Birmingham University Field Archaeology Unit
and the Central Marches Archaeological Research Group
Report No.229.01
January 1995

Pentrehyling Fort, Brompton, Shropshire
Post-Excavation Assessment
and Research Design

by

John Allen, Jane Evans and Iain Ferris
with Justine Bayley

For further information please contact:
Simon Buteux, Iain Ferris or Peter Leach (Directors)
Birmingham University Field Archaeology Unit
The University of Birmingham
Edgbaston
Birmingham B15 2TT
Tel: 0121 414 5513
Fax: 0121 414 5516

List of Charts
(At end of report)

Gantt Chart
Dependency Definition Diagram
Resource Utilisation Summary

(For key to abbreviations used for project staff throughout see Resource Utilisation Summary)

List of Figures
(At end of report)

Appendix

Pentrehyling Fort, Brompton, Shropshire
Post-Excavation Assessment and Research Design

INTRODUCTION

This report describes the results of the assessment of the archive and finds from archaeological excavations at Pentrehyling Fort, Brompton, Shropshire, undertaken by Central Marches Archaeological Research Group (CMARG) and Birmingham University Field Archaeology Unit (BUFAU).

This report conforms to the guidelines set out by English Heritage in The Management of Archaeology Projects (MAP 2), its principal aims being:

1. To quantify the overall archive, and to assess the potential information-value of the paper archive and finds assemblages.

2. To propose a post-excavation programme to carry the project to completion and publication. A costing for the post-excavation programme is included as an appendix.

The site and its setting

Brompton (centred on NGR SO 2493) is located 30km southwest of Shrewsbury, and 4.5km southeast of Montgomery. The site is strategically placed 1.5km west of the confluence of two rivers, to control access along the valley of the River Caebitra to the east, and along the River Camlad, south to the Stretton Gap. The River Severn lies to the north. The Roman marching-camps and Pentrehyling Fort occupy a plateau on the 150m contour; south of the A489 the ground slopes gently southwards towards the River Caebitra.

Evidence for the earliest, prehistoric, exploitation of the area surrounding the site is derived from aerial photographs. A group of circular cropmarks probably represent ploughed-out barrows, dating to the Bronze Age; these sites frequently cluster on low-lying gravel terraces. A double (possibly triple) ring-ditch (SA 1210), is located northwest of Brompton Hall. A second, less distinct cropmark (SA 4146), representing a circular ring-ditch approximately 20m across, is located inside the southwest angle of Pentrehyling Fort.

The Roman fort at Pentrehyling and the marching-camps were also first identified from the air, as cropmarks, by J.K. St. Joseph (1969 and 1973). The line of the fort's encircling ditch, rampart and southern annex are not visible as earthworks on the ground, and the continuation of the defences into areas of pasture has only become apparent from subsequent geophsical survey and trial trenching (Allen 1986 and 1988). The cropmarks define a fort measuring externally approximately 180m (west-east) by 150m (north-south). The position of the east and west gates has been located (Allen 1986, Figure 1).

Selective excavation at Pentrehyling Fort has been conducted on a seasonal basis since 1978; later, the excavation team, led by John Allen, adopted the name 'Central Marches Archaeological Research Group' (CMARG). This project was initially intended to date and establish the fort layout. During twelve summer seasons, work has been concentrated within the southeast angle of the fort interior, with additional selective trenching of the fort defences (Allen 1986, 1988, 1991a-c).

In summer 1989 BUFAU and CMARG undertook a joint evaluation of Pentrehyling Fort, the marching camps and surrounding area, on behalf of Shropshire County Council, to evaluate the presence, survival and archaeological significance of the area threatened by a road widening scheme; for the evaluation research design see Watson 1989.

The results of the evaluation, in combination with the evidence from previous excavations by CMARG, indicated the high archaeological potential of four of the seven areas evaluated. The evaluation confirmed the survival of structures within the fort. The ditched eastern defences of two marching-camps (SA 1211 and SA 1212) were excavated and defined in relation to later features associated with Pentrehyling Fort (Cane and Allen 1989).

Full scale excavation in 1990/91, undertaken by BUFAU, was confined to narrow areas, approximately 3-4m wide, within the widened road corridor, both to the north and south of the existing carriageway, which continued in use throughout the excavation. Trenches were excavated to define the threatened parts of the southern and eastern defences, and to provide an understanding of the fort layout at its southeast angle. The character and eastwards extent of the *vicus* were defined in further trenches. The marching camp defences were sampled to the east of the vicus and south of the modern road.

The whole of the 1990/1991 Trenches III and IV, and the eaternmost part of Trench I, lie within a Scheduled Area (SAM 308). The most distinct marching-camp cropmark features, and the western part of the *vicus*, are within SAM 308, but the fort area is excluded from this protection.

A sampling strategy for the recovery of environmental evidence was devised in consultation with Lisa Moffett of the Archaeobotanical Laboratory, Department of Ancient History and Archaeology, University of Birmingham. This involved the selective sampling of artifactually rich deposits from well-sealed features, including ditches and pits but excluding beam-slots. Results from this sampling were almost completely negative. Discussion of the recovered residues appears in the 1991 Assessment Report (Jones and Ferris 1991), where no further study was recommended, and will not be repeated here.

Subsequent work by CMARG concentrated on the south eastern area of the fort and the adjacent part of the *vicus*, as well as a possible aqueduct system.

Assessment of the Excavations

A full site narrative and post-excavation research design relating to the 1990/1991 BUFAU excavations was submitted on behalf of Shropshire County Council (SCC) (the sponsors) to English Heritage for consideration with regard to the granting of post-excavation monies (see Jones and Ferris 1991). The response of English Heritage was to view the proposed publication of the BUFAU work separately from the CMARG work at Pentrehyling Fort, Brompton as academically unfortunate; the initiative was therefore taken by the EH Inspector to bring together the three involved bodies (BUFAU, CMARG, SCC) to discuss a joint publication and to invite a joint grant application for achieving this aim. It was decided that John Allen of CMARG would undertake the structural and sequential narrative of the site, and, as overall editor, interpret the excavated features and structures, and that BUFAU would be responsible for the full finds analysis programme.

The following presentation of the data and proposals for post-excavation analysis includes an assessment of the full finds assemblages, the assessment of the CMARG finds having been undertaken by Jane Evans and Iain Ferris in August 1992 and the quantification combined with that from the 1991 BUFAU assessment, with

consequent changes of emphasis in qualitative discussion of the various categories of finds. The structural sequence and overall project design are discussed by John Allen.

ARCHAEOLOGICAL RESULTS

From an initial appraisal of the excavation results it has been possible to define elements of prehistoric activity and three periods of Roman occupation in the immediate area of Brompton. Post-Roman activity is also attested. The sequence of activity is as follows:

Prehistoric	
Roman Period 1:	The marching camps
Roman Period 2A:	Establishment and use of Pentrehyling for (possible start of *vicus*)
Roman Period 2B:	Spread of industrial activity both in the *vicus* and encroaching into the internal area of the fort.
Roman Period 3:	Later Roman re-use of site
Period 4:	Post-Roman activity.

The above occupational sequence has been obtained by a preliminary assessment of the pottery and coin evidence from both the CMARG and BUFAU excavations.

PREHISTORIC ACTIVITY

The archaeological results

The earliest identifiable features (F106, F107), cut into the natural gravel at the western end of BUFAU Trench 1, and sealed beneath the front face of the fort rampart. F106 was a flat-based, oval pit 0.60m deep, and filled with a light brown clay silt (1020). To the southeast of F106 was a roughly oval, irregular cut (F107) with a lip on its eastern side, backfilled with a similar material to 1020 (1021), sealed by a dark grey, clay silt, flecked with charcoal (1040). A large number of decorated sherds of Late Neolithic pottery, possibly belonging to a single vessel, was recovered from these features, including sherds which preserved possible traces of charred food-residues. No other excavated features could be assigned to this period.

Discussion

Three small pits, preserved beneath the fort rampart, possibly served a ritual purpose. A quantity of ten worked flint flakes recovered from the topsoil nearby may indicate a concentration of prehistoric activity in this area. The pottery recovered is Late Neolithic in date, being sherds of a Peterborough Ware bowl of the Mortlake Style.

ROMAN PERIOD 1: THE MARCHING CAMPS

The archaeological results

The earliest evidence of Roman activity is represented by ditches (F310, F401) following approximately a common north-south alignment. The eastern ditch (F401) was V-shaped in profile and survived to a depth of 1.80m below modern ground level. The fill suggested a gradual in-filling, rather than deliberate back-filling. The western ditch (F310) had a roughly V-shaped profile and survived to a depth of 0.50m below the modern topsoil. The ditch was gradually in-filled after abandonment. A third shallow ditch (F305), also of V-shaped profile, was located west of F301, again aligned north-south. Roadside ditches (F304, F311), associated with the fort, cut F305 and F310. No environmental evidence or artifacts were recovered from the lengths of the features sampled.

Discussion
The position and alignment of F310 and F401 correlate with cropmarks previously identified as representing the western defensive ditches of two distinct marching-camps (SA 1211, SA 1212). The ditches were 'military' in profile.

Cropmarks do not provide a precise parallel for F305, possibly associated with the third, and most westerly, marching-camp (SA 4169) recognised from a cropmark delimiting its southeast corner.

The marching-camps may have been constructed during the Scapulan campaigns of 48-51 but could, with equal probability, be related to any of the subsequent campaigns up to the early Flavian period. These single-ditched camps may have been occupied only briefly by an army group on campaign. The exact number of marching-camps in the area of Brompton is not clear. Only two of the three putative camps have more than one side connected by a rounded corner (Allen. J. 1986). The feature called Camp 3 (St. Joseph, J.K. 1973) seems to represent a linear ditch. The position is further complicated by other linear crop-marks in the same area not plotted on the St. Joseph plan.

PERIOD 2A: PENTREHYLING FORT

The archaeological results

The Ditch

The position of the defensive ditch was plotted using a combination of three methods: aerial photography, resistivity survey and excavation.

The ditch appears to be broken at the four entrances, and has not been recorded along most of the south-west side. A smaller annex ditch, enclosing an area to the south of the fort, springs from the south-east and south-west corners of the main ditch. The southern extent of this annex has not been determined.

Four sections have been cut across the ditch (Trenches 2, 15, 12 and BUFAU Trench 1 (F112)). All the sections show similar characteristics. Typically a primary silt was overlain approximately half-way up by an occupation layer; this latter is most pronounced in the sections cut in the south-east corner of the fort. A possible interpretation is that the second phase of occupation (2B) occurred in this area only after the garrison had moved out.

The annex ditch was half-sectioned in Trench 19 and south of the modern road in 1984 when the road improvement drain was installed. It was V-shaped in profile and approximately 1.25m deep. The southern defensive circuit was defined in BUFAU Trench 1 for a length of 40m, west of the south-west corner of the fort defences, following an approximately east-west alignment.

The Rampart

The rampart, due to damage caused by repeated ploughing over the years, does not survive to any height, but it has been examined in a number of areas. The front of the rampart was exposed in Trench 2 where it appeared to consist of a layer of dirty yellow clay approximately 1m wide, with two stake holes driven into the front. The depth was only a few centimetres at this point. Other areas showing clear edges were exposed in Trench 24, (2451,2445). In Trenches 15 and 12 the front edge could not be detected.

In BUFAU Trench 1 the southern rampart (F101), approximately 1m inside the ditch, survived to a maximum height of 0.20m. The rampart material was similar to that encountered to the east being a soft, stone-free, buff-brown silt clay (1002, 1012) containing patches of decayed turf in the centre. A massive post-pit (F105), cut into natural gravel, defined the front face of the rampart and was partially sealed

beneath slumped rampart material. The post-hole contained a post-pipe 0.20m wide, filled with buff-brown silt (1019). The rear face of the rampart was defined by a shallow, flat-bottomed, post-hole (F151), 0.20m deep.

A trench (F109, F115), 0.30m wide and 8m long, was cut at the rear of the southern rampart and followed its alignment. The vertical-sided trench, 0.20m deep, contained a grey silt (1016) overlain by a soft charcoal fill (1017). The fills contained litharge, smithing slag and hearth-bottom. This trench was cut at its northern end by a linear feature, (F117), which continued the alignment of F109, but was only visible for a length of 2m inside the excavated area. This feature contained a collapse of angular stone fragments (1026) set in a mottled green-red clay (1023), possibly the debris from collapsed ovens or hearths set into the rear face of the rampart.

On the eastern side, (BUFAU Trenches 1, 2), the position of the rampart was shown as a spread of clay (F154, F208), without clear edges probably due to plough damage. The width was up to 6.0m, and survived to a thickness of 0.15m, immediately overlying the natural gravel. A straight sided post-hole (F207), 0.20m in diameter, was sealed beneath collapsed rampart material.

In Trenches 33, 37 and 16 further spreads were found. A clear section of the rear face of the rampart was found in Trench 13; here a bank of dirty yellow clay, again 1m wide, was exposed. It was, as before, only a few centimetres thick but in this case the natural gravel had been cut back to form a level foundation. This face was also probably reinforced, as a small number of stake-holes were found along its rear edge. In Trenches 22 and 30, the core of the rampart could be seen as an orange-red gravel, very similar to the natural gravel on which it lay. This, too, was only a few centimetres thick.

In conclusion, the remains of the rampart are so slight they cannot be seen at ground level by casual observation. However, excavations have shown that the rampart was constructed by building a front and rear face of clay, approximately 1m thick, and filling the centre with gravel, probably derived from the ditch up-cast. Both front and rear faces would appear to have been reinforced with timber stakes, irregularly spaced, driven into the natural surface.

Gates and Corner Tower

The position of the four gates was determined as previously described. Trench 4 was cut to obtain information regarding layout of the western gate. However, only two main features were identified; the rather degraded road surface through the gate and the rampart. A detailed investigation was not possible, but it would appear that the remains of the rampart were thicker here than in other areas investigated.

The two post-pits of the southern gate were first located in Trenches 5 and 8. In Trench 33 the majority of the gate area was exposed. Thirteen post-pits were excavated (3312, 3330, 3332, 3331, 3313, 3311, 3319, 3324, 3327, 3321, 3306, 3305, 3316); nine contained post-pipes resulting from the decay or removal of the timber uprights. It is highly probable that a fourteenth post-pit existed under the hedge parallel to 3327.

The plan of the south gate is of a common type, consisting of two six-post towers with their long axes flanking a double carriage-way, with two central supports for a walk-way between the towers. It was noted that some modifications had been undertaken: the post-pits of the two central supports had been extended sideways by slots cut into each carriage-way at the point where each gate would have been positioned. These slots, which were not deep, could have held partial sleeper beams, though these are not commonly found in timber forts. An alternative interpretation could be that the slots were foundations for timber walls which partially blocked each carriage way, restricting access.

The south-east corner tower was located in Trench 24. Five post-pits were excavated (2427, 2425, 2444, 2427, 2448), each containing a square post-pipe of approximately 0.20m dimension. The plan strongly indicates that a sixth post-hole existed outside the area. Post-pit 2444 contained an extra post-hole possibly not related to the corner tower but associated with the revetment at the rear of the rampart.

Roads

The *Via Sagularis* was identified at a number of points; in Trench 30, BUFAU Trench 2, Trench 33 and Trench 37. In Trench 33 a good section (3329, F230) had survived plough damage due to its proximity to the modern road hedge. It was built up of at least three layers of rounded pebbles mixed with clay to form a compact surface. The road had been placed directly onto the natural gravel. In BUFAU Trench 2 (F217) the surface contained larger stones and probably represents the best state of preservation possible by being protected by the hedge at this point. In other, not so favoured, areas the plough has dug deeper and no evidence of road surfaces was found.

Fragments of another road surface were found in the area just inside the south gate, again where it had been protected by the hedge bank (3308). This would appear to be one of the main roads inside the fort, but because the orientation of the Principia has not been determined this road cannot be named. A further section of this north-south road showed in Trench 36 (3622). Here a small section of rather degraded road between two buildings was found (3714, F218), but in other areas surfaces did not survive.

Buildings

All the buildings found during the excavations were of timber construction. In only one case was the complete plan found; this was the small square structure behind the east tower of the south gate (3325,F242,F236). All that remained of this building was the construction trench for the foundations and this was very shallow on the south side. The floor had been destroyed by plough damage, though this is common to all the buildings identified. A hearth pit (3318, F235) occupied the centre, the silty-ash fill containing some pottery, notably a stamped Samian dish of early Flavian date.

Four further buildings were identified. Starting from the east, the plan of Building 2 was formed by vertical sided construction slots approximately 0.3m wide - the depth dependent upon the amount of plough damage. The east wall (3004, 3009, F213) extended across the road F123. The fill of these slots is a stony clay in which post-holes were found, showing that the probable construction was of wattle and daub, supported by vertical uprights. Cross-wall construction slots (F124, F212, 3022, 3706, 3707), and further cross wall 3709, seemed to be much lighter in construction; all that remained were truncated conical-shaped post-holes. The east wall (3708, F215) extended across the present A489 but seemed to be at a reduced width in BUFAU Trench 1. The east wall was broken by quite a large gap, possibly a doorway, between 3708 and 3711. Two post-holes were found at the end of each construction slot. A shallow gully (3709), with a greenish-yellow fill which contained a coin of Vespasian, occupied the centre of this room.

Building 3 lay further to the west, divided from Building 2 by a small remnant of road (3714, F218). It had the same width, approximately 9.5m, as Building 2, and, again, the ground plan was outlined by construction slots only. The east wall (3736, F220), the south wall (3714) and the west wall (F225, F133), plus one cross wall (F248) and a partial wall were recorded. This building seems to be connected by a slot (3729) to a fourth building.

Building 4 was 5m wide. Here again, only construction slots (F226, F134 3728, ?3721) gave the floor plan. However, three parallel slots occur on the west side; not enough slots for this building to be interpreted as a full-blown granary, but possibly a portion of the building could have had an up-raised or strengthened floor.

Buildings 2, 3 and 4 had all been cut into by features from Period 2B.

A fifth building is contained in Trench 24 and lies behind the south-east corner tower. The evidence consists of large building slots which contained large post-holes. The structure seems to overlay a pit (2419) into which a drain (3014, 3013), situated between the rampart and the *Via Sagularis*, discharges. An exit drain (2409) runs through to the outside of the fort, through the line of the rampart and corner tower. It is not possible, at this stage, to be certain that this building does not belong to Period 2B.

Building 6 (Trench 36) was outlined by construction slots similar in every way to the other structures. There was not sufficient area excavated to determine its width or ascertain its function.

Discussion

The plans of Buildings 2, 3 and 6 suggest barracks buildings, the southern section of which, by tradition, would be the centurion's quarters, so the plan in this area is more complex than the simple two-room *contubernia*. The alignment is consistent with the fort's axes and the width is common for this type of structure. Building 4 is only 5m wide, which compares with similar buildings in other forts of this period and is of a type often interpreted as 'stables'or 'workshops'. Building 5 - if it is a Period 2A structure - could be a latrine. Although Building 6 has only been partially excavated, the portion shown would appear to be part of a centurion's quarters.

It is possible to put forward a tentative layout for approximately a quarter of the fort plan. This quadrant contains three barracks, 9.5m wide extending from the south to the north to meet the road leading out of the east gate, in addition to which there is a stores building or partial granary of the same length. On top of this, there is room for stores or stables.

The fort is only single ditched, with an annex enclosed by a smaller ditch to the south. A main fort ditch was not cut along most of the south side inside the annex. The rampart was approximately 6m wide and consisted of an outer and inner face of clay, revetted by wooden posts driven into the natural gravel. Traces of turf were found in some parts of the rampart core. The topsoil had been removed in the area of the road and rampart so these features had been built straight on to the natural gravel.

The gate is six-post, twin-towered, with a double carriageway commonly found both in Britain and Germany. A six-post corner tower existed in the south-east corner. A large post-hole in Trench 1 suggests that interval towers were present, but the trenches did not cover the likely areas to prove this conclusively.

From the pottery evidence, the foundation date would seem to be Flavian. The work on the pottery is not precise enough to indicate the date of the abandonment of the fort. With Forden Gaer so close, 5 miles away, it is very unlikely that these two forts were occupied at the same time and there is certainly a silting up of the defensive ditch before industrial working extended over and into the resulting hollows. All this being said, it does not preclude the possibility of military control continuing on a much reduced scale.

Environmental evidence (by R. Heath)
Period 2A
Five samples from the Period 2 fort features were processed. Wood charcoal was retrieved from all samples (F105, F122, F234, F252) but after initial sorting no other forms of carbonised material were identified.

PERIOD 2A/2B: THE *VICUS* SITE AND INDUSTRIAL ACTIVITY

Archaeological results
The results of the excavations carried out so far suggest that there is considerable occupation in the area outside, and to the east of, the fort. For the purpose of this narrative this area will be called the *vicus*. The zone contained a dense concentration of hearths, tanks, pits and gullies, all probably associated with metal-working. The area associated with metal-working is not confined just to the *vicus*: industrial activity has been found inside the area enclosed by the rampart of the fort. This activity would appear, from the work carried out so far, to be widespread. Some features inside the fort must be dated to the second phase of occupation. The second phase features found inside the fort compare morphologically with those outside the fort.

An 8m-wide band, immediately east of the eastern defensive ditch, was devoid of features (BUFAU Trench 1). East of this open area was a road or yard surface (F209), surviving underneath the former road hedge. This surface was formed of small pebbles set in brown clay silt (2012), and was cut by a gully (F202).

Two irregular-shaped hearth-pits (F145, F15) were identified during the evaluation in 1989 Trench 35 (Cane and Allen 1989; Trench 5). The first (F145,3513) was a steep-sided, oval pit dug into the natural gravel. Part of the original burnt, red clay lining (1087), 0.10m thick, survived *in situ* to the north. The fills (1086-1088,1098) contained a total of 0.283 kg of smithing slag and hearth-bottom material, charcoal and gravel. The hearth-pit was connected to two gullies (3508 and F147) leading away to the south and south-east. The latter may have been connected to another, wider gully (F202) excavated to the south and conforming in position and alignment with F147. A pit (3505) was located 3m to the east of F145, and contained a large quantity of pottery and some litharge. It was connected to a gulley (3511). Two small, flat-based hearth-pits (3507,3506) also existed nearby.

A roughly circular, vertical-sided and 1.50m deep feature (F142), east of 3505, containing smithing slag and hearth-bottom, was cut by a flat-based, shallow-sided, curving gully (F150). The cut has joined the eastern pit 3505 via a narrow gully which broadened and deepened to the southwest. It was filled with a brown silt clay (1079,1085).

In BUFAU Trench 2, to the south, a circular pit (F206) contained a layer of charcoal-rich silt (2034), possibly associated with metal-processing activity.

East of the gully F150, two vertical-sided pits or tanks (F144, F148), 2m apart, were similar in both profile and depth. Both were roughly oval in plan and were excavated to a depth of 2m. Neither was bottomed for reasons of safety. The fills (1083, 1084, 1095, 1099, 1101; and 1104,1106 respectively) of these features contained quantities of charcoal, smithing slag and hearth-bottom. The western tank (F144) may have originally linked with the gully (F150) to the west. A butt-ended, shallow gully (F143), aligned north-south, may have formerly joined with one of the adjacent tanks. A shallow, steep-sided pit (F141), 1.50m in diameter, was located east of F143, but its function could not be determined during excavation.

Two further hearth-pits (F139,F140) were located at the eastern end of BUFAU Trench 1. The largest (F139), was flat-bottomed with irregular, steep sides, and measured 3m in diameter and 0.80m in depth. The fills (1076, 1090-1094) contained charcoal, hearth-bottom, and smithing slag (12.415 kg). A curvilinear gully (F138), aligned approximately north-south, was probably originally joined to this feature. It deepened away from F139. The smaller hearth-pit (F140) was located 0.50m southwest of F139. This was an inverted conical bowl, 1.50m across and 0.60m deep, probably originally joined to a shallow gully (F149) to the north, aligned approximately north-south. The fills contained 0.4969 kg of smithing slag and hearth-bottom, concentrated in the upper fills. A small, circular flat-based post-hole (F146), south-east of F140, was sealed by the upper fill of F140.

Two gullies (F300, F312), aligned northeast-southwest, were exposed in the western end of BUFAU Trench 3. The wide, flat-bottomed gully (F300), was cut by the narrower gully (F312), which continued the line of the former to the west. The fill (3001) of the earlier gully contained glass, litharge and smithing slag.

A large oval pit (F301), measuring 4.50m in width, was connected to a shallow-sided, flat-based, curvilinear gully (F302), aligned northwest-southeast. The pit was irregular-sided with a flat base. The fills (3010-3012), contained a coin with a terminus in the late 1st/2nd century, glass, iron nails and 2.842kg of smithing slag.

East of F301 was a roughly circular, flat-based pit (F306), measuring 4m in diameter. The fills contained glass and lead scrap. It was cut to the northeast by a deep, irregularly-shaped cut (F308) filled with charcoal (3019).

A roughly circular, shallow pit (F303), was exposed to the south of the northern baulk. Two shallow scoops, each measuring 1m across, were cut into the irregularly shaped base of the pit.

East of the main zone of industrial activity two shallow ditches (F307,F309) with U-shaped profiles, set 33m apart and aligned north-south, may have delimited boundaries and marked the furthermost extent of the vicus. The eastern ditch (F309) was cut by the southern roadside ditch (F304).

Only one possible building was found in the area excavated on the site of the *vicus* in BUFAU Trench 2 and Trench 38. The features excavated (F204, 3805) would appear to be construction slots. The fill of 3805 was a dirty loam containing pottery, two coins and a gaming token. Two post-holes with post-pipes (3812, 3813), appeared, from their alignment, to be associated with this building and a further two post-holes of much smaller dimensions likewise. Post-hole 3812 had a broken, but almost complete, pottery bowl inserted at the bottom of the post-pipe. There seems no way in which a post could have been placed in the hole after the pot was *in situ* without considerably damaging the vessel. The impression gained was that the pot had been placed in the post-pipe after the post had been removed. A further possible construction slot (3825) could be clearly seen south of the water-pipe trench. No post-holes could be found in the stony fill and it extended north of the water-pipe where it was cut by two post-holes and itself cut a pit (3820). If this constitutes evidence for a second building it might have provided a cover for the 3821, 3829 complex of features. The base layer of 3821 was composed of closely packed stones, with the upper fill being a heavy stiff grey silt containing a considerable quantity of large pottery sherds. The southern section of 3821 was possibly a water tank, used in metalworking activity, although it must be emphasized that this is a rather speculative assumption at this stage.

The other possibly industrial features in Trench 38 were F206 and 3814, which consisted of a pit, into which had been laid layers of stones. A further feature (3816) was constructed in much the same manner as 3814. The method of construction is common to many features found all over the site. Feature 3816 had

a well constructed base structure of hard compacted stones set in clay, onto which was laid a shallow bowl of thick clay, but there was no signs of burning and either it had remained unused, or possibly the burnt areas had been removed by ploughing.

The only other excavations in the *vicus* area were Trenches 31 and 32. When the road-drain trench was cut in 1984 it cut through a complex of pits called together Pits X. These were partially excavated at the time, and then in 1987 the opportunity was taken to completely excavate the complex. The most prominent feature in this area was in fact a system of linear, parallel ditches aligned north-south, approximately aligned with the fort axes. In Trench 32, and the northern section of Trench 31, there were three ditches, closely spaced (3109, 3110, 3117). The fills of 3109 and 3117 were charcoal rich, containing a large amount of pottery and litharge. The largest quantity of litharge, greater than 20 kilograms, was derived from excavation of Pits 'X'. Other finds from the pits included a large quantity of pottery, a coin and a number of bronze objects.

Pit 'Y' was discovered when a spur drain was cut as part of the road drainage improvement scheme - also in 1984. On excavation this pit was found to have been already cut by the watermain pipe-trench. The most interesting find from this pit was a large piece of inscribed amphora which had been thrown in at the bottom. A small trench excavated near Pit 'Y', a straight-sided gully which could be part of a construction slot. This suggests that further buildings are to be found between Trench 38 and Trench 31.

It has not been possible, so far, to separate Period 2A from 2B in the *vicus* area and, in fact, there is no necessity for there to be a discontinuity in operation: the garrison could have moved out and the so-called *vicus* continued its metallurgical operations, possibly under the control of the military. What is clear is that this industrial work spreads into the area of the fort inside the rampart and annexe. Trench 6 inside the annexe, yielded a hearth with a truncated bowl. Some pottery found at the very top of the hearth pit was Black Burnished Ware of possibly Period 4 date, but a small amount of Period 4 pottery has been found in the topsoil interface in other parts of the site. The pottery from the hearth-pit fill was of the earlier, Period 2 type.

Period 2B occupation inside and close to the rampart cut Period 2A features. In Trench 24 and Trench 30, pit 2424 and a wide gully associated with it cut into areas which should have been occupied by the *Via Sagularis*. Hearth pits 3024 and 3028 had been cut close to the rampart. In Trench 15, an occupation layer of thick charcoal mixed with pottery and some glass was found. This strongly suggests that the debris from the industrial working spread at least as far south as this. Pit 3725 contained a large dump of clay and large stones - one at least may have been used as a smithing anvil. A large gully (3739) had been cut in an area of redeposited material. The wall of the gully was at least 0.10m thick and made of compacted stones mixed with clay. A small amount of burnt material was concentrated at the eastern end. The purpose of this gully is far from clear and its most likely use was as a water channel but the fill was not consistent with such a usage. A hearth of a different type was identified (3711). It consisted of a central hearth, relined three of four times, with two gullies radiating out from it to the east and west. The gullies themselves were lined with baked clay. The eastern arm cut into the construction slots of Building 4. North of this feature, in BUFAU Trench 1, lay a further complex of industrial-type structures: two parallel, vertical sided, linear gullies (F239, F244), aligned approximately east-west, contained a quantity of smithing slag and patches of burnt clay. They were cut by a flat-based gully (F252). Other features of Period 2B were an oval, flat-based pit (F246), 1.5m in diameter and a linked shallow gully (F253) of U-shaped profile, curving away to the north-east.

A large pit (3314) 1.5m deep, contained within its fill the remnants of three hearths. When the pit had been largely back-filled, the resulting hollow was used as part of a general metal-working area, debris from these processes being thrown up along the south side of the depression.

The most intensive iron-working complex (3354, 3339, 3349, 3341) of the whole south-east corner of the fort was cut through the *Via Sagularis* and centred on pit 3319, approximately 1.25m deep. At its base was a series of clay bowls and charcoal layers. A relatively large amount of slag was recovered from the area. F237, a shallow linear gully, was dug into a road surface (F257) between Buildings 4 and 5. North of the A489, a V-shaped ditch (F131), dug on the eastern side of the *Via Sagularis*, could be a continuation of 3013.

At the western corner a flat-based, circular pit (F112), with a diameter of 3.5m, was cut into the inner face of the partially-collapsed southern rampart (F101). A band of charcoal (1110), which was tipped into the bowl of the feature from the west, was probably associated with an extensive spread of charcoal (1032) to the rear of the rampart. The fill contained quantities of smithing slag and hearth bottom.

The Water Supply System

In 1984, S. Hyatt, as part of an M.Sc. project for Bradford University, conducted a comprehensive resistivity survey. One of the results of this work was the surprising discovery of a hitherto unknown ditch to the north of, and parallel to, the main defences. This was originally thought to form part of the fort's northern defences. However, a trial excavation (Trench 27) carried out in 1986 uncovered a ditch which was too small - less than a metre deep - to offer any defence. The triple ditch system in Trench 31/32 added weight to the hypothesis that together with this northern ditch they formed part of a water supply to the fort and *vicus*.

For this supply, two main ditch systems seem to exist, but the sequence of events is not absolutely clear at this stage, and one cannot be certain which was cut first. The east-west ditch (3910), the one originally found by the resistivity survey, continues to the north of the fort defences and is cut by a later butt-ended gully (3918). A further, similar gully (3919) was cut into the fill of a larger ditch (3915), running at approximately 45° to 3910. The last phase is represented by gully 3914, which curves in order to discharge into 3910, proving that this east-west ditch (3910) was still operative up to its final silting phase. Ditch 3910 has at least two stages of re-lining. The gully 3905 feeds into 3914. It is not clear from whence 3905 gets its water supply but the shallow, curved feature close by could be all that remains of an above-ground conduit used to tap the spring which still exists further up the slope. The main supply to 3910 would appear to come from some point to the west of the complex.

Discussion

The evidence suggests that the *vicus* was located either side of the road leading out from the east gate. The archaeological remains found in the road ditch during the evaluation excavations of 1989 suggest that activity continued as far as 250m or so east of the defences. Buildings have been located south of the A489 but Trench 31/32 contained only rubbish pits and observation of the drainage ditches possibly indicated that this area represented the outer limit of activity.

Little excavation has been carried out in the annex so it is impossible to say much about possible use of this area.

The amount, and varied types, of pottery found in the *vicus* is significantly greater than in other areas of the site. The tentative conclusion reached is that during Period 2B the *vicus* was more densely occupied than the fort area.

It is presumed, therefore, that industrial activity spread out from the *vicus* to eventually cover a large area of the fort. The principal industry seems to be iron-working and lead working as represented by litharge debris. The amount of litharge found all over the site is suggestive of the extraction of silver from lead which was not smelted on site but brought in from smelting sites further away. The heaviest concentration of litharge was found in the area of the *vicus*, and in particular, in so-called Pits 'X'.

Roman lead mining has, for many years, been assumed in the area of Shropshire and three lead pigs with Hadrianic stamps have been found in the west of the county. It would be more economic to crush and smelt the ore close to the extraction site; the lead could then be transported to an installation such as the fort at Pentrehyling for the extraction of the silver. A parallel site may be inferred from the evidence at Dolaucothi where a fort was located close to where bullion was being extracted. The percentage of silver in Shropshire lead is low, and as there is little evidence for a continuing industry in the county a possible hypothesis would be that the Romans found that it was not economic to produce lead which gave such a low return in silver. The *terminus* of Period 2B in the Hadrianic period, which corresponds to the date of the lead pigs, could represent the winding up of this part of the industry. The large iron working industry need not have been affected by the cessation of silver extraction. However, according to the pottery evidence, it too appeared to finish in the Hadrianic period. A possible reason might be the movement of military units out of Wales due to the shift of emphasis to Hadrian's Wall. This would imply that the iron working taking place at Pentrehyling was connected to the military.

Environmental evidence (By R. Heath)
Twenty-three samples from *vicus* features were processed, including those from hearth-pits (F139, F140, F141, F145, F206, F301, F303 and F306), from possible quenching tanks (F144, F148), from gullies (F142, F150, F202, F300 and F302) and ditches (F304, F305, F309 and F311). Large quantities of wood charcoal came from the pits and gullies. During the initial sorting of the flot, however, evidence of other types of carbonised organic material was sparse. Only F139, F145, F304 and F309 produced any carbonised cereal and even here the quantities recovered - one cereal grain per feature - were too small to be significant. A number of samples were tested for metallic residues, and hammer-scale was found to be present in F142, F300, F301 and F304.

PERIOD 3 : LATER OCCUPATION OF THE FORT

Archaeological results
The next discernible event after the end of Period 2B activity was the re-excavation of part of the (incomplete) southern defensive ditch dug in Period 2A. The re-dug southern defensive ditch was exposed for a length of 40m at the western end of BUFAU Trench 1. Three sections were excavated across its line to define the ditch profile, the sequence of fills, and to investigate a possible ditch terminal revealed in plan to the south. The ditch (F102) was fully re-excavated in this area, presumably following the line of the Period 2A defensive ditch; none of the fills of the earlier ditch survived. Steep-sided in profile with a distinct cleaning-slot at the base, the ditch measured 3m in depth from the top of the modern ploughsoil. The ditch ended in a butt-ended terminal, just inside the southern limit of BUFAU Trench 1.

The three sections cut across the ditch revealed a consistent sequence of backfills. The cleaning slot was filled with buff-grey silts (1028, 1011, 1029) containing pottery with a *terminus* in the late 3rd/early 4th century, sealed by a collapse of the ditch sides (1037) caused by weathering and erosion. A finds-rich deposit of charcoal-stained dark brown clay silt (1005, 1010, 1035, 1036) was then dumped

into the now partially backfilled ditch hollow. This dump contained glass, litharge, fragments of a spindle-whorl, a shale bracelet, nails and also pottery with a *terminus* in the late 3rd/early 4th century. This material was overlain by a light brown silt clay (1009, 1008,9, 1034/38), from which was recovered (in 1009) an inscribed silver spoon of 4th-century form, a bronze coin of Constantius II (337-341), and pottery with a *terminus* in the late 3rd/early 4th century. A repaired sherd of Black Burnished Ware was also recovered. The remaining hollow in the ditch was then infilled with further silts (1003, 1007, 1037), containing pottery of a similar later Roman date.

Discussion
The total re-excavation of this sector of the fort's defensive ditch was followed by its infilling with artefacts suggesting nearby occupation of some form. The southern annex could also have been defended or re-defended in this period, though there is as yet no evidence for this. The dating evidence, in particular the coin and the silver spoon, may hint at a very late date for this activity. It is possible that the western annexe ditch (116) was dug or re-excavated during this period. This period has been distinguished from the later activity within the fort (Period 2B) because of the absence of later artefacts from features there.

Environmental evidence (by R. Heath)
Five samples from the back-filled ditch re-cut (F102) were processed. Two samples (1028, 1029) produced no flot, while the others produced only wood charcoal.

PERIOD 4 : OTHER FEATURES

Archaeological results
A shallow, slightly curviform gully (F228) was dug into natural gravel in the centre of BUFAU Trench 2. Further narrow gullies (F136, F118, F120), roughly parallel to F228, were exposed in BUFAU Trench 1. All these features cut features of Periods 2A and 2B. These features may be provisionally interpreted as field boundaries.

Two stone wall-footings (F253, F254) were located at the western end of BUFAU Trench 2. The footings formed an external wall (F253), aligned west-east, joined by an internal partition (F254) to the south.

Discussion
The ill-defined gullies, which post-date Period 2B, may be an ephemeral manifestation of late, possibly Roman, activity, within the fort interior. However, because of their alignment with the modern A489 road, it is preferable to interpret them as medieval or later field-boundary or drainage ditches. The stone-footed structure uncovered in BUFAU Trench 2 may be post-medieval in date, possibly associated with the turnpike road; there is no parallel for such construction in the Roman period nor associated finds to provide a reliable date.

THE ARCHIVE

Assessment of the Paper Archive

	BUFAU	CMARG	TOTAL
Contexts	222	427	649
Features	135		135
Plans/Sections	183	240	423
Monochrome prints	418	27	445
Colour slides	424	869	1293
Colour prints	100	726	826

Value of the Archive

The above archive provides the basic data from which the site report can be prepared. The interpretation of this data can be used to give the partial plans of the various structural components which go to make up the fort, buildings, defences, etc. It can also be used to provide information on the structures used in the extensive metal-working activities, both inside the actual fort area and in the vicus to the east.

A serious limitation in post-excavation analysis is the extent of the plough damage in the majority of the areas excavated. The plough has cut so deeply that features such as building floors and road surfaces have been completely removed. The rampart has, in many areas, also been completely removed. In other areas only traces of the clay face remain. As a consequence, features cut into the natural gravels, such as pits and more importantly, construction slots, are reduced in depth. The general pattern is for each feature to exist in isolation making the determination of the sequences difficult. Below the plough level, stratification does exist and so the interaction of deep-cut features is possible to discern. The only stratigraphy above this is usually under, or near, hedges. Here, the features were in a better state of preservation, but this does not follow in all cases, as some of the field boundaries would appear to be much older than others. Soil conditions generally were such that only very small quantities of animal bone survived and the metal objects recovered were in a poor condition. Organic material such as leather only existed as residual material attached to objects such as a belt-hook and boot hob-nails. Analysis of soil samples produced little, if no, results.

THE PREHISTORIC FINDS

See narrative discussion above and research design below.

THE ROMAN FINDS

No finds were recovered from excavations on the marching camp at Brompton, thus the discussion below is concerned entirely with finds from Pentrehyling Fort and its *vicus*.

The Roman pottery (by J.Evans)

Quantity and Types represented

Table 1 Roman Pottery: Quantity (count) by site

Ware Group	BUFAU	CMARG	Total
Malvernian wares	24	58	82
Coarse wares (R)	252	697	949
Coarse wares (Ox)	439	1040	1479
BB1	101	27	128
Mortaria	42	5	47
Amphorae	110	158	168
Samian	70	174	244
Other	53	120	173
Total by site	1091	2279	3370

TOTAL POTTERY RECOVERED = 3370 sherds

Key: R =Reduced, Ox = Oxidised, Other = White wares, Gaulish ware, green glazed ware etc.

Recommended pottery analysis procedure

Fabric and Form Sorting
The pottery will be sorted by context and the following information will be recorded:

A Fabric - Sherds will be allocated fabric numbers based on the Clwyd/Powys fabric series

B Form/Decoration - Each fabric group within a context will be divided into decorated and undecorated body sherds, rims, handles and bases. Each category will be recorded on the pottery analysis sheets using a specific form number or code. In addition, the general form type will be noted for rims, for example 'jar', 'dish' or, where necessary, 'uncertain'.

C Quantity - The pottery will be quantified by sherd count and weight, noting both the diameter and the percentage of the diameter extant so that estimated vessel equivalents (EVEs) can be recorded. This will facilitate accurate comparison between Brompton and other assemblages.

D Comments - Any additional information relating to manufacture (for example, the presence of manufacturers' stamps), use (for example, sorting patterns, wear-marks and residues), or post-depositional history (for example, abrasion) will be noted.

Data Entry
The information recorded on the Pottery Analysis Sheets will be computerised using Foxpro.

Specialist Reports
External specialists will be asked to record the pottery using the method described above. They will be asked to provide information regarding the date and source of the material, information they feel might relate to the function or status of the site, and any worthwhile comparisons between this and other assemblages.

Illustration
An example of each form will be illustrated for archive (estimated number - 70 sherds) from which a selection will be made for publication.

Production of the Pottery Research Archive
The archive will consist of:

A Pottery Analysis Sheets arranged in context order

B Computer print-outs of information by site, fabric, form, phase, context type, etc.

C Quantification of the assemblage by site, fabric, form, phase, context type, etc.

D The fabric typology, including information on manufacture, vessel types, source, distribution and dating, and, if relevant, distribution and dating within the sites.

E The form typology, including illustrations of the forms represented and information relating to their date, function, and parallels.

The Pottery Report
The pottery report will include a brief description of the methodology and the quality of the assemblage; discussion of the fabrics and forms present including more detailed fabric descriptions for the less-well-published, wares; dating and functional evidence relating to individual periods together with comparisons between the period assemblages; and a more general discussion of the Brompton assemblage in its regional and national context.

Discussion
Much of the Romano-British pottery from both sites was very abraded. A brief assessment showed the assemblages from Pentrehyling Fort and the vicus to be on the whole broadly contemporary. The fine wares included characteristically late-1st/early-2nd-century types such as eggshell and mica dusted wares, while the range of forms included rusticated and butt beakers, flanged rim bowls and white colour coated flagons. The absence of Lyon ware in the assemblage suggested a terminus ante quem of c. 70AD (Greene 1979b, 18) and the absence of all but a few fragmentary sherds of Black Burnished Ware, retrieved from cleaning layers, suggested a *terminus post quem* of c. 120AD.

However, material from a re-cut ditch (F102) excavated by BUFAU suggested some later occupation of the fort. The main dating evidence, apart from the silver spoon and bronze coin, was provided by 301 pot sherds. These included diagnostically late-3rd- and 4th-century Black Burnished Ware forms, such as cooking pots with splayed rims and obtuse cross-hatch burnish, a flanged dish and/or bowls, and a plain-rimmed dish with plain, rather than pattern, burnish. Little, if any, residual material was noted. Contemporary BB1 was also present in the CMARG assemblage.

Combining the BUFAU and CMARG assemblages provides a larger, and therefore more statistically valid, group for analysis. As with most assemblages, more detailed study would, at the very least, add useful data to the regional and national database. This would be of particular value when faced with the dearth of useful quantitative data from military sites, as noted in the recent assessment of the current state of Romano-British pottery studies (Fulford and Huddleston 1991).

Comparing and contrasting patterns of pottery use and supply in the fort and vicus will provide evidence for the differing status and function of the two sites. During

assessment of the BUFAU assemblage, for example, it was noted that 'native' Malvernian wares were in use at the *vicus* but not at the fort.

Analysis and publication of the assemblages will also contribute towards our understanding of military supply patterns in the region as a whole, if studied alongside similar and contemporary assemblages such as those from Caersws (Britnell 1989), Brithdir (White 1978), Forden Gaer (Crew 1980), Caerhun, Castel Collen and Brecon Gacr (Simpson 1963). It has been suggested (Webster 1990, 139) that during the Flavian and Trajanic period each fort would have had its own supplier working in or near its civilian settlement. More detailed analysis of the fabrics would indicate whether or not this was the case at Brompton. Fruitful comparison could be made with assemblages from known production sites further afield. Sherds of 'Cheshire Plain fabric' were noted during the assessment by Colin Wallace and are known to have reached other sites in North Wales (Webster 1990, 140). Comparison with material from Wilderspool (Hartley and Webster 1973; Hartley 1981) and Northwich (Jones 1971) would therefore be constructive. Wroxeter is another possible source. A report on the pottery from Barker's excavations is now complete (Symonds forthcoming), and the final stage of work on the pottery report for Webster's excavations is well underway. A major research project on the Wroxeter hinterland is also now in progress, for which sites such as Brompton will provide valuable comparative data. The involvement of Jane Evans in the latter two provides a valuable opportunity for detailed comparison to be made. Lastly, both Holt (Greene 1977) and Caerleon (Arthur 1978) are potential sources for some of the finewares present, for example the green-glazed ware.

Metalwork and Related Finds
The metalwork, with the exception of the silver spoon, has been examined by the EH approved conservator, Margaret Brookes.

Coins
Thirteen bronze coins were found. All require full cleaning to facilitate identification and report. All are in very poor condition and further conservation would now appear inappropriate and late.

Reporting: 1 day (SEC)
Conservation: See below

Objects of Silver
An inscribed 4th century silver spoon was found in the backfill of a ?recut ditch. It is unusual to have such an object recovered during controlled excavation, in association with other finds, and therefore it is of some importance. The spoon is being reported on by Catherine Johns of the British Museum. The object is currently being conserved.

Reporting: No cost (CJ)
Illustration: 3 days
Photography: 1/4 day
Conservation: In progress

Objects of Copper Alloy
Thirty objects or fragments of identifiable objects were recovered, including brooch or brooch fragments, bracelet fragments, studs and fragments of military fittings. Most of the material is in very poor condition but nevertheless full reporting is recommended. A further number of unidentifiable fragments will not be reported on.

Reporting: Brooches, No cost (DM)
Other objects, 2 days (IF)
Illustration: 4 days
Conservation: See below

Objects of Iron
In addition to nails (*c.*1500), hobnails (*c.*100) and staples (6), 88 iron objects or possible objects were recovered. These included finger rings with intaglios, blade or blade fragments, ferrules, an ox-shoe, an ?awl, a ?falx, chain links and hooks. In addition there are in this total c.40 amorphous lumps of corroded iron that require X-ray before possible identification. All the other objects will also require X-ray and some cleaning before cataloguing.

This is not a large or idiosyncratic group of ironwork but it should nevertheless be catalogued in full for both archive and publication.

Reporting: Intaglios, 2 days (MH)
Other ironwork, 10 days (IF)
Photography: 1/2 day
Illustration: 10 days
Conservation: X-rays and cleaning, see below

Objects of Lead
Four possible lead weights were recovered along with c.85 fragments of lead scrap.

Reporting: 1/4 day (IF)
Illustration: 1 day
Conservation: See below

Conservation Report (by M. Brooks)
Many of the objects came from ditches and dumps and the corrosion reflects the burial conditions in a rather fine silty clay soil, probably wet, in that the copper alloy and iron are extensively mineralised, the latter with large blisters and/or soft oxide masses attached. All are potentially brittle and fragile. The glass has however survived in excellent condition.

The few copper alloy objects was assessed by visual examination. There are about 30 objects including a brooch, bracelet, studs, belt fitting and several sheet fragments. It would be advisable to conserve all these ⊥ by cleaning and standard chemical corrosion inhibition, even if detailed research is not undertaken, as some of the objects may not stand much movement or long storage before depositing with the museum.

A small number (13) of coins was looked at. They are all similarly powdery with loss of edges. The numismatic detail is however still present and conservation cleaning is recommended.

The iron artefacts consist of large quantities of nails and hobnails (some with wood or leather in a mineralised form attached) and a relatively few identifiable objects and some other objects of presently unknown function. These have all been X-rayed (CX 6397, 6399-6441) for detailed consideration and selection. One object has fine inlaid decoration. Approximately 50 objects could be considered for cleaning, investigation etc. in the laboratory.

Glass (both vessel and bead) and lead appear to be in a stable condition and do not require conservation at present.

Conservation recommended
The copper alloy objects should be conserved to enable them to survive into museum storage.

Estimate: 2 weeks

Selected iron objects should be cleaned and investigated appropriately for the research report and possible illustration. Several objects were only identified on X-ray and the residual metal condition makes the detail of their form at present difficult to describe.

Estimate: 5 weeks maximum

Report, identification of inlay and any further investigation plus liaison etc.
1 week

Total conservation time assessed at 7 weeks

This time (if required) should be bid for at the next HBMC conservation management meeting.

Metal-processing waste
The largest group of material came from features in the *vicus*, from which were recovered 39.834kg of iron smithing slag and hearth-bottom, 30.044kg of litharge (c.20kg coming from three interconnected pits), and a few pieces of bronze slag. Inside the fort were excavated 24.753kg of iron smithing slag and hearth-bottom, 3.995kg of litharge, and pieces of bronze slag.

Assessment of this material was carried out by Justine Bayley who writes:
The smithing material included a few smithing hearth bottoms, amorphous pieces of smithing slag (much of it silica-rich and of low density), fuel ash slag and vitrified clay hearth lining.....Considering the total area excavated, this is a significant but not very large collection of material. There is no evidence of iron smelting. No further work on this group of finds is considered necessary.

The litharge is a by-product of extracting silver from lead. Over 30 kg were retained, though further material was reburied on site (J. Allen pers comm). This material is of great importance, as I know of only three other Roman sites in this country - Chew Park (Rahtz and Greenfield 1977), Herriott's Bridge (ibid) and Green Ore (Ashworth 1961-2), all in the Mendips - that are said to have produced litharge from primary silver extraction. Other sites further from lead-silver sources have produced relatively small litharge cakes that contain variable amounts of copper; these are by-products of the secondary refining/recycling of silver. To the best of my knowledge, no full scientific examination of litharge from extraction sites has been undertaken, so the material from Brompton provides an opportunity for this. It will advance our knowledge of archaeometallurgy and contribute to our understanding of the nature of the activities carried out at the site. I recommend the full scientific investigation of a representative sample of this litharge.

Reporting: smithing debris quantification (JA); litharge analysis (JB and Kerstin Eckstein)

Glass

A total of c.120 pieces of vessel glass was recovered, the majority Romano-British in date. Most fragments came from large square bottles but fragments from two flagons or flasks and three thin-walled beakers were also present. This material is all presumably 1st–2nd century in date and should be fully reported on.

Twenty six melon beads or bead fragments and five gaming counters also require cataloguing.

Reporting: Vessels (JP)
Illustration: 5 days

Stone

One fragment of a quernstone and an abraded stone mould were recovered. Both require description and illustration.

Reporting: 1/2 day (FR)
Illustration: 1.5 days

POST-EXCAVATION RESEARCH AIMS

Introduction

The basic information about the archive recovered from the excavations at Brompton has been summarised and assessed above. While for the purposes of post-excavation analysis and reporting this material must be further scrutinised, the level and extent of this scrutiny beyond site-specific needs must also be identified. In order to achieve this, a period-based framework of discussion is presented below, suggesting possible options for wider research into certain aspects of the Brompton archive.

Aerial photography has revealed elements of the prehistoric landscape in the area around Brompton (for plots of these features see Allen 1986, Fig.1), including a ring ditch (SA 1210) to the northwest of Brompton Hall Farm and another circular feature, probably another ring-ditch, in the southwest corner of Pentrehyling Fort. One or two of the, as yet undated, linear cropmarks may also be prehistoric. There are also a number of stray finds of prehistoric material recorded from the area by Lily Chitty, including a 'small stone celt' said to have been found in the vicinity of Offa's Dyke at Brompton Hall.

The two prehistoric features excavated in 1990, close to the second proposed ring-ditch, add another dimension to this picture, in that the pottery recovered from one of these pits was of a Late Neolithic date. The quantity of Neolithic material from Shropshire and the Marches is small (Stanford 1982), and includes stray finds of axes along routeways, occasional potsherds from hillforts, and, most importantly, pottery recovered from excavations at Bromfield and Sharpstones Hill. No complete or near-complete Peterborough Ware vessel has previously come from the area.

Full study of the Brompton pot, its parallels and significance, will be required, along with an analysis of the possible food residues on the inner base of the vessel. Publication of the prehistoric evidence should be in the form of a short article for the County Transactions.

The complex of Roman camps and the fort at Brompton were first revealed by aerial photography (St. Joseph 1969; 1973), and have been subsequently examined through archaeological excavation (Allen 1986, 1988, 1991a, 1991b, 1991c; Cane and Allen 1989), which has also identified the existence of a *vicus*.

There can be no doubt that the marching-camps represent the earliest military activity here, albeit on a transient level, and must belong to the sequence of campaigns against the Welsh tribes undertaken between 48 and 78 A.D. (Jarrett 1969). At least 13 years of this period saw military actions and manoeuvres in Wales, and to tie down any of the Brompton camps to a specific campaign cannot be done on present evidence; discussion of this nature is, in any case, fraught with the danger of speculation being taken for fact.

It is still generally true to say that the establishment of a more permanent, dense network of forts and fortresses in Wales did not take place until the Flavian period (Jarrett 1969), though a number of fort sites of a certain, or probable, pre-Flavian date are known (Jarrett 1969; Davies 1980). This earlier pattern is not yet coherent and its full extent must await further archaeological work. The full Flavian network changed little until the Hadrianic period which saw a series of reductions of garrison (reflected in fort sizes and layout) and abandonments, reflecting both the development of Romanised ways, or at least a fading antipathy towards them, amongst the Welsh tribes and the pressing needs of the military command in the North. More dramatic changes took place in the Antonine period, as a result of the intensification of the earlier noted trends, and as a consequence the nature of the small, retained network of military establishments changed also.

Post-Antonine activity at military sites is patchily reflected in the archaeological record (Wheeler 1923; Simpson 1962, 1963; Jarrett 1969; Davies 1974; Crew 1980; Britnell 1989) and 3rd-4th century activity, of a generally, as yet, ill-defined nature, has been identified at sites such as Brecon Gaer, Caerhun, Caernarvon (Segontium), Caewrsws, Castell Collen and Forden Gaer. To this list can now be added Brompton.

Many of the auxiliary forts had a *vicus* in association, as is the case at Brompton, but the Welsh *vici* seem to have been a specialised form of settlement (Davies 1974; Sommer 1984; Davies 1990), generally chronologically tight and of a nature and function very different to the large, later military *vici* of Northern England. The Welsh *vici* (Sommer 1984; Jones 1984) seem to have been performing an economic role, often related to metalworking (Kelly 1978; Manning 1979; Davies 1984). The fact that at many sites, probably including Brompton, the vicus was abandoned at the same time as the fort suggests that the vicus was not only dependent on the fort but also under direct military control. The economic role of the army is now a subject of intensive academic debate, and it has been argued that while the army, at both legionary and auxiliary bases, certainly carried out an extensive range of manufacturing activities, these were probably of a specialised and short term nature (Von Petrikovits 1975; Breeze 1984; Hurst 1985; Jones 1990). However, evidence for forts being used, sometimes temporarily, sometimes permanently, as intensive manufacturing sites and supply bases is now being produced by excavation, as at Corbridge (Hanson et al 1979) and Binchester (Ferris and Jones 1992). This is in addition to the well-known, large military works-depots known at Holt (Grimes 1930) and Grimescar (Purdy and Manby 1973), or sites probably almost exclusively concerned with filling military contracts, such as ?Heronbridge (Hartley 1954), Walton-le-Dale (Frere 1984), Wilderspool (CEU 1986) and Worcester (Mundy 1989). The economic role of the Welsh *vici* should be viewed against this hierarchy of sites; within this context the metalworking evidence from Pentrehyling Fort, and particularly that evidence relating to lead-silver extraction, is of considerable importance.

Further economic questions are also of interest. The supply of pottery to the site at Brompton, and to other contemporary fort sites, needs to be assessed in the light of recent work on army supply networks (Darling 1977; Greene 1979; Breeze 1984; Hurst 1985). The economic impact on the local peoples, on the economy and land use, not to mention the exploitation of local raw materials and particularly the silver/lead deposits, can also be considered as pertinent and important lines of enquiry (Hogg 1979; Stanford 1969; Manning 1975; Whittick 1982; Jones 1990). The processes of acculturation and assimilation or hegemony of the native Welsh in the vicinity of the fort/*vicus* need also to be addressed.

In addition to the presentation of the stratigraphic and sequential data, a full programme of research on the Roman pottery groups from all phases, the Roman glass and coins, metalwork and metalworking waste, is recommended as part of a

wider economic study, while all other finds should be simply reported on in a publishable catalogue.

The programme of structural and finds analysis and reporting will be managed by BUFAU.

PUBLICATION

Responsibilities

The overall authorship of the final report will be the responsibility of J.H. Allen, who will also be responsible for the liaison with the publishers. The responsibility for producing the site narratives will be likewise undertaken by J.H. Allen, and by A.E. Jones for the Period 3 and 4 activity.

The reporting on the finds will be the responsibility of I. Ferris and J. Evans who will co-ordinate liaison with all specialists.

The envisaged publication will be in Manchester University Monograph Series (in the A4 format size) funding for which will be required. The prehistoric material will be published as a short article or note, by A.E. Jones and A. Woodward, in the County Transactions.

Provisional layout of publication

Part 1, The Site Narratives

Section
1) Roman Wales
2) The Brompton area
3) The geology and mining
4) The Marching Camps of Period 1.The fort site narratives, Period 2A.
   a) General survey of site and features
   b) Defences
   c) Ditches and rampart
   d) Gate and corner tower
   e) *Via Sagularis* and other internal roads
   f) Buildings
   g) The external east road.
5) Site narrative: vicus and industrial expansion, Period 2A/2B.
6) Industrial phase inside fort, Period 2B.
7) Water supply system.
8) Industrial features: narrative.
9) Site narrative: late Roman Period 3.
10) Final discussion.
   a) Period 2A fort.
   b) Period 2A/2B *vicus* and industrial expansion.
   c) later Roman Period 3.
   d) industrial processing.

Estimated number of pages for Part 1 is approximately 55, (41,250 words).
Estimated number of plans for Part 1 is approximately 45.
Estimated number of sections for Part 1 is approximately 66.
Estimated number of black/white plates is approximately 14.

Part 2. The Finds

Roman Pottery	by J. Evans		
including	Mortaria	by K. Hartley.	
	Amporae	by D. Williams	
	Samian	by B. Dickinson	
		10,000	words + 3 figures
Coins by S. Esmonde Cleary		500	words
Silver by C. Johns		2,000	words + 1 figure + 1 plate
Copper Alloys by I. Ferris			
including Brooches by D. Mackreth		1,000	words + 1 figure
Iron by I.Ferris			
including rings with intaglios			
by M. Henig		1,500-2,000	words + 2 figures + 1 plate
Ironworking residues by J. Allen		1,000	words + 2 tables
Lead by I. Ferris		250	words + 1 figure
Litharge by J. Bayley		?3,000	words + ?1 figure
Glass by J. Price and S. Cottam		500	words + 1 figure
Stone by F. Roe		250	words + 1 figure

References

Allen, J. 1986 The Roman Fort at Pentrehyling, Shropshire. *Archaeology in Wales* (CBA Group 2) No.26, 17-20

Allen, J. 1988 Pentrehyling, Shropshire. *Archaeology in Wales* (CBA Group 2) No.28, 66

Allen, J. 1991a CMARG Report No.4

Allen, J. 1991b CMARG Report No.5

Allen, J. 1991c CMARG Report No.6

Anderson, A.C. and Anderson, A.S. (eds) 1981 *Roman Pottery Research in Britain and North-West Europe,* Parts 1 and 2, BAR Int Ser, 123, Oxford

Arthur, P. and Marsh, G. (eds) 1978 *Early Fine Wares in Roman Britain.* BAR No.57

Arthur, P. 1978 The Lead Glazed Wares of Roman Britain, in Arthur and Marsh (eds) 1978, 293-355

Ashworth, H.W.W. 1961-2 Romano-British Metallurgical Workings at Green Ore, Near Wells, Somerset. Second Interim Report 1962. 73rd and 74th Annual Report of the Wells Natural History and Archaeological Society, 12-19.

Birley, E., Dobson, B. and Jarrett, M. (eds) 1974 *Roman Frontier Studies 1969* 8th International Congress of Limesforschung

Blagg, T.F.C. and King, A.C. (eds) 1984 *Military and Civilian in Roman Britain.* BAR British Series No.136

Blockley, K. 1989 *Prestatyn* 1984-5. BAR British Series No.210

Boon, G.C. 1978 *Monographs and Collections of Cambrian Archaeological Association.* Volume I Roman Sites

Breeze, D.J. 1989 Demand and Supply on the Northern Frontier, in Miket and Burgess (eds) 1984, 264-286

Britnell, J. 1989 *Caersws Vicus, Powys.* BAR British Series No.205

B.U.F.A.U. 1990 *A5/A49 Shrewsbury Bypass Archaeological Project 1989-1990. Post-excavation Research Design.* B.U.F.A.U.

Burnham, B.C. (ed) 1979 *Invasion and Response. The Case of Roman Britain.* BAR British Series No.73

Burnham, B.C. and Davies, J.L. (eds) 1990 Conquest, Co-Existence and Change. Recent Work in Roman Wales, *Trivium* No.25, 138-149

Cane, J. and Allen, J. 1989 *The Archaeological Evaluation of a Cropmark Complex at Brompton, Shropshire.* B.U.F.A.U.

CEU 1986 *Preservation by Record. The Work of the Central Excavation Unit 1975-1985.* English Heritage

Crew, P. 1980 Forden Gaer, Montgomery. *Bulletin of the Board of Celtic Studies* Volume XXVIII, 730-742

Darling, M.J. 1977 Pottery from Early Military Sites in Western Britain, in Dore and Greene (eds) 1977, 57-100 Davies, J.L. 1974 Roman and Native in Wales: I-IV A.D., in Birley *et al* (eds) 1974, 34-43

Davies, J.L. 1980 Roman Military Deployment in Wales and the Marches from Claudius to the Antonines, in Hanson and Keppie (eds) 1980, 255-277

Davies, J.L. 1984 Soldiers, Peasants and Markets in Wales and the Marches, in Blagg and King (eds) 1984, 93-127

Davies, J.L. 1990 Three Welsh *Vici*: Analysis and Implications; in Vetters and Kandler (eds) 1990, 341-351

Dore, J. and Greene, K. (eds) 1977 *Roman Pottery Studies in Britain and Beyond.* BAR International Series No.30

English Heritage 1989 *The Management of Archaeology Projects.* English Heritage

Evans, J.G., Limbrey S. and Cleere, H. (eds) 1975 *The Effect of Man on the Landscape: the Highland Zone.* CBA Research Report No.11

Ferris, I.M. and Jones, R.F.J. 1992 Binchester; a Northern Fort and *Vicus*, in R.F.J. Jones (ed) 1992 Recent Trends in Roman Britain

Frere, S.S. 1984 Walton-le-Dale. *Britannia.* Roman Britain in 1984

Fulford, M.G. and Huddleston, K. 1991 *The Current State of Romano-British Pottery Studies: A Review for English Heritage.* English Heritage Occasional Paper No.1

Greene, K. 1979 Invasion and Response: Pottery and the Roman Army, in Burnham (ed) 1979, 99-106

Greene, K.T. 1977 Legionary Pottery and the Significance of Holt, in Dore and Greene (eds) 1977, 57-100

Greene, K.T. 1979 *Report on the Excavations at Usk, 1965–1976: The Pre-Flavian Fine Wares.* Cardiff

Grimes, W.F. 1930 Holt, Denbighshire: the Works-Depot of the Twentieth Legion at Castle Lyons. *Y Cymmrodor* Volume 41

Hanson, W.S. et al 1979 The Agricolan Supply Base at Red House, Corbridge. *Archaeologia Aeliana* 5th Series No.7, 1-99

Hanson, W.S. and Keppie, L.J.F. (eds) 1979 *Roman Frontier Studies. Proceedings of the 12th International Conference of Roman Frontier Studies.* BAR International Series No.71

Hartley, B.R. 1954 A Bronze Workers Hearth at Heronbridge. *Chester Archaeological Journal* Volume 4, 1-14

Hartley, K.F. and Webster, P.V. 1973 The Romano-British Pottery Kilns Near Wilderspool. *Arch J.* No.130, 77-103

Hartley, K.F. 1981 Painted Fine Wares Made in the Raetian Workshops Near Wilderspool, Cheshire, in Anderson and Anderson (eds) 1981, 471-479)

Hogg, A.H.A. 1979 Invasion and Response: the Problems in Wales, in Burnham (ed) 1979, 285-298

Hurst, H.R. 1985 Kingsholm. *Gloucester Archaeological Reports,* Volume 1

Jarrett, M.G. 1969 (Revision of) *The Roman Frontier in Wales* by V.E. Nash-Williams

Jones, A. and Ferris, I.M. 1991 *Brompton, Shropshire; Excavations 1990. Site Narrative and Post-Exavation Research Design.* B.U.F.A.U. Report No.155

Jones, G.D. 1984 Becoming Different Without Knowing It. The Role and Development of *Vici.* in Blagg and King (eds) 1984, 75-91

Jones, G.D.B. 1971 Excavations at Northwich (Condate), *Arch. J.* No.128, 31-77

Jones, R.F.J. 1990 Natives and the Roman Army: Three Model Relationships, in Vetters and Kandler (eds) 1990, 99-109

Kelly, R.S. 1978 Metal-working in North Wales During the Roman Period. *Bulletin of the Board of Celtic Studies,* Volume XXVII, 127-147
Manning, W.H. 1975 Economic Influences on the Land Use in the Military Areas of the Highland Zone During the Roman Period, in Evans *et al* (eds) 1975, 112-116
Manning W.H. 1979 The Native and Roman Contribution to the Development of Metal Industries in Britain, in Burnham (ed) 1979, 111-121
Miket, R. and Burgess, C. (eds) 1984 *Between and Beyond the Walls*
Mundy, C. 1989 The Deansway Project. *West Midlands Archaeology* 32, 51-56
Von Petrokovits, H. 1975 Die Innenbauten Romischer Legionslager Wahrend Der Prinzipatzeit
Purdy, J.G. and Manby, T.G. 1973 Excavations at the Roman Tilery at Grimescar. Yorkshire Archaeological Journal 145, 96-107
Rahtz,P.A. and Greenfield,E. 1977 Excavations at Chew Valley Lake, Somerset. D.O.E. Archaeological Reports No 8.
Rawes, B. 1972 Roman Pottery Kilns at Gloucester. Transactions of the Bristol and Gloucester Archaeology Society Volume XCI, 103-166
Simpson, G. 1963 Caerleon and the Roman Forts in Wales in the Second Century A.D.Part II. *Archaeologia Cambrensis* Volume CXII, 13-76
Sommer, C.S. 1984 *The Military Vici of Roman Britain.* BAR British Series No.129
Stanford, S.C. 1974 Native and Roman in the Central Welsh Borderland, in Birley *et al* (eds) 1974, 44-60
Stanford, S.C. 1980 *The Archaeology of the Welsh Marches*
St. Joseph, J.K. 1969 *Journal of Roman Studies* LIX, 119
St. Joseph, J.K. 1973 *Journal of Roman Studies* LXIII, 235-236
Symonds, R. forthcoming Wroxeter, Barker: The Roman Pottery
Vetters, H. and Kandler, M. (eds) 1986 Akten des 14 *Internationalen Limeskongresses 1986 in Carnuntum*
Watson, M.D. 1989 *Research Design for Evaluation at Brompton.* Shropshire County Council
Watson, M.D. 1989a *Research Design for Excavation at Brompton.* Shropshire County Council
Webster, G. 1990 in Burnham, B.C. and Davies, J.L. (eds) 1990 138-149
Wheeler, R.E.M. 1923 Segontium and the Roman Occupation of Wales. *Y Cymmrodor* Volume XXXIII
White, R.B. 1978 Excavations at Brithdir, Near Dolgellau 1974, in Boon (ed) 1978, 35-62
Whittick, G.C. 1982 The Earliest Roman Lead Mining on Mendip and in North Wales: a Reappraisal. *Britannia* Volume XIII, 113-123

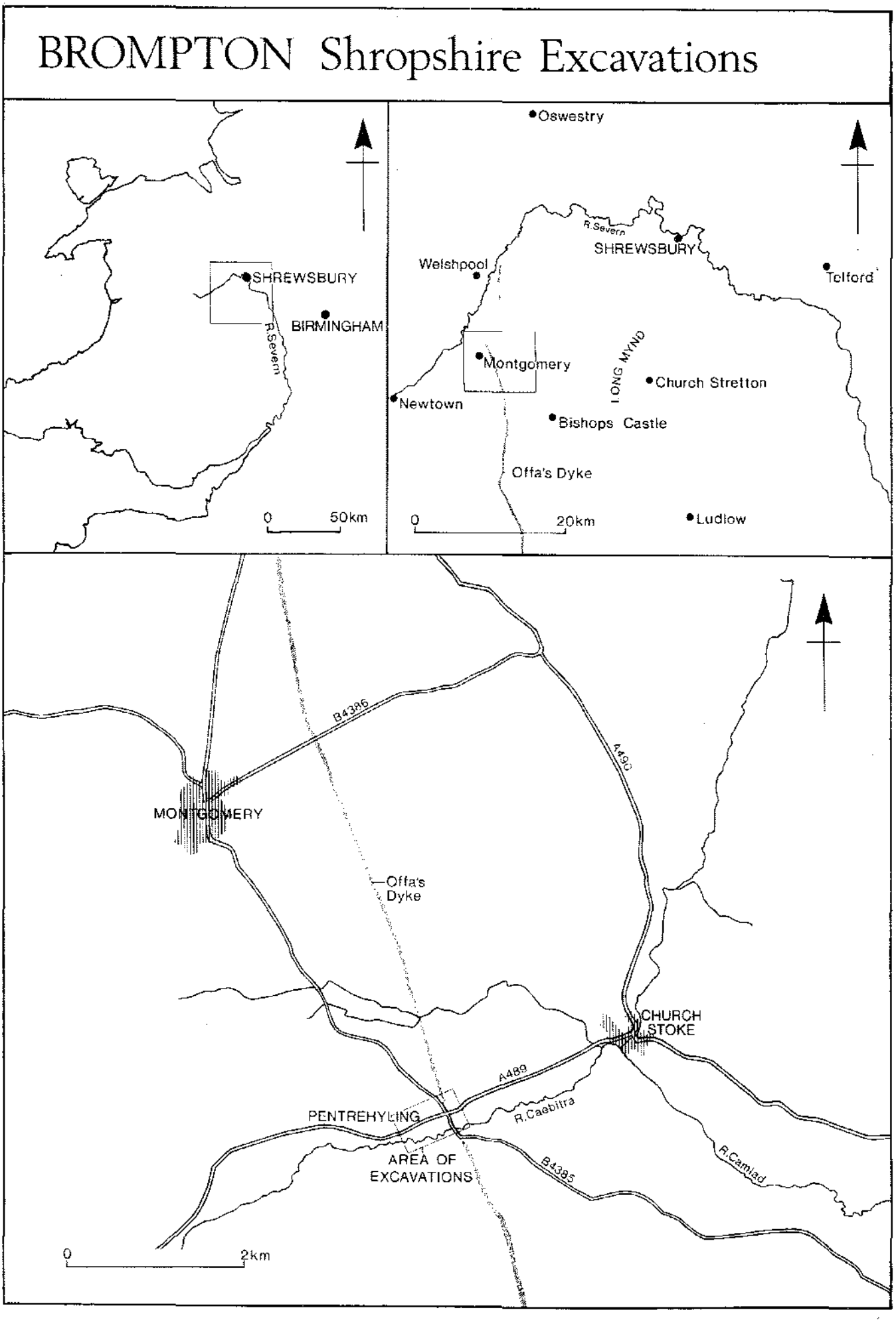

BROMPTON Shropshire Excavations
SHREWSBURY
BIRMINGHAM
R.Severn
0 50km
Oswestry
R.Severn
SHREWSBURY
Welshpool
Telford
Montgomery
LONG MYND
Church Stretton
Newtown
Bishops Castle
Offa's Dyke
0 20km
Ludlow
B4385
A490
MONTGOMERY
Offa's Dyke
CHURCH STOKE
A489
PENTREHYLING
R.Caebitra
AREA OF EXCAVATIONS
B4385
R.Camlad
0 2km

Figure 1

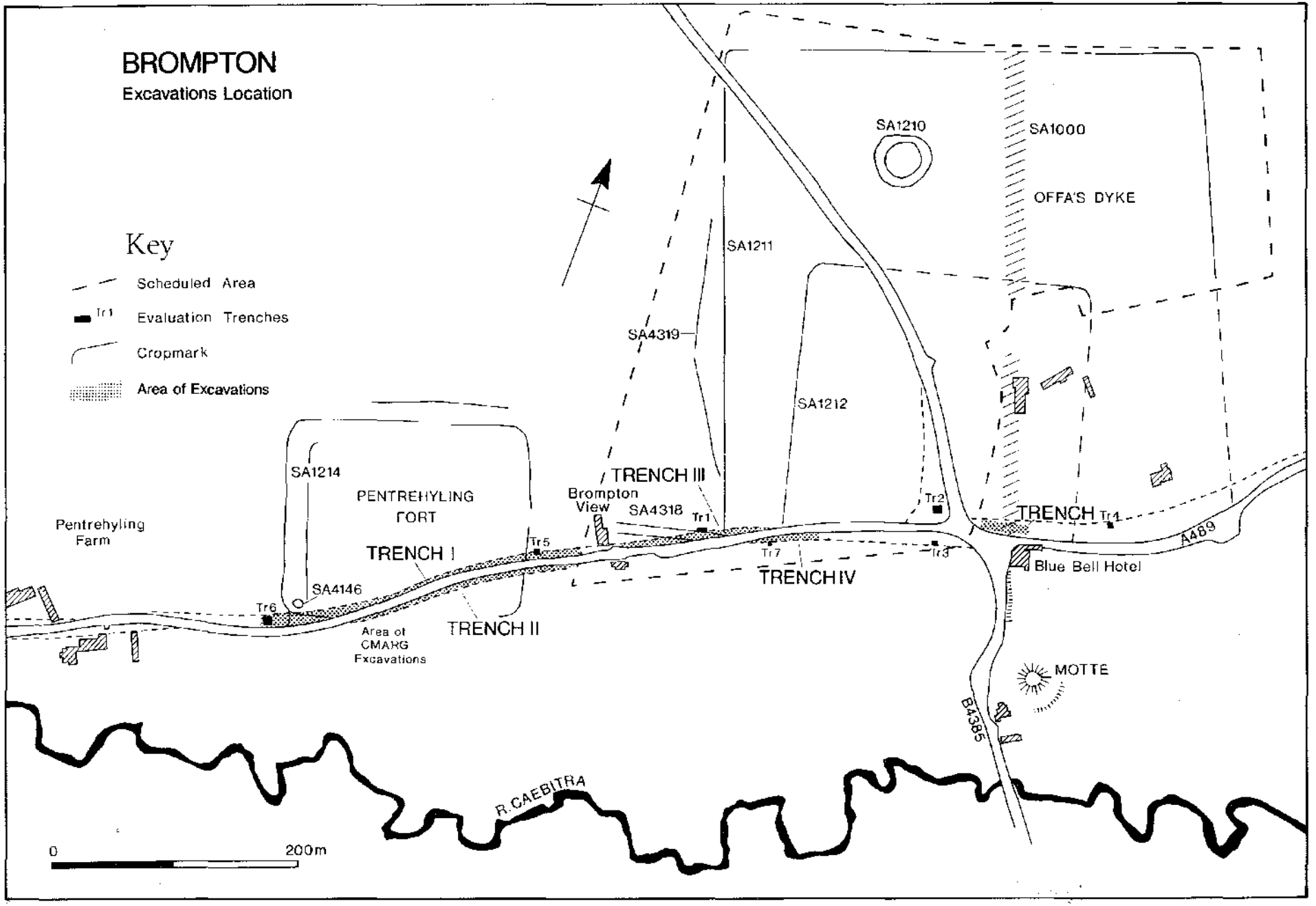

BROMPTON
Excavations Location
Key
Scheduled Area
Tr1 Evaluation Trenches
Cropmark
Area of Excavations
SA1210
SA1000
OFFA'S DYKE
SA1211
SA4319
SA1212
SA1214
PENTREHYLING FORT
Pentrehyling Farm
TRENCH I
TRENCH II
TRENCH III
TRENCH IV
Brompton View
SA4318
SA4146
Tr1
Tr2
Tr3
Tr4
Tr5
Tr6
Tr7
Area of CMARG Excavations
A489
Blue Bell Hotel
MOTTE
B4385
R.CAEBITRA
0
200m

Figure 2

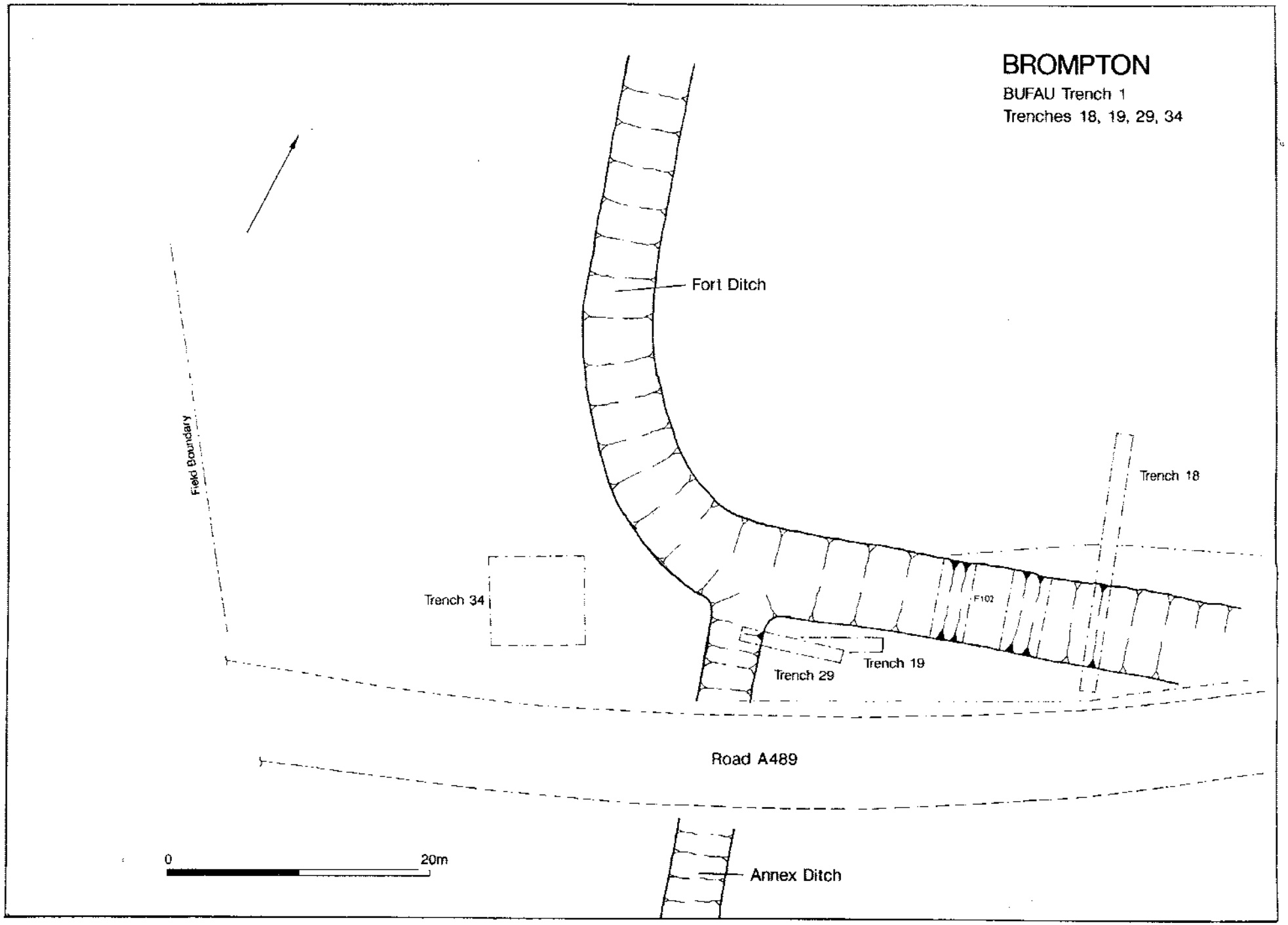

BROMPTON
BUFAU Trench 1
Trenches 18, 19, 29, 34
Fort Ditch
Field Boundary
Trench 18
Trench 34
F102
Trench 19
Trench 29
Road A489
0
20m
Annex Ditch

Figure 3

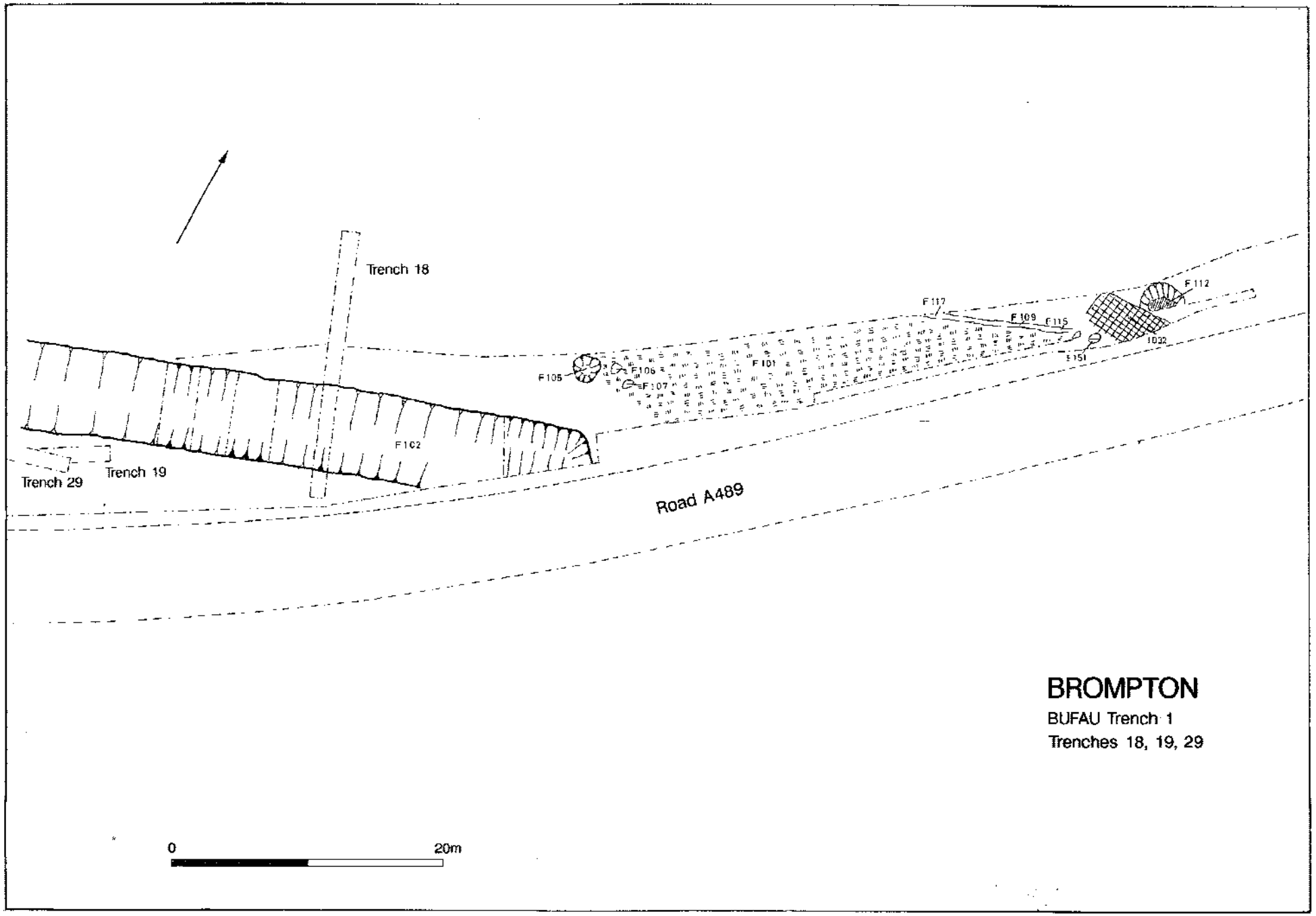

Trench 18
Trench 19
Trench 29
F102
F105
F106
F107
F101
F117
F109
F115
F151
F112
1032
Road A489
0
20m
BROMPTON
BUFAU Trench 1
Trenches 18, 19, 29

Figure 4

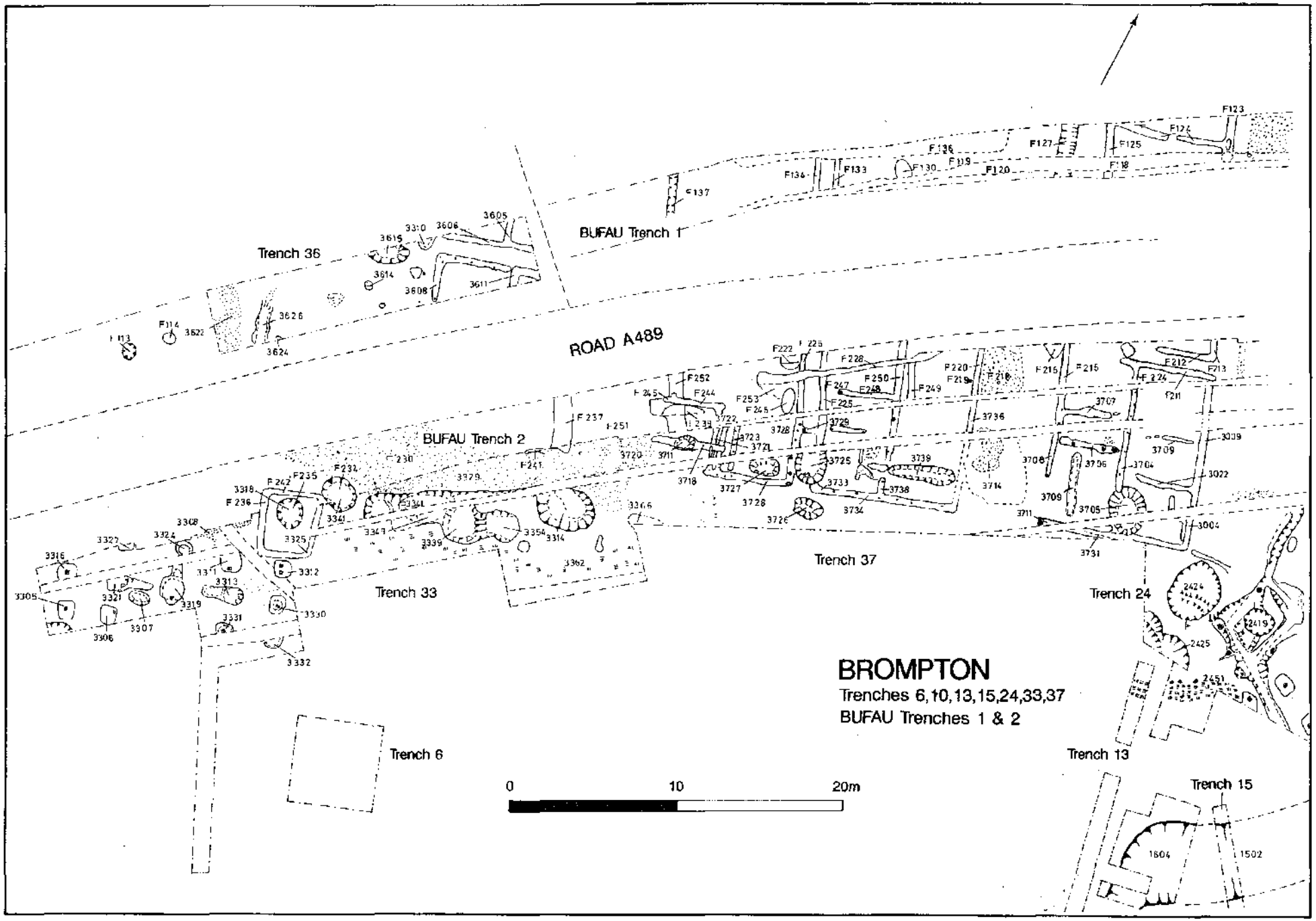

BUFAU Trench 1
BUFAU Trench 2
ROAD A489
Trench 36
Trench 33
Trench 37
Trench 24
Trench 6
Trench 13
Trench 15
BROMPTON
Trenches 6,10,13,15,24,33,37
BUFAU Trenches 1 & 2
0
10
20m

Figure 5

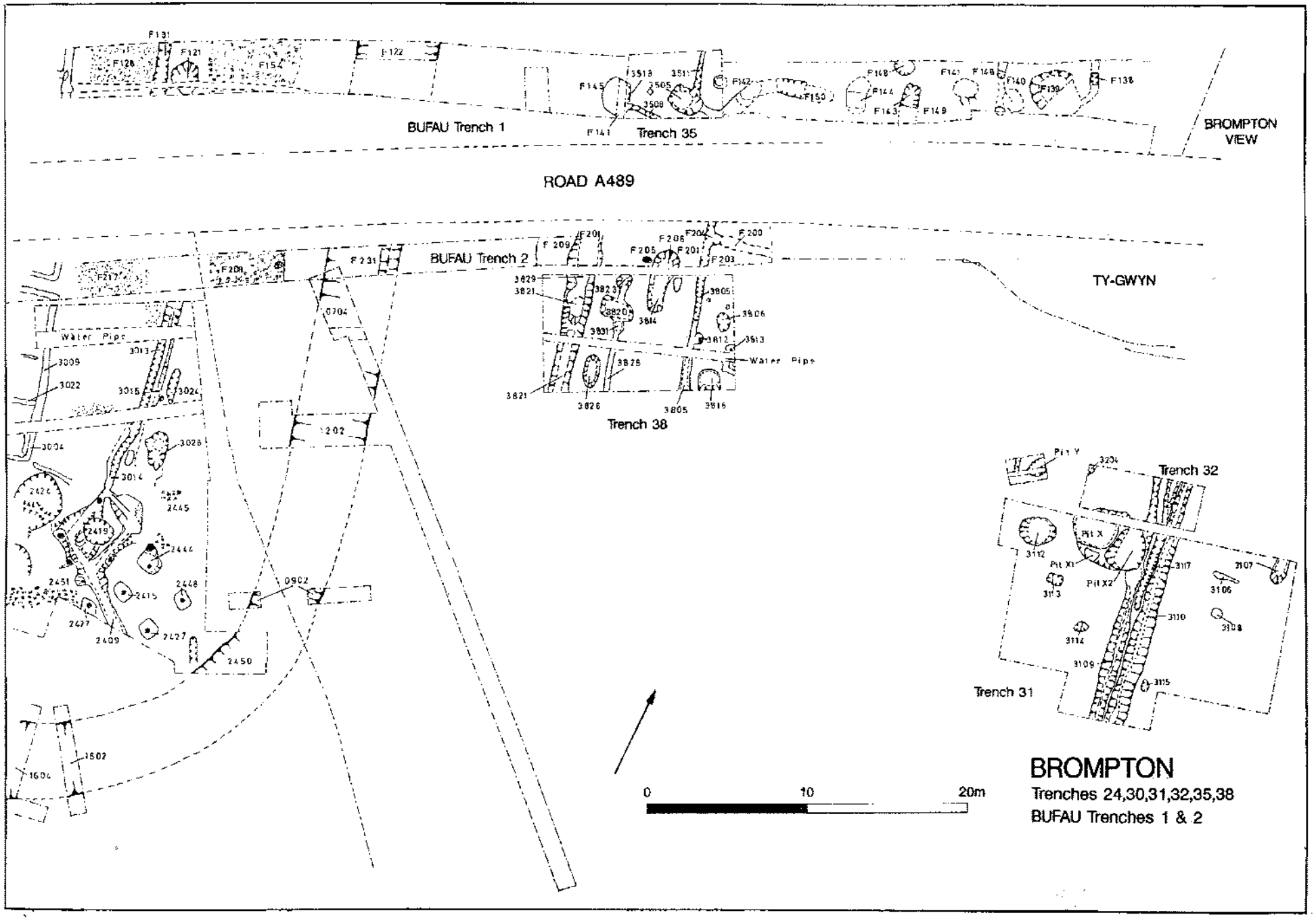
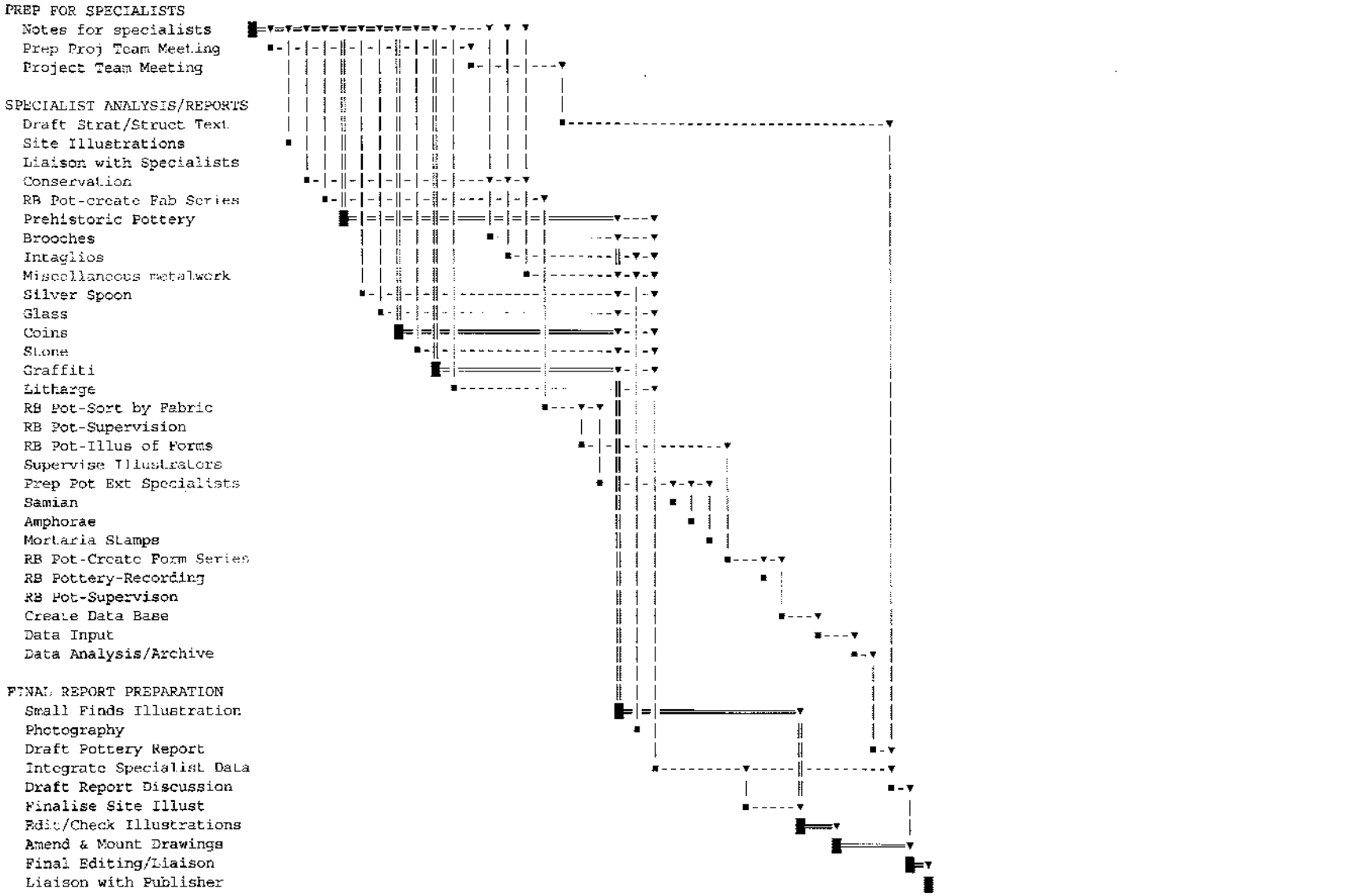

BUFAU Trench 1
Trench 35
BROMPTON VIEW
ROAD A489
BUFAU Trench 2
TY-GWYN
Trench 38
Trench 32
Trench 31
Water Pipe
0
10
20m
BROMPTON
Trenches 24,30,31,32,35,38
BUFAU Trenches 1 & 2

Figure 6

PENTREHYLING FORT, BROMPTON, SHROPSHIRE
Post-Excavation Programme Budget

Staff Costs (University of Birmingham)		
Jane Evans (Finds Officer)	35 days	3,850
Lynne Bevan (Pottery Assistant)	42 days	3,066
Ann Woodward (Prehistoric Pottery)	3 days	534
Vince Gaffney (Computer Officer)	2 days	210
Alex Jones (Narrative Author)	5 days	440
Nigel Dodds (Illustrator)	39 days	2,691
Iain Ferris (Co-ordinator/Metalwork)	22 days	2,904
Simon Esmonde Cleary (Coins)	1 day	80
Graham Norrie (Photographer)	0.5 days	50
	Sub-Total	**13,825**
Staff Costs (University of Manchester)		
John Allen (Author)	60 days	4,800
Richard Gregory (Illustrator)	30 days	2,100
	Sub-Total	**6,900**
Specialists		
Roger Tomlin (Graffiti)	1 day	120
Jennifer Price (Glass)	5 days	475
Kay Hartley (Mortaria Stamps)	1 day	80
Brenda Dickinson (Samian)	5 days	500
Fiona Roe (Stone)	0.5 day	50
Martin Henig (Intaglios)	2 days	200
Don Mackreth (Brooches)	1 day	N/A
Justine Bayley (Litharge)	-	N/A
John Allen (Iron Working Residues)	-	N/A
David Williams (Amphorae)	-	N/A
Catherine Johns (Silver Spoon)	-	N/A
Margaret Brooks (Conservation)	35 days	N/A
	Sub-Total	**1,425**
Other Costs (University of Birmingham)		
Photography		120
Photocopying		60
Office Costs		175
Materials		175
Travel		120
	Sub-Total	**650**
Other Costs (University of Manchester)		
Photography		200
Photocopying		60
Materials		150
Travel		300
Postage/Packing		60
	Sub-Total	**770**
Archive Costs (University of Manchester)		
Copy Drawings		1,400
Copy Colour Prints		210
Copy Monochrome Prints		250
Copy Slides		390
	Sub-Total	**2,250**
Overheads (University of Birmingham)		
(Non-Project Staff Charged as Overhead)		
Simon Buteux	5 days	580
Jackie Pearson	5 days	370
Ann Humphries	5 days	390
University Overheads		2,250
	Sub-Total	**3,590**
	TOTAL	**£29,410**

Brompton Post-Excavation

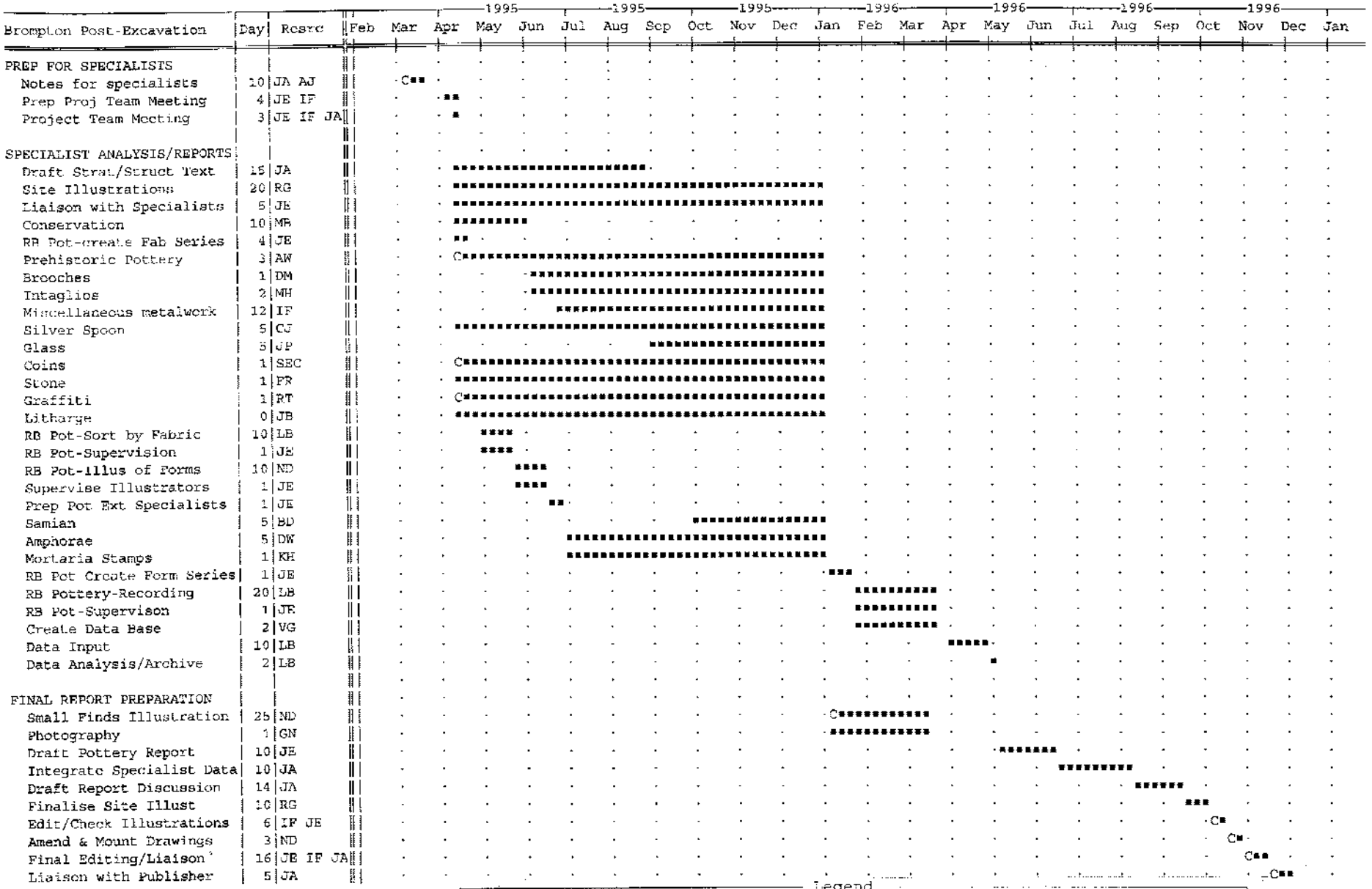


Legend

■	Task not on critical path	▉	Task on critical path
——	Link not on critical path	═══	Link on critical path
▲	Finish-start link, task above	▼	Finish-start link, task below
<	Overlap dependency relationship	>	Gap dependency relationship
s	Start-start link	f	Finish-finish link

02 FEB 95 | GANTT CHART | PAGE 1

Brompton Post-Excavation



Brompton Post-Excavation	Day	Resrc
PREP FOR SPECIALISTS		
Notes for specialists	10	JA AJ
Prep Proj Team Meeting	4	JE IF
Project Team Meeting	3	JE IF JA
SPECIALIST ANALYSIS/REPORTS		
Draft Strat/Struct Text	15	JA
Site Illustrations	20	RG
Liaison with Specialists	5	JE
Conservation	10	MB
RB Pot-create Fab Series	4	JE
Prehistoric Pottery	3	AW
Brooches	1	DM
Intaglios	2	MH
Miscellaneous metalwork	12	IF
Silver Spoon	5	CJ
Glass	5	JP
Coins	1	SEC
Stone	1	FR
Graffiti	1	RT
Litharge	0	JB
RB Pot-Sort by Fabric	10	LB
RB Pot-Supervision	1	JE
RB Pot-Illus of Forms	10	ND
Supervise Illustrators	1	JE
Prep Pot Ext Specialists	1	JE
Samian	5	BD
Amphorae	5	DW
Mortaria Stamps	1	KH
RB Pot Create Form Series	1	JE
RB Pottery-Recording	20	LB
RB Pot-Supervison	1	JE
Create Data Base	2	VG
Data Input	10	LB
Data Analysis/Archive	2	LB
FINAL REPORT PREPARATION		
Small Finds Illustration	25	ND
Photography	1	GN
Draft Pottery Report	10	JE
Integrate Specialist Data	10	JA
Draft Report Discussion	14	JA
Finalise Site Illust	10	RG
Edit/Check Illustrations	6	IF JE
Amend & Mount Drawings	3	ND
Final Editing/Liaison	16	JE IF JA
Liaison with Publisher	5	JA

Legend

■■■■■ Activity	♦ Milestone
C■■■■ Activity on critical path	L■■■■ Locked activity
═══■■■ Partially completed activity	═══ Completed activity
▲ Original start date	▼ Original end date
..... Discontinuous activity	.....♦ Baselined milestone

Brompton Post-Excavation

Brompton Post-Excavation	Day	Resrc	1995 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1996 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Resource summary Utilization																										
John Allen	21.7	JA		5.0	2.6	4.6	4.4	2.3	2.1										0.6	6.9	8.5	8.0		12.0	3.0	
Alex Jones	21.7	AJ		5.0																						
Jane Evans	21.7	JE			7.8	3.4	3.8							1.3	0.7			5.6	4.4				3.0	3.0		
Iain Ferris	21.7	IF			3.0		0.2	2.1	2.3	2.1	2.2	2.2	0.9										3.0	3.0		
Margaret Brooks	21.7	MB			2.4	6.8	0.8																			
Donald MacKreth	21.7	DM					1.0																			
Martin Henig	21.7	MH					1.3	0.7																		
Catherine Johns	21.7	CJ			0.8	2.3	1.9																			
Jennifer Price	21.7	JP								1.9	2.2	0.9														
Sally Cottam	21.7	SC																								
Simon Esmonde Cleary	21.7	SEC			0.8	0.2																				
Fiona Roe	21.7	FR			0.5																					
Roger Tomlin	21.7	RT			0.8	0.2																				
Lynne Bevan	21.7	LB				10.0								1.5	10.5	8.0	10.0	2.0								
Nigel Dodds	17.4	ND				0.7	9.3							8.0	10.5	6.5							3.0			
Brenda Dickinson	21.7	BD									2.1	2.2	0.7													
David Williams	21.7	DW						1.8	2.3	0.9																
Kay Hartley	21.7	KH						1.0																		
Vincent Gaffney	21.7	VG												0.3	1.7											
Graham Norrie	21.7	GN												0.5												
Justine Bayley	21.7	JB																								
Ann Woodward	21.7	AW			0.8	2.2																				
Richard Gregory	21.7	RG			1.6	3.0	2.2	2.1	2.3	2.1	2.2	2.2	2.1	0.2								5.0	5.0			
Total days				10.0	21.1	33.4	24.9	10.0	9.9	7.0	8.7	7.5	3.7	11.8	23.4	14.5	10.0	7.5	5.0	6.9	8.5	13.0	14.0	18.0	3.0	