coins (F87, 114, 125, 126). None contained objects identifiably later than the fourth or early fifth centuries. Since the homestead was evidently occupied from *c.* 335–50 into the fifth century, the 24 east-west burials in Building 3, which certainly date from within this period, and the cemetery to the south were probably of the homestead. Forty-nine of the 55 burials were aligned east-west with head to the west. It must therefore be concluded that, for the greater part of the period from *c.* 335–50 into the fifth century, the inhabitants of the homestead were burying their dead with head to the west in east-west graves.

Although no cemetery of east-west burials associated with a fourth-century Romano-British settlement or villa has been completely excavated, there are examples from such sites of single or small numbers of burials. At Wearne, Huish Episcopi, Somerset, a small group of east-west burials thought to be of sixth- to seventh-century date could be the cemetery of an adjacent Romano-British settlement.[21] At Puckington, Somerset, two east-west burials were associated with Romano-British occupation-debris.[22] At Stinsford, Dorset,[23] five east-west burials were thought to be of Romano-British date. East-west burials associated with Romano-British temples at Maiden Castle[24] and Nettleton[25] have been interpreted as being of the same date.

Cemeteries of burials orientated east-west, generally with the head to the west, may be

[18] McWhirr, op. cit. (note 11), 198.
[19] C. J. S. Green, *DOE Archaeological Excavations 1975* (1976), 54.
[20] RCHM (England), *An Inventory of Historical Monuments in the County of Dorset. Volume Two: South-East* (1970), 580–1.
[21] R H. Leech, *Somerset Arch. Nat. Hist* cxx (1976), 45–50
[22] H. St. G. Gray, *Procs. Somerset Arch. Nat. Hist. Soc.* lvii, 2 (1911) 91–7.
[23] op. cit. (note 20), 257.
[24] R. E. M. Wheeler, *Maiden Castle, Dorset* (1943)
[25] W. J. Wedlake, *Arch. Review* 1 (1956), 28.

TABLE 1—*continued from page 200.*

F No.	*Depth cut into natural*	*Description of grave*	*Fill*	*Relationship to other features*	*Alignment*	*Brief description of burial and associated finds*	*Specialist report*	*Age*	*Sex*	*Stature*	*Other notes*
132	0 06 m	no lining- or covering-slabs	dark brown stone-free soil		E/W head to W	infant inhumation, arms and legs fully extended	Yes	6–7 mths	F?		
136	0 18 m	sides partly lined with lias slabs	dark brown soil, some stones		E/W head to W	adult inhumation, arms and legs fully extended, finger bones clearly disturbed (PL. XXII)	Yes	70–80	M	1630 mm	highly fragmentary, impacted upper right canine, generalized osteoarthrosis.
137	0 10 m	partly lined with lias blocks	dark brown soil with a fragment of burnt Hamstone		E/W head to W	adult inhumation, arm bones mainly ploughed away, legs fully extended, hobnail embedded in lower end of right femur	Yes	10½–11½	—	—	calvarium comminuted, ribs and vertebrae damaged, lower limb bones better preserved than upper; associated with the skeleton was a right talus, grossly deformed by osteitis such that the tibial articulating surface was flattened and pitted.
140	0 08 m		dark brown soil, some small stones		E/W head to W	child inhumation, arm bones mainly ploughed away, legs fully extended	Yes	3–4	M	—	incomplete, fragmentary skeleton.
142	0 27 m	sides lined with lias slabs	dark brown soil, small stones		E/W head to W	adult inhumation, upper arms extended, lower left arm raised across chest, lower right arm at right angles across abdomen, legs fully extended.	Yes	17–25	F	1660 mm	apart from mid lumbar vertebrae and left humerus, most was well preserved. The mandible had retained deciduous first molars on both sides and X-ray showed lack of 2nd molars. Also associated - fragments of male adult cervical, thoracic, and lumbar vertebrae with gross eburnation of the articulatory facets (esp. cervical vert.) and with wedging of the lower thoracic and lumbar vertebrae. 6 fragments of femoral shaft, 3 of fibula and one distal end of a tibia showed squatting facets. There were a further 50 fragments including 7 from a pelvis. These fragments were from an elderly male skeleton, possibly disturbed when F142 was buried.
145	0 35 m	carefully laid floor and lining of lias slabs, no covering-slabs	dark brown soil		E/W head to W	adult inhumation, each end of grave had been much disturbed; the skull was absent and the lower leg bones had been moved, arms and legs were probably fully extended	Yes	50?	M	1613 mm	pelvis and lower leg bones damaged; this man had a cervical rib and the muscular development of legs, etc suggested a horse rider. Fragments of skull, right humerus, radius and tibia were not associated.

[*continued on page 204.*

reviewed in more detail. Rahtz has summarized the evidence for cemeteries elsewhere in Somerset, notably those at Brean Down, Cannington, Henley Wood, Lamyatt Beacon and Portishead, to which may be added burials at Combwich, at Snap Hill and at Larkhill,[26] where the two east-west burials presumably formed part of the cemetery belonging to the villa at Fry's factory, Keynsham;[27] also the east-west infant burials at Hole Ground, Wookey[28] and the cemetery on the east bank of the River Yeo at Northover just outside the walls of Roman Ilchester.[29]

The six infant-burials at the Hole Ground are directly comparable to those inside Building 3 at Bradley Hill, the east-west rite preserving also the Roman practice of burying infants indoors. The cemetery at Northover is also of particular interest, since it is both comparable to the late Roman cemetery at Poundbury outside the Roman town of Dorchester, Dorset, and belongs to the Roman town closest to Bradley Hill. Most of these east-west burials were possibly of Christians. Discussing the evidence for the spread of Christianity in the late Roman period, Frend has shown that by *c.* 400 it was 'established with episcopal government in the towns. The armies and their leaders were Christian, and some of the more wealthy families on the land were also Christian, or at least favourable to the new faith'. In the countryside, the 'turning point in favour of Christianity in northern Gaul and perhaps in Britain too' was the mission of Martin, Bishop of Tours from 372.[30] Radford has also emphasized the importance of the life of St. Martin of Tours, for it 'paints a picture of constant activity against a living paganism, which still held the allegiance of the countryside'.[31]

Clear archaeological evidence for Christian worship from the third century onwards has come from continental sites. Radford has divided this into two main sources: the churches and cemeteries, topographically separated because of Roman Law. The cemeteries were of east-west burials associated with *memoriae*, shrines above the burial-places of martyrs, for which examples come from the Rhineland and the Upper Danube.[32] There are, of course, other types of archaeological evidence for Christian beliefs, but here we are specifically concerned with that from east-west burials.

First, the evidence shows that the Roman cemeteries of east-west graves in Britain stand in contrast to those with other burial rites, either earlier or contemporary, which attached importance to the deceased being accompanied by Charon's fee, or personal adornments or hobnailed boots. The almost total absence of these from many east-west burials shows not merely a distinction in grave diggers' practice, but a profound difference in the religious beliefs of the deceased's relatives. The only widespread and major change in Roman religious beliefs came with the spread of Christianity.

Secondly, the certainty that some east-west burials of Roman date are definitely Christian has emerged from cemeteries which have *memoriae* as their focal points. Thirdly, in the cemeteries of east-west burials noted above, graves rarely cut one another; this, and the use at Poundbury of gypsum to embalm the dead, have been taken to indicate a Christian rite, a sign of the desire to preserve inviolate the dead awaiting the day of Resurrection.[33]

On the other hand, it must be remembered that the east-west rite was no prerogative of

[26] op. cit (note 1), 143; P. A. Rahtz in R. Reece (ed.), *Burial in the Roman World*, CBA Res Report No. 22 (1977), 53–64.
[27] H. St. G. Gray, *Antiq. Journ* II (1922), 371–5.
[28] H. C. Balch, *Annual Report, Wells Nat. Hist. Arch. Soc.* (1955–56), 11–16; H W. W Ashworth and D M Crampton, *Annual Report, Wells Nat Hist Arch Soc* (1963–64), 4–22
[29] op. cit (note 1), 144.
[30] W. H. C. Frend in M. W. Barley and R P. C Hanson (eds), *Christianity in Britain 300–700* (1968), 42–3
[31] C. A. R. Radford, *Procs. Somerset Arch. Nat Hist Soc.* CVI (1961–62), 35
[32] idem in op. cit. (note 30), 19–36.
[33] C. J S. Green, *Arch Review* VII (1972), 27–8

TABLE 1—*continued from page 202.*

F No.	*Depth cut into natural*	*Description of grave*	*Fill*	*Relationship to other features*	*Alignment*	*Brief description of burial and associated finds*	*Specialist report*	*Age*	*Sex*	*Stature*	*Other notes*
146	0 22 m	carefully laid floor and lining of lias slabs; no covering-slabs	dark brown soil		E/W head to W	adult inhumation, upper arms extended, lower left arm folded at right angles across abdomen, lower right arm bent slightly across abdomen, both legs bent at knees; the grave would not have been long enough for an extended burial	Yes	33–40	M	1600 mm	gross disease of the hips (right only preserved) which could have caused a flexion deformity. A calcified larygeal cartilage was also found with this burial but as these are generally found in burials of greater age it may not be associated
147	0 20 m	sides lined with lias slabs	dark brown soil, small stones		E/W head to W	adult inhumation, left upper arm extended, lower left arm at right angles across abdomen, right arm fully extended, legs fully extended	Yes	35+	F	1598 mm	calvarium comminuted, ribs, vertebrae, pelvis and limb bones less damaged; fusion of the 3rd and 4th thoracic vertebrae.
148	0 12 m	sides lined with lias blocks	dark brown soil, small stones		E/W head to W	adult inhumation, left upper arm extended, lower left arm across abdomen and lower right arm, legs fully extended	Yes	45+	M	1683 mm	skull comminuted, pelvis very damaged, all long bones damaged, gross osteoarthrosis of hips and spine.
149	0 20 m		dark brown soil		E/W head to W	adult inhumation, upper left arm extended, lower left arm bent across abdomen, right arm fully extended, legs fully extended	Yes	25–	F	1619 mm	skull highly fragmented; ribs, pelvis and vertebrae suffered post-mortem damage; limb bones fairly well preserved; fusion of 3rd and 4th thoracic vertebrate
150	0 17 m		dark brown soi		E/W head to W	infant inhumation, arm bones disturbed, leg bones partly disturbed but indicating an extended position	Yes	Perin	?		highly fragmentary and incomplete.
152	0 05		dark brown soil			scatter of bones suggesting infant burial	Yes	5–6	F?		fragmentary and incomplete
155	—		—		—	bone fragments suggesting ploughed out burial	Yes	adult ?	M?		

Christianity, which has caused some to remain sceptical. Reviewing the late-Roman cemetery with east-west burials from Lynch Farm (Northamptonshire), Rahtz and Fowler concluded that 'there is no final proof that Christianity was the religion practised by those buried here'.[34] Examining cemeteries of east-west burials in Somerset, it was concluded that these were 'typical of Christianity certainly but not decisively so'.[35] Through a study of Merovingian cemeteries in Gaul, Baillie Young has demonstrated that there is no automatic equation between east-west burial rites and the Christian belief.[36] An attempt by Prof. C. Thomas to map the pattern of Christian evidences in late Roman Britain has produced a concentration on south and south-east Britain.[37] One may note in particular the possibly Christian mosaics at Hinton St Mary and Frampton, both in South Dorset, and closer to the cemetery at Poundbury Camp. To the categories of evidence listed by Thomas may be added the cemeteries of unaccompanied east-west burials discussed above.

The evidence for east-west burials may indicate that before the end of the Roman period Christianity had been accepted by some communities at Ilchester, in the possible port at Combwich, and in such poor rural settlements as Snap Hill and Bradley Hill. The evidence from the latter indicates that the inhabitants were Christian soon after the establishment of the farmstead, that is certainly by *c.* 375.

The view that 'Roman Somerset has yielded no evidence of Christianity' can then be questioned;[38] but the adjustment which would have to be made to previously suggested chronologies is only slight. Indeed, Radford seems to have overlooked rather than ruled out the possibility that Somerset was becoming Christian in the last part of the fourth century. Very likely, communities such as that on Bradley Hill were being converted to Christianity at much the same time as St Martin of Tours was spreading the gospel in the countryside of central Gaul.

5. THE FARMSTEAD (FIG. 2)

The coins indicate that the farmstead was established *c.* 335–45, certainly not later than *c.* 350 (p. 207), and continued into the early fifth century. The absence of sub-Roman pottery (p. 183) indicates that occupation is unlikely to have continued into the second half of that century. Building 1 was probably constructed first (p. 193), Buildings 2 and 3 probably not until after *c.* 365–80 (p. 187). Several reasons suggest that Building 1 may have preceded Buildings 2 and 3 by only a few years, but there are qualifications in each case. First, without ancillary buildings it is difficult to see Building 1 constituting a viable settlement; on the other hand, wall F113 could hint at earlier buildings completely obliterated by Buildings 2 and 3. Secondly, it might be thought difficult to relate the pattern of burials to Building 1 standing in isolation. The adult cemetery to the west lay beyond Building 2, as if the latter was already standing by the time that the first adults of the community were buried. Assuming a fairly constant rate of infant mortality, Building 3, containing the majority of the infant-burials, would have followed soon after. On the other hand, the earliest burials could be the adults and infants south of Building 3.

The situation of the farmstead is today exposed, but was not necessarily so in the fourth and fifth centuries. The forest along the escarpment overlooking King's Sedgemoor is of considerable antiquity. The 1287 survey of Dundon refers to 'the pasture in the wood and about

[34] R. F. J Jones, *Northants. Arch.* x (1975), 134

[35] P. Rahtz and P J Fowler in Fowler (ed), *Archaeology and the Landscape* (1972), 214

[36] B. K. Young, *Merovingian Funeral Rites and the Evolution of Christianity* (1975), unpublished Ph.D. thesis University of Pennsylvania.

[37] C. Thomas, *Britain and Ireland in Early Christian Times A D 400–800* (1971), 72–5.

[38] op. cit. (note 31), 35.

the wood of Bradleigh' and to 'the underwood of . . . Bradleigh'.[39] Most of the escarpment is still wooded, and if the slopes below Bradley Hill had been forested in Roman times the situation would have been very sheltered. No water-supply was identified, but it most likely to have been a well, as at Catsgore[40] or Low Ham.[41]

The three buildings, two dwelling houses and one farm building, probably stood in isolation: together they may have formed a small farmstead. The single farm building, the lack of corn-driers, significant granary-space or stalling, might indicate that it was dependent on a larger unit elsewhere. Partly for this reason, the term 'villa' has been avoided, although it is possible that in the fourth century the site may have been so designated. Collingwood's broad definition of villa extended to all Romanized farms, but he noted its frequent use only for wealthier establishments.[42]

6. THE FARMSTEAD – ITS ENCLOSURES, FIELDS AND NEIGHBOURING SETTLEMENTS

Very little evidence was revealed of any enclosures in the area immediately around the farmstead, the only boundary wall recorded being wall F121. Possibly, all the enclosures surrounding the farmstead had stone boundary-walls without ditches, so that after subsequent ploughing no evidence remains. Only 5 km to the south, the villa at Highbrooks, Catsgore, was surrounded by a number of ditched enclosures, but possibly these were of earlier date. In the settlement at Catsgore, walls or fences replaced ditches and banks as boundaries in the fourth century.[43] A similar change in practice might account for the absence of boundary-ditches at Bradley Hill.

No 'Celtic' fields surviving as earthworks have been recognized close to Bradley Hill, although the area shown in FIG. 1(b) has been thoroughly searched for evidence. Air photographs (PL. XVIII B) of the area immediately to the north show cropmarks of narrow strip fields, probably medieval, and cropmarks of a trackway, undated, some 400 m north of and pointing towards Bradley Hill. Around Ilchester, air photography has provided evidence for enclosures and paddocks surrounding Romano-British settlements at Hally Hill, Kingsdon,[44] Wearne, Huish Episcopi[45] and Podimore.[46] Further air photography may reveal the presence of enclosures around the farmstead on Bradley Hill.

FIG. 14 shows the distribution of known Romano-British settlements in the neighbourhood; it is important to emphasize 'known', for the map may reflect the activities of archaeologists as much as the pattern of Romano-British settlement. All the sites shown were probably occupied at the same time as the late fourth-century farmstead on Bradley Hill; none has been shown to be similar in type, though this reflects both the past preoccupation of archaeologists in the region with villas and the small number of extensive excavations undertaken. Most of the settlements occupy positions similar to Bradley Hill, being situated on the edge of the limestone plateau overlooking King's Sedgemoor.[47]

An approximate figure for the area and location of the land belonging to each of the settlements can be obtained by showing the mid-points between each in the form of Thiessen polygons but retaining the River Cary as an obvious boundary. It is clear that this does not consider the greater wealth of the Pitney and Littleton villas, nor the greater area of the Littleton

[39] Beauchamp Registers, *Somerset Record Soc.* xxxv (1920), 28.
[40] C. A. R. Radford, *Procs Somerset Arch. Nat. Hist. Soc.* xcvi (1951), 62.
[41] H. S. L. Dewar, *Notes Queries Somerset Dorset* xxvii (1955), 58–61.
[42] R. G. Collingwood and Ian Richmond, *The Archaeology of Roman Britain* (1969), 133.
[43] op. cit. (note 7).
[44] R. H. Leech, *Somerset Arch. Nat. Hist.* cxxii (1978), 69, fig. 14.
[45] op. cit. (note 21).
[46] R. H. Leech, *Somerset Arch. Nat. Hist.* cxix (1975), 72–6.
[47] Pitney 1 and 2, Littleton and Hurcot, op. cit. (note 2); Bancombe Hill, R. H. Leech, *Notes Queries Somerset Dorset* xxix (1969), 87–8; Westwood, OS card ST 42 NE 28.

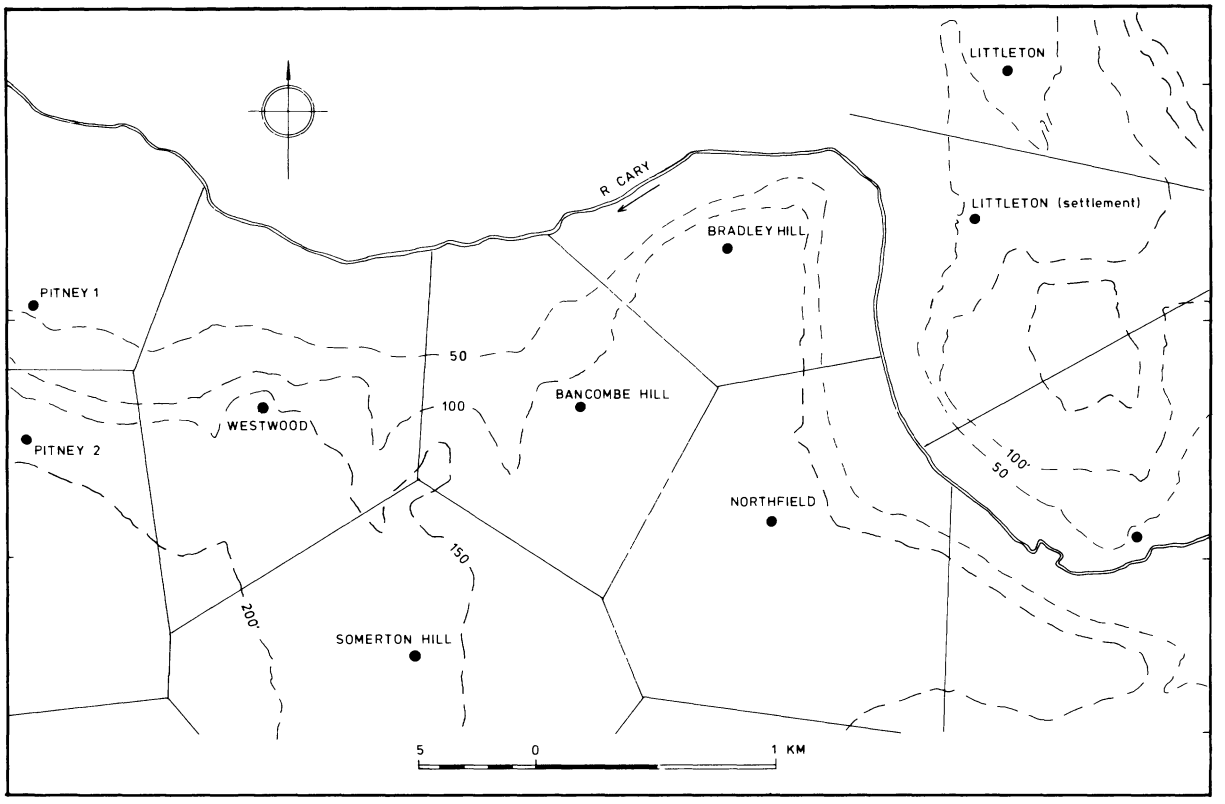

FIG. 14. Bradley Hill and Romano-British neighbouring settlements.

settlement; nor that not all the contemporary settlements may have been identified. The last possibility is particularly likely on the area on the southern edge of the map, for Somerton West Field and Somerton Northfield are unlikely to be so far from their nearest neighbours. Nevertheless, the spacing of the five settlements along the edge of the plateau is remarkably consistent being always between 0·9 km and 1·2 km and allowing each settlement a share of river bank, meadow or pasture, hill slope (possibly wooded) and fertile calcareous plateau-land for arable. The area allowed for the Bradley Hill settlement is *c.* 110 ha (280 acres), which may be compared with that of *c.* 100 ha suggested as a probable maximum area for most Romano-British farms in a particularly well-studied part of the Nene valley in Northamptonshire.[48]

In the surrounding region, settlements in the Romano-British period were generally spaced at between 500 and 1000 m. The evidence for this, and other aspects of the settlement-pattern within which the Bradley Hill farmstead lies, have been discussed fully elsewhere.[49]

III. THE FINDS

THE COINS by E. M. Besly

The 78 coins are without exception common types of the late third and fourth centuries. The overall pattern of loss and the evidence of sealed coins give useful pointers to the dating of the

[48] C. Taylor in P. J. Fowler (ed.), *Recent Work in Rural Archaeology* (1975), 116.
[49] Leech, op. cit. (notes 1 and 7).

TABLE 2.[50] Catalogue of Coins.

Provenance	*F No.*	*Reverse Type*	*Date*	*Mint*	*Observe*	*Reference*[50]
1. COINS FROM POSSIBLE CONSTRUCTION LEVELS						
(a) Sealed by paving of Building 1, Room 1 (2 coins)	8	Wolf and twins	330–5	Tr	UR	HK 65–P
		VOT/X/MVLT/XX	361–3	Arl	J	C 148–S (siliqua – not securely sealed)
(b) Sealed by paving of Building 1, Room 2 (1 coin)	17	SARMATIA DEVICTA	323–4	Lon	C I	RIC VII 290
(c) Foundation burial in Building 1, Room 2 (9 coins)	18	VIRTVS AVG	260–9	Cologne	Postumus	RIC 178
		Illegible	269–71	—	Victorinus	— (2)
		Illegible	271–4	—	Tetricus I	— (2)
		'Salus'	*c.* 270–85	—	—	irregular radiate; 18 mm
		GENIO POPVLI ROMANI	294–305	Lon	Max I	RIC VI 28b
				Ly	Cs I; Dio	RIC VI 25a; 113a
(d) Sealed by paving of Building 2, Rooms 1 and 2 (4 coins)	43	?Providentia	260–8	Rome	Gallienus	RIC (SR) 267?
		GLORIA EXERCITVS (1 st)	337–41	Tr	Cn	HK 131–S
		Illegible	364–78	—	—	— —
	55	Gloria Exercitus (1 st)	335+	—	—	irregular, 15 mm
(e) Sealed in foundation-trench of eaves-drip gully of Building 2 (2 coins)	63	SECVRITAS REIPVBLICAE	364–78	Arl; Sis	Vn; V I	CK 528; ?1382
2. COINS FROM OCCUPATION LAYERS						
(a) Building 1, sealed by fallen internal wall (3 coins)	2	GLORIA EXERCITVS (1 st)	337–41	Tr	Cn	HK 133–?P
	2	Fallen Horseman	350+	—	—	irregular, 12 mm
		SECVRITAS REIPVBLICAE	364–78	Arl	Vn	cf. CK 528–P
(b) From layers sealing floors in Building 1 (2 coins)	3	Gloria Exercitus (1 st)	335+	'Tr'	—	irregular, 14 mm
		VIRTVS ROMANORVM	392–402	Tr	A	RIC IX 106b (siliqua, 1.24 g – clipped)
(c) From layers sealing floors in Building 2 (12 coins)	36	'Salus'	*c.* 270–85	—	—	irregular, 18 mm
		Illegible	270–93	—	?	— (2: one Carausius?)
		Gloria Exercitus (2 st)	330+	—	—	irregular, 14 mm
		GLORIA EXERCITVS (1 st)	335–7	Tr	C I	—

[*continued on page 209.*

		VICTORIAEDDAVGGQNN	341–8	?	Cs II	—
		GLORIA ROMANORVM	364–78	Arl; ?	Vn; ?	— (2)
		SECVRITAS REIPVBLICAE	364–78	?	Vn; G	— (2)
		VICTORIA AVGGG	388–402	?	?	—
		Illegible	4th c.	?	?	— (corroded)
(d) From layers sealing floors in Building 3 (20 coins)	68	'Pax'; 'Pax' or 'Salus'	*c.* 270–85	—	—	irregular radiate, 11, 10 mm
		Victory on prow	330–5	Tr	Cp	HK 59–P
		Gloria Exercitus (1 st)	335+	'Tr'	—	irregular, 13 mm
		VICTORIAEDDAVGGQNN	341–8	Tr	Cs II	HK 137
		Fallen Horseman	350+	—	—	irregular, 14, 10, 7 (2) mm
		SECVRITAS REIPVBLICAE	364–78	Ly; Arl;?	Vn	CK 305–P; 502; —
		GLORIA ROMANORVM	364–78	Ly?; ?	?	— (2)
		VICTORIA AVGGG	388–402	?	T I; ?	— (2)
		SALVS REIPVBLICAE	388–402	Rome	A	CK 798
	(68)	Illegible	388–402	?	?	—
		Illegible fragment	3/4 c.	—	—	—
	97	VICTORIAEDDAVGGQNN	341–8	Tr	Cn	HK 158
3. COINS SEALED IN FILLS OF BURIALS (4 coins)	87	VICTORIAEDDAVGGQNN	341–8	Arl	Cs II	HK 447
	114	'Pax'?	*c.* 270–85	—	—	irregular radiate, 12 mm
	115	BEATA TRANQVILLITAS	320–4	Tr	C I	RIC VII 303–P
	145	VICTORIA AVGGG	388–98	?	T I	—
4. COINS FROM AREAS OUTSIDE BUILDINGS (19 coins)	30	GLORIA EXERCITVS (1 st)	335–7	Tr	Cn	HK 95
		PAX PVBLICA	337–41	Tr	Helena	cf. HK 119
		FEL TEMP REPARATIO Hut	384–50	Tr	Cn	CK 29–?P
	111	'Pax'	*c.* 270–85	—	—	irregular radiate, 10 mm
		'Wolf and twins'?	330+	—	'UR'	irregular, 10 mm
		Illegible	4th c.	—	?	— (very worn)
	116	GLORIA EXERCITVS (1 st)	337–41	Tr	Cs II	HK 126
	121	Illegible	*c.* 260–90	—	?	—
	122	GLORIA EXERCITVS (1 st)	337–41	?	Cs II	—
		Uncertain fragment	—	—	—	—
	125	GLORIA EXERCITVS (1 st)	337–41	Tr	Cn	HK 133
		Uncertain	3/4 c.	—	—	— (defaced in antiquity)
	126	Wolf and twins	330–5	Tr	UR	—
	135	Uncertain	*c.* 270–85	—	—	irregular radiate, 13 mm (2)
		Uncertain	3/4 c.	—	—	irregular, uncertain 15 mm
		BEATA TRANQVILLITAS	322	Tr	C I	RIC VII 341–S
		Wolf and twins	330–5	Tr	UR	HK 76–S
		Uncertain	330+	—	—	irregular, 5 mm

[50] The following references are used in the catalogue: RIC: H. Mattingly *et al*, *The Roman Imperial Coinage*, vols. v, vi, vii, ix. C: H. Cohen, *Description Historique des Monnaies Frappées sous l'Empire Romain* (1880–92). HK: R. A. G. Carson, P. V. Hill and J. P. C. Kent, *Late Roman Bronze Coinage*, Part I (1960). CK: ibid., Part II.

site, which is discussed above. The list is, however, a short one, so any conclusions drawn can only be tentative. The coins fall into two groups, the 'site finds' (69 coins) and the 'foundation hoard' (9 coins, discussed below). The coins are listed by provenance, as requested by the excavator.

The 'Foundation Hoard'

A small hoard consisting of nine coins (five worn coins of the Gallic Empire, one irregular radiate and three *folles* of the First Tetrarchy) was found in a pot (FIG. 21, 23) which had been buried together with a sheep's skull in a pit cut through the paved floor of Building 1, Room 2. The paved floor itself sealed a coin of *c.* 323–4. The three *folles* all date to an early stage of the denomination, the latest dating to *c.* 303–5, and are rare as site finds in Britain. The whole assembly need not be later than *c.* 305–10 and, as large *folles* were driven out of circulation by the reform of 318, the hoard is unlikely to have had any monetary value to its owner(s) in the late 330's (when Building 1 was constructed), which must be assumed to be its approximate date of burial.

The abandonment of the site

The pattern of coinage from the second half of the fourth century is typical of sites in Britain at this period and needs no further comment. None of the coins of the house of Theodosius need have been struck later than 402 and none shows signs of the heavy wear sometimes found on such coins. The presence of a clipped *siliqua* of Arcadius may suggest a date after 410 but there is no evidence to suggest coin use on the site after *c.* 420.

THE ENAMELLED BRONZE FRAGMENT by Elizabeth Fowler

A fragment of enamelled bronze bowl (FIG. 15) was found under a paving stone in Building 2, constructed *c.* 350 and occupied until *c.* 420–50. The piece is approximately 130 mm by 87 mm and came from a bowl of approximately 163 mm diameter, standing probably 75 mm high. The reconstruction shows the bowl with a foot-ring, probably correctly when similar examples are taken into account. The decoration is in champlevé enamel throughout and covers the fragment completely, apart from the heavy double-moulded rim. Below this rim is a border of floating leaves, probably intended to be a wreath of vine-leaves, against a background of green enamel. The body of the vessel is decorated with a series of pentagonal panels surrounded by running S-scroll on blue enamel. In the triangular gaps thus formed are elongated floral palmette-like shapes against green enamel and the same type of floral pattern is used within the pentagonal panels.[51] Red enamel seems only to have been used in the narrow dividing strips between the panels, though it is possible that the green enamel seen elsewhere was red, as this deterioration (red to green colour) is known to take place.

The Bradley Hill bowl belongs to the type of vessel characterized by the Braughing cup, the Bartlow casket and the West Lothian handled bowl.[52] The floating leaves within a ribbed border are easily paralleled on the Braughing cup. But the remainder of the Bradley Hill decoration is more formalized, particularly the use of ornament in the pentagonal panels, and the use of a floral-derived pattern within the panels and the triangular spaces above.

There are two points in particular to be made about this decoration. First, pieces of these designs, seen in isolation, could have come from early penannular brooches, Irish 'latchets' or hanging bowls.[53] It is essentially a thin-line bronze decoration against enamel which seems

[51] 'Lyre-palmette pattern', M. MacGregor, *Grammar of Ornament* (1976), xvii

[52] *British Museum Guide to Roman Britain* (1951), 55, pl. xxi/1 and 2; J. Curle, *Procs. Soc. Antiq. Scotland* lvi (1932), 302, 353, fig. 74.

[53] E. Fowler in J. M. Coles and D. D. A. Simpson (eds.), *Studies in Ancient Europe* (1968), 296, table 1.

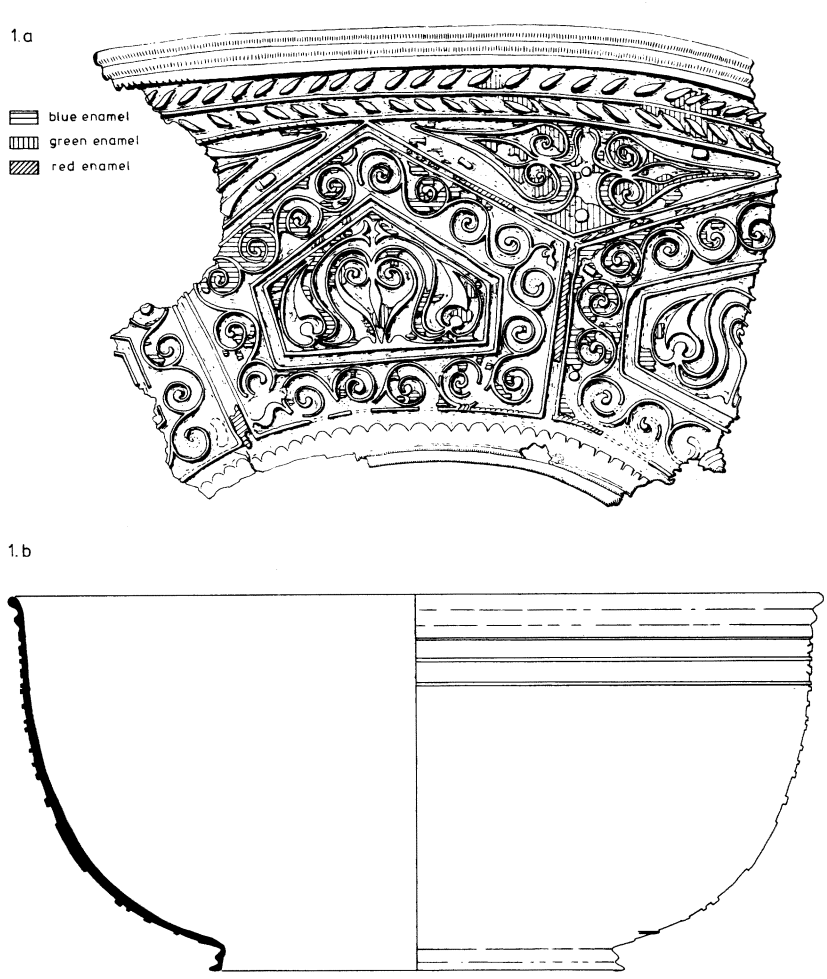

FIG. 15. 1 (a) Fragment of bronze bowl; (b) Restored profile and section. Scale ½.

to be a technique developed for the escutcheons of the early hanging bowls.[54] Secondly, the main group of enamelled vessels have basically decoration in a series of concentric strips; a panel of floating leaves, a wider band of broad pointed leaves arranged in an S-scroll, and a band of vandyked ornament.[55] The Bradley Hill example is unlike these, but it very strongly resembles two vessels, found on the continent, to which James Curle drew attention in 1932.[56] One is a handled vessel, found at 'Pyrmont, Lippe Detmold, now in Museum of Arolsen'. This vessel has a 'series of pentagonal panels each with a border of scrolls' and long pointed leaves in panels and in triangular alternate panels. The other is a bowl found 'in a Roman tomb in a cemetery at La Plante, Namur'. The decoration on this bowl is similar to the Pyrmont one. The Pyrmont vessel came from a well which produced, among the debris, brooches, and coins of Domitian, Trajan and Caracalla, 'the last of these dating from A.D. 218'. The La Plante grave 'is assigned to the second century'. In 1966 H. J. Eggers published a study of bronze vessels in Britain and isolated two main groups of enamelled bronze bowls, the Maltbaek (Import 158) and the Vehner-Meer (Import 157). Into the first group Eggers put the Braughing and Harwood bowls (and surely too the related Bartlow Hills vessel). For the second group he could only find the bowl from Canterbury.[57] The Bradley Hill piece is now a new addition. Eggers relates the bowls to the handled vessels or 'saucepans' like the West Lothian one and the one from the well at Pyrmont.[58]

This study reinforces Curle's belief that all these enamelled vessels were made in the second century, somewhere to the south of the Rhine.[59] However, Kendrick[60] and Françoise Henry[61] did argue that polychrome enamelling could have existed as a technique in south-eastern England, and could even have been introduced before the Roman conquest.[62] Hawkes[63] showed how polychrome enamelling is associated with the boss style in the second century A.D.

The Bradley Hill piece, therefore, looks as though it was made in the early second century, despite the comments made above about its similarities to post-Roman metalwork. But one must also accept that it had a lengthy survival time, and probably travelled to Somerset along the trading route established by the Belgic peoples before and after the Conquest.[64] This transmission of objects from the Belgicized parts of Britain to outlying areas has already been noticed by Piggott[65] and MacGregor[66] with particular reference to Scotland.

The long life of the Bradley Hill piece is noteworthy but, in default of more definite evidence for later manufacture, must be accepted. It is perhaps, however, worthwhile pointing out that there does exist, from a site in Gloucester, apparent evidence of metal- and even enamel-working in the years around 400. This site, the New Market Hall, Site B, produced a trench from which came a mass of bronze-working scrap, several bronze objects and a fragment of bronze bowl, enamelled in geometric 'cloisons' in blue, red and yellow.[67] The associated pottery included a fragment of a North African amphora, dated to the fifth century.[68] There is no evidence yet for the manufacture of a bowl like the original Bradley Hill one as late as the

[54] op. cit. (note 53), 294.
[55] op. cit. (note 52), fig. 15.
[56] Curle, op. cit. (note 52), 303–4.
[57] H. J. Eggers, *Jahrbuch R-G Zentral Mus. Mainz* xiii (1966), 94, fig. 48.
[58] I am indebted for this reference to Professor S. S. Frere.
[59] Curle op. cit. (note 52), 304–6.
[60] T. D. Kendrick, *Antiquity* vi (1932), 169.
[61] F. Henry, *Préhistoire* ii (1933), 103.
[62] op. cit. (note 61).
[63] C. F. C. Hawkes and P. Corder, *Antiq. Journ.* xx (1940), 335.
[64] E. Fowler, *Procs. Prehist. Soc.* xxvi (1960), 166; P. J. Fowler, *Procs. Univ. Bristol Spel. Soc.* xi, 3 (1968), 232.
[65] S. Piggott, *Procs. Prehist. Soc.* lxxxvii (1953), 1–50.
[66] M. MacGregor, *Early Celtic Art in North Britain* (1976), 104.
[67] M. Hassall and J. Rhodes, *Trans. Bristol Glos. Arch. Soc.* xxx (1974), 89, fig. 34/1.
[68] op. cit. (note 67), 91–2.

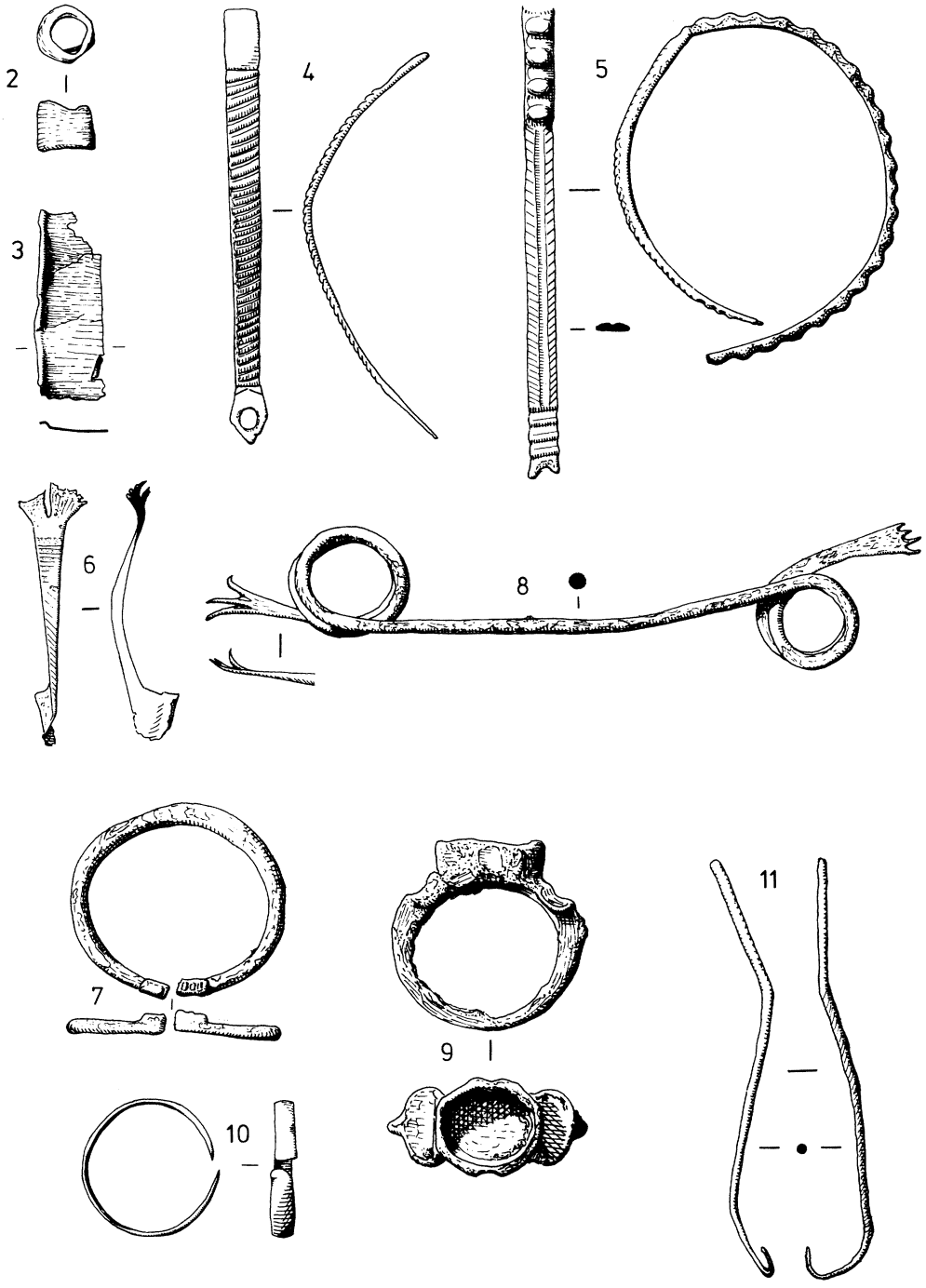

FIG. 16. Objects of bronze. Scale 1:1.

fourth century, and it is at least conceivable that we are dealing with the survival not of the complete bowl but of only a fragment, an heirloom. But, in view of the subsequent developments in metal- and enamel-working, the mere survival of a fragment like the Bradley Hill piece is significant.

OTHER OBJECTS OF BRONZE by R. H. Leech and E. M. Besly

Objects Illustrated (FIG. 16)

2. Bead, diameter 8 mm, F135.
3. Fragment of binding, remnants of Fe_2O_3 on the reverse side. Length 27 mm, F134.
4. Fragment of bracelet with diagonal incised line decoration. Original diameter 60 mm, F68.
5. Fragment of bracelet with three zones of decoration – incised lines, herringbone and circles. Original diameter 45 mm, F55.
6. Tapering bow brooch[69] with horizontal incised line decoration, first century A.D. Length 36 mm, F68.
7. Penannular brooch, turned over terminals with incised line decoration, possibly 1st century A.D.[70] Diameter 30 mm, F122.
8. Brooch (?), of wire 2 mm thick coiled at each end to form two loops with clawed terminals. Two ends of a shawl could have been drawn through the loops. Length 80 mm, F30.
9. Ring with setting for bezel (missing), inside diameter 20 mm, F36.
10. Ring formed from a thin strip. Inside diameter 18 mm, F135.
11. Hook formed from wire 1·5 mm thick. Length 60 mm, F68.

Objects not illustrated

12. Ring formed from wire 1·5 mm thick. Inside diameter 12 mm, F36.
13. Part of a pin at least 21 mm long, F68.
14. Part of a brooch or ornament (?), triangular fragment. Length 15 mm, F159.
15. Other fragments of bronze came from F36, F68, F122 and F135.

OBJECTS OF IRON by R. H. Leech and E. M. Besly (FIGS. 17, 18)

1. Hook. Length 50 mm, F135.
2. Awl. Length 85 mm, but the ends were broken off, F68.
3. Awl. Length 100 mm, F68.
4. Drift. Length 65 mm, F68.
5. Graver. Length 85 mm, F30.
6. Fragment of a split socket or possibly a wrapped ferrule. Length 80 mm, F68.
7. Fragment of a metal workers hammer. Length 40 mm, F115.
8. Fastening loop. Length 95 mm, F30.
9. Implement, formed by twisting a simple tapering bow. Length 120 mm, F36.
10. Horse- or pony-shoe. The state of preservation suggests a recent date, but an almost identical example from Chalk, Kent has been dated to the fourth century.[71]
11. Broken ox-goad. Diameter 22 mm, F68.
12. Knife (?) blade. Length 118 mm, F68.
13. Fragments of knife blade with saw edge; blade has been broken off. Length of the tang was 30 mm, F36.
14. Fragment of knife blade. Length at least 75 mm, F30.

[69] Collingwood type M.
[70] op. cit. (note 42), 300.
[71] D. E. Johnston, *Britannia* iii (1972), 135–6.

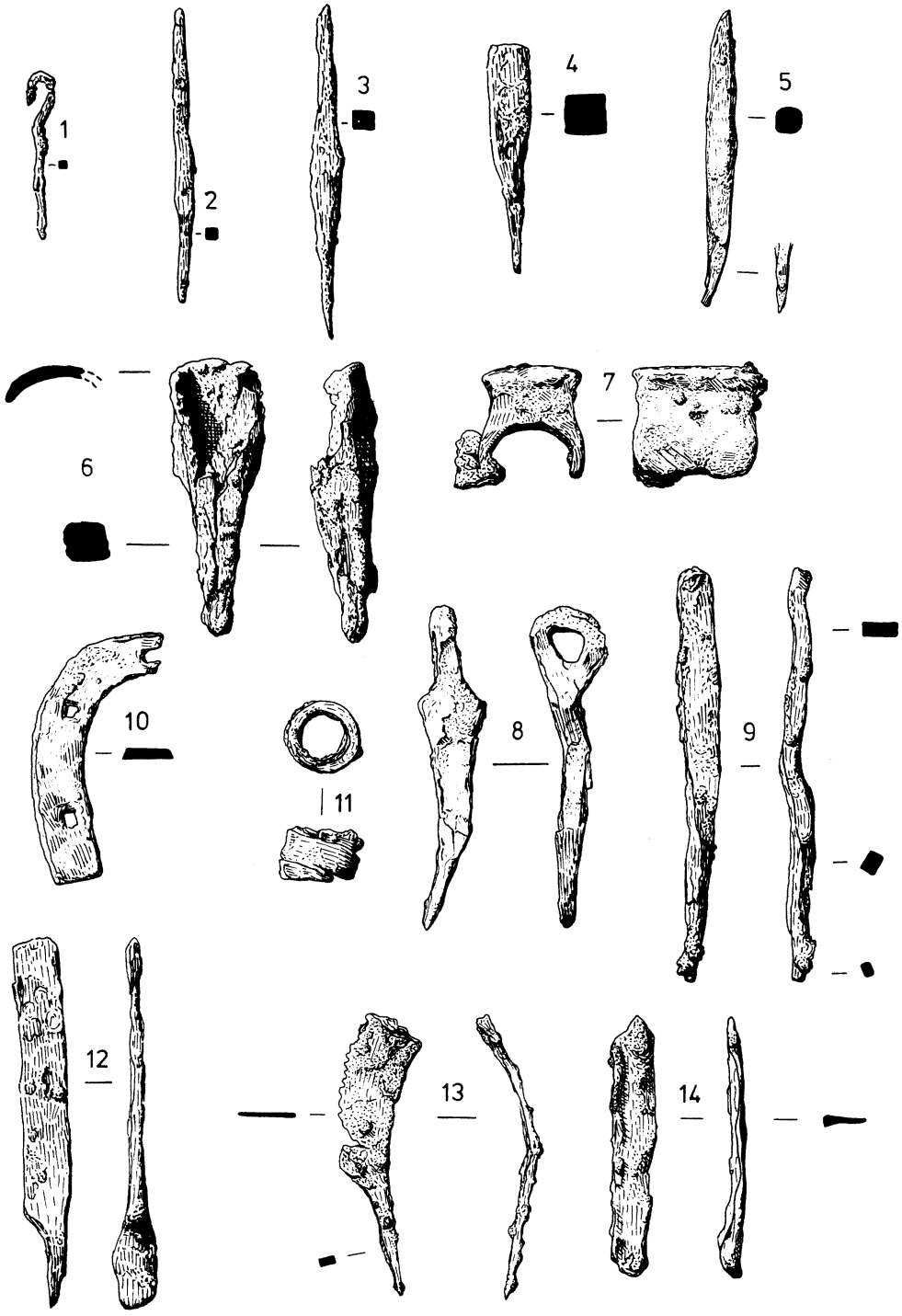

FIG. 17. Objects of iron. Scale ½.

15. Fragment of knife blade. Length at least 85 mm, F68.
16. Fragment of knife blade. Length at least 70 mm, F68.
17. Fragment of knife blade. Length at least 40 mm, F68.
18. Fragment of cleaver. Length at least 110 mm, F36.
19. Fragment of binding, rectangular section, object bound was 55 mm square, F68.
20. Fragment of binding, rectangular section, object bound was 60 mm wide, but the other dimension was uncertain, F68.
21. Fragment of cleat for joining boards together, square section. Length 75 mm, F30.
22. Drift. Length 80 mm, F122.
23. Drift. Length 80 mm, F122.
24, 25. Furniture (?) nails with domed heads 22 mm in diameter. Part of a third nail not drawn. All F68.[72]
26. Boot hobnail, F30.
27. Boot hobnail. Similar nails from burials F115 and F117 not illustrated (a drawing of the boot nails *in situ* from F115 is deposited in the excavation records).
28. Nail with square-headed tapering stem, almost flat head, Manning Type I.[73] Length 75 mm, F30. Similar nails of varying length came from elsewhere on the site. The small number from sealed features and the degree of corrosion would make a detailed analysis of little value.
29. Nail with a square sectioned tapering stem and a triangular head no thicker than the stem, Manning Type II. Length 95 mm, F55.

OBJECTS OF GLASS (FIG. 19)

1. *Glass Beads*

From comments by Margaret Guido.

1. Dark blue, facetted, 5·5 mm square. From the fill of burial F148. Similar examples come from fourth–fifth-century Romano-British burials at Lankhills and Cirencester and are commonly found in Gallo-Roman burials of the fifth–sixth century.
2. Blue-green fragment of bead, circular in section and at least 18 mm long. Fourth or fifth century in date, F135.

2. *Fragments of glass* by Dorothy Charlesworth

3. Part of the rim of a flagon in greenish glass. Third–fourth century type made in the Cologne area of the Rhineland. The mouth is funnel-shaped with a rounded rim and trail below, F68.
4. (Not illustrated.) Part of the base of a flagon or beaker in greenish glass with pinhead bubbles and striations. The pushed-in base ring was formed by blowing a second bubble below the base of the vessel and folding it back on itself, F135.
5. (Not illustrated.) Gaming counter in blue green glass, F36.
6. (Not illustrated.) Ten unidentifiable glass chips from F68, F111, F125 and F135.

OBJECTS OF BONE (FIG. 19)

1. Pin with turned head, complete. Length 93 mm, F120.
2. Pin with turned head, broken. Length of fragment 50 mm, F55.
3. (Not illustrated.) A pin apparently similar to the above was removed from the site by a trespasser and could not be recovered.

[72] A. C. Brodribb, A. R. Hands and D. R. Walker, *Excavations at Shakenoak* IV (1973), 126.
[73] W. H. Manning in D. S. Neal, *The Excavations of the Roman Villa in Gadebridge Park, Hemel Hempstead, 1963–68* (1974), 173.

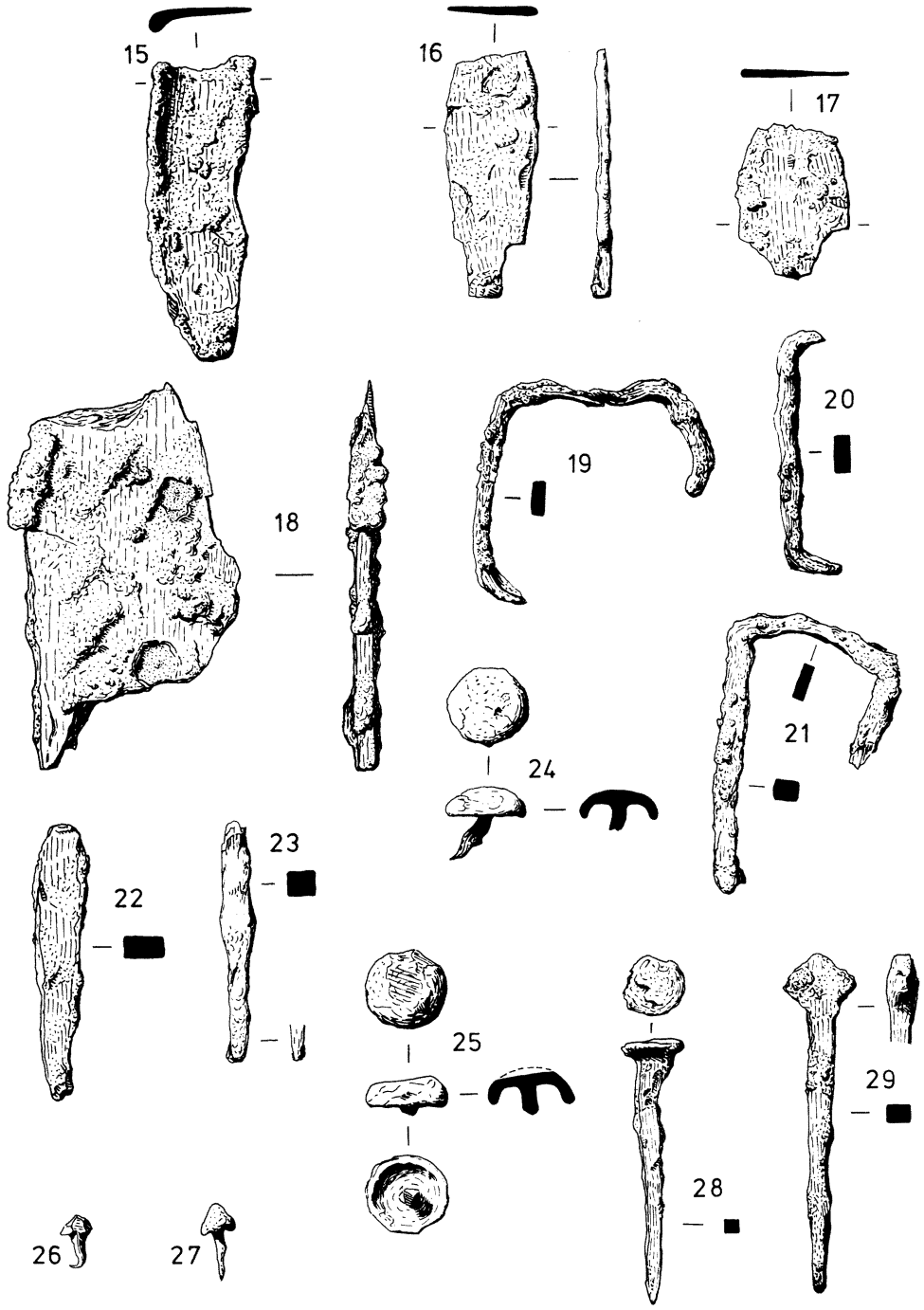

FIG. 18. Objects of iron. Scale ½.

THE ANIMAL BONES by R. F. Everton

THE BONE FROM THE FOURTH-CENTURY FARMSTEAD

1. *Introduction*

The animal bones submitted were derived from seventeen middens, and from the interiors of Buildings 1, 2 and 3.

The middens, apart from F30 and F111, produced only small quantities of fragmentary bone with sheep and ox predominating, and a smaller quantity of pig- and horse-bones. Midden F131 also contained fragments of three human bones: a right humerus, a right scapula and a rib of adult size. In F121, a second cervical vertebra of sheep was found to be chopped obliquely across, and F127 had a sheep mandible with osteitis at the level of the fourth premolar.

On the whole, apart from a number of fragments of ox-sized long bones which had been chopped or crushed, there was little to suggest food residues in any of the midden material. F95 and F96 inside Building 3, Period 2, consisted entirely of sheep bones and loose teeth. Middens F30 and F111 comprised a greater number of bone fragments and are described separately.

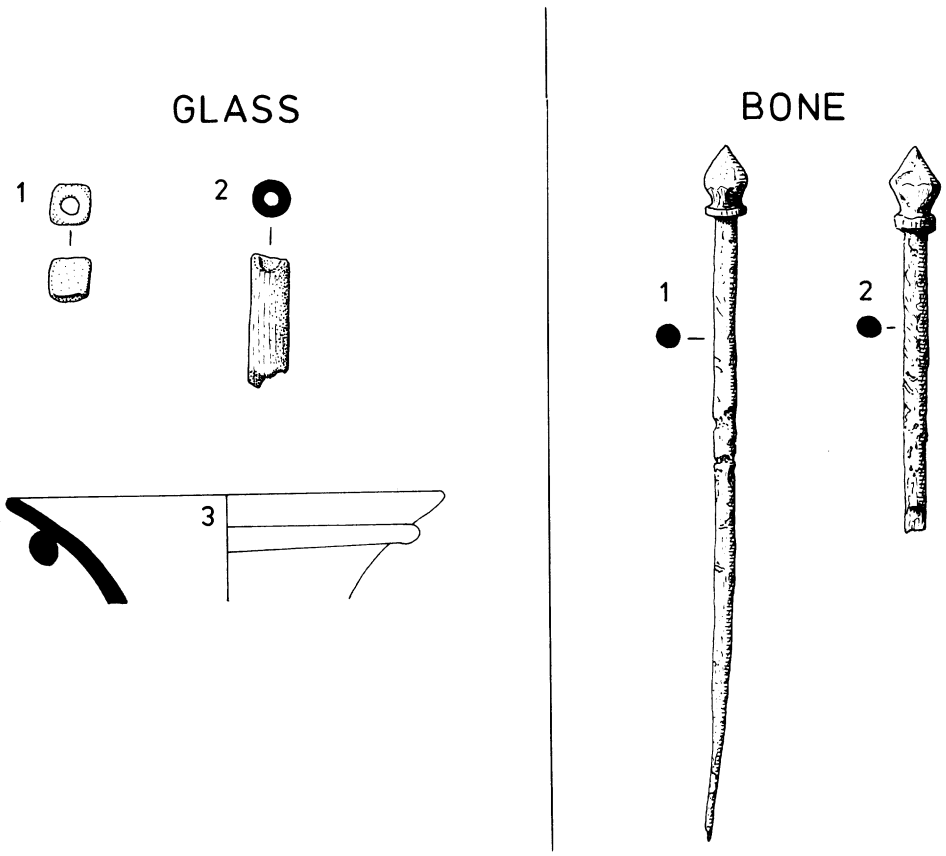

FIG. 19. Objects of glass (1–3) and bone (1–2). Scale 1:1.

The ageing of the animals was determined by the methods of Silver[74] using times of fusion of epiphyses and eruption of teeth, and for sheep's teeth that of Carter[75] from the degree of attrition. No goat bones were identified, although the criteria suggested by Boessneck[76] were applied.

Because of the fragmentary nature of the bones, sex was determinable only with such parts of the skeleton as horn-cores (sheep), tusk of pig and to a lesser extent the absolute size of sheep molars. For cattle, Chaplin quotes Honours' metapodial indices as a means of determining the sex.[77] This technique could be applied only rarely in this assemblage.

In view of the relatively large number of loose teeth, the minimum number of sheep was determined both from the bones and from the loose teeth; the latter produced a larger minimum number than that from the bones.

2. *Midden F30 (south of Building 1)*

This assemblage consisted mainly of fragmentary ox- and sheep-bones and loose teeth, with some fragmentary bones of a pony of about six years old, and also a few pigs' teeth.

The fragmentary ox-bones were derived mainly from the extremities and one radius fragment had axe-marks distally. Of these (about 20 per cent of the whole) 10 per cent had been chopped or broken up. The total represented a minimum of six animals.

There was a large number of sheep-bones from a minimum number of ten animals determined from the loose teeth, or a minimum of six beasts if bones are used as the determining factor. All these animals were eighteen months or older and had, therefore, overwintered at least once, and some three times. This suggests, firstly, that meat was scarce and secondly, that sheep were kept mainly for wool and milk-production. The following table is set out on the assumption that these bones represent food residue:

TABLE 3

	Sheep bones	*Sheep teeth*	*Ox bones*
Minimum number of animals	10	6	6
Total amount of usable meat	250 lbs 113 kg	150 lbs 68 kg	1800 lbs 818 kg

This table assumes that a dressed carcass of sheep yields 25 lb of meat and ox 300 lb of meat.[78] Beef would have produced the greatest amount of meat, but poorer quality joints. Pork was of little significance. One fox metatarsal is presumably intrusive.

3. *Midden F111 (north of Building 3)*

This midden, although producing less bones than F30, nevertheless had a greater variety of animals present. Ox and sheep again predominated, there were only three loose teeth and one radius fragment of a mature pig, a toe of a dog, an avian ulna of goose size, and a human finger-bone.

The ox-bones, mainly fragments of skull and loose teeth, were derived from one adult and one immature animal.

There was a large number of sheep-bones including 34 loose teeth. The bones consisted mainly of tarsals, metatarsals and metacarpols. TABLE 4 shows the quantity of meat represented by the bones.

[74] I. A. Silver in D. Brothwell and E. Higgs (eds), *Science in Archaeology* (1969), 283–302.
[75] H. H. Carter, *Journ. Arch. Science* iii (1975).
[76] J. Boessneck in op. cit. (note 74), 331–56
[77] R. E. Chaplin, *The Study of Animal Bones from Archaeological Sites* (1971), 103–4.
[78] op. cit. (note 77), 134.

TABLE 4

	Sheep (*bones*)	*Sheep* (*loose teeth*)	*Ox* (*bones*)	*Pig* (*–50 lbs*)
Minimum number of animals	4	16–15 animals[79]	1½	1
Total amount of usable meat	100 lbs 45 kg	375 lbs 170 kg	450 lbs 204 kg	50 lbs 23 kg

If the bones represent food residue, then mutton and beef were equally important in the diet, whereas pork was again of little significance. The two lambs of between three to six months old could represent meat eaten at a festive occasion, as young animals do not seem to play a significant part in the diet, or they could possibly be small sacrifices.

The presence of large numbers of lower limb bones is more suggestive of waste from the preparation of skins or butcher residues rather than from food-preparation. A similar argument applies to the ox-bones.

4. *Building 1, Period 1* (F8, F9, F17, F18)

F17: sealed within the underbedding of the floor to Room 2 were the broken horned skull and the post-cranial bones of a lamb of six to seven weeks old, together with the fragments of a skull from another lamb of about 6 months. Assuming that lambs were born in February to March, one could postulate that building was started in the month of May.

F18: Forming part of a foundation burial was the almost complete, although fragmentary, horned skull and a number of post-cranial bones of a two-year-old male sheep. The occipital condyles of the skull had been sliced off with a single blow, showing that the animal had probably been slaughtered by decapitation.

5. *Building 1, Period 2* (F3, F7, F15, F25)

The greater amount of bone from this period consisted of ox bones and teeth, sheep bones and loose teeth, the mandibular tusk of a male pig and the ulna of a goose-sized bird. Pig and bird are insignificant as food. Ox-bones were derived from a minimum of one adult cow.[80]

There was a minimum number of six sheep, one perinatal, one six months and four from nine months to two years. Again the anatomical distribution of the bones, mainly fragments of skull, loose teeth and bones of the extremities, does not indicate food residue, but butchery waste or residue from skinning.

6. *Building 2, Period 1* (F43, F44, F45, F50, F55, F62)

There was a large amount of bone in this assemblage and again sheep bones predominate. There were numerous dog bones, derived from one dog, an adult of about 530 mm height.[81] Few bones of pig or ox were present, and those of the latter were not food waste but again indicated hide preparation.

One assemblage, F45, consisted entirely of sheep bones, fragments of skull, mandible, loose teeth and bones of the extremities. They represent a minimum of seven sheep ranging in age from two to three years, with one male, whose occipital condyles had been sliced through with a single blow, resulting in decapitation.[82] There was little to suggest food waste, but again the presence of many metapodials indicates butchery or skinners' residue. In the remainder of the sheep bones, there is more general scatter of skeletal elements, which is more indicative of

[79] Two of the sheep were three to six months old at death and would therefore represent less meat than a fully grown animal.

[80] Determination of sex, op. cit. (note 77).

[81] R. A. Harcourt, *Journ. Arch. Science* ii (1974), 154.

[82] cf. F17 and F18, Building 1 – another possible foundation burial?

food waste, although there is a disproportionally large number of metapodials (26). The bones indicated a minimum of twelve sheep, including two males, all over two years at death. From the loose teeth a minimum of 21 animals was calculated, with three probable males, one of which was about six months old. The remainder ranged from between six months to four years old. Mutton could account for about 600 lb (273 kg) of meat of good quality in the diet; the age range of the sheep would suggest that wool and milk were also very important during this period. Beef and pork were of little significance in the diet.

7. *Building 2, Period 2* (F36, F48)

In this assemblage, there were three fragments of bone from a large horse, one tusk and one talus, together with fragments of skull, mandible and a chopped metatarsal of roe deer. There were a number of ox bone fragments, mainly from the extremities and derived from a minimum of three animals, one neonatal, one of approximately eighteen months and the other about three years. The radius had been chopped transversely at the distal end. All these animals could represent food.

Sheep bones were derived mainly from the extremities, and from the bone evidence represented a minimum number of four adult animals. Alternatively, a calculation based on the number of loose teeth indicated a minimum of eight animals, all over one year old, with four being over two years old. The age range and the anatomical components of the sheep would suggest waste from skin preparation or butcher's waste rather than food residue.

TABLE 5

	Sheep bones	*Sheep teeth*	*Ox bones*
Minimum number of animals	4	8	3 (one neonatal)
Amount of usable meat	100 lbs 45 kg	200 lbs 90 kg	600 lbs 270 kg

Sheep were probably primarily kept for wool production and beef provided a large quantity of the meat for the diet.

8. *Building 3, Period 1*

The relatively small amount of bone material was derived almost entirely from two sheep, one of two years old and one of three years old. The general scatter of skeletal elements favours food waste, and the age wool production. There were few fragments of ox-bone present.

9. *Building 3, Period 2* (F68, F83, F95, F96, F100)

Horse- and ox-bones were present in such small quantities as to be insignificant. There were more pig-bones in this assemblage than in the previous ones. The bones of the skull, mandible, limbs and extremities from three pigs were identified, all from one to three years of age. This age range and skeletal distribution strongly indicates food residues, which would be from approximately 150 lb (68 kg) of pork of moderate quality.

Sheep-bones made up the bulk of the material, and represented a general scatter of skeletal elements, but with a predominance of metapodials and phalanges. The minimum number of animals represented was twelve from the bones, two under a year old, with the remainder being eighteen months onwards. The two lambs of approximately three and nine months excluded, the sheep would appear to have been kept primarily for wool. The number of animals present from a calculation based on the number of loose teeth was a minimum of 37, all over one year old, but the majority were between two and five years old. This confirms the importance of sheep for wool production.

There were a number of ox-size bones chopped into sharp-edged fragments. One sheeps' second cervical vertebra had been chopped transversely, another lower cervical vertebra had knife cuts transversely along the sides of the body which may have been produced when the animal's throat was cut.

TABLE 6

	Sheep (*bones*)	*Sheep* (*loose teeth*)	*Ox* (*bones*)	*Pig* (*bones*)
Minimum number of animals	12	37	1	3
Possible amount of meat	180 lbs 82 kg	925 lbs 420 kg	500 lbs 227 kg	150 lbs 68 kg

If these bones represent food waste, mutton was the most important source of meat, whereas beef and pork were of lesser significance.

One tine from a red deer antler was found in this assemblage. It was bored longitudinally, and had been split subsequently and had probably been used as an instrument handle.

10. *Discussion*

Diet.

In each assemblage examined, sheep bones predominated and it is apparent that meat was scarce at times or of such value that the inhabitants did not eat much. On the whole, what meat was eaten was usually from mature animals and of the poorer quality joints. Mutton made up the greater proportion of the meat consumed in the diet, supplemented occasionally by lamb or pork or rarely venison. Beef does not appear to have been so important. If one postulates that two families lived in the settlement, the killing of any beast, more especially an ox, would produce a large excess of meat which could not be consumed before its decomposition. This surplus meat could have been either preserved by smoking, drying or salting down or have been removed elsewhere, possibly as a traffic from tenant to land-owner. This latter is more likely, considering the lack of bones from the more choice joints of mutton, pork and beef.

Butchery

There was very little evidence of butchery techniques. The cutting through of the occipital condyles of a sheep skull[83] is less like a butcher's method of decapitation, which would be more likely to pass through the second cervical vertebra,[84] but more like a ritual slaughter. Decapitation is usually used to remove the head from the skinned carcass, similarly the metapodials are usually cut from the carcass at the same time.

Some of the ox-size bones had been chopped up into small fragments, usually triangular in shape, not a butchery technique but probably a culinary one to make soup or even for boiling up to make glue. Other bones had been chopped transversely, probably during skinning. The few vertebrae found had not been cut longitudinally showing that the carcasses were not quartered as is now the custom.

Disease

There was little evidence of disease, probably because animals were seldom allowed to survive long enough for bone-changes to take place before slaughter. Only three bones showed evidence of disease. One sheep mandible had evidence of osteitis at the level of the fourth premolar/first molar, causing a considerable swelling of the bone laterally and the subsequent loss of the first molar, disease of which may have been the prime cause of the inflammation. Other examples

[83] F18, Building 1, Period 1 and F45, Building 2, Period 1.
[84] Midden F121, Building 3, Period 2.

are the osteitis of the intermediate phalanx of the pony (F30) and that of a cubonavicular of an ox from F111.

Economy

Sheep were kept primarily for wool. There was probably no difficulty in winter feeding, as the majority of the sheep had overwintered at least once and many as much as four to five times. Wool production was probably very important, but meat production of lesser importance, although there is a possibility that the meat produced was for exchange or seigneural demands. Cows and oxen were kept possibly for dairy produce or more probably as draught animals, as there is only a little evidence of horse.

There was not much evidence to suggest that dogs were kept to assist in herding; in fact, only one dog was identified; this was an adult bearing no evidence of osteoarthrosis as one would expect of a working dog.

The evidence from the animal bones may well be incomplete. Middens further away from the buildings may have contained more material, but owing to ploughing have not been found. On the evidence displayed by these bones, the inhabitants of the settlement did not enjoy a high meat diet.

Columella indicates that in Italy the Romans ate little beef or mutton, cattle being kept mainly for dairy produce and as working animals, and sheep being kept for their wool and milk.[85] Pork appears to have been a more popular meat product judging by the larger number of recipes for its preparation. If one may assume that similar dietary preferences obtained with the inhabitants of Bradley Hill, the small quantity of pork represented could indicate a diet deficient in animal protein.

THE BONE FROM PIT F153, OF IRON AGE DATE

The bones derived from this pit were mainly fragmentary sheep- and ox-bones.

Sheep

A minimum of seven sheep were represented. Four were less than six months old, one approximately one year and two were aged about three years. There was a general scatter of skeletal elements, but with a preponderance of bones of the poorer quality joints, i.e. cervical vertebra, humerus, radius, metapodials and mandibles.

Ox

There were fragments of vertebrae, mandible, skull and phalanges. All could have derived from one animal. One intermediate and one proximal phalanx, which were contiguous, had been split longitudinally whilst still attached by ligaments, possibly when the feet were detached from the skin. One cervical vertebra fragment had knife cuts externally.

Horse

There were a number of bones and teeth derived from an immature horse, of about twelve to eighteen months old. It had damaged a left hock joint and had developed osteoarthrosis, causing lameness, for which reason it was probably slaughtered. There were chopping marks on the radius and the cervical vertebrae, and the talus showed knife marks laterally, produced during skinning.

Pig

There were only two bones, from two different infantile pigs.

[85] K. D. White, *Roman Farming* (1970), 311.

TABLE 7: Comparison of mean stature

	Mean male stature mm	*Mean female stature mm*
Trentholme Drive, York	1702 (5′ 7″)	1594 (5′ 1″)
Bradley Hill	1688 (5′ 6½″)	1587 (5′ 2½″)
Modern British (Trentholme Drive p. 148)	1676 (5′ 6″)	1575 (5′ 2″)

TABLE 8: Long bone lengths and indices

			Femur Max. length FeC_1 mm		*Tibia Max. length T_1L_1 mm*		*Humerus Max. length HuL_1 mm*		*Radius Max. length RaL_1 mm*		*Ulna Max. length UlL_1 mm*		*Meric Index*		*Cnemic Index*		
No.	*Sex*	*Stature*	*R*	*L*	*R*	*L*	*R*	*L*	*R*	*L*	*R*	*L*	*R*	*L*	*R*	*L*	*Age*
85	Male	1640	437	439	353	—	—	320	—	268	—	—	16.0	57.5	72.0	64 0	20
115	Male	1800	449+	—	—	—	—	—	—	—	—	—	78 0	—	—	—	50
117	Male	1730	—	463	382	—	—	333	—	—	—	—	69·2	66·6	74·5	71·1	25+
118	Male	1736	460	466	375	376	347	343	260	—	288	287	73 1	75 0	89·1	89·8	27
128	Male	1730	462+	—	—	—	—	—	—	—	—	—	61·3	71 3	—	70 8	45+
131	Male	1720	—	460	—	—	—	—	265	266	—	—	70 7	75 0	77·5	67·0	45+
136	Male	1630	—	—	—	335	—	—	217	—	—	—	—	—	—	61.8	75
145	Male	1615	413+	—	—	372+	—	—	—	256	—	—	74·1	—	70·8	—	50
146	Male	1600	—	405+	—	—	—	294	226	—	252	252	75·8	87·3	—	67 0	40
148	Male	1683	443	—	—	—	333	—	242	—	266e	—	81·4	74·0	66 2	—	45
	Mean	1688															
86	Fem	1506	335+	—	307+	307+	289+	—	200	—	214	—	62·8	66·1	68·8	70·1	45+
110	Fem	1560	414	—	—	331	—	—	—	—	—	—	66.3	77.1	82 2	—	22
114	Fem	1570	413	411	331	331	—	—	217	227	—	240	66·9	68·4	70·7	72·1	37
125	Fem	1580	—	419+	—	—	—	—	—	—	—	—	62·8	66·5	70·8	—	45+
126	Fem	1500	384	384	314	312	—	283	213	211	236	234	71·5	73·0	73·0	67 3	27
127	Fem	1600	372+	—	—	336+	310	—	225	—	—	—	70·8	—	63·5	61 5	19
129	Fem	1680	443	—	371	—	326	—	257	255	280	277	62·3	—	60·2	55·4	32
142	Fem	1660	440	439	364	361	329	—	234	230	256	249	74·7	68 7	76·7	75·7	22
147	Fem	1593	415	416	346	342	—	315	227	—	—	248	60 7	58·4	73 4	71·0	25+
149	Fem	1619	434	431	343	343	326	—	230	226	—	—	65·1	66·2	65·9	66·9	45+
	Mean	1587															

Discussion

Evidently sheep provided a fair proportion of the meat, about 150 lb (58 kg). The presence of three sheep less than one year old indicates either difficulty with winter fodder or that the inhabitants liked their meat tender and that meat was fairly plentiful. Pork was not a part of the diet but beef could have been, although only one cow was represented. Butcher's chop marks at the base of the horse radius and cervical vertebra may indicate that the slaughtered young horse was not wasted, but used for food.

THE HUMAN BONE by R. F. Everton

THE BONE FROM THE FOURTH-CENTURY FARMSTEAD

1. *Introduction*

The majority of the bones had suffered some damage, both from ploughing and their proximity to the surface, leading sometimes to considerable fragmentation. Some of the smaller, more compact bones had survived intact. All the skulls needed varying degrees of reconstruction before any measurements could be made, and in most, the facial bones had been damaged beyond easy repair. Most of the long bones were also damaged but wherever possible, the maximum reconstruction was undertaken.

2. *Age and sex* (see TABLES 1 on pp. 196–204 and TABLES 13, 14 and 16 below)

The criteria for the estimation of age and the determination of sex, were those of Genoves[86] and Brothwell.[87]

3. *Estimation of stature, cranial measurement and physique*

Stature (TABLES 7 and 8)

Using the techniques advocated by Hrdlicka,[88] the lengths and all other possible dimensions of the bones were measured, and indices were calculated where appropriate.

Stature was estimated by substituting maximum long bone length in the formula of Trotter and Gleser.[89] An estimate of stature was made for each of the skeletons from the Bradley Hill cemetery (TABLE 8) and the mean values were compared with those from the cemetery at Trentholme Drive [90] and with modern British data (TABLE 7).

Cranial measurement (TABLE 9)

Fourteen skulls were reconstructed and measured. Eight were dolichocephalic, five female and three male. Four were mesocephalic, two female and two males; and two females were brachycephalic.

All the skulls were low-vaulted and the males had sloping foreheads but the females were more vertical. On the whole, the skulls of the Bradley Hill people resembled those of Romano-British people elsewhere.

Physique

The Bradley Hill males, were, as would be expected, muscular; the females were also quite well built, but one was very muscular and another had unusually powerful shoulders, more pronounced on the left side; possibly she was left handed. On the whole, the bones gave the appearance of a well-nourished people, of moderately tall stature and good physique.

[86] S. Genoves in op. cit. (note 74), 429–39.
[87] D R. Brothwell, *Digging Up Bones* (1963).
[88] T. D. Stewart in M. Hrdlicka (ed), *Practical Anthropometry* (1947).
[89] M. Trotter and G. C. Gleser, *American Journ. Physical Anthropology* xvi n.s. (1958), 79–123.
[90] R. Warwick in L. P. Wenham, *The Romano-British Cemetery at Trentholme Drive, York* (1968).

TABLE 9: Comparison of cranial measurements and indices

Source of data	*Identity*	*Number of determinations*	*Sex*	*Cranial length L*	*Cranial breadth B*	*Basi-bregmatic height H′*	*Cephalic Index* $\frac{B}{L} \times 100$	*Vertical Index* $\frac{H'}{L} \times 100$	*Transverse Index* $\frac{B'}{H'} \times 100$	*Stature*
Bradley Hill	85		M	184	134	130	72·8	70·7	103·0	1640
	115		M	187e	146	—	78	—	—	1800
	117		M	—	136e	—	—	—	—	1730
	118		M	—	—	—	—	—	—	1736
	128		M	181e	140	—	77·3	—	—	1730
	131		M	—	—	—	—	—	—	1720
	136		M	—	—	—	—	—	—	1630
	145		M	—	—	—	—	—	—	1613
	146		M	180	130	131	72·2	72·8	99·2	1600
	148		M	191	135	137	70·7	71·7	98·5	1683
	Mean			185	137	133	74·2	71·7	100·2	1688
	86		F	169e	140e	117e	83	69·2	119·7	1506
	110		F	185	141	129	76·2	69·7	109·3	1560
	114		F	177	136	121	76·8	68·4	111·4	1570
	125		F	177	128	134	72·0	75·7	95·5	1580
	126		F	176	134	123	74·9	69·9	108·9	1500
	127		F	178	129	122	72·5	68·5	105·7	1600
	129		F	—	—	—	—	—	—	1680
	142		F	185e	149	129e	80·5	69·7	115·5	1660
	147		F	188	138	131	73·4	69·7	105·3	1598
	149		F	176	130	127	73·9	72·2	102·4	1619
	Mean			179	136	126	75·9	63·3	108·3	1587
Frilford only (Buxton 1953)			M	191	144	133	75·6	69·4	108·2	—
			F	180	137	126	76·0	70·0	108·7	—
Means. Woodyates RB burials.		13	M	177	144	133	75	69	109	1700
Cranbourne Chase (Pitt Rivers 1892)		3	F	185	144	127	80	70	119	1560
Means. Rotherley RB Burials.		11	M	186	138	134	75	73	103	1690
Cranbourne Chase (Pitt Rivers 1892)		3	F	186	129	135	70	72	98	1580
Means. Woodcuts RB burials.		7	M	191	143	135	75	71	108	1690
Cranbourne Chase (Pitt Rivers 1892)		6	F	184	141	134	76	71	107	1580
Means. Trentholme Drive Cemetery.		143	M	188	142	132	76·5	71	108	1640
p. 164		37	F	181	137	129	75·8	71	107	1550
Collected 'RB' (Buxton)		—	M	189	141	133	75·4	70	107·4	—
		—	F	178	137	130	77·2	70·9	109·5	—
York Railway Station RB		—	M	—	—	—	74·6	71	104·3	—
		—	F	—	—	—	76·9	70	109·2	—
Chester (Warwick 1968)		—	M	—	—	—	77·6	69·5	109·8	
Means. Maiden Castle RB only.		3	M	193	144	135	74·7	72·1	106·7	1667
(Goodman Morant 1943)		3	F	181·5	137	129	74·1	71·4	106·2	1599

Statures from Cranbourne Chase and Maiden Castle have been recalculated using T and G's formula for purposes of comparison.

4. *Cranial and skeletal variations*

TABLE 10 shows the frequency of the variations, extending from eight in F149 to only one in F131. TABLE 11 shows the frequency at which the skeletons having four or more variations, shared common anomalies. F147 and F149 have five variations in common (71%); F149 also shared four common anomalies with F118 and F85. F85 also shared four variations with F126. The sharing of so many common variations, although not necessarily identical, by four individuals, F85, F126, F147 and F149 can be seen as more than just a chance and must indicate family traits.

The males, F146 and F148 with only two variants out of a possible nineteen, could possibly represent either incoming males, new to the settlement, or even the founders of it.

5. *Pathological conditions*

Bone injury

There was little evidence of direct ante-mortem bone injury, only two examples of healed fractures were noted, F115, a male of about 50 years, had a well healed spinal fracture of the distal third of the right tibia, and F117, a male of 19 years, had a healed fracture of the left 5th metacarpal.

The only other bone injury represented was vertebral wedging in six individuals:

(a) F118 a male aged 27, had anterior wedging of the ninth, tenth and eleventh thoracic vertebrae, leading to a mild kyphosis.

(b) F136, the 'patriarch', aged 75 years, showed anterior wedging at the level of the 5th and 6th thoracic and left lateral wedging of the 4th lumbar vertebrae, which would have given the old man a moderate thoracic kyphosis.

(c) F145, a male of about 50 years, had anterior wedging of the 2nd cervical vertebra, which may have been due to a fall from a horse.

(d) F86, a female of 45+ years had minimal anterior wedging of the 3rd and 4th lumbar vertebrae.

(e) F126, a female of about 30 years, showed lateral wedging at the level of the 3rd, 4th and 5th lumbar vertebrae, with a resultant scoliosis to the left.

(f) F142, a female of 21, had wedging in the left side of the 2nd cervical vertebra.

The minimal nature of these examples of wedging would probably have caused no neurological symptoms, merely slight to moderate spinal curvatures.

F86, a female of over 45 years, showed signs of gross osteoporosis in many of the bones, those of the limbs being most severely affected. The cortex had become very thin leading to crumbling away of the sub-articular parts of the diaphyses. Osteoporosis might have been responsible for the wedging in F86, noted above.

Infective conditions

There was evidence of only one infective condition, of suppurative or septic arthritis. This occurred in F146, a male of about 40 years. The right hip joint was affected, the pelvis was fragmentary and only the parts surrounding the acetabulum had survived. He was the only burial with the legs flexed at the hip, as the right hip, (at least), was fixed in flexion at the time of death.

Osteoarthrosis

The remainder of the pathological conditions consisted almost entirely of the effects of osteoarthrosis. The disease was most marked in the vertebral column. Cervical spondylosis occurred in five males. F118, (30 years), F128 and F148, (both over 45), F145 (50 years) and F136 (75

TABLE 10

Anomaly	*Female*										*Male*									
	86	110	114	125	126	127	129	142	147	149	85	115	117	118	128	131	136	145	146	148
Vestus Notch	×	○	–	×	×	○	×	–	×	×	–	○	×	×	×	○	–	×	–	–
Parietal Foramina	–	×	–	–	×	–	–	–	×	×	×	–	–	×	–	○	×	○	×	×
Septal Foramen. Humerus	–	○	×	×	–	×	–	×	×	×	–	○	–	–	–	×	–	–	–	–
Double facets, Talo-calcaneal joints	–	–	–	–	–	–	–	×	○	×	–	○	○	–	○	–	×	×	–	×
Mastoid Foramen exsutural	–	–	–	–	×	×	–	–	–	–	×	–	–	×	–	○	–	○	×	–
Lambdoid Ossicles	×	×	–	–	–	–	–	–	–	–	–	×	–	–	×	○	–	○	–	–
Ossicle at the Lambda	–	–	–	–	×	–	×	×	–	–	–	–	×	–	–	○	–	○	–	–
Duplication or 'waisting' of occipital facet of C1	–	○	×	–	–	–	○	–	×	×	–	○	–	×	○	○	–	–	–	–
Supra-orbital Foramina or notch	–	–	–	–	×	–	–	–	×	×	×	–	–	–	–	–	–	○	–	–
Mandibular Torus	–	○	–	×	–	–	×	×	–	–	–	○	–	–	–	–	–	○	–	–
Ossicle at the Asterion	–	–	–	–	–	–	–	–	–	–	–	×	–	–	–	○	×	○	–	–
Metopism	–	–	–	–	–	×	–	–	–	–	–	×	–	–	–	○	–	○	–	–
Duplication of Foramen Transversarum	–	○	–	–	–	○	○	–	–	×	×	○	○	×	○	○	–	–	–	–
Deliscence of neural spine LV	–	○	○	–	–	○	–	–	–	–	–	○	○	×	○	○	–	–	–	–
Lumbarization of thoracic vertebrae	–	○	○	–	–	○	–	×	–	–	–	○	○	–	○	○	–	–	–	–
Fusion of vertebrae	–	○	○	–	–	○	–	–	×	–	–	○	○	–	○	○	–	–	–	–
Extra vertebrae	–	○	○	–	–	○	–	–	–	–	–	○	○	×	○	○	–	–	–	–
Bridge over vascular groove C1	–	○	–	–	–	○	–	–	–	×	–	○	○	–	○	○	–	–	–	–
Foramen of Huschke	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	○	–	○	–	–

○ = observation not possible — = anomaly absent × = anomaly present

TABLE II: The sharing of anomalies in those skeletons having four or more

Maximum no. of variation	*Two in common*	*Three in common*	*Four in common*	*Five in common*
F142	149 147			
F126		147, 118 149, 85		
F147	142	118, 136		149
F149		142, 126	118, 85	147
F85		126	149	
F118	85	147, 126	149	

years). Some showed considerable eburnation of the articular facets (F118, F128, F136, F148). Only two females were affected: F147 (35 years) and F125 (45+ years). In these cases, the effects were minimal.

Five males had spondylosis of the thoracic region. F145 and F148 were grossly affected, F148 showing eburnation of the joint surface as well as osteophytic lipping. Again, females were less affected.

In F149, the third and fourth thoracic vertebrae were fused by osteitic processes, with some lipping, and were possibly a sequel to a local injury. The lumbar spine was also severely affected in the male skeletons F136 and F145. In F131 and F148, this region was only moderately affected. In contrast, four females had moderately severe lumbar spondylosis: F129, F147, F149, and F127, the youngest, 19 years of age, had osteoarthrosis in relation to an unstable condition of the 12th thoracic/1st lumbar vertebral junction. There would have been recurrent strain at this level, leading to the early occurrence of osteoarthrosis at this level. Arthrosis also occurred in the hip joints. F148 had gross bilateral, proliferative arthritis, with obliteration of the acetabular notches and deposition of plaques of new bone on the femoral head, together with peripheral mushrooming due to osteophyte formation. The knees, ankles, shoulders, elbows and wrists were also severely affected. Three other males had mild to moderate arthrosis of the hips and surprisingly, in view of his age, the 75 year old male (F136) was only slightly affected. No females had osteoarthrosis of the hips.

F129, a female of 35 years, had severe osteoarthrosis of the right wrist only with mushrooming of the distal end of the radius. The left wrist was unaffected. One male, F145 (50 years), also had osteoarthrosis of the wrist joints. There was evidence of osteoarthrosis of the shoulders of six males and one female, ranging from a slight condition, to gross osteophyte formation around the glenoid fossa of the scapula and the sternal end of the clavicle.

There was only one other pathological condition of note, a small osteoma, 5 mm diameter, on the left parietal bone of F115.

6. *Non-pathological conditions*

Three individuals had lateral bowing of the fifth metatarsals. Cameron[91] considered that this bowing was due to the pressure of a thong when wearing sandals. F145 showed evidence of cervical ribs, although the supernumerary ribs were not identified. The bones of this skeleton were very robust and showed signs that he had probably been a horseman.

[91] J. Cameron, *The Skeleton of the British Neolithic Man* (1934).

Platymeria and platycnemia

Seventeen individuals were platymeric, ten females and seven males, and three individuals were platycnemic, two females and one male (TABLE 12).

Brothwell notes that platymeria is more common in the female than the male,[92] a condition which obtains with the Bradley Hill skeletons.

TABLE 12: Distribution of platymeria, platycnemia and squatting facets

Male				*Female*			
No.	*Platymeria*	*Platycnemia*	*Squatting facets*	*No.*	*Platymeria*	*Platycnemia*	*Squatting facets*
85	L	–	–	86	R	–	+
115	L	–	–	110	R	–	+
117	L	–	+	114	R	–	+
118	R	–	+	125	R	–	+
128	R	–	–	126	R	–	+
131	R	–	+	127	R only	L	+
145	R	–	+	129	R only	L	+
136	–	L only	–	142	L	–	+
				147	L	–	–
				149	R	–	–
Total	4R 3L	1	4	Total	8R 2L	2	8

R = right femur L = left femur + = condition present – = condition absent

Squatting facets

Although there is no reason to associate squatting facets with platymeria, of the seventeen individuals showing platymeria, twelve also had squatting facets. Wenham noted only five individuals, all female, with this condition in the large assemblage from Trentholme Drive.[93]

7. *Evidence of fecundity* (TABLE 13)

Ullrich[94] has made a tentative correlation between the changes in the female pelvis and pre-auricular sulcus in pregnancy, and parturition and the number of births.

8. *Infants and children* (TABLE 14)

Age

The estimation of the age at death was based entirely upon the stage of development of the skull and mandible, the teeth and length of long bones.

Comparison of the Bradley Hill infants with those of Maiden Castle and modern infants of equivalent ages showed the Bradley Hill infant bones to be longer.[95]

[92] op. cit. (note 87), 91.
[93] op. cit. (note 90), 150.
[94] H. Ullrich, *Ossa* ii, 1 (1975), 23–39.
[95] C. N. Goodman and G. M. Morant in op. cit. (note 24), 296.

TABLE 13: Estimated number of births for the adult females from Bradley Hill

F. number	*Age*	*Pelvis diagnostic feature*	*Ullrich's class*	*No. of births*
86	45+	P.A.S.	III	4–5
110	—	None	—	—
114	35–40	P.A.S.	I	1–2
125	45+	P.A.S.	II	3–4
126	25+	P.A.S.	I	1–2
127	17–25	None	—	—
129	30–35	fragmentary	—	—
142	17–25	P.A.S.	I–II	2–4
147	35+	P.A.S.	III	4–5
149	25+	P.A.S.	I–II	2–4

P.A.S.—Preauricular sulcus

Average number of births 3

Total number of births 17–26

Sex

Measurement of the sciatic notch gave an indication of sex.[96] There was no evidence of the cause of death, although one infant, F123, 2–3 months old, had bilateral osteolytic lesions in the mid-shafts of the humeri, possibly metastatic neoplastic disease. F77 had cribra orbitalia[97] and thinning of the occipital bone, suggesting that the child had been ill for some time and was confined to bed. F87 a three year old also had cribra orbitalia and the teeth had no wear facets. It too, must have been ailing, possibly fed on mush or still being suckled by its mother, too weak to attempt solids. F137, a female of about 11 years had retained the left upper second deciduous incisor and there was calculus on the buccal surface of the right upper permanent second incisor, probably due to dental disease or poor oral hygiene.

It was not possible to associate age at death and sex, in these infants.

Nine other infant burials were excavated but were lost in transit prior to post-excavation examination.[98]

TABLE 14: Infants, distribution of age at death, and sex

Age at death	*Males*	*Females*	*Sex not known*	*Total*
Neonatal	1	2	11	14
1–2 months	0	1	0	1
2–3 months	1	0	1	2
3–4 months	0	0	0	0
4–5 months	1	0	0	1
5–6 months	0	2	0	2
6–7 months	1	1	0	2
1 yr to 3 yrs	1	1	2	4
3 yrs to 4 yrs	1	1	0	2
10 yrs to 12 yrs	0	1	0	1
Total	6	9	14	29

[96] B. Boucher, *American Journ. Physical Anthropology* xv (1957), 581–99.

[97] D. R. Brothwell, *Dental Anthropology* v (1963), 95.

[98] These were probably under one year of age. R. H. Leech personal observation.

9. *Examination of the teeth*

(i) *Occlusion and overcrowding*

In general, the occlusion was normal with, in some cases, a tendency to edge-to-edge bite, and in others, loss of teeth had led to malocclusion and oblique wear in the molar region.[99]

There were two cases of crowding, F118, a male, had crowding of the upper 1st and 2nd incisors with rotation. F127, a female, had crowding of the upper incisors also with rotation.

(ii) *Morphological and developmental characteristics*

Hypodentia. There were two examples of hypodentia. F142, a female aged 20, had retained the lower deciduous second molars demonstrating that neither of the 2nd premolars had developed. These are the most common of the retained teeth.[100] Several individuals were without the third molars, but in only one was hypodentia confirmed.

Number of cusps. In F127, the right maxillary 1st molar had five cusps, all the others had only four cusps. There were no cusps of carabelli.

Impaction of teeth. In F136, a male of about 75 years, the skull had been damaged by ploughing. The right upper canine was revealed lying transversely in the fragment of maxilla.

No supernumerary teeth, dental cysts or tumours were found.

(iii) *Pathological and functional conditions*

Attrition. The wear on the molar teeth was quite severe after the age of 20 years. Twenty per cent had oblique wear, and eight jaws had anomolous wear, with greater attrition on one side of the jaw than the other. This was due to dental disease in F115, a 50-year-old male, and in F125, a 45-year-old female. In the case of the latter, it is possible to postulate that, at the age of about 30 years, she had severe dental disease affecting the right mandibular molars, forcing mastication on to the left side only.

Periodontal disease. After the age of 35 years, periodontal disease was noted in most dentitions, males being more severely affected than females. In the older individuals, the effects were greatest, and in four jaws, up to half of some tooth roots were denuded of alveolar bone.

Dental calculus. All the adult jaws had moderate deposits of supragingival calculus with periodontal disease. A deposit of dysfunctional calculus on the occlusal surfaces of some teeth was present in F148, a male of 45 years, and in F125, a female of about 45 years. Both had associated dental disease in the opposing teeth.

Dental caries. Dental caries or decay is the most common dental pathological condition in civilized peoples – although it does occur in some ancient skulls, for instance in Rhodesian man.[101]

The eight male jaws examined all had caries, but only five female jaws were affected, although

TABLE 15: Incidence of caries

Adult jaws	*Male maxilla*	*Female maxilla*	*Male mandible*	*Female mandible*
No caries	1	5	1	6
Caries	5	2	4	4
Abcesses	5	1	3	3

[99] C. Cooke and T. C. Rowbotham in op. cit. (note 90), 201.
[100] J. M. Scott and N. B. B. Symons, *Introduction to Dental Anatomy* (1974), 122.
[101] op. cit. (note 97), 274.

TABLE 16: Dental Pathology and Mandibular Measurements

			Teeth				*Mandible*							
Number	*Sex*	*Age*	*Caries*	*Alveolar Destruction*	*Calculus*	*Abscess*	*Angle of Mandible. degrees Right*	*Left*	*Minimum Ramus Width Right. mm*	*Symphyseal Height. mm*	*Bigonial Width. mm*	*Mandibular Length. mm*	*External Intercondylar Distance. mm*	*Tori*
85	M	20	Moderate	None	Slight	None	114	119	29·7	20·1	101·3	88 7	—	—
115	M	50	Moderate	Moderate	Moderate	None	—	—	—	—	—	—	—	—
117	M	25+	Moderate	—	Moderate	None	—	—	—	—	—	—	—	—
118	M	27	Moderate	—	Moderate	None	—	—	—	—	—	—	—	—
128	M	45+	—	—	—	—	—	—	—	31 4	—	—	—	—
131	M	45+	Slight	—	None	Yes	—	—	—	27e	—	—	—	—
136	M	75	—	—	—	Yes	130	125	26 7	22·9	99·9	80·3	127·9	—
145	M	50	No teeth				—	—	—	—	—	—	—	—
146	M	40	Moderate	Moderate	Moderate	Yes	122	125	29·8	29·6	110·1	87·6	113·2	—
148	M	45	Moderate	Moderate	Severe	Yes	112	114	32·6	30·0	108 0	95·3	130·3	—
86	F	45+	Slight	Slight	Slight	Yes	120	115	27·8	19·1	85·4	85 0	110e	—e
110	F	22	None	None	None	None	—	—	—	—	—	—	—	—
114	F	37	Slight	Slight	Slight	None	113	—	30 4	26e	96e	85·7	—	—
125	F	45+	None	Slight	Slight	None	115	110	29·0	22 6	102 4	89·8	123e	Small
126	F	27	None	None	None	None	120	120	31 7	29·0	102·7	100	114·7	—
127	F	19	Severe	Moderate	Moderate	Yes	—	110	—	24·1	91 0	—	106e	—
129	F	32	None	None	Slight	None	117	120	31·8	—	103·8	89·2	130	Small
142	F	22	None	None	Slight	None	115	115	29 0	32e	103e	84·5	123e	Small
147	F	25+	Slight	None	Slight	None	130	125	31·6	23e	106	89·3	130e	—
149	F	35+	Moderate	Slight	Moderate	None	126	122	—	22·0	85e	73·3	104e	—

to a lesser degree. One female, a 19 year old, surprisingly, had the most severe degree of caries in the whole series. TABLE 15 shows the distribution of caries.

Alveolar abscesses (TABLE 16). As with caries, the main incidence of abscesses is in the male jaws. In all the teeth lost before death, some alveolar redeposition had taken place, and most of these teeth had been lost as a result of dental caries, followed by either spontaneous discharge through an abscess or by extraction.[102]

TABLE 17 shows that males had lost more teeth ante-mortem than females, a distinct correlation with the occurrence of caries.

TABLE 17: Teeth lost ante mortem

Adult	*Male maxilla*	*Female maxilla*	*Male mandible*	*Female mandible*
No teeth lost ante mortem	2	3	3	7
One or more teeth lost ante mortem	3	1	5	2

(iv) *Dental anomalies*

Few dental anomalies were found. One left mandibular canine had a bifid root.[103] There were no shovel-shaped incisors, neither was enamel hypoplasia noted.

Tori. There were no maxillary tori but three mandibles showed small bilateral tori all occurring in females.[104]

(v) *Conclusion*

The high frequency of caries and dental abscesses points to a very low degree of oral hygiene, worse in men than women. Most teeth showed considerable wear, often oblique, which could be attributed to a coarse diet and the large number of teeth lost ante-mortem mainly due to caries, would have led to considerable masticatory difficulties in a number of adults.

THE BONE FROM PIT F153, OF IRON AGE DATE

A total of 144 fragmentary and whole human bones were mixed with a slightly larger number of animal bones, in an Iron Age pit.

The human bones were derived from a minimum of four persons (one possibly male), as determined from four different radii. Only the smaller bones were complete, including four patellae, two carpals, two tarsals, four metacarpals and metatarsals and seven phalanges. Twenty-nine fragments had been chopped and eight had fine knife cuts, mainly in close proximity to the joints. Some fragments were of great interest:

(1) A fragment consisting of a distal end of a right humerus, which had been chopped and splintered away from the shaft, bore multiple knife cuts both anteriorly and bilaterally, but none posteriorly.

(2) A left ulna had a deep single knife-cut across the olecranan posteriorly about 10 mm from the end.

(3) A left talus had been chopped with a single blow from a sharp instrument from above, passing sagittally through the trochlear surface. The medial fragment, about one third of the bone, was missing. There were a number of fine cuts transversely across the medial border of the trochlea.

[102] op. cit. (note 97), 177.
[103] V. Alexanderson, *Dental Anthropology* v (1963).
[104] A. Hrdlicka, *American Journ. Physical Anthropology* xxvii (1940), 135–77.

(4) A similar fragment of a left calcaneum, chopped slightly obliquely across the postero-medial surface.

(5) Two femoral condyles had been sliced neatly from the shaft, with single blows in the sagittal plane.

Some of the bones showed obvious trowel marks, and there was only one bone showing what appears to be tooth marks of a small rodent. The proximal end of a left fibula bore multiple impressions upon the surface of the shaft. Some were obviously root marks but some were coarse knife cuts and some, even more coarse, transversely across the posterior border, were closely parallel gouges, not sharply incised as from a knife or chopper.

The human bones bore more knife and axe marks upon their surfaces than did the majority of the animal bones from the same pit.

The impression gained was of deliberate breaking of the larger bones into small fragments leaving the smaller bones intact. The knife cuts could be the result of disarticulation either shortly after death, or at some later date, possibly after exposure when most of the flesh had been removed by decomposition or other means.[105]

THE POTTERY (FIGS. 20–25)

The pottery from the area to the west of the fourth-century farmstead is described apart from the rest of the assemblage, since the two are clearly separated by an interval of *c.* 200 years.

FROM THE AREA TO THE WEST OF THE FOURTH-CENTURY FARMSTEAD

The pottery came from four separate contexts, of which only the fill of pit F153 can be regarded as being securely sealed. The uppermost fill of F153, the fill of pit F133 and the surface of paving F134 were all partly eroded by ploughing. The early Roman pottery in the uppermost fill of pit F153 was probably from an overlying deposit which had subsided into the soft fill of the pit and was thus protected from ploughing in much the same way as was wall F164.

Most of the pottery consisted of two fabrics:

(1) Shell-tempered – hard, smooth, sometimes soapy, crushed shell and limestone temper: probably corresponds to Peacock's group 4 for decorated forms.[106] This constituted over 95% of the pottery from F133, F134 and F153.

(2) Sand tempered – hard, sandy, usually burnished on the exterior, small quartz grains for temper.

An indication of the date of the early Iron Age pottery is best obtained by comparing it with that from South Cadbury 16 km (10 miles) to the east.[107] There, shell-tempered vessels in the forms present at Bradley Hill were of the Middle Pre-Roman Iron Age and Late Pre-Roman Iron Age (following Alcock's classification); sand-tempered fabrics first appeared there towards the end of the Late Pre-Roman Iron Age and were universal in the Ultimate Pre-Roman Iron Age.

The illustrated pottery (FIG. 20)

From the fill of pit F153 (Mid- to Later Iron Age)

Numbers 1–7 are shell-tempered.

1. Bowl with plain inverted rim.
2. Bowl with notched decoration on flattened rim. This form is more common in eastern Britain.

[105] A. Ellison and P. Drewett, *Procs. Prehist. Soc.* xxxi (1971), 183–94; A. and R. F. Everton, *Procs. Univ. Bristol Spel. Soc.* xiii (1972), 5–29.

[106] D. P. S. Peacock, *Antiq. Journ.* xlix (1969), 48.

→ L. Alcock, *Antiq. Journ.* xlix (1969), 30–40; op. cit. (note 5).

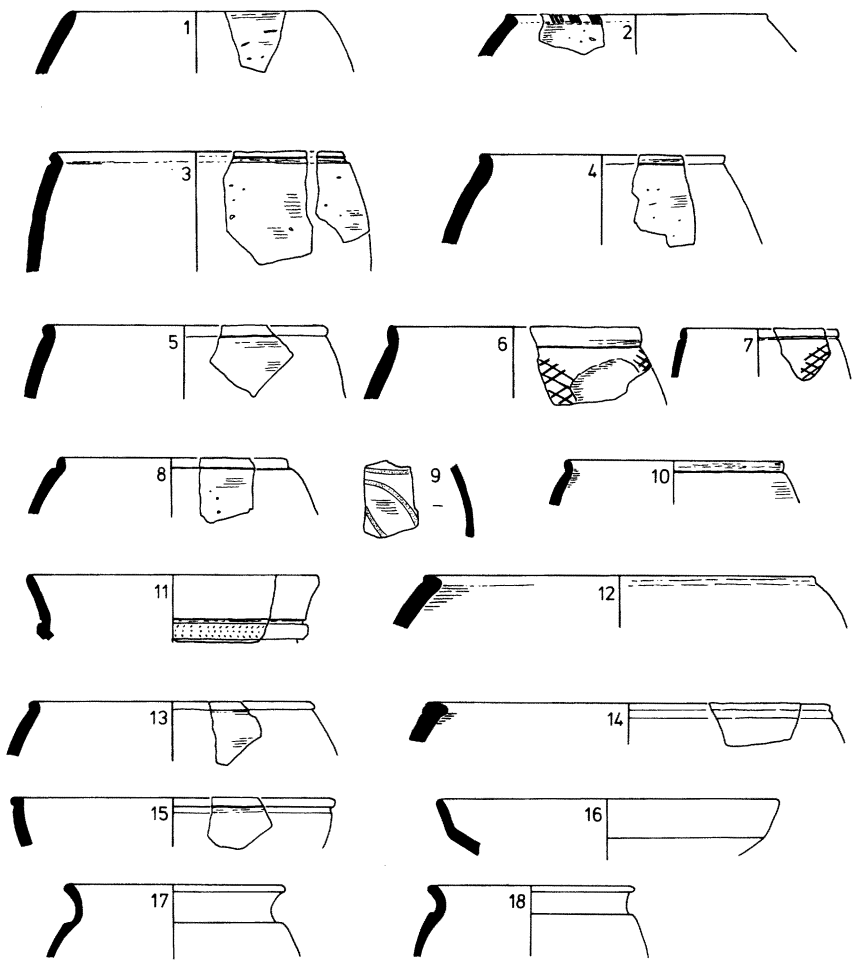

FIG. 20. Pottery. Scale ¼.

3. Bowl with flattened bead rim.
4. Bowl with bead rim, very crudely made.
5. Bowl with bead rim.
6. Bowl with bead rim and incised lattice-decoration.
7. Bowl, similar to No. 6 but smaller.
8. Bowl with bead rim, sand-tempered.
9. Bowl with incised curvilinear decoration, sand-tempered.

From the surface of the fill of pit F153 (first or early second century)

10. Bowl with bead rim, well burnished, smooth fine fabric with no visible temper, red-brown with traces of cream slip.
11. Girth-beaker with rouletted cordon, burnished, hard, fine, very micaceous fabric, reddish core with black exterior: this type occurs at Catsgore in early second-century contexts

and has been tentatively identified as the product of a late first- to early second-century southwestern pottery industry;[108] the form is common in the east of Britain,[109] but is rare from groups of this date in Somerset, the only example known to the writer being an unstratified piece from Charlton Mackrell.[110]

From the surface of paving F134 (first or early second century)

12. Bowl with flattened bead rim, shell-tempered.
13. Bowl with bead rim, BB1 (see below).

From the fill of pit F133 (first or early second century)

14. Bowl with flattened rim, shell-tempered.
15. Bowl with bead rim, shell-tempered.
16. Bowl with carinated sides, shell-tempered.
17–18. Jars with flared rims and pronounced shoulders, BB1.

FROM BUILDINGS 1, 2 AND 3 AND ADJACENT AREAS

1. *The principal groups*

The pottery came from a large number of features which can be broadly separated into seven groups:

(1) Sealed by the paved floors of Building 1; it has been argued (p. 183) that these deposits were probably the result of builders' activities; the numismatic evidence indicates a date of *c.* 335–350.

(2) Sealed by the paved floors of Building 2; similar arguments apply, the numismatic evidence dating the deposits to after *c.* 365–80.

(3) From the earliest phase of Building 3, sealed by paving F69; since the building was an addition to Building 2, the deposit must belong to after *c.* 365–80. Amongst the unillustrated pottery from this group were two sherds of shell-tempered (calcite-gritted) ware.

(4) From the floors of Building 1 and a substantial midden outside the south wall (F30); such an accumulation of debris is hardly likely to have occurred whilst the building remained inhabited, thus the greater part of this group was deposited after *c.* 365–80 (the earliest possible date for the loss of a coin on the fairly clean surface of the floor of Room 1), and probably after *c.* 410 (the earliest possible date for the latest coin found within the building).

(5) From the floors of Building 2, with a date range similar to (4); the latest coin was of 388–402.

(6) From the floor of Building 3, with a date range similar to (4); the latest coin was of 388–402.

(7) Mainly unstratified pottery from areas outside the buildings. A small quantity of the first or early second century is to be associated with the assemblage from the area to the west of the fourth-century homestead. The remainder of the pottery is composed almost entirely of fourth-century types.

Within these seven groups, the following were the main fabrics represented:

[108] V. Swan, *Procs. Devon Arch. Soc.* xxxii (1974), 116.
[109] Information from Dr W. J. Rodwell.
[110] op. cit. (note 1), fig. 79, no. 11.

2. *The fabrics*

TABLE 18: Quantities and percentages of pottery fabrics by sherd-count (not including pottery from the area to the west of the fourth-century farmstead).

Fabric	*Total number of sherds*	*Percentage of total*
BB1	2650	76·3
Shell-tempered	17	0·4
Grey wares	262	7·6
Storage-jar fabric	161	4·6
Oxfordshire	269	7·7
New Forest	67	1·9
Samian	41	1·2
Glazed	3	0·08
Others	3	0·08
Total number of sherds: 3472		

Black-burnished ware category 1 (BB1). This was the predominant fabric constituting 76·3 per cent of the pottery found.[111]

Shell-tempered ware. Wheel-thrown and quite distinct from the Iron Age fabrics which are hand-made and include both shell and crushed limestone. This is a type which is probably of the late fourth and fifth centuries.[112] At Bradley Hill, it occurred only in contexts dated to after *c.* 365–80, although the total number of sherds found (17) makes any conclusions tentative. Fabrics of similar appearance, imitating BB1 wares in both form and finish, but tempered with limestone rather than shell, have been recorded at both the Brean Down and Lamyatt Beacon Romano-Celtic temples. At Brean Down the largest groups of vessels in this fabric came almost exclusively from contexts dated to after *c.* 390, and not in any of the earlier layers from *c.* 340 onwards.[113] The fabric was not recorded at all at Catsgore, occupied until at least *c.* 400.[114] Possibly, the shell- and limestone-tempered cooking-vessels were produced in the last decade or so of Romanized life in Britain, when the BB1 industries had ceased manufacture.

Grey wares. A variety of grey fabrics was present, usually sand-tempered and most probably of local origin; used for flagons and jars. One everted-rim jar (No. 173) was in form and fabric identical to products of the Brue Valley sites.[115]

Storage-jar fabric. Used exclusively for large storage jars was a fabric which was hand-made, very coarse, tempered with coarse quartz sand and grog, varying in colour from almost black, through grey, to reddish brown, probably very local in origin.

[111] For a detailed description of this fabric see R. Farrar in A. Detsicas (ed.), *Current Research in Romano-British Coarse Pottery*, CBA Research Report 10 (1973), 67–103; D. P. S. Peacock, ibid., 63–5.
[112] op. cit. (note 72), 54, 1 → W. and K. Rodwell, *Britannia* iv (1973), 115–127.
[113] A. M. ApSimon, *Procs. Univ. Bristol Spel. Soc.* x (1965), 249–51.
[114] op. cit. (note 7).
[115] R. H. Leech, *Somerset Arch. Nat. Hist.* cxxi (1977), 89–96.

Mortarium/flagon fabric of unknown derivation. A hard, sandy fabric, grey core with a red exterior and cream colour-coat. Only two sherds of this fabric were found (Nos. 141–142). Mrs V. G. Swan commented that pottery in this fabric is distributed through north Wiltshire, Gloucestershire, and Oxfordshire and that it may originate from the Cirencester area.

Oxford region products. These have been summarized by Young,[116] the fabrics present at Bradley Hill being:

(a) white-ware mortaria
(b) parchment ware
(c) a red or orange fabric frequently with a grey core, used for colour-coated vessels.

Of 31 illustrated sherds, five were dated to the third or early fourth century.

New Forest products. These have been categorized according to the types and fabrics in Fulford,[117] the fabrics present at Bradley Hill being:

(a) fabric 1a, a fine generally light to dark grey fabric with slip that can vary from light reddish-yellow to dusky purple, used for beakers, flagons, flasks and jugs.
(b) fabric 2b, a flint-gritted white mortarium fabric.

Samian. A total of 41 sherds of samian was found, much of it very abraded.

Glazed wares. Three sherds of green-glazed ware, all from the same vessel, were found sealed beneath the fallen wall F2; as they are probably of the first or second century and were found with a coin of 364–78 they are likely to be residual.

3. *Discussion*

The total number of sherds found was *c.* 3,470, only the smallest BB1 sherds not being retained in the course of excavation. The relatively small number of vessels represented by fabrics other than BB1 makes any statistical analysis within the assemblage of limited value. Nevertheless, as more groups of similar late Romano-British date are identified, useful information may be derived from the collection.

The most significant points which emerge from studying the collection as a whole are the absence or presence of certain types, particularly amongst the predominant fabric BB1. Common second- or early third-century BB1 forms such as dishes or bowls with flat or pie-dish rims, and dishes, bowls and jars with acute-angled lattice-decoration are entirely absent; this more than any other fact must indicate a complete lack of occupation between *c.* 100/50 and 300/50 in the areas examined, and thus shows that other coarse wares of that date-range are unlikely to be present as residual material in the collection. Comparison of the Bradley Hill assemblage with that from Catsgore 3·5 km (2·2 miles) away may provide further information by analogy, for the latter is thought to have been occupied continuously from *c.* 100 to after 400.[118]

At present, the only comparable later fourth-century group from the Somerset–North Dorset region is that from the Brean Down temple[119] consisting of some 3,000 sherds. Although there are obvious dangers in comparing the pottery of a temple site with that of a homestead, several points emerge from a comparison of the two groups. BB1 is far less dominant at Brean Down, possibly because the site is further away from the most likely source in south-east Dorset or possibly because it is generally later in date. Amongst the fine wares, the proportions of the various Oxford and New Forest types are roughly the same at both sites.

[116] C. J. Young, *The Roman Pottery Industry of the Oxford Region*, BAR 43 (1977)
[117] M. G. Fulford, *New Forest Pottery: manufacture and distribution, with a corpus of the pottery types*, BAR 17 (1975).
[118] op. cit. (note 7)
[119] op. cit. (note 113).

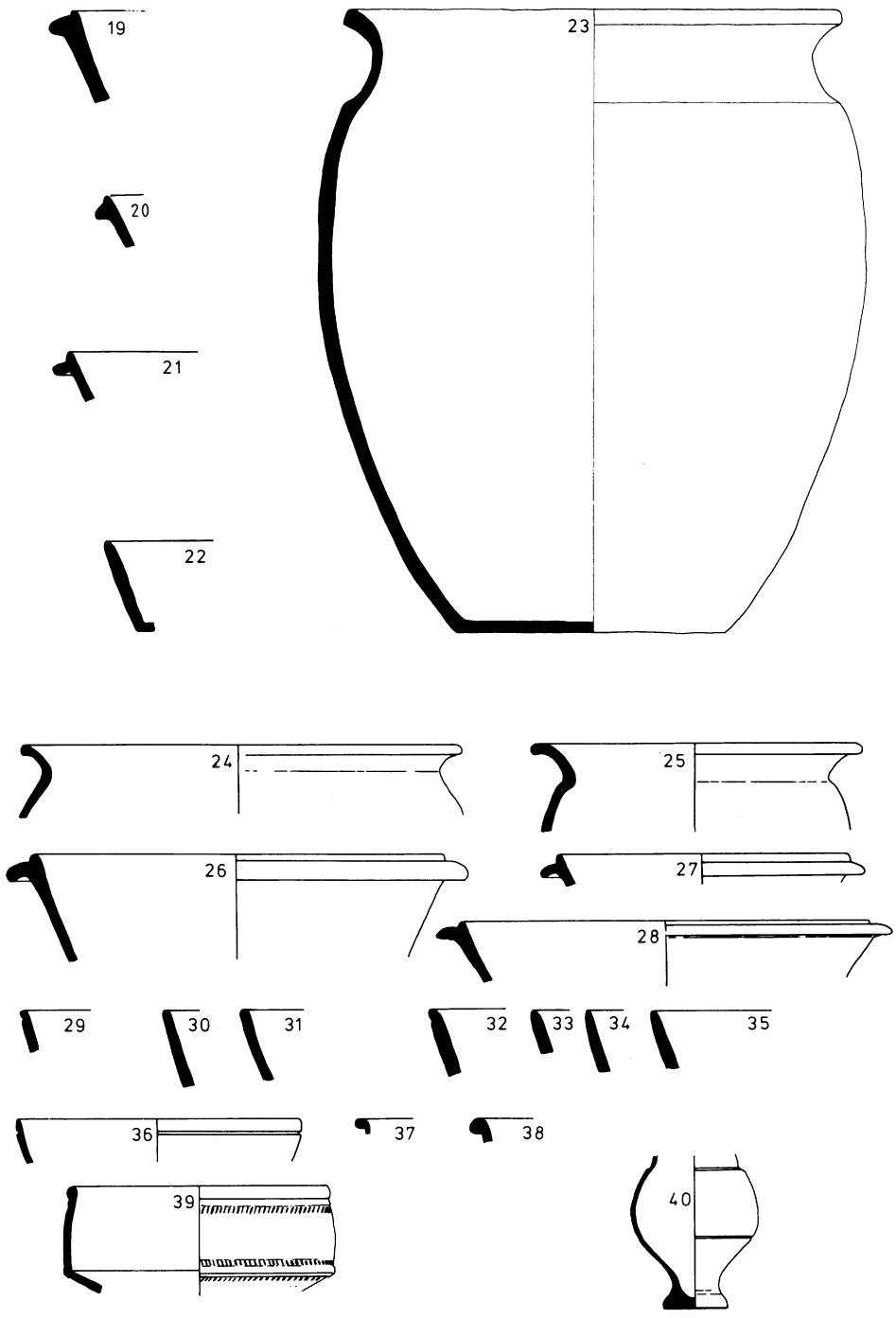

FIG. 21. Pottery. Scale ¼.

4. *The illustrated pottery*

Building 1, Period 1 (c. 335–350) (FIG. 21)

19–20. No decoration on the exterior surface, BB1, F8.
21. As 19–20, F9.
22. No decoration on the exterior surface, BB1, F8.
23. Hard grey sandy fabric, part of foundation deposit F18.

Building 2, Period 1 (c. 365–80)

24. BB1, F50.
25. BB1, F62.
26. No decoration on the exterior surface, BB1, F55.
27. As 26, F45.
28. As 26, F22.
29. BB1, F50.
30–1. BB1, F55.
32–5. As 30–1, BB1, F62.
36. Oxfordshire, Young type C94, 300–400+, F55.
37–8. Oxfordshire, Young type C75. 325–400+, F55 and F45.
39. Oxfordshire, Young type C81, 300–400+, F43.
40. Oxfordshire, Young type C102, (?) 390–400+, F43.

Building 3, Period 1 (c. 365–80 or later) (FIG. 22)

41. No decoration on the exterior surface, BB1, F107.
42. Slight traces of decoration on the exterior surface, BB1, F107.
43. Platter imitating a 1st-century Gallo-Belgic form, burnished, distinctive black sandy fabric, wheel thrown, F107.
44. Mortarium. Oxfordshire, Young type M17, 240–300+, F107.
45. New Forest, fabric 2b, F107.

Building 1, Period 2 (c. 400–50?)

This includes the midden F30 immediately to the south.

46. BB1, F15.
47. As 46, F25.
48. As 46, F30.
49. BB1, F30.
50. Diagonally incised decoration in one direction only, BB1, F30.
51–3. BB1, F30.
54. Incised overlapping arcs, BB1, F3.
55. As 54, F28.
56. Bowl with flanged rim applied as a cordon, no decoration on the exterior face, BB1, F30. The applied cordon is a very unusual feature for this type of vessel.
57–9. No decoration on the exterior face, four similar not illustrated, F3.
60. As 57, F7.
61–2. As 57, F15.
63–7. As 57, F30.
68–71. No decoration on the exterior face, BB1, F3.
72. As 68, F15.
73–4. As 68, F30.
75. Colander, BB1, F30.
76. Jar, base only, shell-tempered fabric, F30.
77. Hard grey sandy fabric, F30.
78. Lid-seated, hard grey sandy fabric, F30.

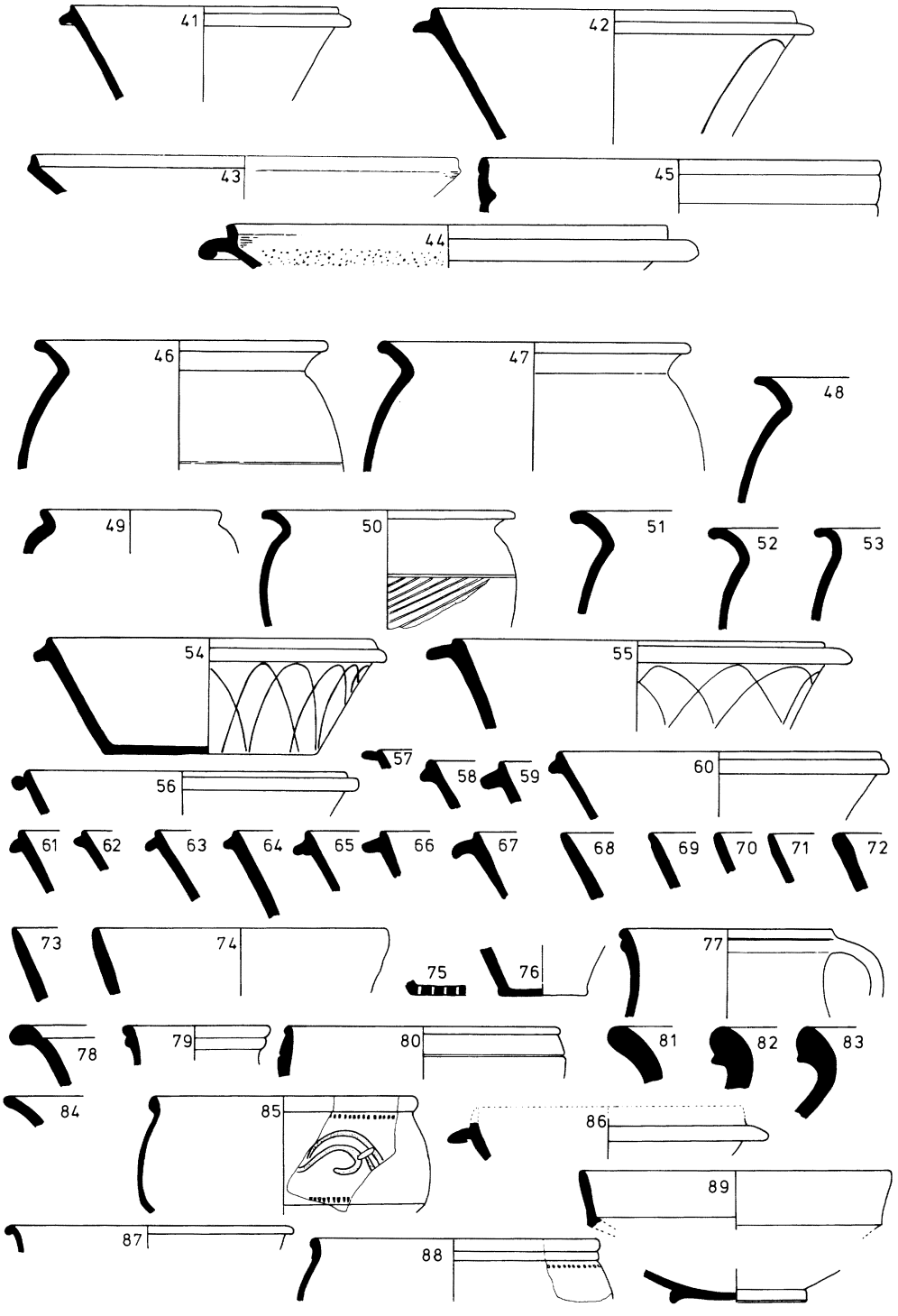

FIG. 22. Pottery. Scale ¼.

79. Rim similar to 77, hard grey sandy fabric, F3.
80. Hard grey sandy fabric, F30.
81. Storage jar fabric, F30.
82–3. Slight notches on the interior of the rim, storage jar fabric, F30.
84. Hard sandy fabric, oxidized red, F30.
85. Oxfordshire, Young type C69, 325–400+, F30.
86. Oxfordshire, Young type C51, 240–400+, F30.
87. Oxfordshire, Young type C75 (?), 325–400+, F30.
88. Oxfordshire, Young type C71, 300–400+, F30.
89. Oxfordshire, Young type C97, 240–400+, F30.

(FIG. 23).

90. Oxfordshire, Young type C75(?), 325–400+, F30.
91. Oxfordshire, Young type C51, 325–400+, F30.
92–3. Oxfordshire, Young type C100, 300–400+, F30.
94. Mortarium base with footring, Oxfordshire colour-coated ware, F30.
95. Oxfordshire, Young type WC4, 240–300. F30.
96. Oxfordshire, Young type C100, 300–400+, F30.
97–8. Indented beakers. New Forest fabric 1a, Fulford type 27, 1–10, F30.
99. Indented beaker, New Forest fabric 1a, Fulford type 42, F30.
100. Fragment of beaker or bottle with rouletted decoration, New Forest fabric 1a, hard stoneware with black slip, F30.
101. Fragment of bowl, black slip with applied white spots and scroll, New Forest fabric 1a, F30.
102. New Forest fabric 2b, F30.

Building 2, Period 2 (*mainly c. 400–450*) (FIG. 23)

103. BB1, F57.
104. As 103, F45.
105. No decoration on the exterior surface, BB1, F43.
106. As 105, F57.
107. No decoration on the exterior surface, BB1, F57.
108–9. BB1, F57.
110. As 108, F43.
111. Rouletted decoration on the inside of the rim, storage jar fabric, F57.
112. Oxfordshire, Young type C44, 270–350, F57.
113. Oxfordshire, Young type C75, 325,–400+, F57.
114. Oxfordshire, Young type WC7, 240–400+, F57.
115. Oxfordshire Young type WC4, 240–300+, F57.
116. Small handled jar, New Forest fabric 1a, Fulford type 17 (probably post 370), F57.
117. New Forest fabric 1a, Fulford type 27, 1–10, F53.

Building 3, Period 2 (*mainly c. 400–50*?)

118. BB1, F68, probably residual 1st century.
119. BB1, F68, as 118.
120. Jar (?) with band of wavy line decoration, BB1, F68.
121. BB1, F68.
122. Diagonal burnished-line decoration, BB1, F68.
123–4. BB1, F68.
125–6. Incised overlapping arcs, BB1, F68.
127–31. No decoration on the exterior surfaces, BB1, F68.

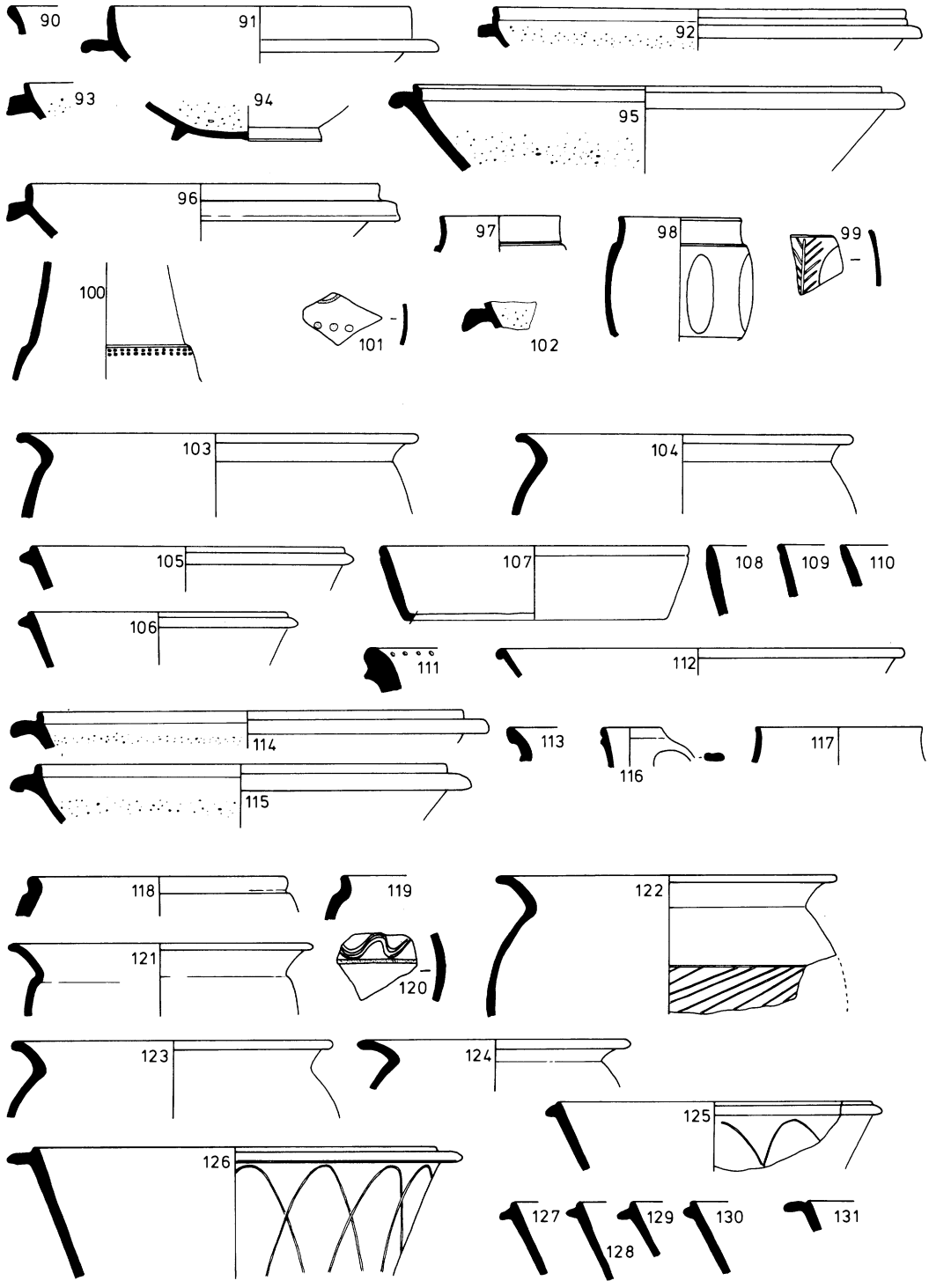

FIG. 23. Pottery. Scale ¼.

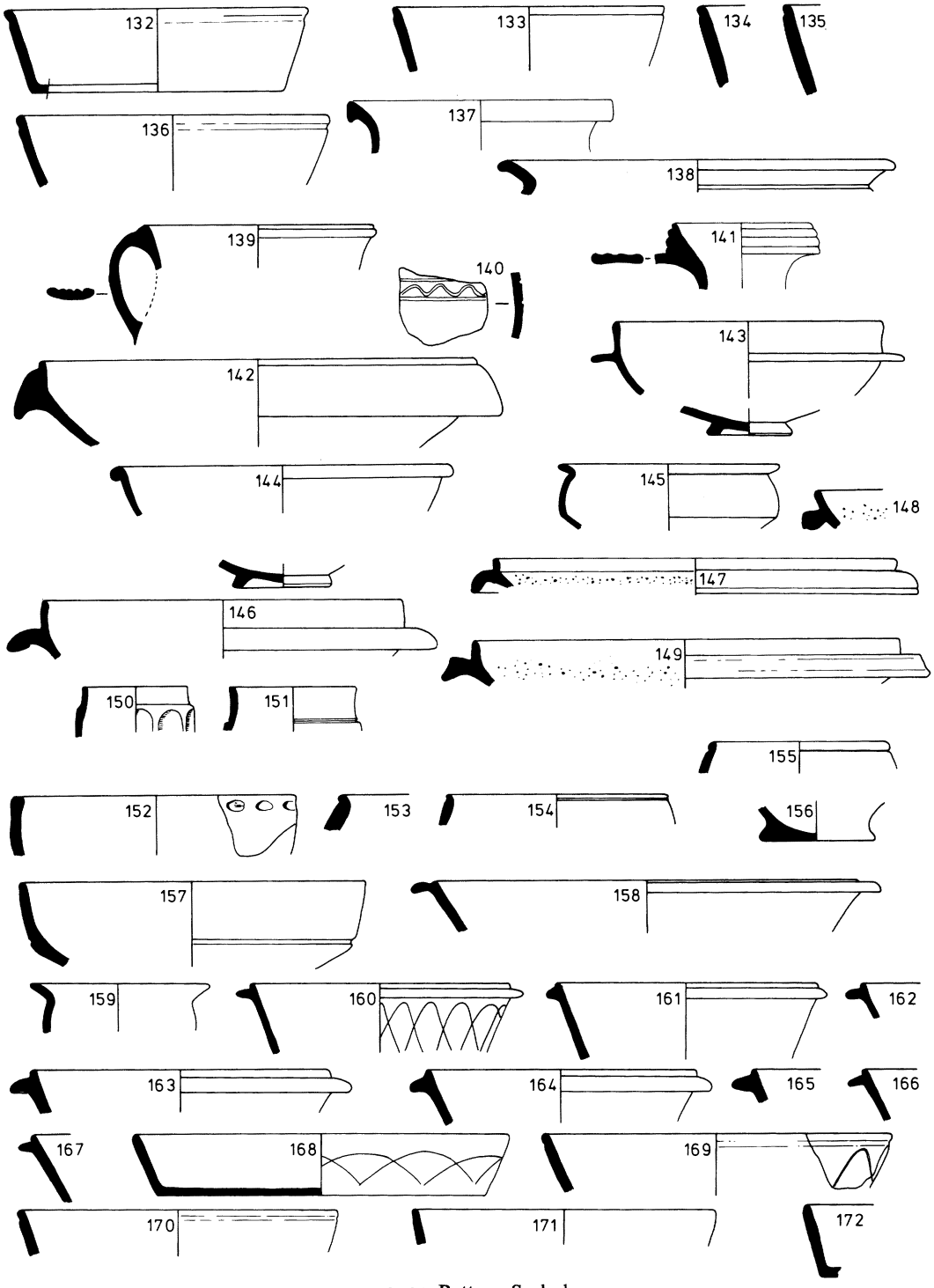

FIG. 24. Pottery. Scale ¼.

(FIG. 24)

132–6. Dishes with slight bead rims, no decoration on the exterior surfaces, BB1, F68.
137. Bowl with hooked rim, shell-tempered fabric, F68.
138. Hard grey sandy fabric, F68.
139. Hard grey sandy fabric, F68.
140. Jar (?) with band of continuous wavy line decoration, hard grey sandy fabric, F68.
141–2. Red flagon/mortarium fabric of unknown derivation (p. 239), F68.
143. Oxfordshire, Young type C51, 250–400+, F68.
144. Oxfordshire, Young type C45, 270–400+, F68.
145. Oxfordshire, Young type C75, 325–400+, F68.
146. Oxfordshire, Young type C51, 250–400+, F68.
147. Oxfordshire, Young type WC7, 240–400+, F68.
148–9. Oxfordshire, Young type M22, 240–400+, F68.
150. New Forest fabric 1a, Fulford type 27, 1–10, F68.
151. Beaker or bottle with plain rim, New Forest fabric 1a, fairly soft, F68.

Unstratified pottery from outside the buildings (159–181 probably contemporary with the occupation of the farmstead *c.* 350–450?)

152. Bowl, crudely finished, finger tip impressions, crushed shell and limestone tempered[120], Early to Middle Pre-Roman Iron Age, F115.
153. Jar with bead rim, BB1, F115, 1st century.
154–5. As 153, F111.
156. Jar with pedestal base, BB1, F115, first century.
157. Bowl with carinated sides, BB1, F135, first or second century.
158. Bowl with reeded rim, no decoration on the exterior, BB1, F111.
159. BB1, F111.
160. Incised intersecting arcs, BB1, F135.
161. No decoration on the exterior surface, BB1, F111.
162–3. As 161, F115.

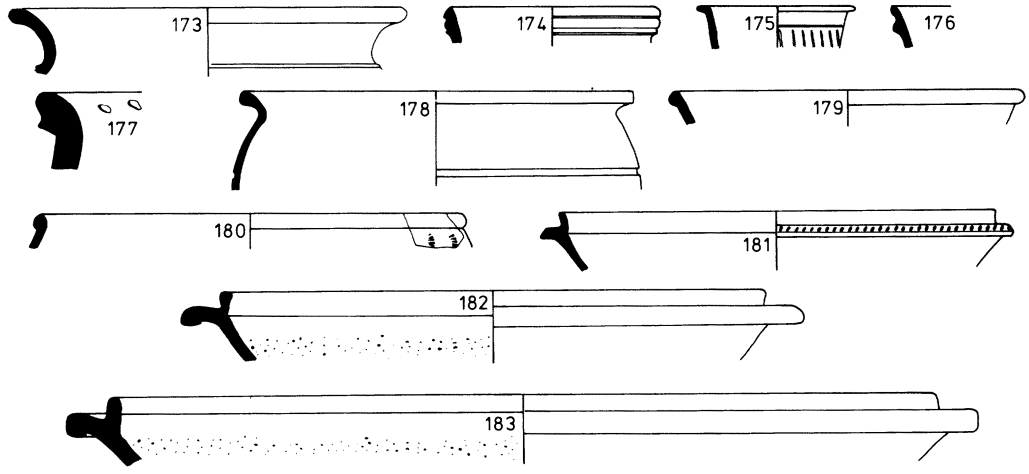

FIG. 25. Pottery. Scale ½.

[120] See Iron Age fabrics.

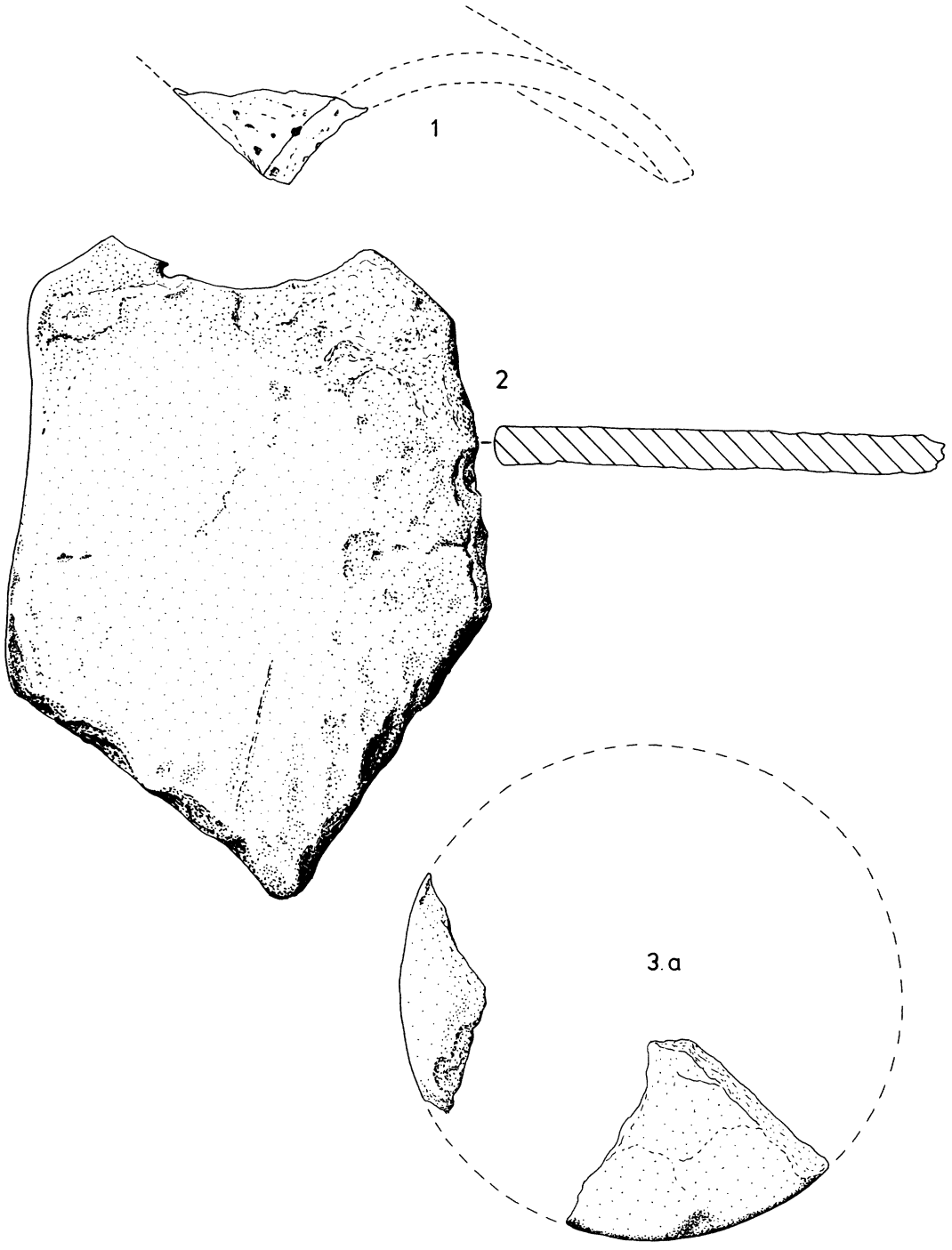

FIG. 26. Architectural fragments: 1, Tile (scale $\frac{1}{4}$); 2, Pennant roofing slate reused as whetstone (scale $\frac{1}{4}$); 3, Ham Stone Base reconstructed (scale $\frac{1}{8}$).

164–5. As 161, F125.
166–7. As 161, F135.
168. Decoration of intersecting arcs, BB1, F111.
169. As 168, F122.
170. BB1, F148.
171. As 170, F135.
172. BB1, F135.

(FIG. 25)

173. Hard fine grey fabric, wheel-thrown, probably Brue Valley, F111.
174. Very hard, fine, burnished, grey fabric, F122.
175. Faint burnished decoration, hard, grey sandy fabric, F135.
176. Hard grey sandy fabric, F125.
177. Storage jar fabric, F135.
178. Hard rough micaceous red fabric with quartz and grog temper, F111.
179. Oxfordshire, Young type C45, 270–400+, F127.
180. Oxfordshire, Young type C70, 325–400+, F135.
181. Oxfordshire, Young type C100, 300–400+, F147.
182. Oxfordshire, Young type M17, 240–300, F111.
183. Hard white fabric, flint grits, not New Forest, F122.

OTHER OBJECTS OF BAKED CLAY (FIG. 26)

1. Fragment of curved rectangular orange-red tile, 17 mm thick, F30. Similar fragments (not illustrated) were found as follows: F30 – 31 fragments; F36 – 3; F57 – 1; F68 – 11; F111 – 1; F127 – 1; F145 – 1. These were possibly fragments of curved ridge-tiles for capping the stone tiled roofs of Buildings 1, 2 and 3.
Not illustrated: nine small fragments of clay loomweights. None was sufficiently intact to merit illustration and their overall shape could not be determined. F153.

OBJECTS OF STONE (FIGS. 26–29)

By R. H. Leech and E. M. Besly, with identification of rock types by H. Prudden

Prehistoric flint artefacts

Not illustrated: Two scrapers: F128, F135.

Architectural fragments (FIG. 26)

2. Roofing slate, subsequently reused as a mortar, Pennant Sandstone, F36.
3. Two fragments of a circular base or column, diameter 0·60 m, Ham Stone, F127. One fragment illustrated in greater detail on FIG. 27.

Miscellaneous objects of stone (FIGS. 27–9)

4. Lower stone of a rotary quern, diameter 0·30 m, conglomerate, F30.
5. Fragment of quern reused as a mortar, Pennant Sandstone, F30.
6. Fragment of upper stone of a rotary quern, diameter *c.* 0·20 m, Greensand, F30.
7. As No. 6, Pennant Grit, F30.
8. As No. 6, Greensand, F30.
9. As No. 6, diameter *c.* 0·98 m, F68.
10. Fragment of circular mortar diameter *c.* 0·15 m, possibly Doulting Stone, F30.
11. Whetstone, Pennant Grit, F30.

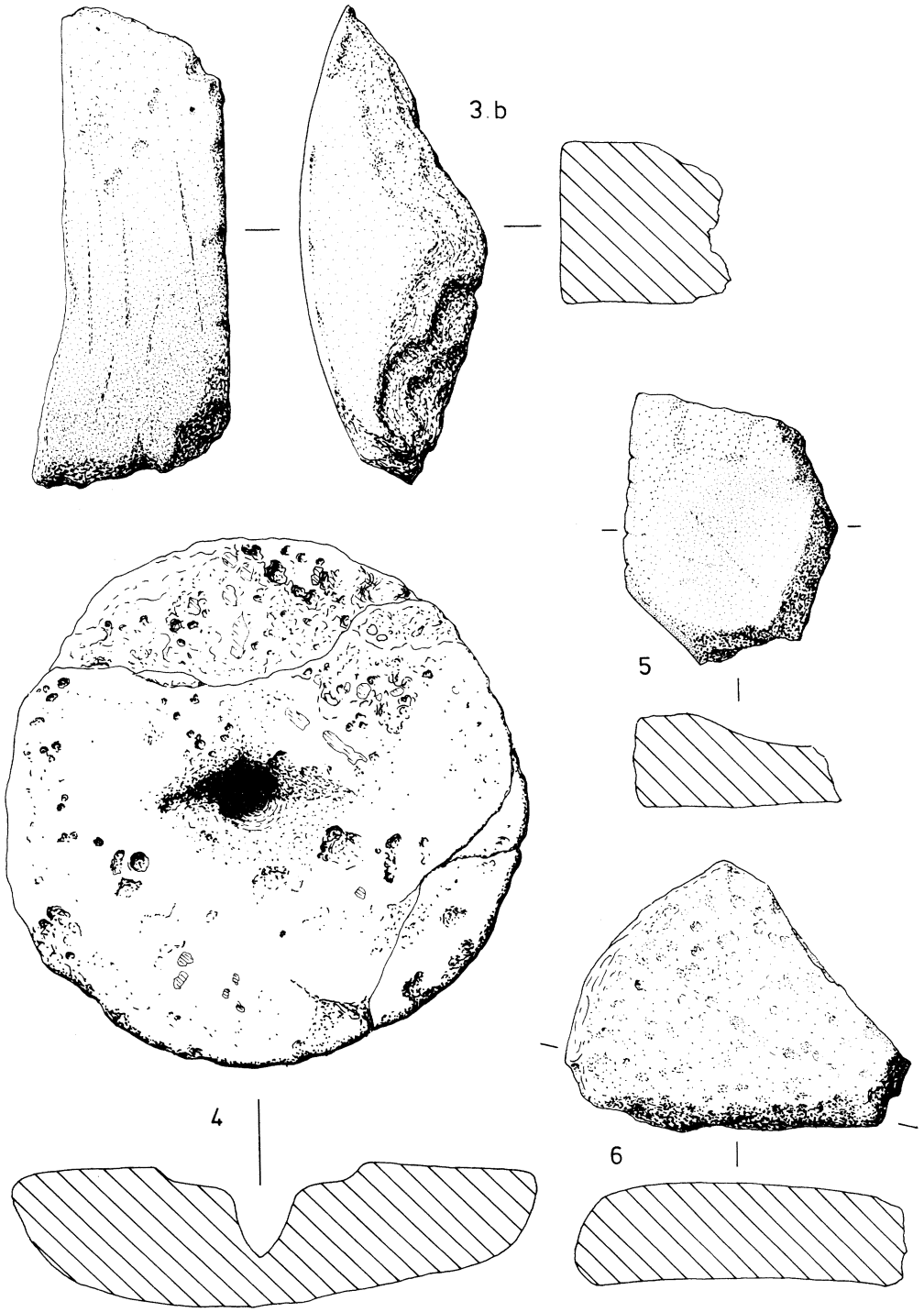

FIG. 27. Objects of stone: 3b, Ham Stone circular base (scale $\frac{1}{4}$); 4–6, Fragments of quernstones (scale $\frac{1}{4}$).

12. Whetstone, Pennant Grit, F122.
13. Spindlewhorl, Lias, F36.
14. Spindlewhorl, Lias, F68.
15. Spindlewhorl, Kimmeridge Shale, F43.
16. Spindlewhorl, Kimmeridge Shale, F68.
17. Bead, Lias, F73.

Not illustrated

Fragments of chalk, F68.

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University of Lancaster

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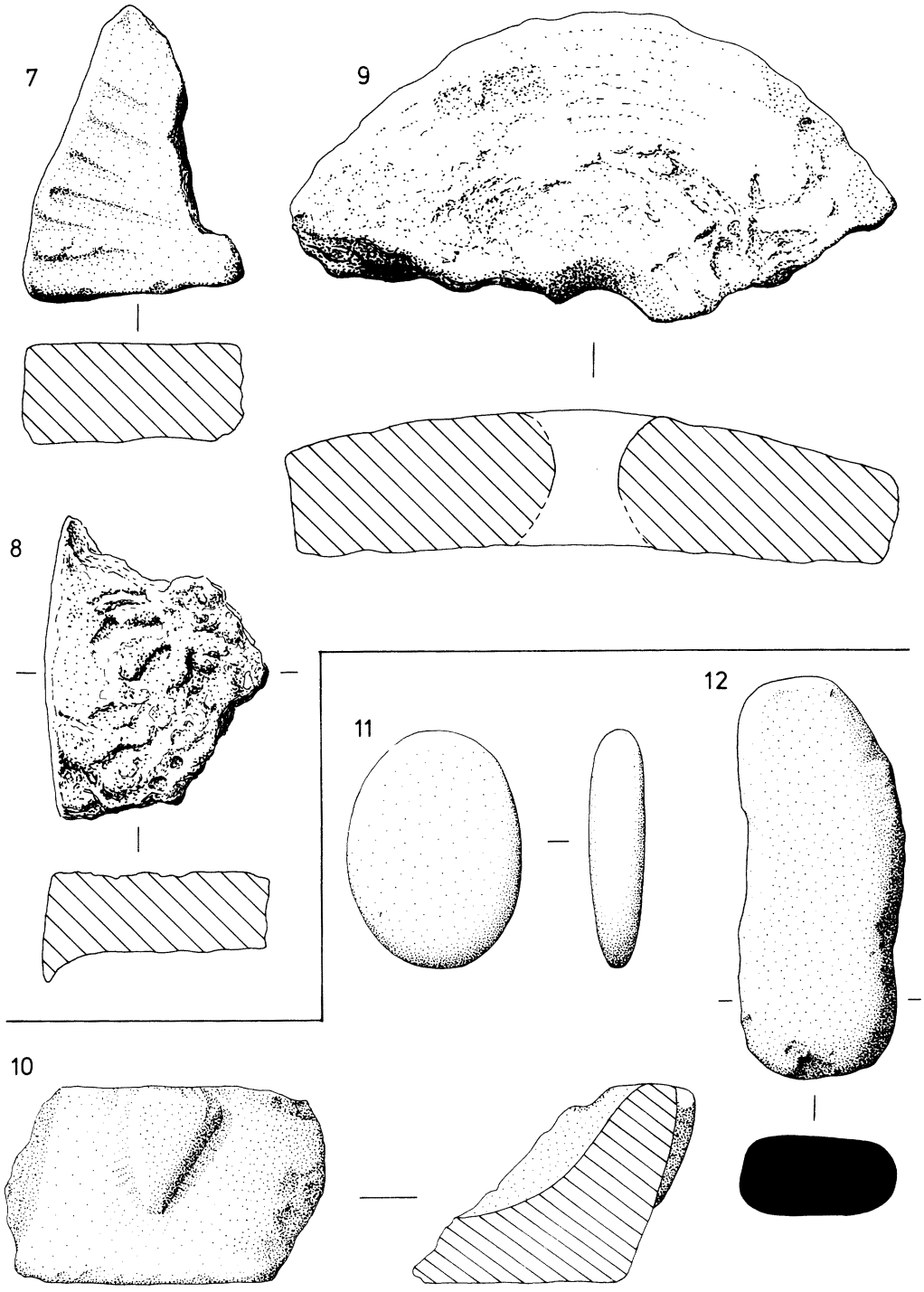


FIG. 28. Objects of stone: 7–9, Quernstones (scale ¼); 10–11, Whetstones (scale ½); 12, Mortar (scale ½).

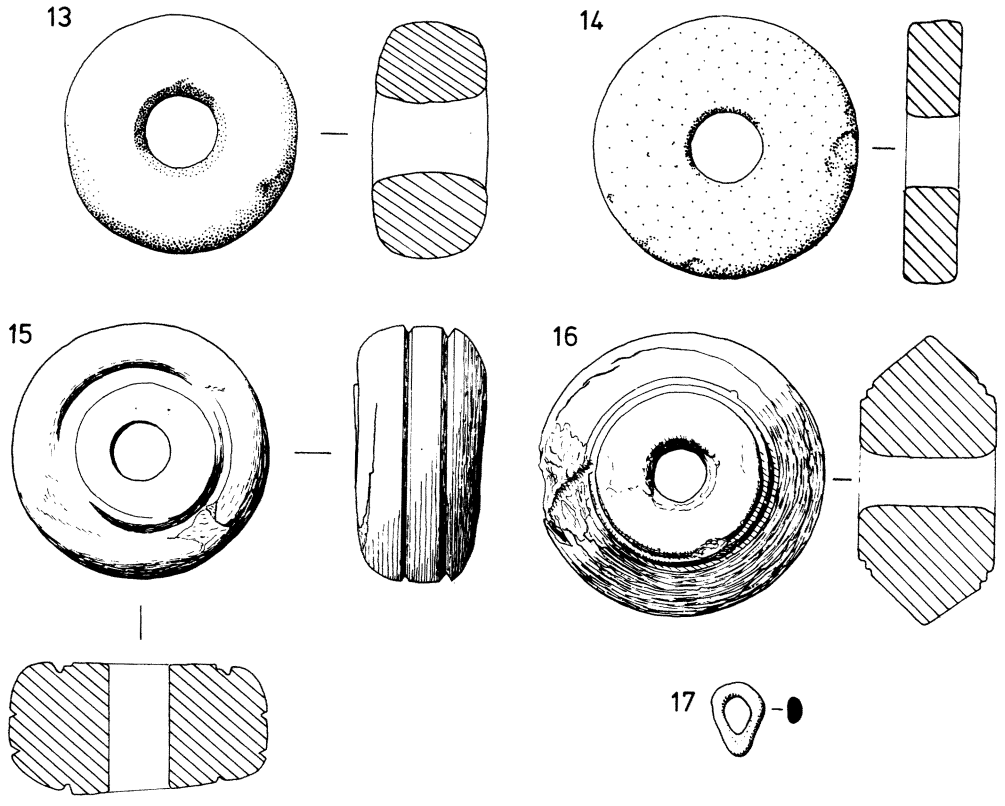


FIG. 29. Objects of stone: 13–16, Spindlewhorls; 17, Bead. Scale 1:1.

PLATE XVIII

(*National Monuments Record Air Photograph: Crown Copyright Reserved*)

A. Bradley Hill from the N., with excavation in progress, top left-hand corner (p. 177).

B. Bradley Hill: Building 1, looking W. (p. 182).

PLATE XIX

A. Bradley Hill: Building 1, Room 1, showing collapsed wall F2 and Room 2 in background, looking SE (p. 182).

B. Bradley Hill: Building 1, Room 2, showing original SE corner, looking S. (p. 183).

PLATE XX

A. Bradley Hill: Building 2, Room 1, looking E. (p. 185).

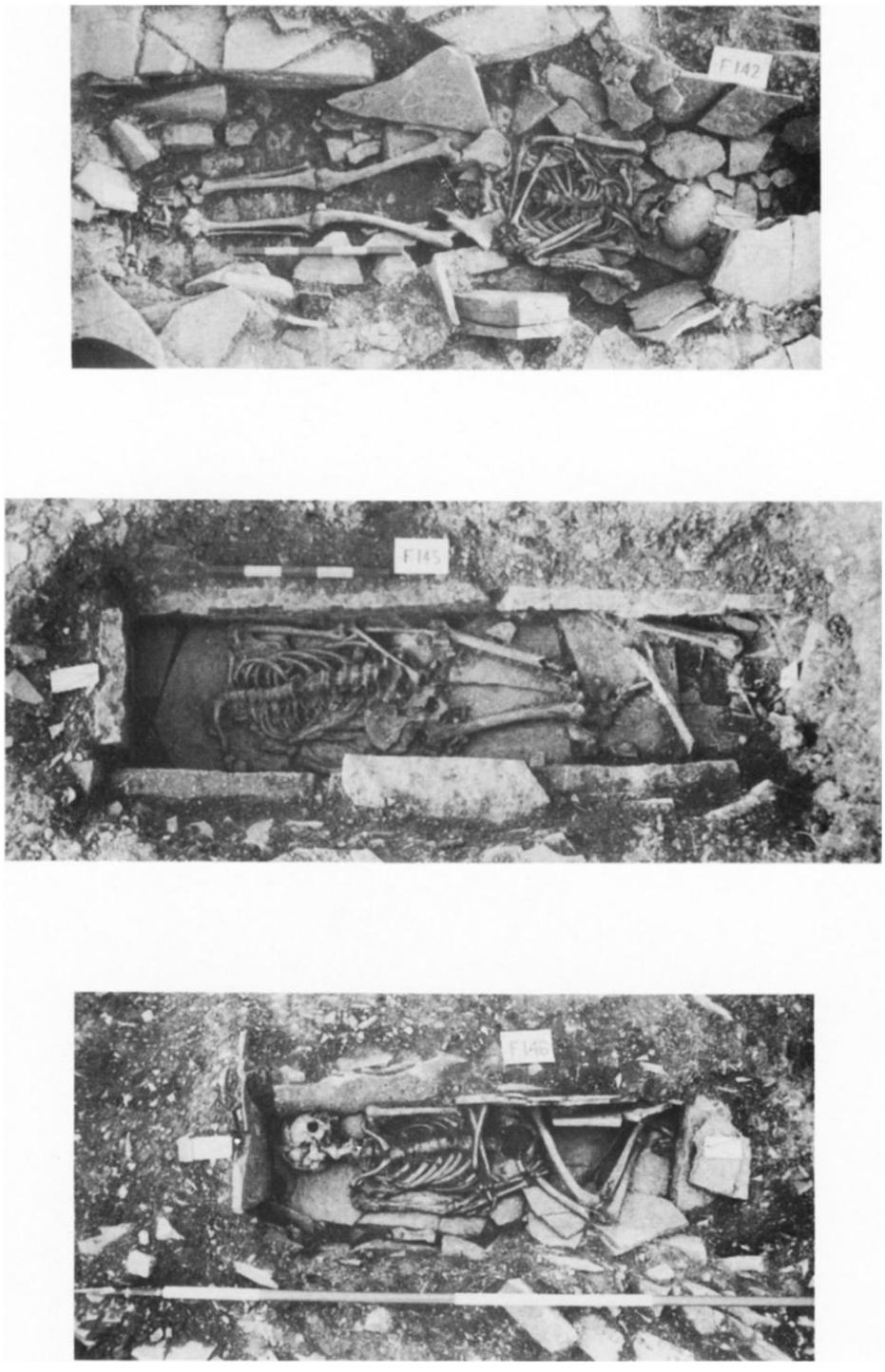
B. Bradley Hill: Building 2, Room 1, Ham Stone slab F39 (p. 185).

PLATE XXI

A. Bradley Hill: Building 2, Rooms 2 and 3, looking SW (p. 185).

B. Bradley Hill: Building 3, burial F110 (p. 189).

PLATE XXII



Bradley Hill: burials; all aligned E—W (p. 193).

PLATE XXIII

Bradley Hill: part of the cemetery to S. of Building 3, looking SE (p. 193).