

ARCHAEOLOGICAL INVESTIGATIONS OF THE MEDIEVAL EARTHWORKS AT CASTLETHORPE, BUCKINGHAMSHIRE

DAVID BONNER, JONATHAN PARKHOUSE AND NICOLA SMITH

Earthworks, including a motte, two concentric outer enclosures and an additional rectilinear enclosure to the southwest, form a Scheduled Ancient Monument in the village of Castlethorpe, Buckinghamshire. The history of these earthworks is discussed. Excavations were undertaken within and immediately outside the southwestern enclosure, as a condition of Scheduled Ancient Monument Consent which had been granted for a new sewer which cut through the bank and ditch of the enclosure. These excavations demonstrated the medieval origins of the earthwork. There appear to have been two phases of enclosure bank construction, the earlier being incorporated into the structure of the later. The function of the enclosure was not apparent. There were few internal features, but a number of medieval pits outside the enclosure to the southeast are believed to be broadly contemporary with the bank. Features which appear to have been concerned with water management were in existence before the construction of the earthwork. These included a major leat which drained water from the direction of the castle. Prehistoric and Romano-British activity was also apparent.

INTRODUCTION

Background

Anglian Water Engineering and Business Systems Ltd commissioned Buckinghamshire County Museum Archaeological Service to carry out archaeological investigations, consisting of a watching brief and selective excavation, during March to November 1993, along the route of a 0.7km long duplicate pipeline (the Castlethorpe Sewer Upgrading), to the southwest of Castlethorpe village in north Buckinghamshire. This extended from the sewage works in the southwest, to the area known as Station Yard, situated northeast of the Euston to Rugby railway line (Fig. 1).

The work described in this report was undertaken as a condition of the Scheduled Monument Consent granted by the Department of National Heritage to Anglian Water, in connection with this

pipeline. The proposed route of the sewer scheme crossed part of a series of earthworks, apparently medieval in date, and which are scheduled.

In order to minimise damage to the site, it was decided after consultation with English Heritage to adopt a core-drilling technique, placing the pipe some 4m beneath the earthworks, and restricting the destruction of archaeological deposits to a combination of "drive" and "reception" pits lying within or immediately outside the scheduled area. In accordance with this approach, each pit was excavated in advance of drilling and archaeological deposits recorded above the substrate surface. However, in the event attempts to bore between a variety of routes (trenches 1-4), failed due to the presence of a sub-surface obstruction, which was eventually located by a geophysical survey (A. F. Howland Associates 1993) commissioned by

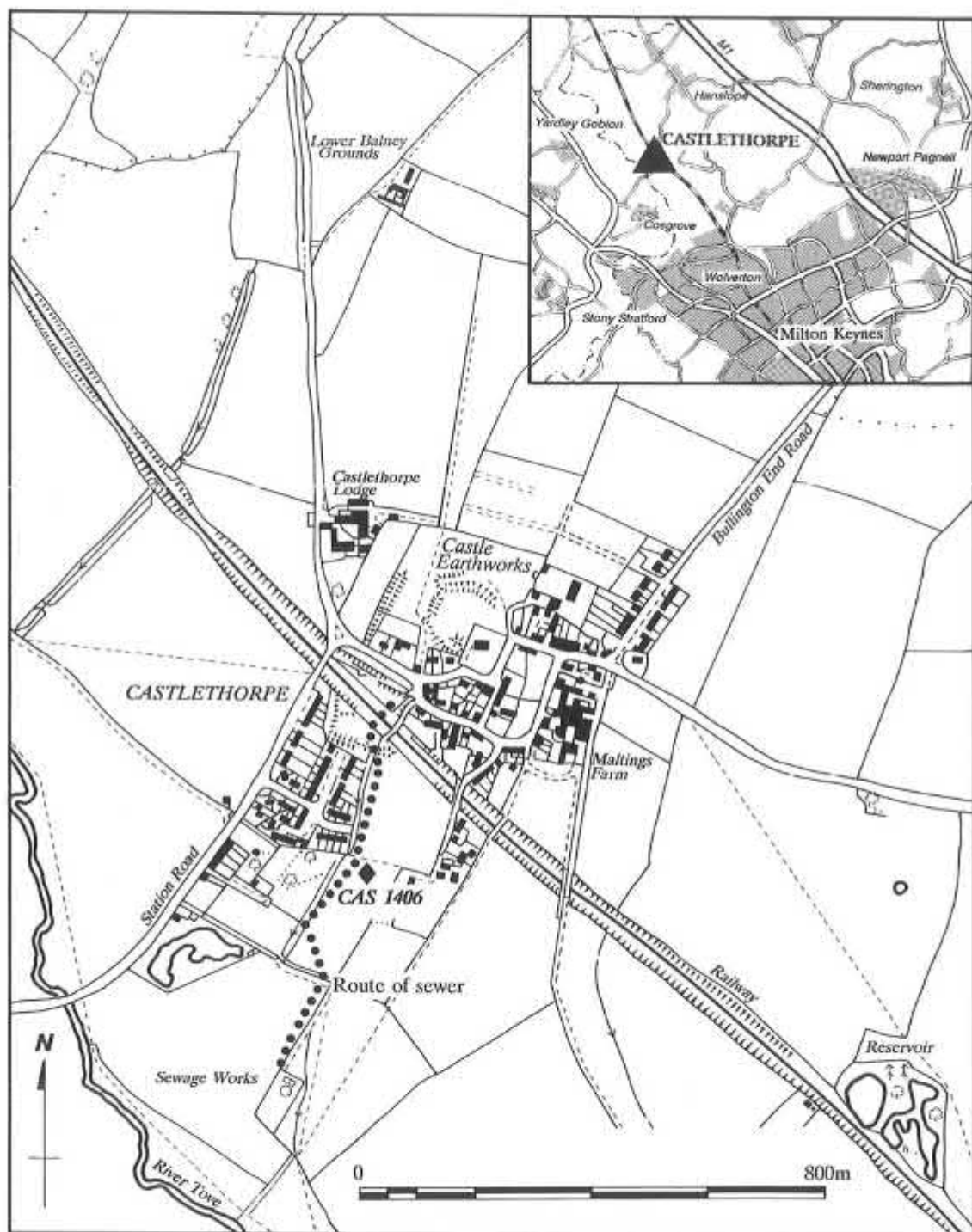


Fig. 1: Castlethorpe and earthworks, showing route of sewer

Anglian Water. This obstruction was subsequently investigated by means of trench 5, which revealed a layer of boulders, considered to represent a thin inlier of Blisworth Limestone associated with the underlying Jurassic clay.

Given the nature of the obstruction, the only feasible option available to complete the sewer work was an open cut across the scheduled site. The scheme was accordingly revised and approval obtained from the Department of National Heritage. Archaeological investigations were a condition of the approval. The main enclosure bank and its associated ditch were subsequently hand-excavated in order to provide a cutting (4m wide) through which the pipeline could be constructed (trench 6). Further areas were examined within the proposed pipeline corridor, outside the enclosure to the south and southeast (trench 7).

Location, Topography and Geology

The excavations took place across earthworks at c. 78m OD, about 200m to the southwest of the centre of Castlethorpe village (SP 796443), on the southwest facing slope of the broad valley of the River Tove, a tributary of the River Great Ouse.

The parish of Castlethorpe (which was formed from the larger parish of Hanslope), lies within the angle created by the confluence of the rivers Tove and Great Ouse, which form the southwestern and southern parish boundaries respectively. The eastern boundary follows a further tributary stream of the Great Ouse. The underlying geology is largely Glacial Drift (Boulder clay) with exposures of Great Oolitic limestone of Jurassic Age.

Castlethorpe village is situated on a small outcrop of Blisworth Limestone with underlying Estuarine Series deposits, which characterise the upper slopes of the valley of the River Tove. This sequence was confirmed by a recent geotechnical survey (A. F. Howland Associates 1993). Cartographic evidence suggests that there was a spring about 400m northwest of the castle earthworks (BRO:Ma/33/1T/1761-5, Spring Close).

Local Resources and Landuse History

The local soils include the loamy clay Hanslope

soils of the clay uplands to the north, which are generally suitable for both arable and pastoral use. The well-drained loamy Bishampton 2 soils which lie over Terrace Gravels to the south and southeast are particularly conducive to cultivation. Further south the alluviated Thames soils of the river floodplain tend to be restricted to pasture (Rothamstead Soil Survey Institute 1981).

Vestigial ridge and furrow, visible, for instance on aerial photographs taken by the R. A. F. (CPE/UK/1994. 1056-1057: BCM Collection, Run 101; CPE/UK/1926. 4251: BCM Collection, Run 57A), in the fields surrounding Castlethorpe village, testify to the medieval landuse of both the upper and lower Tove environs; ridge and furrow shows over gravel and limestone exposures to the southeast, over clay soils to the northeast and over gravel and alluvial soils to the west of the village, where it assisted in the drainage of the valley floor. Today, ridge and furrow is mostly absent to the north and northeast of the village, where it has been destroyed by recent ploughing over the higher ground.

In the 18th century, cartographic evidence (BRO:Ma/33/1T/ 1761-5), shows that the town's strip and furlong boundaries, lying to the south (Emanuel Field and Lower Field), or to the southeast (Bridge Field) by the River Tow or Tare (as it was then called), broadly accorded with the medieval field system. By the early 20th century, arable activity accounted for just 16% of landuse (Page 1927, 348), while pasture was predominant to the northeast and southwest of the village; field and close names, such as The Mill Pasture, Wards Pasture, and Clover Close (collectively Bullington Field) indicate a reduction in arable use from their former ridge and furrow cultivation in the medieval period (CPE/UK/1926. 1056: BCM Collection, Run 101).

Historical Background

Castlethorpe was within the parish of Hanslope during the middle ages. The castle was the administrative centre of the honour of Hanslope, which represented the Domesday fief of Winemar the Fleming and extended into parts of Northamptonshire. Winemar was the sole landholder in 1086, as Aldene had been before the conquest. The nature of the late Saxon settlement pattern within Hanslope is

difficult to deduce, not least because archaeological evidence is entirely lacking, but the existence of a number of settlements (Castlethorpe, Hanslope, Tothall and Stokes) by the twelfth or thirteenth century may indicate a polyfocal pattern. There were evidently substantial tracts of woodland, as the Domesday valuation (wood for 1000 pigs) is as large as for any place in the county north of the Chilterns, but there were also considerable areas under arable cultivation at the time of the Conquest.

The castle is traditionally believed to have been established in the twelfth century by William Mauduit, who held it against King Stephen during the anarchy. In AD 1215 the castle, now held by Robert Mauduit against King John, was taken and demolished by Fawkes de Breauté, who was formally granted it in the following year, but does not appear to have rebuilt it. The castle was restored to the Mauduits by about 1222.

In 1263 William Beauchamp inherited the honour of Hanslope from his uncle William de Mauduit, the earl of Warwick, who had died without issue. In 1292 Beauchamp obtained a licence to crenellate his house at Hanslope; his dwelling was adjacent to a walled garden court (*viridarium*; the word simply means a green place), which may well have been within the area of the Castlethorpe earthworks, either close to the motte or perhaps to the southwest, within the earthworks under consideration here (Page 1927; Lipscomb 1847; Sheahan 1862).

The Scheduled Earthworks

In a county not generally noted for its medieval military monuments, the earthworks at Castlethorpe (which literally means 'the village by the castle': Mawer and Stenton 1925), are amongst the most extensive surviving castle remains. The greater part of the Castlethorpe earthwork complex lies northeast of the main railway line. The earthworks consist of a motte with two concentric outer enclosures (Fig. 2; Plate 1). The form of the motte and circular inner bailey suggests that this may in fact be a modified ringwork (Renn 1968, 200). The outer enclosure is rectilinear in form, and the bank and ditch defining it are slighter than those around the inner bailey. No masonry survives, although there may have been some form of stone

structure. An early nineteenth-century source states that "The site exhibits traces of very extensive buildings" (Lysons 1813); the basis of this assertion is not known.

The southeastern part of the circuit of the inner enclosure is obscured by the churchyard, within which all trace of the earthwork bank has been removed. It appears, however, that the church is actually within the projected circuit of the ringwork/inner bailey. The oldest part of the existing church fabric appears to be the north arcade, dated by the Royal Commission to c. AD 1190 (RCHME, 2, 79–82). If this date is accepted, then the construction of the church predates the slighting of the castle in 1215. An archaeological watching brief undertaken in 1977 during restoration work recorded an earlier wall beneath the late twelfth century arcading (M. Farley, pers comm: CAS 4048). There was no evidence to show how much older than the arcading the wall was, and a late Saxon date cannot be ruled out. It is perhaps more likely that the wall was that of the first Norman church. The church therefore appears to lie within the ringwork/inner bailey earthwork, although it is not possible to be certain whether the earthwork bank or the church was constructed earlier.

It is interesting to note that whilst Castlethorpe was in the manor of Hanslope, and not a parish in its own right, the parish church was at Castlethorpe. The church at Hanslope (where, it is suggested, the earliest fabric dates to c. 1160; Page 1927 Vol 4, 357) was a chapel until the mid thirteenth century, when Hanslope became the parish church and Castlethorpe church became a chapel annexed to Hanslope. This may imply that the foundation of the church at Castlethorpe was earlier than that at Hanslope.

There are thus two possible hypotheses to explain the position of Castlethorpe church within the defences: either the castle was constructed so as to incorporate an existing church, or the church originated as the castle chapel. The second hypothesis may be rather more difficult to support if Castlethorpe was the site of the parish church from the (pre-conquest) establishment of the manor of Hanslope. The incorporation of the church within the castle earthworks may perhaps suggest that it originated as a (late Saxon) proprietary church. The

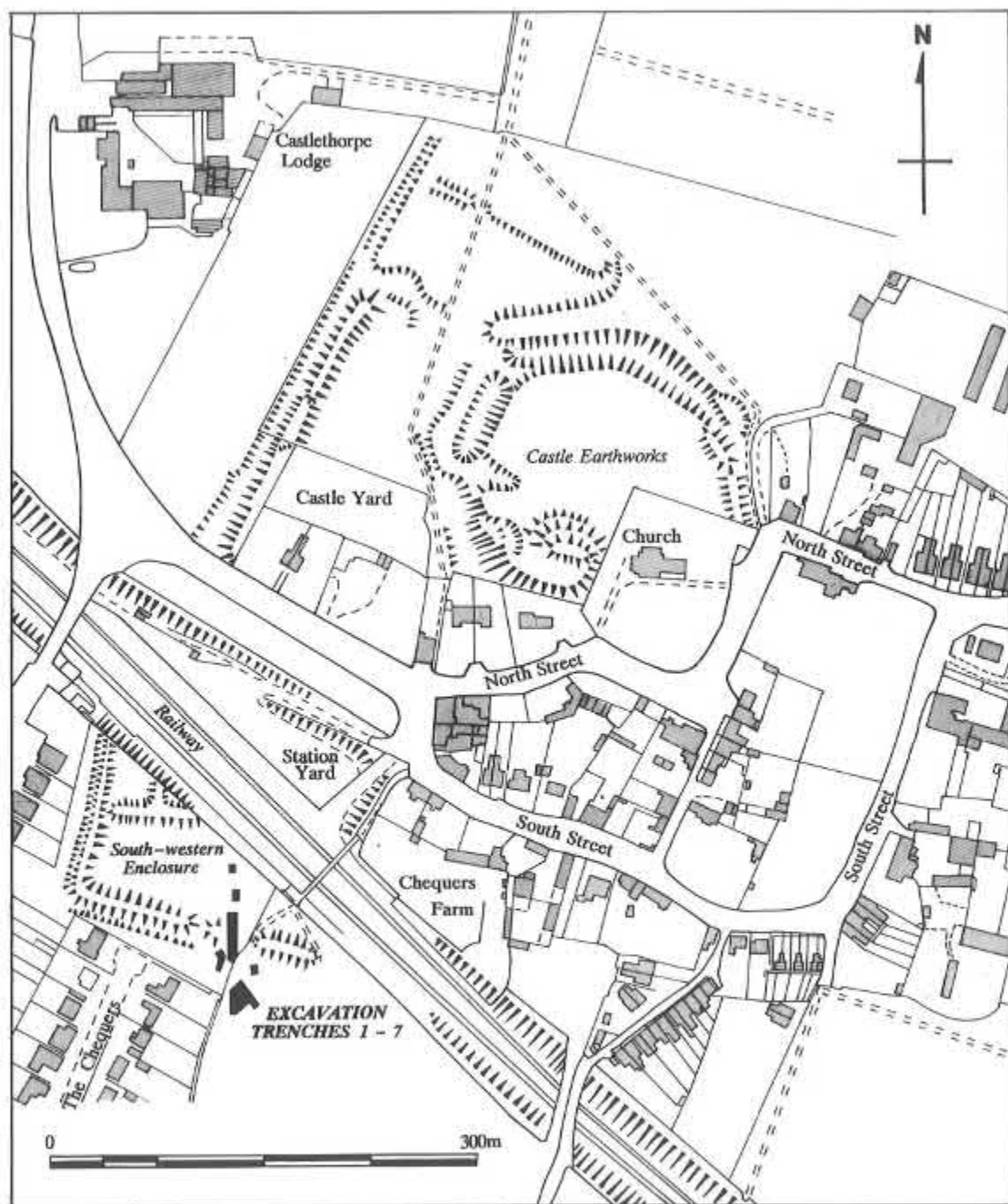


Fig. 2: Castlethorpe earthworks and excavation trenches

castle may thus have been sited on the former *caput* of Hanslope. The position of a parish church within the earthworks, whilst not necessarily unique (Pounds 1990, 225) is certainly most unusual, and there are clearly complexities in the origin of the Castlethorpe settlement which go far beyond the scope of this paper.

The full extent of the circuit of the outer defences is unknown, although it is possible that the present morphology of the village (which has scarcely changed since the time of the oldest detailed map, dated 1761–65) may have been influenced by the course of the castle enceinte. In this connection the right-angle bend of North Street, east of the church, and/or the North St/ South St junction might indicate the position of a former gateway or gateways in the defences, which have become fossilised in the street plan (Fig. 2).

The enclosure to the southwest of the railway, through which the pipeline was laid, is rather different in character from the main group of earthworks, being wholly rectilinear (Fig. 2). Its relationship with the main castle earthworks is unfortunately irrecoverable, having been truncated by the railway line (built in 1838); the first detailed survey of the earthworks postdates the construction of the railway (Ordnance Survey 1881). The southern bank is more prominent than that of the outer enclosure on the other side of the railway, and their alignments differ significantly. The remains consist of two sides of a sub-rectangular enclosure, originally at least 140m long and 70m wide, defined by a prominent, steep-sided bank and a shallow outer ditch. The longer side is aligned west-northwest to east-southeast; the shorter side joins the longer one at a right-angle, but its alignment turns by a few degrees some 35m from the corner. Part of an internal bank, which subdivides the enclosure and is aligned east-west, survives; this stops just short of the smaller side of the main enclosure bank, close to the point where the alignment changes. A second internal bank meets the first subdivision at right-angles, but this has largely been cut away by the railway.

A pair of parallel banks, passing east to west approximately 3m apart, are visible on aerial photographs to the southwest of the enclosure (CPE/UK/1926. 4250–4251:BCM Collection. Run 57A). Their projected alignment to the east meets an ap-

parent gap at the southeast end of the enclosure, while to the west, they meet the Castlethorpe to Stony Stratford road at a point where, in the 18th century, a further track passed east and then north to join with South Street. The ridge and furrow to either side of the double banks appeared to respect them, suggesting that they were broadly contemporary with the field system. The double banks probably represented a former trackway leading from the village to the open fields, on the west side. Its precise relationship with the enclosure is unknown.

THE EXCAVATIONS

Excavations were conducted both within and immediately outside the scheduled earthworks (Figs. 2 and 3) in four stages:

- a. Trenches 1 (15m²) and 2 (12m²)
- b. Trenches 3 (20m²) and 4 (12m²)
- c. Trench 5 (15m²)
- d. Trenches 6 (110m²) and 7 (110m²)

Provision was also made for an archaeological watching brief along the route of the 10m wide easement and the 1m wide pipe trench.

Excavation Procedures

Stages a–c were conducted during attempts by Anglian Water to thrust-bore under the Castlethorpe earthworks. Trenches 1–5 were hand-excavated to the surface of the underlying natural substrate. All archaeological deposits were examined and recorded.

Following the failure of attempts to thrust-bore under the monument, the main objective of the subsequent investigations (stage d) was fully to excavate a section through the main enclosure bank and its associated ditch, in order to provide a cutting (4m in width), through which the pipeline could be laid. Adjacent areas were also sampled, within the enclosure and outside, immediately to the south of the bank. A total area of 220m² was investigated.

Initially, the topsoil over a 4m width of the bank

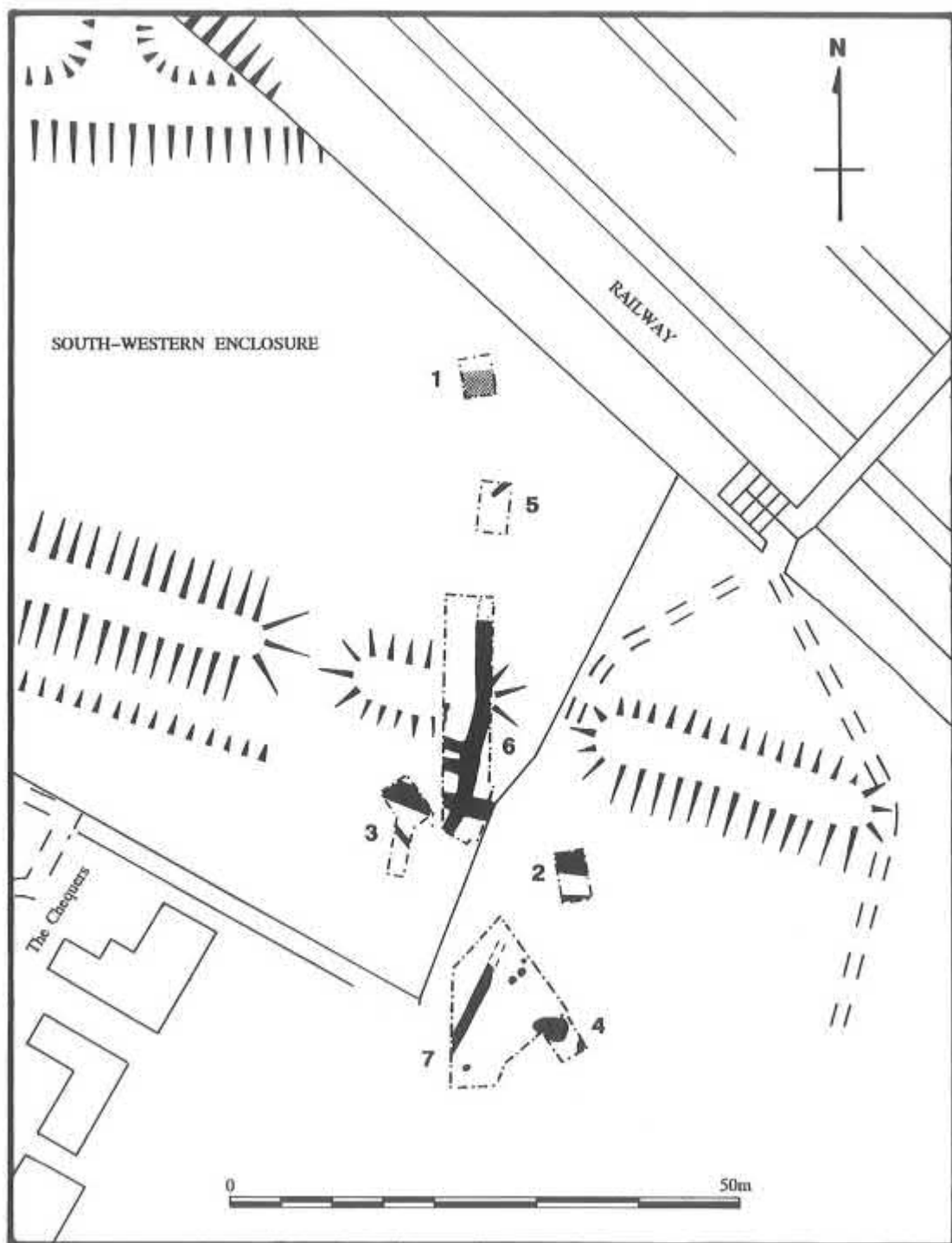


Fig. 3: Trenches 1-7 showing excavated features. (Earthworks after Ordnance Survey)

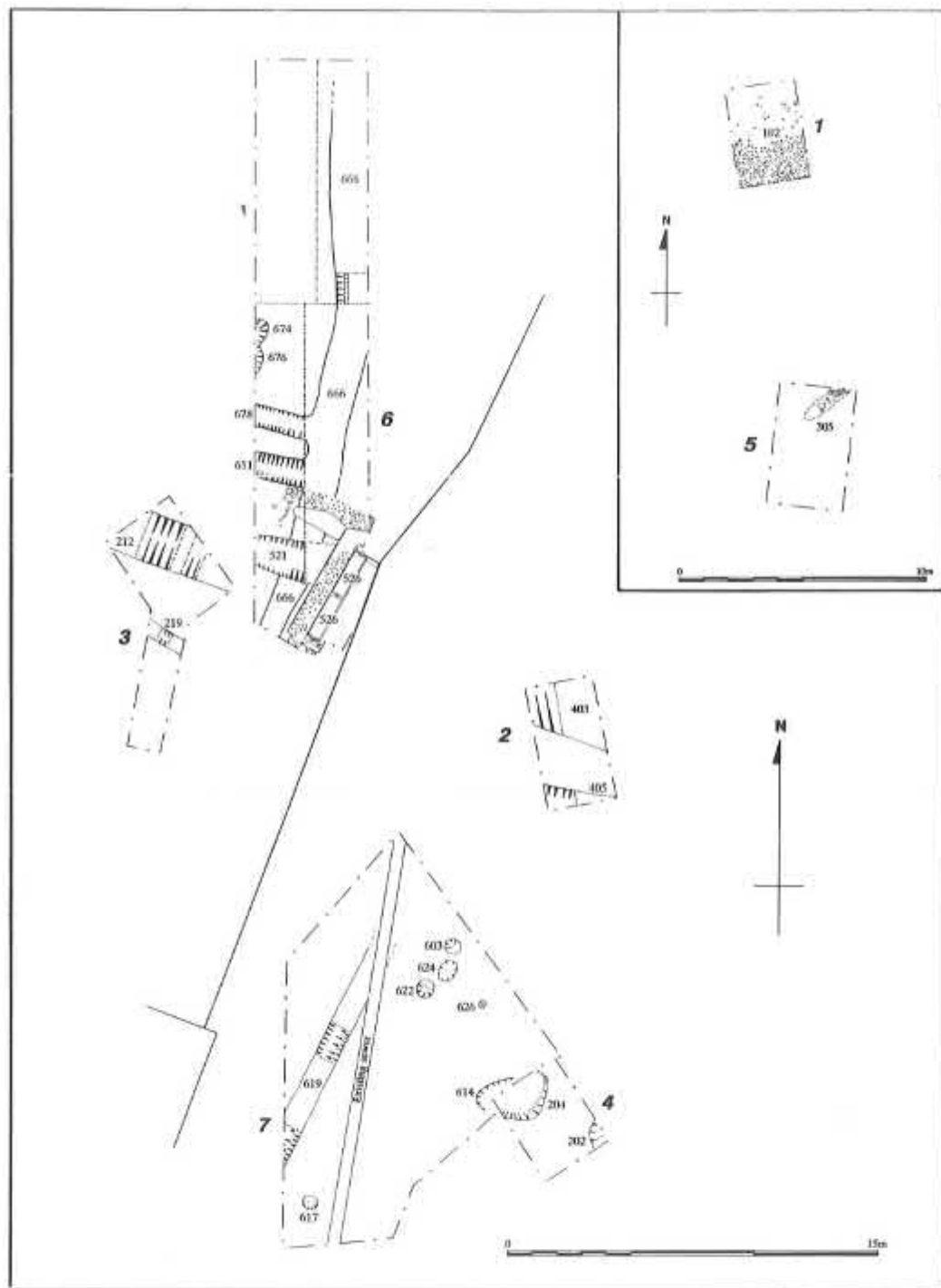


Fig. 4: Detail of excavated features within trenches 1-7

was removed carefully by machine, in order to check for the presence of any surviving structure on the crest of the bank. No evidence for any form of palisade or revetment was present at this level. The monument was subsequently investigated by the hand-excavation of two, 2m wide, opposing quadrants, which provided a continuous section through the bank and its associated ditch to the south (Figs. 4, 9). Once it was apparent that no internal structures were present, the remaining two quadrants were removed by machine under close archaeological supervision, and features underlying the bank were then recorded.

RESULTS OF ARCHAEOLOGICAL INVESTIGATIONS

Former Land Surface

A buried land surface, at 78.18m OD, sealed by the bank, was identified along the east-facing section of Trench 6 (Figs. 4 and 5). Three layers (677, 595 and 596) formed a buried soil, over 20m in length.

677, the oxidised upper layer, was 0.06m thick and consisted of a (humic-rich) clay loam with flint gravels. The mineral-rich nature of this layer gave it a distinctive orangish-brown tinge. Its upper surface had been subject to intense oxidation, though some gleying was also evident. This layer was separated from 595 by a discontinuous nodular iron pan.

595, a lower, gleyed layer, 0.08m thick, of a predominantly grey, loamy clay with occasional flint gravels and ferro-manganiferous streaks towards its upper surface, contained a single piece of animal bone.

596, a thin clayey sand layer with gravels, extended beneath the gleyed layer and above the natural Boulder Clay substrate. The sandy deposit was distinctly grey except for a pale brown mottle and contained two flint scrapers and a number of fragments of animal bone.

The upper two layers are considered to represent a buried soil. High levels of oxidation within layer 677 may relate to an inherently high mineral content, and it is interpreted as a former 'A' horizon soil. The observed iron pan was probably formed by the downward translocation of organo-ferrous compounds (derived from the former humic layer), associated with processes of *lössivage* (Curtis *et al* 1976). The level of this accumulation zone is likely

to reflect the height of the summertime water-table. It is not certain whether this process of iron precipitation took place in antiquity or more recent times. However, its absence away from the enclosure suggests that it is a localised phenomenon, associated with the bank.

The heavily gleyed layer (595) is interpreted as a possible former 'B' horizon. It reflects the waterlogged, anaerobic conditions associated with the underlying Boulder Clay. Layer 596 is considered to represent an interface horizon between 595 and the underlying natural substrate.

Features Pre-dating the Enclosure

The bank sealed a channel, possibly a leat, with two associated drainage ditches, which cut the former land surface. The relationship between the former land surface and two small pits (674, 676) was not clear (Figs. 4 and 6):

Channel 666 and Revetment 590

This channel was traced for over 25m in a slightly sinuous course, in a north to south direction beneath the earthwork enclosure, and continued into the unexcavated area at both ends of the site (Fig. 4). It averaged 1.5m in width and had a steep (75°) east side and a flat base 1.4m below the former land surface (Fig. 6). At the base of the channel, against the east side, was a narrow slot (590), 0.14m in width, which extended a further 0.22m below the base of the main cut. The slot was filled by a dark, gritty, anaerobic silty clay, which contained fragments of decayed timber. None showed evidence of having been worked. The fill of the channel proper revealed a complex stratigraphic sequence: a primary deposit (669) of greyish-white silty (calcareous) grits, with small grey clay patches and charcoal flecks was overlain by eight layers alternating between a dark grey, anaerobic, gleyed silty clay, bearing lenticular patches of Boulder Clay (Fig. 6: 658, 660, 662 and 664), and a greyish-green, gleyed sandy clay, with a distinctive brown (oxidised) mottle, containing fragments of limestone (Fig. 6: 659, 661, 663 and 665). A tiny quantity of undatable pottery, fired clay, bone and slag was present (599).

Ditches 651 and 678

Two parallel ditches, about 1m apart were aligned east to west, at right angles to channel 666, and appeared to drain into it, but did not continue beyond it (Fig. 4). The ditches were traced and recorded to a point 2m to the west of the channel, where they continued into the unexcavated area. Ditch 651, which was 0.8m wide, had

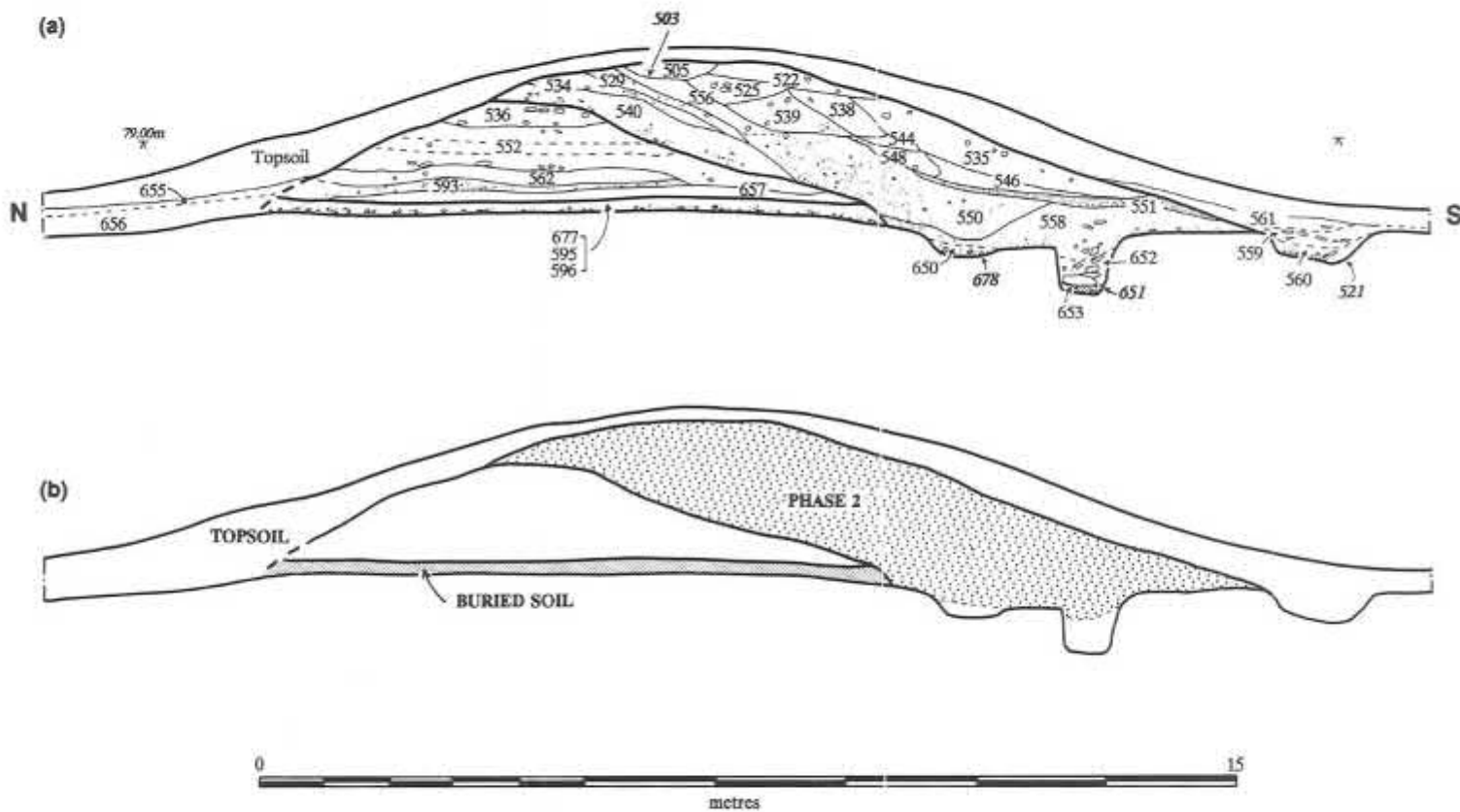


Fig. 5: (a) West-facing section through earthwork enclosure
 (b) Schematic section showing phases I and II of earthwork enclosure, overlying the buried soil

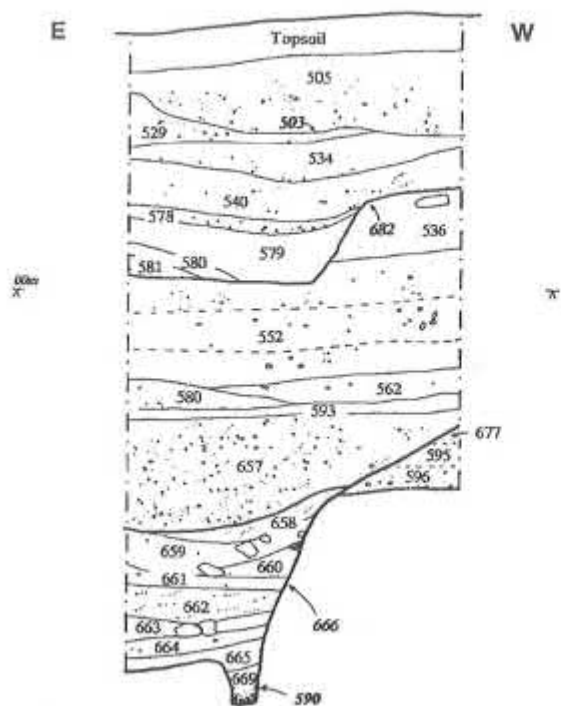


Fig 6: North-facing section through earthwork bank showing underlying leat

steep sides and a flat base about 1m below the surviving substrate surface (Fig. 5). Its fills included a thin primary, pale grey gleyed silty clay, which was overlain by a browner, gleyed silty clay, with coarse grits and large sub-rounded limestone boulders and flint nodules (up to 0.5m across). An interesting discovery was a fragment of worked antler from the secondary fill.

Immediately to the north of ditch 651 was a less substantial ditch, 678, which although wider (1.05m) was only 0.38m deep. It was filled by a grey, gritty, gleyed silty clay deposit, with some surface oxidation, which contained a single medieval sherd (Figs. 4 and 5).

The slot identified at the base of channel 666 may be evidence for a wooden revetment against its east side, which judging by the absence of *in situ* timbers appeared to have been dismantled, perhaps when the bank was constructed. The anaerobic silty and silty clay fills were evidently water deposited, suggesting that this feature was some form of water channel, possibly a leat. The angularity of its sides clearly revealed that it was artificial in construction, though it may have been a canalised section of a

natural water course. The two tributary ditches appear to have drained local water into the larger one, and are therefore assumed to be contemporary features.

Pits 674 and 676

To the north of ditch 678 were two small, adjacent pits, which were not fully within the excavated area (Fig. 4). They appeared to be sub-circular (over 0.55m across) and had shallow concave profiles, about 0.2m in depth. Their relationship was uncertain. They contained identical, grey, gritty clay fills with limestone and flint inclusions and occasional charcoal flecking. A single piece of bone (675) came from pit 676.

The function and date of pits 674 and 676 is uncertain. Since they are sealed beneath the bank, they may be broadly contemporary with the leat and the two associated tributary ditches.

Earthwork Enclosure

In the vicinity of trench 6 (Fig. 4) the grass-covered enclosure bank, which has a flat 2m wide top, stands to a height of 2m and is over 15m in width. Its size diminishes slightly further east, near trench 2. An associated ditch, immediately to the south of the bank is now a shallow depression, in places scarcely apparent.

Trench 6 provided a complete section through the bank and ditch. This revealed a complex stratigraphic sequence of bank construction. The results of these investigations are described below.

Bank: Phase I

A horizontally-banded primary core, slightly asymmetrical in profile with a steeper north slope, lay north of the centre of the existing earthwork bank (Fig. 5). It was only 7.5m across, with a flat top (1.4m wide) and stood 1.3m above the level of the old land surface (see below).

The initial construction predominantly used a grey gritty clay (657, 593, 562 and 580), presumably derived from the underlying Jurassic clays, which are known to be present close to the surface to the north. This layer contained a couple of flint flakes and many fragments of animal bone. The heart of the bank was formed from a yellowish-brown sandy clay or sandy clay loam, with flint gravels and chalky inclusions (552) of Boulder Clay origin. At least three bands could be identified by the presence of discontinuous rust-coloured streaks at their interfaces. A small iron blade was present within this

layer. A darker clay loam (536), possibly incorporating a topsoil or subsoil component, formed the upper part and contained a single medieval sherd and fragments of animal bone. A number of horizontal limestone slabs (0.1 m across) appeared to have been laid near the surface of this layer.

Phase II

This primary core was subsequently buried beneath a further sequence of inclined soil dumps, which extended the bank to almost 14 m in width and raised it to a final height of c. 2 m (Fig. 5). Its asymmetrical form, having a steep north side, appeared to reflect that of the primary core. An initial dump (558), which contained a single medieval sherd and some animal bone, was present along the north side of ditch 521. The majority of the remaining construction materials were clays and clay loams derived from local deposits of Blisworth Limestone and Boulder Clay. The former was primarily used for the lower dumps (Fig. 5a: 529, 534, 540, 550 and 556), and contained five medieval sherds (including Olney Hyde ware), animal bone and lithic material. The Boulder clay was generally used for the upper dumps (Fig. 5a: 525, 538, 539, 546, 548 and 549), and contained similar material. A 0.05 m wide band of flint gravels (551) within a loamy clay matrix extended up the shallow outside tail of the bank between these two main deposits. It contained a single flint flake. The final make-up included a darker clay loam (522, 535), possibly incorporating a topsoil or subsoil component, which contained three sherds of Olney Hyde ware and four residual Belgic-type sherds. A small tree-throw disturbance (503) was evident within the top of the bank.

In the north and west-facing sections of the excavated northeast quadrant (Fig. 6), the upper part of the bank had been cut away (682) to a depth of 0.5 m, and reconstructed using alternating bands of Boulder Clay (578 and 580) and Jurassic clay (579 and 581).

A deep modern topsoil had developed upon the clay core of the bank. This consisted of a dark, sandy clay loam, which was 0.2 m thick on the top, but deepened to 0.5 m at the foot of the slope.

The layers of the later bank contained occasional sherds of medieval pottery which were mostly in shelly or sandy fabrics, with some examples of the former coming from the Potterspurty and Olney Hyde kilns. A small number of sherds (some grog-tempered) were certainly residual, being of Belgic or early Romano-British date.

Ditch

Sections were recorded across the outer ditch in trenches 2, 3 and 6 (Figs. 3 and 4). In trenches 3 and 6, the ditch had a slightly asymmetrical profile, with its shallow side

at the foot of the bank (Fig. 5: 521). It varied between 1.6 m and 2.0 m in width, at the clay substrate level, and had a flattish or slightly sloping base, about 1.3 m below the modern ground surface. Its small size contrasted with that of the associated broad bank, suggesting that the bank material was only partially derived from here. The primary fill was a grey, semi-gleyed, uniform clayey silt, with slight oxidation along its upper surface (560) and contained a single fragment of animal bone. The upper fill was a browner silt loam with a rust-coloured mottle, which contained large quantities of tabular limestone fragments (up to 0.2 m across), predominantly within the north side, at the foot of the bank. A number of large, unabraded Potterspurty sherds and some Olney Hyde wares were present against the southern side of the ditch. A further deposit containing limestone slabs (561) overlies the ditch fills and extended up the southern tail of the bank.

Further east (Fig. 4; trench 2, context 403), the ditch maintained a similar form, being about 2 m wide at ground level and surviving to a depth of 1.05 m. It cut through relict cultivation layers containing pottery of the late 12th–14th century; however the ditch fills contained pottery of similar date. The stratigraphic development was similar to that in the section to the west, but incorporated an additional silty clay loam fill (404), containing medieval pottery (Potterspurty and Olney Hyde), animal bone and fragments of iron smithing slag. The final fill (402) included limestone fragments and further medieval pottery.

Discussion

The earthwork enclosure was constructed in two phases. The earlier bank was incorporated into the structure of the later enlarged bank.

The Earlier Bank

The earlier bank appeared to have been formed by the horizontal dumping of locally derived clay deposits above the contemporary ground level. This sealed the old land surface and preserved it as a buried soil beneath the bank. Possible evidence of turf between the clay layers was present as discrete lines of oxidation, attributed to organo-ferrous compounds, associated with the humic horizons, recorded within layer 552. The sides of the bank appear to have been truncated. Some form of limestone structure, possibly the foundations of a revetment or pathway, was observed near the surface.

The exact date of the primary bank's construction is unclear. The bank itself produced only a single medieval sherd, while the buried soil beneath the earthwork contained no dating evidence. The relative absence of archaeological material from the make-up of the bank (particularly from the lower dumps) indicates that it was mostly derived from a source away from areas of settlement activity.

During the initial construction of the smaller bank, the large north to south leat (666), which was still functioning up to that time, although partly silted, was filled in to ground level and completely buried. Tributary ditches 651 and 678, which now passed along the foot of the earlier bank's exterior slope, were not filled in and the southern section of the leat may have continued to drain water from them to the south. The section of leat to the north was presumably entirely filled in, or diverted elsewhere, unless it was intended that the interior of the enclosure was to be flooded.

The Enlarged Bank

At some subsequent date, the bank was enlarged by the addition of further clay-derived layers against its southern face, increasing its volume by almost 300%. In contrast to the earlier horizontal clay/turf construction, these layers formed inclined dumps and were built up in a piecemeal way.

A shallow ditch (521) was excavated in front of the enlarged bank and the extracted soil (558) dumped to its north side, above ditches 651 and 678, which had almost completely silted by this stage. The ditch would have helped to drain the area in front of the bank, but its primary purpose may have been to mark the proposed southern limit of the new enlarged bank during construction, since it clearly contributed an insubstantial amount to its make-up. The remaining bank material must therefore have been derived from some form of more general landscaping.

After initial dumping of grey clay (of Jurassic origin), which raised the bank by about 0.5m, a stony layer (551) was laid along the tail of the bank. Its purpose may have been to alleviate waterlogging above ditches 666, 651 and 678, which were buried beneath, and to facilitate general construction activities upon the bank. The bank was then raised to

its current size by a more complex series of deposits, mostly derived from Boulder Clay.

In all three trenches excavated across the ditch, a small tumble of limestone slabs was identified within its fills and within overlying material derived from weathering/slumping of bank material. This stone may have been derived from either a bank revetment or walling on the bank crest, but no trace of such a structure was found *in situ*.

The dating of the enlarged bank and associated ditch is problematic. A medieval or later date was implied by a single sherd from ditch 678, which was sealed by the bank. The dump horizons of the bank itself provided some diagnostic medieval pottery, which is likely to be residual and redeposited. This material included Olney Hyde wares and highly-decorated green-glazed Potterspury sherds, none of which can be precisely dated (Mynard 1992).

At the southeast end of the enclosure (Fig. 4; trench 2), the ditch appeared to cut through relict cultivation layers containing pottery, including Olney Hyde (Mynard 1984) and Potterspury wares of late 12th to 14th century date, and the ditch fills themselves contained pottery of similar date. Although this indicates a *terminus post quem* in the late 12th to 14th centuries for the construction of the enlarged bank (phase II), it should be borne in mind that a degree of admixture between the two deposits through ditch casting may have taken place. A more refined chronology cannot at present be established.

The Interior of the Earthwork

One gully and a cobbled area were identified within the earthwork enclosure (Figs. 3 and 4).

Cobbled Surface 102

A stone surface was exposed at the southeastern end of trench 1, but did not extend as far south as trench 5 (Fig. 4). It was at least 1.8m in width, continuing to the south, east and west into the unexcavated area. It consisted of densely and evenly packed rounded and sub-angular limestone fragments (0.05m to 0.3m across), embedded well into the underlying clay substrate. The cobbles deepened along the southeast side, becoming up to three layers deep (0.3m thick). They were mostly lying on their flatter sides forming a surface, which dipped down

and petered out to the north. A single pottery sherd within this layer dated to the 12th–13th century.

The stone surface had apparently been deliberately laid at some time during or shortly after the 12th or 13th centuries AD. The cobbles evidently did not extend far in a north-south direction, although they may have continued to the east or west. The need for a cobbled area may have arisen in this part of the enclosure because it is the lowest lying part and one in which drainage is impeded by the enclosure bank.

Gully 305

A narrow ditch or gully extended from the north bank of trench 5 (Fig. 4), for 2m to the southwest, where it terminated at a butt end. The gully had a shallow 'U'-shaped profile (0.5m wide) and was cut 0.1m into the underlying clay substrate. It contained a number of limestone slabs (up to 0.2m across) in a silty clay matrix.

The Exterior of the Earthwork

A number of features, including two ditches, seven pits and a furrow, were identified within trenches 2, 3, 4 and 6 outside the enclosure bank (Figs. 3 and 4).

Ditch 219

This ditch was approximately parallel with the ditch associated with the enclosure bank and 2m to the south of it. It extended for 2m in an east to west direction across trench 3 and continued into the unexcavated area at either side of the trench (Fig. 4). It had a shallow, U-shaped profile (0.54m wide and 0.22m deep), and contained a dark, gritty clayey silt.

Although no dating evidence was recovered from this ditch, its alignment suggests that it is likely to be medieval or post-medieval in date.

Pit 202

This apparently sub-circular pit (at least 0.9m across), was observed at the southeast corner of trench 4 (Fig. 4), though its full extent was not recorded since it continued into the unexcavated area. It had a shallow, concave profile, only 0.09m in depth. A dark silty clay deposit contained charcoal and burnt clay flecks.

Pit 204/614

This large pit lay in the northwest corner of trench 4, and was also recorded at the southeast end of trench 7 (Fig. 4). It was pear-shaped (2.5m by 2.1m) and had near-

vertical sides, which in parts were undercut, and a flattish base 0.52m below the clay substrate surface. The pit contained a complex stratigraphic sequence of five fills. The primary deposits included thin, sterile silty clays, which were overlain by darker, gritty silty clays and silty clay loam soils which contained almost one hundred and forty sherds of medieval pottery (mostly Olney Hyde), animal bone (sheep and pig), daub, slag and both charcoal and burnt clay flecks. A single grog-tempered sherd of probable Romano-British date was also present.

Pit 617

This pit lay to the south of the main cluster, about 1m to the east of ditch 621 (Fig. 4; trench 7). It was sub-circular (0.64m in diameter), with steep sides and a flat base, 0.19m below the substrate surface. The brown, clayey silt contained four sherds of a carinated, shouldered vessel of Late Iron Age or Belgic date (and four other undatable sherds), dense charcoal and burnt clay flecks and also patches of brown clay.

Pit 622

This pit lay immediately to the southwest of pit 624 (Fig. 4; trench 7), and was sub-circular (0.75m in diameter) with a shallow concave profile, 0.17m deep. The dark brown silty clay fill contained a few sherds of medieval pottery.

Pit 624

This pit lay immediately south of pit 603, and northeast of pit 622 (Fig. 4; trench 7). It was oval (0.85m by 0.70m), with moderately steep sides and a concave base (0.32m deep). The primary, brown clayey silt contained almost 70 sherds of medieval pottery (including Olney Hyde ware), which appeared to have been broken *in situ*, against the south side of the pit (fig 7). Animal bone, charcoal and burnt clay were also present. The final fill was a yellower version of the primary deposit, and contained a small quantity of similar material.

Pit 626

This small pit (or posthole), which was 2m to the east of pit 624 (Fig. 4; trench 7), was circular (0.2m in diameter), with a shallow concave profile, 0.1m deep. It contained a clayey silt with charcoal flecks.

Ditch 619

This ditch was parallel with the existing field boundary and 2.5m to the southeast of it, and extended for 13m in a northeast to southwest direction across trench 7 (Fig. 4) and continued into the unexcavated area at either side. In the southwest, it had an asymmetrical profile (0.8m wide) with a flattish base (0.33m deep), but further northeast the profile became more concave. The brown, clayey silt fill contained a small quantity of medieval

pottery and charcoal. A single Roman Samian fragment was also present.

DISCUSSION

The spatial variation, and differences in form, size and material content suggest that the external features do not form a coherent group. However, the presence of medieval pottery from ditch 619 and pits 204/614, 622 and 624 suggests that these are broadly contemporary. This is further supported by the medieval cultivation soil, which overlies them. Pottery of Olney Hyde type indicates a late twelfth or thirteenth-century date (Mynard 1984, 56–85) for three of the pits (204/614, 622 and 624).

The primary function of these pits was not apparent. The presence of abraded, broken pottery and animal bone may however indicate a secondary use for refuse disposal. The abundance of domestic material within the pits, especially pit 204, (which contained daub, and sherds from at least five vessels of the 12th to 13th centuries), suggests proximity to a nearby medieval settlement (possibly a farmstead).

All the pits lay east of ditch 619, which is believed to be a contemporary medieval boundary, its modern counterpart (the existing western field boundary) having been shifted a few metres to the west.

A different phase of activity may have been represented by pit 617, which lay to the south of the others, and contained pottery of Late Iron Age or Belgic date, as well as some undated sherds. Residual pottery of similar type was present in pit 204/614, ditch 619 and two upper layers (505 and 556) of the enlarged bank. The pit lay 200m to the north of a dark soil deposit (Fig. 1; CAS 1406; SP 797441) which yielded two sherds of Late Belgic or Early Romano-British pottery, recorded during the construction of the earlier Castlethorpe sewer pipe (Anon 1962). This suggests the presence of a small settlement (possibly a farmstead) to the south of Castlethorpe. Further Romano-British activity is evident in the vicinity of the village, while the conjectured route of a Roman road (Viatores 171) lies 1.5km to the southeast (The Viatores 1964, pp 316–325, maps 422–425).

Medieval Cultivation Soil 410/411

Medieval ridge and furrow, running west-north-west to east-southeast, was evident within the field to the southeast of the enclosure (Fig. 4; trenches 2, 4 and 7).

A silty clay loam cultivation soil (up to 0.50m deep) was identified below the turf and topsoil level. It contained pottery of both Olney Hyde and Potterspurty types, of late 12th to 14th century date. An interesting discovery was a number of carbonised hazelnut shells. The base of one furrow (Fig. 4: trench 2, context 405), was over 1.1m in width and had a U-shaped profile, 0.1m deep. Its silty clay loam fill contained medieval pottery and slag. The cultivation soil overlay a ditch (619) and six pits (202, 204, 617, 622, 624 and 626). A further pit (603) was cut into the upper surface of the layer.

Features Post-dating the Cultivation Soil

A single pit disturbed the upper surface of the relict cultivation layer, in the vicinity of those that were overlain by it.

Pit 603

This pit, which was immediately north of pit 624 (Fig. 4; trench 7), was sub-circular (0.70m in diameter), with shallow sides and a flat base, 0.22m below the substrate surface. A brown, clayey silt deposit contained charcoal flecks and a small quantity of medieval pottery, exclusively from the upper few centimetres.

THE FINDS

The Pottery

by Nicola Smith

Pre-medieval

Nine late Iron Age/Belgic sherds were identified. Four grog-tempered sherds recovered from layer 556 were in phase 2 of the bank, where they were clearly residual, and five joining rim and base sherds, belonging to a small carinated bowl, were found in pit 617. Three fragments of Romano-British pottery, including a single piece of Samian ware, were also recovered.

Medieval

421 sherds (approximately 5.5 Kg) were recovered and examined macroscopically. 390 sherds (93%) were identified as medieval. The greater part of the medieval material was represented by two main fabric-types: shell-tempered Olney Hyde

POTTERY QUANTIFICATION TABLE

1: Features Predating the Enclosure

<i>Deposit</i>	<i>Cut</i>	<i>Description of pottery</i>
599	666	2 undatable
650	678	1 medieval, 14th century

2: Phase I Bank

<i>Deposit</i>	<i>Description of pottery</i>
536	1, possibly medieval

3: Phase II Bank

<i>Deposit</i>	<i>Description of pottery</i>
558	–
529	–
534	–
550	–
540	–
556	–
525	–
522	–
535	–
505	–
565	521
216	212
402	403
404	403

4: The Interior of the Earthwork

<i>Deposit</i>	<i>Description of pottery</i>
102	–

5: The Exterior of the Earthwork

<i>Deposit</i>	<i>Cut</i>	<i>Description of pottery</i>
205	204/614	72 medieval; 54 Olney Hyde
206	204/614	31 medieval, Olney Hyde
207	204/614	36 medieval, Olney Hyde
613	204/614	33 medieval; 28 Olney Hyde
616	204/614	9 medieval 1 Romano-British
618	617	5 late Iron Age/Belgic, 4 undatable
623	622	3 medieval
625	624	69 medieval; 33 Olney Hyde (see fig 7)
628	624	5 medieval
620	619	9 medieval, Olney Hyde
621	619	1 Romano-British (samian), 2 undatable

6: The Cultivation Soil

<i>Deposit</i>	<i>Cut</i>	<i>Description of pottery</i>
410	–	14 medieval; 10 Olney Hyde and 4 Potterspur
411	–	9 medieval; 7 Potterspur
406	405	2 medieval

7: Features Post-Dating the Cultivation Soil

<i>Deposit</i>	<i>Cut</i>	<i>Description of pottery</i>
602	603	13 medieval; 12 Olney Hyde

wares (69%; 271 sherds) and sand-tempered Potterspurys wares (8%; 31 sherds). A number of the remaining 97 medieval sherds, although possessing no firm diagnostic features, are also likely to be products of the Olney Hyde kilns.

A relatively large assemblage of Olney Hyde ware (149 sherds minimum count, or 86.6%) was recovered from a pit (204/614) within trench 4; this included a number of cooking pot and storage jar rims and bases, and a body sherd with a bored circular repair hole. A second concentration of Olney Hyde ware was identified in a smaller pit (624, approximately 6m to the north-west of pit 204/614). At least 47% of the 69 medieval sherds recovered from pit 624 (see fig 7) were from the Olney Hyde kilns, and suggest a late twelfth to fourteenth-century date (Mynard 1984).

A small amount of thirteenth to fourteenth-century Potterspurys ware was identified from a number of excavated features within trenches 2 and 6 in association with other medieval fabrics. A small concentration (15 sherds) of Potterspurys ware was noted within ditch 403. Ditch 521, in front of the phase 2 bank, produced three large, olive-glazed Potterspurys sherds from a highly decorated bowl, with applied strips and pads ('prunts'), with small vertical/oblique linear incisions and rosette decoration. A green-glazed Potterspurys jug strap handle, with vertical linear incisions, was also recovered from ditch 521. Comparable material, though not precisely dated, is published from Great Linford (Mynard 1992, 262-272, Fig 135; nos. 177, 180-183, 193).

The Flints

by David Bonner

Nineteen flint artefacts and waste flakes were recovered during the excavations. The raw material ranged between a partially translucent, dusky yellowish-brown and an opaque, dark brownish-grey flint. Most of this was procured from within glacial sands and gravels and Boulder clay, which occur within the immediate area. The non-eroded cortex of some suggests that a few are derived from a primary flint source, the nearest being the Chilterns, over 30km to the south-southeast.

Of the seventeen flakes recovered, five showed signs of modification by retouch and one had edge

damage and an abraded butt end, indicating that it had been used. Two blades were found, although the majority of the flakes were classified as intermediate flakes. The size of the blades might suggest a Mesolithic or early Neolithic component, whilst the majority of the assemblage is clearly later, perhaps later Neolithic or Bronze Age in date.

Five tools were recovered; three were scrapers, probably of Early to Middle Bronze Age date, one was a broken notched blade of presumed Neolithic date, and another was a retouched (and heavily utilised) core rejuvenation flake of possible Neolithic date.

Two cores were recovered; a rough multi-platform core and a single platform, conical bladelet core of an unusual greyish-yellow chert. The latter is probably of Late Mesolithic date.

Comments

The range of the assemblage implies a mixed nature with elements from the Late Mesolithic onwards. The Mesolithic and Early Neolithic activity is demonstrated by the presence of blades and a single core. There is an unusually high proportion of tools (26% of the assemblage), being of Late Neolithic and Early Bronze Age date. The relatively high number of scrapers may suggest proximity to a domestic site.

DISCUSSION

The Castlethorpe Sewer Upgrading afforded an opportunity to carry out a small-scale excavation in an area where little previous work other than documentary research had been conducted. The investigations demonstrated the medieval origin of the earthwork, and the fact that there was medieval activity in the adjacent area prior to its construction and also subsequently.

Two phases of bank construction were apparent. The earlier bank was partly of turf and clay construction; not an uncommon method of raising a bank in the medieval period. The assumed medieval date for the earthwork was confirmed, but a closer date could not be established. The first bank was to form an integral part of the later and substantially

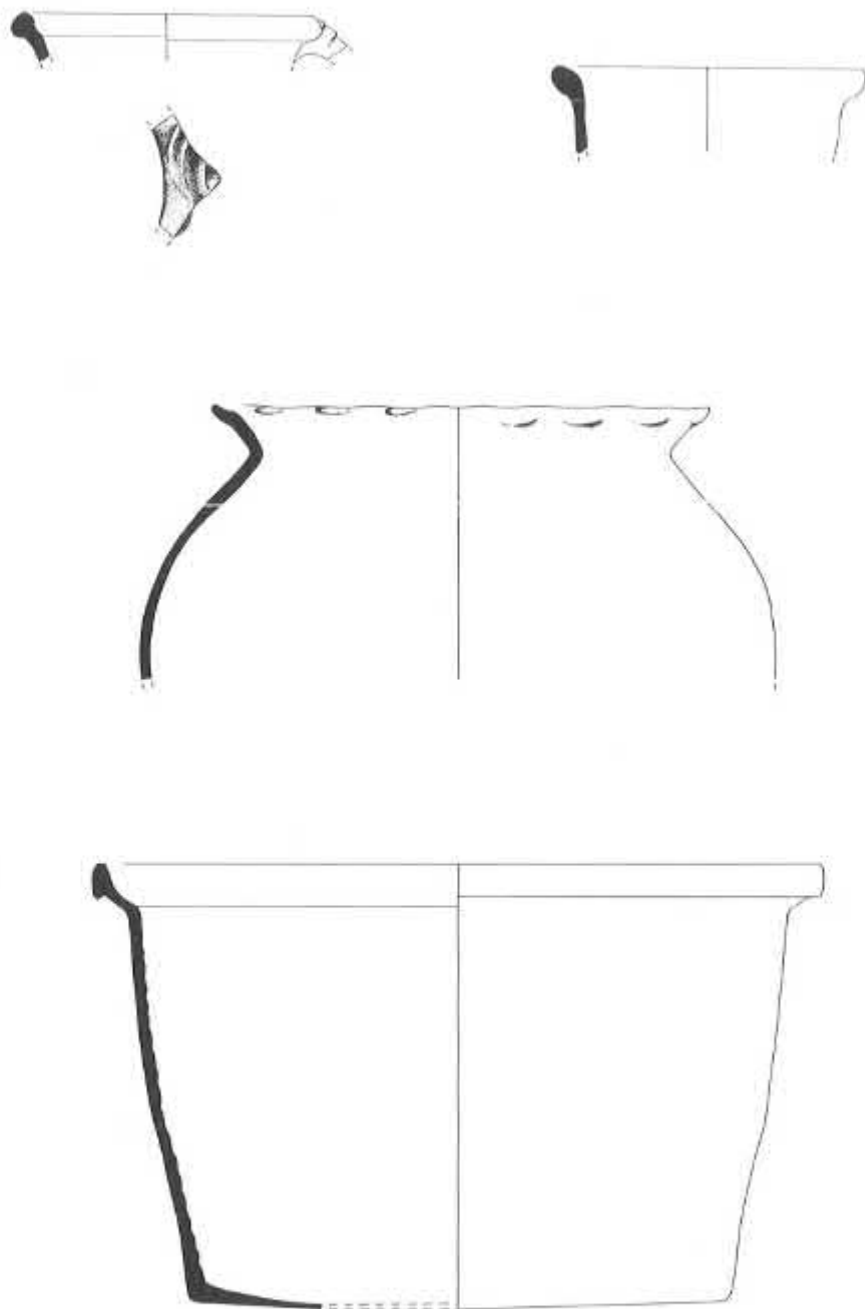


Fig. 7: Vessels in Olney Hyde ware from pit 624 (Scale 1:4)

larger bank. It is uncertain just how much time elapsed before the erection of the larger monument, since no diagnostic distinctions were apparent between the pottery associated with each bank, and the surface of the earlier bank had been truncated, presumably during the construction of the later work.

The larger earthwork was raised by a series of clay dumps, but no surviving structure such as a revetment or evidence of turf or timber strengthening were identified within it. The size of the bank was out of all proportion to that of the ditch, and it is certain therefore that additional material would have had to have been imported in order to construct the bank. The additional material may not have come from any great distance, and may even have been derived from general landscaping works (perhaps within the interior of the enclosure), undertaken at the same time. The relative dearth of archaeological material (as residual finds) from the bank make-up (particularly that of the earlier construction) suggests that if it was derived from inside the enclosure, then there must have been a low density of internal features. This was supported by the apparent absence of significant archaeological finds or features inside the enclosure, although only a small area was sampled here.

Little evidence was recovered to shed light on the function of the enclosure itself. The Ordnance Survey (1973) suggest fishponds, but the location on slightly sloping ground, together with the variation in ground level between the various internal compartments makes this interpretation unlikely.

It has also been suggested that the enclosure was connected with the main outer defences referred to earlier, to the west of the main castle earthworks (RCHME 1913). However, the shallow outer-facing slope and the insubstantial ditch of the enclosure are clearly not those of a defensive earthwork.

The bank could possibly have enclosed William Beauchamp's *viridarium* of 1292 (Page 1927), the internal cobbled area representing a path within that garden, but there is insufficient positive evidence to sustain such an identification, nor to state whether there were buildings of any substance within the enclosure.

The large ditch discovered beneath the bank appears to have been concerned with water-management. It seems to be draining downhill away from the main castle earthworks, and may therefore have taken water away from one of the castle ditches to the River Tove. In the early 19th century, 'the ditch of Thorpe Castle' is shown to be drained by a small stream also running southwest (Bryant 1825). There is at present a culvert only a few metres to the east of the excavated leat, which suggests that there may always have been a need for some form of drainage feature on this alignment.

Along the southeastern side of the enclosure, the outer edge of the ditch disturbed deep, relict cultivation soil, relating to the surviving ridge and furrow field system. The layer contained pottery of late twelfth to fourteenth-century date, which may have derived from contemporary manuring of the field, or possibly from the truncation of underlying features. Medieval finds were generally more profuse in this area than within the enclosure. Although no structural features were observed, the ditch and seven pits are likely to be in a location peripheral to medieval settlement; they may relate to the village of Castlethorpe, or to a previously unknown settlement nearby. The single rubbish pit, which had been cut into the upper surface of the cultivation layer suggested a prolonged period of medieval activity in this area. The acquisition of pottery from local producers is reflected by the presence of vessels from the Potterspurty kilns (Mynard 1984) 4km west, and from the Olney Hyde kilns (Mynard 1992) 10km northeast of Castlethorpe.

The single pit of possible Late Belgic/Romano-British date, lying to the south of the enclosure, may be associated with an apparently minor site of probable Belgic/Romano-British date observed during the construction of the original sewer pipe (CAS 1406) some 200m to the south (Fig 1). However, the absence of further discoveries in this area during the watching brief along the duplicate pipeline suggests that the settlement activity is not extensive.

It is interesting to note that no Saxon material was recovered during the investigations; the question of activity at Castlethorpe prior to construction of the castle earthworks is not clarified by this negative evidence.



Fig. 8: Aerial view of Castlethorpe showing the castle earthworks and southwestern enclosure (Cambridge University Collection of Air Photographs: copyright reserved)

ARCHIVE

The archive and finds are held at Buckinghamshire County Museum, ref. CAS 1643; accession no 1995. 55.

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Museum. Cambridge University Committee for Aerial Photography kindly permitted publication of the photograph reproduced here as Fig 8.

The excavations were directed by David Bonner, Andrew Hunn and Jo Lawson, and undertaken by Chrissie Atherton, Phil Carstairs, Abd El Hakim, Jonathan Mullis, Howell Roberts, and Steven Weaver. The project was managed by Jonathan Parkhouse, the finds analysis was undertaken by Nicky Smith and the illustrations were drawn by Richard Parke. Additional information was provided by Mike Farley and Julie Wise of Buckinghamshire County Museum.



Fig. 9: Section through southwestern enclosure (trench 6)

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