A MEDIEVAL MOAT AT THE FORMER WHITE SWAN PUBLIC HOUSE, WESTCOTT, BUCKINGHAMSHIRE

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Trial trenching at the site of the White Swan public house in 2005 revealed both Roman and medieval remains, with full excavation in 2006 uncovering parts of a Roman trackway and a medieval moated site. Too little of the moat was investigated to be certain of its interpretation, layout or function; it appears to have enclosed a pond, a limestone surface and several gullies. Further ponds shown on the 1st edition OS map of 1885 immediately beyond the excavated area may also have been associated with it. There was no trace of any contemporary buildings. The moat seems to have fallen out of use by c. AD 1400, after which the site underwent light agricultural use prior to the 17th-century construction of the public house.

INTRODUCTION

Albion Archaeology was commissioned by McCann Homes to undertake an excavation in advance of development at the site of the White Swan Public House, Westcott, Buckinghamshire. The work was carried out between September and November 2006, in accordance with a project design (Albion Archaeology 2006) prepared in response to a brief issued by Buckinghamshire County Archaeological Service. The project archive can be found at Buckinghamshire County Museum under accession number 2006.179.

Site Location and Description

Westcott lies within the Vale of Aylesbury to the north-west of the Chilterns, between the catchments of the rivers Ray and Thame. The underlying geology consists of solid limestone bedrock, overlain by Oxford Clay.

The site is located on the north-east side of Westcott High Street (SP 7183 1711) on land formerly occupied by the White Swan Public House (Fig. 1). Fields border it to the north, with residential properties to the west and east. The site covers an area of c. 1,000m² and lies at an average

height of 84m OD, sloping down slightly towards its eastern edge before rising steeply beyond.

Archaeological and Historical Background

The site lies 0.5km to the south of Akeman Street, an important Roman road linking St Albans with Cirencester and Bath (Reed 1979, 46). Few Roman remains have been found in Westcott, but settlement-related activity has been discovered elsewhere along the course of the road.

Westcott is a shrunken medieval village in the parish of Waddesdon, with origins that can be traced back to the late 12th century when it was part of Courtenay Waddesdon Manor (Page 1927, 107–18). By the mid-13th century, Westcott was large enough to support two manors, one of which was held by Bicester Priory. The numerous medieval earthworks which survive in the vicinity of the site, including moats, fishponds and house platforms, are visible evidence of the medieval extent of the village.

A trial-trench evaluation of the site in 2005 revealed a north–south aligned Roman ditch and deposits containing Roman pottery in the southern half of the site (Pre-Construct 2005). The northern half contained substantive medieval remains



FIGURE 1 Site location

including a large ditch, tentatively interpreted as a moat, and relatively extensive stratified layers. Deposits and features associated with the modern White Swan public house and its predecessor were also noted. The results of the evaluation are integrated into this report.

Results

The results of the investigations are presented by chronological Phases. Phase 1 comprises premedieval deposits, including a Roman trackway; Phases 2 and 3 cover the site's use in the medieval period; Phase 4 describes subsequent postmedieval activity; and Phase 5 relates to the modern White Swan public house and its predecessor. Elements within each Phase are referred to by a Group (G) number, which represents an agglomeration of 'contexts' that are closely related both stratigraphically and interpretatively.

Selected pottery is illustrated in Figure 4, the catalogue for which is provided in Table 2. Standard drawing conventions have been used, with vessels shown at one quarter size, external view on the right and internal view on the left. The pie diagram accompanying each illustration indicates the proportion of the vessel recovered.

Phase 1: Alluvial Subsoil and Roman Ditches The earliest archaeological deposit identified was a layer of grey, silty, alluvial clay G1, probably the result of flooding of the low-lying, southern end of the site. It was truncated by two parallel Roman ditches G2 and the possible terminus of a third (G3), providing a *terminus ante quem* for the flooding. A later deposit of similar alluvium G4 in the same part of the site sealed these ditches.

Ditches G2 were roughly parallel, c. 4m apart, and formed a probable trackway. They were 0.8–2m wide and up to 0.35m deep (Fig. 2, a–b); this substantial variation in size was largely due to post-medieval and modern truncation. They were filled by silty clay, probably derived from natural silting. The presence of a few seeds of duckweed (*Lemna* spp.), a small aquatic herb that often forms a green carpet on the surface of stagnant water, suggests the ditches contained standing water on at least a periodic basis.

TABLE	1	Pottery	quantification	(vessel:	sherd	l numb	er)	
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	Fabric type	Phase 1	Phase 2	Phase 3	Phase 4	Total
Roman	R/B	9:17	8:8	28:31	2:2	47:58
Saxo-Norman	B01			4:4		4:4
Early medieval	B07			4:57		4:57
	B14			1:3		1:3
	C01			4:4	3:11	7:15
	C59		2:2	4:6		6:8
	C60		1:1	4:5		5:6
	C61		2:2			2:2
	C67		2:2	6:8	2:2	10:12
High and late medieval / transition	al C09			43:63	8:12	51:85
5	C11			10:13	3:5	13:18
	C17			1:1		1:1
	C21			1:1		1:1
	C66			10:15	4:6	14:21
	E01			5:5	2:4	7:9
	P13			1:1		1:1
Post-medieval	P01			1:1	10:13	12:15
	P03			1:1	2:2	3:3
	P52				2:2	2:2
Modern	MOD			1:1	6:7	7:8
Total		9:17	15:15	130:221	44:66	198:319



FIGURE 2 Roman trackway (Phase 1) and early medieval features (Phase 2)

The seventeen sherds of pottery recovered from the trackway ditches suggest that they silted up at some point in the 2nd to 4th centuries AD (Table 1). No datable artefacts were recovered from G3, but its stratigraphic contemporaneity with G2 and the similarity of its infill suggest a similar date. No other Roman features were revealed, but the frequent recovery of residual Roman pottery sherds from medieval and post-medieval deposits points towards further activity nearby.

A few charred cereal grains were recovered from the trackway ditches, with evidence for hulled wheat (*Triticum* spp.) and possibly free-threshing wheat (*T. aestivum/turgidum*). Given the large amount of root disturbance, they may be intrusive, the latter in particular: free-threshing wheat is rarely found in Roman deposits. A very small faunal assemblage was recovered, comprising fragments of ox skull and rib.

Phase 2: Medieval Ditches and Pit (Fig. 2)

The earliest medieval remains comprised pit G9 in the southern half of the site, which was 2.1m long, 1.7m wide and 0.5m deep, and four ditches (G5/G8 and G7) in the northern half, which were 0.5-1.75m wide and up to 0.5m deep. Whilst one

of the four ditches had a clearly defined terminus, at least two of the others (G8) appeared to continue further south-east, although they were heavily truncated by a later pond. Ditch G5 was stratigraphically earlier than the others, and was accompanied on its south-west side by the remains of a bank (G6), which survived to a thickness of 0.3m. The bank comprised layers of generally light brown silty clay, the uppermost layer possibly being relict topsoil.

The grey-brown and blue-grey silty clays within ditches G5/G8 and pit G9 appear to have derived from natural silting. They produced a small amount of 12th- to 14th-century pottery as well as some residual Roman sherds (Table 1). The deposits within G7 were generally lighter and more orangey in colour, and probably constitute upcast material from the subsequent moat (G14, Phase 3), which occupied a similar location and alignment. A small assemblage of sheep/goat remains was recovered from G5, along with a single ox humerus. Butchery is evident in the form of knife and cleaver marks.

Given the low-lying character of the area, these ditches were probably dug to provide drainage. The occasional presence of duckweed in the small botanical assemblage from G5 suggests the ditch contained standing water. It is likely that these ditches either defined or respected a boundary that was also followed by the later moat.

Phase 3: Medieval Moated Site (Fig. 3)

The ditches that had been established in Phase 2 were replaced by a large medieval ditch G10 on a similar alignment, which is thought to have been part of a moat. Its north-eastern side was later modified by two smaller, parallel ditches G16. A pond G11, pit G18 and several smaller ditches G12, G13 and G17 were also dug further to the north-east. Upcast material from the large ditch and pond appears to have been shaped into a raised platform G14/19 and a possible surface G21.

A total of 221 sherds of medieval pottery, representing 130 vessels and weighing 2.9kg, was recovered from these features (Table 1). The vessel to sherd ratio of 1:7 suggests rapid deposition after breakage. The assemblage is broadly datable to the 12th to 15th centuries and mostly comprises products of the Brill/Boarstall kilns (c. 1200–1500). Vessel forms are mainly table wares, in particular glazed jugs; some have slashed strap handles (Fig. 4, no. 5), and one has characteristic applied medallion and rouletted red clay strip decoration. A partial bung-hole from a cistern was identified (Fig. 4, no. 7). Unglazed sherds also occur, and are likely to represent kitchen wares.

Earlier material includes two rim sherds from shell-tempered bowls of St Neots-type ware datable to the post-Conquest period, and a range of 11th- to 13th-century coarse wares, predominantly tempered with sand, chalk and flint. Both handmade and wheel-thrown examples occur. There are ten sherds of late Saxon to early medieval Oxford ware, which include a jar with a collared rim (Fig. 4, no. 6) and several glazed jug sherds, one with incised wavy lines and an applied pinched strip. Shell-tempered pottery is represented by fiftyseven wheel-thrown sherds, of which forty-nine derive from one sooted cooking pot (Fig. 4, no. 3). Other vessel forms are rare and comprise jars with square and everted rims.

Moat G10 and ditches G16

Ditch G10 was c. 5m wide and c. 1m deep; its profile varied from straight-sided to stepped (Fig. 3, a). This variation may have been due to periodic maintenance of the ditch, although no clear evidence of re-cutting was visible. The ditch is believed to have been part of a moat; its size and profile fall within the parameters described by Aberg (1978, 1) and Taylor (1978, 8), and several other moats are known to have existed nearby (Sheahan 1862, 432). This interpretation is considered further in the discussion (see below).

The primary infill of the moat consisted of water-lain, blue-grey silty clays, which produced four sherds of high medieval pottery (AD 1250–1400) and a residual Roman sherd. In addition, a perforated iron strip was recovered, which could have formed part of a binding strip or perhaps a small strap hinge on shutters or a chest. High medieval pottery sherds and a shoeing nail of late medieval to post-medieval date were also recovered from the deposits overlying the primary infill, which were similar in character.

The deposits that accumulated while the moat was open produced a fairly large botanical assemblage, consisting mainly of waterlogged seeds from a range of plants from wetland environments, disturbed (including cultivated) ground and waste places. The presence of wild plants associated with nutrient-rich soils - e.g. elder (*Sambucus nigra*), henbane (*Hyoscyamus niger*), stinging nettle



Figure 3 Medieval moat and adjacent features (Phase 3)

(*Urtica dioica*), hemlock (*Conium maculatum*) and fool's parsley (*Aethusa cynapium*) – may be evidence of nearby human cultivation, although only a negligible amount of cereal-processing debris was recovered. Wetland species are well represented, suggesting the presence of standing or slow-flowing water within a marshy environment, and include crowfoots (*Ranunculus Batrachium* gp) and celery-leaved crowfoot (*R. sceleratus*). Other biological indicators of a wetland habitat include ostracods and Cladoceran ephippia, as well

as a molluscan assemblage that is dominated by freshwater snails, particularly the button or whitelipped ram's-horn (*Anisus leucostoma*) but also with smaller numbers of dwarf pond snails (*Lymnaea truncatula*). Large numbers of blackberry/raspberry (*Rubus fruticosus/idaeus*) and elder (*Sambucus nigra*) seeds were also recovered; while these remains may simply be the residues of consumed wild fruit, the presence of stinging nettle and hemlock (found in hedge banks and open woods respectively) and a large amount of fragmented wood may also be evidence of nearby tree or hedgerow vegetation.

The uppermost fills of the moat probably represent a mixture of alluvial clays and soils formed through subsequent agricultural activities. Seven sherds of high or late medieval pottery (AD 1250–1500) were recovered, along with a branch of a horseshoe that possibly dates from the 13th to mid-14th centuries.

While the moat was still open, two further ditches G16, c. 1.5m wide and c. 0.5m deep, were dug along its north-east side. They contained similar deposits to those of the moat, producing early to high medieval pottery sherds (AD 1150–1400) and some residual Roman ones. The botanical and molluscan assemblages from these deposits are also similar to those from the moat, although the large number of roots in the flots could suggest that some of the remains are intrusive. These ditches may have been dug in order to widen the moat and create shallower edges, thereby allowing livestock to drink more easily from it. Evidence for this has been noted on other moated sites (Taylor 1978, 8).

A worked and perforated antler tine (Fig. 5) was recovered from G16. This object shares traits with antler cheek pieces known from the prehistoric period onwards (Britnell 1976; Roes 1960, 68-72). A similar object was found in 12th-century fills of a substantial boundary ditch at Grove Priory, Leighton Buzzard (Duncan in prep., cat. no. 581). It remains debatable whether these items performed the function of a cheek piece, or, as has been suggested by Roes (1960, 71–2), were crude needles used in the manufacture of twig or rush matting or thatching. The polish round the perforation and the tip of the tine on RA2 could also suggest its use in textile manufacture, perhaps in the manner of 'pin beaters' used in weaving, with the implement hung from the user's girdle or belt. Antler has also been suggested as having 'amuletic' powers, and antler pendants based on tines are known from 10th- and 11th-century deposits in York and London (MacGregor 1985, 108).

A small but varied faunal assemblage was recovered from the moat and ditches G16. Ox, sheep/goat, horse and pig are all represented by multiple skeletal elements, while single bones were recovered from dog, cat, chicken, and a juvenile frog or toad. Several ox, sheep/goat and horse bones show signs of butchery, with use of a cleaver, knife and saw all evident.

Pond G11 and ditches G12-G13

The north side of the moat was connected to a shallow pond G11 by ditch G12, which was 0.75m wide. G12 was no longer in use when ditches G16 were added to the north-east side of the moat. Two further ditches G13 on the north-east side of the pond were up to 1.3m wide and 0.4m deep; one had been re-cut. The fill of these features was similar to that of the primary fill of the moat.

As well as the occasional remains of duckweed, suggesting the presence of water on at least a periodic basis, ditches G13 produced almost 90% of the quantified charred plant remains from the site. These include a large number of poorly preserved cereal grains, mainly from free-threshing wheat together with smaller numbers of barley (Hordeum spp.) and occasional oat (Avena spp.) grains. Traces of emmer/spelt wheat (T. dicoccum/spelta) are probably residual. Just over half of the other charred seeds are from legumes, with horse bean (Vicia faba) identified, while many of the indeterminate large cotyledons may also belong to this cultivar. Some of the Vicia/Lathyrus/Pisum seeds, however, may belong to arable weeds, together with the few other charred seeds in the flot, e.g. stinking mayweed (Anthemis cotula), medick/clover (Medicago/Trifolium spp.), dock (Rumex spp.) and various grasses. The grains (and legumes) may have become accidentally burnt during drying before storage or milling, or as a result of cooking accidents. This refuse, together with fragmented charcoal, may have blown and/or been deliberately swept into the ditch. A few fig (*Ficus carica*) seeds, probably from imported dried fruit, were also recovered.

The features in G11–13 yielded a small faunal assemblage consisting mainly of sheep/goat and ox, with goose the only other vertebrate represented. Fusion data indicate that several sheep/goat bones came from animals that were less than one year old, with no evidence for older animals; the ox assemblage, however, includes animals that were at least four years of age.

Possible raised platform G14/G19, ditch G17 and pit G18

The north corner of the site, defined by moat G10 and ditches G13, was overlain by successive layers



FIGURE 4 Selected pottery, shown at 1:4

Illust. No.	Fabric	Common name	Date	Reference	Description	Group	Phase	
1	R07F	Silty black ware	Roman	Beds. CTS	Bowl	2	1	
2	B07	Shell	Early medieval	Beds. CTS	Jar	7	3	
3	B07	Shell	Early medieval	Beds. CTS	Jar	7	3	
4	B14	Limestone	Early medieval	Beds. CTS	Jar	11	3	
5	C09	Brill/Boarstall ware (fine)	High/late medieval	Farley 1982; Ivens 1982	Jug with slashed strap handle	21	3	
6	C09	Brill/Boarstall ware (fine)	High/ late medieval	Farley 1982; Ivens 1982	Jar with collared rim	16	3	
7	C66	Late transitional Brill	Late medieval/ transitional	Yeoman 1988	Cistern	13	3	
8	C01	Sand	Early medieval	Beds. CTS	Jar	25	4	
9	C01	Sand	Early medieval	Beds. CTS	Bowl with post-firing hole	25	4	
10	C09	Brill/Boarstall ware (fine)	High/late medieval	Farley 1982; Ivens 1982	Jug with stabbed rod handle	_	Unstratified	

TABLE 2 Illustrated pottery, with type series of illustrated sherds

of silty clay G14, which also infilled the Phase 2 boundary ditches G7. These layers produced a moderate assemblage of mostly early or high medieval pottery (AD 1150-1400). G14 was partially overlain by G19, a further sequence of similar layers which contained mostly high or late medieval pottery (AD 1250-1500). Animal bone recovered from layers G14/G19 is representative of ox, sheep/goat, pig, horse and goose; some of the sheep/goat and goose bones betray the use of a cleaver. Non-ceramic finds from G14 comprise three nails, a small quantity of smelting tap slag (123g), and part of an oval iron ring from a shoe patten, a form of overshoe that consists of a wooden sole, raised at the arch and recessed at the back in order to take the shoe's heel. Shoes were secured by straps to the pattens, thus raising the wearer's feet above the dirt and mud. Pattens supported on iron rings were used during and after the 17th century (Swann 1982, 21 and 30), suggesting that this example is intrusive.

A shallow ditch G17 and pit G18 were sandwiched between layers G14 and G19. The ditch was 0.6m wide, and the pit 2m. Their function is not known, but both were infilled by layer G19.

The material which made up layers G14 and G19 comprised sloping bands of darker and lighter clay that were similar in nature to the undisturbed geological deposits. The character and location of these layers suggest they represent upcast material from the construction of the moat or pond. They

also appear to represent at least two distinct episodes of maintenance or construction, separated by a period during which ditch G17 and pit G18 were dug. Upcast material has, on occasion, been used to create a raised platform on medieval moated sites. However, while such platforms are common in some counties, this is not a universal characteristic (Taylor 1978, 10), and the designation of layers G14 and G19 as a deliberately raised platform remains uncertain.



FIGURE 5 Worked antler tine from ditch G16 (Phase 3)

Possible surface G21

Several irregular spreads of unshaped pieces of limestone were identified at varying horizons in the area north of the moat and pond; they probably constitute the scattered remnants of a surface, perhaps lain over an uneven or marshy patch of ground in an attempt to level or consolidate it. The variable depth and extent of these spreads may be due to disturbance by later agricultural activity. Pottery sherds from the surface of one of the spreads are mostly high or late medieval in date (AD 1250–1500), with some residual sherds that are late Saxon or Saxo-Norman (AD 850–1150). Three nail fragments were also recovered, one of which is a type used on horseshoes dating from the 13th to mid-14th centuries (Clark 1995, 87 and 96).

Phase 4: Post-medieval Activity (Fig. 6)

The moat had silted up by the end of the medieval period and there is only limited evidence for how the site was subsequently used prior to the construction of the public house (Phase 5). An agricultural function is most likely.

A large, shallow depression was revealed in a similar location to the Phase 3 pond G11 and ditches G13. Its irregular shape and profile suggest that it was eroded (probably by animals) rather than dug – the process helped by the presence of soft backfill within the earlier features. Most of the pottery from the hollow dates to the late medieval and post-medieval periods (Table 1). It also produced a botanical assemblage similar to that from the moat, indicating the presence of standing



FIGURE 6 Post-medieval features (Phase 4)

water and suggesting a disturbed or waste-ground environment nearby. The faunal assemblage from the hollow is dominated by ox, sheep and horse, with pig and dog also represented; a relatively high proportion of the bones have been gnawed by dogs, while two examples of butchery using a cleaver are also present. A similar faunal assemblage was recovered from a layer of garden soil that overlay the medieval features to the north-west; this is likely to be associated with a garden that still existed in the 19th century and is shown on the 1st edition OS map of 1885.

Three pits G23/G28 and what is thought to have been a ditch terminal G24 were located around the hollow. They produced a range of post-medieval artefacts. A larger pit G26 was dug into the infilled moat; its pottery assemblage also indicates a postmedieval date. Deposit G27 to the north-east is likely to constitute upcast material from the pit's construction. Two post-holes G30 were also dug into the infilled moat; one contained the remains of a timber post. They perhaps relate to a postmedieval boundary that was previously defined by the moat.

The only other feature datable to this period was a straight-sided slot G25 in the southern half of the site. Its form suggests it may have contained a wooden beam, or possibly a robbed-out wall.

Phase 5: The White Swan Public House (Fig. 7)

The White Swan public house may have its origins in the 17th century (Moreton 1929, 142), though surviving records of its licensees held at the Centre for Buckinghamshire Studies (Q/RLV/1) only go back to the mid-18th century. The start of these records may have coincided with a change in the premises' licensing status, and perhaps also with the origin of its name. The original building was demolished in 1934 and replaced by a new one, which in turn was demolished in 2003. Widespread remains were identified that relate to both of these buildings, the earlier remains corresponding largely to structures and garden features visible on the 1st edition OS map of 1885.

The early building

The foundations of the original public house (G32) were identified at the eastern corner of the site, in amongst a layer of brick and limestone rubble that resulted from its demolition. A building to the south-west functioned as a kitchen and contained a

bread oven, while a pig sty lay beyond it (Fig. 8; a commentary on the photograph was written by Mr Alan Ort, and is available in the project archive). A fourth building lay to the north-west.

Several features associated with drainage or waste disposal, including two gullies and cesspits G34, were identified. Metalled surfaces and paths were also revealed, as was a line of post-holes that may have formed a fence G35. Two ditches G31 in the northern corner of the site, one partially enclosing six parallel bedding trenches, are likely to have been associated with the garden shown in this location on the 1st edition OS map.

The rebuilt White Swan public house

The public house constructed in 1934 was located at the southern end of the site, with a courtyard to the north-east. A small outhouse occupied the northern corner of the courtyard, keyed into the perimeter wall, with a larger, freestanding building to the east. Various brick- or stone-lined drains were uncovered, along with several pits or soakaways G37 in the vicinity of the outbuildings. The smallest of the pits, near the northern corner of the site, contained a dog burial.

DISCUSSION

Roman Trackway

Trackways were a common feature of the Romano-British countryside, forming a link between small rural settlements and connecting them with elements of the Roman road network such as Akeman Street. The trackway at Westcott is likely to have linked two such settlements, even though none are currently known in the immediate vicinity; the nearest one that has been identified lies 1.5km to the north at Lower Farm, Quainton (CAS0253100001). The amount of Roman pottery recovered from the White Swan site is indicative of nearby settlement-related activity (Table 1); its recovery primarily from medieval and postmedieval deposits suggests that evidence of this has been disturbed by development during these periods.

Trackways were often bordered by ditches, which primarily served to help keep them dry. The layers of alluvial silt in Phase 1 illustrate the need for drainage, as the trackway passed through an area that was prone to flooding; the presence of the



FIGURE 7 The White Swan public house (Phase 5)

aquatic herb duckweed shows that the ditches often held water.

The Moated Site

Classification

The variable characteristics of moated sites make it hard to produce a detailed description of what one comprised. The standard form is a medieval house that was surrounded by a water-filled ditch. However, not all moats are medieval in origin; some surrounded (or only partly surrounded) a different type of structure, or no structure at all; and the ditch was not always intended to be filled with water (Taylor 1978, 5). The only unifying feature is a large ditch without any defensive bank,



FIGURE 8 Photograph of the White Swan public house, taken c. 1914/15 (reproduced with permission of Westcott Church of England School)

which was usually flat-bottomed and at least 5m wide (Aberg 1978, 1) – 'at the lower end of the scale it is, indeed, difficult to distinguish a wide drainage ditch from a diminutive moat' (Williamson 2006, 171). Consequently, there is, at least, nothing to preclude the interpretation of ditch G10 as a moat.

The other features in Phase 3 broadly support this interpretation, although not definitively so. Ponds such as G11 are a relatively common, well documented feature in the interiors of medieval moated sites, although the large number of ponds distributed across Westcott means that the conjunction of G10 and G11 may be coincidental. Equally, however, the three ponds shown on the 1st edition OS map immediately north or north-east of the excavated area, and also the one to the south-east, may have been directly related to these features (Fig. 9). Raised platforms such as G14/G19 are also common within the interior of a moated site (Aberg 1978, 1), and the spread of limestone G21 may represent a surface. However, G21 was too fragmentary to determine much about its nature, and layers G14 and G19 may represent no more than upcast material incidentally deposited next to the ditch during its construction. Further investigation would be required to verify the interpretation of ditch G10 as a moat, with the area that it surrounded lying to the north-east, but the balance of probability suggests that this was the case.

Construction, function and relationship to the surrounding landscape

Just as the physical appearance of a moat is hard to define, so is its function. The defensive role traditionally ascribed to them, for keeping out either attackers or wild animals, is unlikely to have been their primary function in all but a few instances: many moats were dug only on two or three sides of the area they surrounded, and the ditches, with no defensive bank to accompany them, were often too insubstantial to constitute a significant barrier. It is possible that they were used for the storage of fish, and that they also served as firebreaks; yet neither is a convincing explanation of their primary function. Fishponds were a common feature of the medieval countryside, and it is unclear why moats should have taken a very different form if designed



FIGURE 9 Detail of 1st edition OS map (1885) of Westcott

for the same purpose. It seems more likely that the primary role of a moat was as a display of grandeur, whatever its practical uses may have been (Le Patourel and Roberts 1978).

Pottery recovered from the lowest deposits in the moat suggests a construction date of AD 1250-1400. A slightly earlier date is plausible – the moat is likely to have been subject to periodic cleansing or scouring, and these deposits may have formed after the moat had already been in use for some time – but the overall composition of the pottery assemblage from the moat suggests its construction was not significantly earlier. This corresponds with the period of *c*. AD 1200-1325

when moat-building was at its peak nationally (Le Patourel and Roberts 1978, 51). The presence of earlier pottery is perhaps due to the moat's construction along an existing boundary, as defined by the earlier ditches in Phase 2.

During the 13th-century peak in the construction of moats, Westcott had two manors that had been separated from the Courtney Waddesdon Manor (Page 1927, 107–18). One had been granted to Bicester Priory in the late 12th century, and the other to John Nevill in AD 1230, subsequently passing to the Bohuns and Dukes of Lancaster. A further small property is recorded as being held by the le Mount family in the late 13th and 14th centuries. It is possible that the White Swan moat belonged to one of these three, or to an unrecorded property elsewhere, as this is the fourth example known in Westcott. Unlike the castles and small mottes that were abundant in the 13th century when the explosion of moat-building took place (Farley 1973, 336–38), moated sites were developed not only by seignorial sections of medieval society, but also by freemen who may not have had true manorial rights (Le Patourel and Roberts 1978, 48). The character and size of these sites was often proportionate to their owners' wealth and status.

Even though moats are likely to have been created primarily as a display of grandeur, their secondary functions may have been a decisive factor in determining where they were located: many of those in central and north-western Buckinghamshire are situated close to streams; and moats may have been used as fishponds or for water management, particularly where there is no evidence that the enclosed area was inhabited (Taylor-Moore 2007). Water management was a particular concern for the inhabitants of Westcott, with ponds providing the primary source of drinking water until the mid-19th century (Sheahan 1862, 429). The recovery from soil samples of abundant dwarf pond snails, a host for liver flukes, suggests that using water from the ponds for human consumption may have had serious adverse implications for people's health.

The location of moats would also have been affected by considerations such as the physical terrain and geology of the area, land ownership circumstances, and local settlement history (Le Patourel and Roberts 1978, 47). Westcott occupies an area of low-lying land naturally conducive to the collection of water: the high number of moats and ponds within the village is testament to this.

Three moats are marked on the OS 1st edition map of 1885 within a 200m radius of the White Swan (CAS0044401000, CAS0033100000 and CAS0196001000), to the south, north-east and south-west respectively (Fig. 9). There is no firm evidence that any of these ever formed a complete circuit, nor is it certain that they all surrounded substantial buildings, although the southern example at least is believed to have done so (Sheahan 1862, 432). It is likely that these moats were concerned with water management, and may have held fish; however, this does not account for why moats rather than fishponds were dug, and at least two of them (like the White Swan example) were accompanied by separate ponds. The molluscan evidence from the White Swan also suggests an absence of permanent or flowing water, meaning that the moat could not have been used for keeping fish. Assuming that the course of Westcott High Street is largely unchanged from the medieval period, both westerly moats would have been clearly visible from the road, displaying the wealth and importance of their respective landowners. The White Swan example may even have mirrored the moat closest to it, forming a moat on either side of the road.

Although the White Swan moated site contained the remains of a possible rough limestone surface, no evidence was found of contemporary structures. This may be due to the spatial limitations of the excavation, whilst the effects of disturbance by post-medieval activity and the difficulty of identifying wooden structures that were designed to rest on the ground surface must be acknowledged. However, it is possible that the moat was never intended to surround a building. The number of nails recovered is certainly low when compared to quantities normally encountered in association with medieval structures (cf. Stevens 2005, 82), not does the remainder of the artefactual assemblage suggest intense or high status occupation. 'Empty' moats have long been recognised as a sub-class (Le Patourel 1978, 40), and numerous moats in Buckinghamshire, including one or two of the previously known examples in Westcott, have no apparent traces of associated buildings (Reed 1979, 122). Orchards and gardens were sometimes encompassed by a moat for the protection it gave to the crop (Le Patourel 1978, 40), but the botanical evidence from the White Swan is too limited to support such an interpretation.

Agricultural framework and diet

It is clear from several sources that the moat at the White Swan was dug in a damp, marshy area. The remains of duckweed, crowfoots, rushes and sedges were recovered from soil samples, and the molluscan assemblage attests to the presence of moist grassland and seasonally wet ditches, whilst the alluvial silts that both sealed and were truncated by the Roman trackway indicate a long-standing basis for these marshy conditions. The moat would consequently have been of considerable assistance for drainage, surrounding a fertile area of land that would have been well suited to growing crops; yet the botanical and faunal evidence show few indications that this is how the land was used.

Charred cereal remains from the moated site mainly consist of grains from free-threshing wheat, with smaller numbers of barley and occasional oats. All three of these cereals were commonly cultivated during the medieval period (Greig 1991, 321). Free-threshing wheat was the preferred grain for bread throughout the medieval period although all three may have either been used separately or as mixes for bread. Cereals could also have been used for biscuits, cakes, pastry and in pottage, while barley and oats may have also been used as animal fodder. A few fig seeds (Ficus carica) were also recovered from one of the ditches in G13; these were being imported as dried fruit from Southern Europe during the medieval period (Cobb 1990) and could be seen as a sign of affluence at the site.

Evidence of crop husbandry practices is limited because of the few charred weed seeds in the samples, most of which could not be identified to species. Their association with the charred cereal grains suggests that they are from cereal weeds. The type of soil with which some of the weed seeds are associated is evidence that the crops may have been grown locally, yet too few seeds or grains were recovered to corroborate this.

Cereal grains account for the bulk (88%) of the charred plant assemblage, representing the accidentally-burnt debris from the final stages of cropcleaning and food-preparation before consumption. There is very little evidence for earlier stages of crop-processing. The weed seeds are often used as tinder once they have been separated out from the grain, accounting for their becoming charred. The virtual absence of residues from the earlier stages of crop-processing suggests either that the cereals were cleaned before their arrival on site, or that they were processed in another area.

Only a small animal bone assemblage was recovered, representing a thin distribution of postconsumption and primary processing waste derived from the major domesticates, particularly ox, sheep/goat and pig. In addition, there is limited evidence for the consumption of poultry, chicken and goose, but none for the exploitation of wild animals or fish. Some of the horses were also butchered, perhaps as food for domestic livestock, whilst the remains of non-consumed domestic animal carcases (dog, cat and horse) were also recovered.

Dental and fusion evidence strongly indicates the consumption primarily of sub-adult and adult animals, with only a minor occurrence of very young animals and no evidence for aged or infirm livestock. The age distribution suggests consumption of good-quality meat-bearing animals, including stock purposely reared for meat production, but no large scale *in situ* stock rearing or dairying. However, the abundance of dwarf pond snails in the moat and its associated ditches may have had serious adverse implications for the health of any livestock, being a host for liver flukes.

Decline of the Moated Site and Construction of the White Swan Public House

The pottery assemblage suggests that the moat had largely silted up by *c*. AD 1400, although associated activity may have continued into the late medieval period. This follows a national trend in the destruction and abandonment of moats (Le Patourel and Roberts 1978, 51) within a period of general decline, with villages deserted, arable land turning to pasture, and the population falling (Reed 1979, 144). Earthworks to the west and east of the present High Street (CAS0065300000) indicate the extent to which the medieval village has shrunk to its current size.

There is little evidence for how the site was used between the abandonment of the moat and the construction of the White Swan. Fragmentary remains were identified, largely clustered around the hollow left by the medieval pond, but there is no indication that the site was used for anything other than light cultivation prior to the construction of the White Swan public house.

The original White Swan may date back to the 17th century (Moreton 1929, 142). By 1885, the 1st edition OS Map shows the public house located at the north-eastern end of the development area together with outbuildings. The original public house was demolished in 1934 and replaced by a new building located within the south-western half of the site, which in turn was demolished in 2003.

SUMMARY

Excavation at the White Swan public house has revealed a sequence of human activity stretching back nearly 2000 years, yet without any indication that the site was ever inhabited prior to the construction of the public house. Enough Roman artefacts were recovered to suggest occupation from that period within the vicinity – hardly surprising, in view of the proximity of Akeman Street – but a trackway and a possible ditch terminus were the only features identified.

The most significant remains revealed by the excavation date to the medieval period, when a probable 13th-century moat was constructed along an alignment that had previously been established by a series of smaller ditches. Only part of one arm of the moat was revealed, and thus its classification cannot be ratified beyond all doubt, but it shares characteristics with three other moats known in the village (Fig. 9). The presence of a pond and stone surface to the north-east suggest that the part of the moat revealed was the south-western arm. There is no evidence that the enclosed area contained a building, suggesting that it was one of the 'empty' moats identified by Le Patourel (1978, 40), although the lack of evidence must be viewed against the limited extent of the excavation and the level of post-medieval disturbance.

Moats were often constructed as a display of grandeur, and the location of this example next to the High Street suggests that this was the primary motivation at the White Swan. They also had various secondary uses, however, as fishponds, gardens, orchards, etc, yet it is unclear whether the moat at the White Swan was used for anything more than drainage. Molluscan evidence suggests that the moat only contained water on a seasonal basis, ruling out its use as a fishpond, while the botanical evidence suggests that any grain processed within the moated area or the immediate vicinity had been imported. It may have been used for keeping animals, although the marshy conditions would have made it poorly suited for this purpose, and there is no evidence of any large-scale rearing of stock.

The moat fell out of use by c. AD 1400, after which the land seems to have been put to light agricultural use before the construction (probably in the 17th century) of the public house. The original building lasted for c. 150 years before being demolished in 1934; its successor suffered a similar fate in 2003.

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BIBLIOGRAPHY

- Aberg, F (ed.) 1978, *Medieval Moated Sites*. CBA Research Report **17**
- Albion Archaeology 2006, *The White Swan, Westcott. Project Design for a Programme of Archaeological Excavation, Recording, Analysis and Publication* (Unpublished report 2006/80)
- Britnell, WJ 1976, 'Antler cheek pieces of the British Late Bronze Age', *Antiquaries Journal* 56, 24–34
- Clark, J 1995, The Medieval Horse and its Equipment
- Duncan, HB in prep, 'Activity Artefacts', in Baker, E, La Grava. The Archaeology and History of a Royal Manor and Alien Priory of Fontevrault. Digital supplement

- Farley, M 1973, 'Moated sites in Buckinghamshire a list', *Recs Bucks* **19**, 336–39
- Farley, ME 1982, 'A medieval pottery industry at Boarstall, Buckinghamshire', *Recs Bucks* 24, 107–18
- Ivens, RJ 1982, 'Medieval pottery from the 1978 excavations at Temple Farm, Brill', *Recs Bucks* 24, 144–70
- Greig, J 1991, 'The British Isles', *in* van Zeist, W, Wasylikowa, K and Behre, K (eds), *Progress in Old World Palaeoethnobotany* (Rotterdam), 299–334
- Le Patourel, HEJ 1978, 'The excavation of moated sites', *in* Aberg, F (ed.), 36–45
- MacGregor, A 1985, Bone, Antler, Ivory and Horn. The Technology of Skeletal Materials since the Roman Period
- Moreton, CO 1929, Waddesdon and Over Winchendon, Being a Slight Sketch of the History of Two Parishes in the County of Buckingham
- Page, W (ed.) 1927, The Victoria History of the County of Buckingham, vol. 4. Dawsons of Pall Mall (London)

- Pre-Construct Archaeology Ltd 2005, An Archaeological Evaluation at the former White Swan Public House, High Street, Westcott, Buckinghamshire
- Reed, M 1979, The Buckinghamshire Landscape
- Roes, A 1960, 'Horn Cheek-pieces', Antiquities Journal 40, 68–72
- Sheahan, JJ 1861, History and Topography of Buckinghamshire
- Stevens, C 2005, 'Nails', in Maull, A and Chapman, A, A Medieval Moated Enclosure in Tempsford Park (Bedfordshire Archaeology Monograph 5), 82
- Swann, J 1982, Shoes
- Taylor, CC 1978, 'Moated sites: their definition, form, and classification' in Aberg, F (ed.), 5–13
- Taylor-Moore, K 2007, 'Medieval Buckinghamshire (AD 1066–1540)' in Bucks CC, Solent Thames Research Framework: Buckinghamshire
- Williamson, T 2006, England's Landscape: East Anglia
- Yeoman, PA 1988, 'Excavation of an early postmedieval kiln at Temple Street, Brill, 1983', *Recs Bucks* 30, 123–55