

Camelon native site

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SUMMARY

Excavations at Camelon native site revealed three phases of occupation, represented by two circular timber houses of native type, with part of a rectilinear structure, possibly of Roman origin between. A complex defensive system was revealed, but could not be related to the sequence of occupation of the site, which was apparently in use during the first and second centuries AD.

INTRODUCTION

Camelon native site (NS 863812), a circular house within four defensive ditches or palisades on a promontory overlooking the River Carron, was first observed from the air by Professor J K St Joseph, who photographed it in 1949 (pl 6a). The discovery excited little further attention until 1961, when sand and gravel quarrying began at the north corner of the promontory, in the area of the native site and the adjacent annexe of the Roman fort. Ditches were revealed in the face of the quarry and other features could be seen on the ground after surface stripping had been completed. The quarry owners¹ kindly moved their operations away from the corner of the promontory so that an examination of the area could be carried out.

Limited excavation of the native site was planned as a joint venture between the then Ministry of Works and the Extra-Mural Dept of Edinburgh University, under the direction of the writer.² Dr N McCord and Mr J Tait of Newcastle University undertook excavations in the Roman fort annexe from 1961-3.³ The work on the native site was carried out at weekends from April to June 1961 by members of an extramural class,⁴ and five days were spent with two workmen in mid-July in an attempt to excavate sections of the ditches surrounding the site, which was removed by the end of 1961.

THE SITE (pl 6b & fig 1)

The native site and the nearby Roman forts at Camelon were built on a sand and gravel plateau, part of the glacial outwash, kame terraces and late glacial raised beaches to the south of the River Carron (Sissons 1976, 122, fig 9.2). The site was located at 75 ft (22.86 m) OD on the corner of a promontory which dropped steeply 50 to 60 ft (15 to 18 m) on the north and sloped gently towards the south. Although of no great height, from the northern corner of the plateau there was a commanding view west towards the Campsie-Gargunnoch Hills, north towards Stirling and east towards the south of the Forth. This was on the land route north, and the bridging point of the River Carron lay below. The strategic importance of the area for the Romans,

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as witnessed by five temporary camps as well as by forts of the Flavian and Antonine periods has been documented previously (RCAHMS 1962, 107–8). Camelon is unusual among native sites, occupying as it does a site later regarded as strategic, but not in itself a strongly defensible site. However it is another example of a native site superseded by a Roman Fort, immediately adjacent, as at Inchtuthill and Fendoch, for example. Early accounts by visitors to the Roman fort at Camelon, summarised by Christison (1900, 329–37), describe a site of substantial remains, but there were no comments which might have indicated that any trace survived of the native site.

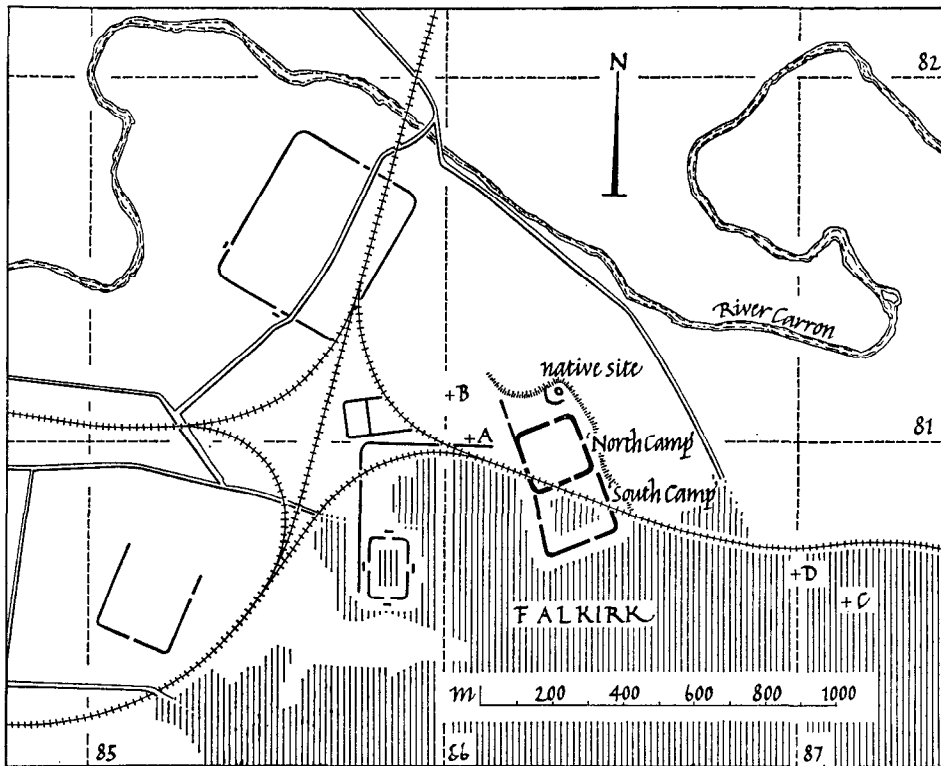


FIG 1 Map of Camelon Roman Forts and native site (courtesy of RCAHMS)

Before excavation the native site at Camelon could not be seen on the ground, but from the air photograph it appeared that on the corner of the promontory there was a large circular or oval structure with an entrance towards the south, set within multivallate defences. The relationship of the defences to the NE edge of the plateau could not be seen on the air photograph and it was thought that the entrance might have been either along that edge or on the south east, where there seemed to be a break, at least in the three inner lines of defence.

The overburden had been removed and the surface of the area had been partly bulldozed before excavation began, and this had revealed a number of archaeological features. It was hoped to identify these and other features and to establish their nature, sequence and date by excavation. A complex situation was revealed, and few of these objectives were met. The plan (fig 2) shows a possible reconstruction of the site, based partly on air photograph interpretation and partly on excavated evidence. All measurements of depth are given relative to the quarry's stripped surface.

THE EXCAVATION (fig 2)

When excavation began, the quarry had already reached the first position marked on the plan (fig 2). The excavated area and the quarry positions in June and July are also shown.

A grid was laid out over the greater part of the stripped area. Area A, which included the circular remains, was examined first. Trenches 1, 2 and 3 were planned to locate any features between the house and the surrounding defences. Trenches 4 and 5 were dug near the quarry to examine the features revealed there and Trench 6 was designed to locate the defences. Plans to investigate other parts of the site, including the possible positions of the entrance were not continued because of shortage of time. Blowing sand caused considerable difficulties as most of the features in the excavated area were re-covered by several inches of blown sand between working periods.

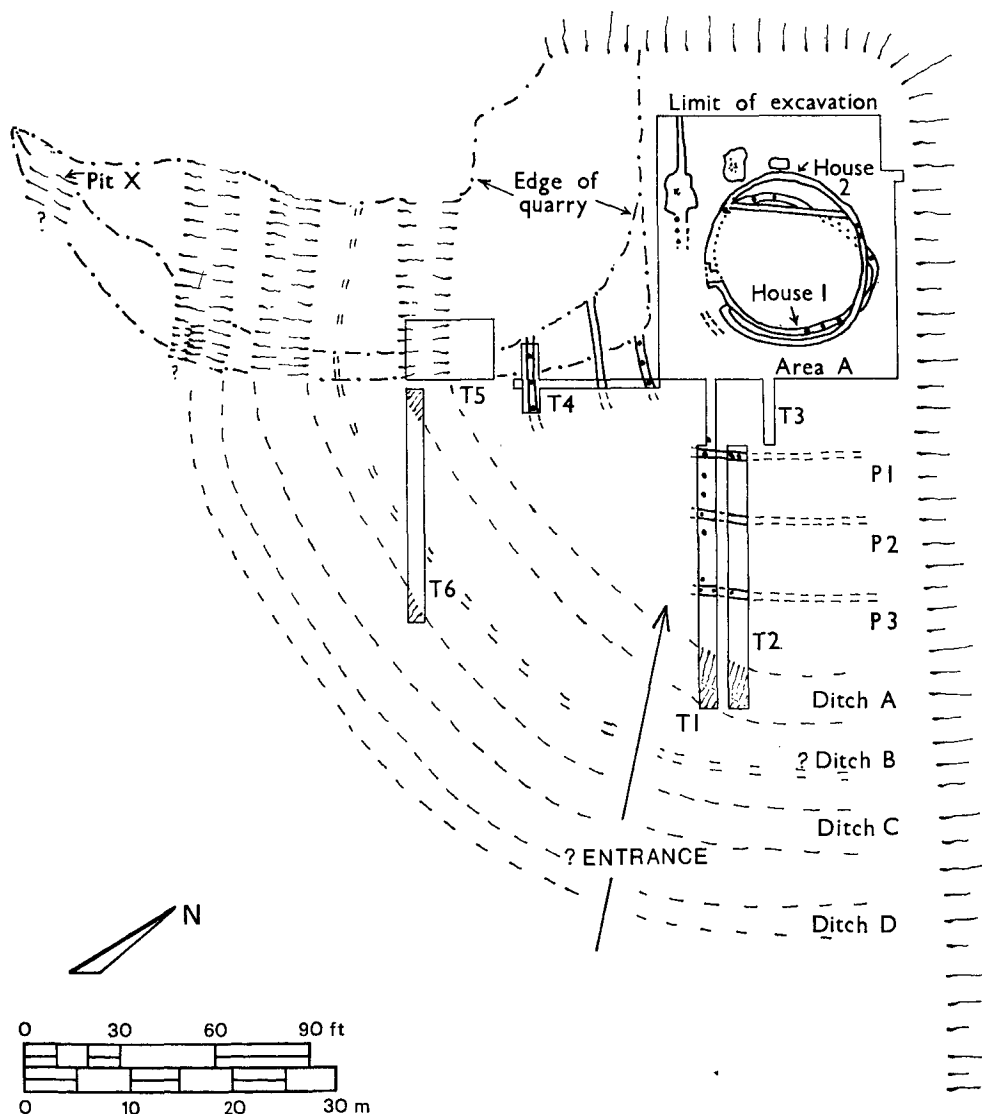


FIG 2 Plan of Camelon, reconstructed from measurements taken and from air photograph, showing position of excavated trenches

THE DEFENCES (fig 2)

The site was protected on the vulnerable S side by a multivallate defence system, enclosing an area approximately 240 ft (73 m) from N to S and 270 ft (82 m) from E to W. There was no visible trace of a rampart or bank along the northern edges of the promontory and no postholes for an enclosing fence or palisade were found in the small area excavated near the northern boundary.

The Royal Commission noted (RCAHMS 1963, 80) that the first and third defences visible on the air photograph appeared to be more substantial than the second and fourth. Three ditches, labelled A, C and D on the plan and section (figs 2 & 3), could be seen in the quarry face and were partially excavated. The second defensive feature was a palisade trench, not a ditch, labelled B on the plan and section.

All surface traces of ramparts, ditches and entrance had been destroyed by ploughing. The entrance shown on the plan (fig 2) is based on air photograph interpretation, since the entrance was not uncovered during the excavation. The line of the ditches has not been carried out to the edge of the promontory on the plan (fig 2), because no excavation took place there and the structural details are not known.

Section drawings of the ditches were made from the quarry in July (fig 3 upper). These, and

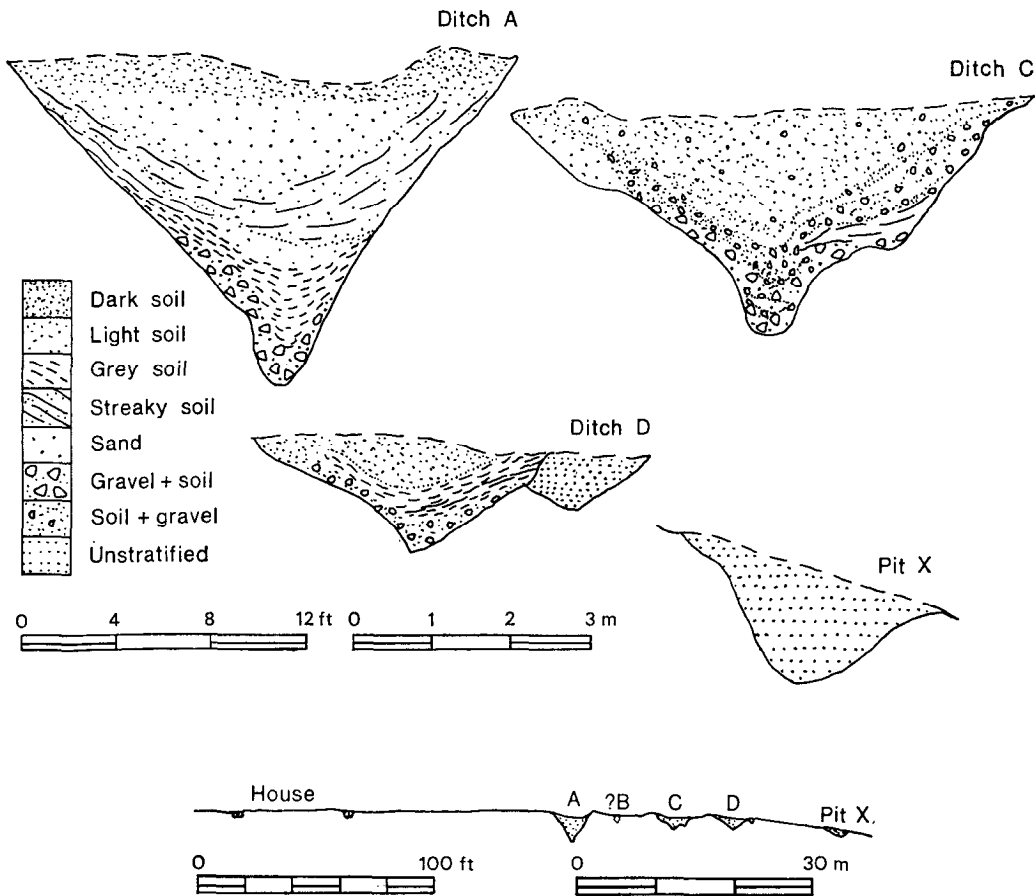


FIG 3 (upper) Ditch sections, drawn from quarry, looking SE (Palisade, (Ditch B) not included)
 (lower) Projected section through the site, looking SE

the reconstructed section across the site (fig 3 *lower*), are represented as viewed from the quarry, so that they correspond with the only photographs available.

Ditch A. The innermost ditch, A, was excavated in Trenches 1 and 2, and it was partially excavated in Trenches 5 and 6. The ditch section, drawn from the quarry exposure, was 21 ft (6.4 m) wide, 14 ft (4.27 m) deep below the datum and was roughly V-shaped. The ditch appeared to have silted normally, with gravel and soil at the bottom, then grey soil and a sandy layer, with a streaky soil layer above, presumably the level at which natural silting of the ditch had slowed down and the surface stabilised. The light soil above that presumably represents rampart material or surface soil from a wider area ploughed into the ditch on the inside. This might indicate the former presence of a rampart on the outer, less weathered side, but no further evidence for this was obtained. Elsewhere Ditch A was only partially excavated, and it was photographed, but not drawn.

Ditch B. Ditch B was in fact a palisade trench, but the term 'Ditch' has been retained to indicate that this feature was part of the defence system. The trench was 18 in (0.46 m) deep below the quarry datum, 2 ft (0.61 m) wide and U-shaped. It was not excavated, as it was recognised only at the end of the excavation, when it was observed in the quarry face and at the surface, west of Trench 5. Its presumed position shown on the plan (fig 2) has been shown relative to Ditch A, based on the above observations and interpretation of the air photograph.

Ditch C. Ditch C was excavated in Trench 6, but was otherwise only recorded in the quarry. It was 20 ft (6.10 m) wide, 10 ft (3 m) deep, roughly V-shaped and the stratigraphy was similar to that of Ditch A. Weathering seemed to have been considerable on both sides, but was perhaps greater on the outer edge. The position of the assumed rampart could not be ascertained from this section.

Ditch D. Ditch D was not excavated, and was only recorded from the quarry section, though its approximate position on the ground has been calculated relevant to the other ditches. The section was drawn from the quarry in July, when it showed as a two-phase V-cut ditch. Ditch D was 12 ft (3.6 m) wide, 5 ft (1.5 m) deep and was V-shaped, with silting similar to that of Ditches A and C, and slightly more weathering on the inner side. The outer edge of Ditch D had cut through the filling of a small V-shaped feature, perhaps an earlier ditch, which survived to 4 ft (1.22 m) wide and 2 ft (0.61 m) deep. No stratification could be recognised in the earlier feature.

Pit X. Pit X, a ditch-like feature on the north west of the site, was 11.5 ft (3.5 m) wide, 5 ft (1.5 m) deep, and was V-shaped in the section seen. Its nature and dimensions are unknown. A tree growing in this feature obscured the nature of the filling.

INTERNAL STRUCTURES (fig 4)

Within the area enclosed by the ditches were the structural remains of several features, of three phases. The circular structure visible on the air photograph was sited well back from the ditches and remains of palisades were located in the space between the circular feature and the defences. These fragments of palisade trenches could not be related stratigraphically to the houses and other features on the site.

Phase 1, House 1. House 1 was the earliest structure, a large oval house 36 ft by 46 ft (10.95 m by 14 m) internally, represented by the greater part of a continuous bedding trench, in which the bases of several postholes were identified. This bedding trench was between 15 and 18 in wide (0.38 and 0.45 m) wide, U-shaped, and it survived in the excavated section to a maximum depth of 10 in (0.25 m). The posthole remains were 6 in to 9 in (0.15 m to 0.22 m) in diameter and were packed with stones. The bedding trench contained black sandy soil and there was some charcoal

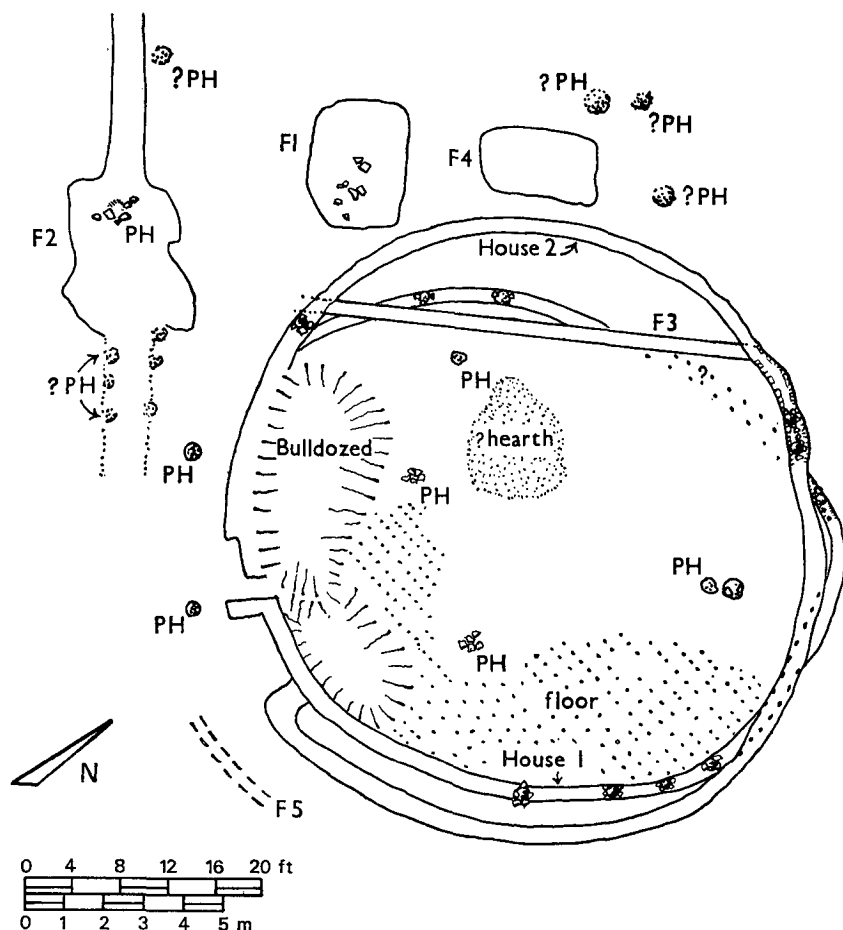


FIG 4 Houses 1 and 2. Feature 1 – pit. Feature 2 – pit and bedding trench. Feature 3 – bedding trench. Feature 4 – possible pit. Feature 5 – bedding trench or gully. Stippling indicates surviving patches of floor.

in the postholes. Charcoal from one posthole was analysed and was found to be mature hazel (Appendix 4, Sample 2).

Parts of the circumference of the bedding trench could be traced, but on the north, as well as on the south and west, near the presumed entrance, bulldozing had destroyed much of the remains. The excavated length of bedding trench on the east of the house was found to have been crossed by the foundation trench of House 2, and on the south west by the foundation trench of Feature 3. A note on possible internal features has been included with the description of House 2, since the internal arrangements could not be securely associated with either house.

Phase 2, Feature 3. Feature 3 was a straight length of bedding trench located on the west side of the circular houses. It was approximately 18 ft (5.5 m) long, about 12 in (0.3 m) wide, rectangular in section, and survived to only a few inches' depth. Feature 3 cut through the remains of the bedding trench of House 1 and was cut by the bedding trench of House 2, a sequence observed on the south west, where all three bedding trenches were excavated. No other linear bedding trenches uncovered could be associated with Feature 3, so that the plan of the structure to which it might have belonged is unknown. No finds were made in Feature 3, which was filled with dark brown soil, in which no postholes were observed.

Phase 3, House 2. House 2, later than House 1 and essentially on the same site, was approximately circular, 48 ft (14.64 m) in diameter, and was represented by an originally continuous bedding trench (pl 7b) in which some post-holes survived. Where excavated this bedding trench was 18 in to 24 in (0.45 m to 0.61 m) wide, up to 12 in (0.3 m) deep, irregularly U-shaped, with stone-packed postholes of up to 9 in (0.22 m) diameter. The postholes were 2 ft 6 in (0.76 m) from centre to centre where excavated, on the east of the house. Charcoal from one of the postholes was identified as birch and hazel and was described as small pieces, but not twigs. This charcoal is not likely, therefore to represent the original timber upright (Appendix 4, Sample 7).

The entrance to the two circular houses could not be certainly recognised, but a gap on the south was probably the entrance to House 2. The bedding trench of House 1 was continuous across this gap, and an entrance to House 1 could have possibly been slightly to the west, where two possible post-holes were located outside the structural remains. All features in this area were unclear, however.

An area of burned ashy material, the remains of a hearth, was located near the centre of the circular houses. Twiggy hazel and willow/poplar charcoal were identified (Appendix 4, Sample 10). A fragment of slag was vitrified ash (Appendix 4, Sample 9a), a non-metallic substance, compatible with a hearth. Some fragments of calcined bone were also found, but were too comminuted to identify.⁵

No basal or edging slabs were located in connexion with the hearth.

Four post-holes were identified in the interior of the house area. These might have been from settings of posts to support a roof, but this can only be a possibility, since the remains were so slight. It was not possible to recognise whether these postholes were part of House 1 or of House 2. Patches of dark soil, blackish in places, and with reddish material incorporated, possibly floor remains, were found in the eastern part of the interior, stippled on the plan (fig 4). Some charcoal and possible burned daub were in this area. Most of the finds recovered during the excavation came from this floor area. The identifiable items are described in Appendix 1 and some are illustrated in fig 5.

Feature 5. Feature 5, traces of a curved bedding trench just outside House 2 and near the probable entrance, was not excavated. The feature was approximately 4 ft (1.22 m) from the bedding trench of House 2, was about 12 in (0.3 m) wide, but of unknown section and depth. If originally associated with House 2 this might have been part of a screen providing shelter near the entrance, or it might have been the remains of a drip gully below the eaves.

Several other features were recorded in the vicinity of the structures described above, but their associations and date are unknown. These structures are described below.

Feature 1 (fig 4). Feature 1 was the base of a large, rectangular pit, located to the west of, and close to, House 2, and it could, in fact, be distinguished on the air photograph (pl 6a). It was 8 ft by 10 ft (2.44 m by 3.05 m) at the surface as found, had sloping sides, a flat bottom and survived to a depth of almost 2 ft (0.61 m) in the excavated southern half. Some large stones, miscellaneous sherds, some carbonised barley grains, a fragment of a glass flask, an iron stud and some nails were found in this pit, whose filling was mostly a pinky-orange clay, with occasional patches containing comminuted charcoal, the whole very dense and hard. Samples from the pit filling contained phytoliths and, in one case, pollen with an exceptionally high frequency of grass pollens (Appendix 4). This pit might have been a daub preparation area, or a storage pit finally filled with daub, incorporating a certain amount of rubbish.

Feature 2 (fig 4). Feature 2 was a large, ill-defined area of dark soil, probably a pit, some 8 ft by 10 ft (2.4 m by 3 m) at the surface, and a length of bedding trench some 30 ft (10.97 m) long and some 12 in (0.3 m) wide, the general appearance of which was similar to Feature 3,

already described. A post-hole was recorded in Feature 2 but its relationship with the dark soil or the bedding trench was unclear.

A fragment of a Fowler type A3 bronze penannular brooch was found at the surface of the post-hole just noted (Appendix 2 & fig 5.7).

Several possible postholes were noted near Feature 2, but were not tested by excavation.

Feature 4. (fig 4). Feature 4 was an almost rectangular area of dark soil 9 ft by 5 ft (2.74 m by 1.5 m) only a few inches deep. There were no finds or structures associated with this feature. It seemed significant and was recorded because it had survived the surface stripping. It was of a dark soil similar to that of other features. Several possible postholes were noted near Feature 4, and were recorded for the same reasons. No charcoal or packing stones were found here, however, and the nature of all these remains is unknown.

The palisades. (pl 7b & fig 2). Several lengths of palisade were recorded between the defences and the central structures, in Trenches 1, 2 and 4. These palisades were partially excavated, but no evidence was found to suggest any relationship between them or sequence for them. The palisades were up to 2 ft (0.61 m) wide, 1 ft 6 in (0.46 m) deep below the stripped surface and were U-shaped. Palisades 1 and 2 were mainly filled with brown gravelly soil, and some post-holes could be seen, about 5 ft (1.5 m) apart. Palisade 3 in Trenches 1 and 2 differed from the other exposures of the palisades, though it had approximately the same dimensions. Here the fill was of black sandy soil, but there was continuous packing, of large stones, such as would be required for a split timber fence.

Two samples of charcoal from the postholes in the palisade at the south end of Trench 4

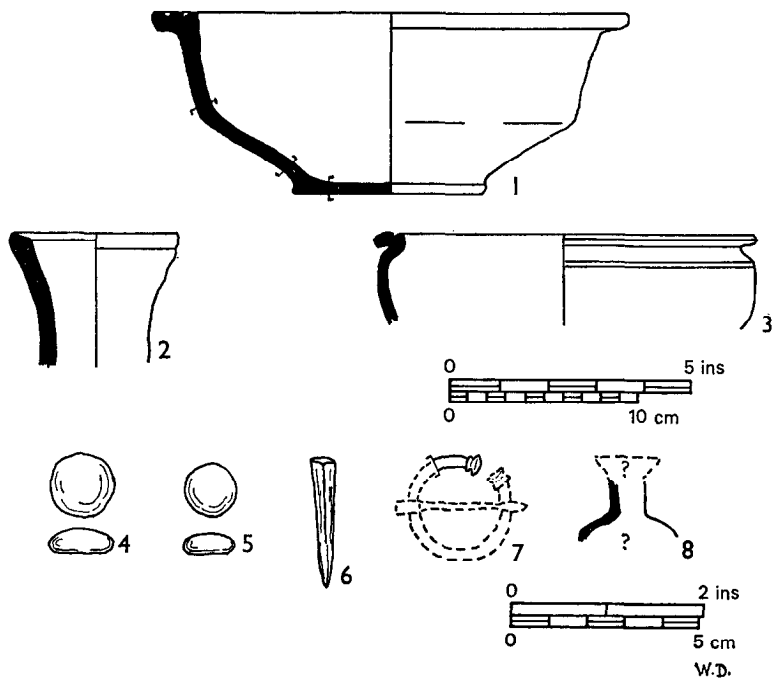


FIG 5 Nos 1-3 Catalogue nos C61-6, C61-29, C61-40. Reconstructions of the identifiable pot forms
 No 4 Catalogue C61-1. Counter of white vitreous paste
 No 5 Catalogue C61-9. Counter of blue vitreous paste
 No 6 Catalogue C61-18. Lace or thong tag, bronze
 No 7 Catalogue C61-15. Terminal of bronze penannular brooch
 No 8 Catalogue C61-14a. Neck fragment of clear glass phial

were examined. In one, Sample 46 birch, oak, hazel and willow/poplar were represented, while in the other, Sample 48, hazel and birch were found. As the pieces of wood, though mature, were small and represented several species these remains were unlikely to represent the original timber uprights.

Other individual postholes were found in Trench 1, but these could not be associated structurally with any of the palisades, (pl 7b & fig 2).

No finds were made in any of the palisade trenches, and so their chronological as well as their structural relationship to each other and to other structures on the site is unknown.

The Finds (fig 5)

The finds from Camelon native site were not numerous, but in view of the damaged state of the site and the small part of it excavated it was remarkable to find anything. The finds are listed and commented on in Appendices 1, 2 and 3.

The majority of finds, sherds and nails, came from the floor area of the circular houses, and, as already stated, could not be stratigraphically related to the structures, because of the damage to the site. Most of the items were abraded and burned. The glass phial (fig 5.8 & Appendix 3), found in the pit, Feature 1, the gaming pieces (fig 5.4, 5), from the floor area and the fragment of penannular brooch (fig 5.7 & Appendix 2), from the Feature 2 post-hole were unburned. The sherds, studs and nails from Feature 1 may have been rubbish incorporated into the material. All the items found can be paralleled in late 1st to 2nd-century AD contexts.

DISCUSSION

Iron Age houses of the type described at Camelon vary in diameter from just over 20 ft (6.10 m) to over 50 ft (15.24 m), the average being around 30 ft (9.14 m). At West Brandon (Jobey 1962, 11) uncovered superimposed houses 58 ft (17.68 m) in diameter. The houses at Scotstarvit (Bersu 1947, 246-55) 56 ft (17.07 m), West Plean II (Steer 1955, 232) 36 ft (10.97m) and Gray Coat (RCAHMS 1956, 2, 441) unexcavated, but about 50 ft (15.24 m) in diameter can be compared with Camelon House 1, 36 ft by 46 ft (10.97 m by 14.02 m) and House 2, 48 ft (14.63 m) in diameter. Though all these houses differ in detail, especially at the entrance, they have certain features in common, a continuous bedding trench in which the timbers of the outer walls were placed and an inner setting of posts to support the roof. Comparison of such structural details can also be made with houses in settlement sites like Hownam Rings (Piggott 1948, 206-9), or Braidwood (Stevenson 1948, 4-10), all of which have been broadly dated within the Iron Age.

Steer (1955, 247) defined a homestead as 'comprising a small fenced enclosure containing one or (less frequently) two round houses. . .'. Homesteads were fenced rather than defended with ramparts and ditches, and were often overlooked from adjacent higher ground, as at Scotstarvit (Bersu 1947, 242). Sometimes two or more homesteads were located quite close together, as at Harehope (Feachem 1960, 174). As a class of monument the homestead is considered to have been a farming unit, a single family farm. Such sites have been recognised all over Britain, with Little Woodbury, Wiltshire (Bersu 1940, 30) being the best known. Until recently the greatest numbers recognised were in the uplands, particularly of the Border area, and the work of Jobey and the Royal Commission (for example Jobey 1966 and the various Royal Commission volumes for southern Scotland) has increased the total numbers known there and in other areas.

Through the increase in the air photograph cover numbers of homesteads of various types are being recognised in other areas, especially on agricultural land, where no surface traces remain (for some recent discoveries in SE Scotland see Maxwell 1970, 86). There are considerable

variations in size, shape and area enclosed and too few have been excavated to permit certain classification from aerial photographs alone. Nor can sites be dated without excavation, since the dates of excavated sites range from Late Bronze Age, as at Glenachan Rig (Feachem 1958, 24) to Late Bronze Age followed by Iron Age as at West Plean (Steer 1955, 247-9) or Roman Iron Age, as at Keir Hill (MacLaren 1957, 83).

Although a number of homesteads and forts were known in the Camelon area (RCAHMS 1963, 1) none was similar to Camelon in location, or number and type of defences. Most homesteads were enclosed by slight defences, as already described, and forts were generally on higher ground, obviously in defensive positions, as for example at Gillies Hill (RCAHMS 1963, 1, 71), a multivallate promontory fort at 450 ft (137 m) OD, Cowie (RCAHMS 1963, 1, 72), within triple defences, at 200 ft (61 m) OD, or Myot Hill (RCAHMS 1963, 1, 74) a promontory hillfort at 696 ft (202 m) OD.

When first discovered the Camelon native site was unique in being a well-fortified site in an essentially lowland location. No others are known in the immediate vicinity even now, but numerous other similar sites have been located in SE Scotland and elsewhere in eastern Scotland, during recent aerial photograph reconnaissance, particularly by the Royal Commission.

Like Camelon, the recently discovered sites occupy promontories of no great height, in areas of good agricultural land, and the three or four lines of defence seem to enclose the remains of a single large circular structure in some cases, for example, Welltown, near Blairgowrie, Ayton and Ayton Law, Berwickshire (National Monuments Record, unpublished photographs). These, and the growing number of similar sites usually with three or more lines of defence have been classified as forts, and by comparison with such sites Camelon native site should probably be described as a fort.

Classification as a fort rather than as a homestead should imply a social difference, but such information cannot be obtained from surface traces and might not be obtained by excavation. Some of the newly discovered sites lie near other smaller sites, for example Ayton Law and Dryburn (NMR, unpublished photographs) where the promontory fort is very close to a second fort or homestead. At one or two sites there are apparently only two lines of defence, for example Coldstream or Easter Broomhouse (NMR unpublished photographs) and at other sites the defences seem to be irregular as if of different date, as at Spottmill or Milne Graden (NMR unpublished photographs). It is tempting to suggest that these latter were homesteads which were later fortified more strongly. A major programme of excavation of such sites would need to be undertaken, to establish, for example, whether the superficial similarities of site location, a single internal structure and multiple defences indicate a cultural unity among such sites and their users and whether early sites were strengthened and used over a long period, and at what date. In addition, were they destroyed or abandoned, and when. These sites are situated in good farming land, and we might be able to find traces of fields associated with them. Possible traces of what may be small square fields can be seen on the Aytonlaw air photograph, but whether the fort and the other feature might be contemporary is unknown.

The final defences at Camelon were represented by the Palisade and Ditches A, B, C and D, described earlier. By any standards the ditches were enormous. A was 21 ft (6.40 m) wide and 12 ft (3.66 m) deep, B was a 2 ft (0.61 m) deep palisade. C was 20 ft (6.10 m) wide and 9 ft (2.74 m) deep, while D was 12 ft (3.66 m) wide and 5 ft (1.52 m) deep, all measurements taken from the top of the quarry. These were much more substantial ditches than those at most homesteads or settlements. For example the ditch at West Plean was 7 ft to 12 ft (2.13 m to 3.66 m) wide and 4 ft (1.22 m) deep, and West Brandon was 10 ft to 13 ft (3.05 m to 3.96 m) wide and 4 ft (1.22 m) deep. Even hillfort ditches were rarely of such a size as those at Camelon. At Hownam Rings

(Piggot 1948, 204 and fig 4) one part of the ditch was described as 'wide and shallow', while at Braidwood (Piggot 1957, 64 and fig 4) the inner ditch was 4 ft (1.22 m) deep and approximately the same width, while the outer ditch was 4 ft 6 ins (1.37 m) deep and 7 ft 6 ins (2.30 m) wide.

Presumably the ditches were quarries for material for ramparts, but at Camelon all evidence for ramparts had been removed. The unusual size of Ditches A and C might have been due to the difficulty of maintaining ramparts and ditches in loose sand, but no evidence was found concerning details of recutting. The ditches and their accompanying ramparts were unlikely to have been fully contemporary, as Ditch D, for example, cut an earlier feature which might have been a ditch. Ditches C and D were so close together they almost overlapped, so that one was probably earlier than the other. Priority could not be ascertained, although a postulated sequence for Ditches C and D might be, Ditch C and the feature earlier than Ditch D contemporary, with both superseded by Ditch D, inserted between them. There was no evidence for the relationship of such a postulated sequence with Ditches A and B.

The relationship of the ditches could not be worked out in detail. Nor could the relationship of any ditches be established with Houses 1 and 2, since there were no stratified finds from the ditches, and there was no stratigraphic evidence to link the houses and ditches. The defences could have belonged to any phase of the native occupation.

An important phase of occupation at Camelon occurred between the destruction of House 1 and the building of House 2, recognised only as Feature 3, the straight bedding trench. This phase might have been linked with Roman activity on the promontory, since the Antonine fort was built close to the native site and the Annexe was adjacent to it. It seems probable that there was a period of temporary Roman occupation over the site of the destroyed House 1, recognisable in the archaeological record only as Feature 3, though perhaps Feature 2 and one or more of the so-called palisades might also have belonged to such a phase of occupation.

McCord (1963) found temporary Roman structures in the Annexe, and to the W he found a Roman building cut by a post-Roman structure. These remains could not be related to structures within the native site on the promontory, but it is important to note that there was occupation just outside the defended native area, and, if the latter site had been abandoned after the destruction of House 1 there could have been Roman occupation, albeit temporary, over the whole promontory. It is interesting to note that McCord (1963) found the remains of a Roman structure overlain by a post-Roman building, since House 2 within the defended native area was also later than a possible Roman feature, Feature 3. Unfortunately, there was no dating evidence associated with the native remains found in the Annexe and therefore there is no evidence of possible contemporaneity between the structures there and the native site on the promontory.

Because there were no finds specifically associated with the presumed Roman occupation of the native site, the date of such occupation could not be established. However, the Roman phase was unlikely to have been of long duration, as the native structure, House 2 was built over Feature 3, the presumed Roman structure and on almost the same foundations as House 1, which preceded Feature 3. The remains of House 1, therefore, may still have been visible to the builders of House 2. The total period of occupation of the site, through all three phases, would be unlikely to have lasted long.

THE ENVIRONMENT (Appendix 4)

Pollen and charcoal samples were examined from Feature 1 and from some post-holes, and these are listed in Appendix 4. None of the charcoals identified was from the substantial timber uprights, greater than 6 in (0.16 m) in diameter, which must once have stood in the post-holes.

Most samples contained several different species, and, though some were mature, all were of a size consistent with materials from a structure of wattle and daub. Birch, hazel, oak and willow/poplar, the species represented, could all have grown on the varied terrain in the vicinity. These are all species which coppice and it is interesting to note that there were no pieces of charcoal of mature timbers among the examples examined.

It has been noted earlier that Feature 1 could have been used for the preparation of daub, or it might have been a storage pit finally filled with daub and rubbish. It contained clay which must have been brought on to the site, as well as some pottery sherds, glass, nails and grains of hulled barley, all of which could have been lying around the site and therefore readily incorporated in the pit filling.

Two soil samples from Feature 1 were examined, and were found to contain phytoliths, derived from grass or straw. Sample 12, a grey clay, was found to contain very little pollen, while Sample 6, a pinky-orange clay contained a quantity of pollen, dominated to an unusual extent by grass pollen. Cereal pollens were not present and trees and shrubs were poorly represented. The most abundant of the tree pollens was alder, a species unlikely to have been growing on the site, but which probably did grow on the wetter ground below. The pollen could have been incorporated into the clay when brought to the site. Both pollen and phytoliths could represent either the vegetation present on the site from which the clay was derived or grassy material added to the clay as it was being prepared to make daub. In either case the low lying area to the north of the site could well have proved a suitable source of both clay and grass or hay. H-O Hansen (1959, 36-40) has described the considerable quantity of hay needed in the preparation of daub. The barley and artifacts could, of course, have been incorporated accidentally at the same time as the grass. If these arguments are correct the pollens do not necessarily provide us with information about the environment of the site itself, but it is tempting to suggest that the well drained plateau area on which the site was built was likely to have been farmed, and that the clay and grasses came from the adjacent lower lying lands, which would have been a ready source of raw material as well as food, and would have included the hay meads which the pollen suggests.

House 2 appeared to have been destroyed by burning, and the absence of any indication of later cultural or structural remains could perhaps be taken to indicate that the natives left at a date not very different from the Roman departure.

CONCLUSIONS

Dating. The native site at Camelon had a complex, perhaps short history which cannot be dated closely. Too little of the site was excavated and datable objects were recovered from only a limited number of the features. All finds were fragmentary, and most were in poor condition. Only one item of native origin was found, the fragment of bronze pennanular brooch, discussed in Appendix 2. The date range for a brooch such as this and for the glass flask fragment (Appendix 3) as well as for the range of pottery types and wares represented is wide, but consistent late 1st and 2nd century, and therefore some stage of the occupation of the site should fall within that period. Such a date would coincide with the period of use of the Roman fort on the one hand, and it would be appropriate for the native houses as well, since it falls within the chronological range for excavated native houses of similar construction elsewhere in Scotland and the north of England.

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on the brooch fragment and glass fragment respectively and to Professor G Dimbleby and Miss Joan Sheldon for the pollen and environmental reports. My thanks are due to Mr W Dodds, who did the original drawing and pot identifications for fig 5.

NOTES

- 1 Thanks are due to the Quarry owners, Maxwells Limited, and to their operators.
- 2 Then Miss E V W Field. The delay in writing this report was largely due to my being abroad until 1974.
- 3 N McCord and J Tait – see p 151-65.
- 4 Thanks are due to all the class, but in particular to Messrs Marriott, Lines, Lamb, Misses Tyson, Findlay, Phillips, Crawford (now Meldrum) and the Whitfield family.
- 5 Information from G W I Hodgson, Duncan of Jordanstone College, Dundee.

APPENDIX 1

The Finds

Pottery. Most of the sherds were abraded and many showed signs of burning. The three groups of sherds which could be reconstructed are illustrated in fig 5, but no other sherds could be identified closely as to vessel size and shape. These have been grouped together and are listed, but they are not discussed and no details are given.

- C61-6 (fig 5.1) Rim sherd of a carinated bowl. Two grooves on upperside of rim, much abraded. Originally orange fabric. Heavy burning on outside, 6.2 in (15.8 cm) long 0.3 in (0.7 cm) thick. From floor.
C61-34, 36 may be from the same vessel, and C61-19 may be part of the base of this or a similar vessel.
- C61-29 (fig 5.3) Fragments of the rim of a wide-mouthed jar in dark grey fabric. There is a groove along the inner edge of the rim, which is tightly rolled over. Gillam 105, dated to AD 140-180 is a close parallel. From Feature 1.
I am indebted to John Gillam for examining this sherd, for which he has no close parallel, but suggests a date broadly in the 1st to 2nd centuries AD.
- C61-40 (fig 5.2) Several neck fragments and one base sherd of a vessel in orange fabric, much abraded, probably from a flagon. Found in the quarry below Ditch C. Gillam 14, dated to AD 130-170 is a close parallel. Diameter at mouth 3.3 in (8.5 cm), 0.35 in (0.6 cm) thick.
- C61-7, 24 fragments similar to C61-40.
C61-4 Rim sherd of Samian ware, too small to classify.
C61-3, 7, 44 Groups of coarse-ware sherds, buff to orange in colour, probably mortaria fragments.
C61-8, 28, 32 Body sherds of black burnished ware, no 28 has incised decorations.
C61-38 Fragment of plain base of bowl or jar in pale orange fabric.
C61-11, 26 Abraded body sherds in buff fabric.
C61-35 Rim, traces of yellow glaze, medieval, from quarry.

Iron. Twenty iron nails of various sizes were found in the floor, near the bedding trenches and in Features 1 and 2. They were in a very bad state of preservation, with little surviving metal. The range of sizes is similar to those from Newstead (Curle 1911, fig LXVIII, nos 29-34).

Two iron studs were found, similar to some from Newstead (Curle 1911, fig LXVII, 19, 20).

Bronze. Only two bronze items were found.

- C61-18 (fig 5.6) a thong tag, the upper edge or rim missing, 1.4 in (3.4 cm) long and 0.2 in (0.5 cm) maximum diameter was found in the floor near the hearth.
- C61-15 (fig 5.7) A fragment of a penannular brooch with knob and collar terminals, 0.35 in (0.95 cm) long, the damaged knob being 0.2 in (0.5 cm) in diameter was found near the top of Feature 2. This fragment is discussed in Appendix 2.

Vitreous Paste. Two gaming pieces were found in the floor, near the postholes on the east of the interior of the houses.

- C61-1 (fig 5.5) Gaming piece of dark blue vitreous paste, 0.5 in (1.3 cm) in diameter.
 C61-9 (fig 5.4) Gaming piece of white vitreous paste, 0.7 in (1.7 cm) in diameter.

Similar gaming pieces have been found on many Roman and native sites, sometimes in paste, others in stone or clay and in a wide range of colours. A number from the Roman site of Newstead were illustrated by Curle (1911, pl XCIII, 20–23, 26, 27). Many gaming pieces were found at the native site of Traprain Law (Curle 1919, figs 11, 18, 22; Cree 1922, figs 13, 19).

APPENDIX 2

The Penannular Brooch (fig 5.7)

C61-15.

The bronze penannular brooch fragment is from an A type, probably an A3. The closest parallel is also a broken example, now in the Tullie House Museum, Carlisle, so probably from the Wall area. Most of the knob and collar examples which resemble the one from Camelon are from Roman military sites or native sites with some military connexions.

The type is early rather than late, that is 1st to end of the 2nd-century AD rather than 3rd or 4th century. These brooches were locally made and hardly any significance can be attached to parallels, except for other classes, such as C or E and F penannular brooches.

I am indebted to Mrs Elizabeth Fowler for the above note.

Similar brooches are illustrated in Birley (1977, pl 44), Curle (1911, pl LXXXVIII, 15), Cree (1923, fig 15.4), MacLaren (1959, 201 and fig 4) and Ritchie (1966, 107 and fig 2). This last, somewhat bigger and heavier than that from Camelon, is now on display in the National Museum, Cat No HM 376.

APPENDIX 3

Glass

C61-14a (fig 5.8). A fragment of the neck and shoulder of a small clear glass phial, 0.6 in (1.52 cm) long was found in the pit, Feature 1.

Small bottles or flasks in clear glass are not common, but a fragment of a similar shape, though in bluish-green glass, was found at Fishbourne (Cunliffe 1971, 2, 354, no 85), and another fragment which may be comparable was found at Gadebridge (Neal 1974, fig 92d). Small perfume flasks perhaps of comparable shape were found at Ospringe (Whiting *et al* 1931, figs 526 and 533) and Wroxeter (Bushe-Fox 1914, 2, fig 11), all in 1st- and 2nd-century AD contexts.

I am indebted to Miss D Charlesworth for the following note.

The use of colourless metal suggests that the flask is not earlier than the late 1st-century AD. It may be 2nd century. Enough of the shoulder remains to show that the body was globular or bulbous but that is all. Isings form 26a (Isings 1957, p 40).

APPENDIX 4

Professor G W Dimpleby and Miss J Sheldon, Institute of Archaeology, London

Pollen, Soils, Charcoal and Cereal Grains.

Pollen. Two samples were treated for pollen analysis, namely Samples 6 and 12 (Feature 1). Sample 12 had little pollen in it and what there was was in poor condition, so no count was attempted. Sample 6, however, contained abundant pollen: Table 1 shows the counts and percentages, based on total pollen plus fern spores.

Over 75% of the pollen was of grasses, an exceptionally high value. No cereal pollen was seen, but small quantities of herbs, including some ruderals were recorded. The pollen of trees and shrubs was poorly represented, the most abundant being alder (4%).

TABLE 1

Sample	6		12
	Count	%	
<i>Betula</i>	6	1.3	+
<i>Alnus</i>	18	4.0	+
<i>Quercus</i>	3	0.7	—
<i>Corylus</i>	13	2.9	+
<i>Salix</i>	1	0.2	—
<i>Calluna</i>	2	0.4	+
<i>Gramineae</i>	341	75.9	+
<i>Caryophyllaceae</i>	2	0.4	+
<i>Compositae</i>			
<i>Liguliflorae</i>	11	2.4	—
<i>Tubuliflorae</i>	1	0.2	—
<i>Plantago Lanceolata</i>	13	2.9	—
<i>P. major</i>	4	0.9	—
<i>Rubiaceae</i>	9	2.0	—
<i>Rumex cf Acetosa</i>	1	0.2	—
<i>Succisa</i>	1	0.2	—
<i>Varia</i>	2	0.4	—
<i>Dryopteris type</i>	14	3.1	+
<i>Polypodium</i>	5	1.1	+
<i>Pteridium</i>	2	0.4	—
(<i>Sphagnum</i>)	(5)	(1.1)	—
TOTAL	449	100	—
No. of Slides	1	—	—

However, the sample was of a clayey nature, unlike the soil on the site itself, so the possibility has to be considered that the material was intrusive. It could have been brought in, already rich in pollen, from adjacent lower-lying ground. If this were so, an alternative explanation of the spectrum is that it was derived from a tall grass community, such as a hay mead, in which the grasses reach the flowering stage before being harvested. The presence of small amounts of alder (*Alnus*) pollen, which could not have originated from the site itself, but could easily have come from the adjacent carr, lends weight to this interpretation.

The opaline phytoliths in this sample are supporting evidence for a grass cover, but do not enable us to determine the species involved.

Soil

C61 Sample 9a Slag, Vitriified ash – possibly from a Kiln or hearth, mainly silicious. Eg. Potassium silicate, not metallic. Found near hearth.

C61 Sample 12 Large quantity of finely divided carbon in this soil, Pollen poorly preserved. From F1.

C61 Sample 6 Phytoliths present in moderate quantity. From F1.

C61 Sample 12 Phytoliths present in similar quantity to Sample 6. From F1.

Charcoal. Nine samples of charcoal were submitted, of which four came from post-holes. In these cases it is difficult to know whether the charcoal represents the wood of the post or whether this has decayed and surface charcoal has fallen into the hole. In two cases more than one taxon was represented, namely *Betula* and *Corylus* in Sample 7, from House 1, bedding trench and *Betula*, *Quercus*, *Corylus* and *Salix Populus* in Sample 46, from F3. All were small pieces of charcoal, but not twigs, except for the birch in Sample 46. This was the largest piece present in the sample but obviously did not represent the original post since it only had a diameter of c 5 cm. The other two post-holes contained only one genus each, namely *Corylus* in Sample 2, from House 1, bedding trench and *Quercus* in Sample 1 from F2. In both cases mature timber was represented.

Material from a hearth (Sample 10) consisted mostly of twiggy *Corylus* with the pith intact, plus small pieces of *Salix/Populus* (distinction of these two species is uncertain in charcoal). Sample 48 from Palisade 3 had *Corylus* and *Betula* and Sample 47 from the House floor was mostly *Corylus* with small pieces of *Quercus* and *Betula*. Finally, Sample 49 from Ditch C was a twig of *Corylus*. On a sample presence/absence basis, therefore, hazel was dominant and it was also most important by weight.

Cereal grains

Feature, 1, Rectangular Pit. Sample 12a, found among soil of Sample 12.

The grain is entirely hulled barley.

The proportion of twisted lateral florets to symmetrical median florets gives no indication that two-rowed barley could be involved. Since no internodes were found, it could not be established whether the crop was of the lax-eared 'four-row' hulled barley, *Hordeum vulgare* Linn. emend. Lamark. *sensu stricto*, or the dense eared 'six-row' so-called 'hexastichum' variety of *H. vulgare*. The shape of the few preserved lemma bases suggested, in a tentative way, the lax-eared form. Since no entire relevant parts were preserved, it was not possible to ascertain the morphology of the fold at the lemma base; but one rachilla was observable and was short-haired and long.

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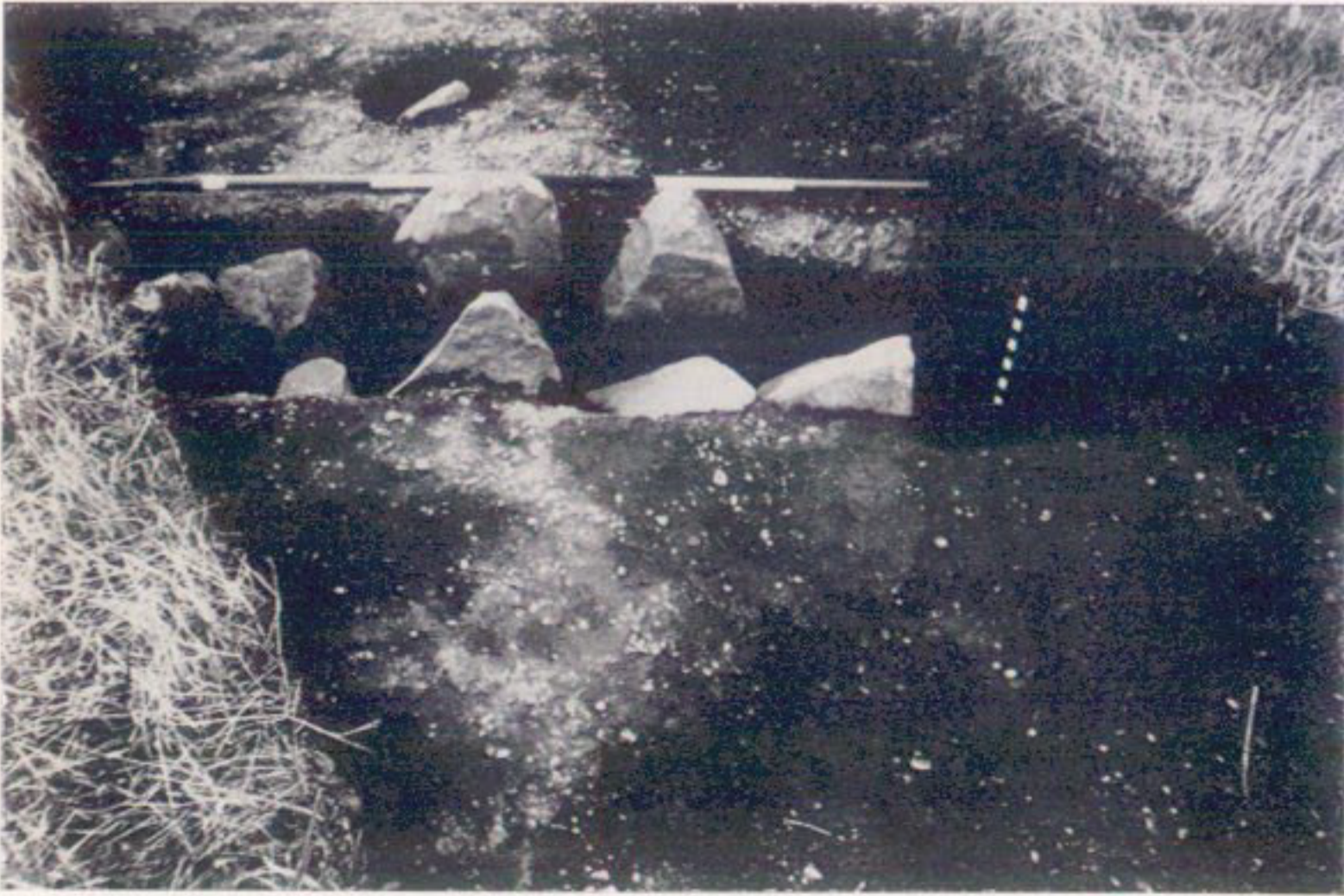
a Camelon native site and Roman Camps
Courtesy J K St Joseph, Cambridge University



b General view of the native site, from the west



a Bedding trench, House 2



b Palisade 3, Trench 1