

# ◆ Chanctonbury Ring revisited

THE EXCAVATIONS OF 1988–91

by David Rudling

with a major contribution by  
Sue Hamilton  
on the early 1st-  
millennium BC pottery

*The Great Storm of October 1987 caused major destruction to the trees at Chanctonbury Ring, an important prehistoric and Romano-British archaeological site. Subsequent proposals to replant the destroyed trees led to a series of trial excavations within the Ring in order both to assess the archaeological remains to be affected by the proposed replanting scheme, and to re-locate the two main Roman masonry buildings discovered during tree-planting works in 1909. Along with the results of the archaeological investigations of 1987–91 the findings of earlier investigations, including those associated with a major programme of tree-planting in 1977, have been re-assessed. This fresh analysis suggests an earlier, Late Bronze Age, date for the construction of the hillfort, and identifies the ‘ancillary’ Romano-British masonry building as a polygonal temple with a rectangular entrance chamber. Large quantities of pigs’ teeth and skull fragments found in the vicinity of this temple indicate that it may have been associated with a cult of the boar.*

## INTRODUCTION

**D**uring the Great Storm of 16 October 1987, the clump of trees (Fig. 1) covering Chanctonbury Ring, a multiperiod ancient monument (i.e. prehistoric hillfort and Romano-British temple complex), was very badly damaged. Subsequently, the fallen trees, representing 75% of the total, and also various badly damaged or dangerous trees were removed, and proposals put forward for a programme of replanting. Whilst the idea of replanting the Ring, a prominent landscape feature, met with support ‘from almost every sector of the West Sussex Community’ (R. H. Goring pers. comm.), the proposal to replant posed a serious threat to important archaeological remains. In archaeological terms replanting was not a good option: at Highdown Hill, another multiperiod archaeological site in West Sussex, the opportunity was ultimately taken to put the site down to grass rather than replant it with trees. Archaeological reasons for not replanting trees at Chanctonbury Ring were very evident after the storm. Replanting of trees in such shallow soils will inevitably lead to future fallen trees and the need to clear them. This, together with root damage, will probably cause a threat to the interior of the Ring and also the banks of the hillfort rampart. Such concerns, and reports made to Dr Sally White, Curator of Worthing

Museum, that people were finding archaeological materials revealed by the recent ground disturbances, resulted in a site meeting in November 1987 attended by Dr White, Mr Fred Aldsworth and his assistant, Mr James Kenny, of West Sussex County Council’s archaeology section, and the writer.

The visit confirmed that, at various places within the Ring, root uplifting during the storm had revealed archaeological material. At one location (Area ‘H’) (Fig. 4) human bones were found protruding from the roots of a fallen tree. Later, in 1988, Mr Aldsworth, then County Archaeologist for West Sussex County Council, felt that it would be useful to undertake assessment excavations at the Ring in order to investigate some of the exposures of Roman material resulting from the storm, especially considering the then current demand and proposals for replanting work to take place. The County Council agreed to fund the Sussex-based University College London Field Archaeology Unit to undertake an initial assessment project, directed by the writer. This small project, which received the full support and co-operation of the owner, Mr R. H. Goring, demonstrated the presence and quantity of archaeological material at several places within the Ring and also re-located the Romano-Celtic temple found in 1909 (Mitchell 1910). The temple had not been re-exposed during rescue excavations in advance of the previous programme of tree-



Fig. 1. Chanctonbury Ring, 1979. Viewed from the south-west. The woodland copse was considerably destroyed during the storm of October 1987. (Photograph: UCL Field Archaeology Unit.)

planting in 1977 (Bedwin 1980). Its survival (but note Mitchell's reference [1910, 132] to the use of some of the loose flints found in the Ring for the 'walls of a twentieth-century pumping station') boded well for the survival of the other two masonry buildings recorded by Mitchell, and for successfully locating them, so that all three Roman structures might be left unplanted — perhaps as 'glades' within any replanted clump (Rudling 1989). The excavation strategy, in 1988 as in subsequent years, was restricted to minimum disturbance consistent with the identification and assessment of structures, other features, and deposits, that might be affected by tree planting.

By 1989, proposals for the Wiston Estate, in conjunction with West Sussex County Council, to replant within the Ring had progressed, and Mr David Morgan-Evans, Inspector of Ancient Monuments for English Heritage (as advisers to the Government regarding the granting of the Scheduled Monument Consent necessary for any ground-works at the Ring), agreed that his department would fund the UCL Field Archaeology Unit to undertake additional assessment excavations in order to 'allow the sampling of the "blank" areas of the hillfort'. By 1990 a programme of tree-planting within the Ring had been almost finalized, but unfortunately the earlier trial excavations had failed to locate and assess the site of the second large Roman masonry building known to have existed within the Ring.

Therefore Mr Mark Taylor, the new County Archaeologist for West Sussex, commissioned the UCL Field Archaeology Unit to try to locate and evaluate this Roman 'ancillary' building of 'peculiar shape' (Mitchell 1910, 137; Bedwin 1980, fig. 2). The trial trenches in 1990 were successful in relocating the 'mystery' building and in establishing that most of it was still in good condition. Lack of time, however, prevented the establishment of the true shape and extent of this masonry structure and Mr Taylor decided that the deposits revealed should be covered over and the excavations resumed in 1991.

During all the trial excavations from 1988 to 1991 the policy was to concentrate upon revealing the top of any *in situ* archaeology associated with the Romano-British buildings and, with the exception of only very small-scale sampling, not to excavate such deposits and structures.

The post-excavation analysis and report of the 1987–91 fieldwork at Chanctonbury Ring have been funded by West Sussex County Council. During that work, the results of earlier fieldwork at the Ring, i.e. the excavations of 1909 (Mitchell 1910) and 1977 (Bedwin 1980), have been reviewed by the writer and some of the finds specialists. The retained finds and site archive have been deposited at Horsham Museum.

All radiocarbon measurements in this report are quoted at 95% confidence (2 sigma) and have been calibrated using the data sets of Pearson and Stuiver (1986) and Pearson *et al.* (1986). They have been calculated using the maximum intercept method (Stuiver & Reimer 1987).

#### THE ARCHAEOLOGICAL BACKGROUND

Situated on the northern edge of the South Downs, Chanctonbury Ring (NGRTQ139 121; Fig. 2) occupies a very prominent position (maximum height approximately 234 m above sea level) with extensive

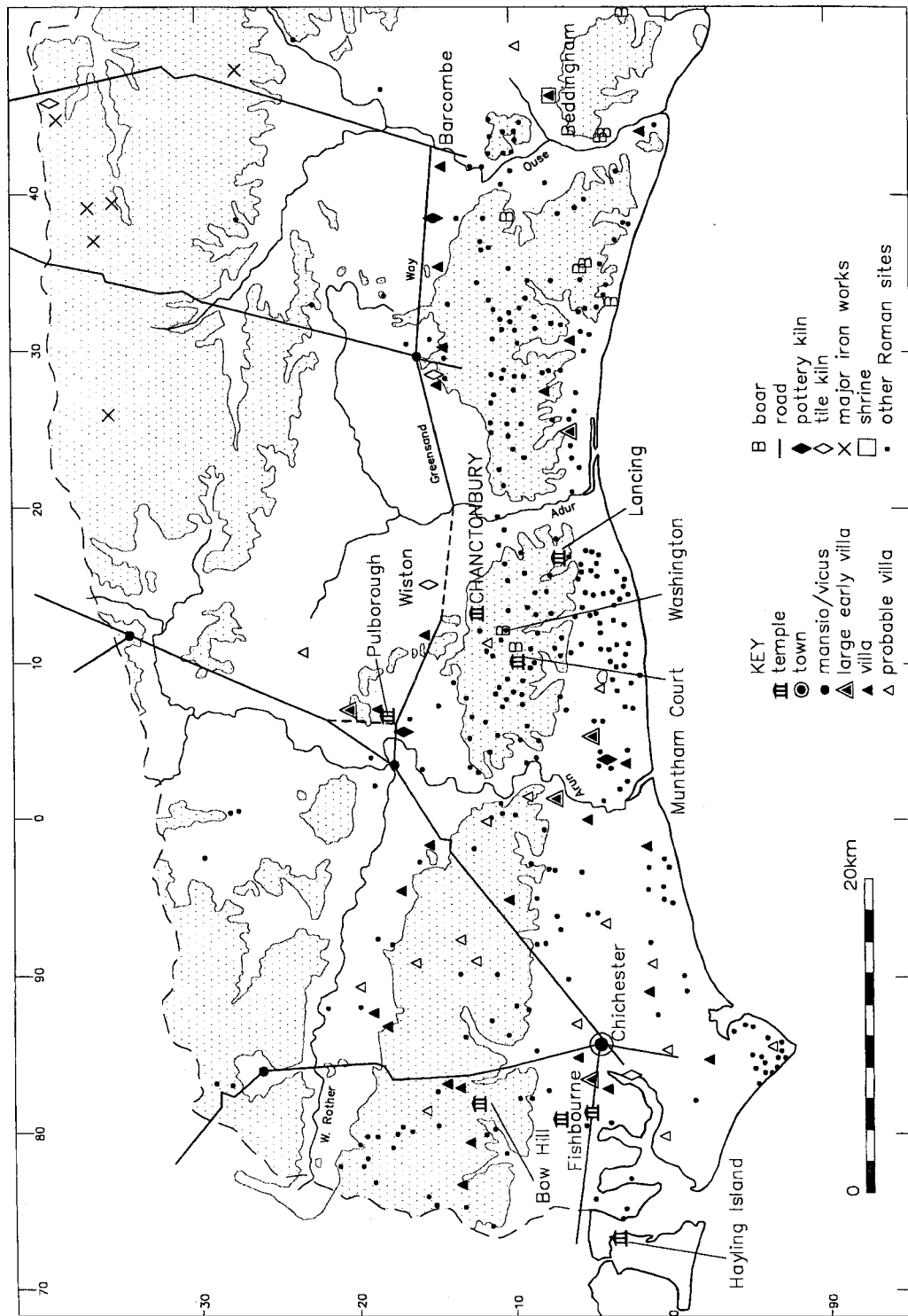


Fig. 2. The locations of the Chanctonbury Ring temples and some of the other Roman sites mentioned in the text.

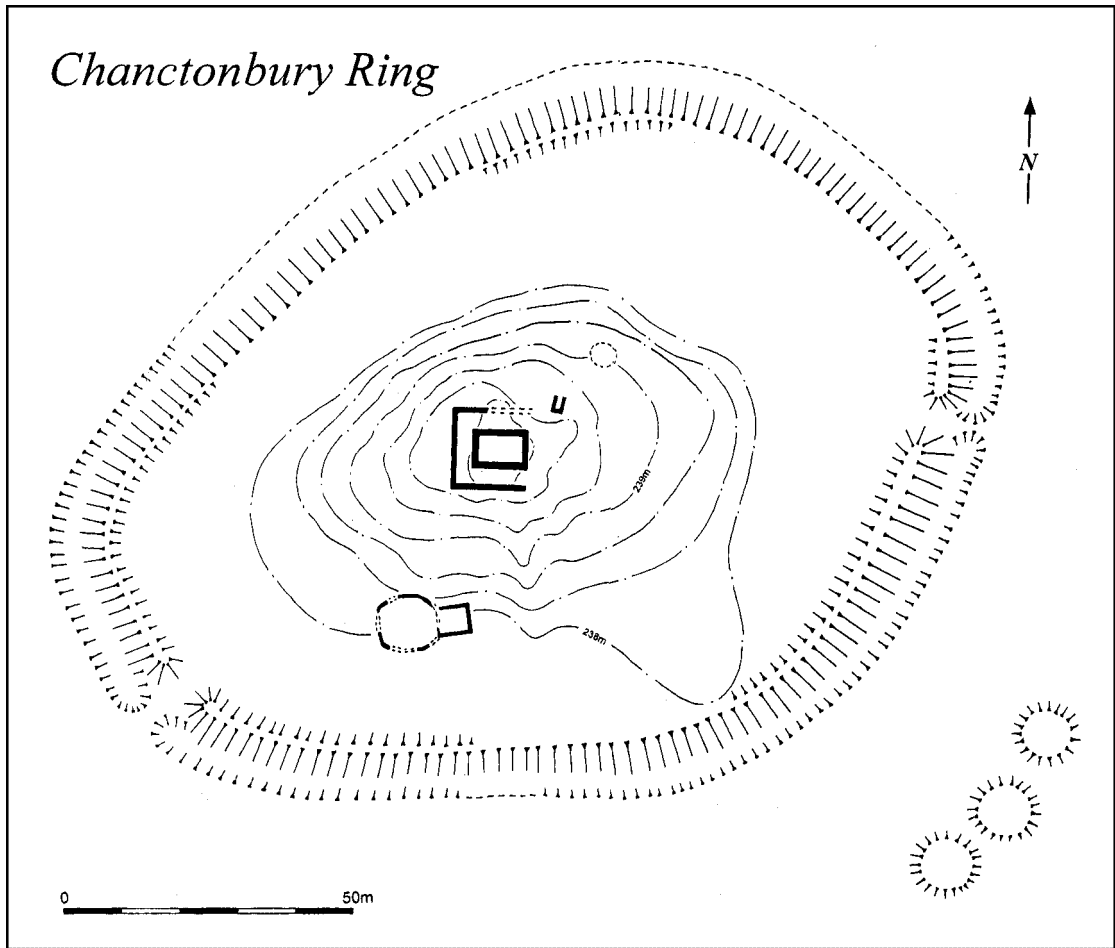


Fig. 3. Plan of Chanctonbury Ring. The hillfort, the Romano-Celtic type temple (1), the Romano-British polygonal temple (2), and three Bronze Age roundbarrows.

views northwards across the Weald to the North Downs, and southwards over a considerable stretch of coastline. The subsoil is Upper Chalk, with several localized areas of Clay-with-Flints. The 'Ring', the clump of trees for which Chanctonbury is so well-known, was originally artificially created during the late 18th century by the owner, Charles Goring who, according to Bedwin (1980, 175), planted a ring of trees 'around and just inside the perimeter of the hillfort, with the centre of the hillfort left open'. There is some uncertainty as to whether initially, and/or for how long, the interior of the hillfort was left open, but by 1909 some substantial beech trees existed in the vicinities of the two main Roman masonry buildings (see Mitchell 1910, pl. 13).

In 1909 preparations for planting additional trees in the middle of the Ring revealed considerable amounts of flints, and Romano-British artefacts. A large area was then cleared of topsoil to reveal the foundations of a Romano-Celtic-type temple, a much smaller flint structure which may have been an oven or a hearth, and a circular pit (Mitchell 1910; Fig. 3). Later in 1909, the flint foundations of another structure were partially exposed, and recorded as of a 'peculiar shape' (Mitchell 1910, pl. 13), perhaps an 'asymmetric heptagon, or possibly an octagon' (Bedwin 1980, 176; Fig. 3). In this report the two main Roman buildings recorded by Mitchell will be named Temple 1 (the Romano-Celtic shrine) and Temple 2 (the polygonal shrine).

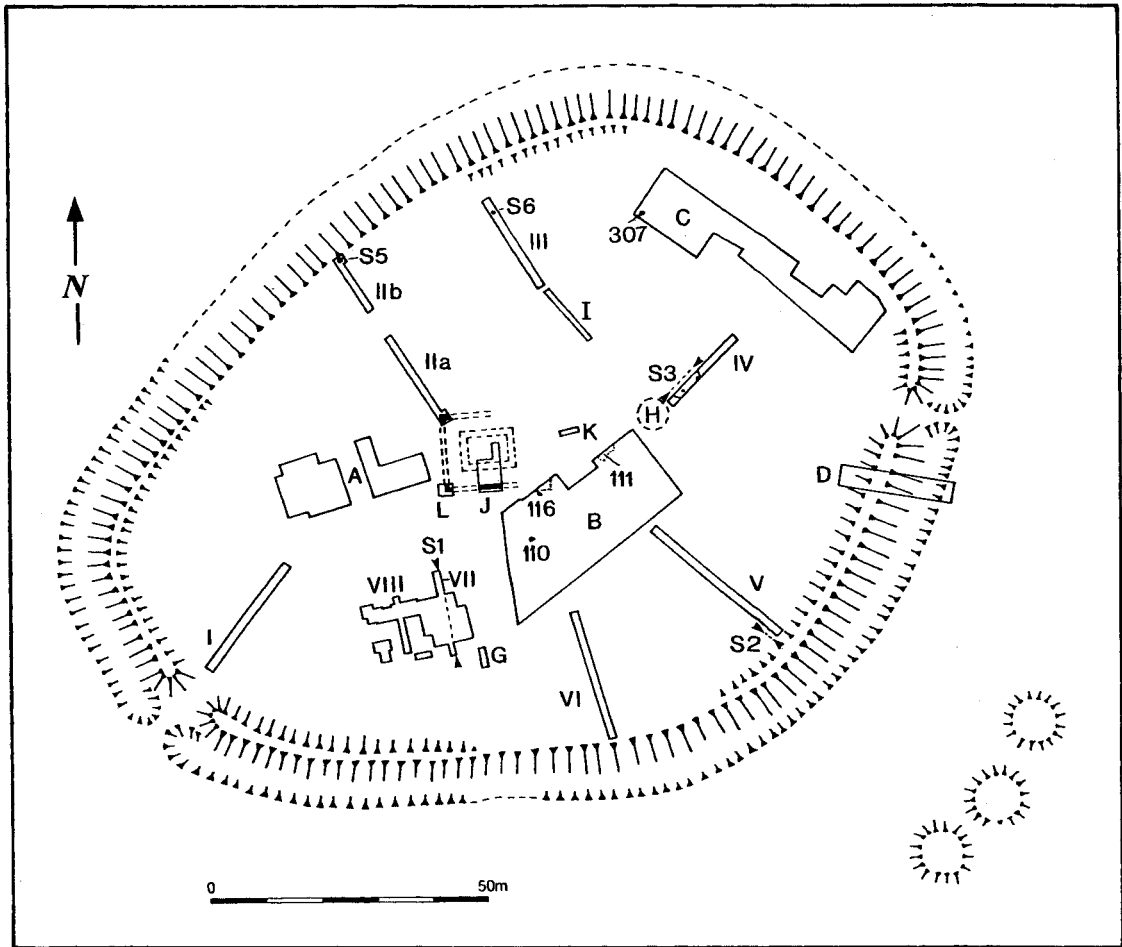


Fig. 4. Chanctonbury Ring 1977–91. Trench plan.

It should be noted that Temple 1 occupies the highest point on Chanctonbury Hill (Fig. 3), and would probably have been intervisible with other Romano-Celtic temple sites, such as those at Pulborough, Muntham Court and Lancing Down (Bedwin 1980, 190–92; see Fig. 2 for site locations). Soon after the excavations of 1909, and possibly as a result of that work, a Roman pottery lamp with the maker's name *EVCARIS* was recorded as having been found at the Ring (Praetorius 1912).

During the Second World War, Chanctonbury Ring and the area around it was used for army exercises which included digging four gun-emplacements into the rampart of the hillfort, and digging of slit-trenches and rubbish pits within the

Ring itself. Evidence of some of this military activity was found during both the 1977 (Bedwin 1980) and 1987–91 phases of archaeological investigations.

In the summer of 1977, archaeological excavations directed by Dr Owen Bedwin of the UCL Field Archaeology Unit, on behalf of the Department of the Environment, took place in advance of tree-replanting in three areas (A–C) within the Ring. The opportunity was also taken to cut a section (D) across the hillfort defences and to excavate two small trial trenches (F and G) in order to re-locate a tessellated floor and the 'heptagonal' ancillary structure respectively (Bedwin 1980; Fig. 4:A–G). The more significant discoveries are summarized below.

In Area A, to the west of Temple 1, the eastern-

most part of the excavations revealed considerable amounts of Romano-British roofing tile and building rubble, which were presumably derived from the temple walls and roof. Beneath this debris was an 'undisturbed deposit . . . consisting almost entirely of oyster shells . . . which presumably dates from the period during which the temple was in use. Removal of the oyster shells revealed clean, natural chalk, and implies that while the temple was in use, an area around it had been cleared of topsoil' (Bedwin 1980, 177).

It was hoped that the north-west corner of Area B would contain the south-east corner of Temple 1. However, although a 'triangular patch of smooth, flat chalk was found here, no foundations were present' (Bedwin 1980, 177). The flat chalk was interpreted as levelling to take a floor which had not survived, and as probably the south-eastern extremity of the 'hard rammed chalk floor, about 10-in. in thickness' surrounding the inner *cella* of the temple found in 1909 (Mitchell 1910, 133). The absence either of wall footings or a robber trench in this part of Area B also confirmed that there was no outer wall on the eastern side of the temple (Mitchell 1910, pl. 13; see also Fig. 3). (n.b. Mitchell noted that the northern outer wall of the temple was 'broken off irregularly' but had probably been 'originally of the same length as that which forms the southern boundary': Mitchell 1910, 135.) Otherwise Area B was largely devoid of archaeological features but for a few shallow pits, a post-hole, a shallow depression (Feature 111) containing 2940 small tesserae ('mostly white, a few reddish-brown'), a tiny depression (Feature 116) just large enough to accommodate a miniature, intact, undecorated votive vessel, and a shallow, irregular pit (Feature 110), which was dated to the Iron Age (Bedwin 1980, 179). The assemblage of 2940 tesserae is of considerable interest since it constitutes the only evidence that there had once been a two-colour mosaic floor at Chanctonbury; all other discoveries at the site indicated single-colour floors made of much larger tesserae. Bedwin thought that the tesserae in Feature 111 'almost certainly derived from the floor of the [nearby] temple' and that the fact that they were 'localized in Feature 111' suggested 'careful, deliberate disposal' (Bedwin 1980, 219). Feature 116 and the miniature vessel it contained is also of considerable interest, since this is an example of a votive offering deliberately buried very close to the south-east corner of Temple 2. The

'Iron Age pit' (Feature 110) is of importance and interest with respect to its uncertain dating (Late Bronze Age–Middle Iron Age: see Hamilton below) and contents (especially pottery, animal and human bone, and perhaps also a clay spindle whorl).

Area C, adjacent to the north-east side of the hillfort ramparts, revealed only three features of archaeological interest: two post-holes and one post-hole/small pit.

Area D was a section cut across the hillfort ditch and rampart. The rampart was found to be of two phases. The first phase ('Early Iron Age') consisted of a simple dump bank, with no signs of any wooden retaining structure, but had a tightly-packed layer of small chalk pieces as the inside face of the rampart. In the second phase 'the inside of the rampart was augmented with a low, vertical wall of large, roughly-shaped chalk blocks, many of which had collapsed' (Bedwin 1980, 182). Bedwin went on to suggest that this 'refurbishment of the rampart is connected with the use of the site as a religious centre in the Roman period'. Whilst the lower silts of the ditch contained a few pieces of prehistoric pottery, the upper fills produced large amounts of Romano-British material, including concentrations of animal remains, principally fragments of cattle skulls and sheep mandibles. These deposits of animal bones and teeth with little post-cranial material, are probably examples of Romano-British ritual activity. Trial Trench F (not shown on Fig. 4 because it is contained by Trench VII of 1990–91), successfully revealed part of a tessellated pavement discovered in 1946 in the side of an L-shaped army slit-trench (see Figs 7 & 8). Some of the tesserae, which were cubes of greensand, were found *in situ* bedded in a badly-decayed mortar resting on the chalk bedrock. Although not realized in 1977, Trench F had re-located part of the 'peculiar-shaped' masonry building found in 1909.

The aim of Trial Trench G, to check the position of Temple 2, was not achieved. As a result of the excavations in 1990–91 it is now known that Trench G of 1977 was opened in the wrong place, i.e. to the south-east of Temple 2.

Other excavations on Chanctonbury Hill in 1977 included a section (Area E) across a cross-dyke to the west of the hillfort. The excavator concluded that this dyke was Roman or later in date (Bedwin 1980, 182). Earlier excavations in the immediate vicinity of Chanctonbury Ring included the opening of the three barrows near the south-east corner of

the hillfort (Fig. 3), and a large barrow west of the hillfort. Although unfortunately no dating evidence was obtained (Lane Fox 1869), it is likely that the barrows date to the Early Bronze Age (Grinsell 1934, 253, nos 13–15 & 22), a period represented at Chanctonbury Ring by a single sherd from a Collared Urn discovered in 1977 (Drewett *in* Bedwin 1980, 196). Much of the flintwork from the various excavations within the Ring (*see* below) is also likely to belong to the Bronze Age.

#### THE 1988–91 EXCAVATIONS

All trenches/areas were hand-excavated (and subsequently backfilled), with the removal of the shallow topsoil (approximately 200–300 mm deep) down to subsoil or *in situ* archaeological remains, followed by sample excavation of selected deposits or features cut into the subsoil. The trenches excavated in 1988 follow the ‘Area’ designations used in 1977.

##### 1988: AREAS H, I, J, K AND L

These trenches were positioned (Fig. 4) in consultation with Mr Aldsworth of West Sussex County Council.

##### Area H

Unfortunately, by the time of the assessment excavations in November 1988, the ‘hinged’ stump of the tree whose roots had yielded human bones had been dropped back into the tree-hole, thus preventing a further examination of the tree roots to see if there were any other bones or associated finds. A small area, however, was excavated just to the east, since it was thought that, had the skeleton been orientated east–west, it would have extended into this area. Neither further traces of bone nor a burial pit were located. There was a general scatter of finds of Romano-British date, mainly pottery.

The human bones found in 1987 were examined by Dr Don Brothwell who reported (*see* report below by Brothwell and Sibun) that they belonged to a fully mature, probably young adult male. Some of the bone was submitted to the Ancient Monuments Laboratory of English Heritage for radiocarbon dating. The result obtained: cal AD 680–1430 (GU-5116; 900±200 BP), indicates that the bones are probably Saxon or medieval in date. If this dating is correct, the context of this inhumation burial within Chanctonbury Ring is unknown.

##### Trench I

This exploratory trench was excavated in order to examine an area which, after the storm, had yielded large quantities of Romano-British material, including much tile which might have been derived from a hitherto unrecorded building. Although no masonry or other features were discovered, the excavations yielded large amounts of Roman tile, (both tegulae and imbrex roofing tiles and flat tiles/brick), pottery (date range c. AD 200–350) and marine molluscs.

##### Trenches J and L

During the excavations in 1977 uncertainty concerning the location of Temple 1 rendered it essential to locate this structure and to assess its state of preservation. Trench J was designed to locate Temple 1, which proved to be further to the west than had been supposed in 1977 (*cf.* Bedwin 1980; Fig. 3). Although the excavations only exposed the tops of the archaeological deposits (Fig. 5), the outer wall of the temple was found to be in fairly good condition. Tree roots, however, were covering parts of the wall and could result in long-term damage. Within the temple there was a spread (Context 3) of flints. These were not removed. Some of these flints may belong to, or cover, part of the inner wall of the temple, whose approximate position is indicated on Figure 5. The surface of this spread had been disturbed by modern camping (evidence included several tent pegs and a small rubbish pit (5) – *see* Fig. 5). To the west of the flint spread, and located between the inner and outer walls of the temple, was an area of soil and mortar (4).

Trench L was excavated in order to establish the position of the south-west corner of Temple 1. The outer face of the exterior wall at this point had a coating of red plaster 90 mm thick. There was again evidence of root disturbance to the masonry foundations. The establishment of the exact position of Temple 1 is crucial for pinpointing from Mitchell’s plans the locations of his other discoveries. Finds of tiles from Trenches J and L include both types of roofing tile and also flat ‘floor’ tiles/bricks. The Roman pottery finds date to the 3rd and possibly the 4th centuries.

##### Trench K

This trench was designed to examine an area of surface damage. Upon removal of the topsoil, the area was found to be badly affected by many tree roots and no archaeological features were revealed.

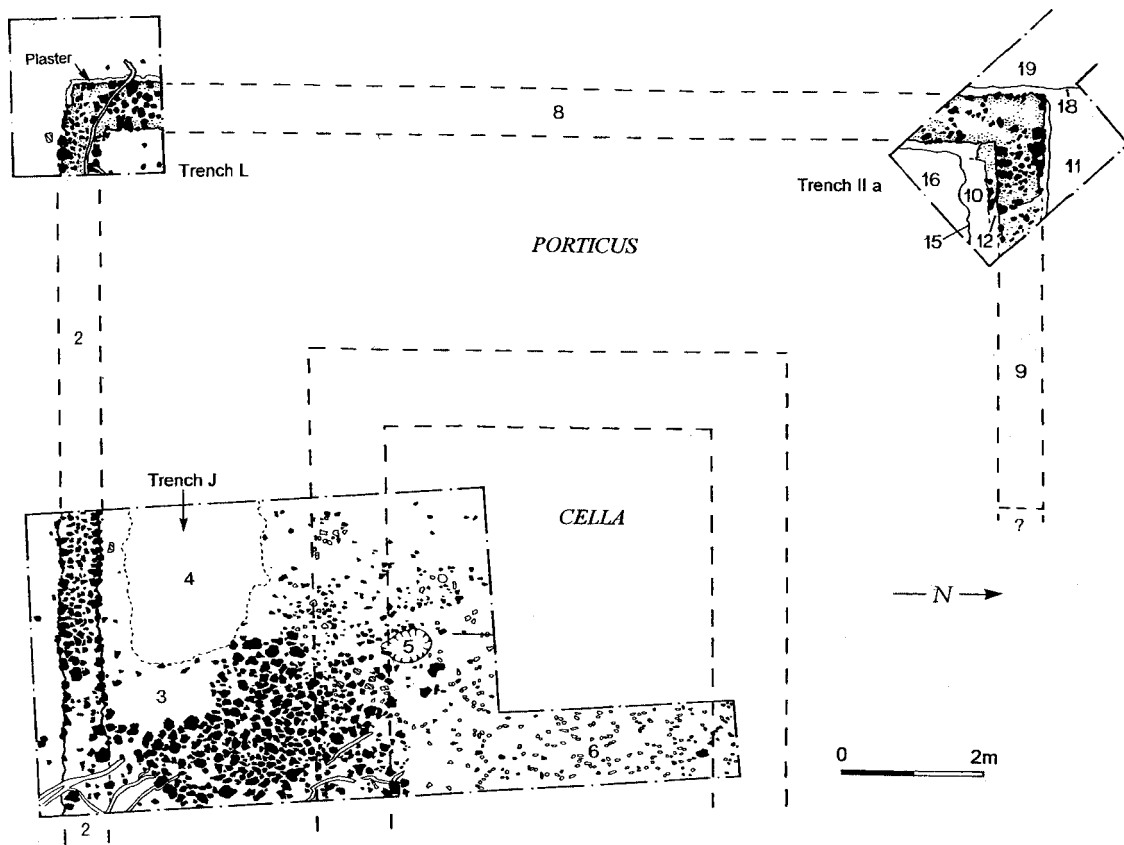


Fig. 5. Trenches J, L and IIa. Area of Temple 1.

The Roman pottery finds date to the 3rd–4th centuries, with an Overwey jar dated to *c.* AD 330–400+ (see report below by Malcolm Lyne).

#### 1989: TRENCHES I–VI

Six trenches 1 m wide were excavated at locations chosen by Mr Morgan-Evans of English Heritage in order to ‘allow the sampling of the “blank” areas of the hillfort’.

#### Trench I

Trench I, which was 23.5 m long, was opened to the north-east of the ?Post-Roman/modern western entrance into the hillfort. Although excavated generally to a depth of 250 mm, and to 450 mm in two one-metre box-sections, no archaeological deposits or features were revealed. Small quantities of archaeological finds (including flintwork and Roman tile) were recovered from this trench.

#### Trench II

This 30-m-long trench was divided into two parts, ‘a’ and ‘b’, separated by a modern path. This trench was positioned between the north-west corner of Temple 1 and the top of the back of the hillfort.

At the southern end of section ‘a’ the excavations revealed the flint footings of the north-west corner of Temple 1 (Figs 4 & 5). Given that the south-west corner of this building was revealed in Trench L of 1988, the position of the temple has now been securely established. As in 1988, part of the external face of the northern outer-wall (9) of the temple was found to be coated in red plaster. The internal face of this wall, and also part of the western wall (8), had a flint and mortar lining (12), perhaps a repair. Traces of possible earlier (*i.e.* 1909) excavation trenches (Contexts 15 & 18; Fills 10 & 11 respectively) were found on both sides of the two stretches of exposed temple wall, thus suggesting



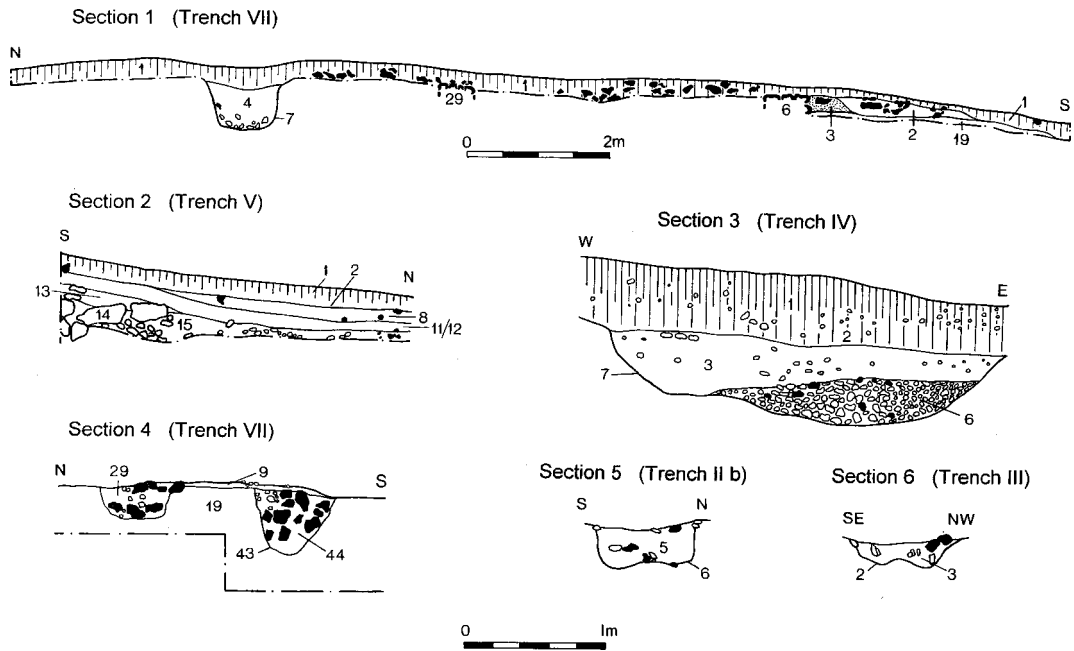


Fig. 6. Selected sections.

that the earlier excavation methodology had been 'wall following'. The inner excavation trench (15) cut a mortar layer (16), which had been deposited, presumably as the base of a floor, above natural chalk (17). Extending northwards from the temple for a distance of approximately 3.2 m was a possibly undisturbed Roman deposit (19) containing large amounts of mortar and finds including large pieces of tile and many oyster shells. Above Context 19 was a more disturbed deposit (3), which also contained much mortar and tile, and perhaps the disturbed upper part of Context 19. Either or both of these contexts (3 & 19) may be similar to the 'substantial layer of building rubble' found in 1977 at the eastern end of Area AI (Bedwin 1980, 177). Pottery from Contexts 3 and 19 of 1989 spans the period *c.* AD 100–270; and the tile finds include many examples of types used for either roofing or flooring/building (i.e. 'flat' tiles). At the northern end of part 'b' of Trench II, i.e. on the top of the hillfort bank, where the subsoil is Clay-with-Flints rather than chalk, an oval pit/post-hole (6) measuring 1 m long and 800 mm wide was revealed (Fig. 4). This feature (Fill: 7), which was 250 mm deep (Fig. 6: Section 5) yielded very few finds, but these included some small pieces of Roman tile and pottery. This

post-hole/pit is Roman rather than prehistoric in date, it may have formed part of a fence constructed during the Roman period on top of the hillfort bank. The excavation in 1977 of Area D, however, where no such post-holes were found on top of the rampart, produced no supporting evidence for this theory.

#### Trench III

Trench III, which was 18 m long, was located in order to extend Trench I of 1988 northwards to the hillfort bank. As in the case of Trench I of 1988, the excavation of Trench III of 1989 yielded large quantities of Roman tile and pottery (date range *c.* AD 200–350). It also produced sherds of prehistoric pottery. Near the northern end of the trench (Fig. 4) was a possible double post-hole (4) measuring 900 mm long, by 700 mm wide and up to 200 mm deep (Fig. 6: Section 6). This feature is dated by six sherds of prehistoric pottery of Fabric 1 (see pottery report below by Sue Hamilton) which were recovered from the fill (3) of the post-hole.

#### Trench IV

This 17-m-long trench was positioned to sample the area between Area C of 1977 and Area H of 1988. Although parts of the trench were much disturbed

by tree roots and thus very difficult to excavate, the rest of the trench was excavated below the topsoil and revealed three features (Fig. 4). In the southern half of the trench was a large circular or oval pit, c. 6.1 m in diameter and with a maximum depth of 550 mm (Fig. 6: Section 3). The pit (7) contained two fills, an upper grey-brown layer (3) containing prehistoric pottery and Romano-British tile and pottery, and a lower deposit (6) with much chalk and some flints, and some Roman tile. The purpose of this pit, which on a small amount of pottery evidence could date to the 3rd or 4th century, is uncertain. It was cut by two post-holes, one (Context 4) being c. 150 mm in diameter and c. 100 mm deep, the other (5) being oval with a maximum length of c. 300 mm and a depth of c. 120 mm. Neither post-hole can be dated. Other finds from Trench IV included relatively large quantities of both prehistoric pottery and burnt clay/ daub (*see below*), the latter perhaps indicating that a wattle and daub structure may have stood in the eastern part of the enclosure.

#### **Trench V**

Trench V (30 m long) was sited so as to assess the area which lies between Area B of 1977 and the south-eastern section of the hillfort defences. After the removal of the topsoil (1), the underlying deposit was excavated in 5-metre sections, each having a different context number (i.e. 2, 3, 4, 5, 6 & 7). At the southern end of the trench, on the inner side of the hillfort rampart, the excavations revealed part of a collapsed wall made of large blocks of chalk (Fig. 6: Section 2). This wall is presumably a continuation of that discovered nearby in 1977 in Area D (Bedwin 1980, 182 & fig. 7:15). Unfortunately, as with the 1977 excavations, no dating evidence for the construction of the chalk wall was found. Both prehistoric and Roman pottery was, however, recovered from the deposits (e.g. 11, 12 and 13) overlying the collapsed chalk blocks, and a piece of prehistoric pottery was found in Layer 15 which was partly overlain by the fallen blocks. The large assemblage of Roman pottery from Layer 12 has been dated by Malcolm Lyne (*see below*) to c. AD 120–150, and may thus provide an indication as to the date by which the chalk wall had collapsed. In general, Trench V yielded large quantities of both prehistoric and Romano-British pottery, and Roman tile. It also yielded five Roman coins (these span the period 1st–late 3rd century), and fragments of

human skull from Contexts 3 and 13 (n.b. Context 13 also produced fragments from a human fibula). The date of the human remains is not certain (they may be residual) and they were not submitted for scientific dating.

#### **Trench VI**

This trench 25 m long was positioned to the south-west of Trench V in order to assess the previously un-investigated space between Area B of 1977 and the hillfort rampart. In contrast to Trench V (*see above*), this trench did not yield signs of the ?Roman chalk wall on the inner side of the rampart. It is possible, however, that Trench VI did not extend southwards far enough to locate the chalk wall, assuming, that is, that it ever existed at this point. It remains uncertain, therefore, whether the chalk wall lined the whole of the rampart, or whether it merely flanked the eastern (and probably the sole original) entrance to the hillfort. Although the trench revealed no archaeological features, a deposit (4) against the rampart and below the horizons containing Roman tile and pottery (mainly 2nd century), yielded 11 sherds of prehistoric pottery of Fabric 1. Deposit 4 also yielded some sheep bones and five humanly-struck flint flakes.

#### **1990–91: TRENCHES VII–XII**

In 1990 Mr Taylor, the County Archaeologist, commissioned the UCL Field Archaeology Unit to try to re-locate and assess the ancillary ‘heptagonal’ masonry building, i.e. Temple 2, which was found in 1909, but only briefly described by Mitchell (1910, 137 & pl. 13). Trench VII was therefore located according both to the distance recorded by Mitchell: 67 feet from the south-west corner of Temple 1 (this corner having been re-established by Trench L of 1988) and to the identification of some of the beech trees that had been usefully plotted in 1909.

#### **1990: Trenches VII and VIII**

Trench VII, which was originally 15 m long and 1 m wide (Fig. 4), successfully re-located the ‘ancillary building’. It also re-located (Figs 7 & 8) the L-shaped army slit-trench (7) of 1946, which had been used by Bedwin (1980, 184–5) in order to re-locate and partially investigate the tessellated floor which had been noticed in the side of the army trench. The original Trench VII also revealed part of an east–west orientated flint and mortar wall (6) and some sandstone tesserae (Figs 8 & 6: Section 1). The wall survived to a depth of two courses. In an

attempt to understand better the contexts of both the wall and the tesserae, Trench VII was enlarged westwards to include an additional area measuring 2.5 m (east–west) by 3 m (north–south). This enlargement revealed the western end of wall 6 and its junction with a north–south orientated wall (8). In the corner defined by walls 6 and 8, and at a depth of only 180 mm, was an area of *in situ* sandstone tessellation (9), and resting directly upon this floor was an iron socketed spearhead with its point (broken off) facing to the south-west (Fig. 8:SF 4). The large pottery assemblage recovered from the soil horizon above the tessellated floor (Context 5) is ‘largely made up of 2nd-century material with just a few 3rd-century sherds’ (see below, pottery report by Malcolm Lyne). Other finds, however, include a coin of Constantius II (Fig. 8:SF 8), which is dated to c. AD 347–348 (see below), and this could indicate a final period of offering, robbing or deliberate demolition. To the south of wall 6, an area of rubble (2) was found to overlie a deposit of decayed mortar (3), which was located tight against the outer face of wall 6, and was probably derived from it.

Trench VIII, a second trial excavation 1 m wide, was excavated parallel to Trench VII in order to trace the western extent, shape and size of Temple 2. Towards the northern end of this second trial trench the flint footings of a wall (5 = Context 24 of 1991) were revealed (Fig. 7:24). To the south of this wall was a layer of tile and flint rubble (2) which in part was very disturbed by tree roots. This rubble covered a thin layer of clay (4). To the north of wall 5 was a silty layer (3). At the extreme southern end of Trench VIII was a cut feature, perhaps a foundation or robber trench, or possibly a 1909 ‘excavation trench’ for the southern wall of the polygonal part of Temple 2. The fill of this feature was a silty loam soil (8). It yielded a few pieces of Roman tile and a small fragment of damaged and crumpled, thin, sheet copper alloy which, owing to its lack of a good patina, does not appear to be very old. From inside and above the temple walls (i.e. Contexts 2, 4 and 1) there were large amounts of bone, especially teeth, and skull fragments of pig (see below, The Animal Bone Assemblage by Lucy Sibun).

#### 1990: Trenches IX and X

In further attempts to define the extent and shape of Temple 2 better, two small test pits were excavated, one either side of the northern end of Trench VIII. Trench IX, to the east of Trench VIII,

revealed part of the northern wall of the temple, whilst Trench X exposed this building’s north-west angle. Since both test pits were incorporated into an expansion of Trench VII in 1991, they are not separately shown in Figure 7.

Lack of time in 1990 meant that it was not possible to recover the whole plan of the Temple 2. It was therefore agreed with Mr Taylor that the areas exposed in 1990 would be covered over with the aim of resuming and enlarging the excavations in 1991.

#### 1991: TRENCHES VII, XI AND XII

##### Trench VII

In 1991, Trench VII of the previous year was enlarged both eastwards to include all of the entrance chamber, and westwards to incorporate Trenches VIII, IX and X of 1990. Existing tree cover and limited resources made it impossible to expose all of Temple 2.

The eastwards enlargement of Trench VII revealed the north-eastern and south-eastern corners of the entrance chamber, the east and north flint walls (11 and 29 respectively) of the chamber, and another area of *in-situ* tessellated floor (9) near the northern wall of this room (Fig. 8). Only one course survived of the east wall of the chamber, beneath this was a slightly broader and coarser foundation deposit (30) consisting of flint, chalk and some tile. Although the north-western corner of the entrance chamber had been destroyed by the army trench, part of the west wall survived along the western edge of the slit-trench. In view of the fact that the excavations did not establish that the two stretches of wall had ever joined up, this western stretch of flint walling was given a separate context number (22), distinguishing it from the piece of north–south orientated wall (8) found in the south-west corner of the room in 1990 (Fig. 8). The possible gap in the masonry footings along this wall line *may* indicate an entrance way or robbing. Deposits revealed beneath the general layer (5) of flint, chalk and tile rubble within the entrance chamber, included the two areas of *in-situ* tessellation (9) referred to above. Whilst the southern area of tesserae extends approximately as far north as the adjacent stretch of wall (i.e. 8), the more extensive band of tesserae at the northern end of the room does not extend as far south as the surviving southern end of wall 22. Unfortunately, the central area of this room, which was not fully excavated, had been much disturbed by tree roots (see Fig. 8), and perhaps by robbing

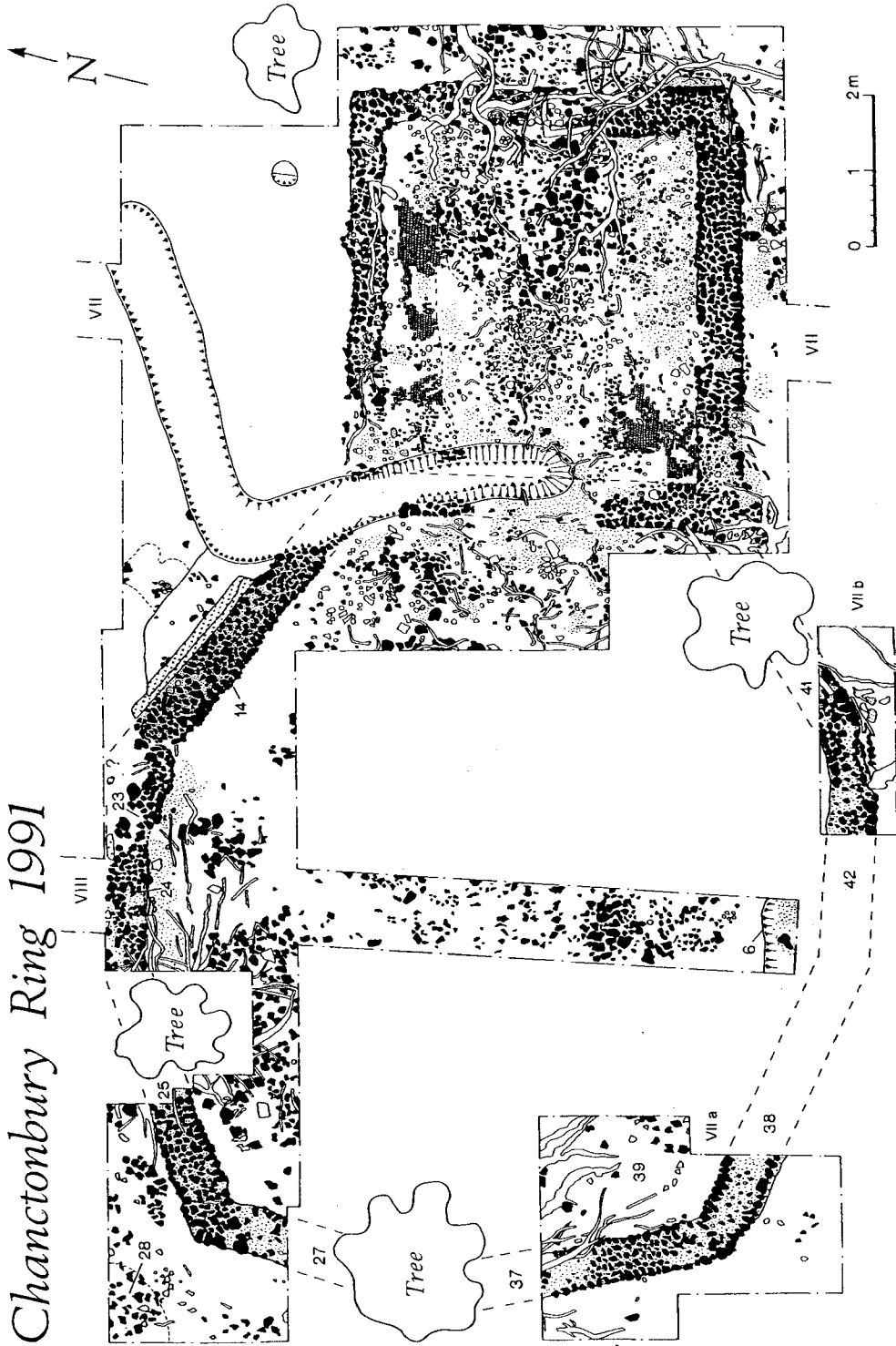


Fig. 7. Trenches VII and VIII. Temple 2.

# Chanctonbury Ring 1991

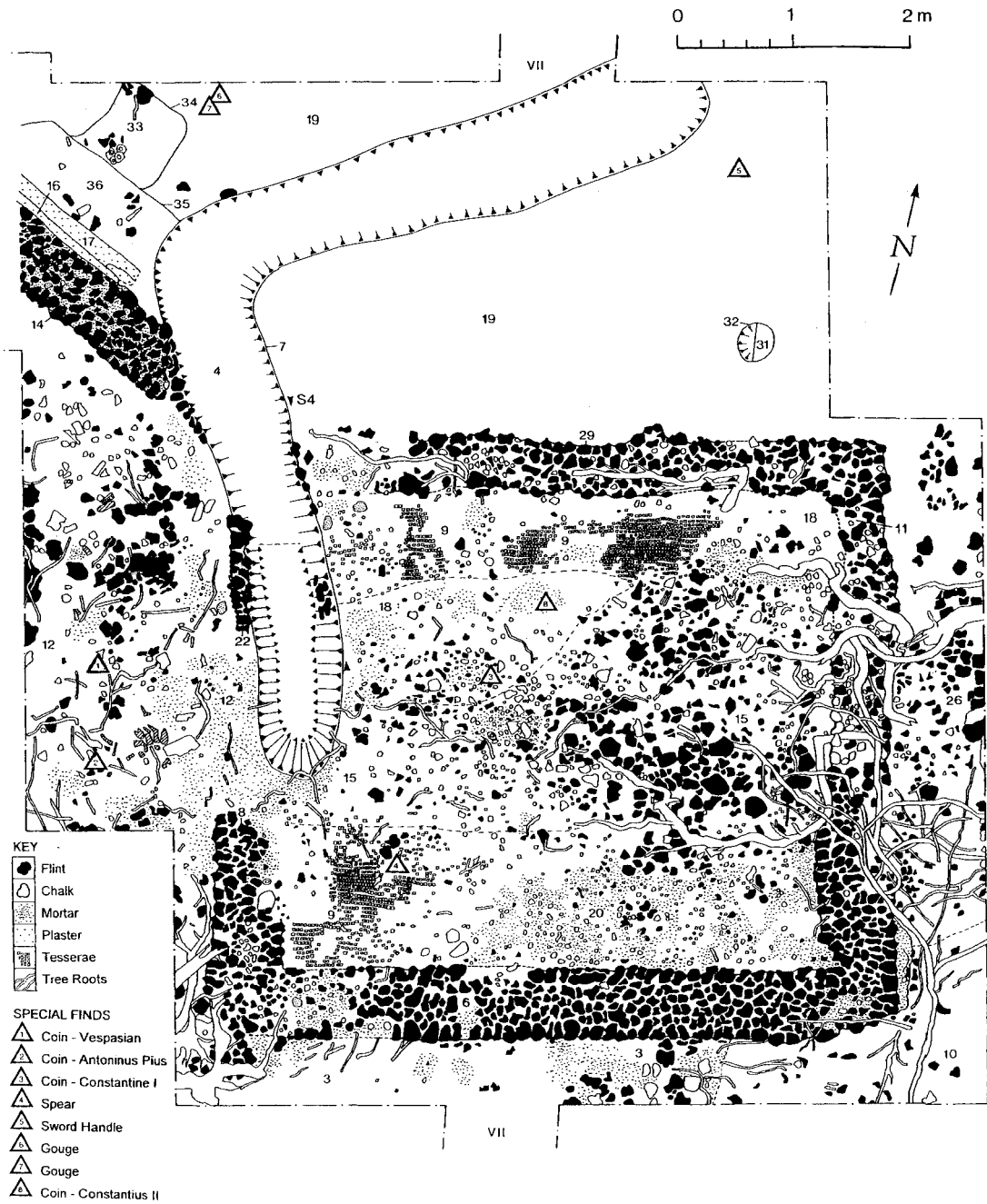


Fig. 8. Temple 2. Detail of the entrance chamber.

and/or deliberate destruction. Thus, despite the finding of considerable quantities of tesserae cubes (*see* below, report by Luke Barber), it was not possible to establish for certain that the room had originally been completely covered in such flooring. However adjacent to the areas of *in-situ* tesserae, disturbed layers 18 and 20, in which much mortar was visible, suggest that tessellation was once much more extensive. Since the aim of the excavation was not to remove *in-situ* floors or possible floor deposits, the army slit-trench provided useful sections, e.g. across the poorly preserved western end of wall 29 and also across a possible post-hole/pit/ditch/wall foundation (43) at the south-western corner of the northern area of tessellation (*see* Figs 8 & 6:Section 4). The middle of the chamber, where root penetration was worst, consisted of an irregular area of dark soil (15) containing large quantities of flint, chalk, tile and tesserae. Context 15, which was not excavated, is thought to represent some form of robbing activity between a presumed eastern entrance into the chamber and, in turn, the entrance it provided to the polygonal shrine; but no actual evidence of a doorway was found.

Further rubble layers were found outside the entrance chamber to the south (10) and east (26). To the north of the entrance chamber and cutting the natural silty clay subsoil (19), was a possible modern post-hole (32). Part of the handle of a Late Bronze Age sword was an important find to the north of the possible post-hole (*see* below, metalwork report by Stuart Needham; *see* also Fig. 8:SF 5).

The excavations in 1991 to the west of the army slit-trench concentrated on defining the extent and shape of the polygonal part of Temple 2. Trenches IX and X, and part of Trench VIII of 1990, were incorporated into a westward expansion of Trench VII. Two new trenches, VIIa and VIIb, were also excavated in order to establish the south-western and south-eastern angles respectively of the polygon. The eastern face of the polygon, which must have facilitated access from the adjacent entrance chamber, comprised walls 8 and 22 which have been described above (*see* also Fig. 8). The north-east angle was wall 14 (Figs 7 & 9). This wall, which was set in a dull, yellow/cream, fine mortar, survived to at least three courses of flintwork (i.e. as seen from the army slit-trench), and thus had much deeper foundations than wall 8, where only one course of flintwork remained. The important junctions of walls 14, 22 and 29 had unfortunately

been destroyed when the army slit-trench was dug (Fig. 8). The outer face of wall 14 had a coating of pink mortar (16), and on the outside of this was a further band of off-white mortar (17) (Fig. 8). Against this second mortar facing was a pit or trench (35) which had been truncated at its southern end by the army slit-trench. The function and date of this pit/trench, which was not excavated, are unknown. Joining wall 14 to the northern side of the polygon was a less well-made stretch of wall (23). The northern wall (24: Context 5 of 1990, Trench VIII) was better built and had a straighter inner edge than wall 23. There are two possibilities: either wall 23 was an area of infill between two better-made stretches of masonry, or because the outer face of the wall has not survived very well, it may have been a straight extension of wall 24, with the recorded stones of the inner face making it appear that the wall diverges to meet wall 14. The junction of wall 24 with that forming the north-west side (25) was covered by a tree root. At its western end wall 25 joined wall 27, which together with wall 37 formed the west and rear wall of the temple. Although the presence of a large tree prevented the examination of most of these two walls, including their junction, it is assumed that the walls met at an oblique angle, as seen elsewhere in the *cella*. At the south-west angle of the polygon, wall 37 joined wall 38 (Fig. 7:Trench VIIa). The external face of wall 38 still had some traces of a mortar/plaster facing. Fortunately, Mitchell (1910, pl. 13) recorded a greater length of wall 38 than was possible in 1991, and he also recorded the western part of the southern wall (42) which was not recorded in 1991 either. Mitchell's data have been added to Figure 7. The south-east angle of the polygon (Fig. 7:Trench VIIb) was the junction of the southern wall (42) and wall 41 which completed the polygon at its junction with wall 8 of the entrance chamber (n.b. this junction, which is under a large tree, was covered with tree roots, and it was not possible to check whether walls 41 and 8 were bonded together or whether there was a butt joint). Unfortunately, the presence of various trees rendered it impossible to obtain a complete plan of the outer walls of the polygon, and its precise shape/number of sides is thus uncertain, although a minimum of nine, and possibly ten, alignments of wall were noted.

Although the excavation of the interior of the polygonal chamber was outside the aims of the work in 1990 and 1991, some areas within the structure

were stripped of topsoil and cleaned (Figs 7 & 8). The main context encountered was a deposit (12) of silty clay, which contained flint, chalk fragments, decayed mortar and large quantities of pig teeth and skull and mandible fragments (*see below*). Context 12 (and Contexts 2 of Trench VIII and 39 of Trench VIIa) are interpreted as a demolition horizon. Other finds recovered from inside the polygon include pottery, which spans the period mid-2nd century until *c.* AD 300, with a particular representation from the mid-late 2nd century (*see below*) and three coins, one each of the emperors Vespasian (AD 71) (Fig. 8:SF 1) and Antoninus Pius (AD 154–155) (Fig. 8: SF 2), and from Context 7 of Trench VIII of 1990, an illegible ?dupondius of the 1st/2nd century (*see below, coin report*).

Outside the polygonal part of Temple 2, the main soil horizon below the topsoil in Trench VII was Context 13, whilst to the south in Trench VIIa, a similar deposit was given the context number 40. These deposits overlay a natural silty clay subsoil:

Context 19. At the extreme north-western corner of the excavations, a partially excavated area of dark soil and flints which yielded prehistoric pottery, might be the fill of a pit (28) (Fig. 7). Another pit or shallow depression (34: Fill 33), cutting subsoil layer 19, was found to the north-east of pit/trench 35 which cut it (Fig. 8). This sub-rectangular feature, which was not fully excavated, yielded 53 sherds of prehistoric pottery of Fabric 1 (*c.* 7th century BC), four hard-hammer struck flint flakes, one retouched flint fragment and 10 pieces (245 g) of fire-cracked flint. Cleaning of the area immediately to the north-east of pit 34 revealed two copper-alloy, socketed gouges of the Late Bronze Age (*see below* and Fig. 8: Special Finds 6 & 7). These items may have been associated with pit 34. The sword hilt, another item of Late Bronze Age metalwork, was recovered from just to the east of the army slit-trench (*see above* and below, and Fig. 8:SF 5). Pit 34 and the nearby finds of metalwork represent important evidence, which may relate to the original use of the hillfort.

## THE FINDS

### THE FLINTWORK By Chris Butler

Table 1. The flintwork. (A full record of the pieces found, by trench and context, is contained in the site archive.)

Hard hammer-struck flakes	205
Soft hammer-struck flakes	11
Hard-hammer-struck blades	3
Soft hammer-struck blades	7
Fragments	19
Shattered pieces	4
Chip	1
End scrapers	5
Hollow scraper	1
Notched piece	1
Piercers	2
<b>Total</b>	<b>259</b>

The assemblage comprises mostly hard hammer-struck flakes, with a small number of hard hammer-struck blades. Soft hammer-struck flakes and blades make up just over 7% of the debitage. Although the majority of flakes are short and squat with broad platforms, and hinge fractures are numerous, the assemblage includes a surprisingly high proportion of longer, blade-like flakes. Few of the pieces have evidence of any platform preparation. Ten flakes and fragments have been retouched, and three flakes have subsequently been fire-cracked. A further 46 pieces of fire-cracked flint, weighing 1.419 kg, were found.

Nine implements, all manufactured on hard hammer-

struck flakes and making up 3.5% of the assemblage, were recovered (Table 1). Most of the implements appear to have been quickly and simply manufactured, with only a limited amount of preparation, and minimal retouch, although one end scraper and the hollow scraper are more finely worked, suggesting an earlier date of manufacture than the remaining implements.

Although a Bronze Age date would fit the majority of the assemblage, there are a number of pieces, including the soft hammer-struck pieces, the blades and longer blade-like flakes, and the better scrapers, which hint at an earlier, possibly Neolithic phase of activity at the site. Amongst the 192 pieces of flintwork recovered in 1977 (Drewett 1980), were a number of pieces that are also of Neolithic date. These included a polished flint axe, an arrowhead, a laurel leaf, and some scrapers. Drewett suggested that the tools were most likely associated with exploitation of woodland resources rather than representing a settlement site. The Neolithic flintwork recovered during the most recent investigations could have similar associations, although a wider range of debitage has also now been found.

The Bronze Age flintwork makes up the larger part of the assemblage and, comprising a substantial quantity of hard hammer-struck debitage together with a small range of simple implements, could easily be associated with a later Bronze Age settlement site.

### A REVIEW OF THE EARLY 1ST-MILLENNIUM BC POTTERY FROM CHANCTONBURY RING: A CONTRIBUTION TO THE STUDY OF SUSSEX HILLFORTS OF THE LATE BRONZE AGE/EARLY IRON AGE TRANSITION By Sue Hamilton

#### Introduction

The present study considers a larger body of early 1st-

millennium BC pottery from Chanctonbury Ring than previously published. It focuses on the unpublished pottery from the 1988/1991 site investigations, but also makes reference to the published pottery from the 1977 excavations (Hamilton 1980). A more precise dating of this collective assemblage is now possible. This is particularly important because the early 1st-millennium BC pottery from Chanctonbury Ring remains the primary means of dating the construction and use of the hillfort. Additionally, the assemblage contributes to a consideration of how Sussex early hillforts were used.

### Previous work, chronologies and terminology

#### *Previous studies on the Chanctonbury Ring early 1st-millennium BC pottery*

Some 20 years ago, I published two comparable early 1st-millennium BC pottery assemblages from the West Sussex hillforts of Harting Beacon (Hamilton 1979) and Chanctonbury Ring (Hamilton 1980). The hillforts occupy analogous locations on the northern edge of the Downs. Harting is on the Lavant/Arun block of Downland, and Chanctonbury on the Arun/Adur block. Both hillforts have proximate access to both Wealden and Downland catchments for potting, materials and other resources. Similarities in the morphology and fabric types of their pottery assemblages indicated the general contemporaneity of the assemblages. Both pottery assemblages were ascribed to Cunliffe's (1978) 'Kimmeridge-Caburn' pottery style-group then dated to the 6th–5th centuries BC and designated an 'Early Iron Age' terminology. Both the style and date terms have become problematic, as is discussed below.

#### *'Kimmeridge-Caburn'-type pottery*

Cunliffe characterized his 'Kimmeridge-Caburn' pottery style-group by the presence of: i) bipartite bowls with beaded rims, sharp shoulder angles, and median-shoulder cordons; ii) tripartite jars with flared rims, constricted necks and sharply angular shoulders; and iii) coarser shouldered jars with fingertip, or fingernail impressions along the rim tops and shoulders. The 'Kimmeridge-Caburn' style-group in fact encompasses a more diverse range of assemblages, and a longer chronology, than first envisaged. Cunliffe has revised the dating for the style group to c. 750–550 BC (Cunliffe 1991, 66), and the Caburn pottery (pre-rampart) is commonly agreed to lie at the end of the sequence (Drewett & Hamilton 1999). Now, even earlier dates have been suggested for some of the Sussex assemblages, which formed the original core of Cunliffe's (1966) style group. These include Kingston Buci and Thundersbarrow Hill, now dated to the c. 9th century BC (Barrett 1980; Hamilton 1993). Over the last decade the substantially increased number of early assemblages of c. 9th-/8th-century BC dates recovered form a coherent group in their own right (Hamilton forthcoming; Seager Thomas 2001). As a consequence, the concept of a tightly related group of Sussex 'Kimmeridge-Caburn' pottery has become less viable. Barrett's (1980) division of the early 1st-millennium BC pottery from lowland England into an earlier Post Deverel-Rimbury (PDR) plain ware tradition (c. 9th and 8th centuries BC), and a later PDR decorated tradition (c. 7th–5th centuries BC), is more user-friendly, and is essentially followed in the following discussion.

#### *Use of a Late Bronze Age/Early Iron Age terminology*

There are in current use several dating schemes and associated terminologies that cover the early 1st millennium BC. This has resulted in an inconsistent use of the terms 'Early Iron Age', and 'Late Bronze Age'. The terminology includes subdivisions such as Cunliffe's 'Earliest Iron Age', with an ascribed date range of c. 800–600 BC. This subdivision includes the Llyn Fawr final Bronze Age metalwork stage c. 700–600 BC, and the phase as a whole is described as 'spanning the end of the Bronze Age and the beginning of iron-using technology (Cunliffe 1991, 61). This transitional, Late Bronze Age–Early Iron Age phase of Cunliffe is followed by his 'Early Iron Age' dated to c. 600–400/300 BC (Cunliffe 1991, 69). Needham (1996) simply encompasses these two time divisions under the single term 'Early Iron Age' with a c. 8th–5th century BC date range. Hill's (1995) collation of the several current Iron Age dating schemes ascribes the 'Early Iron Age' to the period c. 700–550 BC. Using these period categories which are essentially based on metal usage (bronze *versus* iron), and the associated metalwork typologies, masks the essential continuity of Sussex early 1st-millennium BC pottery and settlement traditions. Given the difficulties of these various dating schemes, the relative and absolute *sequencing* of early 1st-millennium BC assemblages and their associated sites is clearly more essential than classification by period names.

#### *The general dating context*

It is now possible to suggest a more precise absolute dating of c. 7th century BC for both the Harting Beacon and the Chanctonbury Ring hillfort pottery assemblages (detailed below). Perhaps this dating is best encompassed by the generalized terminology 'the end of the Late Bronze Age'. This dating was first stated in my doctoral thesis (Hamilton 1993), and has been used in subsequent chronological discussions of Sussex hillforts and their associated pottery assemblages (Hamilton forthcoming; Hamilton & Gregory 2000; Hamilton & Manley 1997; 2001). Such a dating takes into account Barrett's (1980) seminal reassessment of PDR, early 1st-millennium BC, ceramic traditions, and the growing number of radiocarbon dates now available for Sussex early 1st-millennium BC assemblages (Hamilton forthcoming). An increasing amount of associated metalwork, of known chronological phasing, also contributes to sequencing and dating of this pottery (Hamilton & Manley 2001; Hamilton forthcoming).

### Pottery assemblages from between the Arun and the Adur rivers

#### *The chronological importance of the Chanctonbury Ring assemblage*

The Chanctonbury Ring pottery belongs to Barrett's (1980) decorated PDR traditions. It is currently the only c. 7th century BC pottery assemblage suitable for extensive analysis from the Arun/Adur block of Downland. The suggested dating of the other assemblages in the block are briefly outlined below (and see Table 2) and detailed elsewhere (Hamilton forthcoming and summarized in Hamilton & Gregory 2000 and Seager Thomas 2001).

#### *Other hillfort assemblages*

Highdown Hill hillfort yielded a substantial quantity of pottery



that extends (on typological criteria) from the Middle Bronze Age into the 1st millennium BC and includes decorated PDR pottery. However, its associated stratigraphy is very unclear (Wilson 1940; 1950; Champion 1980, 44). Excavations at Harrow Hill enclosure (Holleyman 1937, figs 11–13) recovered negligible quantities of Late Bronze Age/Early Iron Age pottery, but the finds include at least one fingertip-impressed PDR rim (Manning 1995). The amount of pottery recovered from excavations at Cissbury hillfort is small, and typologically belongs to the Middle and Late Iron Ages (E. C. Curwen & Williamson 1931).

#### *Settlement assemblages*

Minor quantities of Late Bronze Age /earliest Iron Age pottery, similar to the Chanctonbury Ring pottery, come from the Downland settlements of New Barn Down and Muntham Court. This New Barn Down pottery is in addition to its essentially Middle Bronze Age assemblage (E. C. Curwen 1934, 162: figs 22–5). The earlier 1st-millennium BC pottery from Muntham Court includes PDR-type decorated wares, in addition to the Early Iron Age pottery referred to in past limited publication (Burstow & Holleyman 1956; 1957a; study of pottery in Littlehampton Museum). The Muntham Court assemblage awaits a modern synthesis.

The Downland settlements at Findon Park and Park Brow post date Chanctonbury, and are associated with Early Iron Age (c. 5th/4th centuries BC) pottery (Fox & Wolseley 1928; Hodson 1962; Wolseley *et al.* 1927). That part of the Coastal Plain which fronts the Arun/Adur block of Downland, has produced no assemblages which are clearly contemporary with that of Chanctonbury Ring. The pottery from the Wickbourne Estate, Littlehampton (Gilkes 1993, 5) relates to two periods, one earlier (undecorated PDR pottery), and one later (Middle Iron Age saucapan pottery) than Chanctonbury Ring. Similarly with the Rustington assemblages: the pottery from Rustington Site B stylistically dates to the beginning of the 1st millennium BC, and the pottery from Rustington Site A to the Early Iron Age (Hamilton 1990, fig. 6:1). The Wealden area which Chanctonbury overlooks has produced two Late Bronze Age assemblages which are just earlier than that from Chanctonbury Ring, namely from America Wood, Washington (Hamilton 1994) and Testers (Hamilton 1988). Both sites have suggested dates of c. 9th/8th centuries BC, and currently no sites contemporary with Chanctonbury Ring are known from the Weald.

#### **The size and condition of the Chanctonbury Ring early 1st-millennium BC assemblage, and its stratigraphic context**

The early 1st-millennium BC pottery recovered during the 1988/1991 archaeological investigations at Chanctonbury Ring increases the number of sherds belonging to this assemblage by about 70%. The 1977 excavations produced 1360 early 1st-millennium BC sherds weighing a total of 9575 g. The 1988/1991 excavations produced a further 988 sherds weighing some 5372 g. The average weight per sherd of the latter was lower (5.4 g) than that of those recovered during the 1977 excavations (which averaged 7 g each). This reflects the residual finds contexts, and the eroded state, of the more recently recovered pottery. In spite of their very fragmentary condition, approximately 60 distinguishable form and/or decorated sherds were recovered from the 1988/1991 work. Some 32 of these

have been illustrated (Figs 9–11). Together with the feature sherds isolated from the 1977 excavations, they form a relatively substantial style assemblage for a phase of Sussex early 1st-millennium BC pottery production which is under-documented.

The early 1st-millennium BC pottery from Chanctonbury Ring is stylistically coherent, and is clearly the product of a single phase of site use. There is no evidence for subsequent Middle Iron Age pottery, or preceding Middle Bronze Age pottery. The majority of the early 1st-millennium BC sherds recovered, particularly those from the 1988/1991 investigations, were residual in Roman contexts, mixed with Roman pottery in the topsoil, or in layers of uncertain origin. At best, the greater part of this assemblage can only suggest general spatial trends of on-site activities. Approximately 58% of the assemblage published in 1980 (Hamilton) came from four secure, uncontaminated stratigraphic contexts. (Bedwin 1980). These comprised: i) a shallow pit sealed by a flint capping (Feature 110). The pit produced a radiocarbon date (HAR-2703, see Table 2), and additionally contained human and animal bone, and daub; ii) a second shallow pit (Feature 307), with associated de-stratified sherds from the topsoil above it; iii) the upper silts of the rampart ditch. These were interpreted as slopewash from the rampart, and the pottery from this context included one relatively complete vessel (Fig. 12: /24); and iv) basal silts from the rampart ditch. The five sherds from this context indicate the most clearly that the early 1st-millennium BC pottery assemblage as a whole dates the earliest use of the hillfort.

#### **Fabric types**

The fabrics outlined below follow the format of description prescribed by the Prehistoric Ceramics Research Group (1992). All sherds were assigned a fabric type after macroscopic examination and the use of  $\times 10$  magnification. All sherds were counted and weighed to the nearest whole gramme. For the 1988/91 investigations, the presence of each fabric type is tabulated for each trench according to weight and sherd numbers (see Table 4, ADS file associated with this article). The fabric groups which were isolated in my 1980 report are largely maintained, albeit with a slight rationalization according to the format of my doctoral thesis (1993). An additional fabric (Fabric 5) was recognized within the 1988/91 assemblage.

The Chanctonbury Ring assemblage predominantly comprises medium-coarse and intermediate fabrics. Some 10.9% of the Chanctonbury Ring assemblage are fine wares (Fabrics 3 and 4a). This interestingly contrasts with Harting Beacon where 44% of the assemblage are fine wares (Hamilton 1979; 1993). Chanctonbury Ring Fabrics 4A and 4B contain quantities of pisolitic iron oxides, which are associated with clays of Wealden origin. This suggests exploitation of Wealden strata up to 11 km distance from site (Hamilton 1980). The quartz-tempered or quartz-rich clays associated with Fabric 3 are also likely to be of Wealden origin (Hamilton 1980). The use of Wealden resources for potting materials is more common in East Sussex Downland contexts, where the Wealden strata are slightly nearer to the Downs. Iron oxide fabrics are present for example in the Late Bronze Age/Early Iron Age assemblages at Bishopstone (Hamilton 1977), and the Caburn (Drewett & Hamilton 1999).

*Fabric 1: Medium-coarse flint-gritted (coarse ware)*

Terminology in previous analyses: Hamilton 1980: *Chanctonbury Ring Fabric 1*; Hamilton 1993: *Chanctonbury Ring Fabric 1*.

Table 2. Sussex pottery assemblages which are coeval with the Chanctonbury Ring assemblage, or which may chronologically partially overlap with it.

Site	Location	Site type	Independent dating	References
Castle Hill, Newhaven*	Downs	Hillfort	None: unstratified finds. LBA hoard of carpenter's tools in unknown relationship with the site's PDR decorated pottery.	C.F.C. Hawkes 1939b; E.C. Curwen 1937, 208, 220, fig. 61.
Chanctonbury Ring*	Downs	Hillfort	PDR decorated pottery assemblage. LBA metalwork from the hillfort area (see this article) and a date of 760–190 cal BC (HAR-2703, 2320±80 BP) for a shallow pit fill (Feature 110), possibly dating the end of hillfort use (Bedwin 1980).	Bedwin 1980.
Charleston Brow	Coastal Plain	Open settlement	None: unstratified assemblage.	
Forty Acre Brickfield, Worthing	Coastal Plain	Hoard in a pot	Plain PDR shouldered jar associated with a Carp's Tongue hoard that must have an 8th- or 7th-century BC date, thus potentially overlapping in date with the Chanctonbury Ring assemblage.	Powell-Cotton & Crawford 1924, pl. XXX). Smith 1958.
Harrow Hill*	Downs	Hillfort	None; a very small quantity of PDR sherds (one decorated) from a gateway post-hole in fabrics similar to those from Chanctonbury Ring.	
Harting Beacon*	Downs	Hillfort	PDR decorated pottery assemblage. Two gold penannular ornaments c. 8th/7th century BC (Burgess 1967, 29–30) in northern ditch terminal of the western entrance (a foundation dedication deposit?), and a second was recovered nearby. A date of 392–186 cal BC (HAR-2411, 2220±80 BP) for a human skull in a rubbish scoop in the upper fill of the southern ditch terminal (final hillfort deposit?).	Bedwin 1978; 1979; Hamilton 1979; 1993.
Highdown Hill*	Downs	Hillfort	PDR decorated wares in the 'slow fill' of the earliest rampart ditch fills. Stray finds of LBA metalwork include a gold penannular ornament similar to the Harting Beacon example. The finds circumstances suggest a hoard.	E.C. Curwen 1937, 107; Wilson 1940, e.g. figs 2:f, 3:b, 4:b,c.
Muntham Court	Downs	Settlement, possibly with some fencing	Some PDR decorated wares (personal inspection of pottery at Littlehampton Museum). Also later, Early Iron Age pottery.	Burstow & Holleyman 1957a.
New Barn Down	Downs	Middle Bronze Age embanked settlement	None: A Middle Bronze Age pottery assemblage with a few later PDR decorated sherds.	E.C. Curwen 1934, figs 22, 25.
Selsey East Beach*	Coastal Plain	Open settlement?	None; dated stylistically (decorated PDR pottery).	Kenny 1989; Seager Thomas 2001.
Selsey Golf Links Lane	Coastal Plain	Open settlement?	Unstratified finds. Dated stylistically. Plain PDR wares with possibly with a few, later decorated sherds	Hamilton 1993; White 1934.
Selsey West Beach	Coastal Plain	Open settlement?	The site has produced two radiocarbon dates of 966–798 cal BC (AA-40932:Gu-9225, 2695±45 BP) and 748–414 cal BC (AA-40933:Gu-9226, 2520±40 BP), associated with a developed plain PDR assemblage (i.e. with some decoration, Needham 1993, Phase 7). The later of these two date ranges allow for overlap with Chanctonbury, but the style and decoration of the assemblage appears to be earlier, and the assemblage is suggested to fall at the beginning of this (AA-40933) radiocarbon date range (Seager Thomas 2001).	Seager Thomas 1998; 2001.
Trundle *	Downs	Pre-hillfort settlement	None; PDR decorated sherds present.	E.C. Curwen 1929, pls X:79, 81, and X; Hamilton forthcoming.
Yapton	Coastal Plain	Open settlement	A date of 824–777 cal BC (HAR-7038, 2600±70 BP) is in line with the proposed dating of relatively undecorated PDR assemblages. The presence of sherds from for one incised decorated shouldered-bowl may just extend the chronology of the assemblage to overlap with Chanctonbury Ring assemblage.	Hamilton 1987.

**Key:** \* = assemblages that are wholly contemporary with the Chanctonbury Ring assemblage on typological grounds, and/or on the basis of associated radiocarbon dates or datable metalwork. PDR = Post Deverel-Rimbury (Deverel-Rimbury = Middle Bronze Age).

**Abundance:** 82.4% of the collective 1979 and 1988/89 assemblages by sherd count.

**Associated forms:** heavily gritted bases; convex jars; round-

shouldered jars; tripartite jars; bipartite bowls; cup.

This is a broad fabric category. Analysis of joining pieces within

the original published assemblage indicated considerable variation in size and density of inclusions within individual vessels (Hamilton 1980, 197: Fabric 1). Overall, sherds in this fabric can be described as medium-coarse wares. The fabric is characterized by sparse (3% density) to moderate (10% density), coarse sand-sized to fine granule-sized calcined flint grits, common fine sand-sized to medium sand-sized quartz, and rare (<1% density) to sparse (3% density) 'chaff' impressions or carbonaceous material. Oxidized (orange- and buff-coloured), and unoxidized (dark brown-coloured), surfaces which are occasionally burnished and frequently finger-finished. Unoxidized to oxidized core. *Sherd thickness*: c. 4–10 mm.

*Fabric 2: medium flint-gritted with quartz sand (intermediate ware)*

Terminology in previous analyses: Hamilton 1980: *Chanctonbury Ring Fabric 4*; Hamilton 1993: *Chanctonbury Ring Fabric 2*.

Abundance: 2.2% of the collective 1977 and 1988/91 assemblages by sherd count.

Associated forms: No diagnostic sherds.

The fabric comprises sparse (5% density) coarse sand-sized calcined flint grit and very abundant medium to coarse quartz sand. Oxidized (buff-coloured) to unoxidized core, and, occasionally finger-finished, oxidized (buff-coloured), to unoxidized (dark brown), surfaces. The quartz is sub-angular and both translucent and transparent grains are present. The quantity of quartz suggests a deliberately added temper.

*Fabric 3: Quartz-sand gritted (finer ware)*

Terminology in previous analyses: Hamilton 1980: *Chanctonbury Ring Fabric 2*; Hamilton 1993: *Chanctonbury Ring Fabric 3*.

Abundance: 7.0% of the collective 1979 and 1988/89 assemblages by sherd count.

Associated forms: Bipartite shouldered jar, and bipartite bowls.

A range of finer fabrics comprising rare (2% density) to moderate (7% density), medium to coarse sand-sized calcined flint grit and common to abundant medium-sized to coarse-sized quartz sand. Unoxidized core, and, frequently burnished, unoxidized surfaces (1988/91 assemblage). Occasionally oxidized buff to red surfaces (1977 assemblage). *Sherd thickness*: c. 5–6 mm.

*Fabric 4A: Pisolitic iron oxide (finer ware)*

Terminology in previous analyses: Hamilton 1980: *Chanctonbury Ring Fabric 3*; Hamilton 1993: *Chanctonbury Ring Fabric 4*.

Abundance: 5.5% of the collective 1977 and 1988/91 assemblages by sherd count.

Associated forms: Bipartite bowls with fingernail-impressed decorated rims and shoulders. Angular bowls with angular, notched (formed by an incised groove) shoulders.

A range of fine to intermediate fabrics comprising rare (1% density) to sparse (5% density), medium sand- to fine granule-sized calcined flint grit, abundant fine sand-sized quartz and pisolitic iron oxide sand, occasional shell and rare (1% density) carbonaceous material. Unoxidized interior surfaces and core,

and, frequently burnished, unoxidized brown to black (1977 assemblage), and oxidized (1988/91 assemblage), exterior surfaces. *Sherd thickness*: c. 6–7 mm.

*Fabric 4B: Pisolitic iron oxide with flint grit (intermediate ware)*

Terminology in previous analyses: A variant of Hamilton 1980: *Chanctonbury Ring Fabric 3*; Hamilton 1993: *Chanctonbury Ring Fabric 4*, but not distinctly present in the 1977 excavated assemblage.

Abundance: 2.8% of the total 1977 and 1988/91 assemblages by sherd count.

Associated forms: Vessels with plain shoulder or neck cordons.

A variable, intermediate fabric comprising sparse (5% density) to moderate (10% density), medium sand- to fine granule-sized calcined flint grit, occasional to common fine quartz and pisolitic iron oxide sand, and rare (1% density) 'chaff' impressions or carbonaceous material. Unoxidized core, oxidized (red-brown coloured) to unoxidized (dark brown-coloured) interior surfaces, and, occasionally burnished, oxidized (red-orange-coloured) exterior surfaces. *Sherd thickness*: c. 6.5–7.5 mm.

*Fabric 5: Coarse flint-gritted ware*

Terminology in previous analyses: Not present in the 1977 assemblage.

Abundance: 0.1% of the total 1977 and 1988/91 assemblages by sherd count.

Associated forms: No diagnostic form sherds.

A coarse fabric comprising moderate (10% density), coarse sand- to large granule-sized calcined flint grit and common fine quartz sand. Unoxidized core, oxidized exterior surfaces (buff- to red-orange-coloured), and partially oxidized to unoxidized (buff- to dark brown-coloured) interior surfaces. *Sherd thickness*: c. 7–8 mm.

### **Pottery types: diagnostic forms and feature sherds, and their chronological significance** (Table 3)

NB: The original numbers of vessels published in the Hamilton 1980 report are here maintained, and denoted in the text and Figure 12 by a '/' prefix.

#### *Summary*

The Chanctonbury Ring early 1st-millennium BC pottery is best described as a decorated Post Deverel-Rimbury (PDR) assemblage. It is very similar to the assemblage from Harting Beacon hillfort, the decorated wares from Highdown Hill hillfort, and the pre-rampart pottery from the Trundle (Table 2). It is more consistently decorated than Sussex's earliest 1st-millennium BC assemblages. It lacks, however, the incised cordoned shoulders, beaded rim bipartite bowls, and the incised geometric decoration associated with both the Caburn pre-rampart assemblage (Hawkes 1939a, figs D:115, E:72; Drewett & Hamilton 1999) and the Hollingbury hillfort assemblage (Hamilton 1984). These sites are dated on typological groups to the 6th or 5th centuries BC (Hamilton 1993). Chanctonbury lacks the fine ware jars, and hemispherical bowls which are a feature of earlier PDR Sussex assemblages (e.g. Bishopstone: Hamilton 1977; forthcoming; Thundersbarrow Hill: Hamilton forthcoming; and Yapton: Hamilton 1987). Virtually no expanded rims are present

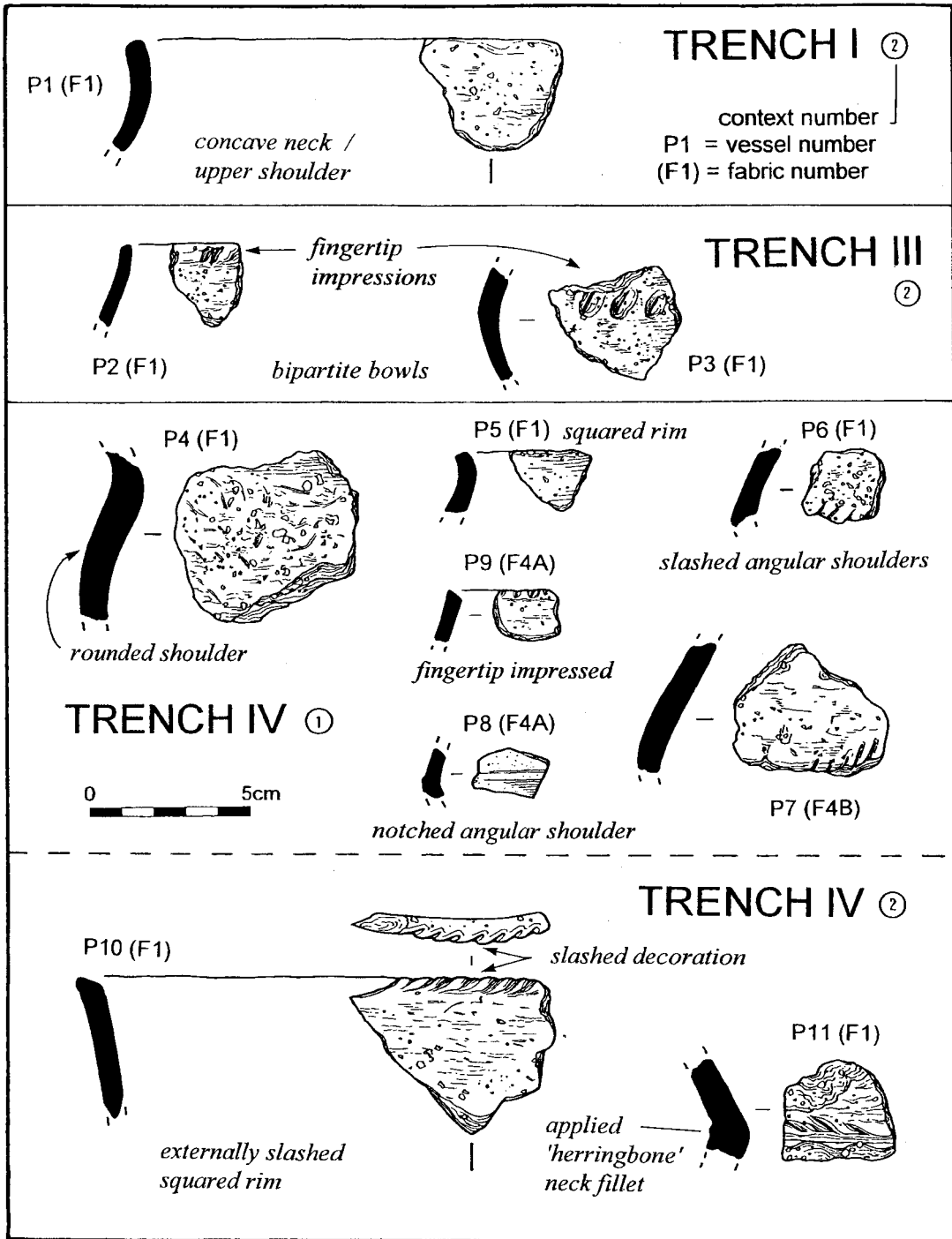


Fig. 9. Prehistoric pottery from Trenches I, III and IV, 1988-91 excavations.

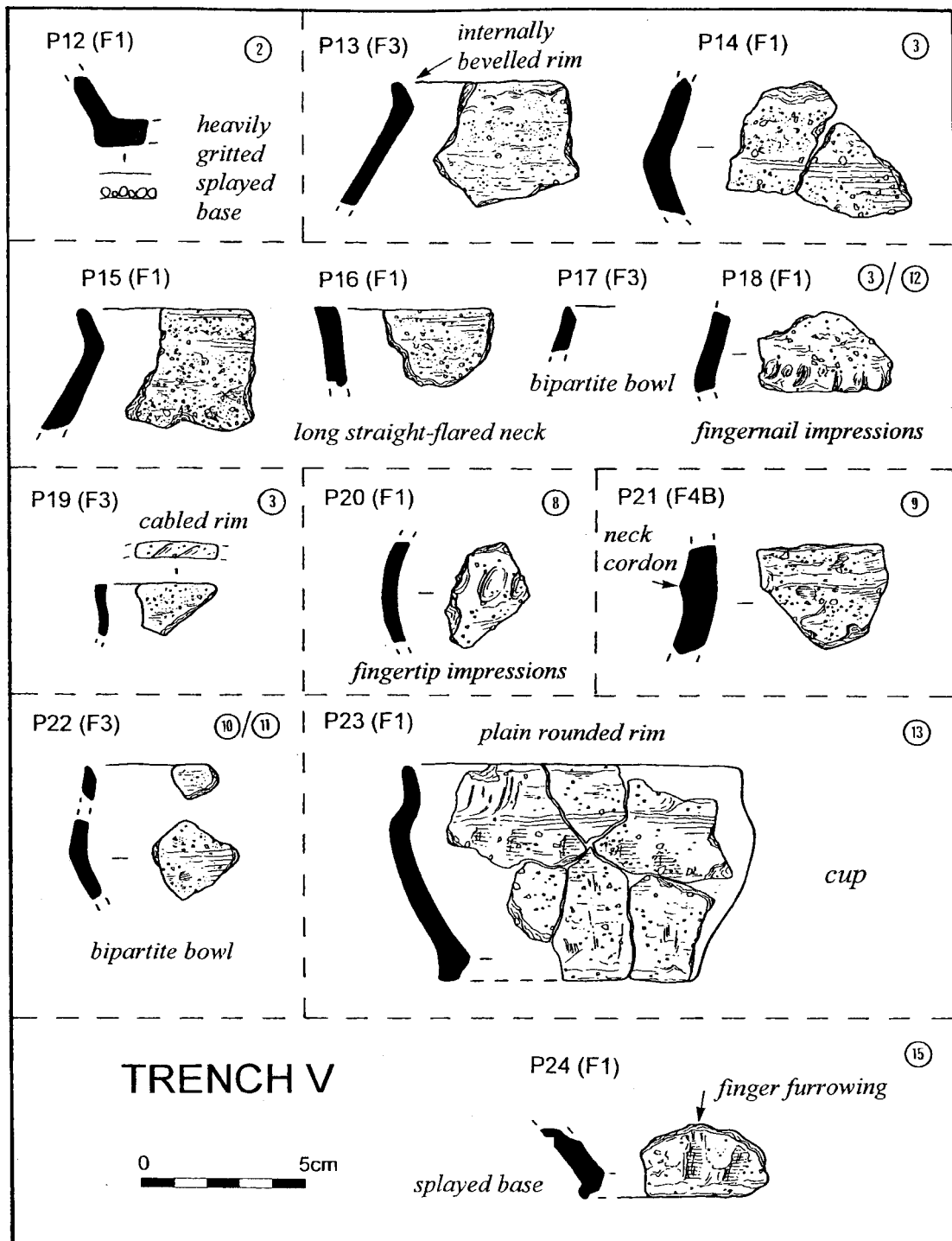


Fig. 10. Prehistoric pottery from Trench V, 1988-91 excavations.

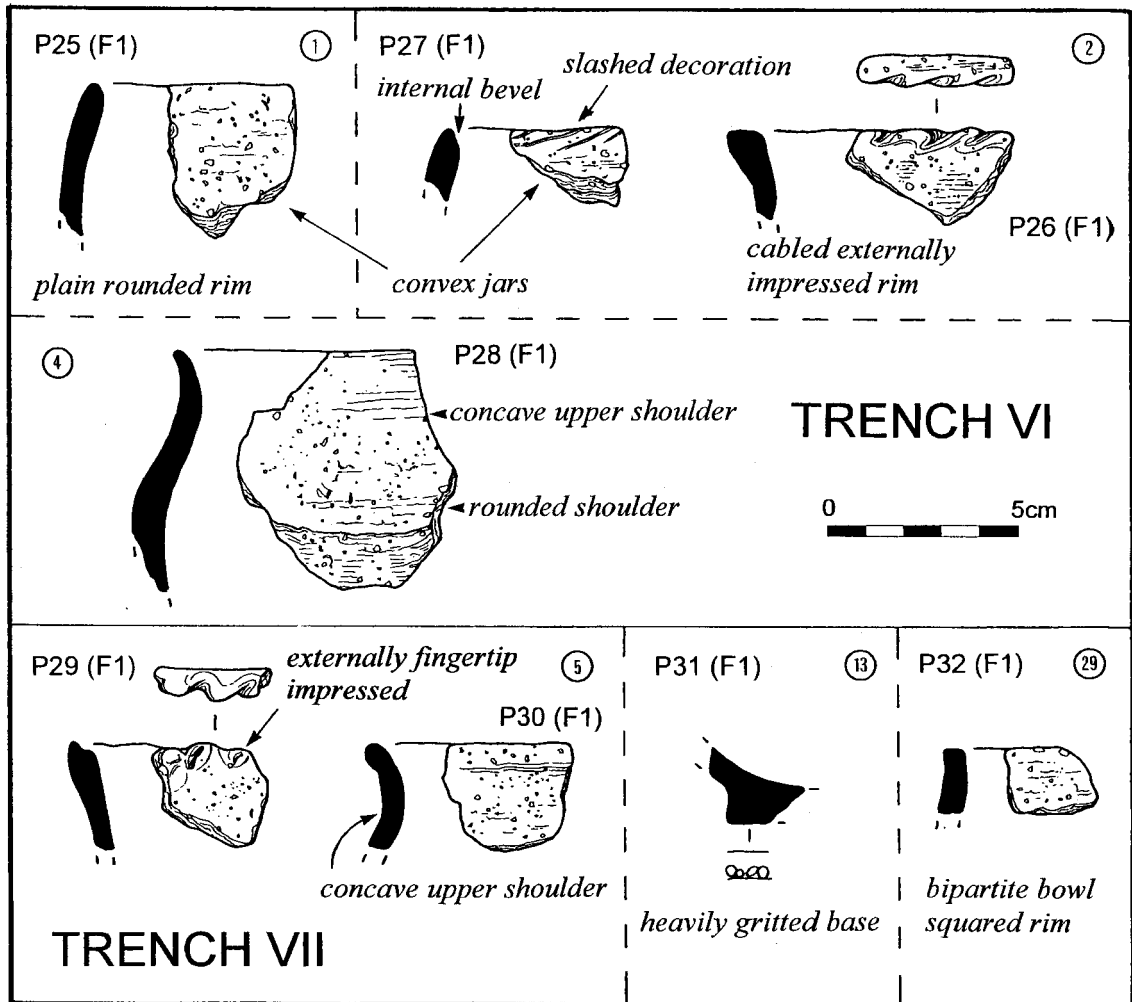


Fig. 11. Prehistoric pottery from Trench VI and VII, 1988–91 excavations.

(excepting Fig. 10:19), contrasting with their regular occurrence in slightly earlier assemblages (e.g. Bishopstone: Hamilton 1977; forthcoming; Ford: Hamilton 2001; Heathy Brow: Hamilton 1980; forthcoming; Selsey West Beach: Seager Thomas 1998; 2001). The Chanctonbury Ring pottery forms are however quite diverse, especially amongst the coarser wares. A distinctive attribute of the shouldered bowls and jars is that the upper bodies are often slightly convex.

#### *Convex jars*

The Chanctonbury Ring assemblage includes convex jars (some with in-curved rims), and squat, wide-mouthed jars with weak or rounded shoulders. Collectively, these have an ancestry that goes back to the Middle Bronze Age Deverel-Rimbury traditions (e.g. at Itford Hill: Burstow & Holleyman 1957b; and Plumpton Plain: Ellison 1978; Barrett 1980). The forms first regularly appear during the earliest 1st millennium BC and are found in

largely undecorated PDR assemblages which include the unstratified plain ware pottery from Selsey Golf Links Lane (Table 2) and Kingston Buci (Barrett 1980; E. Curwen *et al.* 1931; and Table 2). These Sussex assemblages are thus dated on the basis of their typological placement in site and regional sequences from Lowland Britain as a whole (Barrett 1980; Hamilton 1993; forthcoming). Similar convex jars and weak-shouldered vessels continued to be present in Sussex developed PDR plain ware assemblages through the c. 9th and 8th centuries BC (Needham 1996, Period 7). These developed assemblages additionally include shouldered bowls and jars, and decoration is somewhat more common (notably fingertip-impressed shoulders and rims). In Sussex, this 'developed' phase of plain PDR assemblages is exemplified by the pottery from the c. late 10th to 8th centuries cal BC radiocarbon-dated assemblages from Yapton (HAR-7038), Shinewater (BM-2990, BM-3002, OxA-6176), Ford (BETA-44445, BETA-44446) and

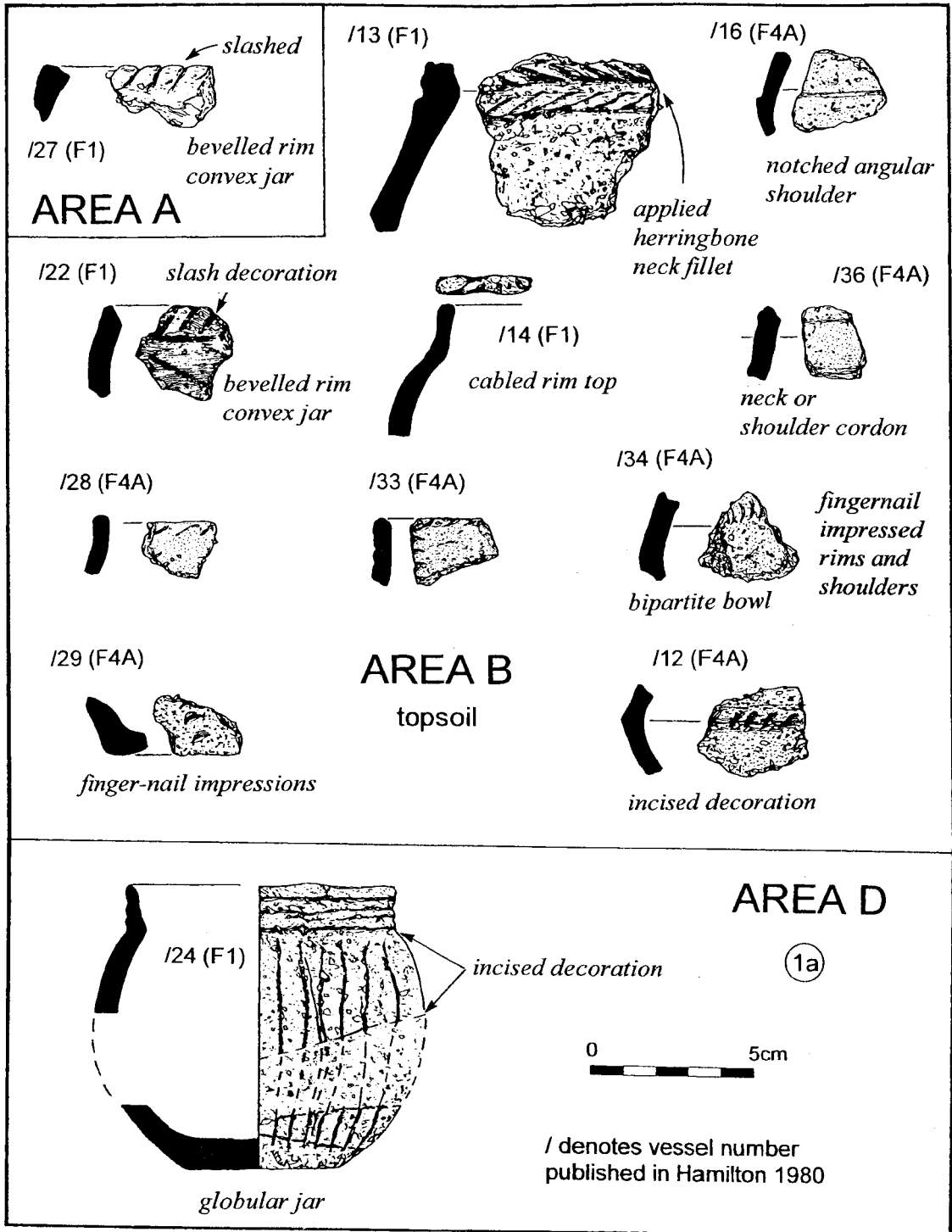


Fig. 12. Selected prehistoric pottery from 1977 excavations, Areas A, B and D (from Hamilton 1980).

Table 3. Suggested vessel reconstruction of illustrated feature sherds from Chanctonbury Ring 1988–91. The suggested vessel form (e.g. convex jar) that individual vessel elements (e.g. rims, shoulders, bases, etc.) comprise part of are denoted as follows: **P9** = bi-partite bowls; **P25** = convex jar; **P29** = shouldered jar; **P13 \*\*** = bi-partite shouldered jar; **P18 \*\*\*** = tri-partite shouldered jar; **P23** = cup).

Pottery form elements	Fine fabrics	Intermediate fabrics		Coarse fabrics
	F3	F4A	F4B	F1
Plain squared rim	2 (not illustrated)			4 (e.g. P5, P16, P32)
Externally slashed, squared rim				2 (e.g. P10 ***)
Externally cabled, squared rim				2 (e.g. P26)
Externally fingertip-impressed, squared rim		1 (P9)	?1 (not illustrated)	2 (P2, P29)
Plain rounded rim				6 (e.g. P15, P23, P25, P30)
Internally rounded rim				2 (e.g. P28)
Externally slashed, rounded rim				1 (P27)
Upturned rim	2 (e.g. P13 **)			
Flat, internally bevelled rim	2 (e.g. P13 **)			
Rounded, internally bevelled rim	2 (P17, P22)			
Cabled, internally expanded rim	1 (P19)			
Long, straight, flared neck				5 (e.g. P10 ***, P16, P29)
Straight, conical neck	1 (P13 **)			
Herringbone neck fillet				1 (e.g. P11 ***)
Possible shoulder or neck cordons		2 (not illustrated)		
Neck cordon			1 (P21)	
Concave neck/upper shoulder	1 (P17)		1 (P21)	11 (e.g. P1, P14, P23, P26, P28, P30, P32)
Rounded shoulder				2 (P4, P28)
Plain angular shoulder	1 (P22)			2 (P14, P23)
Notched, angular shoulder		1 (P8)		1 (not illustrated)
Slashed, angular shoulder		1 (not illustrated)	1 (P7)	2 (e.g. P6)
Fingernail-impressed, angular shoulder				1 (P18)
Fingertip-impressed shoulder			?1 (not illustrated)	2 (P3, P20)
Flat, splayed base				8 (e.g. P12, P23, P31)
Splayed base with finger-furrowed sides				1 (P24)
Flat, heavily-gritted base				8 (e.g. P12, P31)

Selsey West Beach (AA-40932:Gu-9225, AA-40933:Gu-9226) (see Table 2). The Chanctonbury Ring assemblage, on the basis of its shouldered forms and decoration, is dated a little later than these developed plain wares assemblages, but still similarly includes convex jars, and round-shouldered jars (see below). Chanctonbury Ring specifically has convex jars with rounded rims (Fig. 11:25), and internally bevelled rims (Fig. 11:27, 11:22). The latter rims have a decoration of oblique slashes on their outer edge. This decoration is unknown on the convex jars of earlier assemblages.

#### Globular jar

The 1977 assemblage also produced a globular jar with vertical and horizontal incised decorative lines (Fig. 12:/24). It has a collared neck, and the rim is internally bevelled. The vessel is relatively complete and came from the slopewash behind the rampart. The form has some comparison with Middle Iron Age

coarse wares forms from eastern Britain, but the Middle Iron Age of Sussex is typified by saucepan pottery. In terms of fabric the vessel forms a coherent part of the earlier 1st-millennium BC assemblage, and therefore is here presumed to belong with it.

#### Wide-mouthed jars with weak or rounded shoulders

These forms are relatively common at Chanctonbury Ring (Figs 9:4 & 11:28) and form part of the earliest 1st-millennium BC pottery repertoire of Lowland Britain. At Forty Acre Brickfield, Worthing, an undecorated round-shouldered jar is associated with a Carps Tongue hoard, to which an 8th- or 7th-century BC date is assigned (Barrett 1980; see Table 2).

#### Shouldered jars

Shouldered jars with upturned (Fig. 10:13), or flaring rims (Figs 9:10, 10:16 & 11:29) are a significant feature of the Chanctonbury Ring assemblage. Sometimes enough of the



flaring rim (Fig. 9:10), or of the neck junction remain to indicate the presence of a tripartite profile. These neck angles are emphasized by an applied 'herringbone'-decorated neck fillet, the decoration being produced by oblique slashed lines (Figs 9:11 & 12:/13). The external edges of the rims are often decorated by a line of one of the following: cabling (Fig. 11:26); oblique slashes (Fig. 9:10); and fingertip-impressions (Fig. 11:29). The decoration is on the external edge of the rim, as opposed to on the rim top. This seems to be a feature of decorated PDR assemblages, and also occurs at Castle Hill, Newhaven (C.F.C. Hawkes 1939b, fig. 1:1–6), Harting Beacon (Bedwin 1978; Hamilton 1979), and Highdown Hill (Wilson 1940; Hamilton forthcoming). One angular shoulder (jar?) has a slashed decoration (Fig. 9:6, 7), and other shoulders are decorated with a line of oblique fingertip impressions (Figs 9:3 & 10:20). The upper shoulder is sometimes concave (Figs 9:1, 10:14, 11:26, 28 & 30), and this characteristic is discussed below for the bi-partite bowls.

#### *Bi-partite bowls*

Chanctonbury Ring has a range of distinctive, thin-walled bi-partite bowls (e.g. Fig. 11:30). Some have plain square rims (Fig. 11:32), some of which are decorated on their external edge with a line of fingertip impressions (Fig. 10:2, 9). Others have rounded, internally bevelled rims (Figs 10:17 & 11:32). The shoulders are often concave towards the upper neck (Fig. 11:30), and are similar in this respect to forms from Harting Beacon. Further afield (e.g. the lower Thames), such concave shoulders are associated with decorated PDR assemblages at Queen Mary's Hospital Carshalton, Surrey (Adkins & Needham 1985, fig. 10: 317, 322) and Orsett, Essex (Barrett 1978, 277–8 & fig. 39:1).

Where attributable, *fingernail-impressed decoration* on the shoulder and rim are restricted to bi-partite bowls. All of these examples come from the 1977 assemblage and are exclusively in Fabric 4A (Hamilton 1980, fig. 13; Fig. 12:/28, /29, /33, and /34). There is additionally one shoulder sherd (Fabric 1) from the 1988/1991 excavations (Fig. 10:18) with similar fingernail-impressed decoration. The fingernail-impressed decoration of the Chanctonbury Ring bowls is paralleled at Harting Beacon, where it is associated with fine ware bi-partite bowls in a flint-tempered fabric. Oblique fingernail-impressed decoration also occurs in West Sussex assemblages from the Trundle (from the pre-hillfort assemblage: Curwen 1929, pl. XI), Stoke Clump (probably a later assemblage than that from Chanctonbury Ring: Cunliffe 1966, fig. 1; Hamilton 1993) and Highdown Hill (Wilson 1940, fig. 5). This form of decoration contrasts with the more recurrent fingertip-impressed decoration which is generally associated with the coarse wares. The more elaborate incised chevron, triangle and herringbone designs, which are present at Hollingbury (Hamilton 1984) and the Caburn (pre-hillfort assemblage: C.F.C. Hawkes 1939a, fig. E), are wholly absent from the Chanctonbury Ring assemblage.

Three angular-shouldered bowls have '*notched*' *cordongrooves*. Two of these are in Fabric 4A (Figs 9:8 & 12:/16). In the Wessex cordoned bowl series (Harding 1974, 149; S.C. Hawkes 1961), bowls with incised cordon grooves are subsequent to bowls with wide, horizontal, shallow furrows (e.g. as occurs in the plain PDR wares at Kingston Buci: Barrett 1980). Both, however, predate the appearance of raised cordons (such as those present at the Caburn: C.F.C. Hawkes 1939a; Hollingbury: Hamilton 1984; and Stoke Clump: Cunliffe 1966).

#### *Cup*

The 1988/1991 Chanctonbury Ring assemblage has a roughly-made, very irregular cup (Fig. 10:23) with a concave shoulder/upper neck and an asymmetrical profile. Cups occur in early PDR assemblages and recur subsequently (Barrett 1980). They are relatively rare in Sussex assemblages, and in contrast to the Chanctonbury example, are usually associated with finer wares (e.g. Selsey West Beach: Seager Thomas 2001).

#### *Technology*

The Chanctonbury Ring coarse wares have vertical finger-drawing (evident as finger-furrows, Fig. 10:24), and finger-pinched splayed bases (Fig. 10:12, 23 & 11:31). These technological tricks are most evident on the coarse wares (Fabric 1) and, by the beginning of the 1st millennium BC, are widely present in the pottery of lowland Britain, including Sussex (Gardiner & Hamilton 1997; Hamilton 1987). Heavily-gritted bases are another feature of early 1st-millennium BC assemblages and are usually associated with coarse wares. Several examples occur in the Chanctonbury Ring assemblage (Figs 10:12 & 11:31; see Table 3).

#### **Radiocarbon date**

Feature 110, a shallow pit in the hillfort interior which was discovered during the 1977 excavations, was filled with pottery, human and animal bone, and produced a radiocarbon date of 760-190 cal. BC (HAR-2703, 2320±80 BP) (Bedwin 1980; see Table 2). This date does not sit easily with the suggested 7th-century BC dating for the Chanctonbury Ring pottery. It possibly dates an activity associated with the deliberate burying of earlier pottery, and/or a phase of clearance, beyond the time of the regular use of the hillfort. It is mirrored by a similarly 'late' radiocarbon date for a human skull in the upper fill of the south ditch terminal at Harting Beacon (392–186 cal BC, HAR-2411, 220±80 BP) (Bedwin 1979, see Table 2). These two dates and their association with human remains suggests intermittent Middle Iron Age activities, which were possibly propitiatory but produced no pottery.

#### **Some concluding points: social and functional aspects of the assemblage and its dating**

The early 1st-millennium BC pottery from Chanctonbury Ring is closely comparable to the decorated assemblages from Harting Beacon and Highdown Hill (detailed in Hamilton 1993). This suggests the coexistence of several hillforts at a time when, interestingly, contemporary settlement evidence was rare (Table 2). Both Harting Beacon and Chanctonbury Ring have produced snail assemblages typical of short-tufted grassland, suggesting the use of the sites for seasonal or intermittent grazing (Petzoldt 1979; 1980). The Chanctonbury Ring assemblage is characterized by a large number of vessel types (bowls, jars in large and smaller sizes, and a cup), and by a small number of vessels of any one type. The assemblage suggests that a full range of food-storage and food-serving/consumption activities took place on site, but perhaps associated with a limited number of people, or as the outcome of intermittent site use. There were higher percentages of fine wares in Trenches H and I (1988), Trench IV (1989), and Trench V (1989), which may be indicative of some zonation of activities on the site (see Table 4, ADS file associated with this article).

For the moment, the pottery can perhaps say more about

the hillfort by the dating which it provides for the construction and first use of the enclosure. Sussex hillforts are dated predominantly by their pottery assemblages, and their associated radiocarbon dates (Hamilton & Manley 1997). The hillforts dated to the Late Bronze Age and the Early Iron Age are the most numerous. They often occupy locations on the edges of the Downs, rather than being centrally positioned — which characterizes the Middle Iron Age hillforts. Chanctonbury Ring, being situated on the northern edge of the Downs, clearly epitomizes this identified early pattern (Hamilton & Manley 2001). Part of the role of these hillforts may have been to allow access to resources and environments off the Downs. The Chanctonbury Ring pottery fabrics certainly suggest contacts with the Wealden areas. For West Sussex, the essential commonality of style of the pottery assemblages from the Trundle (pre-hillfort settlement), Highdown Hill hillfort, and Harting Beacon hillfort suggest the existence of partially networked communities. The lack of contemporary assemblages from sites other than hillforts suggests that by *c.* 7th century BC, these communities were somewhat more dispersed and less numerous than was the case at the beginning of the 1st millennium BC.

### THE ROMAN POTTERY By Malcolm Lyne

#### Introduction

The successive seasons of excavation between 1988 and 1991 produced a total of 4935 sherds (24,552 g) of Roman pottery ranging in date between the late-1st and 4th centuries, but with a predominance of 2nd- and early 3rd-century material. Because the excavation was in part re-excavation and largely restricted to assessing the state of preservation of the site, amounts of stratified material are quite small (791 sherds, weighing 3904 g) and come from a mere 14 contexts. A catalogue of all the key assemblages, and spot-dating of the distorted and miscellaneous assemblages is here reproduced on ADS.

#### Methodology

All of the stratified pottery assemblages were quantified by numbers of sherds and their weights per fabric. These fabrics were classified using a  $\times 8$  magnification lens with built in metric scale for determining the natures, sizes, shapes and frequencies of added inclusions. Finer fabrics were further examined using a  $\times 30$  magnification pocket microscope with built-in artificial light-source.

Fabrics were classified using an extension of the numbered system formulated by Rudling (1980) for the 1977 excavation report. There has been considerable progress in the study of Roman pottery in Sussex during the last 20 years and it is now possible to subdivide some of Rudling's fabric subdivisions, and in particular his categories 3, 4 and 5.

#### Fabrics

- 1A. South Gaulish Samian.
- 1B. Martres de Veyre Samian.
- 1C. Lezoux Samian.
- 1D. East Gaulish Samian.
2. Hardham 'London' ware. Sand-free grey to red fabric with smooth, black micaceous surfaces and combed decoration.
- 3A. Sand-free polished grey-ware with white margins. Probably a Hardham product.
- 3B. Sand-free whiteware with blue-grey wash.
- 3C. Sand-free polished leaden-grey fabric.
- 3D. Largely sand-free grey-ware with very-sparse up to 0.50 mm colourless protruding quartz inclusions surrounded by dark grey halos.
- 4A. Hardham grey-ware. A dump category for a variety of sandy grey-wares forming the main product of the Hardham and Wiggonholt kilns during the period *c.* AD 50–270. Some variants have additional grey grog and black or brown ferrous inclusions.
- 4B. Early version of the same fabric fired patchy brown/black.
- 4C. Late Roman Alice Holt/Farnham grey-wares (Lyne & Jefferies 1979).
- 4D. Rowlands Castle ware. Hard, high-fired grey-ware with very fine sand filler and occasional larger black and brown ferrous inclusions. With polished external surfaces and a hackly texture on breaks.
- 4E. Wickham Barn off-white sandy fabric fired rough grey (Lyne 2001). Just a few sherds of late-3rd-century date from the production site north-west of Lewes are present at Chanctonbury and are probably from pots traded along the Sussex Greensand Way.
- 4F. Miscellaneous grey-wares.
- 5A. Wiggonholt cream wares (Evans 1974, 130). Soft cream to pale orange fabric used mainly for flagons and mortaria. Fragments in this late 1st- to early 2nd-century fabric are comparatively rare at Chanctonbury although the production site is only a short distance away
- 5B. Overwey/Portchester D Fabric (Fulford 1975; Lyne & Jefferies 1979). Buff, cream or orange fabric with coarse multi-coloured quartz and ironstone inclusions and frequent rim-edge blackening. A solitary jar rim sherd from 1988 Trench K is the only firm pottery evidence for post *c.* AD 330 activity on the site.
- 5C. Miscellaneous oxidized wares.
6. East Sussex Ware (Green 1980). Handmade brown-black fabric with coarse up to 2.00 mm grog filler.
7. Dorset BB1. Black, handmade fabric with white and colourless quartz filler as well as occasional shale and chert inclusions. Vessels in this fabric were widely traded across Sussex after the early years of the 2nd century and particularly during the mid-to-late 3rd century.
10. Lower Nene Valley Colour-coated wares.
- 11A. Moselkeramik. Beakers in this distinctive thin-walled grey-ware with metallic brown-black colour-coat were imported into Britain during the period *c.* AD 200–276 along with barrels of wine from the Moselle valley. A beaker fragment came from Trench III, Context 2.
- 11B. Central Gaulish Black Colour-coated ware. Beakers in this Samian fabric with glossy black colour-coat over barbotine decoration were imported with Lezoux Samian during the period *c.* AD 150–200. One sherd in this fabric was present in Assemblage 1 from Trench V, Context 12.
12. Oxfordshire Red Colour-coated ware (Young 1977). Vessels in this Late Roman fabric are rare in the 1977 excavation material and totally absent from the 1988–91 season's pottery.
- 13A. New Forest Purple/black Colour-coated ware (Fulford 1975, Fabric 1A Reduced).
- 13B. New Forest cream fabric with red to brown colour-coat (Fulford 1975, Fabric 1A Oxidized).
14. Miscellaneous colour-coated wares.
- 15A. New Forest parchment ware mortaria (Fulford 1975, Fabric

- 2A).
- 15B. Coarse-sanded orange fabric with profuse 0.50–1.00 mm multi-coloured quartz and ironstone filler as well as occasional angular alluvial flint and calcined flint trituration grits. A local mortarium fabric.
16. Dressel 20 amphorae.
17. Gauloise 4 amphorae.

### Assemblages

#### *c. AD 50–100*

Small quantities of pottery of late-1st-century date came from the 1988 Trench H, the 1989 Trenches V and VI and the 1991 Trench VII; further 1st-century forms were present in the 1977 Area B in the centre of the hillfort (Rudling 1980, figs 14, 69, 70). The distribution of this somewhat sparse early pottery indicates limited occupation in the centre and southern part of the interior of the hillfort during the late-1st century.

A fragment from a ring and dot beaker in cream Wiggonholt Fabric 5A (*c.* 50–100) came from Trench H, a bead-rim jar in Fabric 4A from the subsoil in 1989 Trench VI and a jar of Fishbourne Type 181.2 (Cunliffe 1971, *c.* 50–100) from the topsoil in the same trench. Further jars of this peculiarly late-1st-century type came from the topsoil and subsoil in Trench V, as did a lid-seated bead-rim jar similar to Fishbourne Type 167.2 (*c.* 43–70).

#### *c. AD 100–200*

Large quantities of 2nd-century pottery came from 1989 Trenches IIA, III, IV, V and VI, and 1990/91 Trenches VII and VIII over Temple 2: the largest assemblages once again come from Trenches V and VI and Temple 2 in the southern part of the hillfort interior and include the following key pottery groups:

#### Assemblage 1. From Layer 12 in Trench V.

This assemblage of 543 sherds (2053 g) is large enough for quantification by numbers and weights of sherds per fabric:

Table 5. Roman pottery from Trench V, Context 12.

Fabric	No. of sherds	%	Weight g	%
1A	1	0.2	50	2.4
1C	4	0.7	5	0.2
2	2	0.4	3	0.1
3A	46	8.5	196	9.5
3C	1	0.2	4	0.2
3D	1	0.2	6	0.3
4A	461	84.9	1654	80.6
4F	4	0.7	10	0.5
5A	14	2.6	88	4.3
6	8	1.5	361	1.8
11B	1	0.2	1	0.1
<b>Total</b>	<b>543</b>		<b>2053 g</b>	

The assemblage is dominated by sandy grey Hardham coarse ware sherds (85%), all of which come from closed forms: one of the three jar rim forms is paralleled at Bignor in a 2nd-century context (Lyne 1996, fig. 42, 6). The second most common, but comparatively scarce, fabric is the sand-free 3A, which also probably originated in the Hardham/Wiggonholt kilns. The sherds are mainly from a biconical beaker similar to examples from Wiggonholt (Evans 1974, fig. 77, *c.* AD 50–130),

an everted-rim beaker (*c.* AD 120–160) and a lid-seated bowl (*c.* AD 70–150). A poppyhead beaker sherd in Fabric 3D has a weak upright rim of a type normally dated *c.* AD 70–130, and together with the other forms suggests a *c.* AD 120–160 date for the assemblage. As with the other assemblages from Chanctonbury, fine colour-coated wares are rare and account for only one per cent of the sherds: there is one fragment of South Gaulish (*c.* AD 70–110) and four of Central Gaulish Samian (*c.* AD 120–200) as well as a basal flake from a Central Gaulish Black Colour-coat beaker (*c.* AD 150–200).

#### Assemblage 2. From layer (12) within the octagonal chamber of Temple 2.

The 54 sherds (670 g) of pottery from this layer, with one exception, can be dated to the period *c.* AD 120–160 and suggest a Hadrianic/Early Antonine date for the construction of the shrine. The pottery has a predominance of sandy Hardham grey-wares (61%), including an everted-rim beaker (*c.* AD 120–160) and an undercut bead-rim 'pie-dish' (*c.* AD 120–180). A biconical beaker fragment in Hardham 'London ware' Fabric 2 (*c.* AD 60–130) and a Central Gaulish Samian Dragendorff Type 31 platter fragment (*c.* AD 150–200) are also present.

The assemblage also includes a body sherd from a jar in what looks like Severan Alice Holt/Farnham grey-ware with distinctive silky burnish. This attribution is not absolutely certain, but the presence of five 3rd-century Black Burnished Ware 1 sherds from a straight-sided dish and three from Lower Nene Valley Colour-coat beakers of similar date, in the smaller 19 sherd assemblage from the equivalent layer (7) in Trench VIII makes this likely. These later fragments may have found their way into this layer at the time of the destruction of the building.

This pottery suggests that the building was occupied from the mid-2nd century until *c.* AD 300, with the most intense activity being during the mid-late 2nd century.

#### *c. AD 200–300*

The distribution of Late Roman pottery on the site differs from that of the earlier material in being concentrated in the 1988 Trenches I, J, K and L, and 1989 Trenches IIA and III, in and around Temple 1 in the northern part of the site. Very little of this material can, however, be dated to later than *c.* AD 300. Much smaller amounts of 3rd-century pottery came from 1989 Trenches VI, VII and VIII in the southern part of the hillfort.

#### Assemblage 3. From disturbed Layer 5 in the entrance chamber of Temple 2.

The 116 sherds (744 g) of pottery from this context (5) have a similar breakdown to that of Assemblage 2 (*see* above) and Trench VIII, Context 7 (i.e. layers within the polygonal chamber of Temple 2), in being largely made up of 2nd-century material with just a few 3rd-century sherds. These nine 3rd-century fragments are all in BB1 fabric and include a straight-sided dish and a *c.* AD 210–290 dated incipient beaded-and-flanged bowl. Similarly dated BB1 sherds also occur in the disturbed levels in the adjacent chamber of Temple 2 and, together with a lack of overtly 4th-century sherds, seem to support a date of around AD 300 for its destruction.

#### Assemblage 4. From disturbed contexts in and around Temple 1 (Contexts J1, L1 and IIA: 2 and 3).

The 242 sherds (2759 g) of pottery from these contexts are characterized by an almost total lack of any diagnostic sherds

datable to before c. AD 200 and very few, if any, which need be later than AD 300. The assemblage is dominated by coarse, late Hardham grey-ware sherds (dated c. AD 200–270) with just a few Rowlands Castle, Alice Holt/Farnham grey-ware, BB1 and Wickham Barn kilns sherds of similar date. Fine ware sherds are few in number, but include fragments from two late East Gaulish Samian Dragendorff Type 37 bowls and Lower Nene Valley and New Forest Purple Colour-coat beakers.

This material does not date the construction of Temple 1, but indicates more intense activity around it during the 3rd century than at Temple 2 to the south.

#### c. AD 300–400

The few 4th-century sherds from the site are almost entirely restricted to material from the topsoil in the 1988 Trenches I and K to the east of Temple 1 in the northern part of the hillfort. The sherds from Trench I include a rim fragment from an Alice Holt/Farnham industry storage jar of Lyne and Jefferies (1979) Type 1C-5 (c. AD 300–350), a New Forest mortarium of Fulford (1975) Type 106 (c. AD 300–370) and an everted-rim East Sussex Ware cooking-pot of probable 4th-century date. The sherds from Trench K include two rim fragments from the same cooking-pot in Overwey/Portchester D fabric (Lyne & Jefferies 1979, 35), providing us with evidence for activity on the site after c. AD 330.

#### THE ROMAN TILE By David Rudling

The 1988–91 excavations recovered 7113 pieces of Roman tile from 63 contexts. All this tile has been catalogued by context, type, fabric and weight on tile record-sheets, with details of any complete dimensions, decoration or any other unusual features also noted. The tile record-sheets and the retained tile form part of the archive, whilst the majority of the tile fragments were discarded.

The tile types present at Chanctonbury Ring include large numbers of roofing tiles, both tegulae and imbrex, 'flat' tiles/bricks and a few pieces of box-flue tile. Unfortunately, most pieces of tile were very fragmentary, and there were no complete or nearly complete examples. In the case of tegulae, however, it was possible to record flange heights: these ranged from 32 mm to 68 mm. Similarly, with 'flat' tiles/brick it was possible to measure the thickness of fragments: the results ranged from 30 mm to 55 mm. Some of the tegulae have fixing-holes or semi-circular 'signature' marks. A few of the fragments of 'flat' tiles/bricks carry upon one of their surfaces lumps of clay known as *mammae* (*mamma* = a breast). Such tiles were classified by Brodribb (1987, 60–62) as *Tegula Mammata*, Type A. Brodribb (1979, 398; 1987, 148) recorded at least one more complete example from Chanctonbury, this being of *lydion* type measuring 380 mm long by 260 mm wide and 50 mm in depth, with *mammae* with a base diameter of 40 mm. This tile has two *mammae* set at diagonally opposite corners (i.e. Brodribb's Group C). The *mammae* may have helped to fix such tiles into cement. There are a few pieces of box-flue tile with combed keying, but the reason for such tiles at Chanctonbury Ring is uncertain. (N.B. other examples of combed flue-tile were found during the excavations of 1977: Bedwin 1980, fig. 17: nos 122–4). Some other tiles had been marked by hobnails on shoes, or by the feet of animals (cat, dog and deer).

Most of the tiles at Chanctonbury were orange or red in colour and made of sand-tempered fabrics. Other orange/red

tiles exhibit little or no sand, whilst other tile fragments are grey or buff in colour. Some, perhaps all, of the Roman tile found at Chanctonbury may have been made locally at a tile kiln at Wiston (Fig 1849; see Fig. 2).

#### THE BRONZE AGE METALWORK By Stuart Needham

Three copper-alloy objects recovered from deposits below the topsoil to the north of Temple 2 in 1991 (Fig. 8: Special Finds 5–7), were submitted for identification/analysis. All three objects, and the two gouges in particular, were found in the vicinity of a Late Bronze Age pit (Context 34, Trench VII: see above). These objects, which all date to the Late Bronze Age, are illustrated in Figure 13.

#### Socketed gouge (Fig. 13:1)

Length 73 mm; width of mouth 20.8 mm; breadth of mouth 20.8 mm; width of working end 16.0 mm; depth of socket 49.5 mm; weight 68.8 g.

Dark green shiny patina, flaked away in small patches to green dry surface. A circular socket carries a double moulding comprising two well-separated beadings. The upper one, at the mouth, has a flat top. The socket tapers to a blunt end with a near circular section throughout. The gouge facet is well-hollowed and has slightly sinuous bordering angles.

There is minor chipping along most of the cutting edge, but tiny stretches are intact. The rear of the working end is covered in small hammer marks giving a rippled effect. There are also traces of grinding marks, mainly diagonal. The gouge facet carries longitudinal grinding marks.

Setting aside aspects of form likely to be primarily determined by functional requirements, gouge 'style' is expressed by the detailed form of the upper socket. These can take a variety of forms including such features as beadings, flat collars, groove bands or simple straight sockets ('plain' form). Nearly all varieties, including the 'plain' type, occur in Ewart contexts, and only the multiple-beaded mouth moulding seems to have a significantly earlier emphasis (Needham 1990), occurring amongst Wilburton and Blackmoor stage (early Ewart) metalwork. The spaced double beading seen at Chanctonbury is not a common feature. A few examples occur in Ewart hoards, one of which is from the Blackmoor hoard (Colquhoun 1979), and hence of Blackmoor stage.

#### Socketed gouge fragment (Fig. 13:2)

Extant length 24.0 mm; width of working end 16.9 mm; extant depth of socket 13.0 mm; weight 12.4 g.

Dark green patina with patches deteriorated to green dry surface. A small fragment at the working end of the gouge. Most of cutting edge corrosion chipped; only tiny parts intact. Crinoline expansion of gouge facet towards end almost certainly derives from working to sharpen and re-sharpen. Horizontal grinding marks close to cutting edge in facet and on rear. Reduced stumps of casting flashes on sides.

#### Sword hilt fragment (Fig. 13:3)

Extant length 51.3 mm; maximum width 21.0 mm; minimum width 14.1 mm; maximum breadth of flanges 7.3 mm; minimum thickness of central web 1.4 mm; weight 22.2 g.

Greyish-green patina present all over. Pronounced lumps in the hilt grips seem to be cast structures which are part of the original object; some are amorphous, others are thin sharp ribs. Sinuous line of sides giving a 'swollen' grip form. Flange

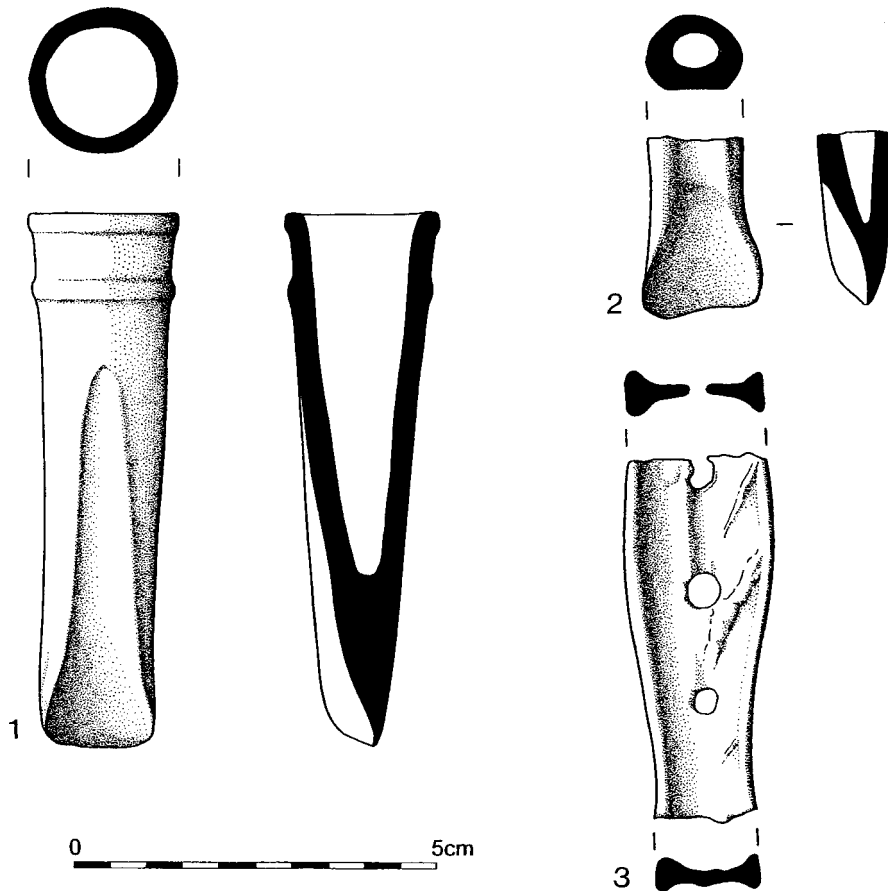


Fig. 13. Late Bronze Age copper-alloy metalwork. 1 & 2: socketed gouges; 3: sword hilt fragment.

sides slightly convex in cross-section. The thin web between the flanges has a central furrow on one face, complemented by a gentle rib on the reverse. Three rivet holes punctuate this axis, with some evidence that they were punched through from ready-cast dimples.

Given its detailed form, in terms of overall shape, width, degree of flanging, rivet hole size and disposition, this fragment falls within the wide spectrum of swords classified as the Ewart Park type (Colquhoun & Burgess 1988). Only rarely do earlier swords match in these respects (e.g. Colquhoun & Burgess 1988, nos 174, 158).

There is nothing to argue against the broad contemporaneity of these three pieces of Bronze Age metalwork. They can all be accommodated within the Ewart assemblage, including its early phase — Blackmoor, giving a date range of c. 1020–800 BC (Needham *et al.* 1997). Consequently, there must be a strong possibility that the three were deposited together or during a limited activity phase, but whether at Chanctonbury itself or, initially, at another location

followed by later discovery and redeposition, is difficult to deduce from their contexts.

**THE COINS** By David Rudling

12 coins (11 Roman and one post-medieval), were found during the 1998–91 excavations. They are catalogued below.

**Roman**

1. Vespasian, AD 69–79. Ae As. AD 71. Mint of Rome.  
Obverse: IMP CAES VESPASIAN AVG COS III, Laureate head right.  
Reverse: VICTORIA [AVGV]STI, S.C., Victory advancing left.  
Reference: *RIC* 502. Trench VII, Context 12.
2. Nerva, AD 96–98. Ae Dupondius. AD 96–97. Rome.  
Obv.: IMP NERV]A CAES AVG P M TR P CO[S II(or III) P P, Radiate head right.  
Rev.: [FORTVNA AVGVST S.]C, Fortuna standing left, holding rudder and cornucopiae. The reverse is very worn.

Ref.: Type as *RIC* 61. Trench V, Context 8.

3. Hadrian, AD 117–138. Ae Dupondius. *c.* AD 119–122. Rome. Obv.: IMP CAESAR TRAIANVS HADRIANVS A[VG P M TR P COS III, Radiate head right. Rev.: Legends worn flat, Female figure standing left. Trench V, Context 3.
4. Antoninus Pius, AD 138–161. Ae As. AD 154–155. Rome (or possibly Britain). Obv.: ANTONINVS AVG PIVS P P TR P XVIII, Laureate head right. Rev.: BRITANNIA COS IIII, S.C., Britannia seated left on rock, with head propped on right hand and left hand resting on rock, arms (including a large round shield and a transverse spear) set up at her side. This coin type alludes to victories against rebels in northern Britain, and the attitude of Britannia is perhaps one of sorrow rather than security (*RIC* page 11). Ref.: *RJC* 934. Trench VII, Context 12.
5. 1st/2nd century. Illegible Ae Sestertius. A nice round coin (32 mm diameter). Trench V, Context 8.
6. 1st/2nd century. Illegible Ae As or Dupondius. Obv.: Head right. Rev.: Illegible. Trench V, Context 12.
7. 1st/2nd century. Illegible Ae ?Dupondius. Obv.: Head, ?radiate, right. Rev.: Illegible. Trench VIII, Context 7.
8. Barbarous Radiate, Claudius II deified, *c.* 270–280. Ae 15 mm (oval flan). Obv.: DJIVO CLAVD[IO, Radiate head right. Rev.: [CONSECRA]TIO, Eagle standing left. Ref.: Type as *RIC* 266. Trench V, Context 6.
9. Probably late 3rd century (*c.* 270–280). Illegible Ae 15 mm. A possible radiate. Obv.: Head, ?radiate, right. Rev.: Illegible. Trench VI, Context 3.
10. Constantine I (the Great), AD 307–337. Ae Follis (24 mm). AD 310–313. Trier. Obv.: CONSTANTINVS P F AVG, Laureate and cuirassed bust right. Rev.: SOLI INVICTO COMITI ('to the invincible Sun'), Radiate and draped bust of Sol right, no mint-mark (but attributed to Trier). Ref.: *RJC* 893. Trench VII, Context 18.
11. Constantius II, AD 337–361. Ae 14 mm. *c.* AD 347–348. Obv.: CONSTANTII-VS P F [AVG, Diademed bust right. Rev.: [VICTORIAE DD AVGG Q NN], Two Victories standing facing one another, each holding a wreath. Ref.: Type as *RIC* (Trier) 180. Trench VII, Context 5.

#### Post-medieval

1. George V. Bronze halfpenny. Dated 1921. Trench VII, Context 1.

#### A consolidated list of Roman coins, including those published in 1910 and 1980

Late Celtic bronze coin	1
Claudian copy, <i>c.</i> AD 43–64	1
Nero, AD 54–68	1
Vespasian, AD 69–79	2
Domitian, AD 81–96	1+1 probable
Nerva, AD 96–98	1
Hadrian, AD 117–138	1
Antoninus Pius, AD 138–161	1+1 probable
Illegible 1st/2nd century	3
Claudius II, AD 268–70	1
Tetricus II, AD 270–273	3
Barbarous radiates, <i>c.</i> AD 270–290	7+1 probable
Constantianine I, AD 307–337	1
Constans, AD 337–350	2
Constantius II, AD 337–361	1+1 probable*
Magnentius, AD 350–353	1
'Falling horseman' type copy, <i>c.</i> AD 350–364	1
Valentinian I, AD 364–375	1
Gratian, AD 367–383	1

#### Total

**35 coins**

\* The probable coin of Constantius II refers to a coin in Steyning Museum that is said to have been found at Chanctonbury Ring. It is of a similar type to that found during excavations at the Ring in 1990.

#### Discussion

Unfortunately, the total number of Roman coins recorded from Chanctonbury Ring is too small to be of use for statistical analysis. The consolidated coin list shows, however, that coins were lost on the site throughout most of the Roman period, the earliest Roman coin being a very early type and dating to *c.* AD 43–64, while the latest coin is of the emperor Gratian, AD 367–383. Although the sample is small, it tends to suggest the possibility that the site was not very intensively used or visited during the 4th century. If the site had been in continuous use throughout the Roman period, one would have expected the bulk of the coins (*c.* 80%) to belong to the late 3rd and 4th centuries (Reece 1972). Particularly noticeable is the small number of coins from the normally very prolific period of AD 330–348 which usually accounts for between 20 and 30 per cent of a site's coins, especially so in view of the relatively large number of radiate coins representing the other main prolific period, that of AD 259–94 (Reece 1972). Perhaps it is no coincidence that this surprisingly barren phase in the coin sequence at Chanctonbury corresponds to the period when Christianity became the official Roman religion. It is also worth noting that when the Chanctonbury site is compared with other Roman temples that are known to have been in operation in the 4th century, it is obvious that the numbers of coins found for this period, and for the site in general, are very small. (At the Henley Wood temple complex in north Somerset, for example, there were totals of one Iron Age and 476 Roman coins, of which 40.8 per cent can be dated to the period AD 300–349 and 38.8 per cent to the period AD 250–299: Reece & Watts 1996).

#### THE COPPER-ALLOY OBJECTS

By David Rudling

In addition to the Bronze Age metalwork described above, the

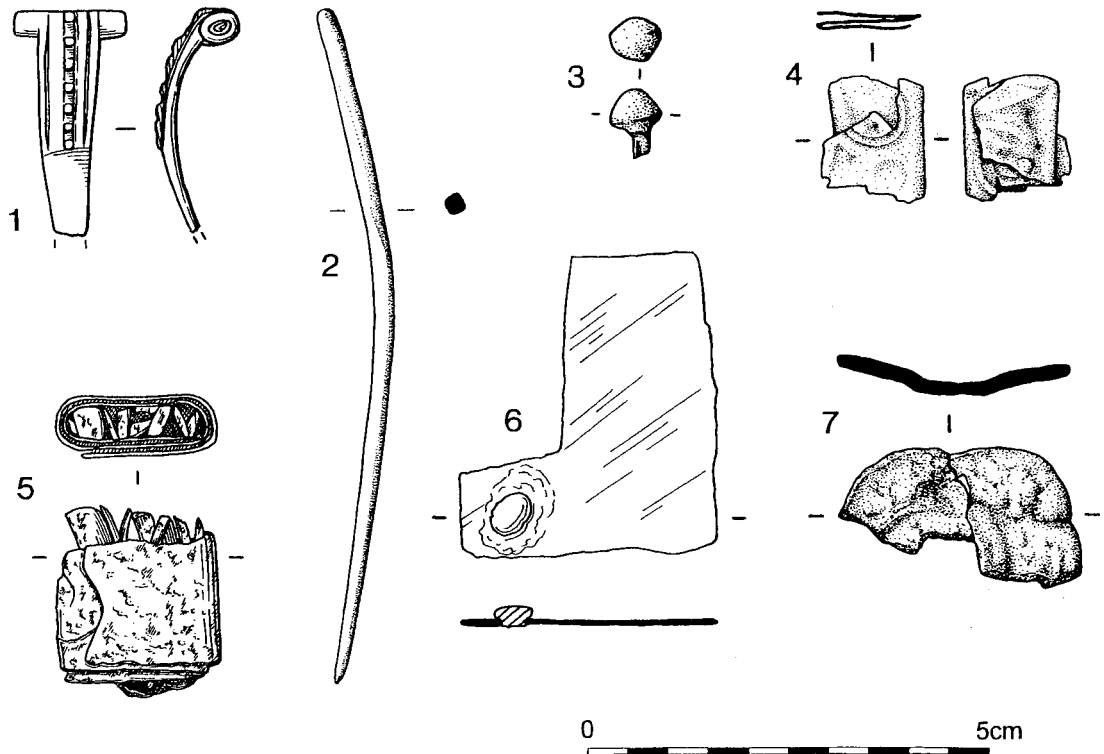


Fig. 14. Objects made of copper alloy and lead.

1988–1991 excavations also recovered a small number of other copper-alloy objects and fragments, including three items of weaponry dated to the 20th century (i.e. a brass revolver bullet, distorted on impact; a British 303 rifle cartridge dated 1940; and the fin of a British phosphorous mortar dated 1942). A catalogue of all this metalwork forms part of the Archive, and the items of Roman or possible Roman date are listed below.

**Fig. 14:1**

T-shaped brooch with hinged pin (which is missing), plain wings, tapering bow with a slight step along the upper edges and a high, notched crest reaching to half bow length. The catch-plate is missing. Type 125 in the late M. R. Hull's as yet unpublished *corpus* of brooches from Roman Britain. Cf. an unprovenanced brooch published by Hattatt (1985, 91:394, 93: fig. 38, 394). Hattatt notes three similar examples, one from Oxfordshire and two from Nor'nour. T-shaped brooches possibly started early in the third quarter of the 1st century and continued until the middle of the 2nd century. Trench IIA, Context 1.

**Fig. 14:2**

Pin with a plain conical head and a shank which is sub-square in section. The very tip is missing; extant length: 850 mm. Cf. Fishbourne (Cunliffe 1971, 123: fig. 52: 172); Crummy Bone Pin Type 1 and Bronze Pin Type 1: (Crummy 1983, 20, 28: no. 466). Probably c. AD 50–200. Trench VII, Context 13.

**Fig. 14:3**

Pin with a 'spherical' head consisting of a conical upper and rounded lower half. The shank, most of which is missing, is of sub-square section. Cf. Crummy Bronze Pin Type 3 (Crummy 1983, 29: no. 480). 1st–4th century. Trench III, Context 1.

**Fig. 14:4**

A small strip of thin sheet bronze decorated with two impressed double (concentric) circles: the outer circle being 10 mm in diameter, the inner circle being 7 mm in diameter. This fragment, which has a maximum surviving width of 14 mm, and would be approximately 33 mm if unfolded, appears to be tapering at one end. A possible fragment of spiral sceptre binding. Cf. finds of sceptre bindings from the Roman temple at Wanborough, Surrey (O'Connell & Bird 1994, 120–21). Please note however, that the context, 5 of Trench VII, was not a sealed deposit and this item is thus not necessarily Roman in date.

**Fig. 14:5**

A tightly folded strip of thin plain sheet bronze with a maximum surviving width of 15 mm. The centre of the folded strip contains a number of smaller strips of metal, some as narrow as 2 mm. Possible bindings (see above no. 4), or perhaps a small votive parcel of scrap copper alloy (cf. Wedlake 1982, 218). Trench J, Context 1.

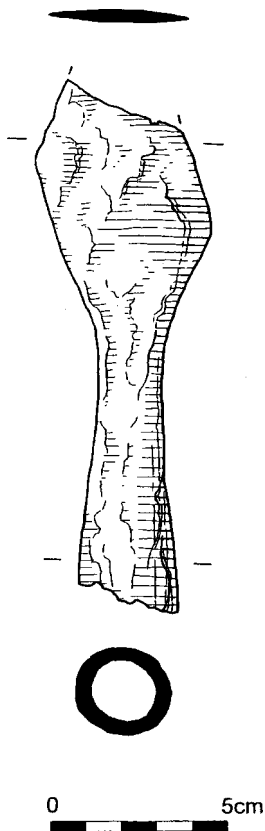


Fig. 15. Socketed iron spear head.

**Fig. 14:6**

A crudely cut 'I'-shaped piece of thin sheet metal with an iron fixing tack. Dimensions: 37 by 31 mm. Probably Post-Roman. Trench VI, Context 1.

**Discussion**

Although the number of Romano-British copper-alloy objects found during both the 1977 and 1988–91 excavations was small, these include a relatively large number of artefacts which could have a ritual significance. The more obvious such items include a very small object of cuboid form found in 1977 (Bedwin 1980, 216: no. 114), and, if the suggested interpretation is correct, the piece/s of sceptre binding found in 1988–91. Although the function of the cuboid object is uncertain, it may be 'related to the so-called "model stools" found on religious sites and thought to be miniature copies of temple furniture'. Less obvious artefacts that may have had 'religious' associations at Chanctonbury include the various items of a personal nature, i.e. things normally worn by, or closely associated with, an individual, such as brooches, pins and rings. These types of object may have been thought to contain their owners' *persona*, and as such would probably have been considered especially appropriate offerings to the gods (Webster 1999, 92–5).

**OBJECTS OF LEAD** By David Rudling

The 1988–91 excavations recovered only three pieces of lead. One of these was a 19th-century bullet, which had distorted on impact; another (from Trench V) was a small fragment of thin sheet lead, bent and damaged; and the final piece from the area of the Temple 2 is described below.

**Fig. 14:7**

Part of a piece of thin square sheet lead, with a central square fixing hole. Trench VII, Context 1.

**THE IRON** By Luke Barber

The excavations produced 88 pieces of ironwork from 24 different contexts. Generally, the ironwork from the site is in reasonable condition with only thin to moderate coverings of corrosion products present, although some smaller objects show extensive mineralization. In an attempt to aid identification all the ironwork was subjected to x-radiography prior to analysis. All the ironwork has been listed on metalwork record forms which, along with the x-ray plates, form part of the site archive. Following listing, the majority of the material was discarded; only the more important pieces from 'stratified' contexts were retained.

About half the ironwork assemblage comes from totally unstratified contexts (47 pieces). The remainder comes from contexts that generally show a moderate to high degree of disturbance. These contexts contain both residual and frequently intrusive material and cannot be viewed as sealed, particularly when dealing with items that are not themselves diagnostic of date. The main aim of the current report is therefore simply to outline the nature of the ironwork from the site: the assemblage is too small, and from too few sealed contexts, to merit any detailed quantification and distribution analysis.

The ironwork from totally unstratified contexts consists predominantly of general purpose nails of probable, but not certain, Romano-British date and various post-medieval fragmentary items. The only definite Roman object from the unstratified material is a hobnail from Trench III, Context 1.

The ironwork from other contexts, as noted above, cannot be seen to be secure owing to residuality and later disturbance/intrusion. However, this material is more reliable than the unstratified assemblage and thus is considered in slightly more detail. Of the 41 pieces of ironwork in this group, the majority are general-purpose nails which have rectangular-section shanks, and round, flat or low-domed, heads (34 examples). These are of Manning's Type 1B (Manning 1985). Few complete lengths are present but head diameters range between 9 and 17.5 mm and overall lengths between 50 and 81 mm. No large groups are present (the largest consisting of nine examples from Trench VII, Context 5) although most were found associated with the building in Trench VII (25 examples). Trench VII, Context 5 also contained a hobnail with a head diameter of 8.5 mm and head height of 6mm. The overall length of this hobnail is 19 mm.

Very little other ironwork is present from 'stratified' contexts. This consists predominantly of sheet fragments and scrap pieces of uncertain function. However, the remains of a socketed spear with angular flat blade was recovered from Trench VII, Context 5 (Fig. 15). Although this context had suffered severe disturbance from later activity such as root penetration and as such cannot be seen to be secure, the majority of material within it is of Romano-British date.



However, caution is needed as the similarity between some Romano-British and Anglo-Saxon spearheads is well-known (Manning 1985, 160). The current example can find both Romano-British (Manning 1985, Type II: V82) and Anglo-Saxon (Swanton 1973, Group E1: fig. 23, c) parallels, but owing to the disturbed nature of the context in which it was found, its exact date must remain uncertain. It is interesting to note however, that in Manning's Type I spearheads a similar blade, showing the same asymmetrical shape (Manning 1985, pl. 77, V59), is attributed to the 1st century AD, although this type is generally much smaller than the Chanctonbury example (Group I blades are generally up to 65 mm long).

#### **THE GEOLOGICAL MATERIAL** By Luke Barber

The excavations produced a total of 1799 pieces of geological material (excluding flint), weighing over 50 kg, from 38 separately numbered contexts. The material has been fully quantified by stone type and context on Geological Material Record Sheets which are housed with the archive. All unworked stone has subsequently been discarded.

The stone assemblage from the site is not diverse and many types which were collected during the excavation are natural to the immediate area (i.e. 'hard' chalk (41 pieces), Tertiary iron-rich sandstones (17 pieces), Sarsen (one piece), iron pyrite (four pieces) and calcite (19 pieces)). The majority of the material comes from unstratified contexts, the remainder from poorly sealed ones. As such, only stone which shows signs of deliberate shaping, particularly into forms diagnostic of period (i.e. tesserae and querns), are of interest in the current assemblage. The period at which other, unworked, material arrived on the site, and for what purpose, is uncertain. For example, whether the concentration of calcite in Trench VIII (17 pieces) is coincidental or not cannot be ascertained.

Three stone types, not immediately available to the site, which do appear to have been utilized during the Romano-British period consist of Upper Greensand (1681 pieces weighing over 49 kg), Lower Greensand (24 pieces weighing 1455 g) and Purbeck Marble (one piece weighing 60 g). The latter is represented by a fragment which has obviously been worked, but which is too small to be certain of the form and function of the whole object (though the basal angle from a mortar is a possibility) (Trench IV, Context 3). The Lower Greensand pieces are almost all probably from rotary querns and at least three examples (i.e. Trench IV, Context 2 and Trench V, Context 6) have the remains of smoothed grinding surfaces surviving. These two trenches accounted for 15 out of the overall site total of 24 pieces of Lower Greensand.

#### **Tesserae**

The most common stone type from the site consists of Upper Greensand. This stone is represented virtually exclusively by large Romano-British tesserae cubes (a subsample consisting of 774 examples weighing 24,370 g out of the total of 1660 pieces was subjected to analysis). The stone is a very fine, textured, mid-grey, hard calcareous sandstone, probably a specially selected outcrop of the Malmstone of the Upper Greensand sequence. Similar tesserae, both unstratified and *in situ* were found during the 1977 excavations (Area F). The vast majority of the tesserae from the current excavations came from the same area as the 1977 finds and relate to the same building. The bulk of the assemblage comes from Trench VII, over Temple 2, where areas of *in-situ* tesserae of the same type were found forming the floor (Context 9) of the rectangular

entrance lobby. Trench VII, Context 1 (topsoil) contained 607 tesserae, while Context 5 contained 918 tesserae and Context 13 only seven. A number of the excavated examples have traces of a fine white hard mortar on up to five sides of the cubes, while others also have traces of *opus signinum*, usually on the base. Too few examples with adhering mortar are present to be certain whether the tessellated floor was set on a bed of *opus signinum* and grouted in fine white mortar, or whether the floor was relaid using the white mortar, at a later date. Whatever the case, it is clear that the source of these tesserae is the entrance lobby to Temple 2: with the exception of a single outlying tessera in Trench I, Context 1, all other trenches containing these tesserae are in the immediate vicinity of Temple 2 (i.e. Trenches VIII and IX). No Upper Greensand tesserae were found near Temple 1.

The analysis of the large tesserae from the 1977 excavation of Area F put the average size at 25 mm cubed, though it was noted that some were as large as 45 × 35 × 25 mm and most were roughly shaped (Bedwin 1980, 219). The subsample of the current assemblage conforms with this general observation, however, three general sizes appear to be present though this is not thought to have any chronological significance. The smallest average 17.2 × 15.1 × 11.9 mm while the largest average 39.6 × 35.1 × 30.5 mm. The most common are the 'mid-range' tesserae which average 28.2 × 25.7 × 22.8 mm, which equates well with the average noted during 1977. The largest example from the recent excavations measures 49.2 × 30.9 × 30.6 mm. The large variation in size is probably the result of cutting, or selecting tesserae 'to fit' while laying the floor. The presence of five white tesserae in hard chalk (Trench VII, Context 5 contained four) averaging 20.9 × 18.6 × 15.4 mm suggests some patching may have occurred to the tessellated floor. The minimal quantity of white cubes appears to preclude the existence of patterning on the floor. The 1988–92 excavations yielded no examples of the 'small' tesserae as found in 1977 in Area B (Bedwin 1980, 219).

#### **BURNT CLAY** By Luke Barber

The excavations produced 92 pieces of burnt clay, weighing 711 g, from 13 differently numbered contexts. The material, which consists of a dull orange silty clay with chalk and tile inclusions, has been fully quantified by context on proforma which are housed with the archive. Virtually all the material consists of amorphous lumps. Four pieces, however, which exhibit surface smoothing (Trench IV, Context 1; Trench IV, Context 2; and Trench VI, Context 2) suggest some are certainly daub fragments. This suggestion is strengthened by two pieces with wattle impressions of 8 and 16.5 mm diameter (Trench IV, Context 1). Although none of the assemblages are large, or can be securely dated by ceramics, the presence of tile within the material suggests a Romano-British origin. The largest groups were found in Trenches IV (39 pieces), V (27 pieces) and VI (25 pieces), suggesting that wattle and daub structures may have stood in the eastern part of the enclosed area.

#### **THE MORTAR AND WALL PLASTER** By Luke Barber

Fifty-one pieces of mortar, weighing 1608 g, were recovered from nine different contexts. The majority of these were from Trench IIa (43 weighing 1485 g) and are associated with Temple 1. The largest single assemblage is from Trench IIa, Context 10 (30 pieces weighing 1269 g) which must be redeposited material disturbed during the initial archaeological excavations at the site, but includes two pieces with smooth facing,

presumably representing render. Although there are at least four different types of mortar from Trench IIa, the contextual data are not secure enough to attempt any analysis of chronological phasing of the different types. Only eight pieces of mortar were recovered from Temple 2 (Trenches VII and VIII) and again more than one type is present. Samples of each mortar type have been retained in the archive.

Twenty-seven pieces of wall plaster, weighing 84 g, from five separately numbered contexts were recovered from the recent excavations. These have been fully listed on proformae and retained with the archive. All pieces are from Temple 2, the majority coming from contexts just *outside* the structure (Context 10 contained 12 pieces, while Context 13 contained eight pieces). All pieces are very small (the largest is 34.5 mm across) and the colours are similar to those noted during the 1977 excavations; namely dull yellow (four pieces), brick-red (22 pieces), and green (one piece). The colours all appear together in Context 10 and no pieces show any signs of decorative pattern.

#### HUMAN REMAINS

By Don Brothwell and Lucy Sibun  
Human remains were recovered during the site visit in November 1987 and the subsequent 1990 excavations. In 1987 about 50 fragments of bone, probably all human and all adult, were recovered from a tree stump at location H (Fig. 4). The major fragments of long bone comprise much of both femora, parts of at least one tibia (left), and also pieces of fibula. There may also be a somewhat damaged segment of ulna shaft. Some of the material displays erosion and other damage of a post-mortem date. There is also a damaged and eroded right patella and first metatarsal of a foot. Thus, most of the material confirms the presence of two legs. There is also part of a hand phalanx, presumably from the region of the proximal femora. The individual was fully mature, and judging by the healthy state of the major joints, probably a young adult. The size and robustness of the femora suggests a male individual. No certain pathology was noted. Samples of the bones were submitted for radiocarbon dating and produced a date of cal. AD 680–1430: GU-5116; 900±200 BP.

During the excavations in 1990, human remains were recovered from two contexts (Trench V: 3, 13). Context 3 produced three small cranial fragments, and Context 13 produced two cranial fragments and four fragments from a fibula.

The human skeletal material recovered in 1987 (Area H) appears to represent a medieval inhumation. Other human remains were found in an Iron Age pit during the 1977 excavations, and it is possible that the fragmented remains located in Trench V (1990) are residual.

#### THE ANIMAL BONE ASSEMBLAGE

##### By Lucy Sibun

**Introduction**  
The 1988–91 excavations produced a total of 5213 fragments of bone from 44 contexts. All the material was studied, but only bone from selected contexts was examined in detail. Selected contexts were those believed to be well-sealed and those which may be associated with Temple 2, which was excavated in 1990/1991. As a result, the bone report can be divided into three sections: the selected contexts from the area of Temple 2; those selected from the other areas of excavation; and a summary of the material from those contexts not selected for detailed study. The detailed results of the analysis can be found with the site archive. The results have been summarized

in the report which follows.

#### The results

The 15 contexts from the area of Temple 2 produced a total of 4961 fragments of bone (Trench VII: 1, 2, 3, 5, 10, 12, 13; Trench VIII: 1, 2, 3, 4, 7; Trench IX: 1, 3, 4). It should be noted that this total includes bone recovered from topsoil deposits above the temple which cannot be securely dated. Of this total, 4929 fragments (99%) were identifiable to bone type and species. Six species were identified within this material and the quantities of each have been listed in Table 6 below.

Table 6. Quantification of species from Temple 2.

Species	No. of fragments	Percentage of identified fragments
pig ( <i>Sus scrofa</i> )	4874	98.9
sheep/goat ( <i>Ovicaprid</i> )	36	0.7
cattle ( <i>Bos taurus</i> )	15	0.3
small mammal	2	0.04
horse ( <i>Equus caballus</i> )	1	0.02
bird	1	0.02

It is immediately apparent that pig dominated the assemblage and comprised almost 99% of the material. During the analysis of the pig bone, an attempt was made to identify any diagnostic characteristics of wild boar, but all the material was consistent with domestic pig. Of the 4874 bone fragments identified as pig, 4866 (99.8%) were fragments from the skull and teeth. It was decided that minimum numbers of individual (MNI) pig from these contexts would be most easily obtained from the teeth rather than cranial or mandible fragments. These numbers have been calculated per context and are presented in Table 7.

Table 7. Minimum numbers of pig by context from Temple 2.

Trench no.	Context no.	MNI
VII & VIII	1	47
VII	2	2
	3	5
	5	8
	10	3
	12	13
VIII	13	2
	2	16
	4	2
IX	7	11
	3	1

A minimum number of individuals for the temple area as a whole has also been calculated from the teeth as 84. This can be compared to the MNI of three calculated from the post-cranial skeleton. The assemblage includes both males and females, deciduous and permanent teeth, although deciduous teeth are relatively few in number. Third molars are common in the assemblage, but frequently only as tooth crowns. Those third molars which have fully erupted show either little or no wear. This would suggest that the pigs represented are younger (up to approximately 2 years) rather than older animals.

The significance of both the volume of pig bone from the area of Temple 2 and the percentage of cranial and mandible

fragments can be seen when the rest of the assemblage is examined. Cattle and sheep/goat fragments from this area number only 15 and 36 respectively. For both species the teeth provide MNI calculations of four. Post-cranial bones, which include ribs and long bones, represent MNI calculations of one for cattle and three for sheep/goat. The other identified species, horse, small mammal and bird, are very insignificant in the assemblage, totaling only four fragments. None of the bone fragments displayed evidence of butchery.

Nine contexts were selected for more detailed study from the other areas of the site (Trench IIb: 7; Trench III: 3; Trench I: 3; Trench V: 8, 11, 12, 13, 15; Trench VI: 4). These contexts produced 57 bone fragments, 40 (70%) of which were identifiable to bone type and species. Three animal species were present, cattle (12 fragments), sheep/goat (11 fragments) and red deer (11 fragments). With the exception of two contexts (Trench IIb: 7; Trench V: 11), cattle and sheep/goat were the only identified species present, represented primarily by skull fragments and teeth. Red deer (*Cervus elaphus*) was identified in Contexts 7 (Trench IIb) and 11 (Trench V), the latter context contained a fragmented antler (including the burr and brow tine). Only two fragments displayed evidence of butchery, a sheep humerus (Trench VII: 1) and cattle mandible (Trench VII: 5).

The bone from 20 other contexts was not studied in detail. Instead, it was counted, weighed and briefly scanned to identify the species present. These contexts (Trench I: 1; Trench IIa: 1, 2, 3, 10; Trench IIb: 1, 4; Trench III: 1, 2; Trench IV: 1, 2; Trench V: 3; Trench VI: 1, 2, 3; Trench VII: 4, 29; Trench J: 1; Trench K: 1) produced a total of 195 bone fragments weighing 386 g. In addition to the cattle, sheep and pig identified in most of these contexts, some produced antler fragments of red deer.

## Discussion

The volume and relative percentage of pig fragments recovered during these excavations make this assemblage stand out from others recovered from local sites of a similar date. In domestic Romano-British assemblages, as at the native farmstead on North Farm, Washington (Rudling & Hasler forthcoming), or Bignor Roman Villa (Aldsworth & Rudling 1995), cattle or sheep are usually the dominant species followed by pig. The diet was often supplemented by deer or fowl. In other words, a domestic assemblage usually displays more variation in species. In addition to the species represented, the composition of the assemblage in terms of skeletal elements present may also be significant. Owing to their greater resistance to decay, teeth often form a relatively large part of an assemblage. However, on small domestic sites (such as that on North Farm) most parts of the skeleton may be expected, some displaying evidence of butchery if killing, butchery and consumption are all taking place. If the butchery tasks are separated, as sometimes happened on larger sites, the primary discard may contain a large number of skull fragments, but these are usually associated with bones from the lower limbs.

The dominance at Chanctonbury of skull fragments to the virtual exclusion of anything else makes this assemblage stand out. It would suggest that the bone may result not from domestic, but ritual activities. This is supported by the concentration of fragments (95% of the assemblage) recovered from contexts associated with, and directly above, Temple 2. The bone assemblage recovered from the site during the excavations in 1977 (Bedwin 1980) is also believed to have resulted from ritual activities. This assemblage was recovered

from a ditch deposit in Area D, but although there was a bias towards skull fragments and teeth, they were of cattle and sheep, with pig bones few in number. Cattle skulls are known to be associated with Romano-British ritual, as at Muntham Court (Bedwin 1980, 189). Unfortunately the bone assemblage from the excavation of the Romano-British temple at Lancing Down was too small to enable comparisons to be made. However, a preponderance of sheep mandibles is noted (Bedwin 1981, 54).

The nature of the ritual or rituals being carried out is uncertain. The involvement of pig skulls and the lack of evidence for butchery makes feasting an unlikely explanation. It is possible, given the quantity and consistent size of fragments, that the pig skulls had been deliberately smashed, but their presence in the topsoil may be a significant factor in their fragmentation. The presence also of human skeletal material at Chanctonbury (*see above*) must also be considered, although there is no evidence that this is associated with ritual activity.

The other animal remains from the site, i.e. those not associated with Temple 2, are few in number. The assemblage as a whole, with the added presence of red deer, horse, small mammal and bird, would not stand out from a domestic assemblage.

## THE MARINE AND EDIBLE LAND MOLLUSCS

By Elizabeth Somerville

### Introduction

A considerable deposit of oyster shell had been found during the 1977 excavations, but is only described briefly in the published report (Bedwin 1980). The occurrence of oyster shell in both ritual and domestic Roman deposits in southern England is not unusual, but the shell is often not described in any detail, making it difficult to build up a body of information for more synthetic work. The analysis given here is intended as a contribution to such further work. All the marine mollusc shell from the 1989–91 assessment excavations at Chanctonbury ring was processed. This assemblage was dominated by oyster (*Ostrea edulis*).

### Methods

The methods used were the standard ones for this laboratory. In brief, all whole shells were identified to species. Partial shells were identified as far as possible. All identified shell was weighed. Fragments smaller than approximately 1 cm<sup>2</sup> were discarded. Gastropods were counted as being either complete, an apex or a fragment. Bivalves were counted as complete right/left valves, right/left umbos or as fragments. Umbos which could not be sided were noted separately. These counts were used for the calculation of the minimum number of individuals (MNI) for each context.

Only oyster (*Ostrea edulis*) was examined further. The maximum length (from umbo to opposite margin) and width (orthogonal to length) were measured, whole oyster shells were scored for a number of other characteristics including distortion of the shell, age, presence of adhering shell and the extent to which the surface bore the marks of infestation by one or more of the infesting and epifaunal species found on oyster shell from southern England including *Polydora ciliata* and *P. hoplura* (polychaete worms), *Cliona celata* (a burrowing sponge), Calcareous worm-tube (probably *Pomotoceros triqueter*), Sandtubes (probably from sabellid worms), *Bryozoa* spp and barnacles. Oyster umbos were also examined for information

on distortion and the presence/absence of infesting and epifaunal species.

All contexts within the trenches, including the topsoil, were included in the analysis. This was based on the information that there did not seem to have been much disturbance at the site. The shell was considered in terms of three spatial groupings:

*Outside*: all contexts from trenches which did not impinge on the location of either Temple;

*Temple 1*: all contexts from trenches overlying and/or abutting its location;

*Temple 2*: all contexts from trenches overlying and/or abutting its location.

## Results

Table 8. The basic quantitative data for the 1988–91 marine shell assemblage in terms of species found, total MNIs and shell weight.

Species found	<i>Ostrea edulis</i>		<i>Cardium edule</i>		<i>Mytilus edulis</i>		<i>Buccinum undatum</i>		<i>Venerupis decussata</i>		<i>Helix pomatia</i>	
	MNI	Wt (g)	MNI	Wt (g)	MNI	Wt (g)	MNI	Wt (g)	MNI	Wt (g)	MNI	Wt (g)
Area												
Outside	133	5388.4	1	4.7	1	1.3			1	1.4		
Temple 1	103	3192.9							2	2.6		
Temple 2	172	6035.0	4	10.4			1	3.6			1	1.8

Oyster clearly dominates the assemblage. Four other marine molluscs were found, all of which are edible and common along the south coast, although the numbers found hardly denote any concentration on the use of these species at this locality. During the processing of the material a few fragments of the edible land gastropod, *Helix pomatia*, were found, and this is noted here because of the rarity of this species at present, with only one location given for Sussex. It is often assumed that this species was introduced into Britain by the Romans, hence one of its popular names — the Roman snail (Kerney 1999).

The oyster shell was quite well-preserved, although, as usual, the majority of the shell was present as umbos rather than whole valves.

Table 9. Summary of the oyster shell found (omitting fragments).

Area	Left valves	Left umbos	Right valves	Right umbos	Unsideds umbos
Outside	18	66	37	73	44
Temple 1	16	32	27	54	41
Temple 2	29	84	54	109	17

All whole valves were carefully inspected to see if they would form pairs, but only three matching pairs were found in Temple 2 contexts, and one in Temple 1 contexts. In all locations there were fewer left (cupped) valves, but this did not reach a sufficiently high bias (more than 70%) to draw any conclusions about differential deposition.

Because left valves are always slightly larger than right valves, the statistical analysis of length was carried out

Table 10. Summary of the data on the major infesting and epifaunal species.

	Outside	Temple 1	Temple 2
% valves with <i>P. ciliata</i>	60.8	65	72.5
% valves with <i>P. hoplura</i>	31.4	20	16.3
% valves with <i>C. celata</i>	11.8	0	0
% umbos with <i>P. ciliata</i>	37.4	46.8	65.1
% umbos with <i>P. hoplura</i>	4.3	3.4	7.2
% umbos with <i>C. celata</i>	4.3	0	2.1

separately. The mean values for length for RH valves were: outside: 7.62 cm; shrine 6.89 cm and temple 6.97 cm; and for LH valves: outside: 8.29 cm; shrine 7.29 cm and temple 7.81 cm. In both cases the length of the valves from the outside area was significantly greater (RH valves:  $F(2,113) = 4.96$ ;  $p = 0.009$ ; LH valves  $F(2,59) = 3.53$ ;  $p = 0.036$ ). There was considerable overlap in size with that of the oysters found at Beddingham Roman Villa (Somerville in prep.).

There were some minor differences in the degree of infestation and the infesting species in the three locations at Chanctonbury: the oysters from the Outside group exhibited marginally more infestation. Infestation was observed on 82.4% of the shells, as opposed to 77.5% for the shell from both temple areas. However, in all areas the majority of infested shells were only showing some traces. The burrowing sponge (*Cliona celata*) was found only on oysters from the Outside group. Overall, as shown in Table 10, the pattern is one of infestation by *Polydora ciliata*, which is consistent with the oysters having come from the south coast (Winder 1992) and from shallow water (Smith 1987). Examination of the umbos did not materially affect this picture, although a few examples of infestation by *Cliona celata* were found on umbos from the Temple 2 area. The differences in the pattern of infestation recorded for umbos and valves probably has little significance, since *Polydora ciliata* is usually to be found near the umbo and over the surface of the shell - i.e. its presence is as likely to be detected on umbos as on whole valves, whereas *Polydora hoplura* is usually to be detected at the edge of the shell, and is therefore much less likely to be observable on umbos than on valves.

The amount of distortion seen on the shells varied somewhat between the groups with more distorted shells coming from the shrine assemblage. However, most of the distortions of the profile were relatively minor, and the overall lack of adhering shell, less than 10% for all groups considering both valves and umbos, does not support the idea that these oysters came from a reef environment.

Many more worn shells came from the Outside group (25.5% of valves and 28.8% of umbos), which may indicate more movement within the soil of shells deposited here, but the relatively slight wear on the shells from the other groups (3.9% of valves, 4.6% of umbos for the Temple 2 group and only 2.3% of umbos for the Temple 1 group) substantiates the assumption that these form the remains of *in situ* deposits.

More of the shells from the two temple groups had notches (12% and 8% respectively, as compared to 2% from the Outside group), possibly from opening, but the incidence of these marks is too low for any further analysis.

## Conclusions

There is no evidence that the oysters in the two temple groups were deposited unopened. Those of the Outside group were

slightly larger, and appeared to have slightly more shell infestation than the oysters from the two temple areas. However, the difference was not so striking as to argue for selection of the shells deposited within either or both temples on either of these measures.

The oysters found at Chanctonbury are not notably either 'superior' or 'inferior' in terms of size and shell quality from oysters found at the Beddingham Roman Villa site (Somerville in prep.). Their general morphology is consistent with a managed stock from shallow water.

## DISCUSSION

### PRE-ROMAN OCCUPATION

The results of the 1988–91 excavations within Chanctonbury Ring contribute a little to our understanding of the pre-Roman occupation of both the hillfort specifically, and of Chanctonbury Hill generally. The additional finds of flintwork and pottery are useful in terms of confirming some of the overall conclusions made by Bedwin (1980), based upon his and earlier discoveries. It is Hamilton's major re-consideration of the dating of all the prehistoric pottery finds, however, that has enabled her to provide an earlier, 7th-century BC date for the construction and main use of the univallate 'hillfort' enclosure. Two pits, a post-hole and the finding of three Late Bronze Age copper-alloy objects are the most significant new discoveries of this period within the Ring.

The known sequence of prehistoric occupation on Chanctonbury Hill is Neolithic to Middle Iron Age, but this sequence was not necessarily continuous. Activity during the Neolithic is evidenced by finds of flintwork, including a polished axe, an arrowhead, a laurel leaf, some scrapers and perhaps some blades and blade-like flakes. Drewett (1980, 196) suggested that such flint tools were likely to have been associated with the exploitation of woodland resources rather than a settlement site. The Early Bronze Age is represented by the four round barrows, a sherd from a collared urn (Drewett 1980, 196) and perhaps some of the flintwork.

Although no evidence has yet been found concerning the use of Chanctonbury Hill during the Middle Bronze Age, by the end of the Late Bronze Age, in the 7th century BC, the univallate and single-entrance hillfort had been constructed. This dating is based upon Hamilton's new study of the prehistoric pottery and her research also indicates that the hillfort's prehistoric pottery assemblage is very similar to the assemblages from the hillforts at Harting Beacon and Highdown Hill. She also points out that at both Harting Beacon and Chanctonbury Ring, the land mollusc evidence is typical of sites used for seasonal or intermittent grazing and further

suggests that at Chanctonbury, the size and character of the pottery assemblage may indicate that the enclosure was either associated with a small number of people, or had only intermittent use. It may have functioned as a corral for domesticated animals and/or acted as a centre for the observation and accessing of resources and environments to the north of the Downs.

Despite the relatively large areas within the hillfort that have now been excavated using modern methods, only five features possibly contemporary with the construction and subsequent use of the hillfort have been discovered: a post-hole/small pit (Feature 307) found in 1977; post-hole 4 (Trench III) discovered in 1989; pits 28 and 34 (Trench VII) found in 1991; and pit 110 of 1977. There is a radiocarbon determination (*see below*) that could also place the date of pit 110 into the Middle Iron Age. Other evidence for what took place inside the hillfort has been deduced from the spatial distributions of the fine ware pottery sherds: Hamilton's study indicates that some zonation of activities may have taken place. In addition, the three finds of Late Bronze Age metalwork, at least two of which may have been associated with pit 34 (Trench VII), may either represent items associated with the occupation of the hillfort, or items found and brought to the site in the Roman period.

The paucity of pottery datable to either the Middle or Late Iron Age indicates that by these periods the hillfort was not intensively occupied, and that its usage may have been very intermittent. A possible indication of such usage is the shallow pit (Feature 110: *see Fig. 4*) found in 1977. This contained parts of both a human tibia and a femur, animal bone, daub, pottery, a piece of Cornish granite and 116 small pieces of dark red flint, which are likely to have been imported to the site. Material from this feature produced a radiocarbon date of 760–190 cal BC (HAR-2703; 2320±80 BP). Although the radiocarbon determination can thus accommodate a date as late as the Middle Iron Age, the artefactual evidence (especially the pottery) indicates a date contemporary with the construction

of the hillfort. This pit and its contents, date and location (i.e. close to the later Romano-Celtic temple), is one of the few pieces of evidence that might support Bedwin's (1980, 189) speculation that the hillfort defences at Chanctonbury may have functioned as a *temenos* in the pre-Roman Iron Age. (For a discussion about such Iron Age sanctuaries see Lewis 1966, 5–6.)

In a survey of Romano-Celtic ('Gallo-Roman') temple complexes on the Continent, Derks (1998, 177) concluded that 'many Gallo-Roman temple complexes had a previous history as simple cult places . . . generally [with] no cult building'. Derks added that timber cult buildings first appear in the 1st century BC, and that these were not replaced by Gallo-Roman temples until after the reign of Claudius.

### THE ROMANO-BRITISH TEMPLE COMPLEX

#### Introduction

Coins and pottery offer evidence for limited Roman activity within the hillfort during the second half of the 1st century AD. These finds were especially concentrated in the central and southern parts of the interior. It was during the 2nd century, however, again evidenced by pottery and coin finds, that the former hillfort became a centre for more intensive occupation, and it is then that probably at least one, and possibly both, of the Romano-British masonry temples were constructed. The ramparts of the hillfort acted as the *temenos* for the temple complex, and may have been modified, on the inner face at least, by the construction of a chalk wall, collapsed parts of which were investigated in both 1977 and 1989. The final phases of Roman activity within the hillfort are also evidenced by finds of coins and pottery — this time dating to the 3rd or 4th centuries. Whilst at least Temple 2 may have been destroyed by c. AD 300 (Lyne, this report), the nature of 4th-century activity within the hillfort is uncertain.

#### Temple 1: The Romano-Celtic type shrine

Temple 1 is a shrine of the well-known Romano-Celtic type, which consists of a double square or rectangle (as at Chanctonbury) with the cult room in the central *cella* surrounded by a *porticus*. The latter was ' . . . probably practical and religious rather than aesthetic, for it would provide shelter for worshippers and offerings and for religious rites' (Lewis 1966, 8). Given the greater width (and thus

weight-bearing capacity) of the *cella* walls ('about 3-ft.': Mitchell 1910, 133) compared with the outer *porticus* walls ('about 2-ft.': Mitchell 1910, 135), it is likely that the *cella* was a tall tower-like structure which rose above the level of the lean-to *porticus*, thus allowing clerestory windows for the provision of light. The discovery of plaster on the *porticus* walls indicates that the Chanctonbury example is of Lewis' type Ib or Ic. Type Ic (with solid walls) was considered 'a form suitable for windy hilltops' (as at Chanctonbury!) (Lewis 1966, 15, 175: fig. 48, 176: fig. 49).

A possibly unusual feature of the Chanctonbury Romano-Celtic temple is that as yet no evidence has been found for a *porticus* wall at the front (east) side of the building. Thus whilst the *cella* is a rectangle measuring '23-ft. [7.08 m] from north to south and 30-ft. [9.23 m] over all from east to west' (Mitchell 1910, 133), the excavations of 1910 only revealed outer walls for the *porticus* on the south, west and north sides. The west wall was '46-ft. [14.15 m] long' and the south wall was '42-ft. 6-in.' [13.08 m] long. The north wall, which survived to a length of '19-ft.' [5.85 m], appeared at its 'eastern extremity' to have been 'broken off irregularly' (Mitchell 1910, 135). Mitchell further noted that the south wall appeared 'to have been terminated by the mason squarely, but as it is constructed of rough flints *one cannot be quite sure*' (my emphasis). If Mitchell's observation of the masonry squared off at the eastern end of the south wall was correct, it seems that the wall *uncharacteristically* did not continue to the east to provide a *porticus* at the front of the temple. Bedwin's Area B excavations in 1977 also failed to locate a conventional south-east corner (either a wall or robber trench) to the temple, although this work did reveal, in approximately the right place, a corner to a floor of hard-packed chalk which corresponds to a 'hard rammed chalk floor, about 10-in. in thickness' which Mitchell (1910, 133) recorded as having surrounded the *cella* on the north, west and south sides. It would thus appear that the chalk floor also surrounded the *cella* on the east side. Although it is possible that this east side was open and unenclosed by masonry, it is unlikely that a chalk floor would have been suitable in such a situation. Further fieldwork is necessary to solve this mystery.

A possible parallel for Temple 1, if it can be proved that its *cella* was flanked by a *porticus* on only three sides, is the temple at Uley, Gloucestershire.

Here the first phase of the masonry temple consisted of a rectangular *cella* with an ambulatory (*porticus*) on three sides only. Entry to the Uley temple was probably via a doorway supported by two major posts. Subsequently, the temple was extended 'by the addition of a rectangular projecting foundation which could have supported an open portico raised well above the level of the main courtyard and approached by a flight of four steps' (Woodward 1992, 40–41, figs 27–9). In Britain, France and Germany, Woodward (1992, 44–6) sought parallels for the unusual temple plan at Uley amongst a group of temples that show evidence for porches and antechambers. She pointed out that 'these arrangements would have allowed direct access, or a direct view, into the central *cella*, but not into the rear and side ambulatories, which appear to have been reserved either for the priests or for the secure storage of votive offerings'.

Locally, at Lancing Down on the other side of the South Downs to Chanctonbury (Fig. 2), there is a Romano-Celtic temple of the conventional concentric square type (Bedwin 1981), whilst at Pulborough (Fig. 2) a building, 8 m square, has been identified as a temple (Bedwin 1980, 192). This structure, which probably had a tessellated floor, appears not to have had a *porticus*.

The large number of fragments of both *tegulae* and *imbrex* tiles found in the vicinity of the Temple 1 building indicate that it had a tiled roof. The discovery in 1977 of pieces of painted wall-plaster ('dark red, yellow and green') shows that at least some of the temple walls were decorated. As regards flooring, a small patch of smooth mortar discovered in the *porticus* in 1909 may indicate that this area of the building originally had a tessellated pavement — an idea which received some support from the discovery in 1909 'near the inner wall' of a few loose, red (tile) tesserae (Mitchell 1910, 135). The discovery near Temple 1 in 1977 of some 4000 small (mosaic size) white and red tesserae could indicate that these items had come from Temple 1. If so, they may originally have been used to floor part of the *cella* or *porticus*. Bedwin (1980, 219) noted the 'careful, deliberate disposal' of the small tesserae in Feature 111 (see Fig. 4), perhaps this was a ritual 'termination deposit' upon the abandonment or robbing of the temple.

Other ritual deposits associated with Temple 1 include the miniature votive pot found in a small depression (116) near the south-east corner of the

temple, and perhaps the deposit of oyster shells found in Area AII of 1977, to the west and rear of the shrine. The 'oven' and circular pit found in 1909 to the north-east of Temple 1 were probably also associated with ritual activity at the temple. Unfortunately, nothing is known to identify the cult practised at this temple.

#### **Temple 2: The polygonal shrine**

The discovery in 1909 of a second Romano-British masonry temple within Chanctonbury Ring is only briefly mentioned by Mitchell (1910, 137), who refers to it as of 'peculiar shape' and having walls 'about 2-ft. 6-in. thick . . . built of flint laid in mortar'. Mitchell's enigmatic plan of this 'remarkable' building (1910, pl. 13) is heptagonal in shape and was apparently based upon the work of the Estate Surveyor who planned and linked up various small exposures of flint wall. Bedwin (1980, 190) tried in 1977 to relocate this mystery structure by the excavation of Area G. Unfortunately, that was the wrong location and Bedwin had already, and unknowingly, relocated Temple 2 in his Area F excavations, where he uncovered part of a tessellated floor in the temple's entrance chamber.

The excavations in 1990 and 1991 successfully relocated Temple 2 and investigated a sufficiently large area to reveal that Temple 2 actually consisted of a polygonal *cella* (minimum 9; maximum 11 sides) with a rectangular entrance chamber (Fig. 7). The entrance chamber faced north-east, towards the single original entrance into the hillfort. This chamber had a tessellated floor, which survived in bands of tesserae adjacent to its southern and northern walls. The nature of the flooring in the very disturbed central zone of the chamber is uncertain. It is possible that this area was also floored with greensand tesserae, alternatively it may have had a more elaborate floor (at least in part) which in antiquity was carefully lifted and removed (note the evidence for such activities to the east of Temple 1). It was difficult to establish whether the disturbance to the floor in the central part of this chamber was due to demolition/robbing in Roman times, and/or to former trees, of which one, a beech, is shown in plate 13 of Mitchell's (1910) report. It is possible that the roots of this beech tree, which appears to have grown inside the entrance chamber and very close to its east wall, were able to benefit from an already disturbed area of floor. An iron spearhead (see above) discovered resting on the

southern area of tessellation within the entrance chamber (Fig. 8) could represent a votive offering. If so, unless the tip of this object was already missing at the time of deposition, the spear may have been ritually damaged or 'killed' by its removal (cf. Woodward 1992, 69 & pl. 4). Caution is needed, however, as Barber (*see above*) has stressed the difficulty of dating such a find from a disturbed context. Unfortunately, the 9-, 10-, or possibly 11-sided main chamber (*cella*) of Temple 2 was not excavated beyond removing the topsoil and cleaning the surface of the subsoil in those areas that were chosen in order to locate and plan the exterior walls of the shrine. As a result of this excavation strategy, nothing is known about any internal divisions, features or flooring within the temple. (*N.B.* Trench VIII of 1990 did not locate any trace of an inner polygonal *cella*.) The absence of tesserae from the deposits investigated within the area of this chamber indicates, however, that it did not have a tessellated floor. In contrast, the finding of pieces of tegulae and imbrex tiles suggests that both chambers of Temple 2 had tiled rooves. Pieces of painted wall plaster found *outside* both of the chambers also indicate that parts of the temple, perhaps just the external wall facings, were painted. Owing to tree cover and the army slit-trench, it was not possible to establish whether the *cella* and entrance hall were built at the same time.

The discovery of the correct shape of Temple 2: as a polygonal *cella* with a rectangular entrance chamber, means that it can now be more easily paralleled from elsewhere in Roman Britain. Whilst a polygonal shape has been recorded at Caerwent, Pagan's Hill, Silchester, Weycock and Chelmsford, all of these temples consist of two concentric polygons, and, with the exception of Chelmsford, lack an entrance chamber (Lewis 1966, 170–71). The octagonal 4th-century temple at Chelmsford was entered from the east, originally via an entrance flanked by two engaged columns, but subsequently via a rectangular porch projecting some three metres forward (Wickenden 1992, 37–8). Single polygonal structures, but without an entrance chamber, have been found at Brigstock and Collyweston. That at Brigstock, where there is also a circular temple, had 12 sides and contained many votive animal bones. At Collyweston, three buildings forming a group are each considered to be a temple (Lewis 1966, 81, 188). One is circular, one hexagonal and the third is a slightly irregular octagon. Temple 2 at Chanctonbury

therefore fits some of the characteristics of Lewis' (1966, 78) 'simple circular and polygonal temples' category, and would have had solid walls, a single overall roof covering the *cella* and a separate roof over the entrance chamber. The validity of grouping or considering simple circular and polygonal temples together is perhaps best demonstrated at the 'Shrine of Apollo' at Nettleton, Wiltshire, where after AD 249 the central area of an octagonal temple was superimposed on an earlier circular temple. Previously, between c. AD 230 and AD 250, a large octagonal podium, 21.3 m in diameter, had been added to the circular temple, which had an overall diameter of 10.1 m (Wedlake 1982, 36 & fig. 29). The polygonal form is, in effect, 'a sophisticated development of the circular plan' (Wickenden 1992, 136; Drury 1980, 72).

The best parallel for Temple 2 at Chanctonbury is the recently excavated temple at Wanborough in Surrey (Williams 2000; in prep.; O'Connell 2000). The Wanborough shrine, which is approximately 10 m from the previously discussed Romano-Celtic temple of concentric square type at this site (O'Connell & Bird 1994), has a sub-circular *cella* (external diameter: 11.5 m) to which access was gained via an east-facing entrance passageway c. 3.0 m long and 3.5 m wide externally. The walls of this temple were built of flint nodules and small pebbles bonded with clay. Across the southern half of the interior and cutting the natural clay were at least 17 linear features within a similar alignment to the entrance passage. These have been interpreted as beam slots, the positions of joists for a wooden floor (*N.B.* a similar type of flooring could have been used for Temple 2 at Chanctonbury). Williams (*pers. comm.*) suggests that the Wanborough circular temple was constructed around the middle of the 2nd century AD (perhaps on the site of an earlier timber structure), but is less certain about the date of its demise, which appears to have been caused by 'severe structural failure'. He suggests that it had collapsed or been dismantled by the 3rd century, and it is possible, indeed likely that the circular temple was replaced by the Romano-Celtic temple, which was constructed c. AD 150–160. (i.e. the circular temple may have been in use for only a very short period).

Both Temple 2 at Chanctonbury and the circular temple at Wanborough share similarities in design with the important circular temple constructed before AD 60 at Hayling Island (Fig. 2). This temple,



which comprised a circular stone *cella* 13.9 m in diameter (compared with c. 11.4 m at Chanctonbury and 11.5 m at Wanborough) had a small east-facing entrance chamber (Woodward 1992, 22, 23, 35, 36). The Hayling Island masonry temple bears close similarities to some of the large circular temples found on the continent (Downey *et al.* 1980). In contrast to Temple 2 at Chanctonbury, the entrance passage of the circular temple at Wanborough did not have a tessellated floor; instead it had a metallated surface. Another temple of circular form, but located much nearer to Chanctonbury, is that at Muntham Court (Fig. 2). This timber building was 11 m in diameter (i.e. comparable to the *cellas* at Chanctonbury and Wanborough) (Burstow & Holleyman 1956; 1957a). Another possible circular temple found locally, this time made of masonry and having a diameter of 12.2 m, is at Hurdlestone, Pulborough. Although the excavators thought that this building was a 'sepulchral monument' or mausoleum (Martin 1859, 140–44), it may have been a temple (Wedlake 1982, fig. 7:2). The wall of this building was unusually wide (3.5 m), and large quantities of tufa found within the centre of the structure led Martin (1859, 142) to believe 'that it was used to arch-in the roof of the building'. Lack of information about any associated finds hinders a more positive identification of this interesting site. It may, however, like the temple found on Hayling Island, have been similar to the great circular temples of western and central France.

#### **Cult of the boar?**

Apart from establishing the true shape of Temple 2, the most interesting discoveries during its excavation in 1990 and 1991, were finds of pig bones and teeth. Although many of these came from disturbed contexts above the temple, it is likely that most, if not all, were originally associated with this shrine. Of the 4961 fragments of bone examined from 15 contexts (*see above*), c. 99% of the identifiable pieces (representing a minimum of 84 individuals), are of pig, and almost all of these are teeth or pieces of skull. This massive predominance of head fragments — to the virtual exclusion of bones from other parts of the body — indicates that this assemblage probably results from ritual rather than domestic activities. Sibun (this report) has also suggested that given the quantity and size of the fragments, the pig skulls *may* have been deliberately smashed. If so, it is not clear whether they were smashed at the

time of their original deposition in Temple 2 (perhaps in order to extract the brains and tongue), or at a later period, perhaps when the temple was abandoned or demolished. Other possible votive offerings at Temple 2 include five coins of which the earliest was an issue of Vespasian (AD 69–79), whilst the most recent was struck for Constantius II c. AD 347–348. A copper-alloy pin (i.e. a personal item of jewellery) from just outside Temple 2, and the iron spearhead found on the tessellated floor of the entrance chamber, are other possible votive offerings.

It is the large amount of pig bones, however, that is probably a major clue for identifying the cult associated with Temple 2, and is in marked contrast to the animal bone assemblage at Wanborough where lamb predominates (Williams *pers. comm.*). We should at this point also consider the other Roman animal bone assemblages recovered from elsewhere in the interior of the hillfort and from the hillfort ditch at Chanctonbury. The bone assemblages found in 1988–89 in contexts away from Temple 2 consist mainly of cattle and sheep/goats bones and comprise large numbers of skull fragments and teeth (*see above*). Such a pattern (i.e. with an emphasis upon the heads of animals) is not what one might expect from domestic assemblages. In addition to the animal bones, there are also the fragments of human cranium and fibula from two contexts in Trench V (1989). Such human bones might be residual (i.e. prehistoric) *or* represent either a disturbed Roman burial/s, or ?offerings (for a discussion of human sacrifice at Celtic shrines *see* Woodward 1992, 79).

The bone assemblage retrieved in 1909 from the circular pit to the north-east of Temple 1, may also have had a ritual association since it included the 'upper and lower jaw of the ox — incisors and tushes [tusks] of the pig — and some deer horns', plus 'sundry bones and teeth of sheep or goat' (Mitchell 1910, 136). Other finds from this pit included pot sherds (?rubbish) and 'a few Roman coins' (possible votive offerings).

Finally, we should reconsider the Roman animal bone deposits found in the hillfort ditch. Again, these bone assemblages are dominated by skull fragments and teeth, this time mainly sheep mandibles and cattle skulls, with only small numbers of pig bones. Although Bedwin (1980, 189) concluded that the animal bone concentrations in the ditch at Chanctonbury represented 'a rubbish

deposit', elsewhere in his report (p. 219) he had assumed a connection with the practice of ritual during the Roman period. The predominance of skulls and mandibles is very similar to the pattern of pig bone deposits in Temple 2, and the ritual importance of cattle skulls locally in the Roman period is attested by the discovery at the Muntham Court temple site of three shallow pits, each with the skull of an ox resting on the other bones of the skeleton (Burstow & Holleyman 1957a). Any potential to interpret more fully the animal bone deposits found in Area D at Chanctonbury is unfortunately limited by the very small scale of any excavations undertaken within the ditch. It is possible that the concentrations of bones here are part of a much larger series of such deposits, perhaps as at Gournay-sur-Aronde in northern Gaul. There the positions of bones (including cattle skulls) in the ditch of an Iron Age enclosure 'followed definite rules' and were used to symbolize space (Brunaux 1988, 9). Another aspect of the evidence at Gournay — the fact that the bone deposits in the sanctuary did not include entire skeletons — is also probably of significance for Chanctonbury. It is suggested that:

'many sacrifices were conducted not actually on the cult site but elsewhere, probably on the settlement or settlements . . . [and that] only one part of the victim was taken into the sanctuary' (Brunaux 1988, 8–9).

Such procedures would help to explain the extraordinarily large numbers of teeth and skulls at Chanctonbury and the correspondingly low numbers of bones representing other parts of the body. A similar theory has recently been advanced for the unusual nature of the animal remains (mainly cattle mandibles) found in part of the ditch of the Late Bronze Age enclosure at Harrow Hill (Manning 1995). The animal bones deposited in the enclosure ditches at Harrow Hill and Chanctonbury may thus belong to a long period of common ritual tradition.

Clearly, the offering of *heads of pigs* was a major aspect of ritual concerning the cult associated with Temple 2 at Chanctonbury. However, whilst some pig bones and teeth have been found at other locations within the Chanctonbury *temenos*, such as that part of the ditch sampled by Trench D of 1987, the remains (usually skulls and/or mandibles) of other species are dominant and thus indicate both the variety of animal offerings at this religious site

and the possibility that species had on occasions been deposited separately in different locations. If so, are the pig heads at Temple 2 of special significance to the cult practised, or (for reasons now unknown) was this location simply considered appropriate for such offerings?

Interpretation is further complicated by the fact that heads of domestic pigs at Temple 2 were possibly chosen to *represent* the heads of wild boars. It is important to note, however, that there have been no identifications of bones or teeth from wild boars from Chanctonbury, and that Toynbee (1996, 134) in a discussion of Roman 'Boars and Pigs', made the important point that for sacrificial purposes domesticated pigs rather than wild boars would have been more commonly used and more suitable). If so, Ross (1974, 390–91) claims: 'The boar is, without doubt, the cult animal *par excellence* of the Celts' and 'has the greatest representational popularity' — [note, for example, its widespread appearance on coins and its use as a symbol on Celtic helmets].

In central Sussex such representations may include a relatively large number of small bronze 'boar' figurines (Foster 1977; Mills 1993; *see also* Fig. 2), and also the well-known copper-alloy boar plaque (Foster 1977, 17–19; Green 1983, 60, pl. 42) found at Muntham Court Romano-British temple site, which is intervisible with Chanctonbury Ring (Fig. 2). One of the small boar figurines was discovered during rescue excavations on the site of a Romano-British farmstead on North Farm, Washington, which is again located near to, and intervisible with, Chanctonbury Ring (Rudling & Hasler forthcoming; *see also* Fig. 2). Another boar figurine (unfortunately now lost) is reported to have been found *c.* 20 years ago by Mr Derek Crush on Locks Farm, to the north-west of Chanctonbury (Janet Pennington pers. comm.).

Foster (1977, 26–8), has warned us, however, that it may not be justified to give such boar figurines a religious interpretation, especially since many are unstratified and undated. The majority of the ten recorded bronze boars from Sussex have been found in 'a downland strip about 30 miles long, running from the River Arun to the Cuckmere' (Mills 1993, 5). Most were found with the aid of metal detectors and are unstratified. Two boars, with unusual 'hollow bellies' and thus probably the work of the same craftsman or group of craftsmen, were found in the same field at Itford. Of the other boar figurines, two are known from Woodingdean,

Brighton, one from Kemp Town, Brighton, one from Race Hill, Lewes, one from an Anglo-Saxon cemetery site (Sanctuary Field) at Alfriston; one from an unrecorded location in East Sussex; one from the Romano-British site on North Farm, Washington, and one from Locks Farm, to the north-west of Chanctonbury. The writer is also aware of unconfirmed reports that as many as three boar figurines may have been found at Alfoldean). Mills (1993, 17) noted that whilst the two boars from Itford are 'almost identical', the others appear different. All, however, share many characteristics of style, with particular emphasis upon the crest, snout and ears. None of the Sussex boar figurines have any indications of tusks, which may cast 'some doubt on their representation of the great boars of Celtic mythology and the qualities of strength, tenacity and ferociousness'. Mills concluded that none of the figurines are 'naturalistic representations of boars, the proportions are wrong and certain features are emphasised whilst others are very stylised', the figurines presenting 'a rather humorous caricature of a boar'. Foster (1977, 23–5) even questioned whether the figurines actually represent boars, and suggested that semi-wild pigs 'might appear wild to our unaccustomed eyes'. The purpose of the boar figurines is also uncertain. Suggestions include: toys (Liversidge 1968, 147); votive offerings, including those made by hunters (Toynbee 1964, 125; 1996, 133) and those associated with foundation deposits (Mills 1993, 31) and perhaps with domestic cult purposes/shrines.

The function and meaning of the much more naturalistic Muntham Court boar plaque are also uncertain. Foster (1977, 31) described the boar as 'charging', whilst Green regarded the animal as 'slain' or 'dying' (Green 1983, 61; 1976, 33). On the basis of her interpretations, Green has suggested that the Muntham Court boar may 'indicate a local hunting cult' (Green 1976, 33; 1986, 181; 1992, 219).

The discoveries of the pig heads at Temple 2 at Chanctonbury, the boar plaque at Muntham Court, large quantities of pig (and sheep) bones at the Late Iron Age shrine at Hayling Island, Hampshire (Downey *et al.* 1980, 290), and the representation of a boar on a bronze sceptre binding from the Farley Heath temple site, Surrey (Goodchild 1938), indicate that in this part of south-east England there was a significant link between boars/pigs and temples. This link may also help to explain the significance

of the iron spearhead found in Temple 2 at Chanctonbury: it may have been associated with either hunting or fighting, or both. Similarly, the small 'boar' figurines found in central Sussex may also have been domestic votive offerings by hunters or warriors. Unfortunately, however, it is impossible to conclude with regard to the pig heads from Temple 2 whether the boar/pig was simply a preferred *sacrifice* (like Mercury's sheep) or was in some way the *embodiment* of the deity (i.e. a cult of the boar/pig).

The evidence for Celtic boar cults and deities has been reviewed by Ross (1974, 390–404) and Green (1986, 179–81; 1992, 218–19). Ross noted the various ways in which the boar was symbolically important to the 'Celts' and concluded that this animal seems to have been

'symbolic of fertility (agricultural and sexual) and of war. In it were contained all the passions of the Celtic peoples — hunting, feasting, fighting and procreation. It was an animal form appropriate to the gods, a food fitting for the otherworld feasts of the Celtic heroic world.'

Ross (1974, 393) recorded that from Gallo-Roman contexts come both representations of boars and dedications to boar deities. She gave as an example an altar from Gourdan, Le Comminges, which is inscribed *Baeserte deo* and has a boar figurine on the left lateral face. She also noted the name of a god Moccus, 'pig', 'equated with Mercury' at Langres. Green (1992, 218) referred to a boar-goddess, Arduinna, who was worshipped in the Ardennes Forest and is depicted on a bronze statuette from the region as a huntress riding her boar companion. Ross (1974, 393) and Green (1992, 219) also described a boar-god figure from Euffignex (Haute-Morne), which probably dates to the 2nd or 1st century BC. This stone image is in the shape of a man with a boar on his torso and a torc round his neck. From Northern Britain, Ross (1974, 394) noted figures of boars on several altars associated with the local god Vitiris. She also recorded (1974, 395) that a deposit of boar or pig jaws was found associated with a wheel-house in South Uist. The deposit, which contained very few other pig bones (Clarke 1959–60, 170) and is dated to 'about the turn of the Christian era', was interpreted by Ross as 'possible veneration of the beast' (i.e. boar). This deposit of pig or boar bones has some similarities to that recovered from Temple 2 at Chanctonbury. Finally, we should

perhaps also note that amongst the Romans (as opposed to the 'Romano-Celts') sows were regularly sacrificed to Ceres (Toynbee 1996, 134). Thus whilst the identity of the cult or cults at Chanctonbury remains unknown, it is possible that the cult for Temple 2 was associated with a boar deity.

#### Other evidence for Roman ritual activity

In addition to the two masonry temples and their associated finds, other evidence for Roman ritual activity at Chanctonbury includes the masonry oven (Mitchell 1910, 135–6), which is thought to have been associated with Temple 1, and some of the discoveries from other areas of the hillfort, including the deposits of animal bones discussed above. Thus some or all of the coin finds may have been votive offerings, especially those from Trench V of 1989, where there was a slight concentration of such finds. Various of the Romano-British copper-alloy objects may similarly have been offerings, especially the 'personal trinkets', such as brooches and pins (Woodward 1992, 74–5).

#### Dating

Since Temple 1 is located on the highest point on Chanctonbury Hill it is possible that this shrine, or possibly a predecessor on the same site, was both older and perhaps more important than Temple 2 to the south. (Similarly, importance may have been given to the fact that the entrance of Temple 1 faced that of the hillfort, whereas the entrance of Temple 2 is at an angle to the gap in the ramparts). Whilst unfortunately there is no dating evidence to support such a theory, the various pottery assemblages from disturbed contexts in and around the two temples indicate 'more intense activity' [pottery breakage and/or disposal?] around Temple 1 during the 3rd century than at Temple 2, where the most intense activity was during the mid–late 2nd century (Lyne, this report). The co-existence of two, or more, temples at Chanctonbury would not have been a problem, however, as there are many examples of multiple temple sites (Lewis 1966). The coin evidence from Temple 2, however, includes two examples that date to the first half of the 4th century, and may thus indicate some continued activity, perhaps ritual vandalism or robbing. In addition to the coin evidence, which for the site in general extends to the reign of Gratian (AD 367–383) (see above, consolidated list of Roman coins), the various excavations at Chanctonbury have yielded a few sherds of 4th-century pottery, including parts

of an Overwey/Portchester D fabric cooking pot which Lyne dates to *after c.* AD 330. Can this limited 4th-century activity, as evidenced by coins and pottery, be explained as episodes of destruction and/or robbing, perhaps after the official Roman acceptance of Christianity? (Note the discovery in the vicinity of Chanctonbury, at Lickfold, of a lead 'tank' (?baptismal font) bearing a Chi-Rho monogram: Curwen 1943). Alternatively, could the latest Roman coins found at Chanctonbury represent a period of 'pagan revival', such as that known to have occurred under the emperor Julian II (AD 360–363) and followed for two decades by a degree of toleration for pagan cults (Salway 1984, 362)? The assumed demise of the Chanctonbury temples by the late 3rd and 4th centuries is also contrary to the general trend within Roman Britain, where 'although the number of pagan temples used in the towns declines in the later period, the reverse is seen in the countryside, where the peak is contemporary with that of the villas in the middle of the fourth century' (Millett 1990, 195). The distribution of Romano-British rural temples has also been considered to mirror closely that of the villa so that 'their construction must be as much a function of elite display as of religious practice' (Millett 1990, 196). If these generalizations are correct, what does this imply about the builders and users of the temples at Chanctonbury? Perhaps the main patrons were converted to Christianity and no longer sponsored pagan cults. Alternatively, was there a decline or abandonment of the villa/s (probably to the north of the Downs at Wiston: Figg 1849, 315) associated with this religious complex?

#### Medieval and later usage

There is no conclusive evidence for very late Roman (post-370) or Saxon occupation of the hillfort and the site is presumed to have been abandoned. The Saxon/medieval period is represented, based upon a single radiocarbon date (cal. AD 680–1430: Gu-5116; 900±200 BP), by the inhumation burial found after the storm of 1987 in Area H. Why was a body of this period buried in isolation and away from consecrated ground? Speculation might include a murder victim or somebody who had been officially executed.

The archaeological record is then minimal — a few sherds of medieval pottery — until the planting of the Ring in the 18th century. Finds from this period onwards include coinage, metalwork (including shot), pottery and glass, some of which

may have been deposited on the site by the tree planters and excavators of 1909. The military use of the Ring during the Second World War is most clearly demonstrated by the slit-trench in Trench VII and various bits of ammunition. Modern finds illustrating activities within the hillfort include the tent-pegs from Area J, and an example of very recent ritual: two empty cremation urns were recovered in 1989 from Area B, fenced off to protect trees replanted after the archaeological investigations of 1977.

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