

## EXCAVATIONS IN BISHOPS WALTHAM 1967-78

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### SUMMARY

The nature and date of a standing timber-framed building was explored prior to demolition, and excavations were carried out beneath it in advance of a road widening scheme. These revealed that the building was of thirteenth to fourteenth century date, having one aisle and a king post roof. The aisle was demolished and a brick wall built along the arcade in the fifteenth century. Beneath the building were the beam slots and pits of a settlement of the eleventh-twelfth centuries including a large hall. There were also rudimentary traces of a Mesolithic site.

Excavations were also carried out to section the outer boundaries of Bishops Waltham Palace, including the 'River of the Lord' that encircles it, and on small sites in the town.

The report includes lists of Mesolithic flints and small finds, detailed pottery and context descriptions, and animal bone measurements, presented in microfiche.

### INTRODUCTION

This paper records the results of excavations carried out in different parts of the town of Bishops Waltham between 1967 and 1978. The main sites selected were threatened with destruction by the realignment of the A333 Winchester Road, which was completed in 1970. Subsequently, small investigations were carried out from time to time, as opportunity offered, and these are gathered together here. Individually, the excavations were small in scale and can furnish only fragmentary information on the development of Bishops Waltham; together they begin to fill the archaeological and historical record and to pose some interesting questions about the chronology and relationship of the bishops' residence to the lay-out of the town.

The results are described in roughly chronological order, which does not reflect the

order in which the sites were excavated, the site code number being retained for convenience in referring to the site plan (Fig 1) and to the archive, now held in Portsmouth City Museum.

The road scheme of 1967-70 by chance bisected two key areas: 1) *Site 5*. An area north of the moated area of the Palace, lying on the valley gravels of the Hamble. Occupation started here in the Mesolithic period. Extensive evidence of late Saxon and early Norman occupation was found, and the standing remains of a building which had evolved in form from the thirteenth century to the nineteenth century, when it was known as the Palace Stables. At the adjacent *Site 2*, a section of the 'River of the Lord' was observed, and further evidence of Norman occupation established. 2) *Sites 3 and 4* sectioned the 'River of the Lord' where it was culverted beneath the gardens of the two nineteenth century houses. Subsequent roadwork in 1970 and work carried out in advance of construction of the Bishop's Palace car park confirmed the existence of an internal bank.

In addition other areas were sampled: 3) *Site 6* (Cross Street) was the partial excavation in 1971 of a late medieval pit inside the area of the medieval town; 4) *Site 7* (Brook Street) was excavated in 1978 and late medieval features discovered.

Other sites published elsewhere include: 5) a sixteenth century timber building in Houchin Street was recorded prior to demolition (Coke and Lewis 1978); 6) the excavation of an eighteenth century well on land south of the Crown Inn (*Site 1*; Barton 1969).

### SITE 5 THE PALACE STABLES

Among the properties affected by the realignment of the A333 was the brick building



Fig 1. Bishop's Waltham: the sites excavated and the line of the A333. Based on the Ordnance Survey map with the sanction of the controller of H M Stationery Office.

# BISHOPS WALTHAM

## The Palace Stables

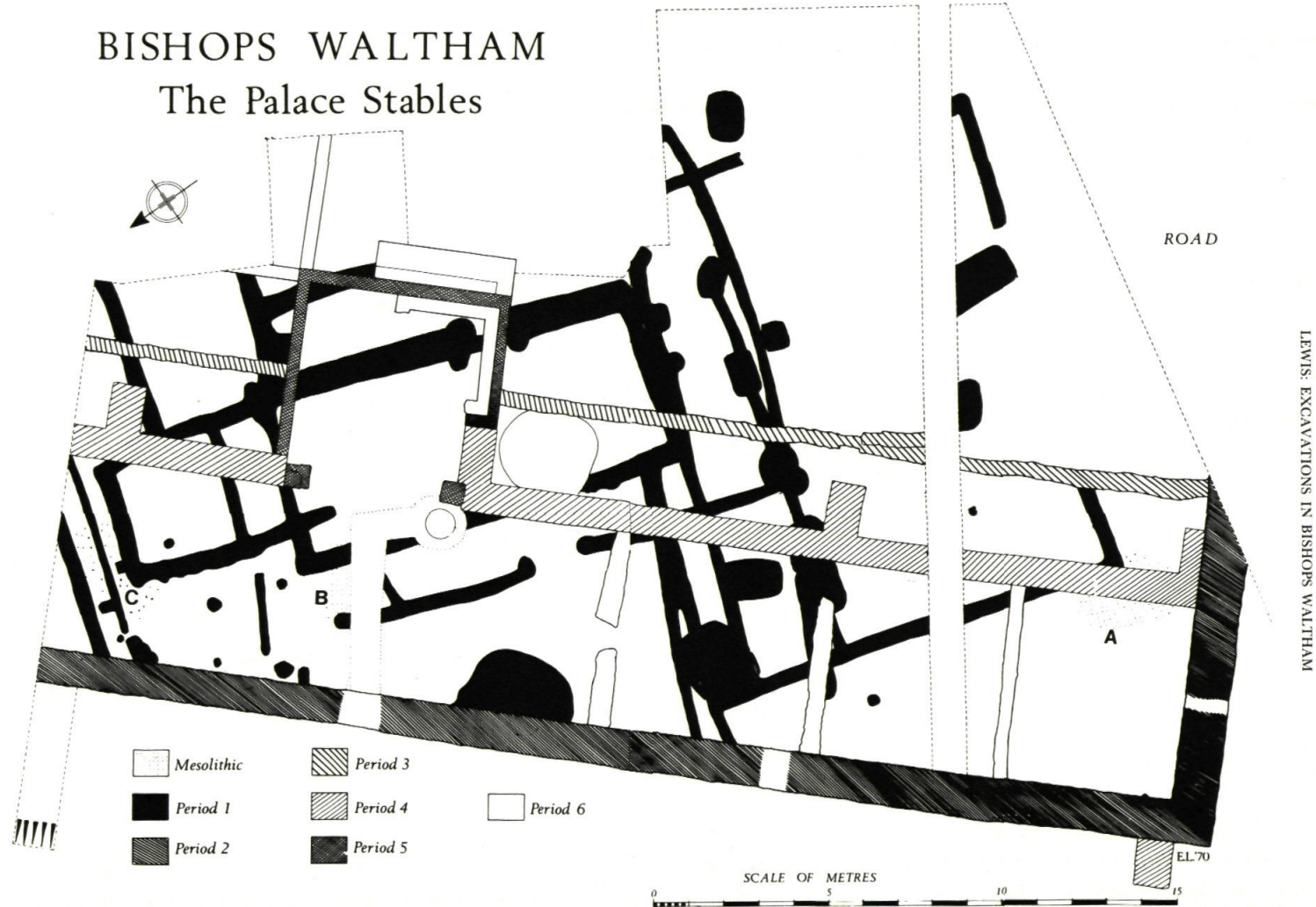


Fig 2. Bishops Waltham: plan of site 5, the 'Palace Stables', showing all phases of development. Section A (Fig 3) is along the bottom edge of the excavation; section B along the baulk near the top.

known as the Palace Stables, a listed historic building. Before it was demolished in August 1967 a record was made of it by the Royal Commission on Historic Monuments and one roof truss was removed for preservation by the Department of the Environment. The building had undergone several alterations and represented the latest phase of development (shown in Fig 2) in the history of the site. The main periods may be summarised as Mesolithic, late Saxon, Norman, late medieval, and Tudor - the period during which the Palace Stables building evolved.

### The Mesolithic Period by Chris Draper

The subsoil of the site is a red clay and gravel mixture of deposits of the river valley of the Hamble. Saxon occupation may well have cut into the original ground surface, for disturbed and redeposited Mesolithic material was collected throughout the excavation. However, three areas (A, B and C) indicating Mesolithic occupation on the site itself were identified. This consisted of small hollows containing a loamy clay, and subsequent excavation of them revealed abundant Mesolithic material.

*SITE A.* This site occupied an oval area 2.4m by 0.9m wide with tapering sides to a depth of 0.4m. There was evidence of a hearth at the bottom, as the flint nodules here were burnt, and some blades and implements showed signs of fire damage.

*SITE B.* This site was about 2.1m long by 0.3m wide and 0.15m deep and may originally have been wider, as a post-medieval feature had cut away the side. The flints recorded differ somewhat from those of Site A: numerous large blades, the largest 80mm, were found, but no microliths. There was also a graver and what appears to be an attempt to produce a small axe.

*SITE C.* Only partially revealed in the north west corner of the site was an indeterminate trench much damaged by the Saxon beam slots. A microburin and one intermediate form were recovered, also an obliquely truncated blade. There were parts of two broken core implements, probably partly worked axes. These features, although probably truncated by Saxon work, are characterised by a very shallow

depth and by being relatively long in proportion to width. There were no surviving traces of stake-holes, which might suggest simple seasonal dwellings such as those found at Wakeford's Copse (Bradley and Lewis 1974) or Broom Hill (O'Malley 1978); rather, the impression is of holes dug in pursuit of flint nodules yielded by the valley gravels. The burning at Site A may simply represent the use of the hole after excavation for a temporary hearth.

### Period 1. Late Saxon/Norman

Cut into the surface of the ground, and occasionally penetrating to the weathered chalk beneath, were a number of gulleys, post-trenches or beam-slots and pits (Fig 4). On the surface of the gravel was a layer of black occupation soil varying from 0.16m to 0.45m thick, which had accumulated since the construction of the buildings (layer 7, Fig 3), but no finer stratigraphy within this layer could be discerned. The date of the pottery from it and from the features below covers a period of two hundred years or more, from the late tenth century to the mid-twelfth. There were also residual, chaff-tempered sherds of earlier date, but these were abraded and scattered about the site and there were no features which could be positively dated by their presence.

The earliest datable features on the site were pits 13 and 14, in which good, sealed groups of pottery were found, dated by the presence of Portchester ware to the late tenth or early eleventh century. The other features could not be confidently dated; the sequence of building suggested below is based either upon the exclusive presence of a diagnostic pottery type in the fill, or upon the relationship of one feature to another. While it is suggested here that the building developed in three main phases, it is possible to argue that, if the early pottery is residual, then the entire complex is of one construction, of the twelfth century, and only the pits belong to the previous century.

A fairly coherent pattern of post-trenches or slots for beams can be made out, with, at its core, a house type made familiar by the excavations at Portchester and Chalton (Figs 4, 5).

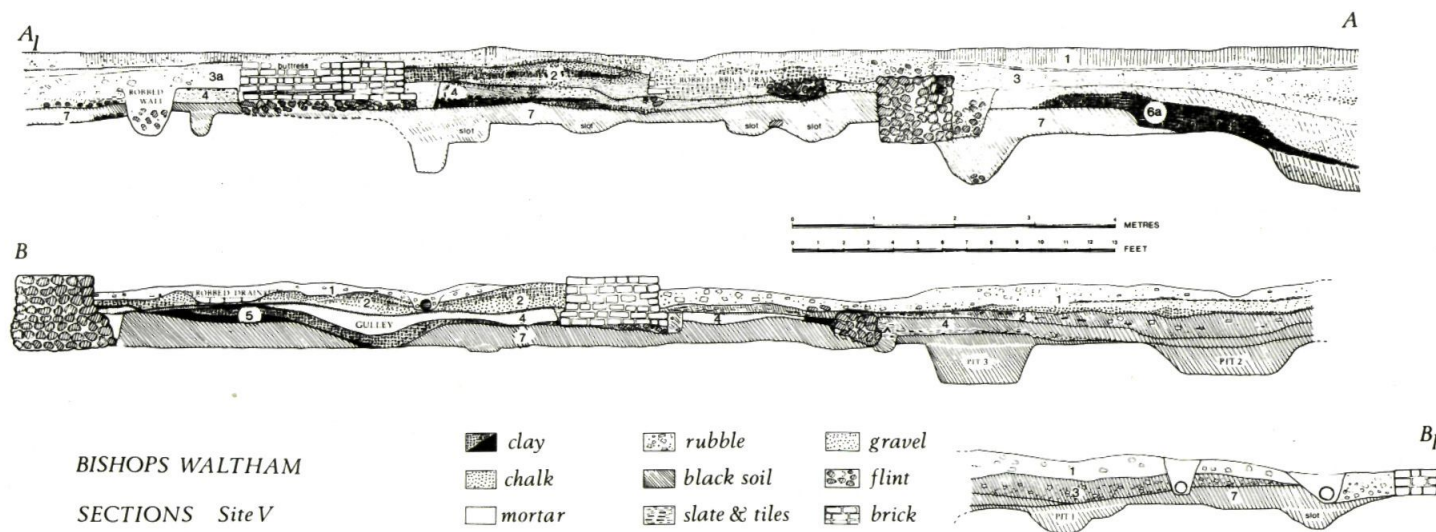


Fig 3. Bishops Waltham: site 5 sections. For layer descriptions, see microfiche; for location, see Fig. 2.

This building was aligned due north-south and was in two sections: a hall (D) 11m long and 4.5m wide, with opposing entrances in the side walls; and a separate chamber (B) with a subdivision at the north end. The trenches were deeply cut (from 0.30–0.45m) into the subsoil and, at the north end, irregularly-spaced post-holes were sunk into the bottom of the trenches. The fill of the trenches around area B contained no recognisably late wares, but some chalk-tempered and Portchester wares. As B must be contemporary with, or an addition to hall D, both are deemed to be contemporary with or slightly later than pits 13 and 14. The deep foundations suggest that B may have carried two stories; at ground level an antechamber or through passage was formed, which may have contained the stairs to the first floor. The small spur projecting into the hall might also have supported stairs, or perhaps a dais or raised platform. If we take the 'upper end' to be at the north of the building, the opposed entrances demarcate a cross-passage, with the service end to the south; this interpretation is supported by the position of the rubbish pits outside the southern end of the building, well away from the 'front door' suggested by the large post-holes on the eastern side.

Subsequent to the erection of the hall building B/D, a yard F/G was laid out and fenced to the south. This is interpreted as an open area because of its size and lack of possible roof supports. The shallow beam-slots could have held flattish sills into which a wattle fence was inserted, reinforced with turf. A new entrance was made in the south wall of hall D, for access to the yard. More pits accumulated in the northwestern corner of the yard, with a cluster of post-holes, suggesting a roofed area, perhaps for middens and latrines. At a later stage these sheds were either burnt down or perhaps the area used for rubbish disposal or even cooking, indicated by a layer of burnt clay and ash.

The final stage in the evolution of the complex was the rebuilding of the hall into an aisled structure and its extension on the east, south (into the yard area) and west sides. The

positions of the doors on the west side, and also on the south side, were retained. The extensions would have been most easily made by turning the existing walls of the hall into arcades by removing any cob or wattle infill and exposing the wooden, earth-fast posts. The posts of the new outer wall were seated in a trench, and the rafters could have been extended over the aisles from the old wall plate or ring beam to the new one. The flexibility of post-built construction would lend itself to an alteration of this kind, while, at the south end of the building, the rafters of the hip, regarded by Charles (1981) as an essential feature of post-construction, could have been extended down over the south wall. Building C to the east might have been added at the same time or earlier; its separate entrance on the east side suggests a store or stable with an external entrance.

Pottery of the twelfth century was found in the post-trenches of these outer foundations. This may have been deposited at the time of construction or, equally, at the time of demolition, if the posts were pulled out for reuse elsewhere. This might have happened when the great flint boundary wall was erected, setting a completely new alignment for subsequent buildings on the site.

### *Discussion*

Halls constructed of posts set into a continuous trench are known from several middle and late Saxon sites, notably Chalton (Addyman and Leigh 1973), Portchester (Cunliffe 1976) and Cowdery's Down (Millet 1982) in Hampshire, Sulgrave, Northamptonshire (Davison 1968), North Elmham, Norfolk (Wade-Martins 1980) and Cheddar, Somerset (Rahtz 1979). All of these have either one or two entrances on the side; others have entrances at the end of the building as at Sulgrave, North Elmham and Chalton, with exterior porches. Internal divisions, or screens, are known at Portchester S13, Chalton and Sulgrave. Buildings of two stories are known at Sulgrave, where the integral chamber had stone-built foundations, and at Portchester where a detached stone tower succeeded one

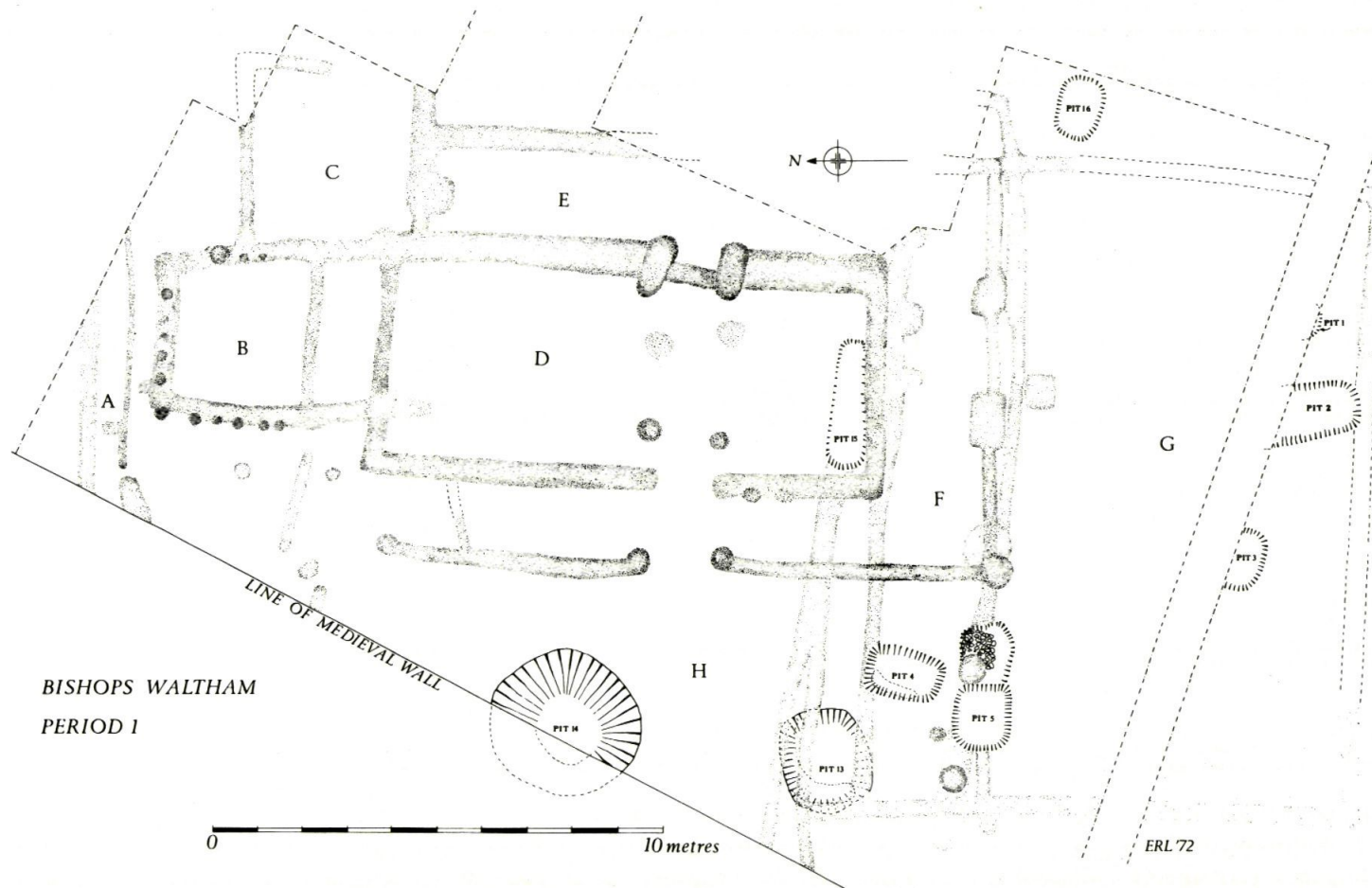


Fig 4. Bishops Waltham: site 5, plan of Saxon and Norman features in Period 1.



Fig 5. Bishops Waltham: site 5, the excavated beam-slots of the pre-Conquest building viewed from the north. Photo: Portsmouth City Museum.

of wood. Both these sites were thought to be of aristocratic status by the excavators. In size, the hall S13 (12.5m x 6.3m) at Portchester approximates most closely to the Bishops Waltham hall (11m x 4.5m). The episcopal hall at North Elmham is almost twice its size, while the royal halls at Cheddar are in a different class. Portchester also yielded evidence of the

only comparably-sized aisled hall of tenth century date (13m x 9m compared to 14m x 9m at Bishops Waltham). Post-conquest examples of aisled halls are more numerous: both the bishops' palaces at Farnham and Hereford (*c* 1115–1145) had timber aisled halls, both very large (Hewett 1980, Sandell 1975).

## Period 2. The Norman Wall

Across the west part of the site, cutting through the occupation layer 7 and sealing pit 14, but avoiding the area of the timber buildings, a large stone wall was constructed, probably in the later part of the twelfth century. One fragment of twelfth century pottery (group 4) was found in a consolidating raft composed of mortar and reused Roman tiles which had been laid over the top of pit 14 to reduce the risk of subsidence. The wall was standing to a length of 35.8m, but reference to the 1785 and 1870 maps of Bishops Waltham indicate that, at that time, it was at least 191ft (58m) long. The siting of modern bungalows at its north end has removed the possibility of establishing how it terminated. At its south end was a return and, though demolished above ground level, excavation showed that the wall continued at right angles for 11.1m towards and beneath the modern road. The wall was 1.2m wide, well-built of tightly interlocking flint nodules, with no signs of other masonry except for one quoin of stone at the southwest corner. The standing portion rose to a height of 4.5m and had been incorporated into subsequent building phases on the site. However, in its original phase, it appears to have been free-standing. The evidence of a short trench (Fig 3, section AA) excavated on its west side at the north end, shows the ground shelving very steeply towards the pond, which must have been much larger than it is today. Indeed, Grose (1783) shows an engraving of a boating party under the walls of the Palace in the eighteenth century. Then, as now, there was a moat between the pond itself and the Palace walls; this may have continued alongside the wall on *site 5*, or the pond edge may have come right up to the wall.

## Discussion

The purpose of this substantial boundary wall in relation to both timber buildings and to the Palace under construction by Bishop Henry de Blois throughout the second half of the twelfth century is puzzling. It is not aligned to the Palace buildings, but respects the pond's edge;

the wall running east-west at right angles to it appears to disregard the northern moat of the Palace and this indicates that the wall predates the moat. There is thus the likelihood that the twelfth-century Palace curtilage extended much further north, to incorporate this area (as it did in the eighteenth century) previously occupied by late Saxon and early Norman timber buildings. These covered the area as far north as the small stream, and eastwards into *sites 2* and *3* where an early medieval layer was sealed by the upcast bank of the later medieval ditch. No trace of masonry buildings has been found in this area which, in size, approximates to the area occupied by the present Palace, and there is no evidence for medieval or, indeed, later occupation of the site until the building of the 'Palace Stables'.

One interpretation, then, is that this area represents that occupied by the bishops in the eleventh century, with original timber buildings rebuilt in the early twelfth century, again in timber. These continued to be part of the bishops' residence. In the twelfth century, work began on much more imposing architecture on the site to the south, and the improvements of the pond. Occupation of the timber buildings continued, and they were protected by a new masonry wall. But when the new Palace was ready for occupation, the northern site was completely abandoned, used perhaps for gardens, orchards or pastureland. According to this interpretation the northern moat was a later feature, not part of de Blois' original boundary system, since the line of the first wall appears to precede it and may be of his building.

An alternative explanation is that the timber buildings represent part of a village settlement which grew up close to the Palace site to the south; the lack of medieval houses or signs of later occupation would suggest that, when the new town was laid out to the north east, the inhabitants moved out and the land reverted to the bishops' use, providing a useful outer courtyard for farm buildings and stock yards. In either case, the direct influence of Henry de Blois (Bishop 1129–1171) would seem to be at work.

### Period 3. The Medieval Building

In the late thirteenth or early fourteenth century (see the discussion of the roof), a timber-framed, one-aisled building was constructed against the Norman flint wall, in the angle formed by the corner. A narrow flint footing was excavated (Fig 6) which butted onto the east-west flint wall and ran parallel to the north-south wall. To the north, the footing had been robbed out. A floor of white mortar of very uneven thickness had been spread directly over the loam beneath, filling up existing holes and cuts, such as gulley 1 (Fig 3, section BB). Beneath this floor there were traces of an earlier clay floor in the northern part of the building, where it appeared less worn. Arcade posts and roof trusses from this building survived by being incorporated into the brick building which succeeded it; the posts were found embedded in the brick wall at the time of demolition. The narrow flint footings would have supported a timber wall east of the aisle. The building had been roofed with blue slates and had crested, glazed ridge tiles. Quantities of these were found outside the east wall, suggesting that at one time the roof had been reslated, the better slates and tiles being saved for reuse and the broken pieces thrown down outside the building. This could have occurred at the time the aisle was demolished, or during repair work. The archaeological dating evidence for the construction of this one-aisled building is poor, including some glazed scratch-marked pottery which is probably thirteenth century. Only a few sherds of indeterminate medieval pottery were found beneath the mortar floor. Its function seems to have been non-domestic; the roof rafters were unsooted and there were no traces of a hearth.

Its purpose would, therefore, seem to have been for storage and it may be possible to identify it with one of the many outhouses and ancillary buildings recorded in the Bishops' Pipe Rolls during the fifteenth century (HRO). In 1466, for example, there were substantial repairs to the Great Hay Barn, to the 'former Great Barn', to a granary and to the Lords Stables. In 1438 there is a more precise

reference to tiling 'the side of the Long Barn which faces the pond' and at the same time 'both sides of the granary and also the long building, namely from the Lords Stables as far as the Hay Barn on the side facing the moat' which confirms the position of the Hay Barn within a range of buildings on a separate site. The 'Long Barn facing the pond' would seem an apt description of the one-aisled building.

### Periods 4 and 5. The Brick Building: The 'Palace Stables'

In the late fifteenth century the aisle of the timber building was demolished and the posts supporting the arcade were encased in a brick wall 0.7m thick. The facing courses were laid in English Bond with a diaper pattern of blue vitrified headers covering the whole surface of the wall between the buttresses. The lozenges of the trellis pattern so formed were rather large, diminishing in size towards the roof. The same pattern can be seen on the boundary wall of the Palace, where it forms smaller lozenges, and there is another variant on the Dower House in the Palace. There were four buttresses on the eastern side (probably eight originally, allowing for the full length), of which only one survived to its full height, a massive stepped support with brick tumbling on its sloping surfaces. Another buttress had been added to the southwest corner to support the flint wall.

This phase of the building has been ascribed to Bishops Langton's building programme, along with the boundary wall and the Dower House, although contemporary sources throw little light on how much of the work was carried out in Langton's time (J Hare, pers com). Leland (1533-43) says that 'This manor place hath bene of many bishops building. Most part of the three parts of the base court was builded of brike and timbre of late date by Bishop Langton'. Charles Walters, rector of Bishops Waltham (1844), noted that 'An ancient date, on a stone bearing his arms, which reads 1497 is yet to be seen on one of the buildings on the other side of the road, which formerly belonged (as indeed they do now) to the palace'.

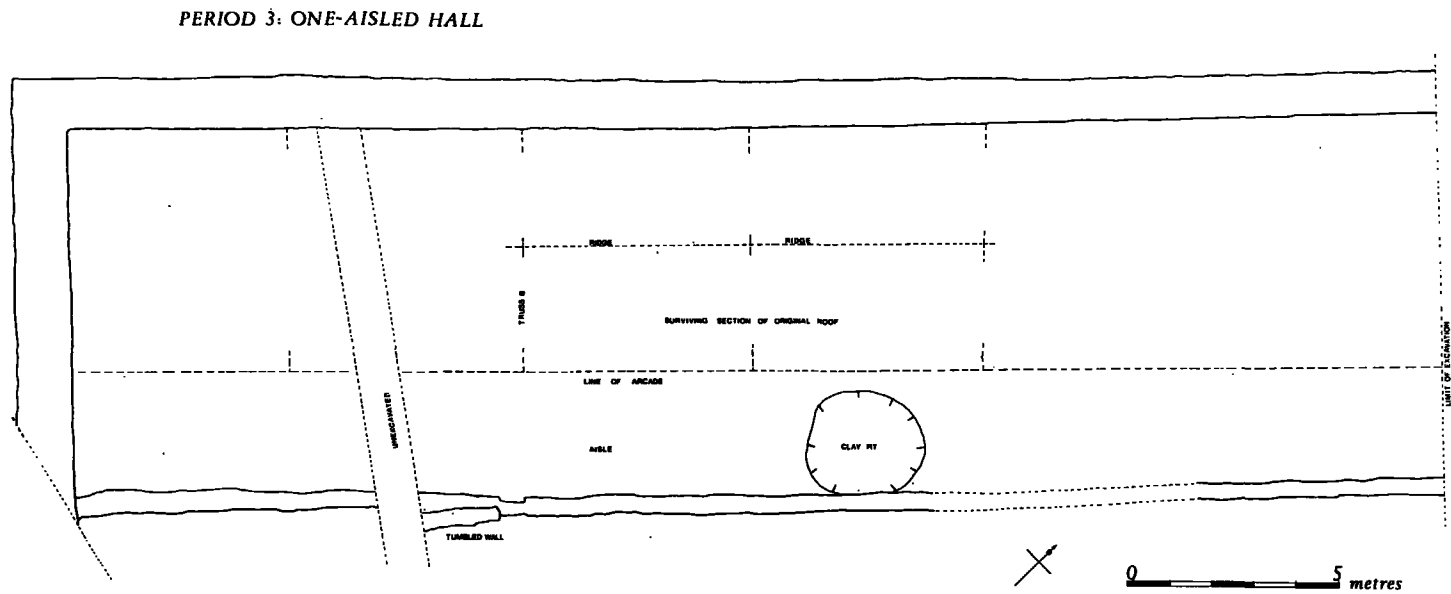


Fig 6. Bishops Waltham: Site 5, plan of the medieval one-aisled building in Period 3.



Fig 7. Bishops Waltham: the 'Palace Stables' from the west during demolition, showing the Norman flint wall. Photo: R C H M E.

There are two stones meeting this description. One was dredged from the moat in Mr S E Rigold's excavations about 1965, which he attributed, on stratigraphical evidence, to the damage suffered by the Palace in the Civil War, and suggested it came from the gatehouse (Rigold, *pers com*). Another stone is now in the aisle of St Peter's church, and may have been rescued from the barn after half of it was destroyed in the late nineteenth century. This stone has Langton's arms, but no date. A third stone is incorporated (upside down) over the door of Hensting Farmhouse, a mid-seventeenth century house made of stone reused from Marwell Manor, a property of the bishop which was largely dismantled after the

Dissolution. Archaeological evidence supports a date of around 1500 for the brick building: the brick foundations were very heavy, with brick facing around a core of brick rubble. 'Tudor Green' pottery lay beneath the first of a succession of chalk floors.

The flooring in the post-medieval period (at least until the eighteenth century) showed continuous renewal by reapplication of chalk and clay layers. Down the centre of the building was a drain carefully constructed of reused bricks set in clay. Until recently, chalk was used as a flooring for animals' accommodation, and so the use of the building as a stable is quite compatible with the archaeological evidence.

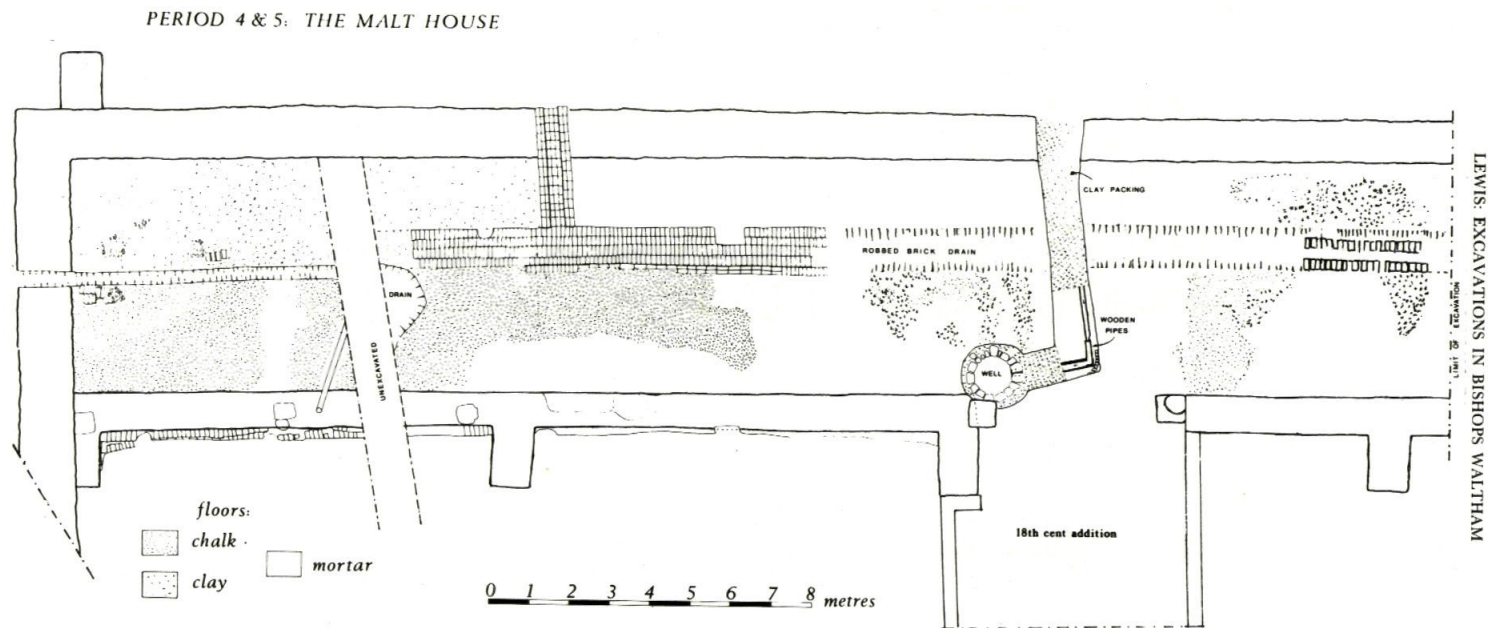


Fig 8. Bishops Waltham: site 5, plan of the brick building in Periods 4 and 5, and in its last phase as a malthouse.



Fig 9. Bishops Waltham: the 'Palace Stables' from the east during demolition, showing the brick wall and buttress of the early sixteenth century. Photo: J. Bosworth.

During the eighteenth century the brick drain was cut by a trench, which carried a wooden pipe through a breach made in the flint wall from the pond, and supplied water to a small circular cistern made of chalk blocks. A clay pipe of *c* 1740 was found in the trench holding the pipes, which had been backfilled with a clay packing. We know from the 1785 map (Fig 21) that the building was a malt house at this period. Malting requires the damping of grain to achieve germination. Fragments of perforated malt tiles were found in the cistern, but no traces of the foundations of the kilns which would be necessary for the process. They could, however, have been in the unexcavated part of the building. At this period, a protruding brick bay was added to the building in the middle of the east side. The foundations were excavated, and the feature appears on the 1785 map. This also indicates that there were buildings to the north, which comprised a barn, home stable and cowstall.

Rubble masonry walls on top of the chalk floor testify to the use of the building for horse's stalls while it was used as a livery stable in the 1920s (Fig 13).

Detailed descriptions of contexts containing pottery, drawn on Figs 14–17, are presented in microfiche.

#### The Roof of the 'Palace Stables' by Eric Mercer

Much of the roof had been rebuilt in modern times, but part of an earlier roof still survived when the building was demolished in 1968. This part ran northwards from Truss B on plan (Fig 6) for a length of about forty feet. In estimating its date it is useful to determine 1) whether all members of the roof are co-eval and 2) what relationship they have to the walls beneath them. This is the more necessary because the roof has a surprisingly modern appearance.

The best preserved truss is that at 'C' on plan,



Fig 10. Bishop's Waltham: first edition Ordnance Survey map of about 1870, showing the malthouse.

here shown in cross-section on Fig 11. The absence of unused or empty mortices on the top surface of its tie-beam shows that it had no members earlier than those *in situ* above the tie and therefore tie and truss are of one date.

On section there is a peg for an upright post framed into the soffit of the tie-beam towards its west end, and there is a corresponding peg towards the east end. The first peg is about  $8\frac{1}{2}$ ft from the central king-post and about  $4\frac{1}{2}$ ft (1.37m) from the west end of the tie; the second is about  $11\frac{1}{2}$ ft (3.50m) from the king-post and  $1\frac{1}{2}$ ft (0.46m) from the end of the tie. Apart from the brackets from the upright posts, which were lap-jointed to the tie, there were never any other timbers framed into the soffit of the tie, and the unequal spacing of

the posts is co-eval with the tie, and therefore the tie and the roof above it were framed for a building with a 4ft (1.22m) – thick wall and inner post on the west, and a thinner wall on the east.

The east wall was of brick and was over 2ft (0.61m) in thickness, but with timbers embedded in it which were earlier than the brickwork. This was shown in two ways. The timbers were much rotted, but enough survived to establish that one post had a jowled head and carried a wall-plate in the manner of timber-framed structures. Further, in those pieces of the wall-plate which survived were peg-holes for timbers framed into the soffit. Neither of these elements would have been there if the wall had not originally been wholly of timber. The roof, therefore, was originally built above a structure of

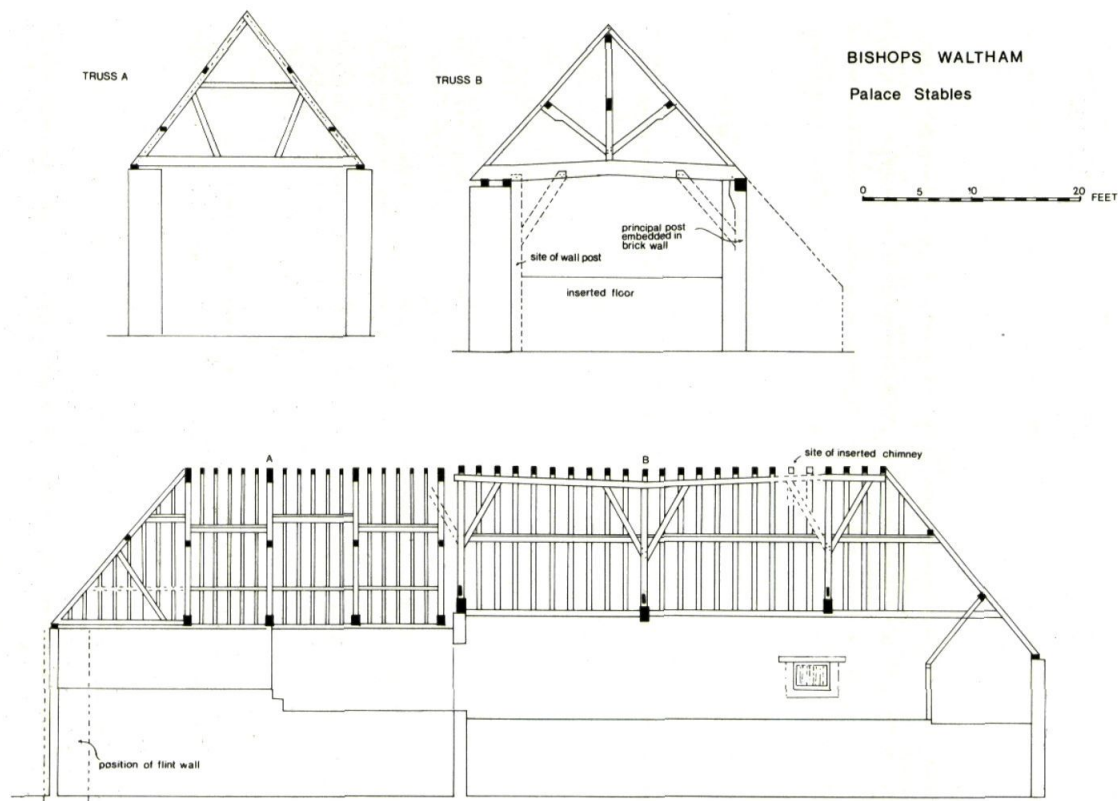


Fig 11. Bishops Waltham: site 5, the 'Palace Stables', sections of the standing building (R C H M E).

about 20ft (6.1m) internal width and with a thick lateral wall of flint on the west and a timber wall, or roof support, on the east.

Excavation has revealed another wall at about 9ft (2.74m) to the east of this timber one, and apparently co-eval with it. This would appear to be the wall of an aisle which accompanied the main structure. The peg-holes referred to earlier, in the soffit of the wall-plate of the timber wall, are not incompatible with an aisled structure. A one-aisled building of comparable size, and also built against a curtain wall, has been excavated at Conisbrough Castle, Yorkshire. It has been dated to *c* 1200 (Thompson 1968). The aisle of the Bishops Waltham building is about 9ft (2.74m) wide and, if the aisle wall was about 6ft (1.83m) high, then the whole structure could have been roofed in one

plane, as tentatively reconstructed in Fig 11 (truss 'B'). Dimensions of this order, in fact, occur in the aisled barn at Grange Farm, Coggeshall, Essex (RHCM archives). This is probably of thirteenth-century origin.

The dating of the roof depends partly upon the structural development of the building and partly upon typology. As we have seen, there was a timber wall beneath it on the east originally, and it must therefore be earlier than the brick wall, apparently of the sixteenth century. The associated finds from the excavation do not appear to place it before *c* 1200. The roof is of unusual character. It is of king-post type and although king-post roofs of



Fig 12. Bishops Waltham: the roof of the 'Palace Stables before demolition. Photo: R C H M E.

late fourteenth century date and later are common in northern England, they are extremely rare in the south. Further, such roofs usually have short, sturdy king-posts, braces only from the king-post to the ridge, and carry purlins on the backs of the principals. This one has a long and slight king-post, four-way braces, and has the purlins clapsed between the principal and a brace which runs from the post to the principal. These oddities are not easily paralleled and suggest that the roof is experimental and

early. But very early roofs are without longitudinal members, whereas this one is well endowed with them and cannot well be before the thirteenth-century. It had lap-joints for the braces from wall-posts to tie but, on the other hand, it is without the parallel timbers and the passing braces so common in thirteenth century roofs. It is perhaps to be dated to a period either side of c 1300.

#### *Postscript*

In an impressive paper on the roofs of the



Fig 13. Bishops Waltham: the 'Palace Stables' as Robinson's Mews about 1920. Photo: J Bosworth.

Cathedral and of the Bishop's Chapel at Chichester, Mr Julian Mumby (1981) has dated the roof at Bishops Waltham to the late thirteenth century because it is 'virtually identical' to the re-built roof of the Chapel at Chichester. He may well be right, but some doubts linger. In the first place, it is not wholly certain that the Chapel roof was re-built before 1300. Secondly, and more importantly, Mr Mumby qualified his 'virtually identical' with 'apart from the ridge-purlin at Bishops Waltham'. The question is: How important is that qualification? One may argue that it has little significance, that Bishops Waltham is merely the Cathedral roof with the collar-purlin lifted up to become a ridge, or the Chapel roof, as re-built, with a ridge inserted; on the other hand it is precisely the presence of a ridge which distinguishes a king-post roof

from a crown-post one, or from a crown-post roof with king-struts. Mr Mumby clearly takes the view that it is a distinction without a difference; the other view, however, that the difference is fundamental, is neither eccentric nor unorthodox.

Thirdly, there is yet another difference between the two Chichester roofs and that at Bishops Waltham: the first two have parallel rafters and the third has not. Here again there may be two views about the weight to put upon that point, but it has generally been held that the abandonment of parallel rafters marks an important stage in roof development. If that is so, then it is not impossible, but it is less than likely, that the roof at Bishops Waltham and the re-building of the roof of the Chapel at Chichester are co-eval. These considerations are far from proving Mr Mumby to be wrong,

but in view of them, and of the notorious difficulty of establishing tight date-brackets for medieval structural elements, I am ready to stand by my earlier judgment, 'either side of 1300'.

### MESOLITHIC FLINT MATERIAL FROM SITE 5 *by J C Draper*

A total of 93 worked flints were recovered. Some of these, as well as those from later excavated contexts, are listed and illustrated in microfiche.

*Stray finds.* The most important flint in this collection is a scraper. Worked on a flake during the manufacture of an axe, it shows the typical fine trimming of Mesolithic work and was the only scraper found. The near total absence of scrapers is puzzling, but perhaps can be explained by the fact that here only excavation for flint and manufacture of implements was carried out and the communal sites were elsewhere. Among the stray finds also are two gravers, one large fire-damaged microburin, four utilised blades, and one saw, again the only example.

The gravel flint used for knapping was a dull, light horn coloured variety and the majority of the worked flints are slightly patinated. Some high quality flint may have been carried to the site or was there initially, as two of the gravers are of dark lustrous flint and one microlith and one microburin are of grey flint.

#### *Julie P Gardner offers the following comments*

The location of the Mesolithic site at Bishops Waltham is an important addition to sites already known in Southern Hampshire. The material compares well with that from a former site at Sandy Lane, Shedfield, two miles to the south (NGR SU 558143), a site now destroyed by sand quarrying. Here simple, obliquely-blunted, Class A microliths were also associated with gravers, saws, microburins, scrapers and large blades. In the absence of any obviously late material, an early Mesolithic date has been implied for this site (Jacobi 1981).

Typologically, late Mesolithic material is also known from this area of Hampshire. Clusters of small sites occur on clay-with-flints, as on Butser Hill, Windmill Hill, and Salt Hill (Draper 1953), and on patches of Eocene sand, as at Broom Hill, Braishfield and Wakeford's Copse, Havant (Bradley and Lewis 1974). Broom Hill has a series of C14 dates running from 6740–4460 bc (Jacobi 1981).

There are no late microlithic forms from Bishops Waltham and, although this small amount of material should not be compared directly with the huge early Mesolithic assemblages from the Hampshire Greensands, a date in the range of 7250–6500 BC seems most likely.

### POTTERY FROM SITE 5 *by K J Barton*

#### *Saxo-Norman Wares*

These wares are derived from the fill of the pits, beam-slots and other features relating to the timber-framed buildings in Period 1 (Figs 14 and 15) and to the occupation layer associated with it (layer 7). The contents of pits 13 and 14 and some beam-slots included no grass-wiped pottery (fabrics 3 and 4), which established a broad chronological distinction between the fabric types. However, in layer 7 all fabric types were mixed together. Four principal fabrics occur.

*Group 1: Portchester Ware.* In Bishops Waltham this is a finely made fabric, well-fired, initially oxidised with a terminal reduction causing a black to chocolate brown finish on the outside, with a darker finish on the inside. It contains minute quantities of flint, chalk and a very micaceous sand, causing a distinct sparkle when exposed to bright light. There are fragments of another vessel of this type with a steeply overhanging rim and crude rilling (Fig 15. 17). The quality of this ware is very sandy and it is similar in some respects to the fabric in Group 2, see below.

*Group 2* is a fabric which is sand and chalk tempered. The surface of the vessels is smooth to the touch whether it is oxidised or reduced, and although sand is the dominating tempering agent in this ware, chalk has played a great part in this tempering, though in some instances it has been washed out leaving behind small pockets. Two

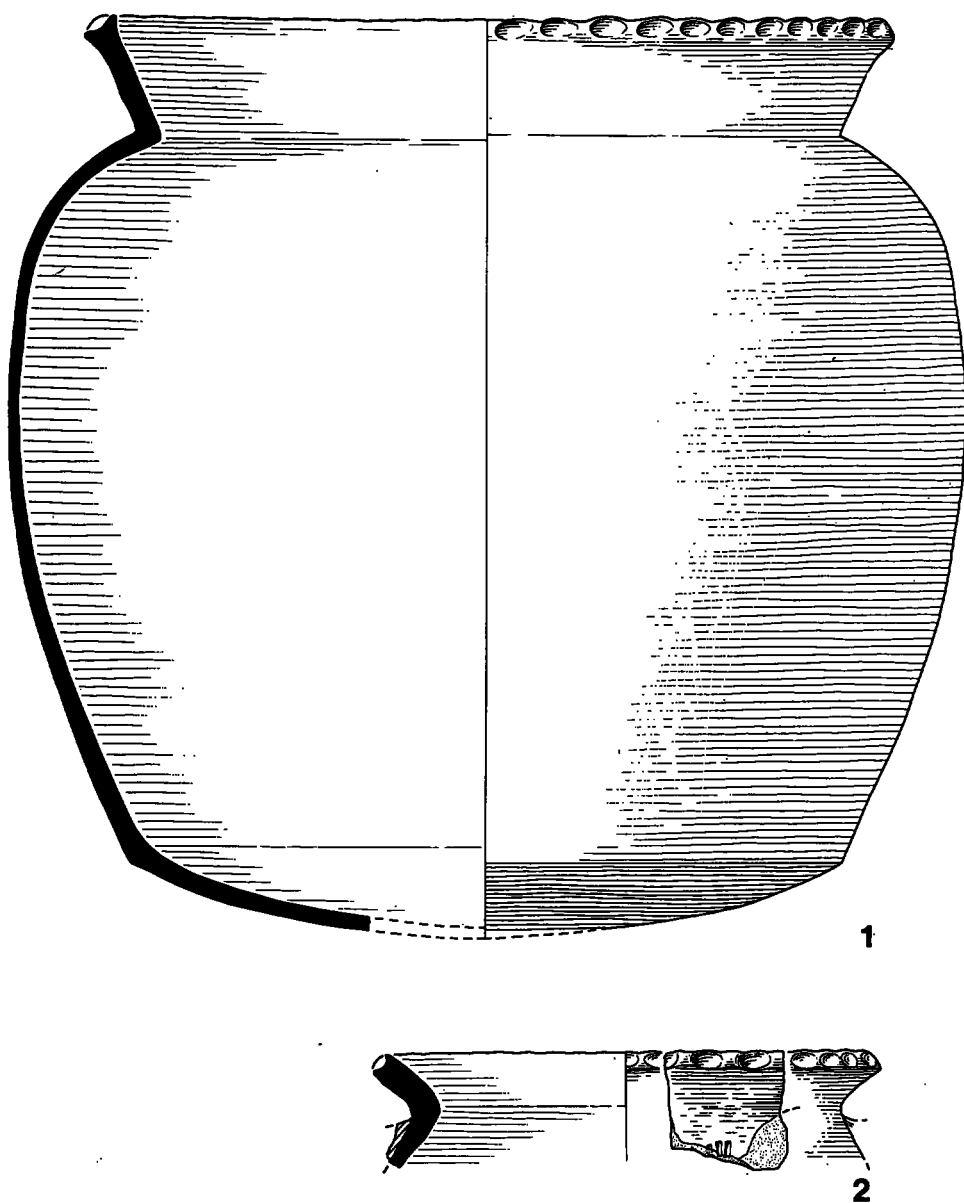


Fig 14. Bishops Waltham: pottery from site 5, Period 1, pit 14.

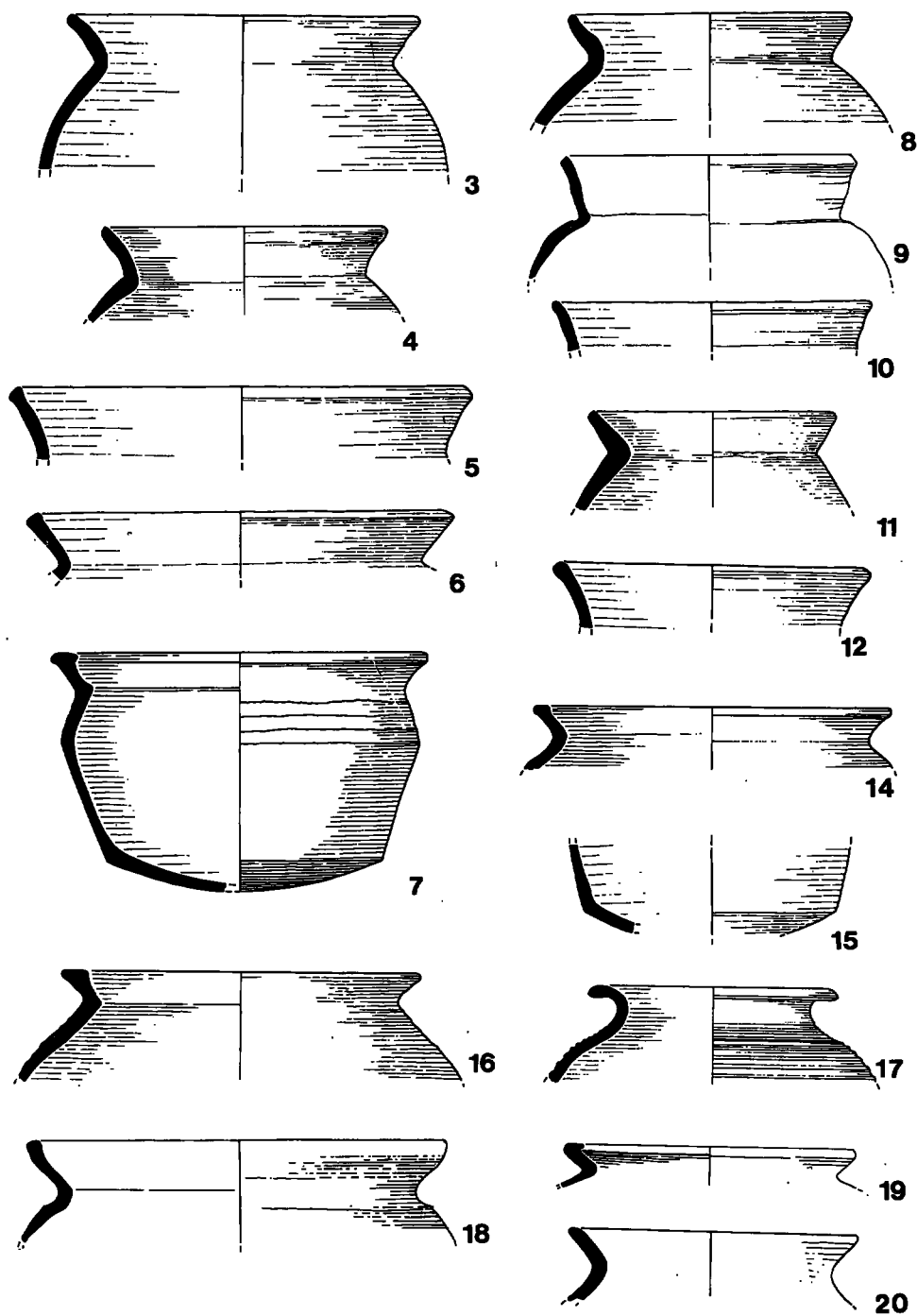


Fig 15. Bishops Waltham: pottery from site 5, Period 1, pits 13 and 14.

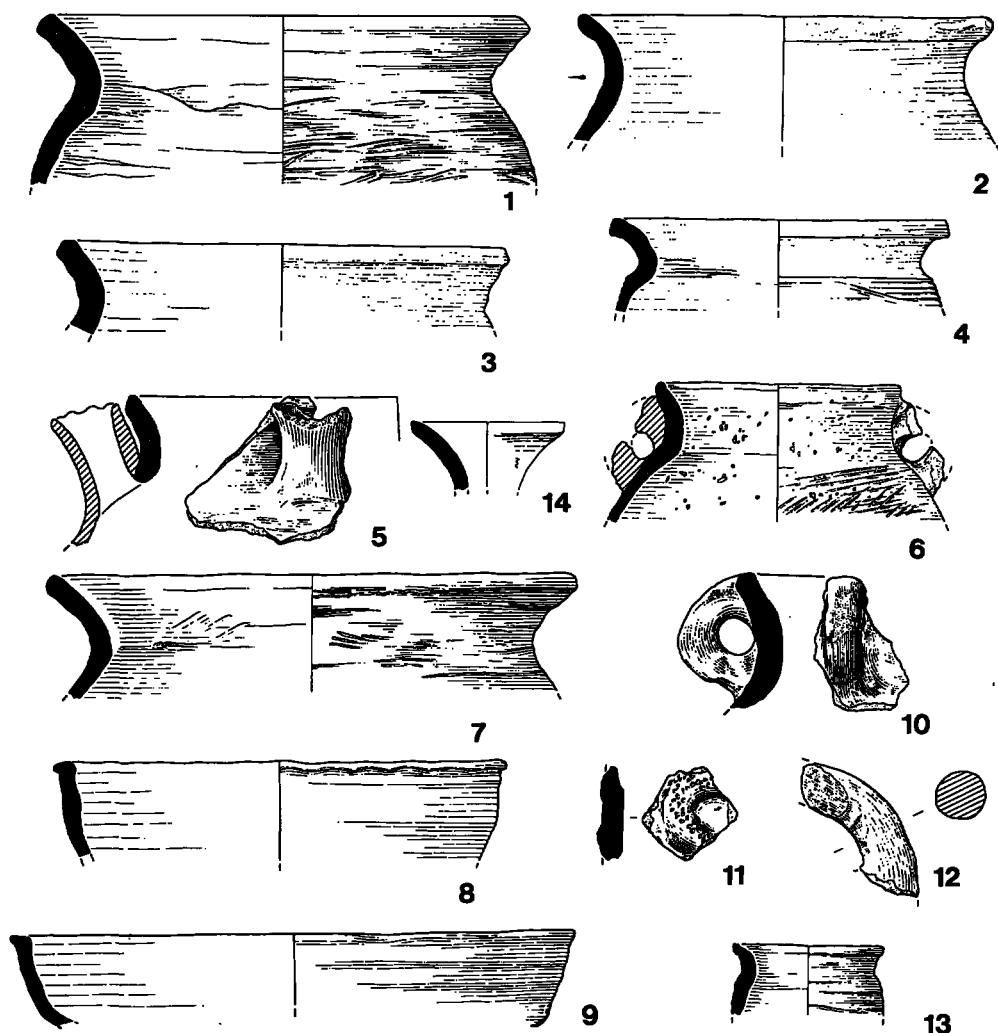


Fig 16. Bishops Waltham: pottery from site 5, Period 1. Handmade wares tempered with sand and flints.

examples from Pit 14 are large storage jars. Number 2 on Fig 14 has the remains of either a stamp or, more likely, a several-pronged combed decoration adjacent to what was apparently a lug handle or spout of the type to be seen on numbers 5 and 10 on Fig 16. These are known principally from West Sussex (Barton 1972).

The forms and general characteristics of the wares in Group 2 are described as follows:

Large globular jars 40cm + diameter  
Medium size jars (cooking pots) 24cm diameter

Small size jars (cooking pots) 16cm diameter and less

Medium size open shallow bowls

All these wares are hand made.

The large jars are of two forms: A) has a small curved rim rising from a sloping shoulder over a globular body; B) has a heavy angled rim which sits at a 30° angle on a high-shouldered globular body. Sometimes this rim is set slightly in to the body creating an impressed groove around its base. These rims are frequently decorated around the top

of the rim with pie crusting, and (elsewhere) with stamping on the inside face.

The medium size jars (cooking pots) have the same A and B rim characteristics as above. They can also be decorated with stamps around the shoulder as shown in one instance. They are fitted with spouts which are tubular and sit tight to the underside of the rim.

Some have handles which, in this case, are in the form of pierced discs of flat clay pinched on to the shoulder under the rim or rolled into a rod and fitted to the curve of rim and shoulder to make a circular handle. It is the pierced disk-like character of the profile that is significant.

There is no evidence here (or elsewhere) for the spouted cooking pots having handles at this period.

The body of these bowls has been wiped off with some fibrous material, cloth or bast, which gives a rough finish. I believe this to be an aid to grip. It is possible that this is a precursor to scratch marking, which is a different process done at a different stage of manufacture. There are also wide shallow bowls, with a curved base, the sides rising horizontally to a flanged rim, which is sometimes (not here) pie-crustured.

*Group 3. Reduced sand-tempered grass-wiped wares.* The fabric of these wares is heavily charged with sand and they are fired oxidised with a terminal reduction. The amount of firing was not carefully controlled and is irregular throughout, so that the vessels can range in colour from black through to orange on either face of the vessel at once or individually. The form of these grass-wiped vessels is different to that of the form of Group 4. These are more globular, and a striking difference is the rim form which is rounded and has a flattened upper surface (Fig 16.1 and 3). These rims are also wiped longitudinally with the fingers rather than being severely crimped as in the case of Group 4, and only on rare occasions is the edge of the rim as sharp as it is in Group 4. Put together, this is a distinctive group that cannot be missed. There are, however, within the group one or two pieces which are lighter in weight, are tempered with a finer sand than the others, and could be possibly from another source. There is also evidence for small flanged bowls with dimpled upper surfaces to the rim in this group (Fig 16.8 and 9).

*Group 4. Flint tempered, grass-wiped pottery.* A wide range of sizes occur in a crude heavily flint-tempered fabric, the flint having been roasted and calcined and, to a certain extent, selected for size, as this is almost constant.

This ware, which is probably hand-made and not turned on a wheel, is extremely crude and has been fired in an uncontrolled kiln, so that the colour ranges from dark grey/black, to a light red-buff colour. There are two sub-groups of this ware, one of which has been recognised by Cunliffe at Portchester and another which is partially-reduced and of a finer quality than the rest, the fabric showing as a dark, almost chocolate, red colour. But the main types, which are a dominating group amongst the collection from this site, are the crude examples described above.

The assemblage of vessels therefore consists of large jars, medium size jars/cooking pots which might have handles for suspension, or might have spouts, or are mainly without these fittings. Decoration is rare and that limited to stamping. The finish is roughed with scoring on the surface.

There is also a range of wheel-made material (Group 1), the bulk of which is identified as Portchester ware by Cunliffe who proposes that it was probably produced in the Wickham area. The use of the wheel produces a more sophisticated form, finish and decoration. The products remain substantially the same type of vessel as the handmade examples.

In both the hand and wheelmade examples there is evidence of skill in preparation of the ware in which the tempering agents are carefully prepared either by selection of naturally crushed flints or by some manufacturing process. This suggests that the process of body preparation was sophisticated by this time. Firing was less well controlled and, although Portchester wares show the consistently achieved colour range of a well-controlled reduction firing, the handmade wares are less so and the range of colours goes from fully oxidised to fully reduced with both oxidised and reduced parts on the same vessel. This is a marked characteristic of the pottery of this period in south Hampshire.

### Discussion

In searching for a date to any site, the artifacts are a prime source of chronological evidence. However, in the case of the material from the Period 1 levels, this chronology is not easily

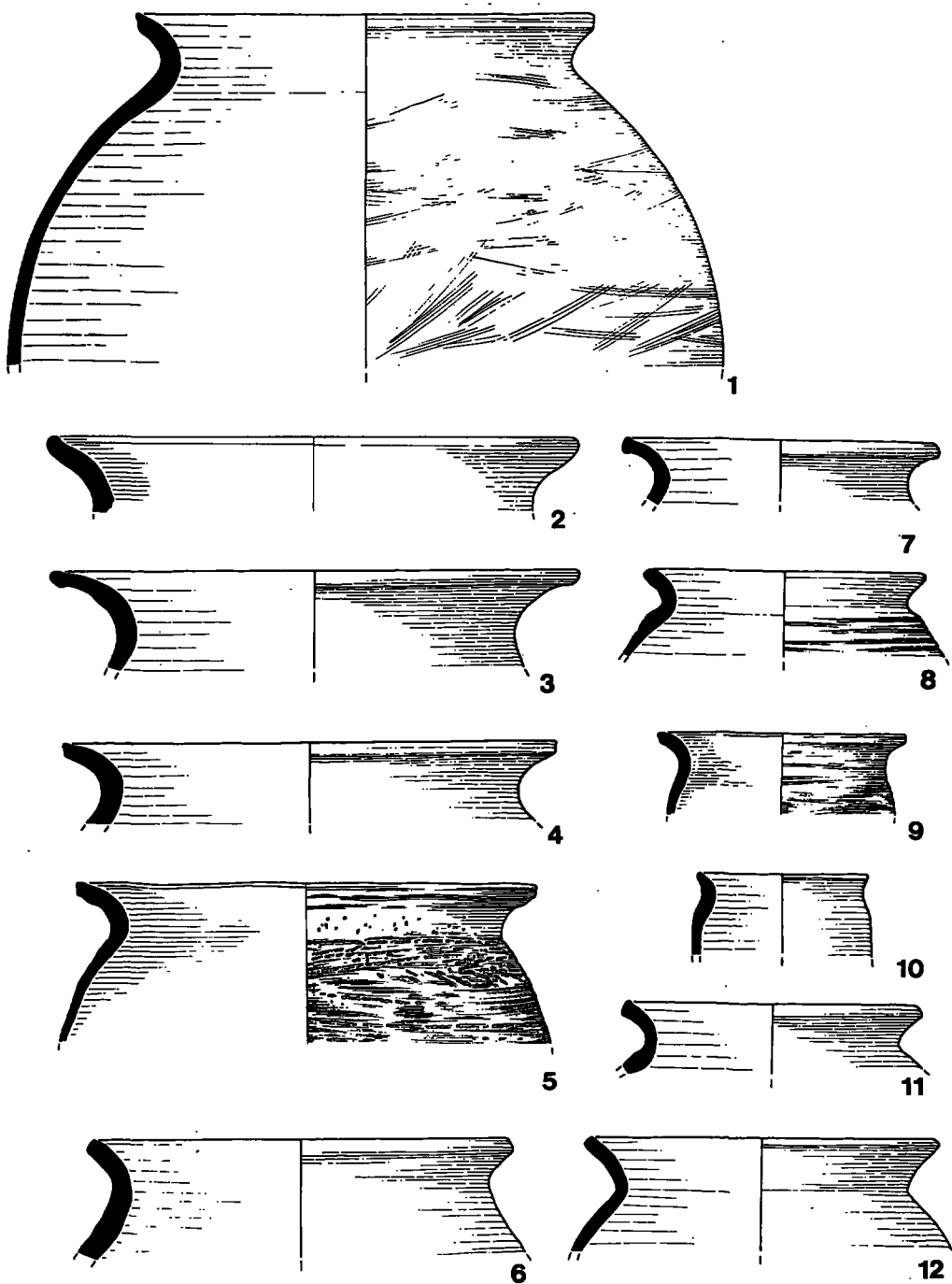


Fig 17. Bishops Waltham: pottery from site 5, Period 1. Flint-tempered wares (Group 4).

achieved. There are two closed groups, in pits 13 and 14, where Group 1 and Group 2 wares are in association, but from which Groups 3 and 4 are excluded. Other features contained Group 4 ware alone, or with some Group 2 ware which must be residual, so we have a chronological distinction between Groups 1 and 2 on one hand and Groups 3 and 4 on the other.

The date at which they overlap is the problem here. The dating for Groups 1 and 2 depends to some extent upon other local sites where similar wares occur, but the dating for these has been extremely broad. They have been assigned to the twelfth/thirteenth century by the writer (Barton 1979) to 'Early Medieval' by the writer (Pile and Barton 1968) and by Moorhouse (1971). At Southampton, Coleman and Platt (1975) group the wares into two date ranges of the tenth/eleventh-century and the eleventh/twelfth-century suggesting that the wares exist for more than 200 years. At Portchester, Cunliffe (1976) calls them 'Late Saxon' and 'Saxo-Norman' but does attempt to define their date as post-1000 AD on the grounds that they do not occur at Hamwic, although he dates the stamped wares to the ninth and early tenth centuries. He gives no date to Winchester ware or Portchester ware, but says that Portchester ware is finished by 1100 AD.

There are, in this particular collection, fragmentary (unillustrated) sherds of glazed wares of Stamford/Winchester type together with a sherd similar to that from the Michelmersham kiln (Fig 16.11), the products of which are also attributed to the Saxo-Norman period. The former have attracted a good deal of attention because of their exotic nature and relationship with both continental and eastern English types; in Winchester they are given a date by Charlotte Matthews as 950-980 AD (Matthews pers com).

There is also the fine glazed earthenware costrel from pit 14, described by the late Gerald Dunning (see separate discussion) who suggested a French origin, and found parallels for the glaze in the ninth-tenth century. However, its association with Portchester ware would indicate a tenth-eleventh century

context, and it must be said its source of origin is not firmly established.

It is the dating of the later wares that is next in importance. Besides the large group of scratch-marked cooking pots in Group 4, there are two sherds of glazed scratch-marked ware from the site. The starting date for scratch-marked ware is not yet established. However, in Winchester, such wares were dated by Cunliffe to the thirteenth century (Cunliffe 1964). These are at the end of the range associated with tripod pitchers. These can be firmly dated to the middle of the thirteenth century. Tripod pitchers do not occur at Bishops Waltham. At what stage of development is the group from Bishops Waltham? Was it stamped first – or later, or not at all in Bishops Waltham? Similar wares at Chichester are frequently stamped, in Southampton, Winchester and Portchester less so. Nor do we know of the stage of development of these 'shouldered, baggy cooking pots'. The Portchester series shows a late development of Middle Saxon local types running in sequence with these 'new' types – but where the new wares originate, and at what stage they are at Bishops Waltham, is still unclear.

We then have a possible date range of some 200 years for the Period 1 wares, between 1000 and 1200. For the earlier wares a range centred on the eleventh century seems appropriate. For the scratch-marked wares in Groups 3 and 4 we have no starting date, but the end date on this site must be about 1140 when the flint wall was constructed, cutting through the strata in which they occur.

Detailed descriptions of pottery from Site 5 are presented in microfiche.

#### *The Costrel from Site 5, Pit 14 by G C Dunning*

The fragments, which evidently belong to one and the same vessel, are made of hard-whitish ware containing grits of several kinds; apparently crushed flint, translucent white granules, others of darker stone, light red inclusions probably crushed brick or grog, and, on the inside surface of two sherds (1 and 4), spicules of what appears to be fossil shell or reeds.

The outside surface of all the sherds is entirely covered by thick yellow glaze, lustrous and finely

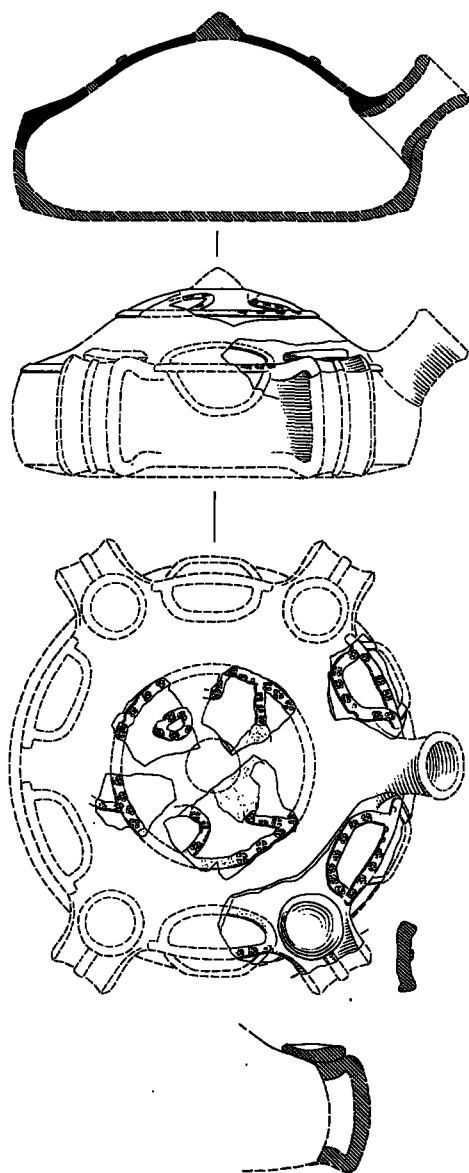


Fig 18. Bishops Waltham: reconstruction of the glazed costrel from site 5, pit 14.

cracked. The strap handle and the large applied disc covering its place of attachment are also covered by glaze of the same quality, but coloured green; at the sides of the handle this glaze has run

along the adjacent parts of the surface, which are thus greenish-yellow. The inside surface of the vessel has largely flaked off, but on two sherds (1 and 2) the surface remains in places, and here it has yellow glaze as on the outside. These sherds belong at each side of the tubular spout, and the glaze remaining on sherd 1 is present nearly one quarter round the circumference. It thus seems likely that most, if not the whole, of the inside of the vessel was glazed.

The six fragments are sufficient for a reasonably complete reconstruction of the vessel, identified as a costrel, to be achieved. On Fig 18 the sherds are arranged in the correct relative positions.

1. The largest piece, 4.6in (11.7cm) long, has part of the front and edge of the costrel. The edge is crossed by a strap handle which is attached to the front. Over the join is a large applied disc, 1.3in (3.3cm) in diameter, concave on the top. Near the upper end of the sherd the front surface turns outwards and this marks the place of attachment of the tubular spout.

2. Smaller piece, 2.1in (5.3cm) long, also of the front and edge of the costrel. At the upper end the front surface also turns outwards, and behind this on the inside surface is an applied flange with spots of yellow glaze. This flange is the edge of the attachment of the tubular spout, which was added inside a circular hole made in the front of the body of the costrel, thus forming an overlapping join, as shown in the section in Fig 18.

Sherds 1 and 2 have a narrow applied strip round the obtuse angled margin at which the front and edge of the costrel meet (like the sagging base on a medieval cooking-pot or jug).

Both sherds have applied strip decoration on the front in the form of D-shaped loops, 1.7in (4.3cm) and 2in (5.1cm) long respectively and 0.9in (2.3cm) wide. The loops project inwards onto the domed front of the costrel, with the straight side formed by the strip round its edge.

Similar loops were also present round the edge of the costrel, and in position correspond with those on the front. Parts of these loops are on sherds 1 and 2.

All of these strips are decorated with the impressions of a small cross shaped stamp, 0.25 in (0.6cm) in diameter. Several of the stamps are complete and clearly impressed, but in many places only part of the stamp is present on the narrow strips, where it might be mistaken for rouletting. A similar strip with stamps passes along the middle of the strap handle, of which part of one remains on sherd 1.

Sufficient of sherd 1 is present for the diameter of the front edge of the costrel to be determined closely; it is 8in (20.3cm) in diameter. The edge of the costrel is not flat but convex, so that the maximum diameter of the vessel was about 8.5in (21.6cm).

The position of the tubular spout is unusual and without a known parallel. It projected forwards and upwards from the outer part of the front and the edge of the costrel, and was about 1.2in (3.0cm) in diameter. In this respect it differs from the usual position of the spout on medieval costrels, on which it lies in the same plane as the vertical axis of the vessel, as seen in side view (Dunning 1969, Cunliffe 1974). Likewise it differs from the position of the tubular spout on the other costrel of the late Saxon period, broadly comparable in shape with the Bishops Waltham example and of about the same date, but made of Thetford ware and found at Thetford (Dunning *et al* 1959). On the Thetford costrel the spout is also in the same plane as on the medieval containers.

The position of the one remaining strap handle, on sherd 1, about one-sixth of the distance round the circumference, enables the number of handles to be estimated. It is a reasonable certainty that the costrel had four such handles and not only two, one on each side of the spout. The handles were spaced equally round the vessel, as restored in the front view. The transverse section of a completed handle shows that there was a space about 1.5in (3.8cm) long by 0.5in (1.3cm) wide inside the handle. A leather strap would be passed through the handles for slinging the costrel from the shoulder when in use, just like a modern shoulder-bag, or hanging it from a hook or peg on the wall when not required. The method of suspension explains why the spout at the top slopes forward, thus making it more convenient to drink from when held to the owner's mouth.

The other four sherds belong to the domed front of the costrel. All the sherds have parts of an applied strip which is curved, and are segments of a circle, about 4.25in (10.8cm) in diameter, round the central part of the dome. In addition, each sherd has applied strip decoration on the dome itself.

3. Strip running obliquely and ending in an expansion or a small loop, flaked off. Also one end of a small D-shaped loop.

4. Small complete D-shaped loop, apparently free in the field.

5. Strip running obliquely outside the circular curved strip.

6. Part of a large loop. Curved strip running

diagonally and ending in an expansion or loop, flaked off, as on sherd 3.

On sherds 3 and 4 the profile at the inner edges of the sherds turns upwards at an angle. This shows that the centre of the dome was mammiform in shape, as on many medieval costrels.

It should be noted that the applied decoration on the dome does not form a coherent pattern, but differs on each sherd. Its components are straight and curved lines, and loops of various sizes. On the front view of the costrel in Fig 18 the sherds are arranged in what seems to be the correct sequence, but this should be regarded as provisional. The rather rambling nature of this decoration suggests that the potter was using up the short pieces of strip left over after making the ten large D-shaped loops round the outer part of the front and on the edge of the costrel. This use of the odd bits of strip as a sort of doodle would explain the disjointed effect of the decoration on the dome, in contrast to the orderly and well spaced decoration on the outer part of this very remarkable vessel.

### Discussion

It should be mentioned that Mr J G Hurst and I made reconstruction drawings of the Bishops Waltham costrel independently. Our drawings agreed closely in the size and form of the vessel, the number and position of the strap handles, the slope of the spout, and the placing of the D-shaped loops. This agreement inspires confidence that the accuracy of the reconstruction, based on so few sherds, is fully justified.

The strap handles spaced round the circumference of the Bishops Waltham vessel, intended for its suspension by strap when carried on the person, really leave no doubt that it is correctly identified as a costrel.

It may be added that this is a novel form without a parallel in the late Saxon period in England. It should be mentioned that a different form of costrel, bag-shaped, and apparently based on a leather prototype, is also known in glazed Winchester ware and assigned to the eleventh/twelfth centuries (Barclay and Biddle 1974). Like the other leading types of costrel, the Bishops Waltham costrel has a long history. Costrels of the same form, with a tubular spout and a loop handle attached in front of it, have recently been

found at York, where they were made in local pottery kilns (Addyman 1974). They belong to the Roman period, probably the late first or second century.

Parallels for the form of the costrel, though having a different function, are also known in France at a more recent date. In the Musée des Beaux-Arts at Chartres is a strikingly similar vessel, dome-shaped in front and flat at the back. It has a tubular spout projecting at an angle, and a strap handle behind it. An identical example, made at the pottery centre at Humbligny (Cher) is in the Musée de Berry (1962). Both vessels are in light brown salt-glazed stoneware, and may be dated about the sixteenth or seventeenth century. That at Berry is described as a *bouillotte*, a hot water bottle (Harrap 1972). The form is admirably suited for warming a bed.

The origins of glazed Winchester ware are at present not determined, though glazed wares of the ninth and tenth centuries at Doue-La-Fontaine in Normandy suggest a possible link with northern France (Hurst 1969). Although too much stress should not be placed on the analogies of later date at Chartres and Berry, these do at any rate show the presence of this rather specialised form in widely separated regions of France and point to a tradition derived from the Middle Ages.

## BUILDING MATERIALS FROM SITE 5

*Roman tiles* (not illustrated). Fragments of these were found scattered over the site, in eleventh and twelfth century contexts. It appears they were collected from local sites and re-used in building or for domestic purposes. One was found consolidating the mortar of the large flint wall, and the 'raft' over pit 14 was made of old flue tiles.

*Stone*. Fragments of shelly limestone were found in eleventh-twelfth century contexts; all were broken and no shaping was visible.

*Stone roof tile* (Not illustrated). Fragment of a slate of a shelly limestone.

*Roofing slates* (Not illustrated). These are of a blue slate, easily laminated, except one, which is of a hard, greenish slate with dark veins. This slate was imported from the west country from the late twelfth century onwards (Jope and Dunning 1954).

All from layer 4, cutting 2 (Fig 3).

*Ridge tiles* (Fig 19). All three from layer 4 found with the slates for roofing the one-aisled building:

1. Fragments of a ridge tile of a sandy buff fabric, reduced blue internally. The glaze is thin and patchy. The cresting is pierced and has slashing, a form characteristic of those found in Southampton in the thirteenth century (Platt and Coleman Smith 1975, 1407, 1408 and 1411). This can be reconstructed as one tile with four crests, 44cm (17½in) long, or with three crests, if more than one tile is represented. The larger size is, however, common in Southampton.

2. Fragment of roof tile with moulded squared crest. Sandy, buff fabric reduced internally. Thick green and orange mottled glaze.

3. Fragment of ridge tile with knife-cut crest. Harder fabric, olive green glaze. This is a later type, probably fifteenth century (Platt and Coleman Smith 1975, 1430, 1432).

Not illustrated:

Floor tile from trench 2 layer 4, 45mm thick, green and yellow glaze.

Clay peg tile, from trench 2 layer 4. Bright green glaze.

Glazed peg tiles are known from Winchester (Deanery roof) and Lower Farm, Preston Candover (WCM 441, 3236).

*Discussion*. The fragments of ridge tiles, slates, peg tile and floor tile were found in a thick layer just east of the rubble flint wall supporting the outer wall of the timber-framed building. The deposit was probably formed when the building was retiled and slated, in 1438:

'To the wages of John Heyler, roofer, for re-roofing with slates the side of the Long Barn which faces the pond £10. To 72 crestyles for the same 4d. And 38 roofing slates bought for the same in the previous year and carted from Pynkhaven to Waltham at 8p a single cartload of 1,000 ... £24.4d.'

The presence of ridge tiles of different age and type would be explained by this entry in the pipe rolls. The earliest ridge tile, 1, may represent the original roof covering while the later ones were new stock brought in to replace damaged ones.

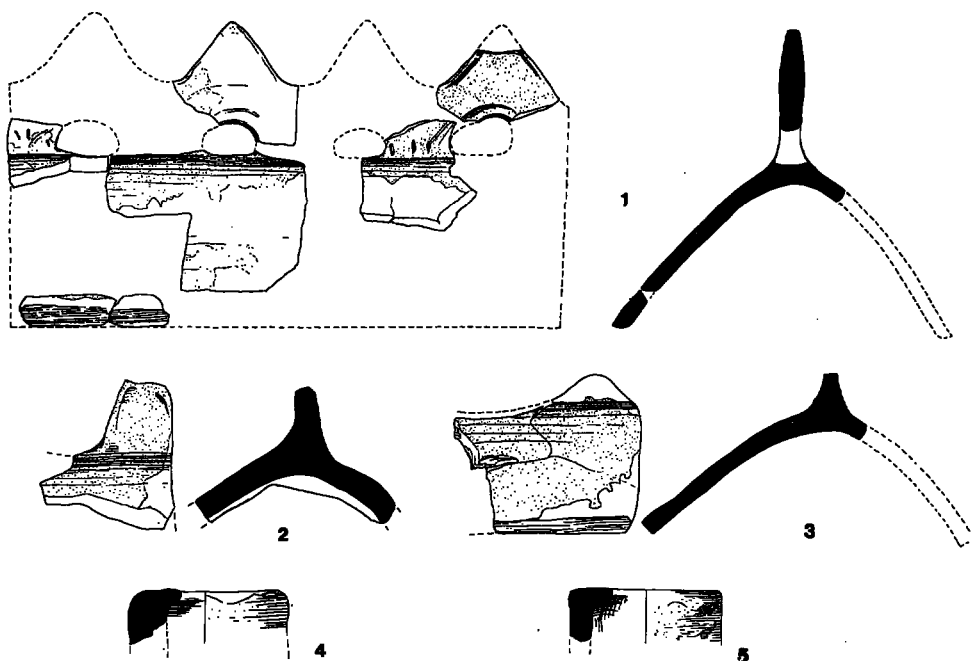


Fig 19. Bishops Waltham: roofing materials from site 5.

#### *Chimney Pots*

Fig. 19.4. Loose grey fabric, with flint inclusions. Surface blackened inside. Diameter 12.5cm.

Fig. 19.5. Chimney pot fragments, beam slot 3. Some flinty fabric, very friable, blackened on inside, red on outside. Diameter 12cm.

Examples of chimney pots are known locally from Wickham (Whinney forthcoming) of thirteenth-fourteenth century date, and Southampton (Platt and Coleman Smith 1975) of early thirteenth century date. The context of the Bishops Waltham examples places them in the eleventh-twelfth centuries – earlier than those listed by Dunning in 1961 – but others of this date are known from Winchester (Matthews pers com).

*Wall plaster.* A few small fragments of white wall plaster with an undecorated surface were found in pit 14 and so belong to the eleventh century, presumably the internal rendering of cob or wattle and daub walls.

*Roof tiles.* The roof of the Malt Barn was of clay peg tiles measuring 6in x 10in x  $\frac{1}{2}$ in. Post medieval.

#### OTHER SMALL FINDS FROM Site 5

Objects of iron, lead, bone and whetstones are listed in microfiche.

#### ANIMAL BONES FROM SITE 5

by Jennie Coy

A small quantity of animal bone was collected from the eleventh-twelfth century phases and from the late medieval phases of Site 5. Although the sample was small, it was hoped that the bones might give some socio-economic indications.

The fragments are distributed across periods and species as shown in Table 1. No attempt has been made to reconstruct specific ratios as the sample is small and some selection took place.

#### *Species Represented*

The equids represented in the thirteenth-fifteenth century layers are a large pony and a small animal which was probably a donkey rather than a small pony. It is not possible to give a sure, specific identification on this single fragment (a piece of humerus shaft) but, anatomically, it resembles donkey. The earlier horse fragments are not measurable.

Although many of the eleventh-twelfth century fragments are definitely from cattle, an equal number were classed as 'cattle-sized', a classification meaning they are probably from cattle, horse or red deer. Red deer, *Cervus elaphus* L, was certainly present, as indicated by a well-preserved and distinctive proximal radius fragment and a mandible with the last molar in a state of wear representing an animal of about 6 or 7 years according to the data of Habermehl (1961, 159). An estimation of the size of the domestic cattle from the whole radius (Matolsci 1970) gives a withers height of 102cm, whereas an estimation from an almost entire metacarpus (using the values for cow of Fock 1966) gives a height of 108cm. These are small compared with Saxon cattle ranges in Wessex (eg Bourdillon and Coy 1980) which gave withers heights ranging from 105–137cm. Post Saxon cattle from Wessex are, however, often somewhat smaller (Bourdillon 1979).

The thirteenth-fifteenth century levels produced no diagnostic bones of cattle or red deer but there was a radius of roe deer, *Capreolus capreolus* (L). 'Sheep-sized' fragments in all layers are small undiagnostic fragments and could have come from roe deer as well as from sheep, goat or pig.

The eleventh-twelfth century levels produced a few measurable bones of pig but no cranial bones or teeth, so that it is not possible to say for certain whether these were domestic pig or the wild pig, *Sus scrofa* L. One can, therefore, only judge them on the nature of the bones and their measurements. On measurements, they fit well within the ranges for

the Saxon Southampton pigs, which we can judge as domestic from their tooth measurements. The bone nature and sculpturing is remarkably similar to that of wild pigs but this may be true of much medieval material. The humerus here is smaller than one found in a thirteenth century pit in Romsey and thought to be of wild pig (Coy and Winder 1975). The Romsey bone has a distal width of 46mm compared with 38.3mm here. The later levels yielded negligible pig evidence.

There are diagnostic bones of sheep in both early periods and no goat bones were found. All sheep/goat fragments are probably sheep. The sheep measurements also fit within the wide Saxon range for Wessex which give withers height estimates of 50–70cm.

The fowl bones are from a minimum of two immature birds and do not bear the distinctive anatomical features which distinguish domestic fowl from related birds, but the balance of probability is that they were from young domestic fowl.

#### Utilisation

A number of bones in both the early periods were chopped or cut for butchery, one or two show chewing or burning. Both immature and mature cattle, sheep and pig are represented.

#### Conclusions

The small collection of eleventh-twelfth century bones is of great interest as it provides a few measurements and well preserved fragments of the cattle, sheep and pigs of the time

Table 1. Distribution of animal bone fragments from site 5.

| Period AD | Horse | Cattle | Sheep | Sheep/Goat | Pig | Deer  | Fowl | 'Cattle-Sized' | 'Sheep-Sized' | Totals |
|-----------|-------|--------|-------|------------|-----|-------|------|----------------|---------------|--------|
| 18–19C    |       | 1      | 7     | 2          |     |       |      | 2              | 3             | 15     |
| 16–17C    |       | 2      |       | 1          |     |       |      |                | 2             | 5      |
| 13–15C    | 3*    |        | 5     | 6          | 5   | 1 roe |      | 14             | 6             | 40     |
| 11–12C    | 2     | 34     | 4     | 13         | 9   | 2 red | 5    | 33             | 33            | 135    |
| Totals    | 5     | 37     | 16    | 22         | 14  | 3     | 5    | 49             | 44            | 195    |

\*One bone may be of donkey

and suggests that venison and domestic fowl were eaten here. The other samples are too small to tell us much but the thirteenth-fifteenth century one does provide evidence of roe deer and of equids.

A table (Table 2) providing animal bone measurements is included in microfiche.

## SEEDS AND STONES FROM SITE 5

### PIT 13 by J R B Arthur

A sample from pit 13 of approximately 1kg was examined. It contained various 'stones' of the *Prunus* species, the Cherry and the Plum family, also numerous drupes of *Rubus* species from the same family.

The following plants were identified.

Two well preserved whole stones of *Prunus domestica* L – Wild Plum.

Approximately one third of the quantity examined was found to be *Prunus domestica* L spp insititia (L) C K Schneid (sym P insititia L) – Bullace. This small shrub is commonly found in our hedgerows and scrubland. The plant produces a rather small 'stone' but has certain characteristics which make it quite easily identifiable.

Also well represented were 'stones' of the shrub *Prunus spinosa* L – the Blackthorn or Sloe. This shrub produces a 'stone' a little smaller, although it is very irregular in size and shape.

Seeds of the *Rubens* spp were very much in evidence and, strangely enough, kept their natural colouration to a marked degree. Many can be attributed to *Rubens idaeus* L – Wild Raspberry; with a smaller number of seeds of *Rubens ulmifolius* Schott – Common Blackberry – and the occasional seed of other *Rubens* spp. These plants are very polymorphic.

The sheer quantity of stones in the sample indicates that this did not represent normal consumption over a few weeks, but some kind of bulk processing which required the extraction of even the smallest seeds. The preparation of a syrup or liquor from these fruits is therefore indicated. It is unlikely that the fruits were utilised together. There is a strong possibility that the seeds are the extraneous matter from syrups and other herbal preparations made separately, but at the same time, from these fruits.

I am indebted to Miss P J Paradine for confirming the identification of these plants.

## SITE 3 THE PALACE DITCH

### Introduction

The Bishop's Palace is separated from the town by a long wall of brick, built c 1490 by Bishop Langton, which enclosed a large area of pasturage, originally orchards and gardens adjoining the Palace (Fig 1). On the west side the Hamble was dammed to form an upper and lower pond 'which is said' says Grose (1728) 'to have been formerly half a mile long and a furlong broad'. A stream, rising from the upper pond, encircles the Palace to the north, sinks beneath the town and emerges again from under the brick wall into the Palace meadows whence it returns to the Hamble via a deep cutting by Palace House. Leland (1535) mentions it in his Itinerary: 'Here the Bissshop of Winchester hath a right ample and goodly maner place, motid aboute and with praty brooke renning hard by it.' It has long been known as the 'River of the Lord' in the town.

The relationship and function of these features were examined during the excavations of 1967–8.

### Excavation

The Winchester-Portsmouth Road (A333) turned at a sharp angle through the town, preserving the medieval street plan but presenting an awkward route to traffic. Hampshire County Council planned to reroute the road obliquely across the town, and over the pond, involving in its course the demolition of buildings on the south side of the town (Barton 1969). These included the offices of Burley and Geach, and the Penny Farthing Cafe. Between these two properties the Palace wall could still be seen, forming an outer wall to the cafe and looking on to the back garden of the offices (Fig 20). Here an excavation was made 16m long by 2m wide and at a distance of 4.9m to the west of the wall the edge of a broad ditch was located which was then sectioned. Down the middle of the ditch ran a

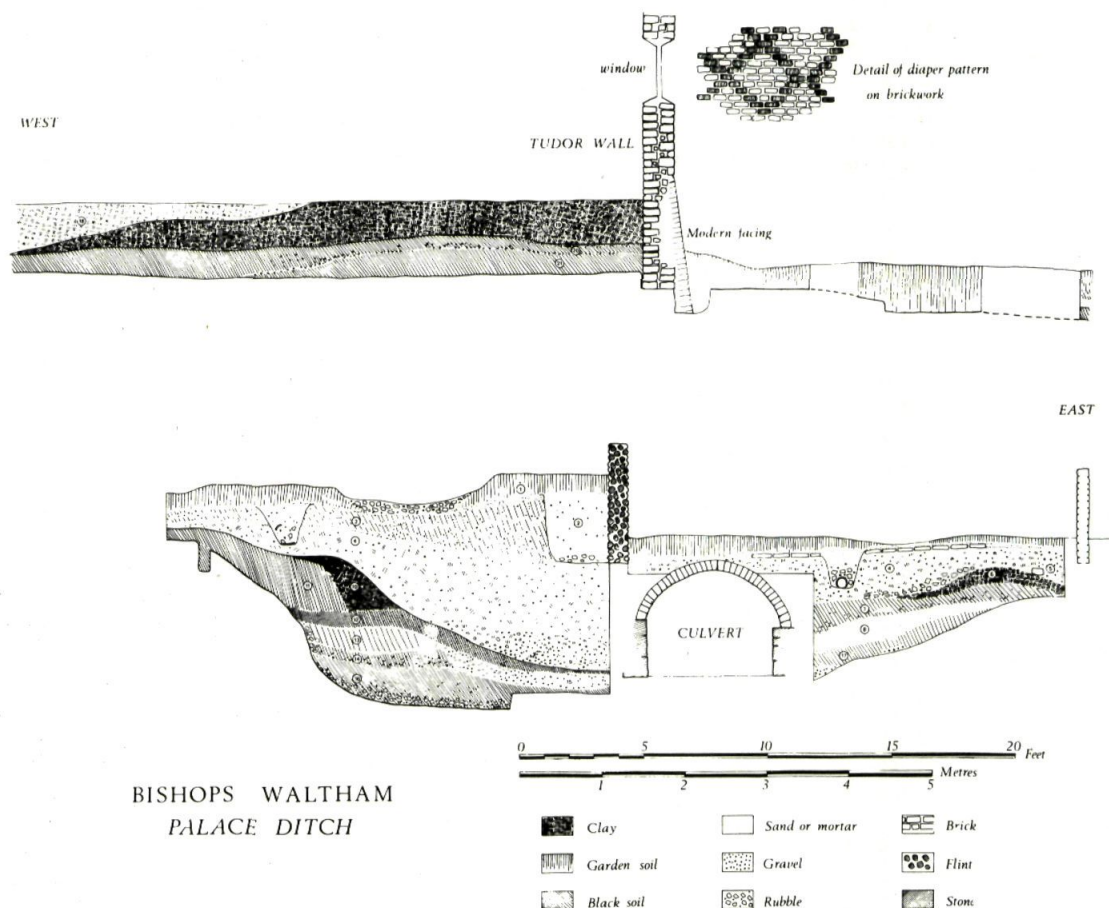


Fig 20. Bishops Waltham: the Palace Ditch (site 3/4); section across the ditch and bank.

brick culvert which carried the stream beneath the town and this was explored along the inside, to where it emerges beneath the Palace wall into the meadows. It was not until 1970 that the buildings were demolished and road work started immediately. The difference in the ground level on each side of the Palace wall was then explained when bulldozing cut a clear section across the bank beneath the cafe. This could be correlated to the work of 1967, and the section (Fig 20) shows the result of both investigations.

#### *Sequence*

A full description of the layers shown on Fig 20 will be found in microfiche.

Underneath the bank there was a thick deposit of dark soil (layer 21) with fragments of twelfth century pottery comparable to that on the Stables site. A grey sandy layer (20), perhaps of thirteenth century date, lay above, and sealing this was the clay bank, made up of spoil from the ditch, red clay with flints and gravel. Unfortunately no dating evidence could be obtained from it. The surface of the bank was truncated by subsequent building and the construction of the Tudor wall which curtailed its facing and berm. But the width of the remaining bank – 7.3m, of which 3m may be the product of erosion – suggests that it was quite substantial. The ditch seems to have been about 8.5m wide, but there was disturbance on the east bank in the eighteenth and nineteenth centuries which obscured its original size. It was cut into the

natural red gravel and clay, and the spoil was thrown up onto the bank. A single post-hole on the edge may indicate a type of timber revetment to the bank. Waterlogging at the lowest levels of the ditch (layers 14–16) had preserved the soles of leather shoes which could be dated to the fifteenth century, but this is the earliest evidence that could be obtained, as pottery was lacking from these layers. The ditch started to accumulate rubbish from the end of the fifteenth century and particularly in the sixteenth century, to which layers 12–16 can be dated. The building of the wall may account for layers 10 and 11, which seem to represent deliberate tipping to fill up the east edge. The building of the wall over the stream further south, in order to include the stream in the environs of the Palace, indicates that it was still flowing and was fairly pure. At this point, however, it was used to emphasise the division between town and palace.

The later history of the ditch is obscured by the disturbances of the eighteenth century, when the stream was channelled through a well-made brick culvert with sides of stone blocks. The brick vault was perhaps a later addition to cover the open, stone drain. Most of the town drains can be seen flowing into it on the inside so that, in effect, its function was that of a storm water sewer. A uniform brown loam and gravel layer (4) filled up the cavity made for the construction of the culvert, during which some of the bottom layers were thrown up on each side. The eastern side, nearest the road, was filled by tipping layers of gravel and debris (layers 5, 6, 7 and 8) and some stone blocks, including an eighteenth century boundary stone, indicate the road was then rather wider. All traces were soon concealed by the building of the houses overlooking the A333, with their garden walls, paths and flower beds (layer 1), while a semi-circular clay foundation (not visible in section) appears to be of nineteenth century date. The brick wall was altered by windows and a new brick facing, but enough remained to identify the diaper patterns of glazed bricks between the windows.

### Discussion

Although it has not been possible to arrive at a definite date for the construction of the ditch and bank, there are several clues. Excavation proved that the stream bed is not a natural feature, but was a deliberately-cut channel with a substantial bank creating, in effect, an island on which the Palace stands. In the Palace meadows it takes its course along a

hollow, but there is a marked mound still visible where the east bank continues into the meadows, and the channel in the meadows appears to have been emphasised and cleared. A channel originally carried its flow beneath Palace House, which may have housed a mill. The northern part of the stream also appears to have been artificially cut, as shown by the section of the bank at *Site 2*, where it was 6.1m wide and 2.3m deep. Here the same sequence was apparent, with a clay bank overlaying the twelfth century occupation layer – but the stream, though narrow, is still open here and has been cleared regularly.

Grose's indication of the original size of the pond and evidence from *Site 5* (see below) suggests that the stream could have been constructed at the same time as the dams since, whereas now the ponds have shrunk considerably and the stream appears as a minor by-pass of the Hamble, in medieval times it may have served as an overflow channel to the ponds, and the higher water level would have assured its depth and free flow. However, the building of the stews has been attributed to Henry de Blois (Beresford 1965), at a date much earlier than the ceramic evidence from *Site 3*.

As to its function, we do have positive evidence that the stream delineated Palace property, since on the 1785 map (Fig 21) the northern half is shown as the boundary to the Palace, enclosing the stables (or Malt House as it was then) as part of the Palace complex. It seems likely therefore that the bank and stream served as a boundary (more token than defensive) to the Palace property from at least the fourteenth and fifteenth centuries.

Bishop Langton, in the last years of the fifteenth century, built a handsome brick wall to include more land to the southeast, which necessitated inclusion of the stream, but properties in the town were respected by the angular northeast corner which turns to avoid them.

### THE POTTERY FROM SITE 3

The more important vessels are described in microfiche and illustrated in Fig 22.

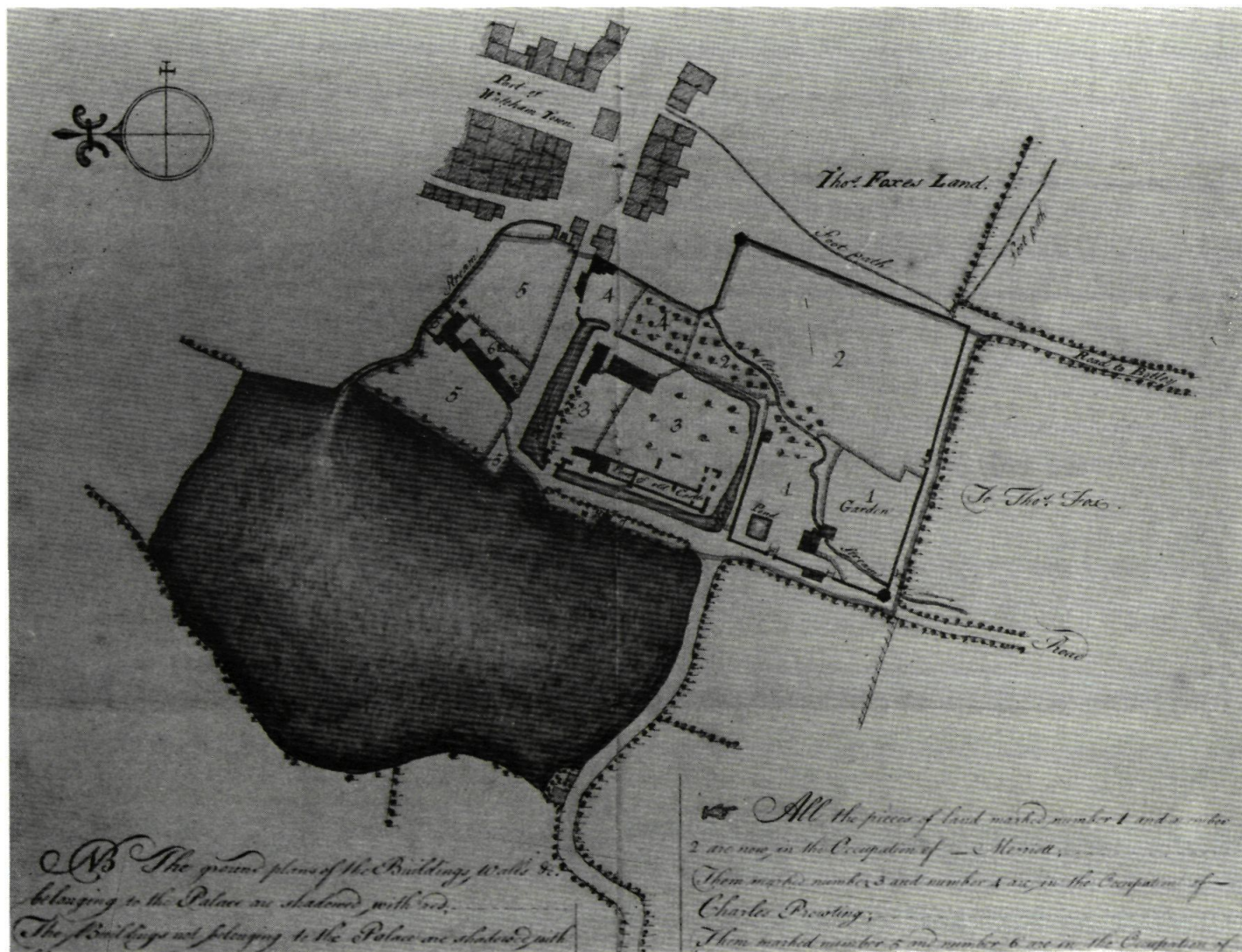


Fig 21. Bishops Waltham: detail of George Cobbett's plan of Bishop Walthams Palace in 1785 (H R O).

### Discussion

The dating of pottery from layer 12 (the largest group from *Site 3*) depends on the one hand upon the 'Tudor green' (vessels 7, 8 and 9) and on the other upon the jug (2), which is of the same type as the jugs found at a well at Tarring, Sussex (Barton 1963). In the Tarring context a date between 1490 and 1510 was proposed for the jugs, whereas it is thought that 'Tudor green' was not produced until the beginning of the sixteenth century (Cunliffe 1964). The Tudor green cup base (9) has close similarities with the earliest material excavated at the Farnborough kilns, and therefore could well be an English rather than a French product. The presence of the Merida ware vessel (17) is of interest, as these are usually found in sixteenth-seventeenth century contexts (Hurst 1969-70), but some are known from the fourteenth century (Hurst 1977), some locally from Southampton (Platt and Coleman Smith 1975). The bulk of the material is therefore datable to the late fifteenth and early sixteenth century. Spigot jugs, bowls, dishes, 'Tudor green' wares and Spanish pottery show a thriving ceramic trade possibly from the Chichester area but with imports through Southampton. This collection fits very well with that known from Portsmouth and Southampton.

### LEATHER OBJECTS FROM SITE 3 (Fig 23)

- 1-5. Complete soles of shoes with rounded toes, the sides stitched through the thickness of the leather to join with the uppers.
6. Half sole with pointed toe, probably a repair.
7. Part of shoe with pointed sole.
8. Base of leather bag or purse (not illustrated).

These came, with other small scraps of leather, from the waterlogged, gravelly deposits on the bed of the stream, layer 16. Altogether the remains of ten shoes were recovered. Since the field evidence suggests that they must represent chance losses rather than a single group,

there is no reason for them to be contemporary. However this could be the case. At the Lich Street site in Worcester (Thornton 1968) and at Oxford (Hassall 1972) both pointed and round-toed shoes were found in association. As Miss June Swann (pers com) points out, the pointed-toe style, in general fashion during 1450-60, declined after the introduction of the Sumptuary Law of 1463-64, although it still appeared in illustrations into the early 1470s. Therefore, a date in the last quarter of the fifteenth century would embrace both shoe types.

### IRON FROM SITE 3 (Fig 23)

9. Fragments of an iron-tipped spade from layer 12. The blade is rounded, with a cavity to receive the wooden part, and iron strips (of which only one survives) to protect the sides. The type is common throughout the Middle Ages.

### SITE 6 CROSS STREET

Much of the centre of Bishops Waltham was cleared for car parking space between 1969 and 1971. No thorough investigation was made at this time but such examinations that could be made produced no ceramic evidence for any date earlier than the seventeenth century.

In July 1971 footings were excavated for a new shop on the corner of Cross Street and Bank Street (Site 6). The owner, Mr Eric Symes, collected pottery sherds and gave consent for further investigation to take place. Most of the pottery came from one area of the footings. Excavation showed that the corner of a pit had been disturbed. Most of the pit was beneath the pavement and could not be examined, but a corner of it was sectioned, and excavated to a depth of 1.8m. Probing suggested it was in fact over 2m in depth. The corner excavated was at a right angle and the sides of the pit were nearly vertical and could be traced for 1m suggesting that this was a rectangular pit with sides probably at least 2m in length. Its function was presumably a cesspit, which had started to accumulate rubbish from the late fifteenth century.

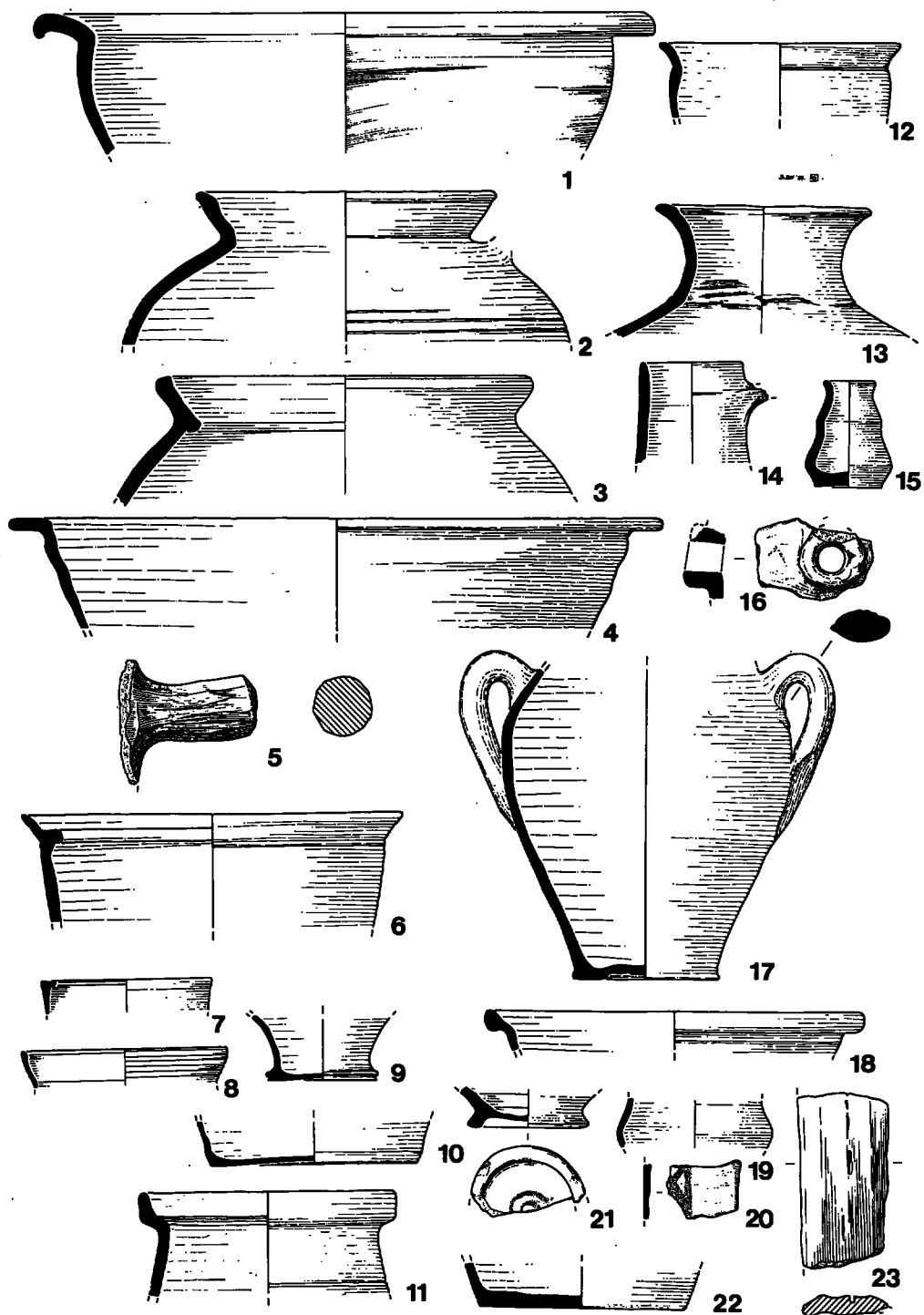


Fig 22. Bishops Waltham: pottery from site 3/4.

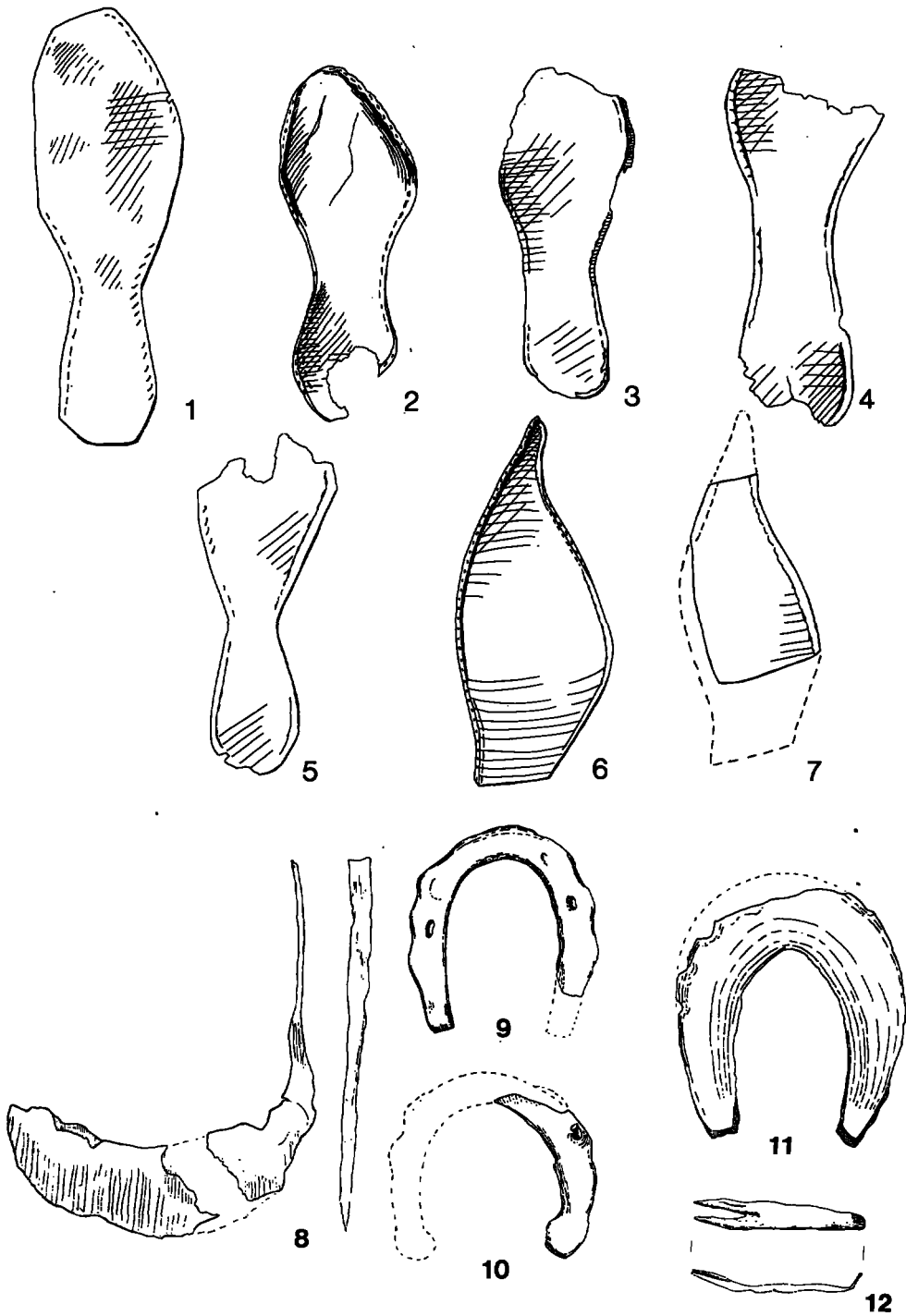


Fig 23. Bishops Waltham: objects of leather and of iron from sites 3/4 and 5.

Repeated slumping had rendered it quite visible even in the nineteenth century, when debris from a brick forge constructed nearby had been thrown into it.

Detailed descriptions of the recorded fill layers are presented in microfiche, with a summary of the pottery they contained. The pit provides a stratified sequence for pottery used in Bishops Waltham since the fifteenth century and complements the group from the ditch (*Site 3*) and pre-dates the well group (*Site 1*, Barton 1969).

A photograph survives showing the house that stood on the site until 1930. The site of the pit was outside an added lean-to, one wall of which had been built over it, which served for many years as the forge of Mr Ethridge. Stylistically the house, with its jettied facade, later bricked in, and the roof with curved queen struts and side purlins, may be dated to the late fifteenth or early sixteenth century. As has been shown, the pit was in use at that period, though it may have been built for an earlier house on the same site, no trace of which remains. The other point to be noted is the complete absence of any earlier (pre-fourteenth century) pottery, which is elsewhere in evidence within the Palace boundaries in the thick black layer appearing on *Sites 5, 3* and *2*. At Cross Street the house was built directly onto the red gravel/clay subsoil and there was no sign of earlier occupation.

#### Discussion *by* K J Barton

Layers 6–10, at the bottom of the pit, contained wares characteristic of the mid- to late-fifteenth century.

This pit is also of interest as it contains a group of material that shows the products of two industries, from Surrey and possibly Fareham, in the late seventeenth century. The dating is provided by the blue banded grey ware from Westerwald which always occurs at the very end of the seventeenth century and into the eighteenth century up to about 1730. Missing from this group are the southeast Dorset wares (also known as Verwood wares)

so commonplace in Portsmouth at this period. The redwares with a brown glaze are called Fareham wares, an assumed source because of the uncertain history of ceramics production there. That pottery continued to be made in 'Crockerton' north of Fareham after the Middle Ages may be the case, but so far this has not been demonstrated by the discovery of kilns. It is worth noting however that the 'Fareham' type of pottery is not an original form but remains tightly related to the wares produced in Graffham, north of Chichester, another red earthenware with brown glaze. It is entirely different in character from southeast Dorset wares and therefore easily recognisable.

#### SITE 7 BROOK STREET *by* R Whinney

In February 1978 the redevelopment of one of the last open areas in the medieval town of Bishops Waltham became imminent. The site was in Brook Street (SU55351748), on the west side of the town, between the original medieval core, and the fishpond of the Bishop's Palace. It was traversed by the medieval stream known as the 'River of the Lord'. Brook Street itself may have originated as a 'back lane' (Hughes 1976, 46–52). Because of this position, and the close proximity of known late Saxon remains, the opportunity for archaeological investigation was taken, in the hope that further information relating to both the Saxon and medieval periods could be recovered. With the kind co-operation of the developers, A G Lansley (Southampton) Ltd, and with financial aid from Hampshire Archaeological Committee, a small-scale excavation over a period of four weeks was carried out by the City of Winchester District Archaeologist.

Because of the limited time and financial support available, small-scale exploration was undertaken with a view to merely sampling the archaeological remains. Three small areas were excavated. Area I, 9.25 x 5.5m, was positioned on the street frontage. Area II, 6.0m x 4.0m, was in the back gardens. Area III, a long narrow trench, was positioned to locate

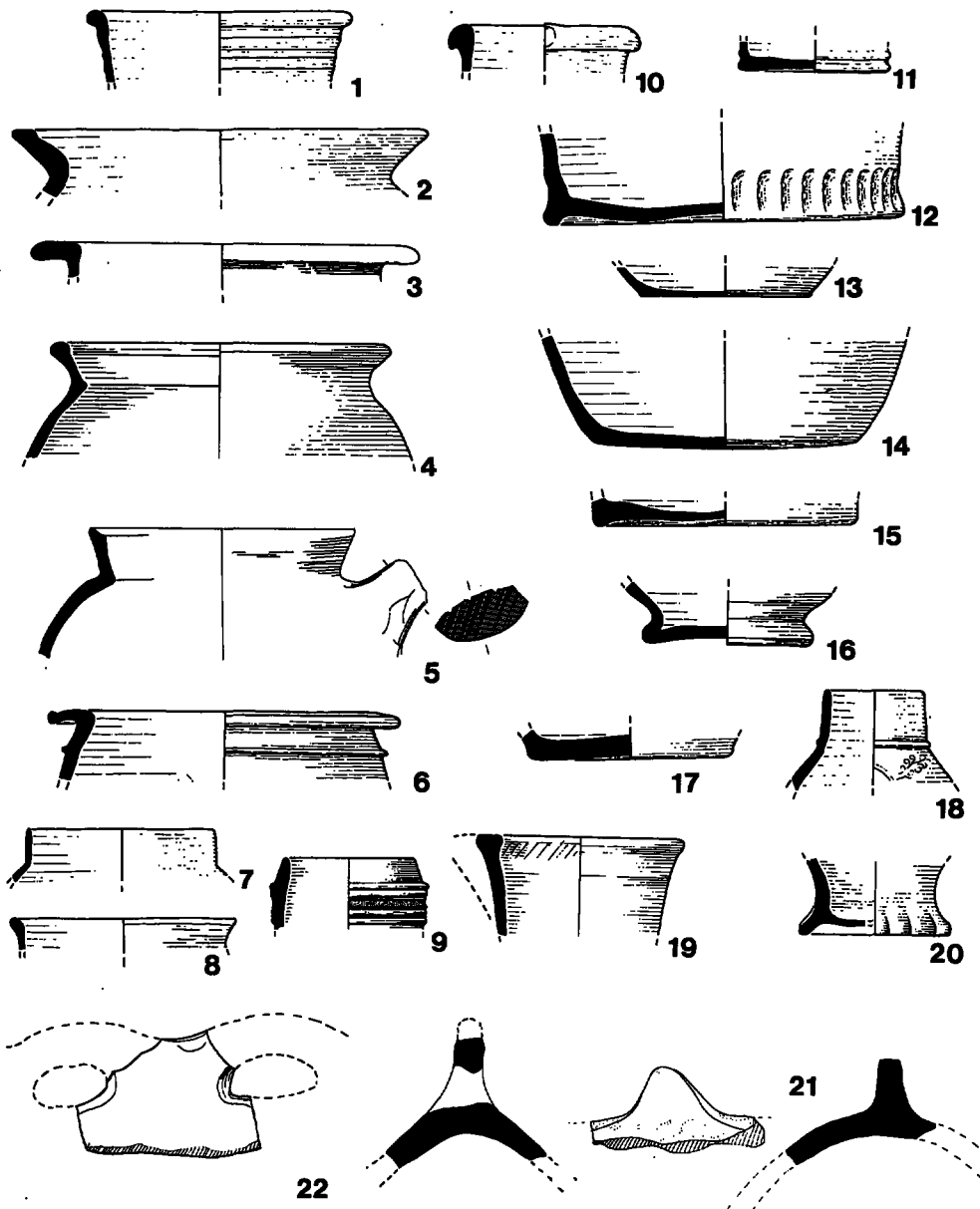


Fig 24. Bishops Waltham: pottery from site 6.

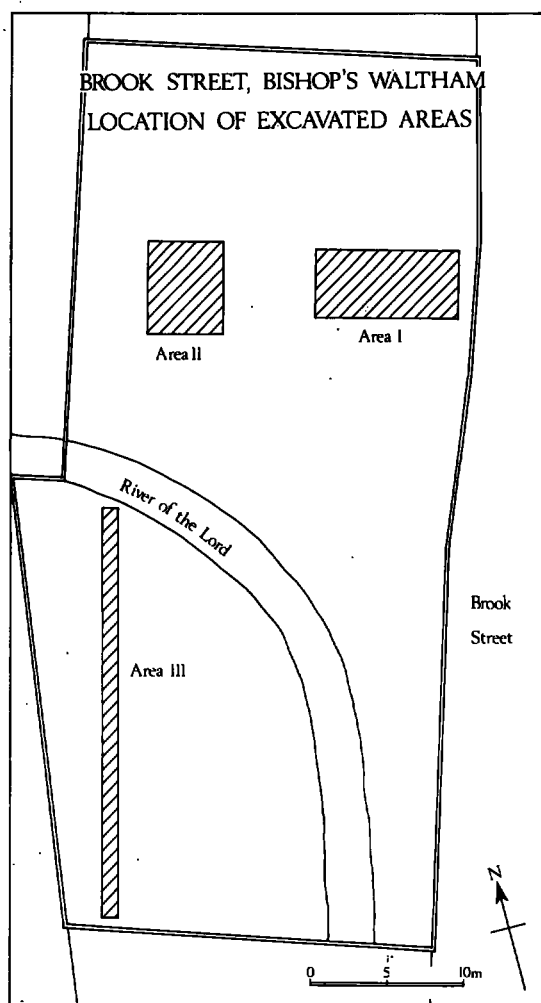


Fig 25. Bishops Waltham: plan of site 7.

any features or remains on the higher south-west corner of the site (Fig 25).

Area I, on the Brook Street frontage, revealed substantial remains of the last occupation of the site, a row of late eighteenth century cottages and stores, which were demolished in 1974. Remnants of brick walls (F1, 2, 5, 6), brick and tile floors (F4, 7, 8), and of a brick-lined well (F3) were found. These walls and floors had been laid directly onto a carefully prepared surface of natural clay,

which itself had been cut down to a depth of 0.5m below the present ground surface. Unfortunately, these eighteenth century construction techniques totally destroyed any remains of earlier features or structures; the surmised medieval deposits did not survive.

Area II was located in the back gardens of the eighteenth century buildings. Here the archaeological deposits were better preserved, and the sequence recovered was more complex than in Area I, covering a wider period of time. The earliest features were two fifteenth century rubbish pits (F12, 21), which survived to a depth of 0.35m. They were probably connected with the lost occupation on the frontage.

The pits were succeeded in the late sixteenth or early seventeenth century by a timber-framed structure, aligned roughly east-west. Only a small portion of it could be excavated. Beam-slots (F10, 22) and numerous post-holes (F10, 13, 15-18, 23-25) appeared to form part of an entrance or doorway complex. The building had a beaten chalk floor, and the entrance itself (F9) showed signs of repair and consolidation, because of damage and wear caused by regular use. Dating evidence was minimal, but the small quantity of pottery indicated use during the seventeenth and eighteenth centuries. When the cottages were constructed on the site at the very end of the eighteenth-century, the timber-framed building was dismantled. The area was then used for gardens, and a few post-holes relating to such use were located (F14, 19, 20).

Area III, a long narrow trench positioned on the higher south-west corner of the site, failed to reveal any archaeological remains, and the only information forthcoming related to the use of the land as a garden and orchard.

## CONCLUSIONS

The main phases of occupation of *Site 5* are clearly distinguished in the archaeological context and the ceramic record, although the finer phasing of the early medieval material, on ceramic evidence alone, has proved elusive. If we accept Dr Dunning's reference to the



Fig 26. Bishops Waltham from the air before the diversion of the A333, view northeast (J K St Joseph).

Winchester parallels in his dating for the glazed costrel, the earliest phase of the timber buildings would be of the tenth century, that is, before the Danes burnt down the 'residence' in 1001, as recorded in the Anglo Saxon Chronicle (Whitelock 1968). If this settlement represents the 'residence', there is remarkably little evidence of burning, unless it was restricted to firing the thatch, leaving no traces at floor level. But this might have been sufficient reason for rebuilding the hall and extending it, as the archaeological evidence indicates. It is, on the whole, more satisfactory to accept, as Ken Barton does, the Portchester parallels for the wares at Bishops Waltham, which puts the earliest phase after the Danish raid, and its full development in the middle of the eleventh century.

The economic basis of the community at this time certainly seems to have been comfortable; the organic remains indicate a diet of beef, venison and chicken, while the presence of seeds and pips suggest the production of home preserves or liquors. There are no finds to indicate weaving or other home industries, and there is a complete lack of money, and few personal ornaments beyond useful whetstones. This is perhaps not surprising on a rural site, but the discarded rubbish of the settlement includes, amongst its kitchen ware, the unusual and probably imported glazed costrel, surely a luxury personal possession.

From this evidence, and from the parallels to the timber buildings, it is possible to argue for an establishment of higher than average status, probably part of the episcopal



Fig 2. Bishops Waltham from the air, view east (J K St Joseph).

residence rather than a village building.

In complete contrast, the later medieval period exhibits no signs at all of domestic occupation, and there is almost no discarded pottery except some fragments of glass and 'Tudor green'. The structure of the standing building, the equid bones from archaeological deposits associated with it, and the entries in the Pipe Rolls, all point to the use of the site exclusively for farm buildings from the thirteenth to the sixteenth century.

The complexity and shifting nature of boundaries on a rural site in the Middle Ages is well illustrated though by no means explained, by the evidence of *Sites 2, 3/4 and 5* at Bishops Waltham. The high flint wall skirting the pond at *Site 5* seems to be of almost military pretension, soon to be abandoned and presumably replaced by the outer moat system round the Palace itself. *Site 3/4* shows two chronologically-close phases in boundary construction, a deep ditch and internal bank being augmented by Bishop Langton's brick wall. Far from being a static entity, the immediate Palace environs have shrunk or mushroomed from century to century in response perhaps to the developing town on one side and the bishops' personal or estate requirements on the other. As sole landowner in a rural setting this would clearly be easier to achieve than in the confines of a city with other landowners as neighbours. The complexities and chronology of the relationship of moats and pond deserve further study, following the work of Hewlet and Hassall (1973) on the park.

Archaeological evidence for the date of the planned layout of the town, suggested by Beresford on the parallel with Overton as thirteenth century (1959), is disappointingly meagre. It is confined at present to a few observations made during building works, and the earliest ceramic evidence (and this is very scant) is of the fourteenth century. It may be that any existing stratigraphy has been constantly eroded by new house building: so far no buildings earlier than the early fifteenth century have been noted, yet in the later medieval period, there is a wealth of detailed documentary evidence, not only in the

building accounts of the bishops (1208-1454), but in the customal of Waltham of 1260 and two rentals, one of 1464 and one of 1550-2. The customal lists 144 land holdings of all sizes in the town of Bishops Waltham indicating a well-established, if not (as suggested by May 1970) a thriving, community.

#### ACKNOWLEDGEMENTS

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The Ordnance Survey map in Fig 1 is reproduced by permission of the Director General of the Ordnance Survey. The 1870 map in Fig 10 and the 1785 map in Fig 21 are reproduced by permission of the Hampshire Record Office. The aerial photographs Figs 26, 27 are published by permission of Dr J K St Joseph, Department of Aerial Photography, Cambridge University.

The photographs Fig 7, 12 are published by permission of the National Monuments for England.

The photographs Figs 9, 13 are by John Bosworth, that in Fig 5 by A J Howarth. Nick Griffiths and Paul Jones drew the pottery for publication.

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