

ODIHAM CASTLE, HAMPSHIRE: EXCAVATIONS 1981–85

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ABSTRACT

King John's Castle at Odiham was built between 1207 and 1214 as a royal retreat, a stronghold against the rebellious English barons and possibly in response to the fear of French attacks. John was at Odiham on numerous occasions (at least once a year!) and rode out from there to place his seal on the Magna Carta in June 1215. Today, only the ruined donjon and damaged earthworks remain as visible testament to this turbulent period in English history.

In response to proposed conservation work at the castle Hampshire County Council Museums Service carried out excavations over five consecutive seasons from 1981 to 1985. They produced important evidence that added significantly to the previously accepted order of events and topography of the site. In particular it was found that a number of features predated the octagonal donjon, calling into question the sequence of construction. The work also confirmed a major change in the function of the castle in the later fourteenth century.

This report brings together the structural and finds evidence to present a narrative from the turn of the thirteenth to the fifteenth century. It also attempts to place the site in a landscape context to try to understand the factors responsible for its location and the meanings that they held for residents and visitors alike during the High Middle Ages.

INTRODUCTION

The nationally important site of Odiham Castle covers an area of approximately eight hectares (20 acres) and survives as a large octagonal donjon, two main platforms or wards and a series of moated enclosures. The monument is

in the guardianship of English Heritage (SAM 55) and although the majority of the site is on private land, Hampshire County Council purchased the inner ward and donjon in 1977. In the late eighteenth century the creation of the Basingstoke Canal damaged the southwest corner of the outer enclosure. Paradoxically, it was the restoration of this waterway that raised concerns for the wellbeing of the site, prompting a programme of archaeological investigation. This commenced in 1981, under the then Director of the County Museums Service, Kenneth Barton, and was focussed principally on the donjon and outer moat. The results of the work were significant enough to justify a further four seasons of investigations directed by Ken Barton, assisted by David Allen, which concentrated on an area to the west of the donjon.

Geography and topography

Odiham Castle is located roughly halfway between the important medieval centres of Windsor and Winchester (SU 7255 5187) with the old road from Winchester to Staines passing about 800m to the east. The castle is situated in a bend of the River Whitewater (Fig. 1) and is surrounded by woodland, fields and pasture. The location is at 76m OD and the ground rises gradually towards the southeast with the town of Odiham at 1.5km distant, while North Warnborough is just 0.5km to the east. The Whitewater rises from a spring at Bidden, 4km to the southwest, and flows northwards past the Castle to eventually join the River Blackwater near Eversleigh. The loop made by the Whitewater provides a natural defence, which is

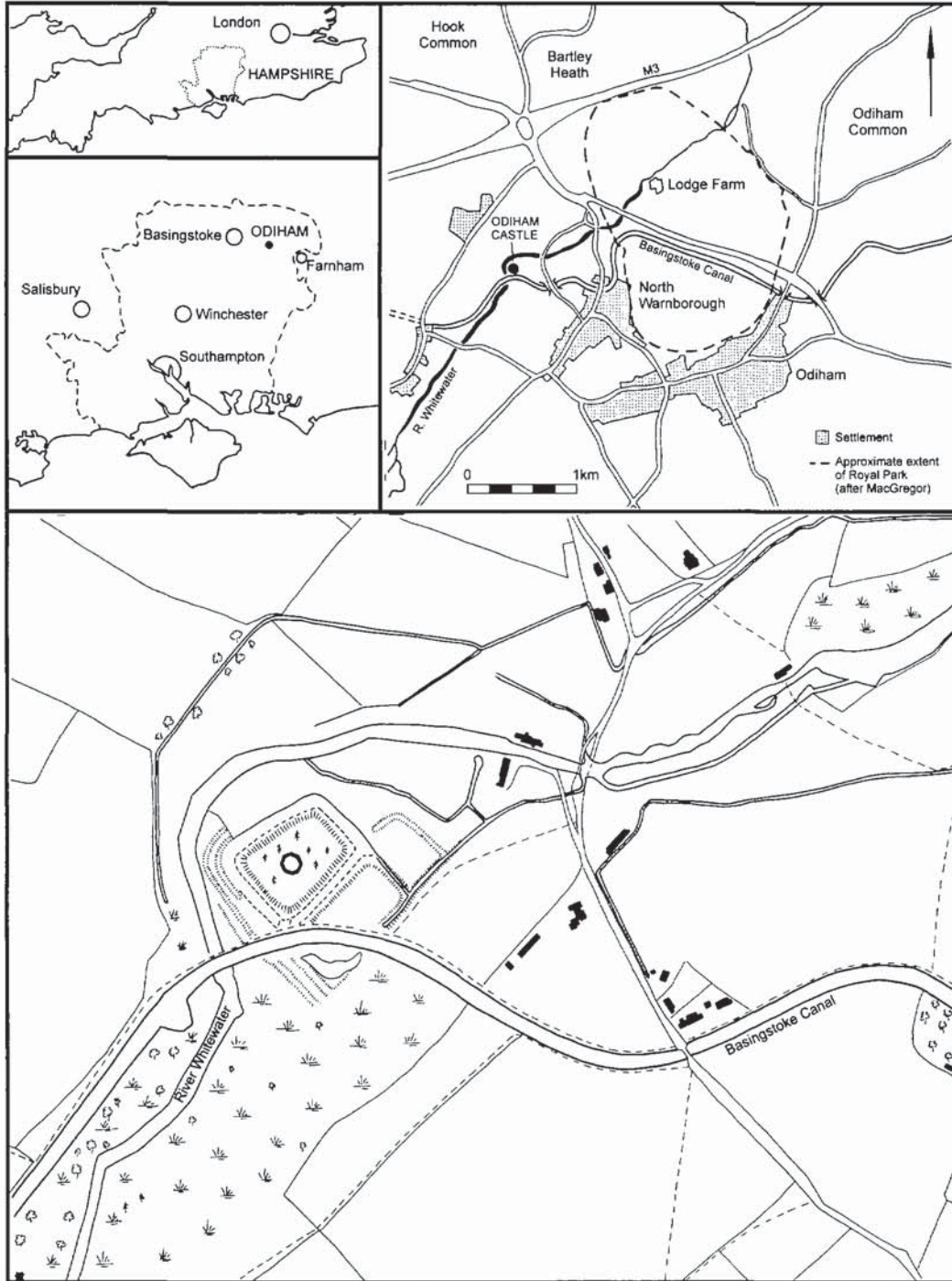


Fig. 1 Location of Odiham Castle in relation to the River Whitewater, the village of North Warnborough, the royal park, and Odiham town

further enhanced by an area of marshy ground surrounding the castle to the west and south. The castle had been isolated in a low-lying and watery landscape. The underlying geology is the Tertiary gravel flood plain of the river, the castle banks and structures being built directly onto this.

Odiham in prehistoric and early historic times

The landscape around Odiham has produced a wide range of archaeological evidence demonstrating the attractiveness and suitability of the location for settlement through the ages. This evidence serves as a useful backdrop, helping to explain the importance of the area by the medieval period. The following brief review is collated from the HCC Historic Environment Record and Museum Service collections (accession numbers in brackets).

The earliest evidence can be dated to the Palaeolithic and Mesolithic periods. North east of the castle at Lodge Farm a remarkable mammoth tusk was recovered at a depth of 3m in 1973, while Mesolithic flint tools have been found about 2km to the south, especially at Ford Farm and Bidden Pond (WOC 4251 etc).

The Neolithic and Bronze Age are represented by flint finds (WOC 4251 etc) and pottery, including a beaker and two cremation urns (Willis 1953, 60) as well as metalwork including a piece of gold 'ring money' (A1991.20), a bronze socketed axe (A1981.109) and socketed spearheads from Scotland Farm (A1986.14) and the site of the castle itself (see below). More substantial evidence comes in the form of cropmarks, including a trapezoidal enclosure, located 0.5km south of Odiham on the crest of a northeast-facing slope. Limited excavation in advance of an oil-prospecting borehole showed that the enclosure and attendant fields were Late Bronze Age or Early Iron Age in date (Jenkins 1991, 15) and that a post-built round-house was probably contemporary.

Significant Middle Iron Age remains were examined by Dorothy Liddell at Choseley Farm in 1937 (Liddell 1931, Morris 1986) but the site is more noteworthy for its Romano-British evidence, comprising quarry pits, burials and

a wide range of finds, even though it appears to have been peripheral to the main focus of settlement. A group of Romano-British burials, again probably on the fringes of a settlement, was also a feature of the borehole site (Jenkins 1991, 10). The most substantial Roman evidence comes from Lodge Farm, 1 km east of the castle. Here a courtyard villa excavated by Dorothy Liddell (Morris 1986) produced a comprehensive array of material. Another villa is known 2 km to the south, near Hillside Farm. In contrast, the early medieval period is poorly represented by finds, but a gold and garnet pendant of seventh-century date was a chance discovery at Greywell (A1991.12).

The presence of a significant late Anglo-Saxon settlement at Odiham is evident from its appearance in the Domesday survey as the first entry for Hampshire, with the biggest population after Winchester, probably because it comprised the largest royal manor in the county (MacGregor 1983, 14-15). Domesday also records four churches, and it seems probable that these and their lands resulted from the fragmentation of a Minster Church. Although no Anglo-Saxon fabric has been identified in its structure, it is possible that the church of All Saints, which dates from the thirteenth century, occupies the site of the original Minster (Acres 2001, 9).

The origins of medieval Odiham may therefore go back to the mid-Saxon period, although at this early stage it appears to have been an elite settlement. Odiham would probably have had a market and such market places were often located adjacent to the church. Millard and Roberts (2005) point out, however, that the first documentary evidence for a market is not until 1345. They also confirm that it is far from clear whether the settlement ever was a town in the Middle Ages, despite King John granting the manor 'to the men of Odiham' in 1204.

The deer park at Odiham is earlier than the castle and may have focused on what is Lodge Farm today, where twelfth-century finds were made during the investigation of the Roman villa (Roberts 1995). In 1207 the land for the castle site was an area which had been rented



Fig. 2 The keep as it is now

by Robert the Parker, and Hugh the Parker is mentioned as early as 1130–31. The imposition of the deer park, and indeed any later modifications made because of the castle layout and lines of communication, presumably had a major influence on the settlement pattern and topography of the area. The Winchester to London route may have been diverted from its course and skirted around the southern boundary of the enclosed area (Acres 2001, 12). It was this section of road that subsequently became Odiham High Street and the focus for a new period of settlement, permitting controlled growth on either side of this thoroughfare. Evidence for this development can be seen in the street plan, the church of All Saints, and

several timber-framed buildings (Roberts 2003, 239–241).

The place-name 'Odiham'

The existence of several variations of the place-name Odiham has resulted in disagreement over the exact meaning and no conclusive answer can be given (MacGregor 1983, 13). The earliest recorded reference is in Domesday and the most common forms during the medieval period are 'Odyam' and 'Odiam', although in the Anglo-Saxon Chronicle (1116) it appears as 'Wudiham'. The latter may originate in 'wudigahamm' that is a wooded enclosure, Norman influence being responsible for the dropped

'W' (Ekwall 1960, 348). Coates (1989, 126) interprets '*ham*' as a habitative term because it was often applied to large, important, and diverse agricultural centres, analogous to the medieval manor, which would certainly apply to Odiham. On the other hand the first part of the name could be personal, originally starting with 'Od' or 'Had' (Grundy 1927, 170). In fact the personal name 'Hod' survives in Hoddington (Odingetone in Domesday) which did share a common boundary with Odiham and it may be that both Odiham and Hoddington derived from 'Hod' with Odiham losing its 'H' during the compilation of Domesday (MacGregor 1983, 13-14). If it did derive from the settlement of Hod, the name should have been either 'Hodsham' or 'Hodenham', the 'i' in Odiham therefore presenting an obstacle to this interpretation because it occurs in every form (Ibid., 14).

The history of the castle

Patricia MacGregor compiled a detailed historical study of Odiham Castle, later edited after her death by Barry Stapleton (MacGregor 1983). What follows is a brief summary from this source of the construction and maintenance of the fortifications and a consideration of the major political and military events influencing the form that the castle took at various periods. It is not intended to be a rigid framework against which the archaeology is to be interpreted, but is presented as a separate source which has its own strengths and weaknesses. As is often the case, the historical and archaeological evidence do not necessarily agree.

The castle was one of only four new fortifications that the Angevin monarchs built in England and King John may have identified Odiham as a suitable location on a visit in 1204 (MacGregor 1983, 20). The earliest documentary evidence is contained in Pipe Rolls and Close Rolls, which give details of expenditure and construction. Work began in 1207, and John selected a new site to the east of the royal deer park, taking 20 acres from Robert the Parker, on which to build. This would have provided him with the opportunity to rest and

hunt while travelling between Winchester and Windsor and one of the medieval chroniclers actually states that John had Odiham built 'pur lui deporter' – for his enjoyment (Ibid., 22). The fear of attack from his discontented barons and the threat of an invasion by the French may have underpinned John's decision to construct a moated castle (Ibid., 21). John's engineers chose, and also possibly modified, a bend in the River Whitewater, which offered a strong defensible location.

The construction phase took place between 1207 and 1214 and from details recorded in the Pipe Rolls it is estimated that a figure in excess of £1,000 was spent on the castle (Ibid., 27). This can be broken down somewhat. In 1207, digging of the great 'square moats' and building of the '*domus Regis*' or King's house, cost £39.0s.1d. In 1208, further work on the King's house and stocking of the completed moats with fish cost £274.7s.6d. The following year saw more work, requiring an expenditure of £386.10s.10d. For the next two years the records are grouped with those of Woodstock and other expenditure, but 1211 does contain an entry for work on the King's house, including the carting of stone, which amounted to £13.16s.6d. An estimated £300 may have been spent at Odiham during this period. A further £86.3s.11d. was spent between 1212 and 1214, including sums for work on the house, a bridge and stables (Ibid., 26).

Shortly after its completion the castle was placed under the wardenship of Engelard de Cicogné, but was soon to witness hostilities. The sealing of *Magna Carta* in June of 1215 had not resolved matters between John and his barons and the latter appealed to the French for assistance. The French Dauphin, Louis, responded by despatching 140 knights and 7,000 men in November. They were joined the following May by the Prince himself. After a number of successes in southern England, Louis arrived at Odiham in late June and a siege ensued involving the deployment of engines and missiles. This lasted for about two weeks before the garrison surrendered on 9th July, having agreed terms. When no more than 13 men marched out the French, according to the medieval chronicler Matthew

Paris, 'were filled with astonishment and admiration for the castle's defenders' (Ibid., 41). It is clear that the castle presented a formidable obstacle at this time.

In October 1216 King John died and was succeeded by his eldest son Henry. Aged only nine, he had William Marshall, Earl of Pembroke, as regent. By the close of 1217 'the Marshall' had effectively reunited the country. Repairs were necessary at Odiham Castle, presumably as a result of the attack of 1216. In 1225, amongst other activities, lead was purchased from St. Giles' Fair, Winchester, to replace the roof of the tower. In the following year Henry issued instructions for the tower palisade and chimney to be mended and in 1227 the houses in the castle required attention (Ibid., 48). This is important because 1225 is the first time that a tower or *turre* is actually mentioned in official documents, albeit in reference to repairs. Another period of restoration took place in 1234 when Henry ordered repairs to the tower walls, windows and battlements and it was also necessary to attend to the bridges around the castle enclosures (Ibid., 48). On completion of the repairs, in 1236, he gave the castle to his sister Eleanor.

Eleanor, a young widow, married Simon de Montfort in 1238, and they held Odiham until 1258 when, under the Provisions of Oxford, all wardens of royal castles had to resign their office. Simon temporarily surrendered Odiham, which he had just repaired, to the king. In 1265 de Montfort, and Odiham, were firmly back in the spotlight in the build up to the fateful Battle of Evesham. This was the last time that the de Montforts would be in residence. Simon was killed in August of that year and Eleanor headed for exile in a convent at Montargis in France. She took with her a 'Household Roll' containing details of expenditure incurred and visitors received at Odiham between February and August 1265 and this was subsequently preserved at Montargis (Labarge 1962; MacGregor 1983, 56-65). The document gives important insights into daily life at the castle, particularly regarding diet. Bread, meat and fish figure prominently, especially salted herrings, which were consumed in vast quanti-

ties during Lent, and there are also important references to vegetables, spices and alcoholic beverages (Ibid., 59-61). The document is now in the British Library.

Following the Battle of Evesham, Henry's second son Edmund was granted all the lands held by Simon de Montfort, but pockets of resistance remained. In November 1265, the Constable of the Tower of London was ordered to supply ammunition to protect Odiham Castle, but by the end of 1266 the resistance had ended and the site entered a period of relative stability (Ibid., 75). In 1275 it was assigned to Queen Eleanor, wife of Edward I, and in 1278 the keeper of the park was commanded to allow the constable to have ten oaks for the repair of the houses of the castle, with further work in 1279-80. The old chamber and chimney next to the tower on its east side were replaced by a new structure, and a chapel and garderobe were built (Ibid., 76). The programme of work also saw a new kitchen built, the King's chamber in the tower and hall repaired and the infilling of part of the moat 'against the tower'. This is valuable evidence because it again describes how other structures, including a moat, occupied the area immediately beside the donjon. Hugh le Despenser the younger became warden in 1293-4, and the castle and town were granted in 1299 to Margaret, second queen of Edward I.

In the early fourteenth century Odiham Castle was again thrust into the limelight, culminating in a violent episode at the time of the 'Despensers' Rebellion'. A parliament was held there in 1303, passing a statute allowing foreign merchants to trade in England and in December 1307 the keeper received orders from the King to fortify it. This was a security measure during the monarch's absence in France for his marriage with Isabella, which took place in January 1308. From 1311 Robert le Ewer was Keeper of the Castle but in 1320 he was ordered to relinquish it to Hugh le Despenser. The following year Robert rebelled and although briefly outlawed he was pardoned and again granted the custody of Odiham Castle (Ibid., 87). It is at this time that the first recorded repairs in over 40 years were carried

out and although some details are lost, the cost (£248) and the quantities of materials involved show the scale of activity. Three hundred stones, 18 chars of lead, 95,350 roofing tiles and considerable quantities of nails, including 63,000 'lathnays', were used (Ibid., 87-8).

In September 1322 Robert again rebelled, was outlawed, and in November attempted to take Odiham Castle, which had been handed to John St. John of Basing and Ralph de Camoys to guard in the King's name (Ibid., 90). An inventory made following Robert's attack shows that this was a serious engagement. Of twenty dozen arrows at the disposal of the garrison, eight dozen were used in repelling the attack (Ibid., 93). In addition, the amount of repair work following the assault is also significant, requiring 1000 tiles, 1000 lath-nails and a quarter of lime to re-roof the tower porch. The stockade was also refurbished and other roofs retiled (Ibid., 92). The defensive capabilities of the site were obviously still significant. An interesting aside is that the Odiham garrison consumed two and a quarter casks of wine from the castle supplies, to celebrate their repulsing of le Ewer and his men!

Edward III (1312-77) spent a considerable sum of money on repairs. In May 1330 a survey of the castle and manor assessed the scale of any defects and in 1332 work took place on the bridges and various buildings including the King's kitchen (Ibid., 101). In the 1350s Odiham again played host to royalty but in somewhat different guise. From March 1355 to September 1357 the castle was used as a prison at the end of the eleven-year incarceration of David II of Scotland. Following this he was returned to Scotland for a substantial ransom (Ibid., 103-5).

In the second half of the fourteenth century various programmes of repairs were initiated, such as those instigated by Queen Philippa, which were incomplete at the time of her death in 1369. These involved work on a building known as the 'ledenechambre' which stood over the moat and necessitated its emptying. Although the documents do not specify which moat, it seems to have been an important building and would probably have been located

close to the donjon, suggesting that part of this moat was still open. In addition, re-roofing of the tower took place and the repairs came to a total cost of £37 2s 11½d (Ibid., 109).

During the final years of Edward III the castle started to lose its importance as a fortification. Following Philippa's death the King granted the castle, park, town and manor to a certain Walter Walsh who was responsible for paying an annual rent of £55 (Ibid., 111). Despite this, he was keen to ensure that the castle was adequately maintained and Walsh was held accountable for the upkeep of certain buildings. Records also detail the large sums spent by Edward during the period 1371-77 (Ibid., 111).

In 1382 Richard II granted the castle to his queen, Anne of Bohemia. In 1386 repairs were required and in 1395, following her death, it was necessary to hold an inquiry into the poor state of repair of the castle, manor and park, with the result that some remedial action was taken (Ibid., 113). In 1399-1400, the last major programme of repairs was commissioned, which may have been a consequence of Henry IV taking the throne. The extent of this work can be gauged by the 15,000 plain tiles and 150 concave tiles bought to repair the King's chamber, the great chamber, the King's garderobe, the chapel and the 'ledenechambre' (Ibid., 113-14).

It is surprising, therefore, that just two years later in 1402, the castle is described as being in a generally poor state with the chapel being 'on the point of falling into the fosse of the castle'. In response some work was carried out, but it does not appear to have been extensive because another survey was prepared in 1438-41, following which a final attempt at repair was made. It is revealing that the major expense at this time was the park. Of the £31 16s 8d spent, only slightly more than a £1 went on the castle, implying that its strategic and defensive duties had lapsed and its sporting role as a hunting-lodge was more important (Ibid., 115). By the end of the fifteenth century, it would appear that the castle was beyond repair and the records are clearly more concerned with the park (Ibid., 116). By the start of the sixteenth century the castle seems to have been in a ruinous state. It was not mentioned in a lease

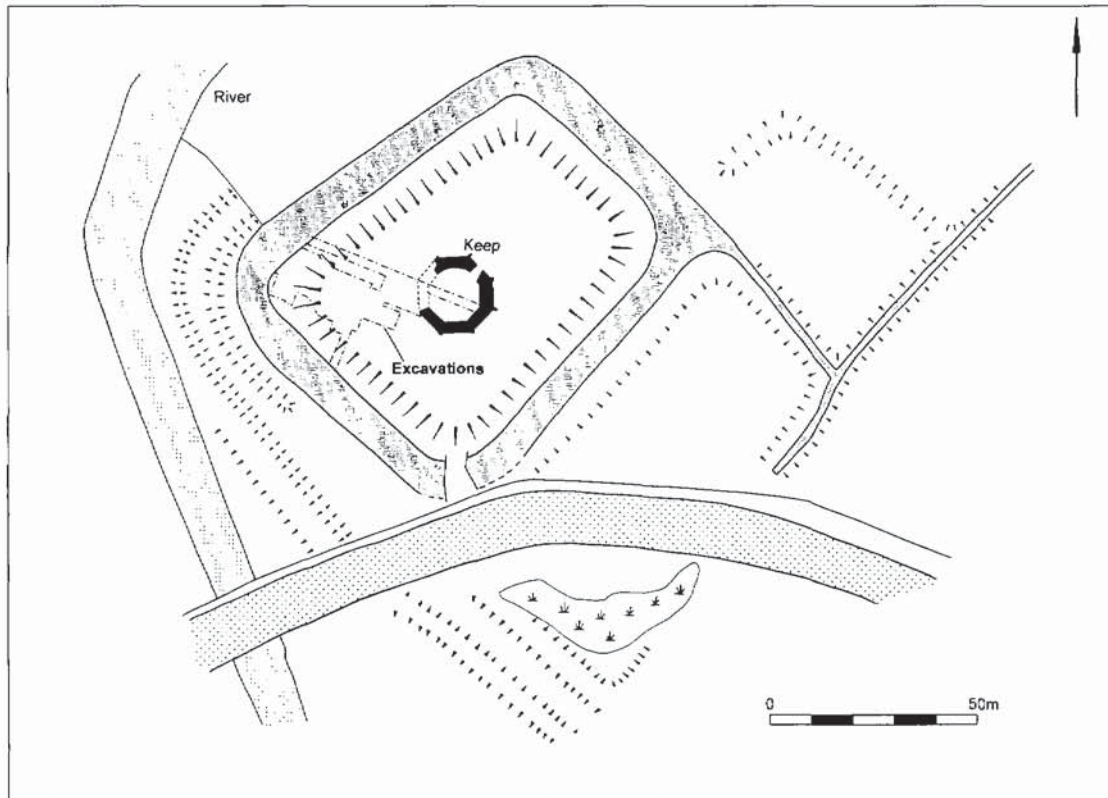


Fig. 3 Plan showing earthworks and excavations. The Period One 'square moat' is shaded

of the manor to Chideock Pault in 1545 or in a survey of 1630 (VCH, IV, 90). It played no part in the Civil War in the 1640s, and it does not figure in either John Leland's mid sixteenth-century 'Itinerary', or the 'Journeys' of Celia Fiennes in the following century (Minns 1913; Morris 1947). The castle is, however, mentioned as a ruin in Bignell Field, North Warnborough, in a deed of 1699 (VCH IV, 90).

THE EXCAVATIONS

The Site

Odiham Castle, in its final form, is an example of a tower keep castle (Fig. 2), a rare group

with only 104 surviving sites of which no two examples are exactly the same. The majority are in England, although some of the castles along the Welsh border extend into Wales. The keep, or donjon, became the principal defensive feature of the castle at Odiham and is combined with two rectangular platforms or wards, bounded by moats (Fig. 3). Further information about the size and structure of the site has been revealed by a recent English Heritage survey (Brown 2004). This could only record readily accessible or visible features and at the time of the survey dense vegetation obscured some of the outer works. But the majority of the site was successfully examined and the main points are summarised below.

The two main platforms, on a southwest-

northeast alignment, are positioned on low ground in a large loop on the southern side of the River Whitewater (Fig. 3). The northern platform is slightly larger, measuring 60 × 45m and stands about 1.5m above the moat, while the southern platform measures 70 × 30m. The Basingstoke Canal cut through the south west corner of this feature, isolating a small section. Enclosing the platforms is a moat, which has a maximum width of 10m and is about 1.5m deep. Surrounding the moat on the south west side is a bank with a flat top and beyond this is an outer bank which may have served as a flood defence. The survey also identified a series of earthworks associated with the south side of the southern platform which may have functioned as part of a water management system draining water back to the river. Overall, Odiham castle was located within a particularly watery site which was associated with complex water management.

The principal feature of the northern platform is the octagonal donjon, which is not set in the middle, but 5m to the south west of centre. Octagonal donjons are particularly rare, with just three other English examples. Surrounding the donjon at Odiham is a berm with a maximum width of 2m and traces of an incomplete ditch, the remnants of the moat. The donjon is the only structural vestige visible today and although lacking almost all of its architectural stone, it is still an impressive monument surviving to a height of about 13.5m. Although no longer visible, ashlar blocks are present on the interior lower courses up to a height of about 1.2m. Internally the structure has a diameter of 12.2m and the floor level is 1.7m lower than the exterior. The donjon was raised from a substantial foundation of mortared flint with walls that are 3.5m thick, supported by projecting buttresses of circa 1.2 × 0.6m. The donjon would have had four levels: a basement, (approximately 5m from floor to ceiling) lit by arrow loops; followed by a ground floor level and then the main hall with a ceiling height of 9m; and finally the King's Chamber on the upper floor with a height of at least 5.5m. A substantial chimney provided fireplaces for both hall and chamber and both were lit and

ventilated by windows. On the east side of the donjon, socket holes are all that remain of an external staircase providing access to the first floor chamber.

In the southern corner of the northern platform a mound of 14 × 7m extending north west along the edge of the earthwork may be evidence of a perimeter wall, while a low scarp around three sides of the southern platform may indicate the presence of former structures or collapsed walling arranged around a central court, or alternatively a garden area bounded by a terrace.

Documentary sources provide additional information about the appearance and layout of the site. Entry into the castle was across a bridge and through an imposing gatehouse. By the end of the period of occupation the castle had four entrances. The wards were home to numerous 'houses in the castle' most probably comprising plastered and whitewashed wattle and daub walls crowned by tiled roofs. These included barns, storehouses, stables, kennels, a bakehouse and a hall (MacGregor 1983, 26).

Previous interest and investigations

A small number of mainly undated engravings depict the castle but do not contribute much to our understanding of the site. From the late eighteenth century onwards, the ruins excited the interest of a number of mapmakers, topographical writers and antiquarians. An image published in 1772 shows the castle and some fir trees and a survey of the donjon was undertaken by Sir Everard Home early in the Victorian period. In June 1840, he presented a ground plan of the castle to the Society of Antiquaries, which was subsequently published, accompanied by a short account (Anon 1842, 390-1). Of particular note is a mound of earth, 22 feet (6.7m) in length, which Home interpreted as the base of a staircase. No evidence of this mound remains today.

In the early twentieth century the site was surveyed by Dr J P Williams-Freeman (1915, 67, 388). The donjon was again the main focus of interest but Williams-Freeman noted *three* rectangular platforms surrounded by ditches, the

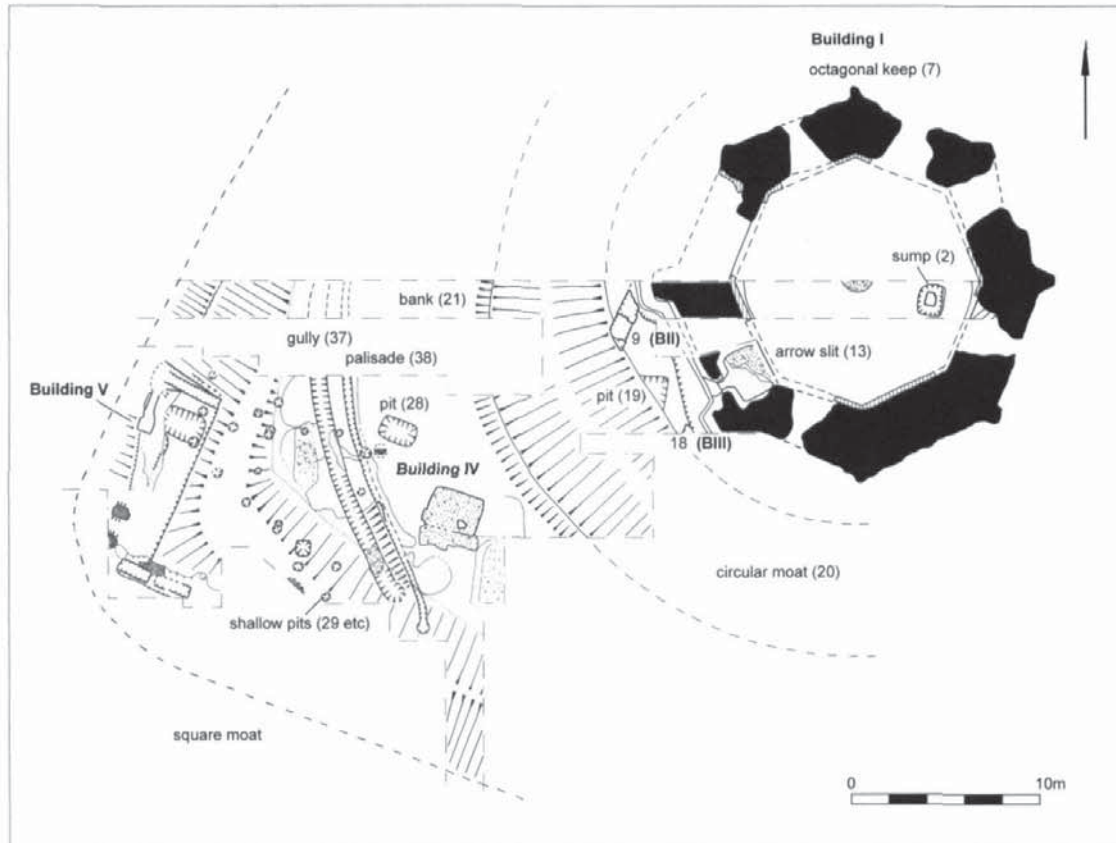


Fig. 4 Plan of all excavated features in relation to the keep

third being located to the southeast of the two main wards.

The only known record of a previous archaeological excavation is given in a newspaper account of September 1953 (*Hants & Berks Gazette*), which reports the work of a group of 11 boys from the 'British Schools' Archaeological Guild', under the supervision of the Secretary, Mr Peter Woodard. According to the article, digging took place within the donjon, where evidence for the 'central pillar' was found, and 'a shallow radial trench' was opened from the outer wall in an attempt to locate other walls. Some foundations were identified, but no details survive as to the precise location of the trench in question.

Excavations 1981–85 (Table 1)

The excavation of 1981, directed by Ken Barton of the Hampshire County Council Museums Service, on behalf of the County Recreation Officer, was intended to test the stratigraphy in and around the donjon and in the nearest visible moat. This was in anticipation of a scheme to remove rubble and rubbish from the base of the tower and possibly reintroduce water into the moat. The results were encouraging and led to a further four seasons of work. By October 1985 an area of 500m² had been investigated and a totally unexpected phase of occupation revealed (Fig. 4). In addition, a newly discovered

circular moat immediately outside the tower made sense of several obscure documentary references to 'the fosse of the castle' and its relationship to the donjon (MacGregor 1983, 52, 76, 114). In total, four main periods of occupation were identified.

Work began with the clearance of re-deposited material, mostly rubbish mixed with rubble (contexts 1, 4) from the interior of the donjon (Building I). A 2m wide trench was then marked out across the centre, utilising two of the internal wall angles as its fixed points. It was noted that these were exactly 40' (12.2m) apart. This particular baseline was chosen so that a projection would emerge through the 8.70m wide gap in the donjon wall and cross an open area of the inner ward, before reaching the moat at a distance of 20m.

Within the trench the removal of layer 5, mixed flint rubble and ashlar fragments in a brown clay matrix, to a maximum depth of 1m, revealed a horizontal compact subsoil surface of brown clay and flint gravel. Visible at the centre of the tower beneath a shallow disturbance (presumably the aftermath of the 1953 explorations) was part of a circular arrangement of compacted flints, what remained of the central post-base. Just over halfway between this and the east wall of the donjon (2.5m), was a truncated stone-lined feature (2) identified as a sump or well. At either end of the trench, two or three courses of ashlar blocks of malmstone remained *in situ* at the foot of the wall (7) (Fig. 5). The wall is 3m wide, 4m at the buttresses, and stood on a massive circular foundation plinth of mortared flint, similar in nature to the wall core. The precise line at the base of the *in situ* wall blocks and the curtailed appearance of the sump suggested that any contemporary floor levels had been disturbed and removed to a depth of about 0.14m in this vicinity, and up to 0.25m elsewhere.

The sump or well was created in a sub-rectangular pit 1.5m long, 1.2m wide and over 1m deep, dug into the gravel subsoil. It was lined with wood (2a), in the form of corner posts supporting wattle panels – the latter could be traced by impressions left in the clay. Actual

evidence for the former was discovered in the bottom 0.15m of the sump which was waterlogged and contained the bases of timbers along with seeds and fragments of bone (Figs 6 & 7). Subsequently, three courses of re-used (from an earlier phase of buildings – see below) dressed stone replaced or supplemented the wooden phase. The stone element (2), which survived to a maximum depth of 1m, was very loosely built, but there were traces of mortar at the upper levels.

Samples of the timber were taken for dendrochronological dating and gave a felling date range of AD 1235–1267 and a number of stones were retained for their architectural significance. In excavating the sump pit (3) a clipped penny with a date of deposition around the 1240s, was found in the construction layer. Other finds included sherds of fourteenth-century pottery and fragments of a large fifteenth-century coarseware jug, from the final infilling of the sump, a mix of sand and mortar.

As noted above, the octagonal tower, or donjon, was carried on a massive foundation of mortared flint (7). This had not been set into a footings trench, but built directly up from the ground surface. A 9m length of this foundation was looked at in detail, including the outline of an arrow-slit (13) 0.40 in width (Fig. 8). Robbing of the malmstone facing blocks had been extremely thorough here, but the flint plinth had not been touched and on a wide 'fillet' (8) the basal layer of blocks had left clear imprints in the mortar.

In this location the flint foundation had been built in three layers, evident from changes in alignment, size of flints employed and possibly workmanship. A projecting stub marked the position of one of the external corner buttresses and construction here was similarly layered and appeared to be integral with the adjacent stretch of wall.

When the excavation trench was extended beyond the tower wall footing to the west a layer of brown clay and tiles was the first material encountered (6). This defined a 'construction trench' (10), which had been created by the partial demolition and removal of an adjacent



Fig. 5 The keep's mortared flint foundations

wall (9, Building II). As excavation progressed it was clear that the tower builders had simply left *in situ* those elements of this earlier freestanding wall that would not interfere with their work. It also became clear that this was a remarkable survival, as the 1.7m length contained the lower levels of a blocked doorway with finely carved elements (Fig. 9). Further west a disturbance (12), initially interpreted as a robber trench for

wall 9, later became the inner face of a substantial, unexpected moat (20).

The surviving fragment of early wall (9) was 1m in width, and constructed from finely dressed malmstone blocks with a flint and mortar core. This stretch of wall was orientated northeast to southwest. It was aligned on the north side of the square moat indicating that the two features could be contemporary. The wall had been

Table 1 Summary of the archaeological evidence

<i>Periods</i>	<i>Features</i>	<i>Number</i>
Period I	Square moat dug	Period I Moat
	Internal bank raised	Period I Bank
	Building II constructed (doorway)	9
	Building III (corner)	18
	Cess pits dug	19, 28
	Doorway blocked	
Period IIa, b	Buildings demolished	
	Keep built (Building I)	7, 8
	Circular moat dug	20
	Outer 'bank' created	21
	Sump constructed	2
	Terraced platform created (Building V)	30, 40 etc
Period IIIa, b	Hearths and occupation layer	27
	Palisade and gully made	37, 38
	Gully filled	
	Terraced platform building in use	
Period IV	Levelling	16
	Deliberate filling of keep moat	
	Digging of garden pits	29, 31, 32, 42, 43
	Rectangular foundation (Building IV)	23
Subsequent	Abandonment and robbing	

built directly onto the ground surface, with no foundation trench, and thin layers of stone chippings and re-deposited gravel (14, 15, 16) masked the interface between the two. Some of this had been laid down after the blocking of the doorway but before demolition took place, probably to prepare the area for the construction of the donjon. These layers contained pottery which can be dated 'to the early part of the thirteenth century'. Away from these localised spreads of material the old ground surface appeared as a thin black soil (22) above the compact natural gravel. This horizon was easy to recognise and follow.

As noted above the major part of this stretch of wall was a doorway, 1.2m wide, with chamfered plinth, chamfer and bar stop (Fig. 10). This doorway had been blocked very neatly with flints and ashlar blocks in mortar, but demolition had reduced the whole to a uniform height of 1.2m. The feature was truncated to the southwest by the donjon moat (20) and to the northeast by the 'construction trench'. This contained carved stonework of high quality which probably derived from the 'blocked doorway' building (see below).

During 1981 three cuttings were made with a machine 3m out into the Period I moat. In each

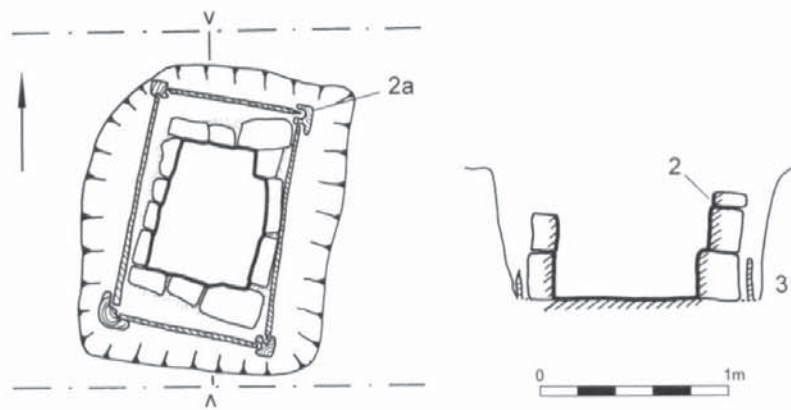


Fig. 6 Plan and profile of the timber and stone-lined sump located inside the octagonal keep



Fig. 7 The sump (waterlogged levels)



Fig. 8 The 'arrow slit'

case a low wooden revetment was seen on the inner lip of the feature and the level of timber preservation was found to be very good (Fig. 11). The revetment consisted of near upright posts supported by others set into the bank at 45°. The uprights retained horizontal beams near the old ground surface and planks were fastened to these with wooden pegs. There was no indication that this arrangement projected much above ground level. The backing material of the revetment was a mass of tile rubble, suggesting that this may have been a refurbishment, but no dating evidence was discovered to prove this.

By the end of the excavations 54m² of original ground surface had been examined *inside* the line of the newly recognised moat (20), and two other early features had been recorded here.

The first was the corner of another building (III, 18) situated close to the southern limits of the excavation and near to a tower buttress plinth. It represented the northwest corner of a structure some 5m distant from its 'blocked doorway' neighbour (Building II). The two were similarly aligned and there were also clear parallels in the way Building III was constructed directly onto the ground surface. The thin spreads of stone chippings and mortar (17) present at this interface indicate that the two buildings belong to the same building period – one which pre-dates the construction of the donjon. Between the two buildings was a sub-rectangular pit (19). Over half of this feature had been cut away by the moat (20) and the surviving fraction measured 1.5 × 1.7m. This was the first of two pits, interpreted

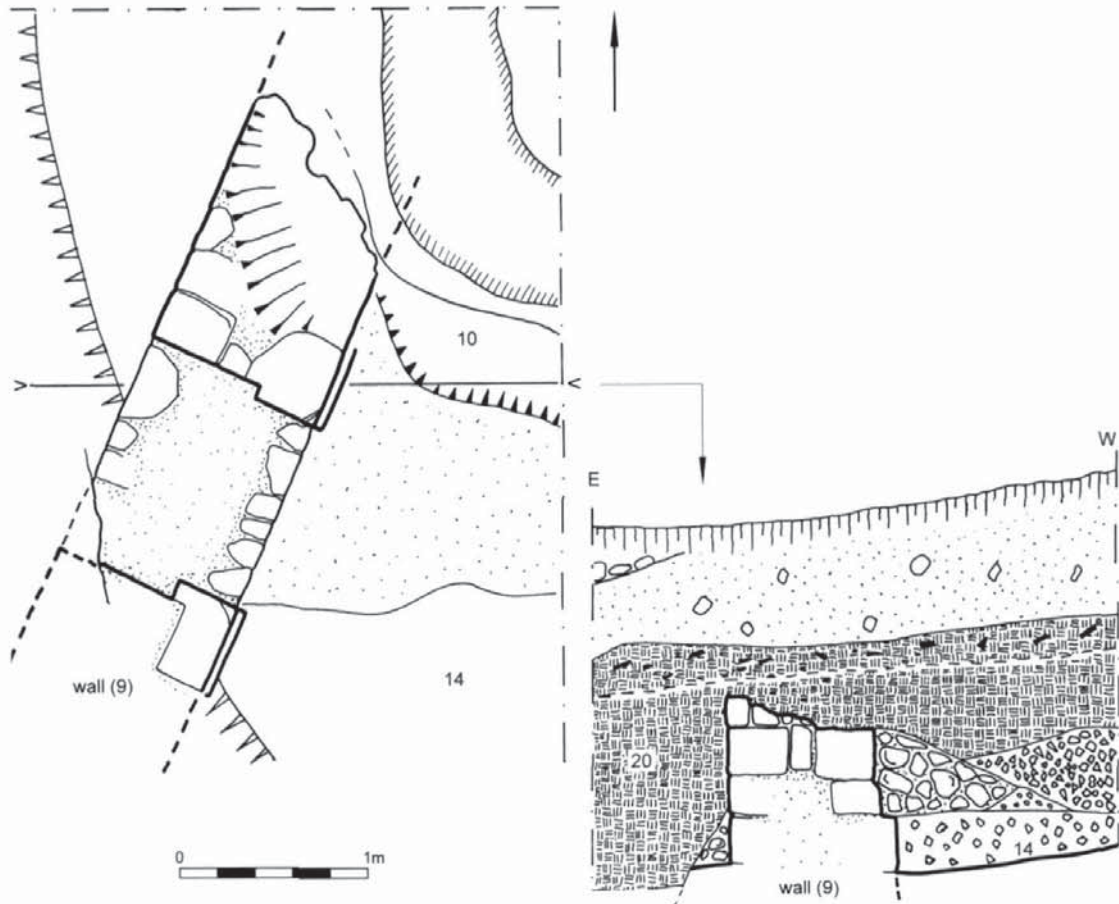


Fig. 9 Building II door, plan and section

as cesspits, belonging to the earliest period of occupation.

Construction of the moat (20) (Fig. 12) had destroyed *circa* 70m² of the old ground surface in the area excavated but it was clearly visible as a black horizon beyond the outer limits of this defence and an area of *c* 260m² was examined. Two early features were recorded in this locality, the second pit (28) and the bank on the inside of the square moat (Period I Bank).

The pit was totally excavated (Fig. 13). It was of sub-rectangular shape, 2.0 × 1.30 × 0.60m deep with near vertical sides and a flat base. Although a substantial feature, its original fill

was very limited. It comprised a dark organic deposit that supported the supposition that this was a cesspit, and samples were taken that mostly contained small animal and fish bones, several of which had been through the digestive system. The few larger finds were mostly of animal bone, including deer, fowl and cat. Small pieces of wood and good quality nails were also present, which may have belonged to the timber superstructure that once enclosed or capped the pit. Most of the fill of the feature consisted of later material that had slumped in from above, however. This comprised flint rubble and ashlar blocks (5), above a thin layer



Fig. 10 Building II door

of brown clay containing tiles, burnt stones, pottery and animal bones, followed by grey stone chippings and yellow-orange mortar with flints. This suggests that the pit was effectively empty (or full of organic material which would reduce significantly in volume) but had a wooden cover, the decay of which resulted in a dramatic subsidence of the layers above.

A large expanse of the Period I Bank relating to the square moat was cleaned, and a 2.0m wide section totally excavated (Fig. 11). The feature was composed of large dumps of material of variable nature but all apparently freshly quarried for the purpose. No evidence existed for any revetment at front or rear, and at the front (west) it may have sloped gently down to the edge of the moat. The section here indicated a primary dump of perhaps 4m width and 0.5m maximum height of grey clay

with flints, overlain by a deposit at least twice as wide and twice as high consisting of yellow clay with flints which may have been the redeposited subsoil from the excavation of the moat. The tip lines show that at some point the top of the bank was truncated, a levelling operation that would have taken with it any evidence for a palisade at its crest. The cross-section also confirmed that the bank had been constructed directly onto the old ground surface. This sealed area did not contain any features, but did produce two fragments of early medieval pottery. The major difficulty with the bank was in defining its limits to the rear (interior), where later dumps obscured the tail.

In the area excavated, the newly discovered moat encircling the octagonal donjon was investigated (20). It was found to be U-shaped, 8.5m wide and 3m deep, with gently sloping

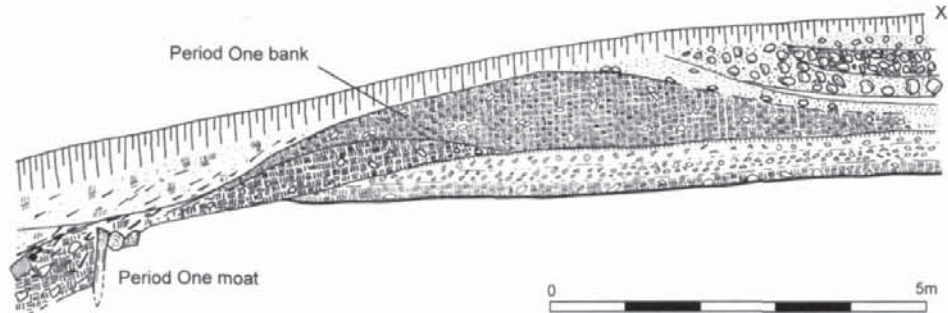


Fig. 11 Period I moat, section showing revetment

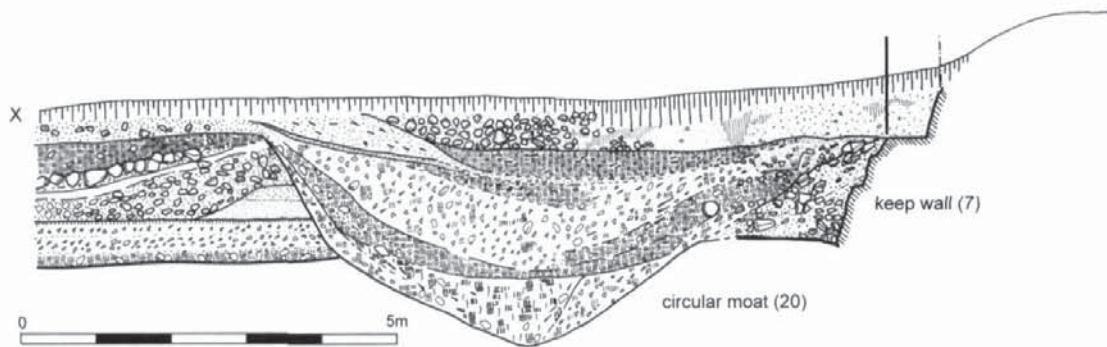


Fig. 12 Period II moat, section

sides and some evidence for a recut. The bottom 0.85m was waterlogged (Fig. 12). The primary deposit was black organically rich clay with tile and large flints. This was overlain by a fill consisting of brown clay with some flints and then similar clay but with large quantities of flint. A thin layer of orange mortar entered the ditch from the west and sealed this flint layer. The upper fill consisted of brown clay and tile fragments (6). A number of finds came from this material including a 'Jaw's Harp' of bronze and iron, fragments of decorated glass and sherds of pottery.

Layers of debris, including flints in orange mortar (51) and grey-green malmstone chippings or 'clunch' (14), had been deposited on the old ground surface during the construction of the tower. These were cut through and removed by the digging of the moat, but enough survived to form a major component of its outer 'bank' (21). An 8.0m length of this bank was excavated in full. It consisted mainly of flint rubble, and a fine yellow mortar had been deliberately employed to coat the outer face of bank and ditch and preserve the 50° slope that measured 5m from top to bottom.

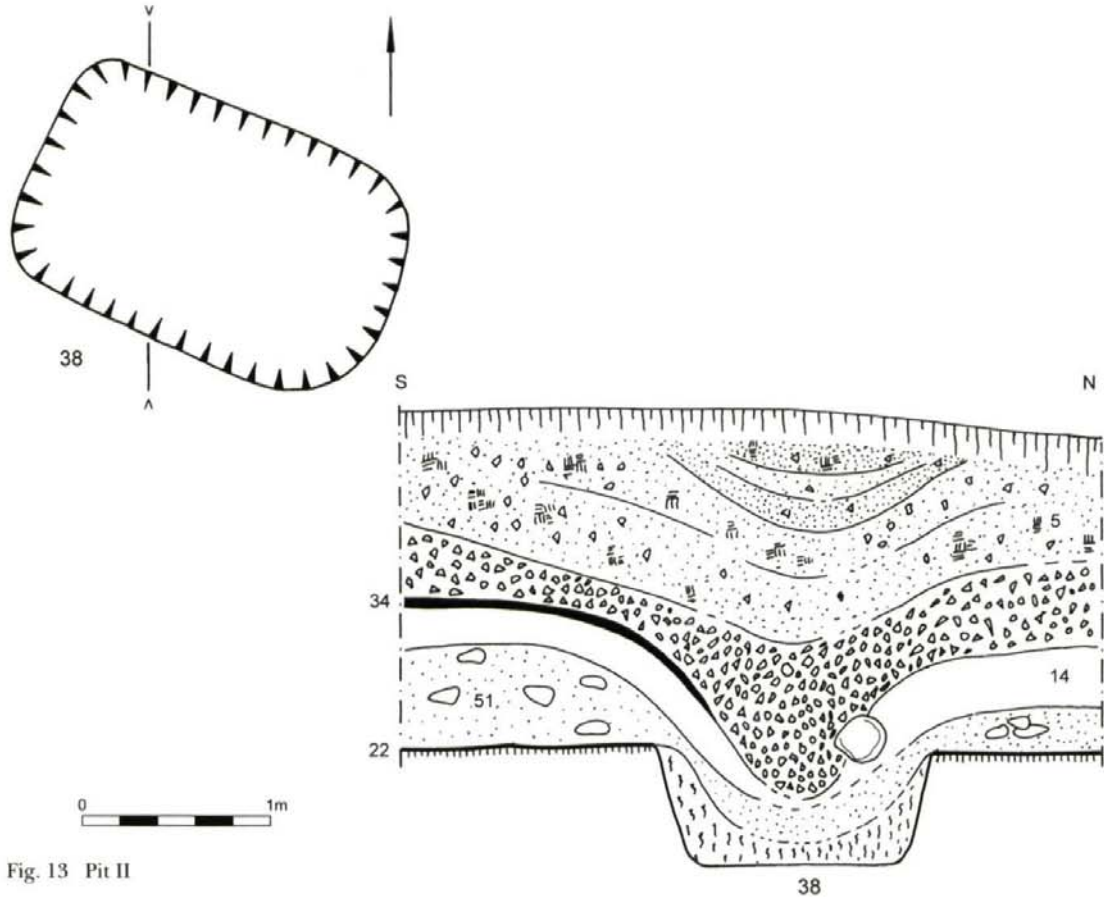


Fig. 13 Pit II

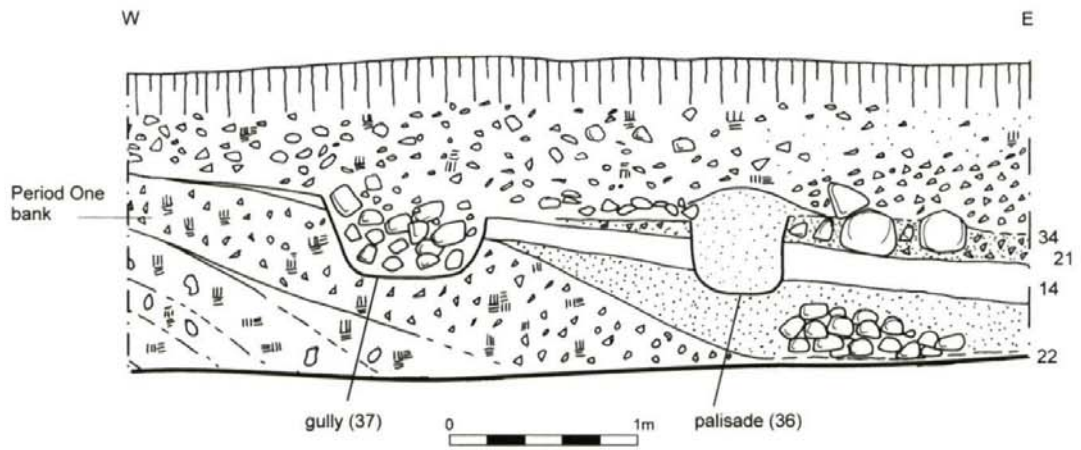


Fig. 14 Section of the gully and palisade



Fig. 15 Palisade and gully

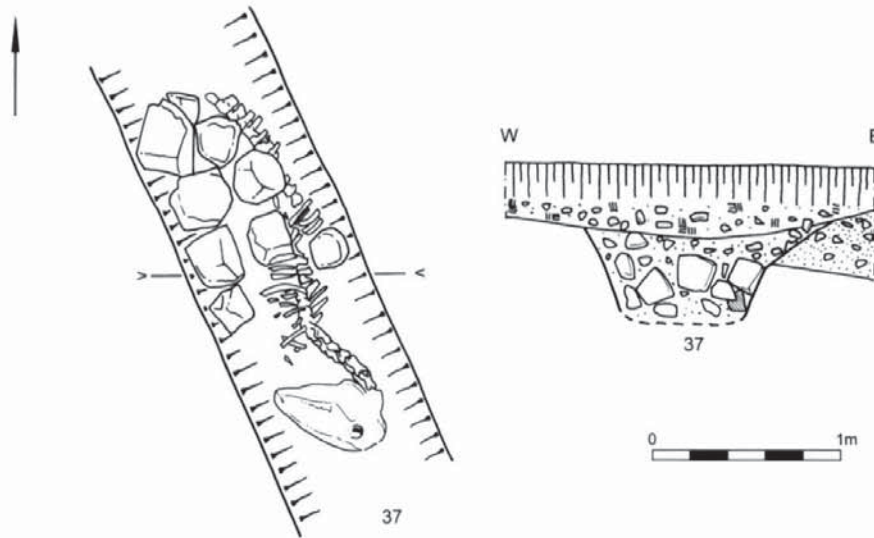


Fig. 16 Gully showing horse burial, plan and section.

Other material incorporated in the make up of the bank, particularly three large decorated blocks (Fig. 29), must have derived from the earlier building (II).

The layout of the moat and its encircling bank and their relationship to the octagonal donjon show that they were an integral part of the redesign of the site. This centred on the building of the tower and the effective raising of the general ground level by as much as 1.5m. It is worth emphasising, however, as noted in the English Heritage survey (Brown 2004), that the donjon does not sit squarely within the northern ward, but is skewed to the southwest.

The rear of bank 21 overlay upcast from the original moat, confirming the relative sequence, but was in turn overlain by material deposited when the inner moat was filled and the general area made level with the crest of the bank. This was a 0.75m thick layer of flint rubble, containing some dressed stone and animal bone. The gently undulating surface between the inner bank (21) and the Period One Bank existed for some time, long enough to attract not only

a thin turf (34) but also a number of small hearths (27a and b) with maximum dimensions of 0.62 × 0.52m, delineated by stones. These centres of burning were surrounded by a layer of occupation debris which had potsherds and animal bones in some abundance. The pottery belongs to the second half of the thirteenth century. A Short-Cross silver penny minted in the 1180's was also recovered but is thought to be either redeposited or an unusual survival (see below). It was from this level that a palisade slot (38) and accompanying external gully (37) were dug, the lines of which follow the curve of the inner moat (20) (Fig. 14). A 12m length of the palisade was revealed within the excavated area, terminating in a substantial posthole (45). The palisade slot measured 0.40m in width and 0.40m deep and the cross section revealed a distinct two-fold fill. The west (forward) half contained brown soil with some gravel and mortar lumps, while the rear was filled with an orange-brown flint mortar. The mortar was the packing for a continuous timber feature and because of the liberal use

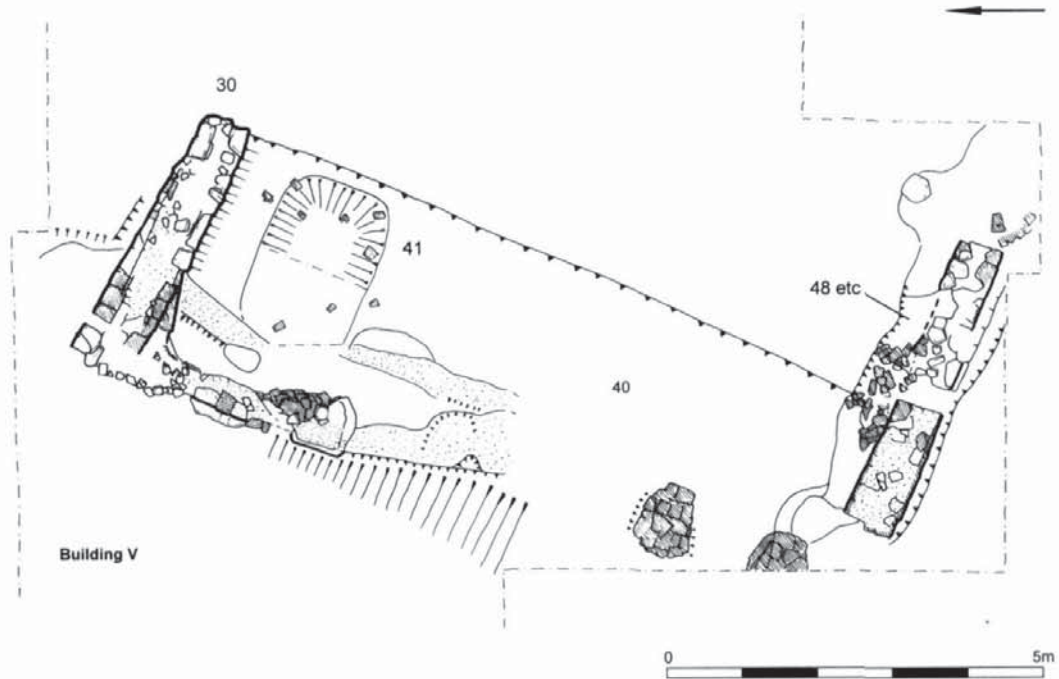


Fig. 17 Plan of Building V

of this material the casts of the posts survived to a height of 0.50m above the contemporary ground surface (Fig. 15). The gully (37) was 0.88m wide and only 0.36m deep. A substantial fall in level was evident in the length examined, in a northerly direction, and it may have served as a drainage channel, as well as delineating and protecting the palisade.

The evidence of the palisade slot suggests that the posts were allowed to rot *in situ*, but a very definite end came to the effective lifespan of the gully. Into a clean and open feature were placed the dismembered carcasses of at least two horses, which were weighed down with malmstone blocks, the majority of which were shaped catapult ammunition (Fig. 16). These were then covered with gravel.

At the same time, or soon afterwards, the area between the inner bank (21) and Period I

Bank was levelled by the dumping of substantial quantities of gravel (26, 39) and the inner moat was also filled in. This material was notable in producing a number of armour-piercing arrowheads as well as an iron spur, potsherds and animal bones.

Into the surface of this fairly uniform and comparatively horizontal layer shallow pits were dug at fairly regular 2.0m spacing (29, 31, 32, 42, and 43). The pits had shallow, bowl-shaped profiles and contained a soft loam. If trees or shrubs were to be planted here, then this sort of provision would have been made for them. Documentary evidence shows that by the fifteenth century the site was no longer used primarily for defence but was being employed as a hunting lodge. The deliberate creation of a garden may have been associated with this shift in focus.



Fig. 18 Plan of Building IV

Also cut into the Period One Bank along the line of the external moat was a rectangular building platform (Building V) at least 3.0m in width and 6.0m in length (Fig. 17). One end of the platform had a substantial if rough stone wall revetment (30) where it cut into the bank and this had been placed in a well-defined foundation trench. A large pit 2.20 × 1.50m (41) was sunk into the level floor (40) and was apparently of contemporary date. It had two fills, a primary layer (0.14m) of grey-black clay and flint gravel and a deeper layer (0.40m) of yellow-grey clay with mortar, flint and tile. The floor layer (40) produced a silver penny of the Scottish King Alexander III (1241-1286). Traces of other walls (48, 49, 50) could be detected around the perimeter, but these were of a less substantial nature.

Further evidence for late building activity

consisted of a rectangular platform (3.0m × 2.0m) (Building IV) of mortared flint, bordered on one side by large malmstone boulders (23) (Fig. 18). It was constructed over and through a layer of gravel (26). The precise edges to the other three sides suggest that timber beams existed here, and the building presumably had a timber superstructure. The layers associated with this structure produced some green-glazed pottery of Tudor date and a small horseshoe.

THE FINDS

The excavation produced a range of finds including pottery, stone, metalwork, glass, leather, coins, building material and a relatively large assemblage of animal bones. The finds come from all periods of occupation, although

Periods II and III were the most productive. In addition, a number of metal-detected finds from the environs of the castle have been included.

Pottery by Duncan H. Brown and Robert Thomson

The stratified pottery assemblage from Odiham Castle numbers 1,324 sherds, weighs 16,545 grams and has a total rim percent of 457. The maximum vessel count (where sherds from the same vessel count as one) is 551. The material from each context was sorted according to the following criteria: fabric type; vessel form; the form of particular component parts, such as rim, base etc; glaze colour and distribution; position, technique and motif of decoration; rim diameter. All the pottery was then quantified by rim percent, weight in grams, sherd count and maximum vessel count. Recording took place in the winter of 2001/2. The recorded data was entered into a computerised database, which forms part of the archive. This report takes the form of a catalogue of the fabrics and forms, followed by interpretation and discussion.

Catalogue

Thirty-three different fabrics or fabric groups were originally identified, and these were subsequently grouped together into 23 ware types. This includes fabric 0, given to residual Romano-British material, of which there are six sherds, including Samian whiteware and greyware, weighing 45 grams. They are all residual in later contexts and are not discussed in any more detail. Fabric 30 is a number given to a medieval sandy ware body sherd, weighing 14 grams, that was so badly burnt it could not be accurately identified. It leaves a total of 21 fabric types, and these may be divided into coarsewares and sandy wares. If the term 'local' may be defined as within a day's return journey of the nearest market, then no obviously non-local or imported products have been identified. Each type is described below.

Coarsewares

Nine coarseware fabrics have been identified, and these can be divided into flint-tempered

and sandy types. All of them are likely to originate locally,

Fabric 3 Flint-tempered coarseware

0rp	236g	25 sherds	24 vessels
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This fabric has a fine sandy matrix with abundant inclusions of angular flint, moderate amounts of sub-angular quartz and chalk and organics, and sparse, fine iron. Surfaces are fired red to grey; the core is grey in colour. Vessels were not glazed and here take the form of jar/cooking pots, although there is also a bowl rim.

Fabric 4, 9 Flint-tempered coarseware

81rp	5,188g	250 sherds	46 vessels
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A sandy matrix with abundant fine quartz. Contains moderate amounts of ill-sorted sub-angular flint, some larger quartz pieces and organics. There are also sparse fragments of chalk. The surfaces are fired grey, and the core is pale grey. Some vessels were hard-fired. All sherds are unglazed and the only identifiable form is a jar/cooking pot. Most of one large vessel has survived (Fig. 19.1), this has vertical thumbed applied strip decoration, and the presence of limescale on the inside of the base confirms that it was used for cooking.

Fabric 7 Flint-tempered coarseware

50rp	1,673g	173 sherds	93 vessels
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A sandy matrix, with abundant ill-sorted clear quartz is characterised by abundant, ill-sorted, sub-angular flint, with some black iron and organics. Surfaces are brown to grey and the core dark grey. The range of vessel types includes jar/cooking pots and jugs, with the former most common by vessel count. Jar/cooking pots are unglazed and some are decorated with thumbed applied strips. Jug sherds have an external greenish-clear lead glaze, and include the complete profile of a rounded type with a strap handle and rilling on the neck and shoulder (Fig. 19.2).

Fabric 13 Flint-tempered coarseware

2rp	168g	24 sherds	24 vessels
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A sandy matrix with fine quartz contains inclusions of very abundant, ill-sorted, coarse to fine, sub-angular flint, sparse organics and decayed chalk and some red iron. The surfaces are brown to grey in colour and the core is grey. This fabric is possibly handbuilt.

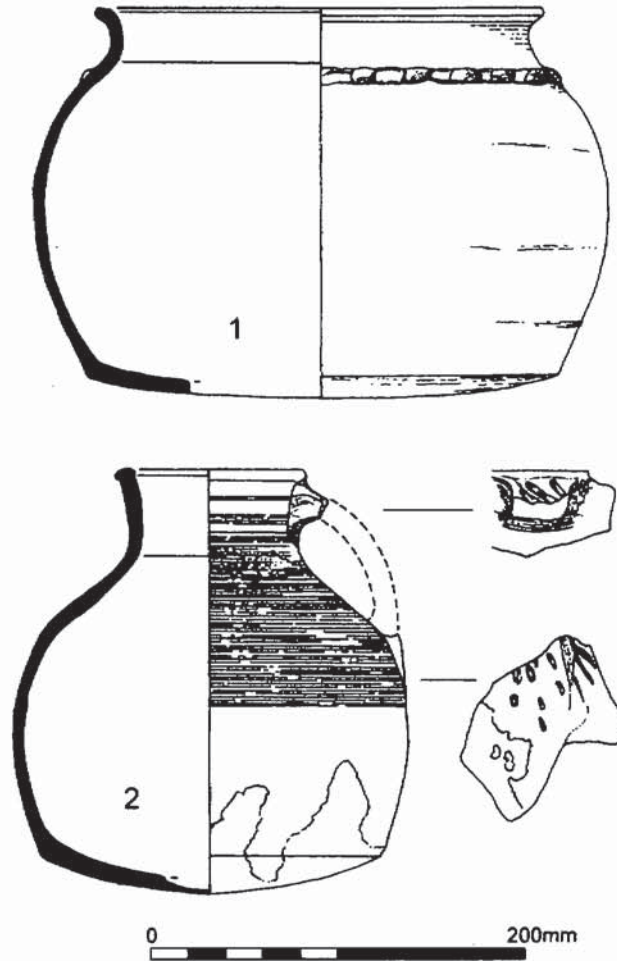


Fig. 19 Flint-tempered coarseware vessels (Fabric 9 and 7)

There is a single rim sherd in this fabric, from a jar/cooking pot, and one body sherd decorated with an incised horizontal line.

Fabric 32	Flint-tempered coarseware
72rp 480g	55 sherds 2 vessels

A fine, sandy, micaceous matrix, with abundant fine quartz, contains moderate, angular, medium to coarse flint fragments, with moderate, medium-sized, rounded, clear quartz, red iron, some

chalk and some organics. This fabric is well-fired with red-brown surfaces, and usually a grey core. There are two vessels in this fabric both of them plain jar/cooking pots. One is represented by a rim (Fig. 20.1), the other by a sooted base (Fig. 20.2) indicating that these forms were used in cooking.

Fabric 28	Chalk and flint-tempered coarseware with shell
0rp 69g	3 sherds 3 vessels

A sandy matrix characterised by abundant fine quartz contains inclusions of moderate, ill-sorted, sub-angular quartz, moderate ill-sorted flint with some chalk and some shell fragments. Surfaces are red-brown, the core grey. The only feature sherd is a jug rim and rod handle, with an external lead glaze.

Fabric 31		Coarseware	
51rp	1,918g	91 sherds	5 vessels

A sandy matrix contains moderate-abundant, ill-sorted, fine to coarse, rounded and sub-angular, clear and red quartz, with red iron, sparse organics and very occasional chalk fragments, which are also evidenced by occasional voids. Surfaces are brown-pink to red-brown, the core usually grey. Both jugs and jar/cooking pots occur in this fabric. The former are represented by glazed body sherds, the latter by the complete profile of a vessel with a thumb applied strip around the shoulder (Fig. 20.3).

Fabric 12		Coarse sandy ware	
0rp	188g	20 sherds	18 vessels

A fine sandy matrix has abundant, fine, rounded, clear quartz inclusions and occasional larger fragments of red iron. Surfaces are fired black, the core is dark red, suggesting perhaps that this fabric was deliberately reduction-fired. Cooking pots are represented by sooted base and body sherds and there is also a small fragment of curfew rim with internal sooting.

Fabric 14, 21=22		Sandy coarseware	
79rp	2,395g	274 sherds	148 vessels

A smooth matrix contains abundant, fine and medium, rounded, clear and red quartz with red iron and sparse fine organics. Sherds are fired grey to pale grey. The most common form seems to be the jar/cooking pot, which is represented by bases and everted rims, but a thumb right-angle base with a partial external glaze is probably from a jug.

Sandy wares

Fabrics 1, 2, 6, 16		Sandy redware	
23rp	1,345g	136 sherds	39 vessels

This is a fine, smooth matrix with characteristic well-sorted, sub-angular, clear quartz with red iron.

Fabric 1 has fine inclusions, those in Fabric 16 are medium-fine in size and Fabric 2 contains medium quartz and very sparse medium flint pieces, while Fabric 6 is a glazed version of Fabric 2. The finer types are fired pink or orange while Fabric 2 is red or brown in colour. The most common vessel type is the jug, which is evidenced by a few upright rims and glazed body sherds. There is one obtuse base that may be from a jar/cooking pot.

Fabric 5		Organic-tempered sandy redware	
7rp	270g	28 sherds	15 vessels

A fine sandy matrix, with abundant, fine, sub-angular, clear quartz is characterised by the presence of moderate ill-sorted organic inclusions. Cores are usually reduced grey, surfaces red to grey. Two handle sherds, a base and a range of glazed body sherds are all from jugs, and there is also a bowl rim with an internal, greenish-clear, lead glaze.

Fabric 23		Organic-tempered sandy ware	
0rp	169g	11 sherds	6 vessels

A sandy matrix contains moderate to abundant, sub-angular, clear quartz with fine red iron and some ill-sorted organics. Surfaces are brown-grey the core is grey. Fabric 23 is very similar to Fabric 5. Two base sherds and nine body sherds all have external glaze and are likely to be from jugs.

Fabric 8		Sandy redware, white-slipped	
10rp	44g	7 sherds	6 vessels

This sandy matrix has abundant, fine, rounded and sub-angular clear and grey quartz with fine red iron. The external surface is covered in a white slip beneath a green glaze. The fabric is fired red at the external surface and grey on the inside and at the core. All sherds are interpreted as jug fragments, although there is only one rim, an upright type with a handle scar.

Fabric 18		White-slipped redware	
0rp	12g	2 sherds	2 vessels

A fine sandy matrix with moderate, ill-sorted, fine to medium-sized, clear and red quartz inclusions, red iron and some medium to coarse chert. Surfaces are red with a red-grey core. Both sherds have an external white slip covered in a green lead glaze, and are likely to be from jugs. This fabric is similar to a white-slipped type identified at Reading.

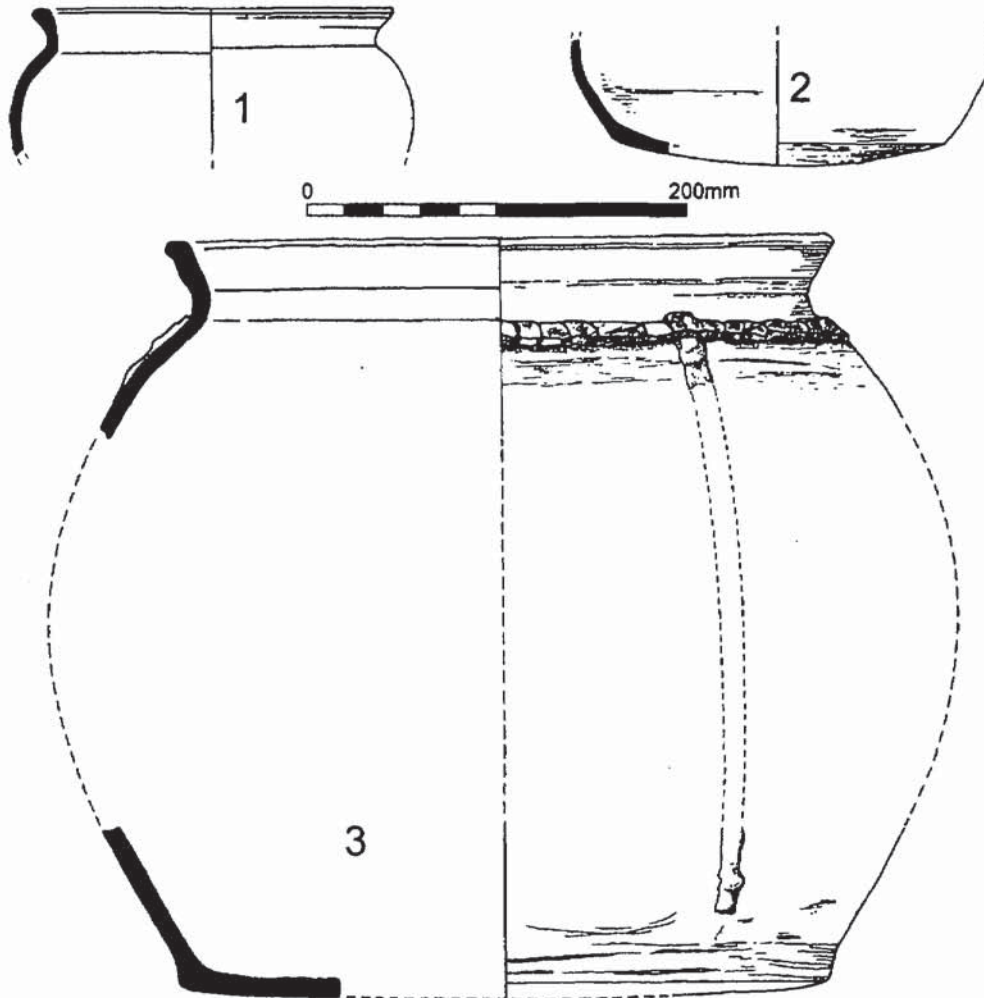


Fig. 20 Flint-tempered coarseware (Fabric 32 and 31)

Fabric 20 Red-firing sandy ware
38rp 239g 13 sherds 12 vessels

Fabric 10, 24, 25 Surrey whiteware
5rp 242g 28 sherds 21 vessels

A sandy matrix characterised by abundant quartz with some red iron and moderate, ill-sorted organic inclusions. Some sherds are red on the outside, dark grey all over the interior and have a grey core, while others are grey on both surfaces with red-grey margins and a dark grey core. Six jar/cooking pots are represented by a variety of everted rim forms, while two base fragments with internal glaze are likely to be from bowls.

A smooth white-firing clay matrix contains moderate fine and medium, sub-angular quartz with sparse red iron and white clay pellets. Surfaces are buff-coloured to white, cores sometimes pale grey. This fabric compares well with known types produced around Farnham, on the Surrey/Hampshire border and further north around Kingston-on-Thames (Pearce and Vince, 1988) and it would be surprising if these products were not present at Odiham.

Surrey whiteware is dated to the high medieval period, between *c.* 1250 and 1350, although it probably extends into the last quarter of the fourteenth century. Jugs are represented by sherds with external glaze, and by one rim.

Fabric 15	Sandy whiteware		
0rp	983g	79 sherds	16 vessels

A fine sandy matrix has characteristic inclusions of well-sorted, fine and medium, rounded, red quartz and occasional fine fragments of dark red iron. Surfaces and cores are buff-coloured to white-grey margins may be buff-pink. Glazes may be speckled green or copper-green in colour. A jug is represented by a fragment of handle and the majority of body sherds, which all exhibit an external glaze, are also likely to be from jugs.

Fabric 17	Sandy whiteware		
0rp	197g	25 sherds	13 vessels

A fine sandy matrix with abundant fine quartz has larger, medium-sized, sub-angular, clear and opaque quartz inclusions, with fine red iron, sparse flint and white clay pellets. All sherds have an external green glaze and are likely to be from jugs.

Fabric 19	Sandy whiteware		
10rp	247g	26 sherds	12 vessels

A fine, sandy, micaceous matrix, characterised by abundant fine angular quartz, and fine white mica, has moderate inclusions of medium rounded grey quartz and fine black iron. There are some larger, rounded red quartz pieces. Sherds are fired white throughout. There is one jug rim, and a handle from a different vessel, but all the remaining sherds are probably also jug fragments.

Fabric 27	Sandy whiteware		
0rp	24g	1 sherd	1 vessel

A fine sandy matrix contains a few fine inclusions of clear and grey quartz and iron. Sherds are fired buff to grey-white throughout. A single green-glazed body sherd probably came from a jug.

Fabric 29	Sandy whiteware		
25rp	399g	46 sherds	39 vessels

A very fine matrix contains abundant, well-sorted, sub-angular, fine, clear and grey quartz with some fine red

iron. Sherds are buff-coloured throughout. Everted rim sherds represent a maximum of five jars, while two thumbled base fragments probably came from jugs. This fabric has a character that suggests it is later than most of the other types present, and the fact that it first occurs in Period III contexts (see Table 3) supports this. A fourteenth-century date is suggested.

Discussion

This is not a large assemblage, and with an average sherd weight of 12 grams, it would seem that the pottery is quite badly fragmented. This corresponds with the fact that most of it was recovered from layers. It is difficult, therefore, to identify many contexts that represent primary deposits, and this interpretation cannot go too deeply into modes of ceramic supply and use for the castle as a whole. It is not possible, either, to put forward a very sound chronological sequence based on the ceramic data. There is sufficient material to make some tentative interpretations, but more excavation is required before a full picture of the role of ceramics at Odiham can be achieved.

Chronology

Table 2 shows the quantities of ceramics recovered from each stratigraphic period, while Table 3 shows how much material came from individual contexts. Table 4 quantifies the amounts of each fabric present in every period. All this information confirms the confused nature of the whole assemblage but it is worth considering each period in turn.

Period I. Table 2 shows that only 2% by weight, and 3% by vessel count, occurs in Period I contexts, and most of that is shown in Table 3, to be from Context 22, the old ground surface. Four different fabric types, 3, 4, 7 and 14, came from that context, and all of these are more plentiful in later periods, and so are likely to be intrusive. The fabrics from the pits (Contexts 19, 28) also occur in greater quantities in later periods, as summarised in Table 4, and it is therefore unlikely that these finds date the construction of these features. They may date the closure of the pits, some time in the later part of the thirteenth century, or they may represent intrusion.

Table 2 Quantities of pottery in each stratigraphic phase

Phase	Weight (g)	Weight %	Sherd Count	Sherds %	Vessel Count	Vessels %
I	276	2	23	2	14	3
IIA	238	1	23	2	20	4
IIB	11251	68	781	59	229	41
IIIa	373	2	44	3	31	6
IIIb	2701	16	285	22	147	27
IV	1706	10	168	13	111	20
Totals	16545		1324		552	

Period IIa. This period also produced very little pottery, and as Table 2 indicates, the sherd size is generally small. Table 3 shows that there are no particularly productive contexts in this period, although material associated with the donjon should be of interest. Sherds of fabrics 7, 14 and 17 were recovered from the donjon 'construction trench' (10) and all of them occur in later periods. Fabrics 7 and 14 are flint-tempered coarsewares that are likely to be early thirteenth century in date. Fabric 17 is a sandy whiteware that is not common throughout the site and is difficult to date. The material from the donjon wall includes a sherd of sandy redware, Fabric 1 and a fragment of Surrey whiteware, both of which might also be early thirteenth century, although a date after 1250 would be more likely.

Period IIb. This is easily the most productive of all the periods. There are 11 contexts in this period, which, as Table 2 shows, produced 68% of the total assemblage by weight, and 42% by vessel count, which indicates that vessel survival is also relatively good. Table 3 shows that context 27, a hearth deposit, produced 56% of the total sherd weight, 46% of the sherd count and 26% of the total vessel count. This is the only context that produced complete vessel profiles, and all the illustrated pieces came from there. The almost complete vessels may therefore represent *in situ* finds, and could have been used, and finally discarded, at the hearth. These are probably the only pieces of pottery

that were not re-deposited. The hearth deposit produced a maximum of 141 vessels, however, and some of these must be represented by re-deposited fragments, and the feature clearly represents an area for rubbish disposal. Thirteen different fabric types are present in context 27, and there is little reason to suppose that these are not contemporary. Indeed, most of the pottery types in this assemblage are likely to date to the second half of the thirteenth century. Table 4 shows that 18 of the 21 identified fabrics occur in Period IIb contexts. The bank deposit contains sherds of fabrics 1, 3, 4, 10, 14 and 15, all of which occur in Period I contexts, and might therefore be identified as residual in this later period. This is especially likely for material in an earthen bank, but some of them also occur in some quantity in Period IIIb, and if they are early thirteenth century in date then they remained in production into the fourteenth century which is not unlikely. Layer 40 also produced a relatively high quantity of pottery, and nine different fabric types, but as this is not associated with a feature, these finds may be regarded as re-deposited. The same may be said for the pottery from the remaining Period IIb contexts, which were not very productive.

Period IIIa. Period IIIa produced a small amount of material, and as Table 3 shows, most of this is associated with the fill of the palisade slot, context 38. Fourteen sherds of Fabric 29, identified as a fourteenth-century ware, came

Table 3 Quantities of pottery in each stratigraphic phase, arranged in phase order

<i>Feature</i>	<i>Phase</i>	<i>I</i>	<i>IIA</i>	<i>IIB</i>	<i>IIIa</i>	<i>IIIb</i>	<i>IV</i>	<i>% of Total</i>
Layer 22	Weight	121						1
OGS	Vessel Count	7						1
Pit 1	Weight	107						1
	Vessel Count	4						1
Pit 2	Weight	48						<1
	Vessel Count	3						1
Keep wall	Weight		30					<1
cons. Trench	Vessel Count		3					1
Keep wall	Weight		26					<1
mortar fillet	Vessel Count		2					<1
Building 2	Weight		34					<1
south baulk	Vessel Count		4					1
Building 2	Weight		56					<1
layer 15	Vessel Count		4					1
Building 2	Weight		20					<1
layer 16	Vessel Count		2					<1
Building 2	Weight		2					<1
robber trench	Vessel Count		1					<1
Building 3	Weight		12					<1
layer 17	Vessel Count		1					<1
Building IV	Weight		58					<1
Foundation	Vessel Count		3					1
Bank	Weight			126				1
	Vessel Count			8				1
Ditch	Weight			183				1
	Vessel Count			13				2
Sump	Weight			130				1
	Vessel Count			15				3
Layer 27	Weight			9341				56
Hearths	Vessel Count			141				26
Layer 34	Weight			331				2
	Vessel Count			24				4
Layer 39	Weight			75				<1
	Vessel Count			6				1
Layer 40	Weight			1065				6

Table 3 (cont.) Quantities of pottery in each stratigraphic phase, arranged in phase order

Feature	Phase	I	IIA	IIB	IIIa	IIIb	IV	% of Total
	Vessel Count			22				4
Slot 1	Weight				87			1
gully	Vessel Count				9			2
Slot 2	Weight				235			1
palisade	Vessel Count				20			4
Pit	Weight				37			<1
context 44	Vessel Count				1			<1
PH43	Weight				14			<1
	Vessel Count				1			<1
L26	Weight					1938		12
	Vessel Count					103		19
L35	Weight					560		3
	Vessel Count					33		6
L47	Weight					49		<1
	Vessel Count					1		<1
L51	Weight					154		1
	Vessel Count					9		2
Keep	Weight						771	5
interior rubble	Vessel Count						26	5
Rubble and	Weight						45	<1
ashlar	Vessel Count						6	1
L6	Weight						890	5
	Vessel Count						78	14
Total weight		276	238	11251	373	2701	1706	16545
Total vessel count		14	20	229	31	146	110	552

from this deposit but the remaining types occur in earlier periods. Context 44 produced sherds of a jug that also occurs in contexts 26 and 6, in periods IIIb and IV respectively. This pot is in Fabric 15, a sandy whiteware, and is represented only by body sherds, all with an external speckled copper-green lead glaze. Five sherds occur in context 44, two in context 26, and four in context 6. This distribution indicates the disturbed nature of some of these pottery-producing deposits, which calls into question the reliability of using ceramics accurately to

date these periods. The fact that those five sherds were the only pottery finds from context 44 emphasises this.

Period IIIb. Table 2 shows that Period IIIb is the second most productive in terms of ceramics, although Table 3 shows that these finds came from only four contexts, one of which, 47, produced one sherd only. Layer 26, a gravel deposit, contained the most material, and as Table 4 shows, a wide variety of fabric types is represented. There are no fabrics that occur exclusively in Period IIIb and most types

Table 4 Quantities of each fabric type in each stratigraphic phase

<i>Fabric</i>	<i>Phase</i>	<i>I</i>	<i>IIA</i>	<i>IIB</i>	<i>IIIa</i>	<i>IIIb</i>	<i>IV</i>	<i>Totals</i>
7	Rim percent	0	0	24	4	16	6	50
Flint-tempered Coarseware	Weight (g)	28	10	1299	43	262	31	1673
	Sherd count	1	1	130	6	31	4	173
	Vessel count	1	1	61	5	21	4	93
14	Rim percent	0	0	22	0	33	24	79
Sandy coarseware	Weight (g)	28	33	797	15	1329	193	2395
	Sherd count	6	4	82	2	153	27	274
	Vessel count	4	4	55	2	57	26	148
1	Rim percent	0	0	0	0	0	23	23
Sandy redware	Weight (g)	40	24	470	24	150	637	1345
	Sherd count	2	3	66	3	14	48	136
	Vessel count	2	3	15	3	9	7	39
15	Rim percent	0	0	0	0	0	0	0
Sandy whiteware	Weight (g)	94	4	698	37	86	64	983
	Sherd count	6	1	56	5	4	7	79
	Vessel count	1	1	8	1	1	3	16
3	Rim percent	0	0	0		0	4	4
Flint-tempered Coarseware	Weight (g)	28	31	10		37	130	236
	Sherd count	1	2	2		3	17	25
	Vessel count	1	2	2		2	17	24
4	Rim percent	0	0	81		0	0	81
Flint-tempered Coarseware	Weight (g)	45	2	5033		52	56	5188
	Sherd count	4	1	234		4	7	250
	Vessel count	2	1	32		4	7	46
10	Rim percent	0	5	0		0	0	5
Surrey whiteware	Weight (g)	1	91	48		50	52	242
	Sherd count	1	5	7		5	10	28
	Vessel count	1	4	4		4	8	21
12	Rim percent	0		0		0	0	0
Coarse sandy	Weight (g)	4		65		10	109	188
	Sherd count	1		6		2	11	20
	Vessel count	1		6		2	9	18
19	Rim percent	0		0		10	0	10
Sandy whiteware	Weight (g)	8		45		162	32	247
	Sherd count	1		10		12	3	26
	Vessel count	1		3		6	2	12
17	Rim percent		0	0	0	0	0	0
Sandy whiteware	Weight (g)		14	26	58	86	13	197
	Sherd count		4	2	9	8	2	25
	Vessel count		2	2	2	5	2	13
32	Rim percent			72				72
Flint-tempered Coarseware	Weight (g)			480				480
	Sherd count			55				55
	Vessel count			2				1

Table 4 (cont.) Quantities of each fabric type in each stratigraphic phase

<i>Fabric</i>	<i>Phase</i>	<i>I</i>	<i>IIA</i>	<i>IIb</i>	<i>IIIa</i>	<i>IIIb</i>	<i>IV</i>	<i>Totals</i>
13	Rim percent			2	0	0	0	2
Flint-tempered	Weight (g)			74	14	68	12	168
Coarseware	Sherd count			17	1	5	1	24
	Vessel count			17	1	5	1	24
23	Rim percent			0	0	0	0	0
Organic-tempered	Weight (g)			71	14	2	82	169
sandy	Sherd count			5	1	1	4	11
	Vessel count			3	1	1	1	6
28	Rim percent			0		0	0	0
Coarseware with	Weight (g)			46		9	14	69
flint and chalk	Sherd count			1		1	1	3
	Vessel count			1		1	1	3
31	Rim percent			51		0		51
Coarseware	Weight (g)			1870		48		1918
	Sherd count			89		2		91
	Vessel count			3		2		5
5	Rim percent			0		7	0	7
Organic-tempered	Weight (g)			80		105	85	270
redware	Sherd count			7		10	11	28
	Vessel count			5		2	8	15
8	Rim percent			0			10	10
Sandy redware	Weight (g)			4			40	44
	Sherd count			2			5	7
	Vessel count			2			4	6
20	Rim percent			27			11	38
Red-firing	Weight (g)			122			117	239
sandy	Sherd count			8			5	13
	Vessel count			7			5	12
29	Rim percent				11	14		25
Sandy whiteware	Weight (g)				168	231		399
	Sherd count				17	29		46
	Vessel count				16	23		39
18	Rim percent						0	0
White-slipped	Weight (g)						12	12
redware	Sherd count						2	2
	Vessel count						2	2
27	Rim percent						0	0
Sandy whiteware	Weight (g)						24	24
	Sherd count						1	1
	Vessel count						1	1
Total Rim percent		0	5	279	15	80	78	457
Total Weight (g)		276	209	11238	373	2687	1703	16486
Total Sherd count		23	21	779	44	284	166	1317
Total Vessel count		14	18	228	31	146	108	545

Table 5 Quantities of each different vessel types in broad ware categories of courseware and sandy ware

<i>Ware Type</i>		<i>Jar/Cpot</i>	<i>Jug</i>	<i>Bowl</i>	<i>Curfew</i>	<i>Unid</i>	<i>Totals</i>
Coarsewares	Rim percent	313	22	4	0	0	339
	Weight	9868	824	17	22	1584	12315
	Sherd count	595	68	1	1	250	915
	Vessel count	126	7	1	1	228	363
	% total weight	60	5	<1	<1	10	75
	% total sherds	45	5	<1	<1	19	69
	% total vessels	23	1	<1	<1	42	67
Sandy wares	Rim percent	63	43	12		0	118
	Weight	272	3278	124		511	4185
	Sherd count	13	299	13		78	403
	Vessel count	12	95	5		71	183
	% total weight	2	20	1		3	25
	% total sherds	1	23	1		6	31
	% total vessels	2	17	1		13	34
Total rim percent	376	65	16	0	0	457	
Percentage of weight	61	24	1	<1	13	16500	
Percentage of sherd count	46	27	1	<1	25	1318	
Percentage of vessel count	25	19	1	<1	55	545	

occur in earlier periods, suggesting that they may be residual here. The presence of a sherd from a vessel that also occurs in Period IIIa may confirm that.

Period IV. This period also produced a relatively large proportion of the assemblage, although there are only three contexts, two of which are rubble deposits. The nature of these two contexts suggests that they are likely to contain mainly residual pottery, and the ware types present are more plentiful in earlier periods. Context 6 may be of a similar nature, and produced a wide range of fabrics. Two of these, 18 and 27, occur exclusively in this context, but in quantities that suggest that these too are thirteenth-century types that are residual here.

Ceramic chronology

Table 4 shows that it is not easy to suggest any logical ceramic sequence, based on the stratigraphic distribution of the ware types. The flint-tempered coarsewares typically date from the twelfth to the mid-fourteenth centuries; to be superseded by highly fired late medieval sandy wares. The form of the jar/cooking pots is certainly thirteenth century in character, and the sandy wares are glazed and decorated in the English high medieval tradition. Late medieval sandy wares are not well represented here, although Fabrics 20 and 29 may fall into that category. A base fragment from a possible puncheon in Fabric 20 also indicates a likely late medieval date and those two are probably the latest types present, while all the others

may be dated to the thirteenth century, which seems to fit with the main period of activity at Odiham.

Ceramic provision and use

Given that most of this assemblage is likely to date to the same broad period, it is possible to attempt some interpretation of how pottery was used at the castle. Table 5 shows the range of vessel types represented, and quantifies them in two broad categories, coarseware and sandy ware. Coarseware is the most numerous type present, comprising 75% of the total assemblage by weight, and 67% by vessel count. The most common identified form for coarseware is the jar/cooking pot, which represents 35% of the total coarseware vessel count and this is also the most common form overall. Sandy wares show a greater variety of fabrics, with redware, white-slipped redware and whiteware types all present, but the overall form is the same, with jugs being the most common vessel type. The greater variety in the appearance of jugs, with various glazes and a variety of decorative techniques and motifs, suggests that they were acquired as much for their appearance as their functionality, and it is likely that a greater number of production sites are represented amongst them. A typical pattern for the consumption of medieval pottery is for the coarseware cooking and storage vessels to be derived from a narrower range of more local sources than the glazed, sandy ware jugs and bowls, amongst which some well-travelled types can be found (Brown 1997) and a similar pattern may be observed at Odiham, albeit on a small scale with this particular assemblage. Here, jar/cooking pots are the most common vessel type, at 25% of the total vessel count, while jugs account for 18%. This may accord with the rural setting of the castle, where glazed, decorative, jugs, often associated with display, may not have been required so often. The margins are so narrow however, in such a relatively small assemblage, that it would be misleading to read too much into these figures. Suffice to say that the quality of the pottery seems to reflect the modest social status of Odiham castle and its occupants.

The tile by Duncan H. Brown and Robert Thomson

One hundred and thirty-three fragments of tile weighing 16,052 grams were recovered from 20 stratified contexts. A number of unstratified pieces were also recovered, including, from the moat, a complete ridge tile. These have not been included in the discussion of the quantified material but some pieces are included among the illustrations. There is also some Romano-British material, which is excluded from the discussion. The total stratified medieval tile assemblage therefore numbers 119 fragments, weighing 14,680 grams and with a maximum object count of 87.

The tile in each context was sorted into fabric and form types, then further sorted by fragment type (ridge, end, edge, body, or any combination thereof) and the dimensions of length, width and thickness, where complete measurements could be taken. Glaze colour and distribution, and the position of any mortar traces, were also recorded. The resulting groups were quantified by weight, fragment count and object count. The latter count is the maximum number of individual tiles represented by each fragment, thus where two sherds fit together, they count as one object. Records were entered into a computerised database, which forms part of the project archive. This report takes the form of a descriptive catalogue of fabric and form types followed by a discussion.

Catalogue

Twelve fabric types have been identified among the Odiham tile. One of these, Fabric 0, is applied to Romano-British tile fragments. There are fourteen pieces of this, with a total weight of 1,372 grams, and flue, roof and wall tiles are all represented. Fabric 0 is not included in subsequent presentations of the assemblage quantities. Five fragments, weighing 626 grams, are the only pieces of tile that occur in Period I contexts (19 and 22). The medieval tile may be divided into two types, roof tile and hearth tile. There are nine roof tile fabrics and two types of hearth tile. Among the roof tile, Fabric 10 is a number given to fragments that have been



Fig. 21 Ridge tile (Fabric 1)

burnt too much to allow accurate identification, there is only one such fragment, and this is from context 4, which is unstratified.

Roof tiles

Fabric 1
6,284g 50 fragments 28 tiles

This fabric has a dense sandy matrix, with abundant, ill-sorted inclusions of grey and red quartz, rounded

and sub-angular, ranging in size from coarse to fine. There are also fragments of red iron and coarse to fine clay pellets. A mass of ill-sorted quartz grains adheres to the underside where tiles have been laid on sand. Tiles are fired red throughout. A variety of roof tiles were made in this fabric, including rectangular, flat, peg tiles, hip tiles, and ridge tiles. None are decorated or glazed. There is a complete ridge tile 240mm high and 325mm in length (Fig. 21). One peg tile has complete dimensions of 195x340mm, while one other has a width of 195mm. Peg holes are invariably circular.

Table 6 Quantity of tile fabrics in each tile producing phase

Fabric Number		Phase				Totals
		<i>Ila</i>	<i>Ilb</i>	<i>IIIb</i>	<i>IV</i>	
5	Weight (g)	314				314
	Fragment count	2				2
	Object count	1				1
3	Weight (g)	961	661	63		1685
	Fragment count	2	3	1		6
	Object count	1	3	1		5
1	Weight (g)	578	3961	1288	360	6187
	Fragment count	15	27	2	4	48
	Object count	9	11	2	4	26
4	Weight (g)	34	190		111	335
	Fragment count	1	2		2	5
	Object count	1	2		1	4
11	Weight (g)		237			237
	Fragment count		1			1
	Object count		1			1
2	Weight (g)		20	80	494	594
	Fragment count		1	1	3	5
	Object count		1	1	3	5
6	Weight (g)		2145		1691	3836
	Fragment count		20		11	31
	Object count		17		10	27
7	Weight (g)		534		435	969
	Fragment count		11		4	15
	Object count		11		4	15
8	Weight (g)		164		238	402
	Fragment count		4		1	5
	Object count		1		1	2
9	Weight (g)				121	121
	Fragment count				1	1
	Object count				1	1
Total Weight (g)		1887	7912	1431	3450	14680
Total Fragment count		20	69	4	26	119
Total Number of tiles		12	47	4	24	87

Table 7 The range of tile types represented by each fabric

Fabric Number		Tile Type						Totals	
		Ridge	Hip	Peg	Flat roof	Misc roof	Hearth		Pipe?
1	Weight (g)		1150	3795	943	299		6187	
	Fragment count		1	23	21	3		48	
	Object count		1	7	15	3		26	
2	Weight (g)	104		80	140	270		594	
	Fragment count	1		1	2	1		5	
	Object count	1		1	2	1		5	
3	Weight (g)		206	961	410	108		1685	
	Fragment count		1	2	1	2		6	
	Object count		1	1	1	2		5	
4	Weight (g)				134	201		335	
	Fragment count				3	2		5	
	Object count				2	2		4	
5	Weight (g)			314				314	
	Fragment count			2				2	
	Object count			1				1	
6	Weight (g)			2240	1238	358		3836	
	Fragment count			8	18	5		31	
	Object count			5	17	5		27	
7	Weight (g)	355			534	80		969	
	Fragment count	2			11	2		15	
	Object count	2			11	2		15	
8	Weight (g)	238					164	402	
	Fragment count	1					4	5	
	Object count	1					1	2	
9	Weight (g)						121	121	
	Fragment count						1	1	
	Object count						1	1	
11	Weight (g)						237	237	
	Fragment count						1	1	
	Object count						1	1	
Total Weight (g)		697	1356	7390	3399	1316	358	164	14680
Total Fragment count		4	2	36	56	15	2	4	119
Total Object count		4	2	15	48	15	2	1	87

Fabric 2
664g 6 fragments 6 tiles

This has a fine sandy matrix and a few fine, and some coarse, inclusions of flint, quartz and red iron. Larger fragments of flint and chalk are stuck into the lower surface. Tiles are fired red throughout. This fabric took the form of both peg and ridge tiles, but no complete dimensions have survived. Peg holes are circular. The ridge tile fragment has a dull green glaze on the upper surface, while three flat tile pieces have partial dark green or clear glaze patches.

Fabric 3
1,685g 6 fragments 5 tiles

This fabric has a poorly mixed, sandy matrix with moderate inclusions of fine and medium rounded clear or grey quartz, and fine red iron. There are also some fine and coarse fragments of flint, coarse clay pellets. The underside has abundant coarse quartz and flint stuck into it. Tiles are fired red throughout. There is one fragment of a hip tile, and all the remaining pieces are probably from flat peg tiles. The hip tile has a patch of clear glaze and two pieces of flat tile are also glazed. Two peg tiles have a complete width of 180mm.

Fabric 4
335g 5 fragments 4 tiles

This fabric has a very fine, dense clay matrix and inclusions of moderate, ill-sorted, fine to coarse, rounded and sub-angular, red, grey and clear quartz, with some ill-sorted flint and fine red iron. The lower surface is sand-impressed and the upper surface usually has a clear glaze that appears red-brown over the red clay body. Tiles are fired red throughout. All fragments are from flat roof tiles, and although there is no evidence of holes, it is likely that they were peg tiles.

Fabric 5
314g 2 fragments 1 tile

This is a highly fired fabric, purple-brown on the surfaces, dark red at the margins and with a dark grey core. The clay matrix is almost vitrified and there are abundant, medium and fine, sub-angular, clear quartz inclusions with occasional pieces of chalk. Both fragments came from a single unglazed peg tile, with a circular hole.

Fabric 6
8,642g 76 fragments 70 tiles

This has a dense fine clay matrix, similar in character to Fabric 2, and moderate, fine, sub-angular quartz inclusions. There are also medium-sized clay pellets and fine iron inclusions. The lower surface is sand-impressed. Tiles are fired red throughout. Most fragments are from flat tiles, some of which have peg holes and it is likely that all these pieces came from peg tiles. Just one of them has a patch of clear lead glaze. There are also two pieces of tile that appear curved, although whether these are part of a flanged and curved roofing arrangement is unclear, as no flanged types have been identified. It is therefore more likely that they are fragments of hip or ridge tiles. They are identified here as miscellaneous roof tile fragments. One piece of peg tile has a complete width of 180mm, while there is also a narrow example, with a width of 69mm. One unstratified fragment has an animal paw impression on one surface (see below).

Fabric 7
1,159g 16 fragments 16 tiles

A sandy clay matrix, apparently more open than most of the others described here, contains abundant fine sub-angular, clear and grey quartz and some iron, a few pieces of which are coarse in size. Tiles are fired red throughout. There are fragments from three ridge tiles, and the remainder are from flat, probably peg, tiles. No pieces are glazed.

Fabric 8
402g 5 fragments 2 tiles

An open, sandy clay matrix has abundant inclusions of sub-angular, white quartz, red iron and sparse coarse clay pellets. Tiles are fired red throughout. There is one fragment from a curved tile and one from a ridge tile. The curved tile seems to be quite narrow and this item may be a pipe rather than a tile. If this is so, then it had a diameter of *c.* 30mm. Neither piece is glazed.

Fabric 10
34g 1 fragments 1 tile

This fabric number has been allocated to pieces that have been burned beyond recognition. The only fragment in this category is unstratified in context 4.

Hearth tiles

Fabric 9

121g 1 fragment 1 tile

This hard-fired fabric has a dense, fine, sandy clay matrix with some red iron but no large inclusions. Fired pink-red throughout with red-grey surfaces, this tile has a thickness of 23mm, although one surface is degraded and this may not be a complete dimension. The only fragment of this type comes from a period IV context, and this may well be a post-medieval product.

Fabric 11

237g 1 fragment 1 tile

This dense, sandy fabric has abundant, fine, rounded, clear quartz inclusions and fine red iron. It is fired red throughout and is 28mm thick.

Chronology

A difficulty typical of most tile finds is that they usually occur in deposits dating well after the time when the tile was originally utilised, because once in place they are rarely disturbed unless the structure is modified or destroyed. This is equally true for roof and hearth tiles, but the former are perhaps likely to survive in situ for longer. It is therefore difficult to address aspects of chronology, at least through the application of stratigraphic data. Table 6 shows the amounts of every fabric in each tile-producing period. Periods I and IIIa produced Romano-British tile only, but of course that does not mean that no tiles originated in those periods. Tiles were certainly in use in London by the end of the twelfth century (Smith 1998–1999), and parts of Odiham Castle were probably tiled from the outset. Table 6 shows that all roof tile fabrics occur in periods IIa and/or IIb, which suggests that they may all be dated to the thirteenth century and later finds are probably therefore indicative of the length of time some structures remained in use. The only type that occurs exclusively outside period II is a fabric 9 hearth tile in context 6, which is in period IV. This is a hard-fired type that may be post-medieval in date.

Supply and use

Documentary sources detail many episodes of building and restoration and several deliveries of tiles and associated material. Upwards of 95,000 tiles were received around 1321 and the last major refurbishment in 1400 required more than 15,000 'plain tiles' and 150 of the 'concave' variety. All of the tile would appear to be local in origin, for although several different fabrics have been identified, there are none that are likely to have been made from non-local clay deposits. Fabric variation may be explained chronologically, where different types were supplied at different times, or by the possibility that several local producers were asked to provide tiles to the castle. These explanations are not exclusive of each other. The form of the tiles conforms with types found elsewhere in Hampshire.

Table 7 shows the range of tile types represented by each fabric. Most of the assemblage consists of roof tile. The fragments identified as flat roof tile almost certainly came from peg tiles, although they cannot positively be identified as such, and it is clear that buildings were covered with rectangular peg tiles, with round holes. None of the ridge tiles are decorated and there is no evidence for finials or louvres, so roofs were probably plain in appearance, although some are glazed, and these tiles may have come from relatively humble outbuildings. The hip tiles indicate that these were probably rectangular roofs with hipped gables.

Tile with impression of paw-print (Unstratified) by Leslie Cram

Domestic dog track; near complete back paw with a track width of 52mm. For comparison Chihuahuas measure 22mm and wolves start at 70mm for this measurement. A German Shepherd is 56mm and Roman dogs record a maximum of 65mm with a mean of 40.9mm.

Coins

In total five coins were recovered: three from the Odiham Castle excavations and two by a metal-detectorist on Down Farm, to the south of the canal. All are later medieval in date.

Short-Cross silver penny, found 1984, in layer 34 (buried turf)

Identified by Marion Archibald of the British Museum as a LAL Class Ib Penny, Exeter Mint; moneyer, Ricard. Class I of the Short-Cross issue was struck between 1180 and 1189 but the limiting dates of the sub-classes have not been established. Class Ib probably began fairly soon after the beginning of the coinage, because Class Ia is rare, and lasted for most of the middle 1180s. Coins of this class could have survived, theoretically, until the end of the issue in 1247 but this coin was lost when in an almost unworn condition and it is not clipped. It is likely to have been lost by *c.* 1200 although, as always, an abnormal survival in exceptional conditions cannot be ruled out. This, or secondary deposition, seems to be the case here as layer 34 probably accumulated during the second half of the thirteenth century.

Short-Cross silver cut halfpenny (SF 5), found 1981, in the sump lining (2)

Identified by Marion Archibald of the British Museum as a Class VIb, London Mint; moneyer, Rauf. Class VI was struck between 1210 and 1217. Short-Cross coins were superseded by the Long-Cross issue, introduced in 1247 giving a possible currency bracket of 1210-50. Since this example appears to have seen some circulation before deposition, a date later rather than earlier within that period seems more likely.

Silver Penny, found 1985, in (40) in the terrace Building (V)

Identified by the British Museum as a penny of the Scottish king Alexander III, Class Mb (double struck). Probably struck at Berwick, if each of the reverse stars are six-pointed. Of the second coinage *c.* 1280-.

Silver Long-Cross Penny, recovered by a metal-detectorist on Down Farm

Identified by the British Museum as a penny of Edward I/II, Class 4b (*c.* 1300-1310). Berwick mint.

Silver Groat, recovered by a metal-detectorist on Down Farm

Identified by the British Museum as a groat of Edward III, pre-treaty series, Gb 1356-61. Worn, clipped and buckled. London Mint.

Metalwork by Nick Stoodley

The majority of the metalwork was recovered

from Period III and IV layers, 26, 27, 35, 39, 40, or the fill of the circular moat (20). The investigations produced a few undiagnostic objects in lead and iron and small quantities of slag that have not been included in this report. Three items found by metal detectorists in adjacent fields are incorporated.

Arrowheads, Period III (Fig. 22.1-10)

A number of iron projectile points were recovered but because of poor preservation it is difficult to identify them all in detail. The best preserved are six armour-piercing socketed arrowheads with long slender points and clear military connotations (1-6). The most intact have a length of at least 200mm. They belong to Jessop's category M7 (1996, 192). Others (7-10) are shorter and stockier in appearance and probably include arrowheads used for hunting. Although the shapes cannot be identified there does appear to be a lack of lozenge, leaf-shaped and barbed arrowheads. This is surprising, especially when examples have been found at Ludgershall Castle (Goodall 2000, 155-6) and Facombe Northerton (Goodall 1990, 425). It is possible that some may not have had distinctive blades, and were hollow bullet-shaped arrowheads intended for practice (Jessop 1996; Goodall 2000, 155). Odiham inventories list 'quarrels', some barbed and feathered, for crossbow and springald, as well as feathered arrows. The provenance of items 1-10 (Period III) suggests that they may have been discharged and lost during the le Ewer assault of 1322.

Iron 'rowel spur', Layer of gravel (35), Period III (Fig. 22.11)

Dimensions: overall length 120.2mm, length of neck 42mm, span (between terminals) *c.* 70mm, rowel diameter *c.* 32mm. Loop-sided rowel spur, incomplete: one straight side with terminal, the other bent inwards and missing its terminal. The straight sides of the D-section are thickest where they join becoming thinner towards the terminals. The lower edge of the front of the still intact side rises to form the bottom bar of a horizontal slot terminal, rising at an angle of 90° above it. It has a short spur neck of square section maintaining an even thickness until it joins the rowel box in which the remains of a multi-point rowel are found. The rowel has three points and the very partial remains of a fourth; originally there would have been six in total. The terminal suggests a late thirteenth- or fourteenth-century date. An example of a spur with a rowel is shown on

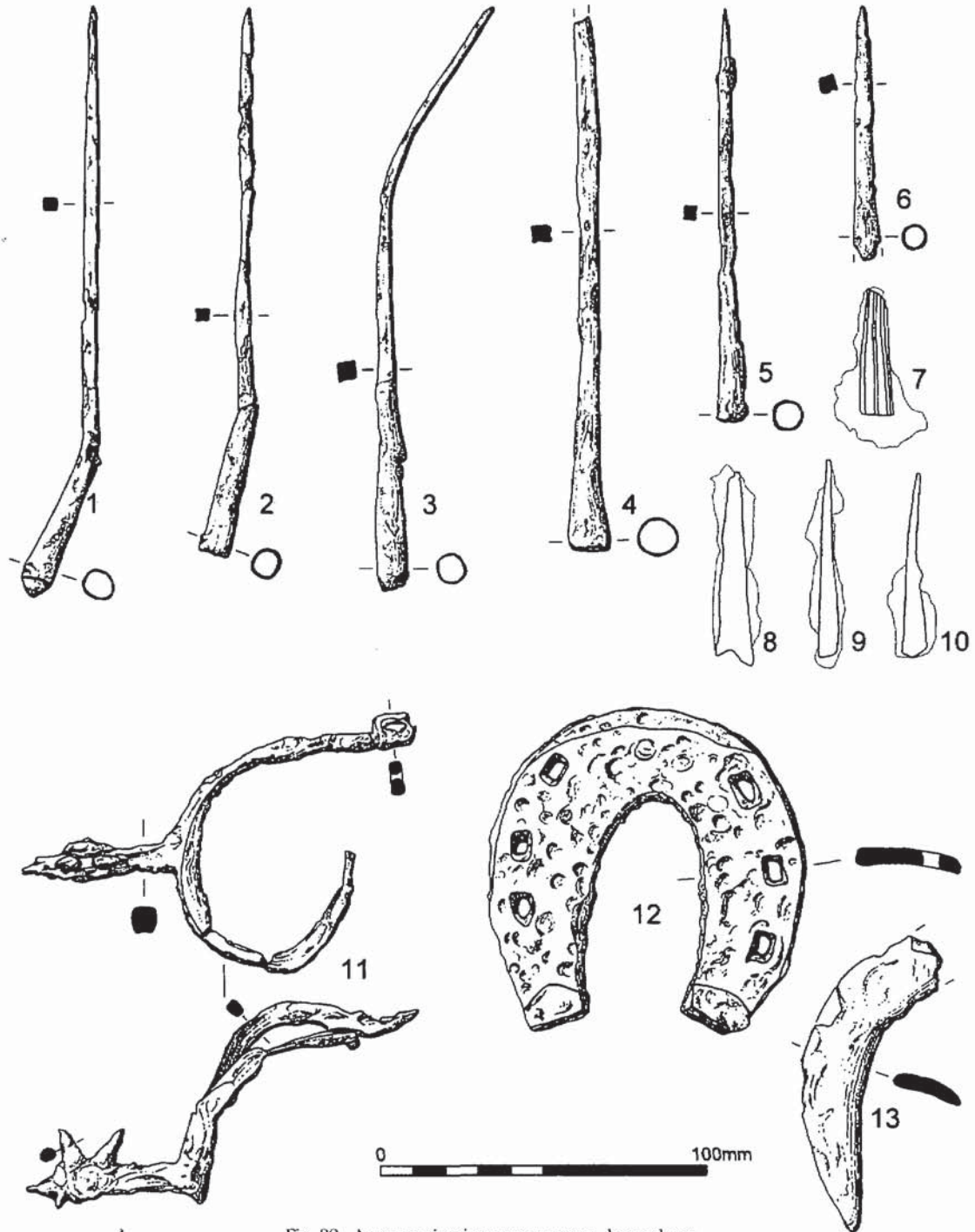


Fig. 22 Armour piercing arrows, spurs, horseshoes

the first seal of Henry III, but overall such types do not come into use until the fourteenth century.

Iron small horseshoe, Building IV (23) (Fig. 22.12)

Dimensions: overall length 100mm, maximum width of arms 34mm, span (between terminals of arms) 28mm. Horseshoe with rectangular countersunk nail holes, and thickened tips (calkins) to the terminals of the arms; edge demonstrating very slight waviness. The width of arms suggests a fourteenth-century date.

?*Iron horseshoe fragment* (Fig. 22.13)

Dimensions: surviving length 90mm and width 20mm. A curved, pointed strip with wavy edge. No nail holes present.

Iron barrel padlock with shackle (20) (Fig. 23.1)

Plain case and shackle, overall height 130mm, length of case 112mm, width of case 40mm, width of shackle 20mm, span of shackle 90mm. Barrel padlocks were one of the main types of medieval padlocks and examples with shackles are relatively common (Goodall 1981, 60). This piece has several transverse straps, the strap at the end where the shackle is secured having its terminals bent back for effect. A keyhole is present at this end. The shackle was probably used to secure animal or human limbs and such examples tend to have plain cases, as here.

Iron barrel padlock with shackle (A1994.22, not illustrated)

A very similar case and shackle to Fig. 23.1, though in a much poorer state of preservation, and missing the lock mechanism, was found by a metal detectorist to the east of the castle. An inventory of 1323 prepared by John St John lists large quantities of metalwork at the castle, including 'eight pairs of fetters' in the smithy (MacGregor 1983, 94).

Iron wall hooks (6, 47) (Fig. 25.1 & 2)

Two iron hooks: one is fragmentary measuring length 58mm × width 32mm; the other is complete: length 150mm × width 54mm. The latter has a tapering shank that would have allowed it to be driven into wood or stonework; the hook rises from the end of the shank. The former also had a tapering shank but the hook rises before the end of it. Both are square in section.

Iron cramp (Fig. 25.3)

Dimensions: bar of iron, length 150mm × width 25mm with bent ends, enclosed in lead sheet – the remains of a caulked cramp which originally joined two blocks of stone.

Iron strap (28) (Fig. 25.4)

Dimensions: length 124mm × width 26mm. Fragment of iron strap (with rivet hole, probably a binding although it could possibly be from a hinge)

Iron staple (10) (Fig. 25.5)

Staple length 55mm × width 27mm for joining timbers and stonework (Goodall 1990, 409).

Iron rod (Fig. 25.6)

Dimensions: 70mm in length, 5mm diameter. Curved rod, circular cross-section.

Iron knife (Fig. 25.7)

Fragmentary iron knife; dimensions: length 92mm × height 14mm × 3mm width (width of blade), tang and part of the blade. Triangular-section with strip tang: the tang inserted into the handle. Too little of the blade survives to identify the shape.

Iron nails (not illustrated)

The vast majority of the nails were found between bank 21 and the Period I Bank, particularly in the layer of gravel (26) used to level this area; the earlier hearths and associated occupation debris (27); and layer of yellow gravel (35). It is usual to classify timber nails according to the shape of the head, section and length; however the majority of the nails from Odiham Castle are incomplete. The following classification considers only those nails for which head shape has been identified and closely follows the typology used by McNeil (2000, 229) in his study of the nails from Ludgershall Castle.

All the nails have shanks of square or rectangular section. In total it was possible to assess head shapes for 38 nails and the results are displayed in Table 8. The most common type, accounting for over half of the sample, is clearly one with a flat circular head and these were found mainly in Periods III and IV.

Table 8 Types of nails (head shape)

Type of head	Quantity no/%
Flat of circular shape	21/55
Raised of circular shape	7/18
Flat of square shape	3/8
Head on one side only	7/18

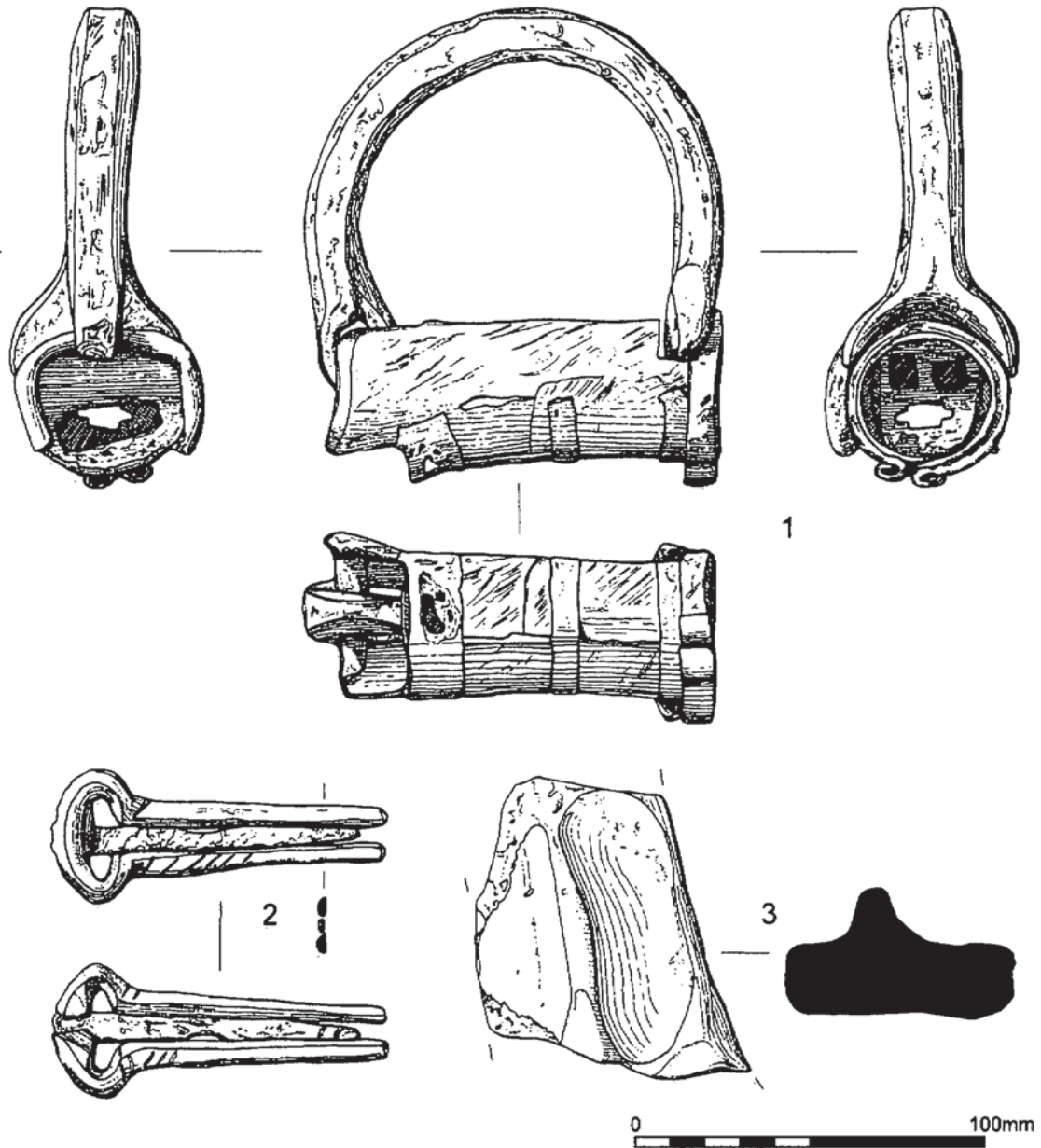


Fig. 23 Iron Barrel padlocks, Jaw's harp, cauldron foot

Although such types were discovered in large quantities at both Ludgershall Castle (McNeil 2000, table 15) and Facombe Netherton (Goodall 1990, Table, 411) they were not the most common type in their

respective assemblages. Given the small size of the identified sample from Odiham too much should not be read into their apparent prevalence at this site, however. The quantity of nails with a head

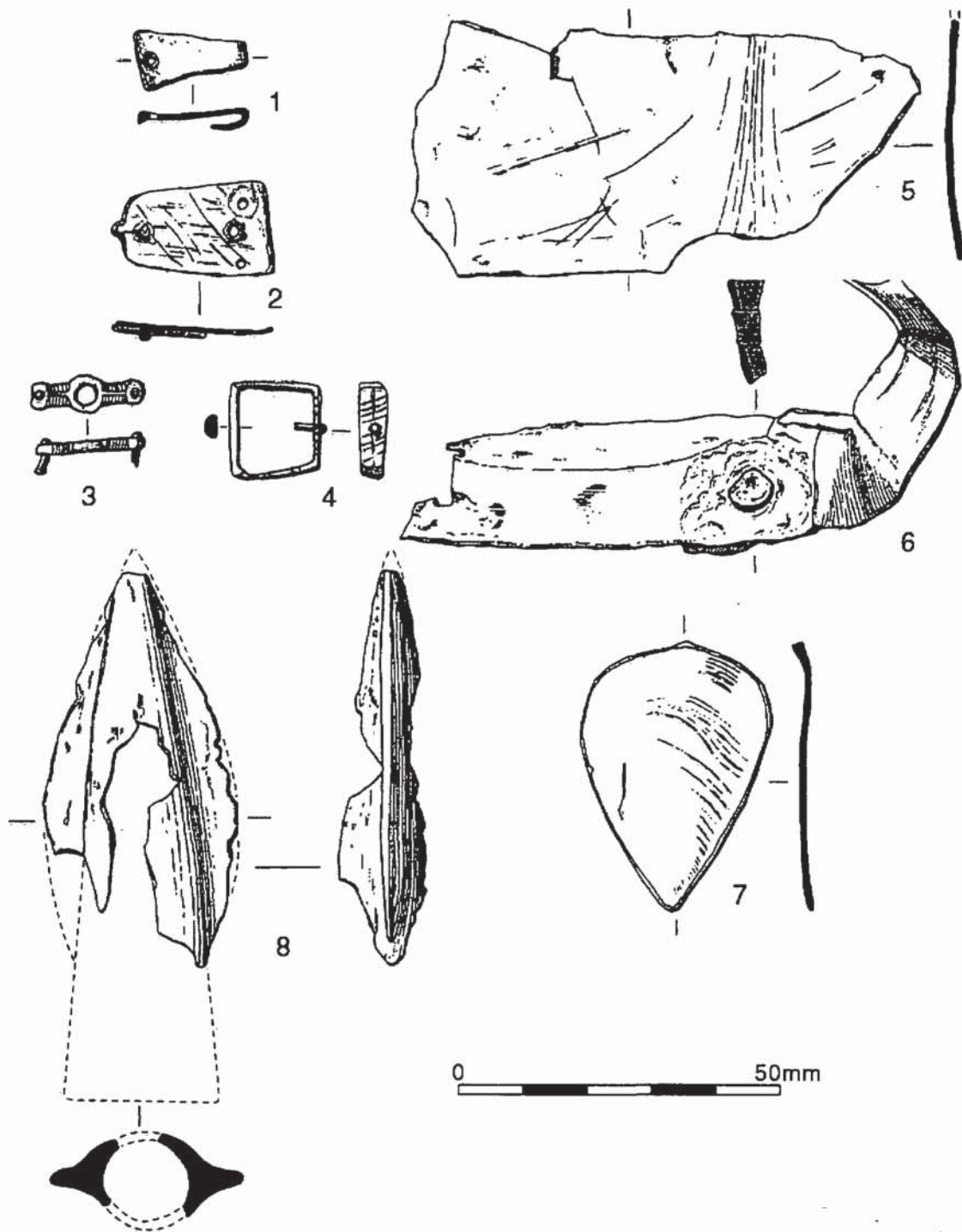


Fig. 24 Costume fittings to Bronze Age spearhead

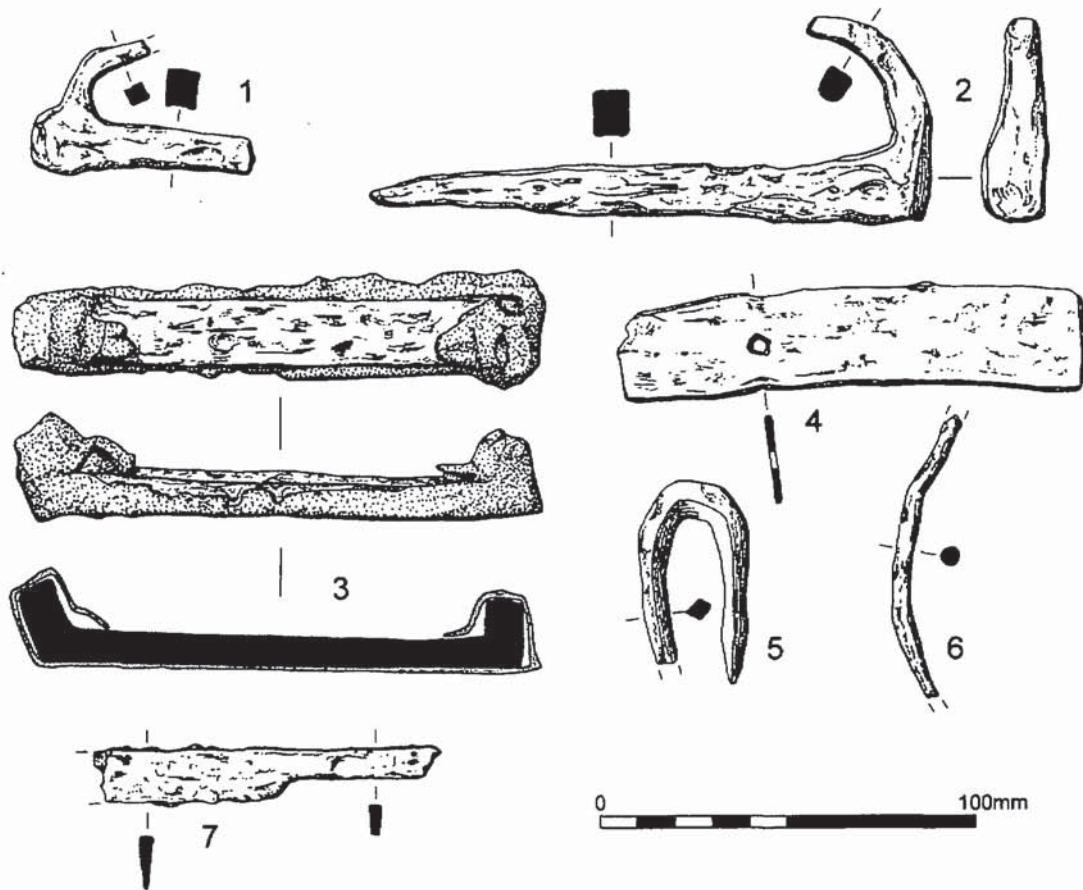


Fig. 25 Iron hooks to iron knife

projecting on one side only forms a relatively large group and is proportionally greater than the respective groups from both Ludgershall (0.2%) and Facombe Netherton (0.6%). It is possible that some nails that have lost the head on one side of the shank have been wrongly placed in this group.

Three particularly well made nails with an average length of 101mm and having circular heads were recovered from Pit 28 and must have been associated with the timber structure that covered this feature.

Horsebit (Fig. 26.1)

Metal detector find from the field to the east of the castle (A2002.39)

Iron snaffle bit with a two-link mouth piece (cf London Museum Medieval Catalogue, p84, Type II C). The links are spirally twisted. Overall length of mouthpiece 228mm.

Axe (Fig. 26.2)

Metal detector find from the field to the east of the castle (A2002.40)

Iron axehead, a 'Bearded axe' derivative (cf London Museum Medieval Catalogue, p60). The socket was formed by folding the tail of the axe over and welding it against one cheek to form a loop. The well-defined ridge protects this weak point and carries lines of decoration. This type of axe had a long history and was a cheap, general utility tool.

Jew's Harp (20) (Fig. 23.2)

Composite. Dimensions: length 55mm, width 22 mm (max), width of arms 5mm (max), length of tongue 50mm, width of tongue 5mm (max). Jew's, or jaw's harp, cast in copper alloy with penannular head and straight parallel arms (semi-circular in section) at an angle to the main body. The iron reed or tongue is still extant. The top surface is decorated with a series of diagonal file marks and similar incisions are visible on the underside. The tongue is placed in a depression at the centre of the underside of the head. The survival of the iron tongue is unusual. Examples are known from Facombe Netherton (Fairbrother 1990, fig 9.14), Clarendon Palace (Goodall *et al.* 1988, 207, fig. 70.16) and Middleton Stoney (Leggatt 1978, 2-3). The lack of typological development precludes any attempt at dating, although it should be noted that while such instruments are found from the Roman to modern period, a number have been recovered from later medieval sites

Copper alloy cauldron foot (Fig. 23.3)

Dimensions: length 90mm × width 65mm. Rectangular cross-section with central rib, cf Facombe Netherton (Fairbrother 1990, fig 9.15).

Bronze riveted strip (26) (Fig. 24.1)

Dimensions: length 17mm × width 9mm. Curved fragment of rim binding, strip (or mount) with riveted attachment hole.

Copper alloy fitting (35) (Fig. 24.3)

Dimensions: length 18mm × width 6mm. ?Belt mount in the form of a strip with a central circular hole. At the end of each strip is a terminal consisting of pierced attachment lugs, each containing the remains of a rivet. The strip on each side of the central hole is decorated by two lines of closely spaced file marks.

Copper alloy buckle frame (20) (Fig. 24.4)

Dimensions: length 14mm, height 19mm, width of frame 2mm. Small trapezoidal-shaped buckle frame with 5mm length of pin still extant. The frame has a semi-circular profile, the pin is circular. Buckles of this form could have been used for a variety of different uses, although they were probably associated with the fastening of clothing or harnesses (Goodall 2000, 152).

Copper alloy sheet (Fig. 24.5)

Dimensions: length 80mm × width 40mm × 2mm thick. Fragment of copper sheet, possibly part of vessel.

Copper alloy binding (Fig. 24.6)

Dimensions: length 85mm × width 25mm × 2mm thick. Fragment of binding with rivet holes and remains.

Copper alloy leaf-shaped fragment (Fig. 24.7)

Dimensions: length 41mm × width 30mm × 1mm thick. Decorative plate, possibly part of a pendant or dress fitting.

Silver strap-end (20) (Fig. 24.2)

Dimensions: length 24mm × width 14mm. Thin composite strap-end with two rivet holes at each end and a small projecting knob on the shortest side. The remains of a rivet survive in one of the holes. It is decorated on the upper surface with two circular holes the larger appears to have an engraved circle surrounding it.

Bronze spearhead by Stuart Needham (Fig. 24.8)

Stumpy variant of the basic LBA leaf-shaped spearhead. Dimensions: (existing) 62 × 30 × 13mm (estimated original dimensions) 86 × 30 × 15mm. This is a familiar variant, although not particularly common and occurs for example in the Wilburton hoard of LBA 1, or in closer proximity in the Blackmoor hoard of LBA 1-2 transition, and one of a pair from Colt Hill, West Surrey. Other examples occur in later hoards (LBA 2). It would almost certainly have had peg-holes for attachment. The date range of the type would appear to be *c.* 1000 - 700 BC.

Lead (Fig. 27.1-5)

Five fragments of lead strip. Two are slotted and one has a 'T' section.

*Stone**Fragment of decorative marble* (Fig. 28.1)

A small (70mm) fragment of finely worked marble, notable for the chamfer and angles which reflect (as some of the larger dressed pieces do) the octagonal nature of the keep. This tiny piece indicates the quality of the finishing and furnishings that once adorned the castle.

Fragment of mortar (Fig. 28.2)

Blue-grey Purbeck marble mortar with flat-topped chamfered rim. Part of pouring spout evident.

Whetstone (not illustrated)

Two pieces of rod-shaped whetstone of square section, all faces intensively worked. Length 370mm,

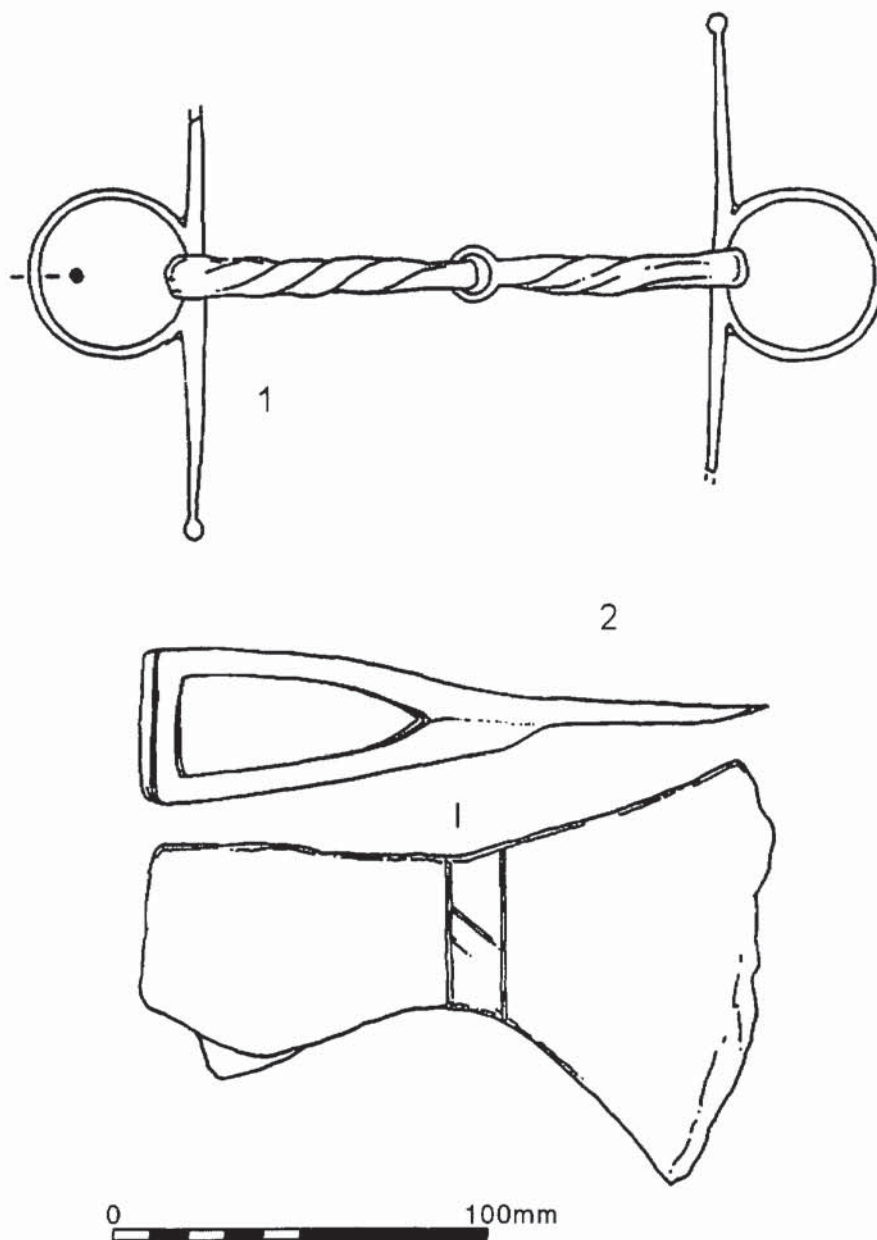


Fig. 26 Horse bit and axe

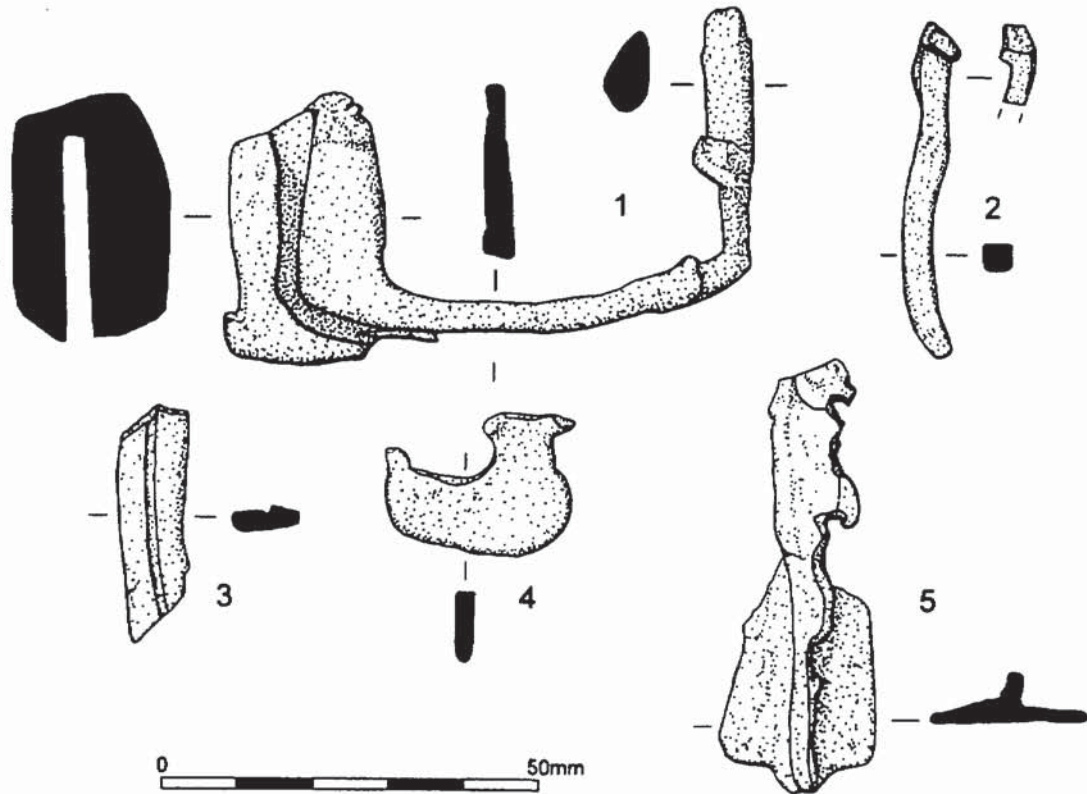


Fig. 27 Lead

but one end missing. Fine-grained schist, light grey colour.

Worked stone (notes on architectural fragments based on a report by John Crook)

Numerous fragments of worked malmstone, and Upper Greensand, were examined. Quarries are known at Farnham and Selborne (Clifton Taylor 1972, 117) and in the fourteenth and early fifteenth centuries purchases of 'Freston' for Odiham were made from Bentley (MacGregor 1983, 111, 114).

Door jambs – left in situ (see Fig. 10)

The plain chamfered plinth is of a type common in the Romanesque (though such simple plinths continued into the Gothic period) and the fine diagonal tooling is suggestive of a twelfth-century

date (in the thirteenth century 'claw chisels' came into use which left a granular texture). Perhaps more diagnostic for dating purposes are the form of the chamfer and bar stop. A good Hampshire parallel is a door on the north side of the Guardian Angels' chapel in Winchester Cathedral, datable to after 1202 (probably 1205-10). Such chamfers and chamfer stops probably came in at an earlier date and the diagonal tooling may indicate a date in the last two decades of the twelfth century. On the other hand the tooling might simply reflect the fact that the masons were trained in the old tradition, before the advent of the claw chisel.

Two fragments of moulded stone (keel moulding between two rolls) one illustrated (Fig. 29.1)

The two stones, 163mm and 197mm high respectively, have identical mouldings, consisting of a shallow keeled roll between two slightly smaller

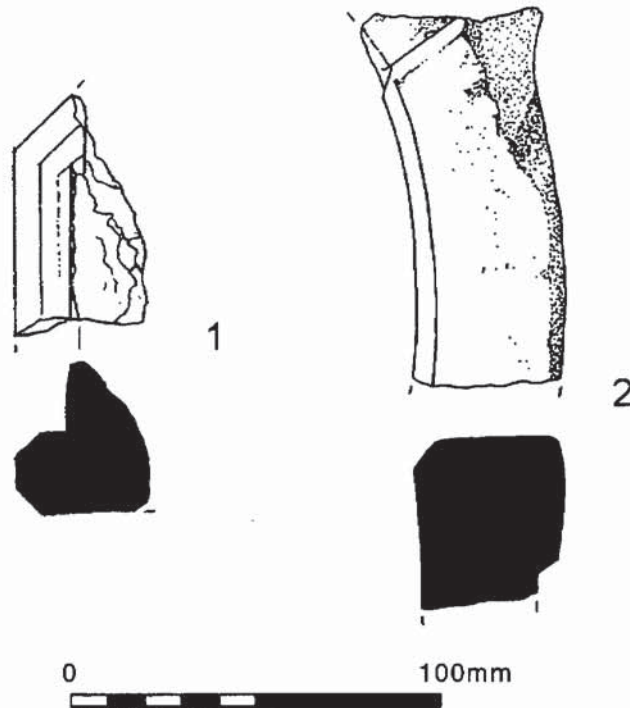


Fig. 28 Fragments of marble and mortar

plain rolls. This configuration is frequently found in vaulting ribs, but in the case of these stones the wall plane is clearly identifiable, the upper and lower faces are parallel, and the rolls have no curvature. It is therefore probable that they derive from the wall shafts of a vaulted building. This implies that they ended in a capital at the vault springing; the keeled roll would correspond to a transverse rib; the plain rolls to diagonal ribs. The tooling is well preserved suggesting an interior feature.

The keel is the best guide to the date of the fragments. Morris (1992) characterises keel mouldings as 'distinctive to the first century of Gothic, and may have been the earliest new moulding to appear'. Such mouldings are found in France from as early as the 1140s, and are found in southern England later in the century. A good local parallel is in the rebuilding of Chichester Cathedral that occurred after the fire of October 1187. In the nave aisles (likely to be the earliest part to be rebuilt), the shafts comprise a keel flanked by two plain rolls, though without the slight separation between the

three elements found in the Odiham fragments. Furthermore the Chichester shafts are slightly pointed (ogee keels). Other ogee keel mouldings are found in the central vessel shafts (triple keels) and the retrochoir. The date of the Chichester reconstruction is undocumented, but the design is likely to have been formulated by c 1190.

Pieces of roll and fillet moulding, from the lining of the sump (2) (Fig. 29 2 & 3)

These are of the same stone, with similar tooling to the keel and roll fragments. They must come from a decorative string-course on the exterior of a building. They are of particular interest in that one shows a change in angle of 45 degrees suggesting that they come from an octagonal or part-octagonal structure.

The fillet is narrow (12mm). Fillet mouldings are regarded as typologically later than keel mouldings, but the similarity of tooling to the doorjamb and triple roll fragments could suggest they came from the same structure. On the other hand, it is

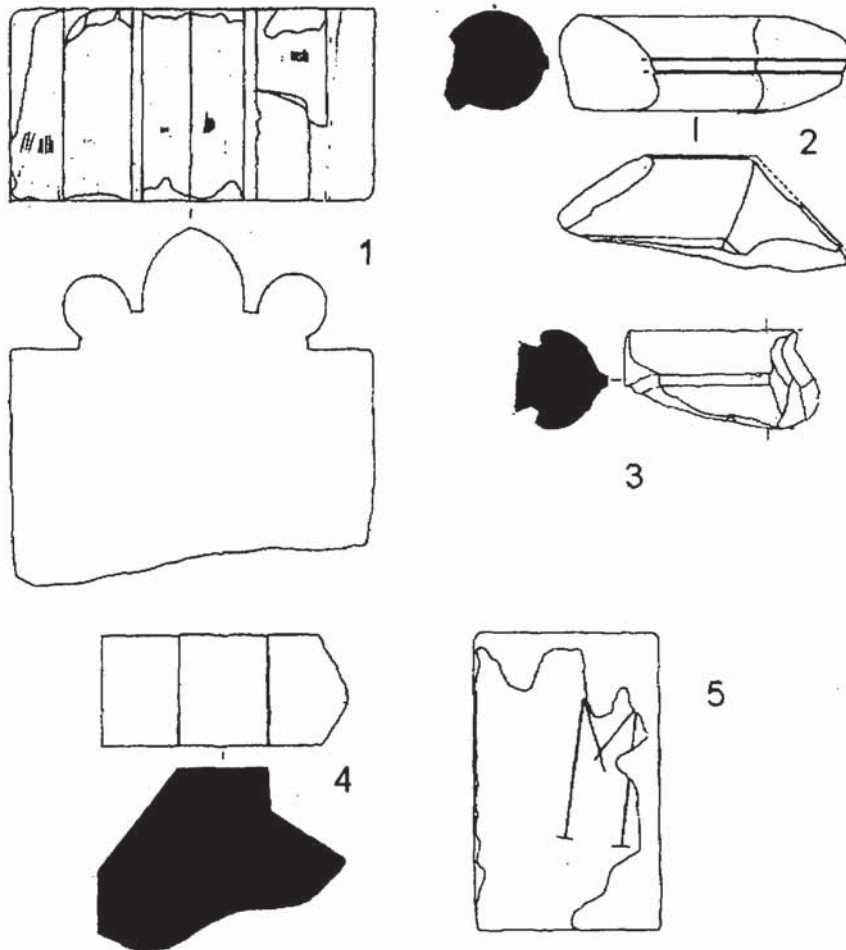


Fig. 29 Worked stone

perhaps more appropriate to associate them with the octagonal form of the donjon. Given that the fragments must come from the exterior of a building, they are remarkably unweathered, suggesting that they were not long in place before being removed and redeposited. The construction of the sump is placed in the second quarter of the thirteenth century by coin and tree ring dating.

Polygonal fragment (Fig. 29.4)

The internal angle is unlikely to be a door rebate as the faces meet at 135 degrees. But the change in angle might again suggest that this fragment also came from an octagonal or part-octagonal structure.

Ashlar block with mason's mark (Fig. 29.5)

This piece is chiefly of interest for the mason's mark which appears to be a crude letter 'M', complete with short horizontal strokes for feet. Intriguingly, it appears to have been carved before the final tooling, for the tooling striations stop either side of the uprights and are not aligned. The mark was clearly set out using a rule. It cannot be regarded as diagnostic for dating purposes.

Summary

The fillet moulding of the string-course fragments is typologically later than the keel moulding of the triple shaft fragments. The pieces could derive from

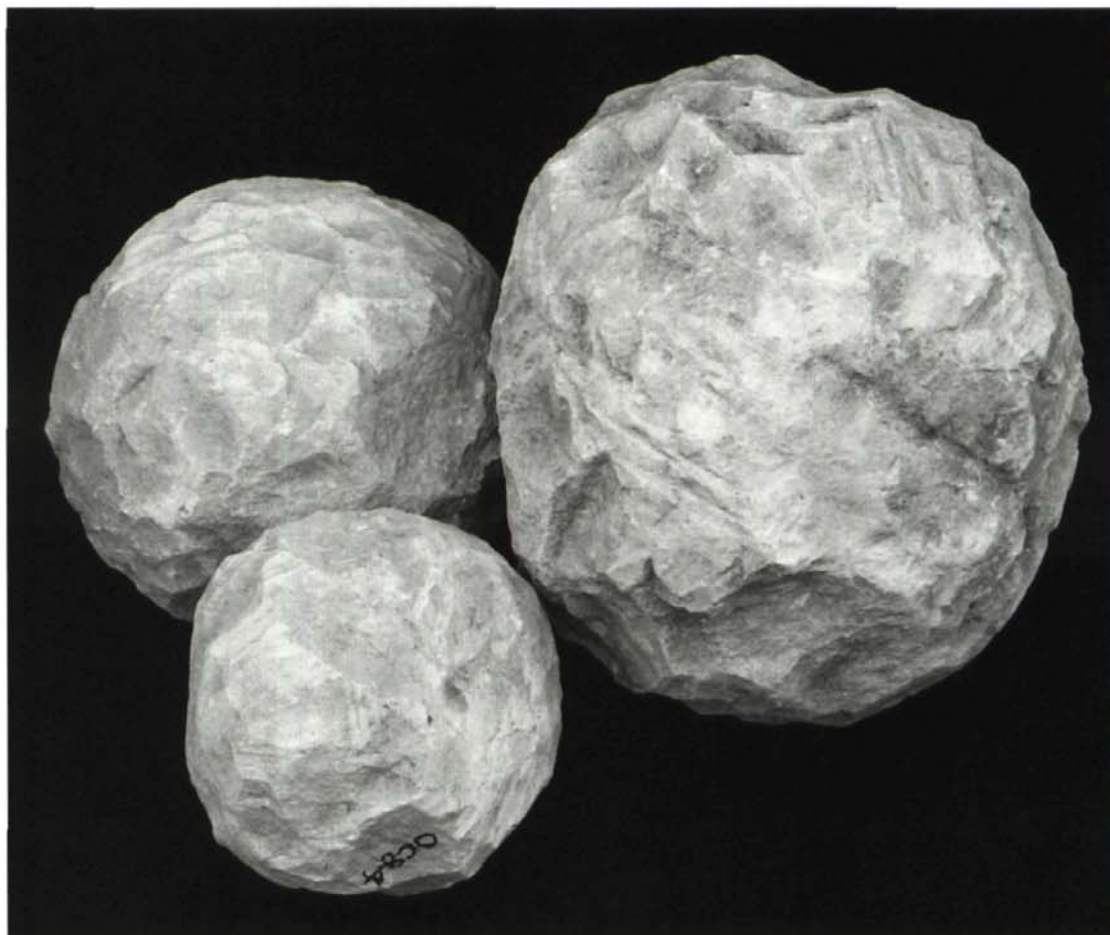


Fig. 30 Catapult ammunition

the same building but their provenance, in a sump created after 1235, and their octagonal geometry suggests that they were reused fragments from the fabric of the donjon. A number of episodes are recorded when such pieces could have been generated, not least in 1239 when a kitchen was built over the moat on the northeast side of the donjon, with a passage leading to it from the hall. This may well have required a new breach in the castle wall, or the enlarging of an existing one.

The doorjambs and triple shafts are more diagnostic for dating purposes, and clearly come from a building, or buildings that pre-date the octagonal donjon. Comparable work in Chichester (the shafts)

can be dated to the 1190s and in Winchester (the doorjambs) to 1205–10. Despite the discrepancy the simplest explanation would see all these pieces as part of the first phase of building (Buildings II and III) commencing in 1207 (for a fuller discussion see below)

Catapult ammunition (Fig. 30)

At least fifty examples of spherical catapult ammunition were found during the excavations, the majority in Period III contexts. Some were comparatively well finished but most were roughly tooled. In addition, there were instances where ashlar blocks had been modified for catapult use, and not all flat surfaces

removed. The stones fall into three size/weight categories,

Large	300mm diameter up to 35 kg	(77 lbs)
Medium	225mm diameter up to 10 kg	(22 lbs)
Small	160mm diameter down to 5 kg	(11 lbs)

Animal bone by Sheila Hamilton-Dyer

Introduction

The majority of the animal bone was retrieved by hand but limited sampling of cesspit 28 produced several bones from the sieve residues. The bone was recorded in 1990 and a preliminary report produced. It was also possible to compare the excavated remains with documentary evidence.

Methodology

Species identifications were made using the author's modern comparative collections. All fragments were identified to species and element with the following exceptions. Ribs and vertebrae of the ungulates (other than axis, atlas, and sacrum) were identified only to the level of cattle/horse-sized and sheep/pig-sized. This restriction does not apply to burials and other associated bones where ribs and vertebrae were assigned to species. Unidentified shaft and other fragments were similarly divided. Any fragments that could not be assigned even to this level have been recorded as mammalian only. Where possible, sheep and goat were separated using the methods of Boessneck (1969) and Payne (1985). Recently broken bones were joined where possible and have been counted as single fragments. Tooth eruption and wear stages of cattle, sheep and pig jaws were recorded following Grant (1982). Measurements follow von den Driesch (1976) in the main and are in millimetres unless otherwise stated. Withers height calculations of the domestic ungulates are based on factors recommended by von den Driesch and Boessneck (1974). Shoulder heights of dogs are calculated using the factors of Harcourt (1974). Archive material includes metrical and other data not presented in the text and is kept on paper and digital media.

Results

Period I Features contemporary with Building II

Original ground surface (context 22). Only two fragments were recovered from the original ground surface, one a fragment of pig lower canine. This is from a large male animal, either wild boar or domestic pig.

Cesspit (28). In addition to being excavated by hand, the deposit from this pit was sampled by sieving because it was found to contain much organic matter and small artefacts. Unfortunately it was the only feature to have been sampled in this way.

The 40 bones comprising the non-sieved material include a small number of well preserved ungulate fragments, including cattle, pig, red deer, fallow and roe, but no sheep. The larger deer are represented by the distal end of a fallow femur, and foot bones of both, and roe by the partial skull of a female. The 16 rabbit bones are probably of one, immature individual. Interpretation of rabbit remains, especially unbutchered ones, can be problematic because of their burrowing habit. Here, however, the context is secure and offers good evidence of this post-Norman introduction. Documentary evidence indicates that they were considered worthy of gift status, Henry III presenting ten live ones from his park at Guildford in 1235 (Veale 1957). Another lagomorph bone represents a mature hare, one of the few wild species from the site. The five bird bones include goose and domestic fowl.

In contrast the 168 remains recovered from the sieved sample consist mainly of herring vertebrae (60) and other fish bone, small mammal and amphibian remains, and very small fragments of larger mammals and bird bone (Table 9). Several of the bird and large mammal fragments appear to have been through the mammalian digestive system. Some of the herring vertebrae are crushed sideways, a feature usually considered characteristic of human ingestion (Jones 1984). Apart from herring the fish bone consists of seven eel bones and an inferior pharyngeal of a very small cyprinid, not sufficiently complete for identification to species. Hedgehog

Table 9 Distribution of taxa

<i>Phase</i>	<i>Feature</i>	<i>Context</i>	<i>horse</i>	<i>cattle</i>	<i>red deer</i>	<i>fallow</i>	<i>roe</i>	<i>deer</i>	<i>sheep/goat</i>	<i>pig</i>	<i>cattle-sized</i>	<i>sheep/pig-sized</i>
I	pit	19	-	-	1	-	-	-	-	-	-	-
	OGS	22	-	-	-	-	-	-	-	1	-	1
	pit	28	-	5	3	3	1	-	-	1	1	4
	pit	28 sieved	-	-	-	2	-	-	-	1	3	2
		Total		0	5	4	5	1	0	0	3	4
	percent		0	2.4	1.9	2.4	0.5	0	0	1.4	1.9	3.3
IIB	keep	3	-	-	-	-	-	-	-	1	-	-
	ditch	20	-	4	40	2	-	-	1	4	1	1
	bank	21	-	11	1	17	-	-	3	14	5	16
	occupation layer	27	-	36	3	6	1	-	22	5	136	134
	occupation turf	34	-	5	-	1	-	-	4	5	19	36
	pit	41	-	2	-	-	-	-	-	-	-	1
		Total		0	58	44	26	1	0	30	29	161
	percent		0	8.9	6.8	4.0	0.2	0	4.6	4.5	24.8	28.9
IIIA	gully	37	76	9	-	1	-	-	5	-	1	9
	gully	38	-	3	1	1	-	-	3	2	3	4
	posthole	43	-	-	-	-	-	-	-	-	1	-
	pit	44	-	-	-	-	-	-	1	-	-	-
		Total		76	12	1	2	0	0	9	2	5
	percent		55.5	8.8	0.7	1.5	0	0	6.6	1.5	3.6	9.5

<i>mammal fragments</i>	<i>dog/cat</i>	<i>hare</i>	<i>rabbit</i>	<i>medium mammal</i>	<i>small mammal</i>	<i>fowl</i>	<i>goose</i>	<i>other bird</i>	<i>bird fragments</i>	<i>eel</i>	<i>herring</i>	<i>other fish</i>	<i>fish fragments</i>	<i>amphibian</i>	<i>Total</i>
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	1	16	-	-	1	3	-	1	-	-	-	-	-	40
14	-	-	-	2	28	1	5	-	14	7	60	1	17	11	168
14	0	1	16	2	28	2	8	0	15	7	60	1	17	11	211
6.6	0	0.5	7.6	0.9	13.3	0.9	3.8	0	7.1	3.3	28.4	0.5	8.1	5.2	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	55
32	-	1	1	-	-	3	2	1	1	-	-	-	-	-	108
37	-	5	4	-	-	4	2	-	6	-	-	-	-	-	401
-	-	1	-	-	-	4	2	1	4	-	-	-	-	-	82
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
69	0	7	5	0	0	12	6	2	12	0	0	0	0	0	650
10.6	0	1.1	0.8	0	0	1.8	0.9	0.3	1.8	0	0	0	0	0	
-	-	-	-	-	12	1	-	-	-	-	-	-	-	-	114
2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	21
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
2	0	0	0	0	12	1	0	0	2	0	0	0	0	0	137
1.5	0	0	0	0	8.8	0.7	0	0	1.5	0	0	0	0	0	

Table 9 (cont.) Distribution of taxa

<i>Phase</i>	<i>Feature</i>	<i>Context</i>	<i>horse</i>	<i>cattle</i>	<i>red deer</i>	<i>fallow</i>	<i>roe</i>	<i>deer</i>	<i>sheep/goat</i>	<i>pig</i>	<i>cattle-sized</i>	<i>sheep/pig-sized</i>
IIIB	levelling	26	2	29	10	15	-	-	55	9	135	157
	levelling	35	1	56	9	7	-	-	20	11	51	88
	layer	39	1	1	-	-	-	1	3	1	1	2
	layer	40	-	17	-	3	-	1	10	14	17	47
	building	47	-	1	-	1	-	-	1	-	3	1
	building	51	-	4	52	4	1	-	1	3	10	4
	building	52	-	1	-	4	-	-	1	1	-	3
	Total		4	109	71	34	1	2	91	39	217	302
	percent		0.4	10.7	7.0	3.3	0.1	0.2	8.9	3.8	21.3	29.7
IV	demolition	1	-	-	-	-	-	-	1	10	3	4
	demolition	4	-	-	-	-	-	-	-	-	2	7
	demolition	6	2	23	2	5	-	-	13	7	18	20
	Total		2	23	2	5	0	0	14	17	23	31
	percent		1.1	12.6	1.1	2.7	0	0	7.7	9.3	12.6	16.9
	u/s n	u/s n	-	1	1	4	-	-	1	-	-	-
	u/s x	u/s x	1	9	3	1	-	-	15	4	16	9
	Total		1	10	4	5	0	0	16	4	16	9
	percent		1.4	13.9	5.6	6.9	0	0	22.2	5.6	22.2	12.5
Grand Total			83	217	126	77	3	2	160	94	426	550
percentages			3.7	9.6	5.5	3.4	0.1	0.1	7.0	4.1	18.8	24.2
% cattle, deer, sheep, pig				32.0	18.6	11.3	0.4	0.3	23.6	13.8		

<i>mammal fragments</i>	<i>dog/cat</i>	<i>hare</i>	<i>rabbit</i>	<i>medium mammal</i>	<i>small mammal</i>	<i>fowl</i>	<i>goose</i>	<i>other bird</i>	<i>bird fragments</i>	<i>eel</i>	<i>herring</i>	<i>other fish</i>	<i>fish fragments</i>	<i>amphibian</i>	<i>Total</i>
3	1	6	-	-	-	7	13	2	15	-	-	-	-	-	459
-	-	2	-	1	-	11	6	1	7	-	-	-	-	-	271
-	2	-	-	-	-	-	1	1	1	-	-	-	-	-	15
-	1	3	-	-	-	36	9	3	8	-	-	1	-	-	170
-	2	-	-	-	-	2	-	-	2	-	-	-	-	-	13
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	80
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
3	6	11	0	1	0	57	29	7	33	0	0	1	0	0	1018
0.3	0.6	1.1	0	0.1	0	5.6	2.8	0.7	3.2	0	0	0.1	0	0	
-	-	1	-	-	-	34	-	2	-	-	-	-	1	1	57
-	-	-	-	-	-	3	-	2	1	-	-	-	-	-	15
-	1	1	-	1	-	10	1	-	5	-	-	1	1	-	111
0	1	2	0	1	0	47	1	4	6	0	0	1	2	1	183
0	0.5	1.1	0	0.5	0	25.7	0.5	2.2	3.3	0	0	0.5	1.1	0.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
-	-	-	-	-	-	2	2	-	3	-	-	-	-	-	65
0	0	0	0	0	0	2	2	0	3	0	0	0	0	0	72
0	0	0	0	0	0	2.8	2.8	0	4.2	0	0	0	0	0	
88	7	21	21	4	40	121	46	13	71	7	60	3	19	12	2271
3.9	0.3	0.9	0.9	0.2	1.8	5.3	2.0	0.6	3.1	0.3	2.6	0.1	0.8	0.5	

comprises 23 of the 28 small mammal bones and these are probably all from one individual. Hedgehog can be eaten but none of the bones show any signs of cutting or burning. Although these animals are good climbers they often become trapped and drown in modern features with steep, smooth sides. Other small mammal (probably mouse) and amphibian bones (including toad) are also present. These were probably living in and around the feature; some may have been pit-fall victims. In conclusion the animal bone evidence seems to corroborate the supposition that this feature was used mainly as a cesspit.

Pit (19). Only one bone was recovered from this feature, thought also to have been a cesspit. This is a fragment of an adult male red deer skull. At the time of death this was antlered, implying that the stag had been killed between late summer and spring. The antler itself had been sawn off near the pedicle. If this feature had been a cesspit it may have been regularly emptied. No sieved material was available to check for residual small fragments and fish bones.

Period IIb

Tower moat (20). A small section was taken across this feature, which contained waterlogged material including wood. The 55 animal bones recovered are well preserved and stained a dark brown typical of this type of deposit. Most of the fragments are of red deer, but these are all of antler, many probably from just one, shed, antler. Two other antler fragments have been identified as being from the beam of fallow rather than red. The remaining 13 bone fragments are mostly of cattle and pig. In addition there is a complete domestic fowl radius with a total length of 52.8mm. This feature is recorded as having been emptied on a regular basis, the contents being spread on the fields and so the date of the final fill is debatable.

Upcast bank (21). This accumulation of 108 bone fragments is varied, not only in species and anatomy but also in preservation. Some bones are ivoryed and several had been damaged by canid gnawing. Cattle, fallow deer and pig are

the most commonly identified animals; red deer, sheep, hare, rabbit, domestic fowl and goose are also present in very small amounts (Table 9). One fragment of pig ulna is of a very large animal, possibly wild boar. The fallow bones are considerably biased towards head and foot fragments; only one of the 17 is from a main limb bone. These fragments probably represent the inedible waste discarded when processing carcasses. One skull fragment, chopped across the occipital condyles, had only just shed the antlers and was therefore a buck probably killed in spring (April/May).

Occupation soil 27, 34 on bank 21. Many of the 401 fragments from these contexts have been identified only to large or small artiodactyl, probably mostly cattle and sheep ribs, vertebrae and long bone shaft fragments. The condition of the bones is very variable. Some are eroded while others are well preserved with an ivoryed appearance. Two bones had been charred. Many were cut or chopped, and several had been gnawed. Pig bones are slightly less common from these layers than from the accumulation on the bank. A roe deer mandible was recovered from layer 27 and a partridge tarsometatarsus from layer 34. Other species are as from the bank. Overall this collection seems to be mainly of domestic, meal waste. This would seem to be in keeping with the interpretation of the hearths as night-watchmen's fires. In addition to the bones there was a coprolite, probably of dog.

Period IIIa

Gully (37). This feature contained 114 bones, mostly of two horse skeletons (Fig. 16). The main one, lying on its left side, consisted of a skull and vertebral column, almost complete, and the associated ribs. The other was of a partial skull and cervical vertebrae only. There are also remains of a complete right metatarsus and most of a pelvis. Unfortunately this feature was disturbed by an intruder during excavation and some bones removed. Although these were retrieved it is not clear whether the pelvis and metatarsus were associated with the main skeleton or from a third burial.

The skull of the main skeleton was found

almost entire but was extremely fragile and recovered in a very fragmentary state, preventing the taking of most measurements. A large, rough chop mark is present at the rear of the skull, in the region of the occipital/petrosal/temporal junction. It is not clear whether this mark was made at, or soon after, death, or whether it is burial damage, perhaps from a spade. The total lack of canine teeth in upper and lower jaws indicates the high probability of a female. The mid ventral border of the mandibles is slightly roughened and porous, and the diastema exhibits slight exostosis. All the teeth are erupted and in full wear with the lower third incisor infundibulum still just visible. Using Levine (1982) the age of the animal seems to have been about 10 to 12 years. The vertebral column consists of all the vertebrae, except the tail bones. All the vertebral epiphyses are fused. Part of the vertebral column shows considerable pathology. The atlas has a pair of exostoses on the front of the dorsal surface, possibly a response to excessive muscle traction. The occipital joint surfaces are not involved and the exostoses do not have a suppurative appearance, which might be expected if 'poll evil' was the cause (Lawson 1832). The remainder of the pathology is confined to the lower part of the spine. Thoracic vertebrae 14 to 18 have some exostoses round all the articulations, but not on the surfaces or sufficient to prevent movement. The severity increases caudally, thoracic vertebra 18 probably having very limited mobility. The lumbar vertebrae show greater changes and are all fused together by lateral bridging. This part of the spine would have been totally inflexible but the sacrum remains free. Modern parallels have been reported, almost always in the domestic horse rather than wild equids or donkeys. Unlike a similar condition in man, the sacrum and pelvis are never involved (Stecher & Goss 1961). Whether any of the affected animals also had exostoses on the atlas is not reported. Although the damage to the bones is severe the outward appearance may have been no more than stiffness in the lumbar region. This would not have prevented use of the animal for draught or pack purposes but it would have had diffi-

culty jumping and galloping as a riding animal. Although the cause of the lesions is not fully understood it seems probable that the damage is associated with the use of the horse as a beast of burden, and the extra stresses this placed on the back. This may be exacerbated if the animal has been heavily used when young. The ribs from the left side are mostly present but only parts of eight right ribs were found. Several of the ribs and vertebrae had been dog gnawed. Most of the column was, however, still articulated when finally covered. The body seems to have been weighted down with old catapult ammunition, in the form of malmstone blocks. The partial nature of the skeleton, together with the distinct dog gnawing, implies that the body may have been exposed for some time, either in the gully or elsewhere, and that the limbs were not with the rest of the body when buried. At the time of burial the skull, vertebrae and ribs would have still been in articulation. It may have been at this point that the skull was damaged.

The second horse burial was of a partial skull, which was found upside down, and the cervical vertebrae. The skull remains consisted of the right maxilla, zygomatic, part of the temporal, part of the nasal and both premaxillae. The maxillary tooth row is complete. The bone bordering the teeth shows some porosity. The teeth were all erupted and in full wear. The canines (indicating a probable male) are worn. The incisors all contain an unfilled infundibulum of elongated oval shape, though the first incisor shows some infilling. The crown heights of the molars and premolars could not be fully measured without damaging the skull, however, the skull was already damaged in the region of the molars and estimated measurements were taken. The tooth information indicates that the animal was probably about 7 years old. Small knife cuts are visible across the nasal and below and behind the eye socket. These are consistent with skinning, being the positions where the skin is attached closely to the bone.

The other 38 fragments from this gully are of cattle, fallow, sheep, ovicaprid, unidentified ungulate, domestic fowl and part of a wood mouse (Table 9).

Table 10 Distribution over the body

	<i>backleg</i>	<i>foreleg</i>	<i>head</i>	<i>teeth</i>	<i>feet</i>	<i>pelvis</i>	<i>shoulder</i>	<i>trunk</i>	<i>unidenti- fied</i>	<i>total</i>
Horse	1	1	7	-	4	2	-	68	-	83
Cattle	28	19	25	5	63	8	3	66	-	217
Red deer	3	3	103	1	15	-	1	-	-	126
Fallow	6	8	30	-	31	2	-	-	-	77
Roe	-	1	2	-	-	-	-	-	-	3
Sheep and Goat	42	57	15	1	6	20	16	3	-	160
Pig	13	14	16	14	27	1	2	7	-	94
Large ungulate	2	-	14	1	1	3	13	223	171	428
Small artiodactyl	3	-	3	-	-	7	11	422	104	550
Cat and Dog	5	-	-	-	1	-	-	-	-	6
Rabbit and Hare	8	12	2	-	11	2	1	6	-	42
Small mammals	5	7	2	1	2	2	1	20	-	40
Fowl	30	41	-	-	18	2	28	1	-	120
Goose	6	27	4	-	2	-	5	1	-	45
All other bird bone	3	6	1	-	11	-	2	7	54	84
Amphibian	1	2	-	-	-	2	-	3	4	12
Fishbone	-	-	3	-	18	-	3	65	-	89
Unidentified mammalian	-	-	32	-	1	-	1	2	57	93

Key: Backleg includes femur, tibia, fibula and patella; Foreleg includes humerus, radius and ulna; Trunk includes ribs and vertebrae; Feet includes carpi, tarsi, metapodia, phalanges and fin rays.

Gully palisade (38). This part of the feature contained no horse bones but a small mixture of 21 other bones.

Period IIIb

Gravel levelling layer (26). This layer contributes the largest single group of material examined, 459 fragments. Nearly half of the bones are unidentified artiodactyl material, dominated by pieces of cattle-sized rib, limb shaft, and sheep-sized ribs. Besides the expected main domestic ungulates there are bones of red deer and fallow, hare and several bird bones (Table 9). Many of the fragments, particularly of sheep and sheep-sized, had been gnawed and a probable dog coprolite was also recovered. Most of the fragments are of secondary butchery, or meal waste, rather than primary (slaughter) butchery, although there are some head and foot fragments usually associated with slaughter waste. In contrast with other contexts the 25 deer remains include several butchered limb bones, rather than just the waste head and foot bones. The bird material includes a number of goose bones, from more than one individual, and also single fragments of partridge and duck as well as several domestic fowl bones. A whole sheep radius from this feature gives an estimated withers height of 0.527m.

Gravel levelling layer (35). Although this layer does contain material similar to that from context 26, the proportion of identifiable cattle bone is much higher. Of the 56 cattle bones 39 are head or foot fragments and include 19 metapodia. These are mostly the proximal half only, the distal part having been chopped or broken off. These came from a minimum of four animals. There is also a complete metatarsus of a smaller animal, almost certainly from a female, with an estimated withers height of only 1.003m. Although deer and cattle overlap in size the morphology of the metatarsus is quite distinct. As these parts are generally regarded as inedible this group probably represents the disposal of waste after slaughter. The ovicaprid bones include several jaws of both aged and immature animals, several pieces of tibiae, and the horn core of a ram. This last had been sawn from the skull, and probably discarded after

removal of the horn sheath. Like the cattle bones there are few from the best meat areas but there are several sheep-sized rib fragments, some with butchery marks.

Layers around the terrace building

Layer 39 above 40. This layer offered only 15 bones but these are quite varied. They include two leg bones of a dog approximately 0.52m tall at the shoulder, a metacarpus of a small sheep with an estimated withers height of 0.583m, and also the tarsometatarsus of a woodcock.

Layer 40. In addition to bones of the domestic ungulates this feature offered many bird bones. These are mostly of domestic fowl and goose but there is also the right ulna of a peafowl, a coracoid of a pigeon and another of a corvid, probably rook. Many of the bones have an ivory appearance. Although no sieving was carried out, the bone of a sea fish was recovered from this layer, part of a gurnard cleithrum. The only definite evidence of cat at Odiham was also found in this context, a partial femur.

Layer 47. This produced just 13 bones, including a fragment of fallow metacarpus.

Layer 51. A total of 80 bones were recovered from this layer, including 52 of red deer, four of fallow and one of roe. Most of these remains are fragments of chopped antlers, and include a shed burr. The fallow remains also include chopped antler but also a metatarsus. This has cut marks across the distal end indicating skinning and/or the removal of the toes. The roe bone is a radius of an immature animal. A variety of other material includes two bones of dog. Apart from the dog and antler material the fragments probably represent meal waste in the main.

Layer 52. This layer produced just ten bones, including four of fallow. These are the anterior parts of probably a single skull. The permanent teeth are all in wear and the 3rd premolar impacted on the 4th.

Period IV

Layer 01, 53. This layer contained many fowl bones, two with cut marks. There is also a partridge humerus and the synsacrum of a small passerine (probably thrush). There are

Table 11 Withers heights

<i>context</i>	<i>species</i>	<i>anatomy</i>	<i>measurement (mm)</i>	<i>withers height (m)</i>
layer 34	cattle	metatarsus TL	190.0	1.036
layer 35			184.0	1.003
layer 39	sheep	metacarpus TL	119.2	0.583
u/s x		radius TL	141.4	0.568
layer 26			131.1	0.527
layer 35			131.4	0.528
layer 6	horse	tibia LL	252.0	1.099
gully 37		metatarsus LL	246.0	1.311

measurement codes as Von den Driesch 1976

also a small number of pig and sheep bones but none of cattle. An unidentified fish fin ray is also present.

Layer **04, 54**. Just 15 fragments were recovered from this layer which included three fowl bones, of which one is a femur that had been broken and was part healed at the time of death.

Layer **06, 55**. This contains several further fowl bones but also fragments of cattle, sheep, pig and deer. Dog and hare are also present, as well as the partial scapula of another medium-sized mammal. This matches cat but is very small. There are two bones of small equid, probably a pony but donkey has not been ruled out, the tibia gives an estimated withers height of only 1.099m. There is also a single fishbone: part of a cod cleithrum.

Discussion

Distribution over the body

With the lack of sieved material it is probable that the smallest anatomical elements of the ungulates are under-represented, especially those of the smaller animals, quite apart from any other taphonomic considerations. In addition the fragment numbers from the individual deposits are too small for a detailed analysis. There are, however, some overall biases that can be noted. Of an overall total of

126 red deer fragments 103 are from the head, mostly antler, and 15 are foot bones. Just seven bones are from the major meat bearing parts of the body. Although less in total number, the fallow also follows this pattern, with 30 from the head and 31 from the foot of a total of 77 (Table 10). By contrast the sheep bones, and to a lesser extent the cattle, are mostly from the meat joints. The more even anatomical distribution for pig bones probably reflects the small amount of waste on this animal. In very general terms the indication is that, while the domestic ungulate bones are mostly kitchen and meal waste, the deer bones represent the inedible waste from butchery. It would be very interesting to see whether the kitchen midden contains the meat bones of deer. It is possible the carcasses were prepared for consumption elsewhere. Modern game butchers often receive deer in the skin, but paunched and without head and feet.

Most of the 121 domestic fowl bones, the principal bird remains, were from layer **40** and demolition layer **1**. In both layers and overall the majority of the bones were the major elements of the leg and wing, in particular the humerus (20), femur (17), tibia (12), and tarsometatarsus (17). This bias is typical and may be explained by the sturdy nature of these elements, and the lack of sieved material. It is notable that there are only five carpometacarp.

Table 12 Cattle metatarsus measurements

<i>context</i>	<i>proximal width</i>	<i>min. shaft width</i>	<i>distal width</i>
u/s surface x	42.2 40.7 42.9	24.4	
			54.1
occ hearth 27	45.7		49.5
		25.1	46.7
occ turf 34	37.2	22.3	46.9
pit 41	40.9	23.9	
gully 37			52.1
levelling 26	40.2	21.4	
			49.6
levelling 35	41.7 37.8 37.3 45.9 37.6	24.3 20.5 26.6	48.4 44.5 53.5 55.8
demolition 6	39.0	26.5	54.9

This is the wing equivalent of the tarsometatarsus of the foot (the scaled part with the spur). The carpometacarpus in fowl is a small bone, about 40mm only, and often missed in hand collection – assuming it has not already been destroyed by scavengers. Similarly the bones of the shoulder area are relatively small and the sternum (breastbone) is a very thin bone with delicate processes. For the much larger goose the bias is in favour of the wing, including the

relatively small bones at the tip. This is in part due to the presence of several partial wings from layer 26. The bones are relatively large in goose, in addition the distal part carries the flight feathers, and these wing ends have a traditional use as domestic brushes.

All of the 60 herring bones from the pit 28 soil samples were vertebrae but these numbers are too small to be certain that the fish were without heads. The facial and cranial elements

Table 13 Selected sheep/goat measurements

<i>bone measurement (mm) value</i>	<i>radius Bp</i>	<i>humerus BT</i>	<i>tibia Bd</i>
u/s surface x		26.3	25
	28.1		
	28.9		
bank 21	31.7		
occ hearth 27	29.0		
	29.1		
	29.4		
		25.6	
levelling 26		24.9	23.4
		25.8	24.1
		26.3	24.4
		26.0	
	28.1		
	28.2		
levelling 35	28.2		
gully 38			26.8
layer 40			23.9
building 47		26.5	
building 52	29.3		
demolition 6		25.8	25.6
			25.6
Measurement codes as per Von den Driesch (1976)			
	<i>radius Bp</i>	<i>humerus BT</i>	<i>tibia Bd</i>
MAX	31.7	26.5	26.8
MIN	28.1	24.9	23.4
N	10	8	8
MEAN	29.0	25.9	24.9
SD	1.0	0.5	1.0
Co. Var.	3.4	1.9	4.0
Melbourne St mean	32.3	28.7	25.9
range	25.6-36.8	24.0-31.6	21.8-30.0
n	192	200	267
Lower High St mean	31.2	26.6	25.2
Measurement codes as per Von den Driesch (1976)			

of herring are very thin and fragile but a few might be expected. As it is likely that these bones are mainly from cess it is possible that they were eaten whole but beheaded, either in preparation, or at table. The few eel bones do include other elements besides vertebrae.

Sizes, ages, pathology, sex of the animals

The two partial horse skeletons contained no long bones and therefore it is not possible to estimate withers heights but they both seemed to be 'average', neither small pony nor shire. The metatarsus in gully **37** gives a withers height of 1.311m, approximately 13 hands, and typical of medieval material. There was also a very small pony (or possibly donkey) in layer **6** of only 1.099m withers height (Table 11). No bones of young stock were found. The partial skeletons in the gully are of mature but not aged animals. The cause of death is not revealed by standard examination of the bones, although both had some indication of pathological conditions. Horses may die (or be killed) for a variety of reasons and disposal in ditches is very common in archaeological contexts. The marks on the skull of the second horse burial indicate that the knacker or fellmonger made use of the hide. A similar, and larger, group of partial carcasses was recovered from a fourteenth-century gully at Jennings's Yard, Windsor (Bourdillon 1993). Some of these had also been skinned and the evidence pointed towards final disposal of carcasses, which had been first left accessible to dogs elsewhere.

Of a total of 217 cattle bones two only, both metatarsi, provide withers height estimates (Table 11). These are rather small and probably female. Metatarsi were the bones most frequently measurable (Table 12). Although no others were whole, some of the other metatarsal measurements were also comparably small. None reach the sizes of the larger Saxon cattle measurements reported from sites in southern England and many are in fact closer to the smallest of the Saxon range. In this they are comparable with High Medieval material in the area. Ageing data is very limited; a large proportion of the remains do not include the epiphyseal area and most of the head fragments are not of jaws with

teeth. The bias in anatomical elements towards head and foot bones also restricts the value of the remaining ageing data; the bones of the foot fuse relatively early, between two and three years old. There are, however, several bones of animals over four years, some younger than this, and a few of calves, most can be aged only as being over two years.

None of the sheep bones are of large animals (Tables 11 & 13). They are also comparable with the small, slender beasts common from medieval sites in Wessex. None, however, are quite so small as those at the bottom of the medieval range which have been reported from sites such as Southampton (Bourdillon 1980). Age profiles cannot be usefully constructed with these small samples but the bones and jaws indicate animals of a variety of ages. Most of the sheep would have been approximately 18 months to three years at death, neither lambs nor aged stock. A few examples are of younger animals but are not of young lambs.

Pig bones were rarely measurable, being either fragmentary or with unfused epiphyses. This is typical of an animal used almost entirely for meat and therefore most are killed before skeletal maturity. As indicated in the results a few remains were clearly of adult males and are large enough to be of wild boar but most are likely to be of domestic stock. A few bones are of young piglets.

Deer measurements are mostly of the metapodia (Table 14). The fallow are of good size and, judging from the number of antlers and male skull fragments, are probably mostly male. One animal had some oral pathology and another bone indicated a healed break.

Layer **39** contained a dog tibia and femur. Although damaged the femur was estimated to have a total length of 170+ and thus a shoulder height of at least 0.521m. This is well within the range for medieval and post-medieval material and it is not possible to ascribe to a particular type of dog. Demolition layer **6** contained the damaged tibia of a smaller, more slender animal.

Several of the domestic fowl bones were complete and measurable (Table 15). Some also gave indication of sex, either by the presence of

Table 14 Deer measurement summary

<i>context</i>	<i>species</i>	<i>anatomy</i>	<i>TL</i>	<i>Bp</i>	<i>Dp</i>	<i>SD</i>	<i>Bd</i>	<i>max MD</i>	<i>DFB</i>
layer 35	RED	metacarpus		39.3	28.9	22.7			
				37	27.1	23.4			
u/s x		metatarsus		32.7	36.9	22.4			
pit 28			287	35.2	38.7	23	40.5	28.3	40.1
gully 38			267	31.3	34.9	21.2	37.1	25.5	35.9
layer 35						18.8			
						18.6			
u/s x	FALLOW	metacarpus				19.2	31.5	20.4	31
pit 28				31.6	21.4				
bank 21			201.5	29.5	20.6	18.8	30.8	18.4	29.1
gully 38				28.1	19.9	15.8			
layer 35			197.3	29.6	20.9	19.4	30.2	19.4	29.1
layer 6			205	31.8	22.1	19.7	32.2	20.3	31.3
u/s n		metatarsus				16.5	30.8	19.8	30.6
pit 28			225	27.4	29.5	17.1	31.2	18.8	32
bank 21				25.8	27.9	16.1			
				24.9	26.6	15.8			
							29.2	18.6	28.6
hearth 27				31	33.2	18.9			
layer 40				25.5	28.6	17.9			
layer 26						18.7			
				27.1	29	17.7			
			226	27.6	29.6	18.4	31.5	19.9	32.2
layer 35			223	28.3	30.2	18.2	31.6	20.3	33.5
				19.5	20.1				
						15.5	27.2	17.6	27
building 51						14.3	28.4	17.4	27.5
layer 6						15.9	30.8	19.8	30.3
Measurement codes as per Von den Driesch (1976)									
	<i>fallow</i>	<i>metatarsus</i>	<i>TL</i>	<i>Bp</i>	<i>Dp</i>	<i>SD</i>	<i>Bd</i>	<i>max MD</i>	<i>DFB</i>
		MAX	226	31	33.2	18.9	31.6	20.3	33.5
		MIN	223	19.5	20.1	14.3	27.2	17.4	27
		N	3	9	9	13	8	8	8
		MEAN	224.7	26.3	28.3	17	30.1	19	30.2
		SD	1.2	3	3.4	1.4	1.5	1	2.2
		Co. Var.	0.5	11.4	12	8.2	5	5.3	7.3

medullary bone in laying hens (Driver 1982) or the spurs on tarsometatarsi of probable males. The variation in range mostly reflects sexual dimorphism and the bones are comparable in size to the larger of recent bantam breeds.

Temporal changes

The variety of feature types and the small sample size make it difficult to discern any real changes in animal exploitation over time. Individual contexts are variable in content. Taken overall the species representation is broadly similar throughout; most of the bones are of the main domestic ungulates (cattle, sheep and pig) together with domestic fowl and a relatively high proportion of deer. The relative proportions of deer and domestic ungulates is given in Table 16. They do vary, for example cattle is dominant in Period IIIa but the total sample is just 26 bones. The two periods with over a hundred bones, IIb and IIIb, are quite similar. Other taxa are at such low levels that presence or absence from single contexts is not statistically significant. The remains of dog are rare but the indirect evidence of gnawing and coprolites shows that dogs were present in all periods. The domestic animals are typical of the small stock found in southern England in the medieval period. The deposits examined do not cover the later post-medieval period of improvement in stock management and none of these larger animals are present. It is impossible to track any change in the ages at which animals were killed; the rarity of very young stock or aged animals does, however, suggest a consumer site.

Comparison with documentary evidence

As mentioned above, records indicate the moat being emptied and the material spread on the fields (MacGregor 1983, 76, 101, 109). In addition, there are references to the cleaning of other features, such as a fishpond (Ibid., 92). For the potential contents of the moat and other features there are excellent records for the first half of the year 1265. These are in the form of the Household Roll of Eleanor de Montfort. At this time the castle must have been witness to many comings and goings of important persons.

The food listed between 22 February and 1st June indicates the content of high status meals. The most frequent entry is of herring, particularly in Lent as might be expected (Ibid., 137). Many of these are from the castle stores and it is probable that they were all salted or pickled. Other sea fish mentioned include conger, cod, ling, hake and mackerel. Pike and eel are also listed and unspecified fresh water fish were also supplied from the castle fishponds, sometimes having to be supplemented from Frensham, near Farnham. One fish mentioned which normally leaves no evidence is the boneless lamprey. Although frequently encountered in texts it has been recorded to date only from a waterlogged context in York (Wheeler & Jones 1989). Whale and porpoise pieces are also mentioned; these would leave no trace unless portions with bone were included. The list of sea fish is short and does not include many of the species found from medieval Southampton. Sometimes the type of sea fish is not specified; these may include stockfish (dried and salted cod and other Gadidae). Future excavations may be able to further more information, especially from sieved samples. It is difficult to know where all the fish came from but fish was supplied from both Staines and Bristol, implying that the supply could be from almost anywhere and is not restricted to the species locally common at the nearest coast. The fifteenth-century brokage books of Southampton list considerable quantities of fish, including herring and conger, travelling at least as far as Salisbury and Newbury (Stevens & Olding 1985). When Eleanor's household moved to Dover there was an increase in the variety of sea fish supplied; presumably those encountered at Odiham were those that travelled best, particularly salted herring. An inventory for 1323 mentions 87 putrid lings, (which were thrown out of the castle!) as well as 193 stockfish and 150 flatfish, which were sold (MacGregor 1983, 92-94).

Often the meat supplied to the kitchens is unspecified in the Household Roll but sometimes calves are mentioned along with oxen, swine, sheep and kids. This last is interesting as few goat bones are identified from

Table 15 Domestic fowl measurements

<i>context</i>	<i>humerus TL</i>	<i>radius TL</i>	<i>femur TL</i>	<i>tibia TL</i>	<i>TL tarsometatarsi, layer 40</i>	
					<i>probable male</i>	<i>probable female</i>
u/s x	74.6	–	–	–		
pit 28	–	–	72.0	–	79.7	62.1
ditch 20	–	52.8	–	–	79.7	67.1
layer 40	65.4	57.5	–	–	75.2	69.4
level 35	62.4	–	72.2	113.4		62.5
	–	–	79.5	–		
demo 1	66.9	54.5	80.3	101.5		
	60.8	54.3	71.8	–		
	66.1	–	–	–		
	74.1	–	–	–		
demo 6	–	56.9	–	–		
mean	67.2	55.2	75.2	107.5	78.2	65.3
n	7	5	5	2	3	4
sd	4.9	1.7	3.9	6.0	2.1	3.1
co-ef var	7.3	3.1	5.2	5.6	2.7	4.7

British archaeological sites. This is in part due to difficulties of distinguishing sheep from goats but the paucity of goat from urban sites (apart from large horn cores) is marked and consistent (Albarella 2003). As young sheep and goat mandibles are readily distinguishable (Payne 1985) future excavations may find evidence in the kitchen midden, not yet explored. There is a record of a large flock of goats as well as a dairy cattle herd at Odiham. Although the dairy products themselves leave no trace, the surplus male kids are an obvious by product of such an activity. The material examined so far does not contain any remains attributable to goat, while many can be positively identified as sheep.

Birds mentioned are restricted to domestic

fowl, goose and large numbers of eggs. There is no mention of any wild birds or animals, not even deer. Wild species may not have made much contribution to the diet during this particular, short period.

Documents specifically mentioning deer at Odiham include an order from Edward I in 1276 to remove 130 live does from the park for restocking Kennington and Langley (MacGregor 1983, 77). Other deer movements, both in and out, are recorded for 1278 and 1287. The deer in these medieval parks were managed for royal sport rather than consumption. Relocation of stock continued in later times and the gene pool of any particular park would probably have been very mixed. The State Papers of James I for 1623 record a dispute over supply of 50 deer from

Table 16 Distribution summary of the main ungulates

Phase	Feature	Context	cattle	red deer	fallow	roe	deer	sheep/goat	pig	Total
I	pit	19	-	1	-	-	-	-	-	1
	OGS	22	-	-	-	-	-	-	1	1
	pit	28	5	3	3	1	-	-	1	13
	pit	28 sieved	-	-	2	-	-	-	1	3
		Total	58	5	4	5	1	0	0	3
	percent		27.8	22.2	27.8	5.6	0	0	16.7	
IIB	keep	3	-	-	-	-	-	-	1	1
	ditch	20	4	40	2	-	-	1	4	51
	bank	21	11	1	17	-	-	3	14	46
	occupation layer	27	36	3	6	1	-	22	5	73
	occupation turf	34	5	-	1	-	-	4	5	15
	pit	41	2	-	-	-	-	-	-	2
	Total	188	58	44	26	1	0	30	29	188
	percent		30.9	23.4	13.8	0.5	0	16	15.4	
IIIA	gully	37	9	-	1	-	-	5	-	15
	gully	38	3	1	1	-	-	3	2	10
	posthole	43	-	-	-	-	-	-	-	0
	pit	44	-	-	-	-	-	1	-	1
		Total	26	12	1	2	0	0	9	2
	percent		46.2	3.8	7.7	0	0	34.6	7.7	
IIIB	levelling	26	29	10	15	-	-	55	9	118
	levelling	35	56	9	7	-	-	20	11	103
	layer	39	1	-	-	-	1	3	1	6
	layer	40	17	-	3	-	1	10	14	45
	building	47	1	-	1	-	-	1	-	3
	building	51	4	52	4	1	-	1	3	65
	building	52	1	-	4	-	-	1	1	7
	Total	347	109	71	34	1	2	91	39	347
	percent		31.4	20.5	9.8	0.3	0.6	26.2	11.2	
IV	demolition	1	-	-	-	-	-	1	10	11
	demolition	4	-	-	-	-	-	-	-	0
	demolition	6	23	2	5	-	-	13	7	50
		Total	61	23	2	5	0	0	14	17
	percent		37.7	3.3	8.2	0	0	23	27.9	
	u/s n	u/s n	1	1	4	-	-	1	-	7
	u/s x	u/s x	9	3	1	-	-	15	4	32
Total			10	4	5	0	0	16	4	39
Percent			25.6	10.3	12.8	0	0	41	10.3	
Grand Total			217	126	77	3	2	160	94	679
percentages			32	18.6	11.3	0.4	0.3	23.6	13.8	

Odiham to Windsor. Whether these were red or fallow deer is not stated.

The presence of the peafowl in context 40 is also consistent with the picture of the castle's subsequent use as a hunting lodge with gardens. Although peafowl are edible when young their main function would be as a decorative status symbol.

Conclusions

The faunal remains from the partial excavation may be unrepresentative of the site as a whole in view of sample size and the area targeted. Despite these limitations and the relatively small size of the assemblage (2271 fragments in total, including sieved material), it is an interesting group with some clear feature differences. The remains suggest disposal of meal waste, cess, and more general disposal including that of partial horse carcasses. The opportunity to compare actual remains with documentary evidence is also welcome. The high proportion of deer in comparison with most other sites supports evidence for a high status household. Few deer remains are found on medieval sites other than castles (Grant 1981). The low proportion of venison meat bones, however, probably indicates that the excavated areas do not contain much waste from the household meals. Similarly there are few wild birds, and neither is there any evidence for hawking. Other sites such as Portchester Castle (Eastham 1978) and the mercantile houses in Southampton (Bourdillon 1980, Hamilton-Dyer 1997) offered a much wider variety of bird and fish. It is noticeable that the one sieved feature did contain many fish bones, though of a limited variety. It would be most interesting to examine material from the kitchen midden as this would be expected to contain more of the bird and fish bones. Of course there is the possibility that most of the waste went into the moat and cesspits and these regularly emptied.

Overall the assemblage hints at great potential and any excavation strategy in the future should include an extensive sieving programme, particularly for the area of the kitchen midden and any cesspits.

INTERPRETATION AND DISCUSSION

A chronological sequence

The archaeological evidence has undoubtedly added a new dimension to the interpretation of the origins, development and function of Odiham Castle. The excavations, centred as they were on the octagonal donjon and an area in the southwest corner of the northern platform or ward, revealed a complex but well-preserved stratigraphy and, considering the relatively modest scale of the investigations, a surprising number of new elements to be woven into the story. Simply stated, the work revealed buildings pre-dating the octagonal donjon, and arguably contemporary with the main moats. The donjon, when constructed, was furnished with a substantial moat immediately beyond it, and subsequently the area between the new and original moats was further strengthened with a timber stockade and gully. As the military requirements faded this area was levelled and probably turned into a garden. By this time the inner moat was backfilled, in part at least.

Despite the apparent clarity of the documentary evidence, the absolute dating of individual periods and compiling of an exact chronological sequence remains difficult. It relies on a small number of undiagnostic pottery sherds, three coins, one dendrochronological date and the evidence provided by decorative stonework.

Period I 1207 onwards

The earliest activity in this period is characterised by the construction of several major features. A moat was created and provided with an internal bank, and it was inside this feature that stone buildings were raised and cesspits dug. The investigation of the stretch of wall (9) belonging to one of these buildings (II) revealed the base of a doorway with decorative jambs which can be paralleled at Winchester Cathedral, where a date of 1205–1210 is suggested. Adjacent to the wall was a thin spread of stone chippings, as if from a final, fine dressing, not a major work. Presumably the blocks had been created elsewhere on the site and brought to this location. The contrast

with the donjon construction (despite the difference in scale) where a thick layer of 'clunch' fanned outwards, was striking. Other finds of relevance near wall 9 were the small pottery sherds associated with the construction, use and destruction of the building. None of them is particularly diagnostic, but they are likely to be early thirteenth century. If the documentary evidence is taken at face value, and King John took a new site for the construction of the castle in 1207, then the 'square moats' and buildings must date from that time.

The parallels with King John's Hunting Lodge at Writtle, Essex (Rhatz, 1969), are of interest. Documentary evidence gives a date of 1211 for its construction and the main moated enclosure (although with an external bank) is the same size and shape as the larger enclosure at Odiham. Within this area a group of buildings was raised, including a hall, kitchen and chapel, at a cost of £13 6s 8d, (*Ibid.*, 5). This compares with a first year's expenditure at Odiham (1207) of £39.0s.1d, but here the buildings were of stone, not timber. In the following year seven times that sum was spent at Odiham, and in 1209 £386 was paid out, with an estimated £400 committed over the next three years. The evidence would allow, therefore, for a well-appointed, stone 'hunting lodge' beginning at Odiham, which was rapidly replaced, within a year or two, by the substantial and costly octagonal donjon.

Another possibility is that there were pre-existing buildings at Odiham, as some of the jettisoned stonework has late twelfth-century parallels. The square moats are, however, so clearly part of the 1207 description and design, and integral with the early buildings. The octagonal donjon, on the other hand, is imposed and off centre, an afterthought requiring considerable modification to the contours of the site.

Period II (1208)–1265

The construction of the principal stone feature of the castle, the massive octagonal donjon, took place during Period II. A number of factors, including the unweathered nature of the doorway in wall 9 and minimal primary

deposit in cesspit 28 (although this was presumably emptied regularly) show that Period I was not long-lived, but there is no way of determining how short it actually was. The archaeological evidence reveals that the donjon, like the earlier less substantial buildings, was raised from the old ground surface, but provided with a massive flint and mortar foundation, some 1.5m in height externally. There was, therefore, no 'foundation trench' for the donjon, although the area adjacent to wall 9 could be considered as a 'construction trench', as it involved cutting back part of the redundant wall and then deliberate infilling as the new ground level was set and the inner profile of new moat created. The pottery from this context (10) is considered to be of probable early thirteenth-century date.

The other sealed deposit relating to the donjon is the sump, or well (2). The top of this feature had been disturbed and perhaps 0.15m lost, but earlier wood and later stone linings survived. Analysis of the timbers gave a felling date of 1235 to 1267, and a coin probably deposited in the 1240s came from the construction pit (3). Several of the stones were architectural fragments (see above). The archaeological evidence therefore provides pottery from the donjon construction period of 'early thirteenth-century date' and an internal feature built, fairly conclusively, in the 1240s.

Consideration of the documentary evidence sees both Roger of Wendover and Matthew Paris describing the donjon as the centrepiece of the celebrated siege of 1216. Wendover actually describes it as the Bishop of Winchester's tower, but although they are writing a few years after the event, the story has resonance. The first mention of a tower in the Rolls concerns repair work to the roof carried out in 1225 and 1226 (MacGregor 1983, 49).

Whatever the date of the donjon's construction, it is at odds with the three other polygonal towers, Orford, Chilham and Tickhill. They are traditionally assigned to 1165-73, the 1170s and 1180 respectively. Chilham is the closest parallel architecturally. Octagonal in plan, it has an internal measurement of 12.2m (40'), identical to Odiham. The dating of the tower therefore remains difficult, but the weight of

evidence suggests that it is a late addition to the class and postdates Tickhill by nearly 30 years.

Henry III granted Odiham Castle to his sister Eleanor in 1236. She married Simon de Montfort in January 1238 and their tenure involved considerable work. In 1239 the hall and kitchen were built, the two rooms linked by a passage, with the kitchen perched over the moat (Ibid., 52). Material removed from the donjon wall at this time may even have been used to line the sump. Additional changes were made in the 1240s when other changes were made and in 1253 Henry bestowed the Castle and Manor on them for life. Their final six months at Odiham, leading up to the Battle of Evesham in August 1265, are particularly well documented by the surviving household roll.

Period III 1265–1350

Most of the dateable activity in this period took place between the inner and outer moats. Turf was allowed to grow on the undulating surface between these features and an occupation layer accumulated, incorporating two hearths. Significant quantities of pottery date these to the second half of the thirteenth century, and they could be interpreted as watchmen's fires. The area was strengthened by the construction of a timber palisade, concentric with the donjon and inner moat, and provided with an outer gully. Pottery from the palisade gully fill dates to the fourteenth century, but a documentary reference of 1226 (MacGregor 1983, 48–9), ordering repairs to the palisade around the tower suggests that the feature may have been in existence for some time. A reference of 1307 also mentions re- fortification and in the 1320s Robert le Ewer was responsible for substantial repairs, when Keeper of the Castle, and then when outlawed and attempting to retake it by force (Ibid., 90). In the aftermath, an inventory was made of the contents of the castle, included in which is the information that of the twenty dozen arrows at the disposal of the garrison, eight dozen were used in repelling Robert le Ewer and his men, whilst the smithy contained, amongst other things, eight pairs of fetters. It is not difficult to view the arrowheads found in the vicinity of the palisade and the barrel

padlocks found in the moat and water meadow, as some of these very items.

Less combative activities in the thirteenth century were the emptying (to manure fields), repairing and deliberate infilling of the donjon moat. In 1276 Edward I ordered part of the moat 'against the tower' to be filled in. That some sections remained open is shown by the repairs that took place in 1332 on the 'King's Kitchen' that stood over it (Ibid., 101) and again in 1369, when Queen Philippa initiated substantial repairs on the Chamber called '*Ledenchambre*' which also stood over the moat (Ibid., 109). Finally, in 1402 the chapel, previously described as being part of the tower, was declared to be 'on the point of falling into the fosse of the castle' (Ibid., 114).

Period IV 1350–1500

The final Period sees a decline in the military function of the site. The area between the two banks was levelled with large quantities of gravel and into this surface a series of pits was dug at about 2m intervals. They were shallow and bowl-shaped, containing a soft loam and are presumed to be tree-planting holes. There is no firm date for this activity, but somewhere in the late fourteenth century is likely. In 1438–39 the last major attempt at repairs takes place at Odiham, but most of the expenditure went on the deer park and by now the castle has clearly lost its strategic and defensive value and is more of a hunting lodge (Ibid., 115). In this context a garden would have been more in keeping with the character of the site. The final evidence for activity in this area is in the form of a square building platform (Building IV). The light-weight nature of this structure suggests that it may be an ancillary building associated with the use of the donjon as a hunting lodge. Among the finds from Building IV was a horseshoe.

Odiham and its landscape

The documentary evidence for Odiham Castle provides invaluable information about the decisions determining the choice of site and several factors can be identified that were influential in John's decision to build in this

loop of the River Whitewater. These include its convenient location half way between Winchester and Windsor (Hughes 1989, 34) and proximity to the important road linking Winchester and London (Cochrane 1969, 68-9). The natural defence offered by the site in terms of the river and surrounding swamp was critical (MacGregor 1983, 22) as was the fact that it would have controlled passage along the River Whitewater. These factors also figure in the decisions underlying the location of castles at Godshill, Christchurch, Oliver's Battery (Basing), Rowner and Basing House (Hughes 1989, 33). Another important consideration is that John was strengthening an already established royal connection in the area and in so doing would have been able to draw on the existing links that it had with the town of Odiham and the services, commercial, administrative, religious and social, that it offered (MacGregor 1983, 124-142). Finally, Odiham was popular with John for its hunting and he would have been keen to exploit the potential of the park, which was in existence by the time of Domesday. The popularity of hunting in the Norman period can be gauged by the fact that all castles, except those in towns, had a deer park attached to them (Crawford 1953, 189). Odiham is however unusual because the castle and deer park are not spatially connected: the castle is 0.8km from the western boundary of the park (Roberts 1995). It is suggested that Edward III had Odiham Lodge built as a retreat from the Court (Ibid.), and a similar reason may explain why John chose to build his castle a short distance from the park.

The points listed above can be described as conventional explanations for the location of a medieval castle and although they are still undoubtedly relevant, in recent years scholars have turned to consider how the landscapes within which castles were sited were deliberately manipulated (Taylor et al. 1990; Everson and Williamson 1998). The landscape is no longer viewed as a passive backdrop against which manmade features were arrayed; rather landscapes can be interpreted as dynamic entities that may have held different meanings at different times to different groups of individu-

als. Everson's study of Ludgershall Castle (2000) and its interrelationship with the landscape both near and far, is an example of this shift in emphasis and has provided important insights into the development and changing function of the castle. He argues (Ibid., 104) that following a brief spell during the earlier twelfth century, when the castle functioned primarily in a military sense, the site was recreated around 1200 to exhibit a much more intimate relationship with its environs and had meanings that were more connected with sport and entertainment.

What was achieved at Ludgershall was a 'designed landscape' and this is clearly seen by reference to the North Enclosure and North Park and the way in which the two features were closely integrated in order to create an illusion of space. The North Park encompassed a long, but unusually narrow stretch of ground, yet the way in which the topography was manipulated in combination with carefully sited viewing areas gave the impression of a much larger area (Ibid., 104-5). The terraced platform and Great Tower of the North Enclosure would have afforded excellent views of the sport taking place in the park. The castle was not visible from much of the park, which again contributed to the illusion of space, but suddenly appeared when approaching from the north. Certain features of the castle (the Great Tower and terraced walk) dominate the skyline when viewed from a small and carefully sited plateau (Ibid., 105). It is important, however, to grasp that the relationship of castle and landscape altered over time and such transformations are apparent at other sites (Johnson 2002, 4-10).

The interpretation of the earthwork survey carried out at Odiham Castle (Brown 2004) argues for a similar interrelationship between castle and local topography. In fact Brown argues that the castle cannot be interpreted as a military stronghold, rather it was constructed with pleasure and entertainment in mind. In choosing the site the higher, more easily defended terrain to the southeast, was overlooked in preference for a low-lying site. The main factor influencing this choice appears to have been a desire to have the castle surrounded by water (Ibid., 18) a scenario generally under-

stood to be one of the defining features of medieval designed landscapes (Taylor 1998). The donjon, and other royal buildings on the northern platform, were not only closest to the river, but were also at the very heart of the castle. Entry to this inner and most private space would have involved a controlled passage through a succession of gates and over bridges (Brown 2004, 18).

Further evidence for deliberate design can be seen in the presence of a broad, flat-topped platform surrounding the northern enclosure, but separated from it by the Period I moat. This has been interpreted as a raised walk affording views both across the external watery areas and internally to the castle and its gardens (Ibid., 18) and can be compared to the viewing terrace at Ludgershall. Another effect provided by this walkway must have been to give the impression of being surrounded by water. Finally, the way in which the castle was approached appears to have been deliberately manipulated for effect. If, as seems probable, the main approach was from the south, the castle would come into sight close to the junction of the North Warnborough and Greywell Road. From there the route drops down to the river with the castle remaining in view above, framed by its watery context (Ibid., 21). This illusion would have continued as visitors arrived and entered over the bridges and passed through the gates, using a 'processional way' which led them through the south enclosure and into the heart of the castle with its donjon and associated buildings.

As at Ludgershall and other High Medieval castles, Odiham looks to have been deliberately sited in order to take advantage of the landscape. Moreover, the layout of the site seems also to have been purposefully managed for effect. However, this is not to deny that Odiham was ever intended to be a military stronghold. The archaeological investigations demonstrated that Odiham Castle witnessed fundamental changes to its structure and function over its three centuries of occupation. It is quite possible that the reasons underlying its initial foundation in the early thirteenth century were caught between the desire for a

hunting lodge and the need for a stronghold. Indeed it may have had the briefest existence as a moated lodge with well-appointed but comparatively insubstantial buildings, before being given what proved to be an impregnable tower. There is nothing quasi-militaristic about this structure: it is a stronghold based on the latest improvements in castle design, devised to remove the problem of weak corners and blind spots suffered by square and rectangular keeps. This made a clear statement: it was a symbol of royal power *and* of military intent.

The remodelling of the areas in between the two banks culminating in the erection of a timber palisade in the thirteenth century supports the notion that defence still played a significant part in the organisation of the castle at this time, and early in the fourteenth century it again had to rebuff a force intent on taking it. It is during the later fourteenth century, however, that the castle started to lose its defensive importance, ultimately ending its days as a hunting lodge. From now onward the site was associated more with the activities of pleasure and entertainment and display and effect would again have played a much more significant role. With the castle and its environs now used primarily for leisure it held a whole range of different meanings for residents and visitors alike.

It is pertinent that in the fourteenth and fifteenth centuries the military view and role of castles starts to break down and according to Johnson (2002, 6) castle building now enters a 'transitional period' between Edwards I's Welsh castles and the Renaissance house. Odiham, having served different purposes for different masters, belongs in this context, and reflects the wider cultural, social and architectural changes that were sweeping across the land.

Economy and status

The excavations at Odiham Castle revealed significant new elements of stratigraphy but produced few finds to inform on the relative status and economy of the site at given periods in its history. This is particularly frustrating as the documentary evidence reveals in some

detail the expenses incurred in building activity, entertaining, and the role of the castle and its occupants in the wider community.

The largest artefact assemblage is the pottery and this was recovered from each major period, although much of it was redeposited, limiting its significance. The majority of the material is thirteenth-century in date and derives from locally produced vessels. The absence of imported wares contrasts with sites like Faccombe Netherton (Hurst 1990, 314–316), Ludgershall Castle (Gerrard & King 2000, 181) and Clarendon Palace (Robinson 1988, 170–1) but is almost certainly the result of the limited excavation programme and a distribution bias. The most prolific coarsewares and sandy wares were associated with outdoor hearths (27) in an area of 'no-man's land', features interpreted as watchmen's fires. The best tableware was unlikely to be at the disposal of sentries gathered round their stew pots.

The pottery therefore gives a picture of modest social status, but only because the remains of the high class polychrome vessels lie hidden elsewhere (the kitchen, for example, was above the moat on the northeast side of the donjon). Some of the other finds do, however, hint at the quality of artefacts in use at the castle. Even small fragments of lava quern and marble mortar confirm that the kitchens were well equipped.

Other finds from the outdoor area between the inner bank and the Period I Bank, constitute an assemblage with a full military flavour. The numerous arrowheads and iron spur were accompanied by dozens of pieces of catapult ammunition; the site must have been literally rolling in them in the early fourteenth century. But clearly their days were numbered and the majority were pushed into open features, such as gully 37, and covered with layers of gravel, when the weaponry became as outmoded or unnecessary as the defensive circuit.

A more balanced picture, perhaps, comes from finds made in the donjon moat. The barrel padlock, potentially belonging to a set of shackles, again hints at repression, but the Jew's harp, and silver and copper alloy dress fittings bring faint echoes of the entertainment and

embellishment that must have been so much a part of life at the castle.

That embellishment would have been evident in its fabric too, but with one or two exceptions the building materials retrieved are composed of the mundane, such as iron nails and tiles (no decorated examples were found). The obvious exception is the stonework, where the few fragments of chamfered plinth, keel moulding and fillet speak volumes about the quality of the buildings in their prime, and complement the linen sheets, the coverlet furred with miniver, the faldyngs, hangings and curtains to be found in the inventories. In this regard the small, intricately worked piece of marble (see above) gives some idea of how lavish the interior fittings would have been. The contrast, between the lord and lady in their chamber, and the night watchman huddled outside, is pretty clear.

When the animal bone assemblage is considered, the high proportion of deer accords well with a royal residence, although there is little evidence to suggest that venison was consumed in any quantity. This too may be a reflection of disposal patterns, and wild birds and fish, with the exception of the herrings from cesspit 28, are also poorly represented in the archaeological record. As the moat was regularly emptied, and the kitchen was on the opposite side of the donjon, this need occasion no surprise. The discovery of peafowl in a Period IV context, however, is consistent with the site's use as a hunting lodge. Such birds, although they could be eaten, were most often used as decorative status symbols.

Overall, the lack of apparent wealth at Odiham is intriguing, with only three coins found during the excavations for example, but the documentary evidence makes it clear that the site benefited from a constant influx from the Royal purse. An essentially limited excavation project, coupled with an extremely thorough clear-out programme – the contrast between the few pieces of dressed stone that have survived and the essentially stark naked flint and mortar core could hardly be more graphic – means that any appreciation of the affluence and status of the site and its owners

will, for the time being at least, continue to rely more upon the written word than archaeological evidence.

CONCLUSION

The archaeological investigations targeted only a relatively small area, yet they have contributed several new and important perspectives on the origins and development of Odiham Castle. The unanticipated Period I buildings survived in a fragmentary state and are not fully understood but they clearly demonstrate that the massive octagonal donjon was not the first structure on the site. Once the tower was built, defensive measures occasioned several modifications during the thirteenth and early fourteenth centuries before the castle lost its military role entirely and ended its days as a hunting lodge. Although the sequence is clear the absolute chronology is still open to debate, although the most logical and likely scenario is that 1207 was indeed the starting date, with the Period I buildings enjoying a very short lifespan, and the tower being raised in time to both annoy and impress the French in 1216.

As an exercise in combining documentary sources and archaeological evidence, the project has been both rewarding and frustrating, as the stratigraphy and the potential for preservation, which are both excellent, flirted with but tried to avoid answering directly, the key questions. In addition, the placing of the castle in a landscape context is another area where a great deal more remains to be done.

If the excavation has achieved one thing, however, it has demonstrated the rich potential of the site and brought it back into focus at a time when Hampshire County Council, aided by the Heritage Lottery Fund, have again tried to arrest the ravages of time. In addition, new interpretative material is now installed there and available for educational purposes to help tell the story of the three centuries when Odiham Castle was one of the most important sites in the country.

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ODIHAM CASTLE ARCHIVE

The excavation archives are stored at Hampshire County Council Museums Service – Chilcomb House, Bar End, Winchester, SO23 8RD

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