Notes

A ROMANO BRITISH SITE AT HEMINGTON WATER TOWER, NEAR OUNDLE

Hemington Water Tower (TLO76848) stands on the highest point of a plateau that rises east of the village of Barnwell to a height of 79m above sea level (Fig1). This relatively high ground commands extensive all-round views, especially to the west where the ground slopes away towards the River Nene. In Roman times anyone approaching the area from the west and north-west would be observed from a distance.

Fieldwalking revealed an area extending from about 20m south of the hedge separating the existing ploughed field from the Barnwell-Hemington road and approximately the same distance from the hedge dividing the field from the property of the Anglian Water Company, as a heavily occupied Romano-British site. For some 200m to the west and 150m to the south the field is littered with bits of limestone building material. Pottery fragments and Roman brick are scarce, but metal detecting recovered two coins, a very worn *sestertius* of Antoninus Pius (138-161) and a broken 2AE of Constantine (306-337) 'Camp Gates' (c.335, but mint lost). The site had been heavily ploughed over

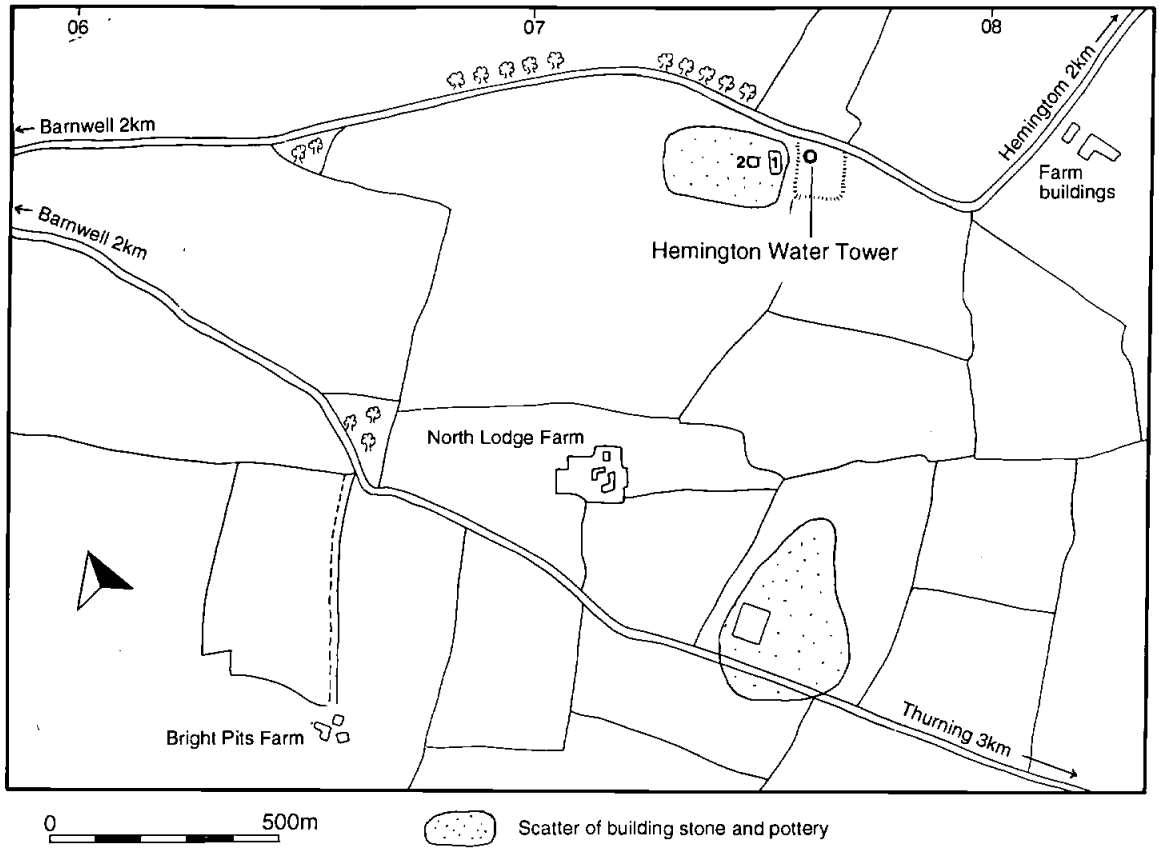

Fig 1 Plan of the area around Hemington Water tower

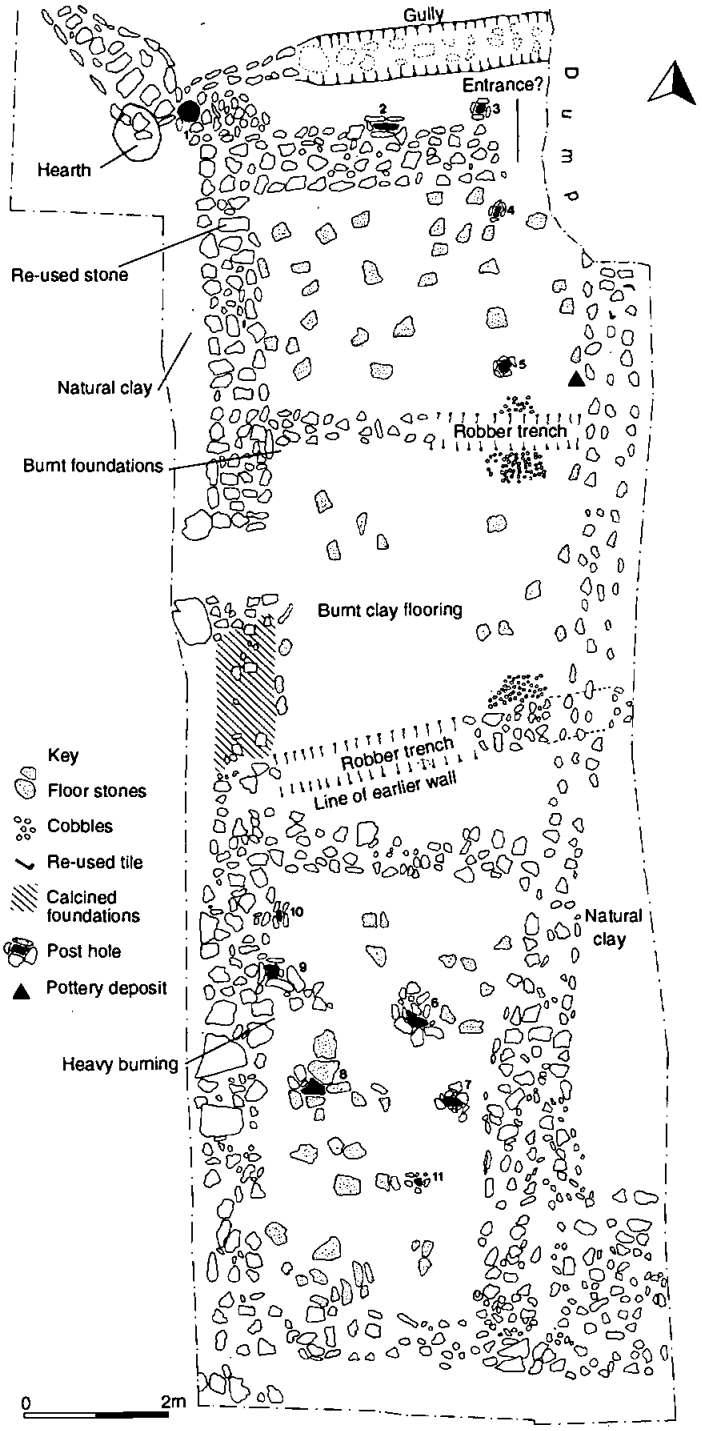

Fig 2 Site plan

the years, and except where a ditch was discovered the archaeological layer was no more than 30cm deep, sandwiched between the bottom of the plough and natural clay, which was encountered less than one metre below the surface. Much of the upper archaeological level containing postholes of the latest building on the site chosen for excavation had been ploughed away.

A small-scale excavation was carried out by the writer at week-ends between 1990 and 1995. This resulted, however, in the discovery of a long, poorly constructed rectangular building, approx. 16.75m long and averaging 3.60m wide internally. It was oriented almost exactly north-south. It had been divided into three compartments, measuring from south to north 5.75m by 3.30m (Room 1) , 5.90m by 3.80m (Room 2) and 3.10m by 3.70m (Room 3). Foundations of stone cross-walls dividing the rooms were also found, though much disturbed by robbing. Outside the north-west corner of the building there was a small area of heavy limestone cobbling separating the wall of the building from a semicircular basin dug into the soil 1.4m in diameter (Fig 2). It had been constructed out of limestone blocks, fed by a channel leading from the east (i.e. towards the water-tower) one metre from the north wall of the building. It flowed out at a shallow (5°) angle towards a sump on the west side. This channel which was 0.40m wide had been stone lined. At the south east corner of the building was a rectangular area paved by small limestone stones laid flat. It measured 2.50m N-S. and 1.20m E.-W. It could have formed the foundation for an external stairway on this part of the building.

As may be gathered from the varying widths of the rooms, the construction of the building was irregular, except at the north west corner. Surviving lengths of wall-foundation consisted of roughly laid limestone blocks of varying sizes and some flints resting on the natural clay or on a shallow foundation of rounded gravel stones. The exception was the north-west corner, where the wall was wider, more regular and clearly defined. Here, the large blocks of limestone used in the construction gave a width of 0.85m, compared with an average width of 0.75m over the rest of the building. No traces of mortar were found, and it appeared that the blocks used in the walls had been held together by a clay and lime mix possibly based on clay extracted from pits located near the site of the large Romano-British building at North Lodge Farm, a mile (1.3km) to the south. There were traces of yellow-orange clay on the inner faces of some of the building stone. From the mixture of the material employed, it was clear also, that the builders had re-used material taken from earlier buildings. Some of the limestone blocks had been shaped, and fragments of roofing and worn hypocaust tiles were found in the foundations of the walls especially on the east side. Except for the ditch indicating an earlier, 2nd century phase of occupation of one area at the south end of Room 2 (see below) the walls were built on undisturbed clay.

Evidence of an entrance was found on the west side of Room 2, where there was a gap in the wall 1.20m wide flanked by two large limestone blocks projecting from the line of the wall, which could have carried the uprights of a doorway. At the north-east corner of Room 3 the wall petered out suggesting the existence of an entrance there also (See Fig 2). The whole length of the west wall showed traces of severe burning, including burnt clay and charcoal flecks outside the wall of Room 1. One section of Room 2, 1.50m long was carbonised into a conglomerate of clay and building stone. Burning extended eastwards into the rooms. Throughout the whole building were flecks of carbonised wood with fragments of daub. The burnt deposit over the upper floor was between 4cm and 7cm thick and contained some burnt wheat and burnt beans. The flat flagstones which had been sunk into the clay to form a firm base were often reddened by fire, and this applied also to many of the stones used in the foundations of the west wall. Two AE coins of Valentinian I (*Securitas Reipublicae* and *Gloria Romanorum*) were found among burnt earth and charcoal traces on the west side of Room 1.

A notable feature of the site was the relative scarcity of pottery. Some Nene Valley fine and coarse grey wares were recovered, but the prevalent type found at all levels and in the foundations of the wall was a coarse shell-gritted ware. Fragments ranged from parts of well-made cooking pots, to large storage jars, and hand-made vessels of a soft gritty fabric. Only one significant deposit of pottery was found, consisting of the body of a thick white pipeclay vessel lodged on the edge of the east end of a robber trench dividing Rooms 2 and 3.

Four main phases of occupation could be identified.

1. Marked by a shallow (0.60m) robber trench 0.85m wide running E-W across the site just to the north of the wall dividing Rooms 1 and 2, but subtending an

angle some 10° from the line of the west wall. This trench could be traced below the east wall, but did not extend westwards from the building. Among the stones at the bottom of this trench were fragments of Samian forms 18/31, 33 and 37, rusticated ware, also a fragment of plum-coloured Castor ware on the outside of which had been moulded an erotic scene, and a fragment of a Hunt Cup. The first period of the gully at the north-west corner of the building (see below) may also belong to this phase. A fragment of Samian form 79 was found in the lowest deposit of the channel resting below part of a quern and some grey cooking pot. The traces of cobbled floor found in parts of the building could also perhaps be attributed to this period, though no pottery was found on this level. Finds appear consistent with a mid or late 2nd century date.

2 and 3. These related to the main occupation of the building. In all three rooms two levels of flooring were found, divided by a thin (average 6 cm) layer of earth or clay. The floors on both levels were marked by flat limestone flagstones laid irregularly in earth or clay. Both levels showed traces of burning though these were more pronounced on the upper level, where a deposit of burnt clay and daub had accumulated. A few isolated squared limestone *tessarae* measuring 3-5cm in diameter, similar to those found in the later, 'Barnyard' layer, were found. Also found were a few fragments of grey and shell-gritted pottery squared into 2.5-3.5cm squares, possibly serving as imitation mosaic on the upper floor. Except for five hobnails found in the upper level of Room 2 and a few iron nails, no artefacts were found. One AE of Constantine I (Altar and Orb type, A.D.320-326) came from the lower floor level in Room i. Pottery also was scarce, consisting of a small harvest of colour-coated and grey wares. An exception were the bases of two Nene Valley beakers of fine burnished ware with a dark brown slip. The pottery, taken with the coin finds point to a 4th century occupation of both levels, the later floor dating perhaps to circa 350+ and in use in the reign of Valentinian I (364-375). The fire which destroyed the building could also have been in this period or shortly after.

4. These floors did not mark the final phase of occupation. Over the whole area was a spread of what may be described as barnyard material, including pottery, domestic animal bones and some oyster shells. The pottery was of late-Roman type, but the colour-coating of the sherds had been worn away, suggesting long usage and lack of replacement. Fragments of hand-made shell gritted storage jars were also found. A peculiarity was the recovery in the south-east corner of the building area of a number of roughly squared pieces of limestone similar to those found associated with the upper floor. These varied in size from approximately 2.5cm (1 inch) to as much as 7cm square. They had been cut deliberately, possibly to be used in a rough flooring. Associated with this level were two groups of post-holes, one concentrated in and around the north edge of the building, the other occupying part of the interior of Room 1. No coherent shape could be attributed to this latter group, but the row of holes ranged round the north east corner of the building suggests a small rectangular structure at that end. Both groups must have been built after the destruction of the building. At the north west corner post-hole 1 was dug through the existing cobbled floor into a soft deposit below, a post-hole (2), a large oval shaped hole 25cm in diameter, was built into the north side of the foundations of the north wall. Post-holes 4 and 5 were dug within what must have been the ruins of Room 3. The southern group were located within Room 1, while Post-hole 9, a large square hole 30cm in diameter was dug through what remained of the foundation of the west wall. A Minim and a very worn 2AE of Constantius II (*Fel. Temp. Reparatio*) were found at this level. Late Romano-British occupation, probably into the 5th century is indicated.

In 1995 excavations continued to the north and north-west of the building. Touching the building at this point was a semicircular basin 1.4m in diameter and channel, already mentioned. Both, however had been disused before the final occupation of the site. Over the basin itself and east end of the exit channel had accumulated a thick deposit of grey silt mixed with orange clay flecked with charcoal (15cm thick, probably debris from the ruined main building) and the top of the basin was covered with flat stones on which a hearth had been laid. This yielded fragments of a roughly made shell-gritted storage pot and fragments of animal bone. The exit channel had been completely filled in with heavy limestone blocks and covered over with flat stones. The feeder channel had been treated similarly. This had also been carefully and completely filled in with large stone blocks including part of a quern, tile fragments and re-used

building stone. One particularly large sandstone block weighed 15kg and was placed at the point where the feeder channel dipped sharply towards the semi-circular basin. Here too, a layer of grey silt some 4cm deep had accumulated over the course of the channel before it was covered in. The purpose of this feature and reasons for the elaborate methods used to fill it in remain a mystery. A latrine flushed out by water flowing from a spring to the east of the building is a possibility, but it would have been badly placed in view of the prevailing south-west wind. It might, however, have served another building, traces of whose limestone footings were showing up at the north edge of the excavation (Building IV). In any event, it had fallen out of use before the wooden structure marking the final phase of occupation had been built.

Apart from some oyster shells the excavated building provided no evidence of domestic occupation; a store house for grain, one of a number of buildings on the site seems the most likely explanation. Thirty-five metres to the west another building was found in 1996, and the whole area seems to have been densely occupied with buildings of various types in the fourth century. Except in the Period 1 ditch practically no pottery, except a few worn fragments of Samian ware has been found dating earlier than that period. As a grain store, fire would have been a constant hazard, though the concentration of burning on the west side might suggest its final destruction through a fire started outside the building against the west wall. After its destruction there was a period of abandonment before the ruins were incorporated into lowly agricultural structures. The builders of these used the surviving foundations to provide firm bases for their posts. At a later period the site was abandoned. There were no signs of further destruction and no Anglo-Saxon pottery was found.

ACKNOWLEDGEMENTS

Many helpers took part in the excavation and I would like to thank in particular, Tim and Anna Fernyhough, Ian Grant, Simon Burchell, Rev. Paul Trenchard, Paul Firman and Anne Taylor. I am especially grateful to Paul Firman and Patrick Sadler for their pottery drawings, to Caroline Guite-Malim for her plan of the building; and to Mr. David and Fredy Roughton the owners of the field for their help and encouragement at all times. At the building V site I would like to acknowledge gratefully the help given to me by Mr. Freddie Mills of Luddington, Simon Burchell,and my wife and the kind permission to carry out this further work by the farmer, Mr. Fredy Roughton.

SMALL FINDS AND POTTERY

Except for the coins already reported, there were few small finds: some iron nails, five hobnails from Room 2 and a fragment of an iron blade from the fill of PH5 are the sum total of finds from this fourth-century site. Pottery consisted of fragments of colour coated wares, grey cooking and storage pots and a few sherds of finer Nene Valley wares. The most distinctive form from the site however, were the remains of large shell gritted storage jars (type 1 below) and of cooking pots of the same fabric. A selection is given below (Fig 3):

1. Heavy roll-rimmed storage jar of brown shell-gritted ware, one of a number of similar fragments. Found on both floor levels of the building and on the 'Barnyard' or 'Rubbish' level.
2. Base of small colour coated beaker of white pipe-clay fabric and decorated with orange semi-circles on chocolate slip. From upper floor level of the building. One other example found. See W. Horton, G. Lucas and G.A. Watt, 'Excavation of a Roman Site near Wimpole, Cambs' *PCAS* 83, 1994, Fig. 15, No. 57.
3. Rim of thin grey ware cooking pot with everted rim and prominent lid seating. Upper floor level of building. See Malcolm Todd 'The Commoner Late Roman Wares of the East Midlands', *Arch J.*48.2 (1968), Fig.2, No.13 and p.202.
4. Rim of brown shell-gritted cooking pot with thin ledge round rim to hold lid. Slight indentation on exterior of rim. Poorly fabricated. Upper floor of building.
5. Rim of colour coated bowl of hard fabric. Worn brown colour coat. Upper floor level.
6. Rim of pie dish of pale grey fabric with shiny black burnish. Upper floor level. See 'Wimpole', Fig. 14, Nos.8 and 19.
7. Rim of flanged bowl of hard white fabric with black colour coat. Lower floor level. See E. Greenfield, J. Poulsen and P.V. Irving. A fourth-century villa and bath-house at Great Staughton, *PCAS*, 83. 1994. Fig. 14, No.42.
8. Rim of cooking pot of hard pale grey fabric and linear grooves on shoulder. Upper floor level. Compare D.S. Neal, 'The Excavation of the Roman Villa in Gadebridge Park, Hemel Hempstead', Society of Antiquaries Research Paper xxxi, 1974, p.231, No.222.
9. Rim of cooking pot of hard brown shell-gritted fabric. Upper floor level.
10. Rim of cooking pot of hard white fabric with black colour coat. Late rubbish level.
11. Rim of bowl with slight flange; hard grey fabric, from robber trench dividing rooms 2 and 3. Compare 'Wimpole' Fig.15, No.54.
12. Rim of cooking pot, of hard grey ware, with linear decoration below rim. Upper floor level.

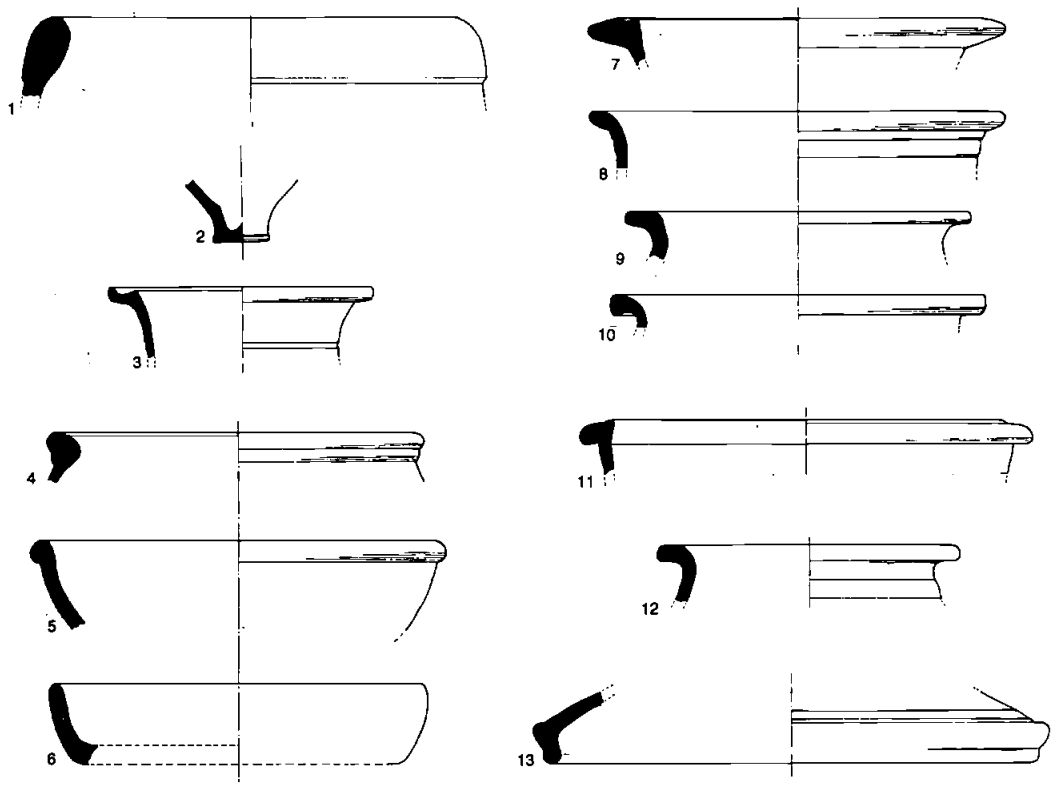

Fig 3 Illustrated sherds

13. Base of lid, of hard white pipeclay fabric, traces of redbrown colour coat; from foundations of west wall. See for type J. S. Wacher, *Excavations at Brough on Humber*, Society of Antiquaries Research Papers xxv, London 1969, Fig. 68, No. 418.

(Not shown, body sherds of grey ware and worn colour coated ware and body sherds of the mortaria).

COINS

Antoninus Pius (138-161) *Sestertius*. Illegible. Surface of field south of building.

Constantine I (306-337) 2AE *Obv*. Emperor helmeted R. Rev. Orb resting on altar. Beata Tranquillitas,320-326. Plon (Londinium). Good condition. Lower floor of Room i.

Constantine I 2AE, Camp gates, *Providentia Augusti*. Broken, no. mint. Surface of field south of building.

Constantius II (337-361) 2AE, clipped to 3AE. *Fel Temp Reparatio* type, very worn. Inscriptions and mint indecipherable. Barnyard level.

Valentinian I (364-375) 2AE. *Gloria Romanorum*. LUG* (Lugdunum/Lyon) Good condition. Upper floor of Room i.

Valentinian I 2AE (badly broken) *Securitas Reipublicae*. Minim. No inscription, Upper floor of Room i. Barnyard level.

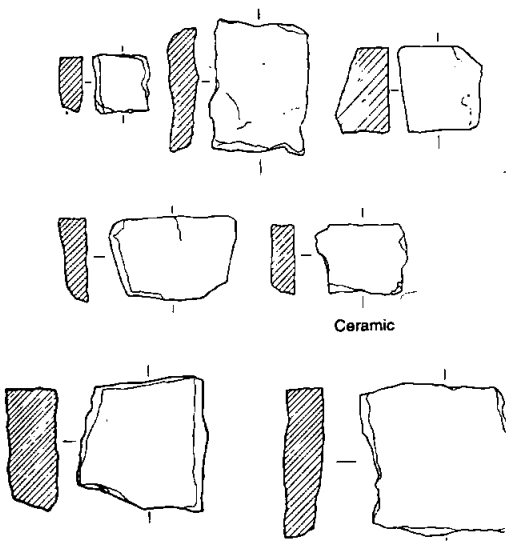

Fig 4 Examples of fragments of squared limestone *tessarae*, found in latest level of occupation and in upper floor.

HEMINGTON WATERTOWER BUILDING V (A SQUARE FOUNDATION)

These late Roman foundations lay 35m. W and 10m. N of Buildings i-iv, excavated 1990-95. They were found in 1996 by the effective if amateur method of observing fragments of building material on the surface and digging at a spot where these were most numerous. As with the area previously examined, the Roman level lay within 20cm of the surface and had been much disturbed in consequence. Excavations carried out at the weekends from August 1996 to September 1997 revealed a concentrated area of limestone clunch roughly square in shape covering an area 5.50m on the east and west sides and 6.20m on the north and south. On the south side, the clunch consisted of larger blocks of stone forming a small semicircular projection of 1.00m in front of the remainder of the foundations. The area covered was remarkably regular. Except for a pit at the S.E. corner and what appeared to be a severely robbed out wall near the north-west corner, no traces of building or other feature was found beyond the area covered by the concentration of stones.

There were two features of interest on the east side of the stone-covered area. One metre-fifty from the S.E. corner two limestone stones had been laid side by side separated in the middle by a smaller slab laid lengthways between them. Adjoining this feature were two other limestone slabs laid flat and similarly divided, which extended into the interior of the building, suggesting a narrow entrance and threshold 1.10m. wide. Two metres north of this feature was what appeared to be a small square sump 0.70m in diameter bounded by thin upright limestone blocks set into the edge of the structure. This contained a mix of dark earth with small limestone fragments which yielded a fragment of a rim of a large and finely made shell tempered pot. The position of the sump on the east edge of the structure away from the prevailing west wind suggests the possibility of a latrine. At the S.E. corner the foundations had been sunk into a pit, the sticky dark grey earth of its make-up being mixed with orange clay, possibly debris from an earlier building. It had clearly been used as a rubbish pit and contained Nene Valley ware, the top of a narrow necked vessel and shell-tempered ware as well as numerous oyster shells and some meat bones. Two attempts by the occupants of the building had been made to level the surface by laying successive flat pavements of limestone across it. At one time a small channel composed of small limestone blocks led into the sump from the west. On the other side of the structure, near the N.W. corner a dark patch in the natural clay revealed a trench 1.30m wide leading away to the north. This seems to have been a well robbed outline of a wall, earlier than the structure whose foundations dipped into it at this point. It contained animal bones, including the lower jaw of a horse, oyster shells, and a small amount of pottery that included part of the rim of a large coarsely made storage jar of shell tempered ware. The purpose of this relatively substantial wall is unknown.

What were these foundations? There were no signs of either external nor internal walls. The limestone fragments lay consistently but in no particular arrangement over an almost square area. A trench was cut across the site from E. to W. and revealed more, but less concentrated foundations below. Given the position of this structure on the highest point in the area the possibility of a watch tower should be considered. It would have been entered through a narrow doorway on the east side and the large flat stones immediately beyond the threshold could have supported a ladder leading to upper storeys. The projection on the south side might have been the foundation for a small bastion. Except for the pit on the S.E. corner and robber trench on the north side, the structure was the only building within the excavation area. No coins were found,, but the relatively small amount of pottery points to a mid to late-fourth century occupation. To judge from the considerable amount of limestone fragments lying on the surface of the field all round the excavated area, more buildings are likely to be found.

THE POTTERY

In contrast to most other Romano-British sites, little pottery was found. The majority of fragments came from roughly made shell-tempered wares that included some very large storage pots. Some fragments, however, of Nene Valley burnished ware, colour coated, coarse grey and whitish wares, one fragment of a thumb-indented New Forest ware, and a mortaria fragment were also found, dating from the fourth century. Significant fragments are listed below and illustrated (Fig 6).

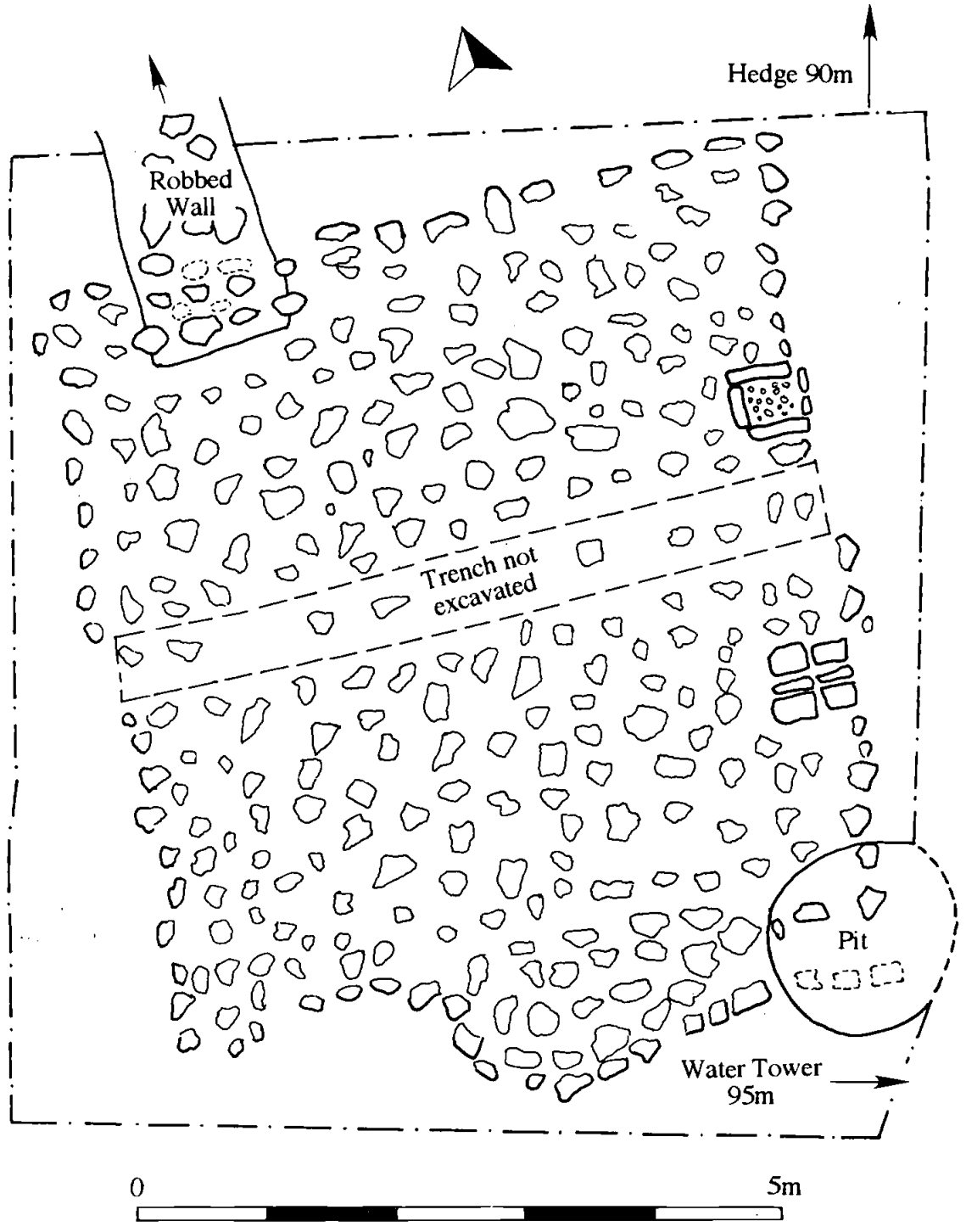

Fig 5 Square foundations

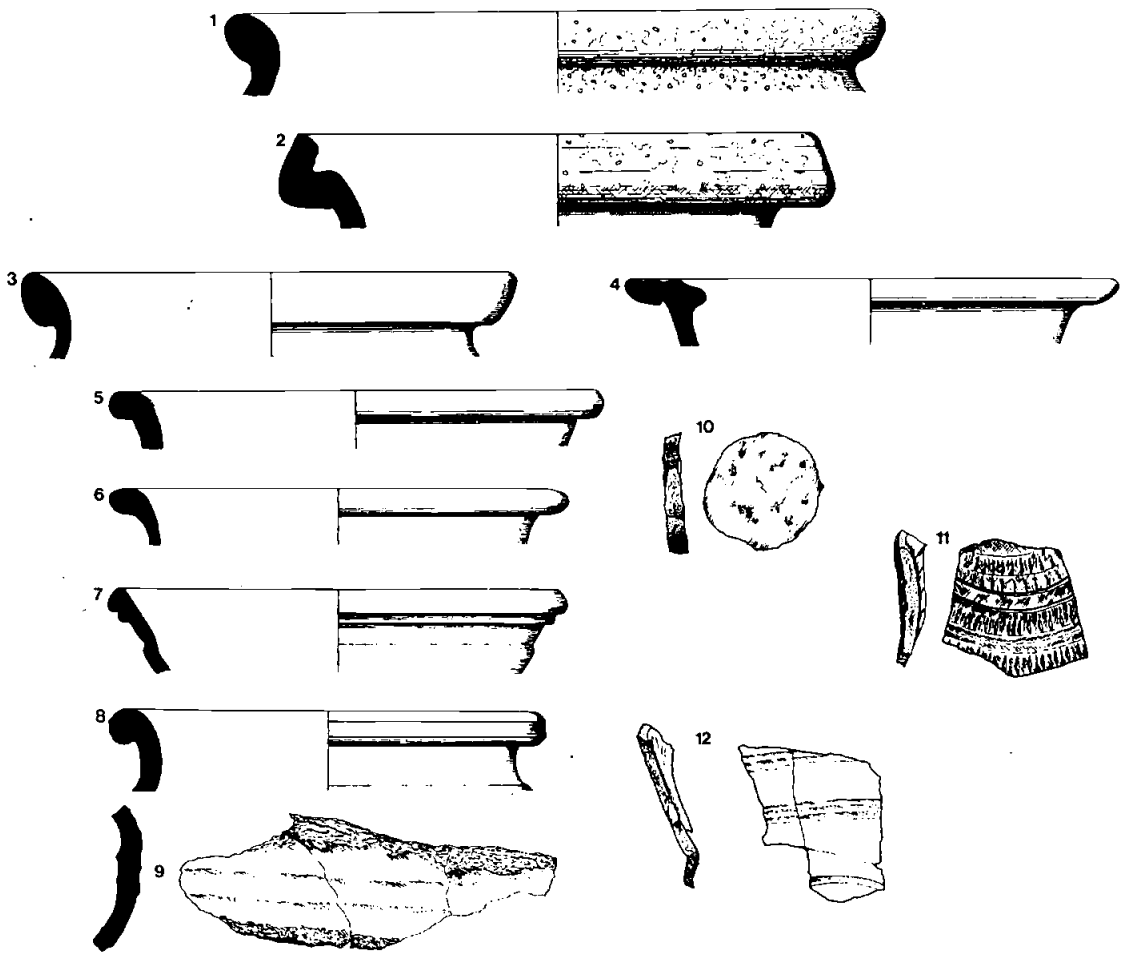

Fig 6 Illustrated sherds

1. Large storage jar of shell tempered ware, exterior of rim hand made. Overlying stone foundations.
2. Storage jar of a similar fabric with heavy fold-in rim. Overlying stone foundation.
3. Smaller storage jar of similar fabric, from among stone foundations
4. Mortarium of off-white fabric. Flat rouletted rim with slight internal overhang. Black grit. Dated 300-350 A.D. Among the stone foundations
5. Vessel of hard white ware with traces of dark brown colour-coat internally and externally. Among the stone foundations
6. Vessel of finer ware, of hard whitish fabric. Everted rim and traces of dark brown colour-coat internally and externally, from pit at S.E. corner of building.
7. Vessel of finer ware; hard grey-white fabric with rouletting under rim. Deep orange burnish internally and externally; from pit at S.E. corner of building.
8. Fragment of rim of high quality shell-tempered vessel with everted rim. Hard brown fragment over central grey core. From 'latrine'.
9. Fragment of the neck of a very large, roughly made storage jar. Shallow grooves on exterior. From robber trench at N.W. corner of building.
10. Round disc made from mortarium of hard pinkish fabric and large black grit. Used as counter? From stone foundations.
11. Fragment of neck of high quality bowl of hard pink white ware, and external black burnish. Parallel lattice banding incised below neck. From robber trench at N.W. corner of building.
12. Fragment of body immediately below neck, of high quality vessel of pinkish white fabric and orange-red burnish. Band of rouletting around body. From pit at S.E. corner of building.

REV. PROFESSOR W.H.C. FREND, F.S.A.

NORTHAMPTON ALTERNATIVES: CONJECTURE AND COUNTER-CONJECTURE

INTRODUCTION

The subject of this investigation is a speculative interpretation of the relative positions of Saxon and early Norman Northampton, based not on historical evidence, but on patterns observed in the recent configuration of streets and the alignments of roads approaching the town. This conjecture had immediate attractions as it replaced a weak historical understanding of early Northampton with a strong and outwardly convincing theory. The conjecture was entitled 'A New Theory of the Origins and early growth of Northampton' (Lee, 1954).

Lee had previously written as a planner, defending the existing centre in relation to proposals to shift the town centre to Regent Square, on the site of the north gate of the Medieval town (Lee, 1942). He had been struck by the impact of a new bridge, Spencer Bridge, built in the late 19th century, which had provided a new focus to the town, where the road from Spencer Bridge east crossed the line of the northbound street out of the old centre (Fig 1). His later premise (Lee 1954) was that if a different south approach to the town could be found it might indicate the focus of earlier development, as he had been unable to find any historical evidence to substantiate the location of the town centre earlier than its late Medieval role as a market place. In a footnote Lee indicates that his original intention had been to investigate Mayorhold (Fig 1) which was traditionally supposed to have been an earlier centre; however, having found a new south approach, he revised his ideas and seized upon the point of intersection with the Medieval east-west road as his conjectured centre of the pre-Norman town. Lee described this as the 'open sesame'. He made this decision because he noticed that, with this intersection as his early centre, the double line of streets extending from South Bridge to the north-west of Market Square then curving west below Mayorhold looked like the intra- and extra-mural roads defining an early defensive circuit (Fig 2).

THE HISTORICAL BACKGROUND

Lee made no reference to previous work in Northampton, only briefly referring to the Domesday Book and the Anglo-Saxon Chronicle. Of the early county historians Bridges (1719) said little about layout and the earliest topographical account is by Henry Lee (1716). The most significant studies supported by extensive primary research were provided by Serjeantson, mainly from 1901 to 1912, with other documentary resources being explored by Markham and Cox in the two volumes of Borough Records published in 1898. Studies by Round (1902), on Domesday, Cox (1906) on ecclesiastical history, and Cam (1930) on the history of the town form the core of the Victoria County History contribution.

Lee's hypothesis was attractive to archaeologists in the 1970s simply because little else had been said by earlier writers about pre-Conquest Northampton. Most commentators thought that the castle occupied the site of an earlier fortification and that a settlement had existed beside it (eg Markham, 1898). Excavations in the 1940s and 50s had largely confirmed this (Williams 1979). The Domesday Book records that there was an old borough containing '49 mansiones', and a new borough containing 40 burgesses. It is therefore reasonable to assume that there were distinguishable old and new zonations if not defined circuits.

The general picture that emerges from late Victorian and Edwardian researches is that the Mayorhold was the old centre of Northampton, and that the market function at All Saints, initially associated with fairs held there, did not acquire full market status until the late 13th century. The 18th century historian Henry Lee (1716) states that 'In the Mayorhold was kept the Market Place and the chief part of the town was built about it and near it'. Furthermore he asserts that 'the Old Town Hall was in a little close adjacent to the last house on the right hand side of the lane going from Mayorhold to Scarlet Well'. On the evidence of both Speed (1610) and Noble and Butlin (1746) there were only a few houses in Scarletwell Street, so that the town hall, if Lee is correct in his identification, would have been within fifty metres of Mayorhold. The Mayorhold was presumably larger; after its demise part of the space being infilled with housing development, so it is feasible that Lee's Town Hall could have faced the market square in the 12th - 13th century. Indeed the present Horsemarket is deflected on the alignment along Broad Lane towards the North Gate near Castle Street, one hundred metres south of

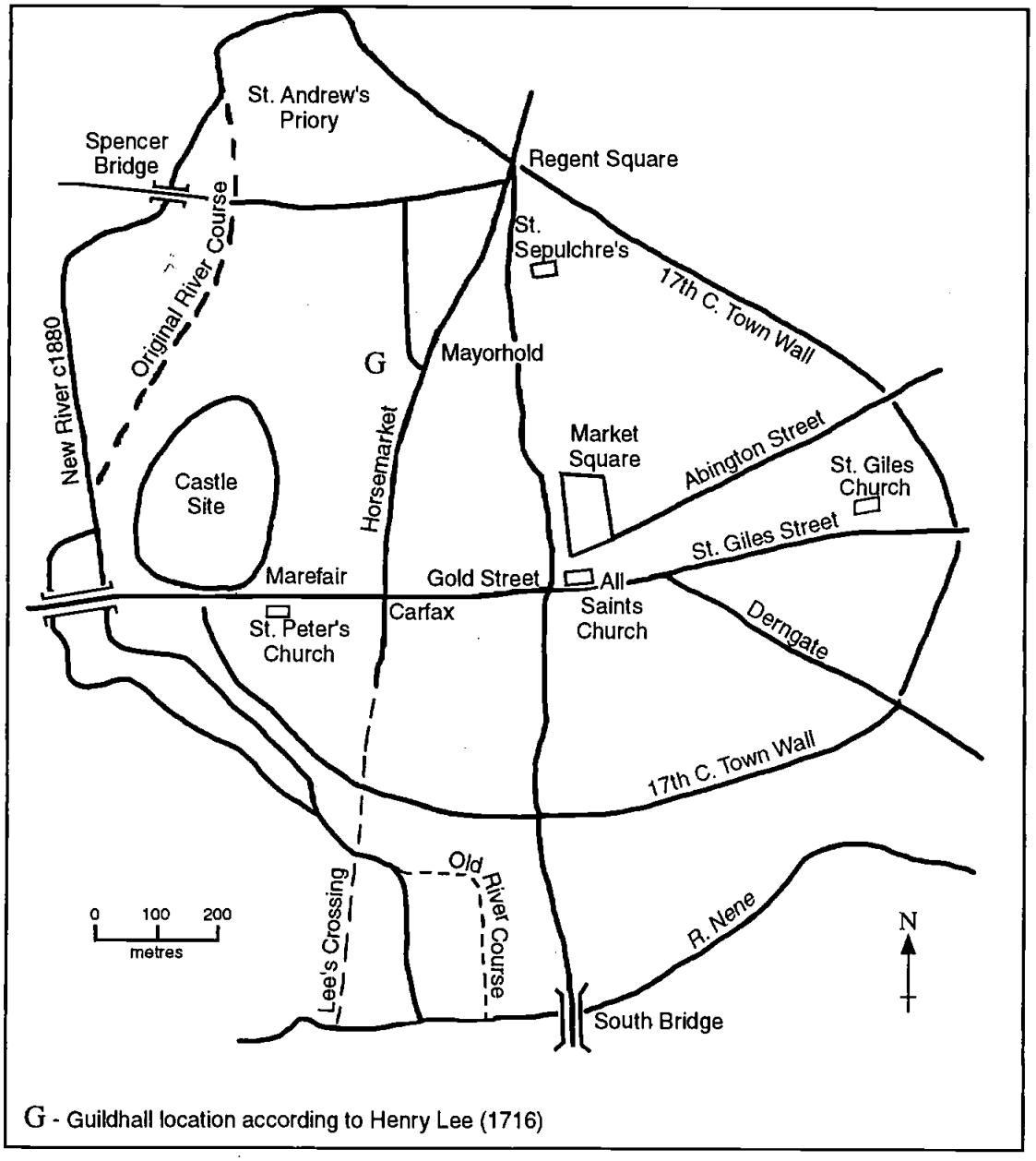

Fig 1 Main Locations

Mayorhold (Fig 1). If the earlier alignment was maintained it would come quite close to Lee's Guildhall. Henry Lee claimed that the market only became established at All Saints after 1535, the date of construction of a new market cross. However this may relate to the relocation of the livestock market.

Cam (1930) argued that Lee's 1535 date was in error on the grounds that there were 14th and 15th century references to a market cross, but highlighted in particular the 12th century reference to All Saints as *in foro* - in the market place. In 1235 there was a decree in the Close Rolls against fairs and markets being held in the churchyard, but rather in a void and waste place on the north (Sergeantson, 1901). Cam considered that the original focus of the town was the convergence of streets on the Mayorhold, and suggested that the building of the castle in the 12th century may have caused the town's centre of gravity to shift eastwards. Cox (1898) argued that the market in All Saints dated from around 1300 when the first reference occurs to a fifth ward: the Checker Ward. Up to 1235 there were only four wards in the town according to the 1235 roll of eyre. He strongly favoured Mayorhold as the old centre and explained the double line of streets (Kingswell Street/College Street) as indicating the old route from South Bridge to Mayorhold, and its post 1300 successor (Bridge Street/Drapery) giving more direct access to All Saints.

Figure 2 shows clearly the close alignment of South Bridge Street and College Street, in relation to which Bridge Street to Drapery seems to be a diversion. It should also be noted (Fig 2) that All Saints prior to the great fire of 1675 extended right across the Drapery. College Street, together with the upper part of Kingswell Street, is better aligned to South Bridge Street, than the present upper Bridge Street, and Frank Lee argued to preserve this line as the original route to the centre of Northampton before the widening of Bridge Street and Drapery at the end of the 17th century. Serjeantson (1911) quotes a gift to St Andrew's Priory by Richard Gobion, before 1185, which may shed light on the early status of All Saints:

> 'In addition, I give and grant to the said monks one shop which pays each year five shillings of silver at the Feast of All Saints; which shop is set up at the Fair of All Saints before the house of Hugh my father, next to the Market place towards Northampton'.

The impression this gives is that the market function in All Saints was confined to the annual fair. It also raises a puzzling aspect of Northampton's evolution: most early commentators were convinced that All Saints was outside the town walls until about 1300 after which it expanded to its latter-day dimensions. The early application of the name 'Newlands' or 'Nova Terra' to the area east of the market place was taken to mean land incorporated into the town at a later date, possibly around 1300.

It can therefore be seen that, prior to Lee's conjecture and its development in the 70s and 80s most opinion favoured Mayorhold as the early Norman centre, with All Saints taking precedence after 1300 when the town expanded to include the Newlands area. However even Lee subscribed to the idea that Mayorhold was the earlier market centre, even though this contradicted his other arguments.

LEE'S HYPOTHESIS

Lee's proposition started with his 'Four-point Formula' which he used 'as an exercise in logic' to explain the impact of Spencer Bridge on Regent Square. Given the crossing points over the Nene on the south and west, and the junction where the two roads from them met, if this appeared to act as a focal point for other roads and was in proximity to key buildings, this would be "a clue in town planning policy and a tool in historical research" (Lee, 1954 , 166). Spencer Bridge had changed the status of Regent Square as this was on an intersection that rivalled the old cross-roads at All Saints. That such criteria could be used to explain contemporary phenomena is one thing, but Lee now proposed to apply it to urban history in order to find an earlier centre for Northampton. In a footnote he asks:

> 'At this stage, however, one problem sorely puzzled me: why was the Four-Point Formula inapplicable to the Mayorhold, the old Town Centre ? In particular, why no direct routes from the Mayorhold to the river bridges ?' (Lee, 1954 , 166).

According to Lee's thinking, finding another crossing point on the Nene would produce another cross roads, and consequently a rival centre, as had happened as a result of Spencer Bridge in the 20th century. Until recent changes South Bridge was about a hundred metres below the confluence of the two branches of the River Nene, where the flood plain is broad and the current strong. Lee looked for a crossing point above the confluence which would

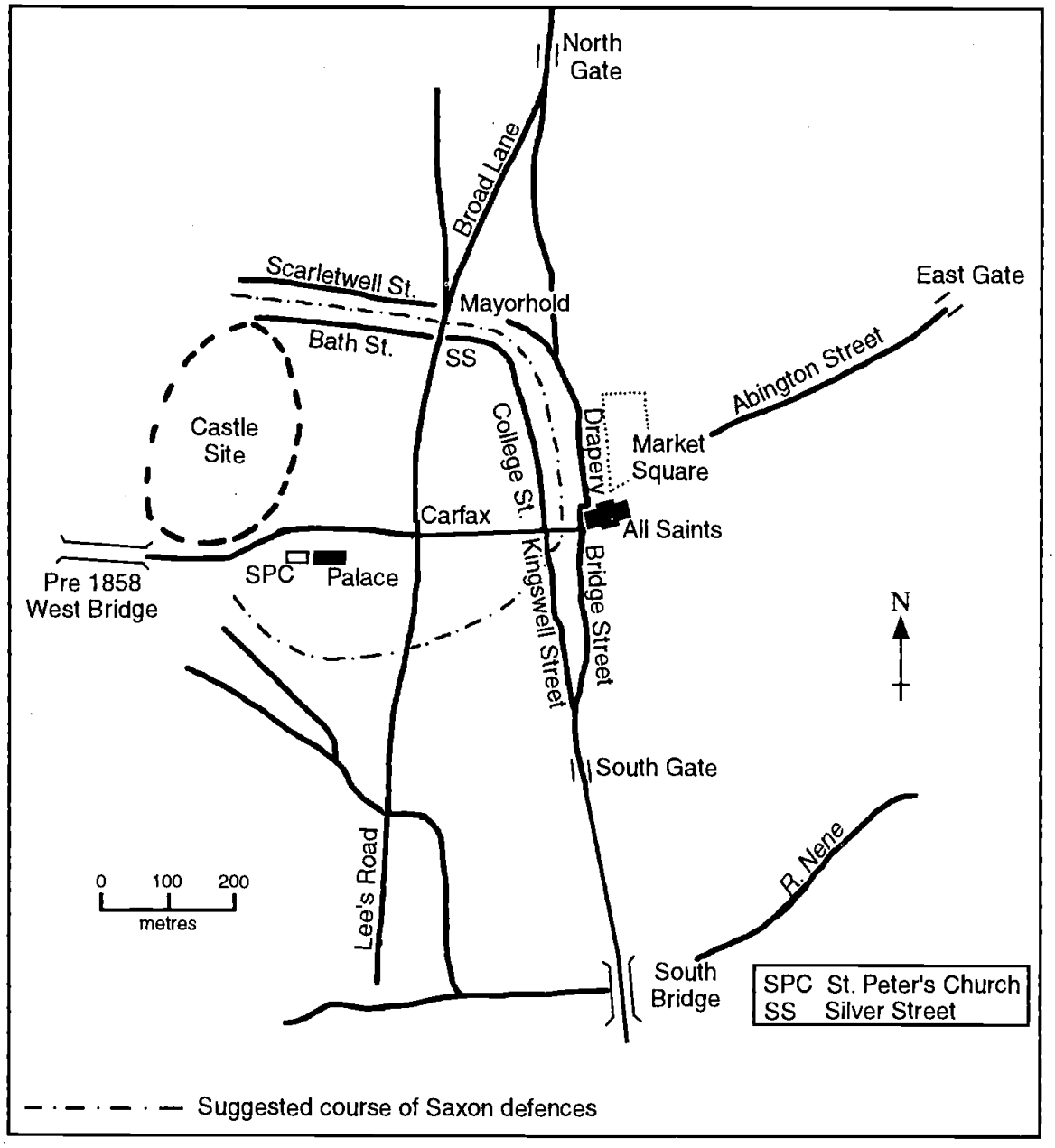

Fig 2 Lee's Double Streets

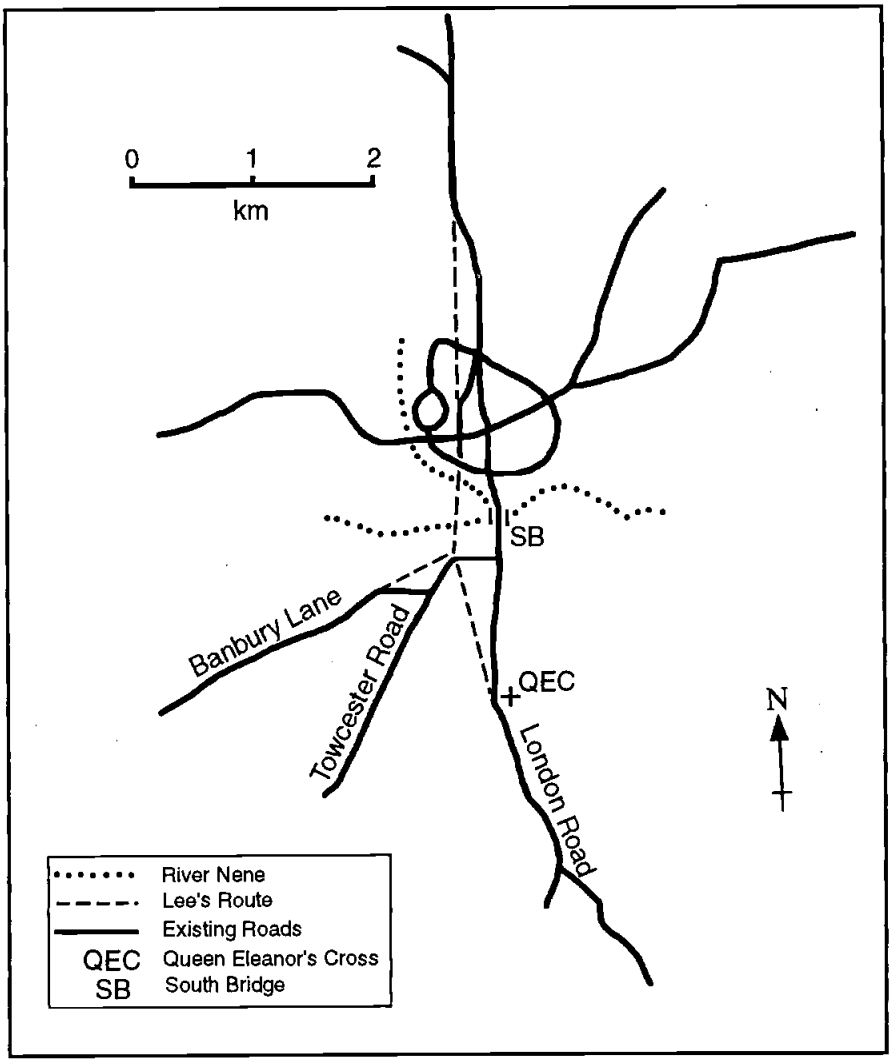

Fig 3 Lee's Altenative Crossing

allow easier negotiation of the tributaries What he noticed was that the Towcester Road runs in a straight line for six furlongs (1 kilometre) apparently heading for a point above the confluence (Fig 3), but deflects sharply east as the modern St Leonards Road to meet the road from London as it approaches South Bridge. Between Wootton and Queen Eleanor's Cross, one and a half kilometres south of South Bridge, the London Road maintains a constant alignment towards the same point above the confluence. A similar alignment could be construed for Banbury Lane. The meeting of these three alignments was directly opposite the modern alignment formed by Gas Street, Horseshoe Street and Horsemarket. Lee subsequently observed that Semilong Road was on the same alignment.

Without further investigation Lee decided that, just as with Spencer Bridge and Regent Square, he only needed one alternative bridge location to find 'the Town Centre of the pre-1066 borough', which he decided to call the 'Carfax' (the name given to the old centre of Oxford). However, Lee then argued that

the Mayorhold could still be considered as the earliest Norman town centre, even though the present South Bridge, built as early as 1100 would have undermined its status in favour of the present centre at All Saints.

Lee himself concluded by saying:

> 'this New Theory really consists of a series of hypotheses, in point of fact no less than twenty-five, but the striking feature is that they all hang together and thus satisfy the coherence-test of truth. Nevertheless it seems best to leave them with this status until fuller proof is forthcoming.' (Lee, 1954, 174)

The problems brought about by Lee's proposition arise not from his initiative but from the way in which his ideas have been taken up by others. As is clear from the aforementioned record of asides and footnotes, Lee was not confident that his ideas were conclusive. His ideas should have been investigated and weighed against other evidence. The danger of such conjecture is that the imposed idea becomes more attractive than the evidence and eventually obscures and distorts history. Lee's proposition was very quickly absorbed into the constructs advocated by the archaeologists excavating ahead of developments in the early 1970s. In spite of the fact that early investigations failed to find evidence of Lee's defensive circuit or of Saxon activity around the Carfax (Mynard 1976), by 1977 the Saxon town was already being presented as fact (Williams 1977, 1979; Williams and Bamford, 1979). Lee's ideas became accepted 'fact' within ten years of adoption, with little evidence of caution. Even as late as 1997 the only archaeological evidence for a Saxon circuit has been the Green Street excavation near St Peter's Church (Shaw et al,1997) but this does not give any indication of the extent of the circuit.

The new 'early Northampton' was a much more attractive proposition than the mere hint of a presence provided by previous local historians. In the 1970's few towns had well understood Saxon layouts, and being able to provide a map showing both a Saxon centre and Saxon defences provided a very convincing backdrop to excavation reports. However the emphasis on the Mayorhold in early Norman times advocated by Serjeantson, Cox, Markham, Cam and others did not sit comfortably with the alternative conjectured layout of pre-Conquest times. Moreover Cox (1898) had offered a viable explanation for the double row of streets, which Lee rather ambiguously endorsed. This was resolved by archaeologists in two ways. Firstly it was argued that the date of transfer from the Carfax to the Market Square at All Saints took place around 1100, more or less dismissing the Mayorhold to the status of Saxon suburban market. They dismissed Henry Lee's early town hall as impossible, linking widely disparate documentary evidence to support a Saxon Guildhall in the Carfax. Having taken away the interim role of Mayorhold, the new borough of Domesday was to be seen as synonymous with the *nova terra* or Newland frequently mentioned in 14th and 15th century documents. As the inventory puts it (RCHM, 1985, 50):

> 'This new borough should be equated with the area known as Newlands lying outside the gate of the Saxon burgh and recorded in 1201 as *nova terra*' (BL Royal 113 ix f.31).

There seems to have been no scrutiny given to the validity of Lee's conjecture. The impression created by 19th and early 20th century commentators that Newlands belonged to the 13th century have been forgotten. Nor are Lee's own reservations and defence of the continuity of Mayorhold as the early Norman centre given any further thought. Lee's Carfax and Saxon defensive circuit were depicted as fact in the preface to excavation reports from the mid-1970s onwards. Gradually any historical evidence that got in the way was set-aside or otherwise explained, until the conjecture had become the history.

CRITIQUE OF LEE'S MODEL

Lee's ambitious claims have three major flaws. Firstly his arguments for the south approach are knowingly based on the road pattern after the imposition of the railway network in the 19th century. Secondly he does not consider whether there could have been a different West Bridge location. Thirdly he does not question the considerable temporal and spatial distortions his conjecture causes: such disruptions should have raised questions about the validity of his ideas.

For reasons which are far from clear, Lee builds his argument around the deflection of the Towcester Road east, along St Leonard's Road, to the London Road. Yet in a footnote he admits that St Leonard's Road is modern, and five pages later, admits that 'railway problems led to the diversion of Towcester Road into St Leonard's Road' (Lee, 1954, 172). However the Old Towcester Road does not exhibit

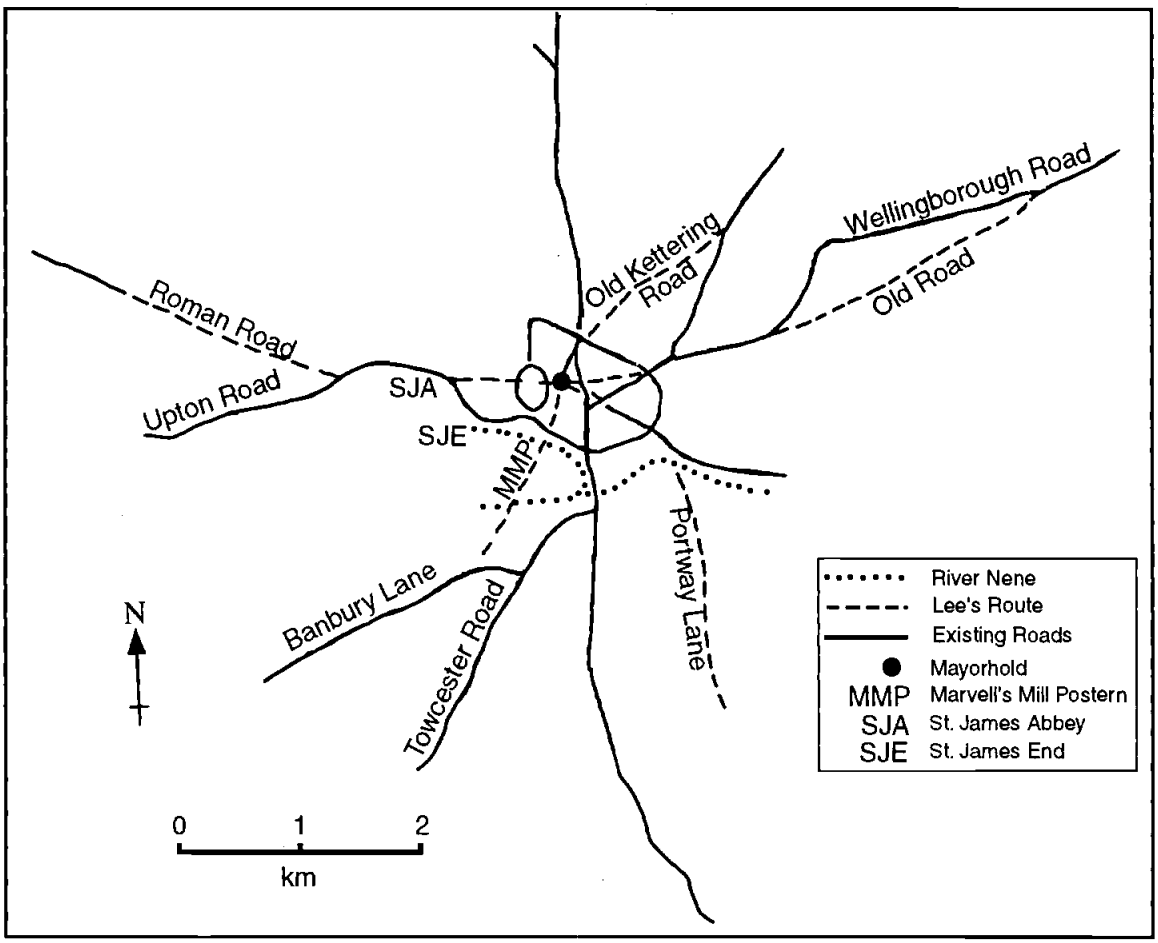

Fig 4 Alternative Routes to Mayorhold

the same configuration, and Lee's use of a modern replacement as the basis for *prima facie* argument is worrying. Instead of turning through fifty degrees into St Leonard's Road the Old Towcester Road turned gradually through about ten degrees north-east through what is now a railway goods yard, and then changed direction through 30 degrees to the London Road to a junction about 200 metres north of that for St Leonard's Road, and involving less than half the deflection east. Moreover, the initial divergence, continued beyond the turn, points directly to the South Bridge. It is too far east to relate to the Carfax.

If the critical alignment of the Towcester Road does not point to the south Bridge it does align quite close to the south gate of the medieval town (Fig 4). The Towcester Road descends in a shallow valley, as does the London Road, as pointed out by Moore (1972), and the alignments towards the town are more down to practicality. Hall (1980) shows furlongs and rig directions from terriers and other documents, which suggest Lee's earlier alignments are unlikely. It would have meant crossing the interfluve, on which a terraceway would have survived, as a field boundary if not as a track. The final deflection of the Old Towcester Road may have been to avoid having two routes across the floodplain. According to Markham (1913) there was

a causeway constructed late in the 13th century from South Bridge towards Queen Eleanor's Cross, and the Towcester Road may have been re-routed to take advantage of this. Excavation trenches along a 250 metre transect on the south bank of the Nene (Hardy 1985) failed to find any trace of a causeway approaching Lee's crossing and concluded that conditions in Saxon times may not have been wet enough to need a causeway.

Neither Horseshoe Lane nor the Semilong Road are true to the Carfax intersection as claimed by Lee in 1954. The former, originally called The Rye, was a narrow lane that curved south-south-west half-way down (Noble & Butlin 1746) and then west to Marvell's Mill. This detail was lost in the widening and straightening of these roads in the 1920's and 1970's. Its route is confirmed in earlier documentation for Stockwell Manor, St Gregory's Church vicarage and another mansion on the west side. Similarly inconsistent, the projected alignment of Semilong Road passes fifty metres east of Lee's Carfax.

Lee's second major flaw is that he does not look for an alternative West Bridge, and does not question whether the route from West Bridge along Mairfair and Gold Street was in existence pre-1066. The castle earthworks occupy five hundred metres of riverside, and it is likely that the castle decided the position of the bridge, rather than the bridge dictate the extent of the castle. Indeed the bridge, which was rebuilt in 1858 with a new approach which cut into the castle earthworks, was originally approached by a road skirting the bailey (Fig 2), so that it was more in line with St Peter's Street. The new evidence for a Saxon gateway on Green Street (Shaw et al, 1998) further undermines this assumption.

Lee should have given more consideration to the east-west route. West of the town the Upton Road turns southwards to St James' End (Fig 4). Similarly, east of the town, the road from Wellingborough could have passed through Mayorhold and connected to the Upton Road alignment before the downturn to St James's End,west of the town. Indeed Abington Street may have been created when the market centre moved from Mayorhold to All Saints, explaining the north-east trajectory of the road now leading to the east gate. The other alignment of interest is Derngate which, like Abington Street, is contrary to the main trends in the street pattern. However Derngate is clearly aligned towards Mayorhold.

A far greater problem is the spatial and temporal distortion. Lee's model squeezes Norman Northampton into the eastern and northern reaches of the Medieval circuit. It seems improbable that the Normans would have accepted the dominance of a Saxon circuit over a Norman one. That they created a new borough before 1086 suggests something more prestigious than the left overs. Why not simply centre the Norman town on the Saxon town as happened in the majority of cases? Northampton is in the minority in having both a recognisable Saxon town and a recognisable Norman town co-existing at Domesday. Harder to believe is that two hundred years of history so readily disappear in a puff of conjectural smoke. Lee tried hard to retain Mayorhold as an intermediate centre between the Saxon Carfax and the later Medieval Market Square, but he had then to relate it to the new South Bridge. The problem is that Lee's model implies an immediate shift to All Saints.

The crux of the problem is the early date for the construction of South Bridge. This is usually attributed to Simon de Senlis and is reckoned to have taken place around 1100. Goodfellow (1980) identifies it with the St Leonard's Bridge mentioned in a mid-12th century charter to Delapre Abbey. The hypothesis that there was an earlier bridge upstream leads to the conclusion that the old route through Carfax had been replaced by the new route through Bridge Street and Drapery. Such a shift inevitably implies that the focal point of the town shifted from Lee's Carfax to the Market place at All Saints around 1100. There is no room for an intermediate centre at Mayorhold. However Lee was not deterred from his own conviction that an intermediate centre existed, yet was unable to contemplate that his model could be wrong as a consequence.

Consideration should also be given to the route via Marvell's Mill Postern, (Figs 4 & 5), which led to a causeway across the meadows (Cox 1898, Noble & Butlin 1746). Part of the paved causeway approaching the postern from within the walls was discovered while constructing a gas holder in 1889 (Markham 1913) but this idea was dismissed by Goodfellow (1980), on the grounds that 'in the absence of more information it can hardly be accepted as proof of the "old road"' (p139). However Moore (1973) suggested this was a more likely alternative route than Lee's, and suggested that it continued north by Tanner Street and Narrow Toe Lane. The Marvell's Mill Postern route makes more sense in relation to the distribution of Saxon finds, but the greater reliance on Lee's model caused this possibility to be discounted.

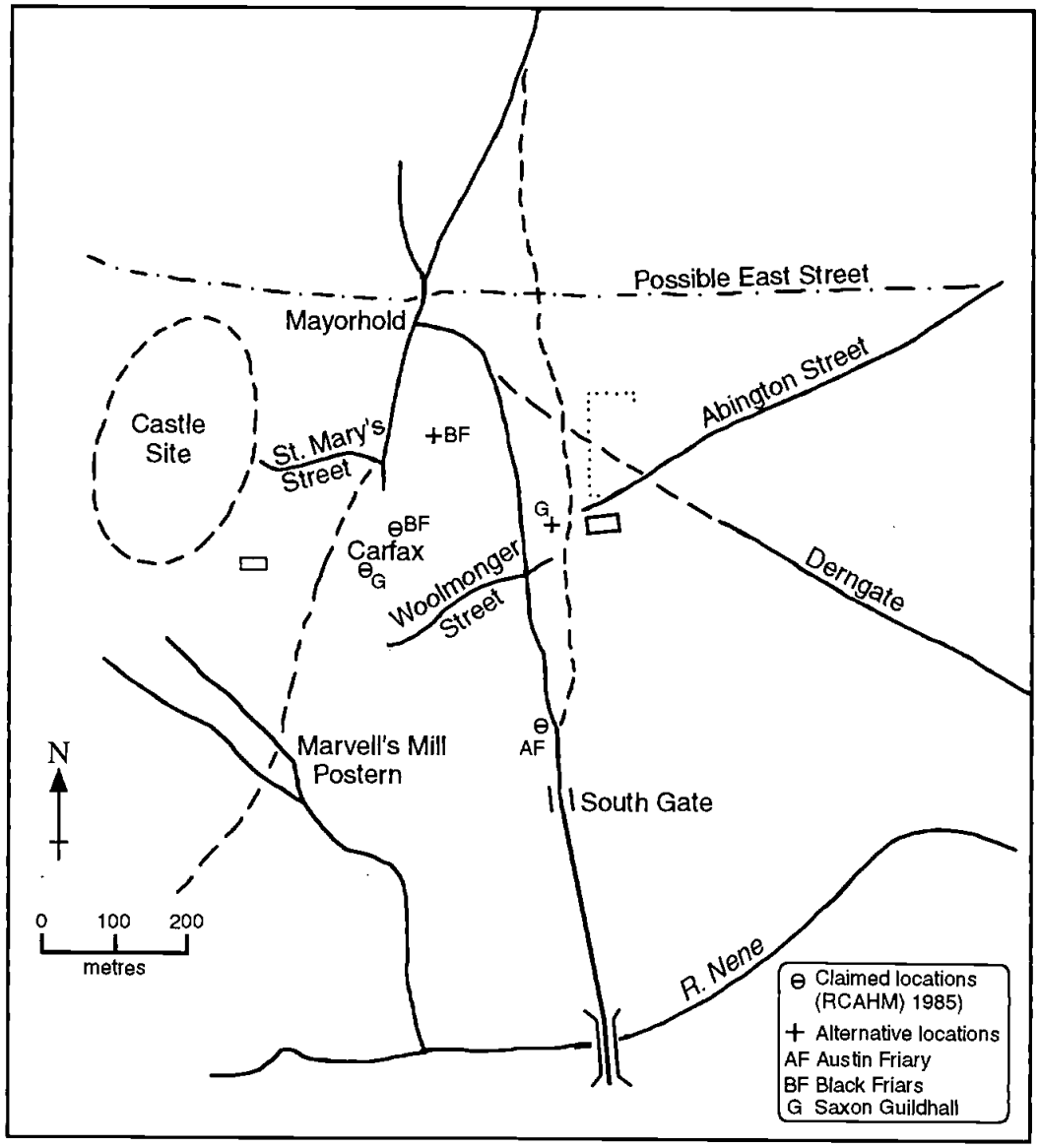

Fig 5 Focus on Mayorhold

It is at this point that documentary research is needed to investigate other possible causes of the curved configuration of the double streets. The effect of the Great Fire of Northampton in 1675 was to destroy the fabric of the medieval town, and in the modifications and redesign implicit in the rebuilding, 18th and 19th century town plans cannot be relied upon as a palimpsest of the earlier layout. However it is possible to reconstruct earlier impressions using post-Medieval property transactions. The initial skeleton is provided by properties with a long pedigree of documentation, such as public buildings, properties attached to charitable foundations, gentlemen's town houses, certain inns and hostelries, and commercial activities with a capital commitment affecting structure such as bakeries (ovens), breweries, rope and ladder makers yards. Some fleshing out is possible where other property descriptions use these key properties as their boundaries or points of reference. In some instances proofs of title or reliable records of succession of ownership allow further properties to be traced through to the mid-19th century and confirmed from census returns, trade directories or reliable street numbers. The level of detail varies, some parts of the town being coherently mapped while others remain confused or sparsely populated with recognisable sites. However the object of the exercise is to identify patterns rather than specifics. The picture emerging from this research, which is not yet complete, does show different patterns overlying and questioning the distinctions drawn upon the double street pattern. It also allows more sense to be made of such early sources as Speed's 1610 vignette and the 1503-4 Town Rental.

One of the most interesting discrete locations revealed in this study, as well as one of the most potentially significant in relation to the double streets, was the location of the Dominican Friary. This was known to be on Horsemarket, but by the early 19th century had been identified with the house built by the Pilkington family on the west side of Horsemarket between Castle Street and Bath Street. From property research this can be traced back to 1508 and has no connection with the Friary, which instead can be identified from 17th century land transfers to have stood between Horsemarket and College Lane, probably in the vicinity of King Street (Northampton Record Office AAC/96-98). This confirms the position suggested by Henry Lee (1716) for one of the friaries. It is quite possible that the curve of Silver Street owes its origins to the precinct boundary of the Dominican Friary. Similarly the precinct of the Austin Friary is shown by the research to account at least in part for the curve of Woolmonger Street.

Of a more general nature the following characteristics are emerging.

1. The area west of Mayorhold, and of Horsemarket to the south, and Broad Lane to the north, was abandoned well before the 16th century, and remained until the 18th century as blocks of land bought and sold speculatively. The 16th century speculators were butchers and there are several early references to small farms here suggesting the land was mainly used for livestock.

2. There are clearer indications of an early market function around Mayorhold, with not only the beast or hog market to the west, but a common horse fair west of Horsemarket and a cow fair in the vicinity of Regent Square.

3. By the 1503-4 Rental the area west and south of St Peter's Church, part of which was known as far back as 1460 as Barkers End, was an established industrial focus for tanning (barkers). It is therefore likely that the cutting of pits and associated processes must have affected archaeological deposits. There were still significant tannery works here in the 19th century, with numerous storage and tan pits depicted on old maps, yet there is no allusion to the phenomena in archaeological reports.

4. Either side of Horseshoe Lane there were several small medieval estates

5. The area either side of Silver Street and Bearward Street, including lands subsequently acquired by the Dominican Friary, and the Jewish quarter around Bradshaw Street, consisted as far back as the 14th and early 15th century of very small land units suggesting a focus of residential activity that significantly questions the structural disruption implied by the double streets theory.

6. The area west of All Saints, around the crossing of Gold Street by Kingswell Street and College Street contains a high concentration of church property, including St Andrew's Priory and St James Abbey holdings, and a high concentration of early fraternity

and charity land. This again casts doubt on the double streets being the survivor of a late Saxon town perimeter.

These observations summarise some of the results of the reconstruction research, which will form the subject of a later paper. The impression emerging is that the early Norman activity is more likely to have extended further west, and that a Saxon enclave surviving at Domesday may have extended no further east than Horseshoe Street and Horsemarket. At this stage the findings suggest that the imposition of simple hypothetical explanations for the early history of Northampton was unwise.

The objective of this paper has not been to provide answers to Northampton's heritage, but to furnish an awareness of the broader issues that might contribute to answers, and to challenge the unqualified use of conjecture. The only critical element is that the supporters of Frank Lee's ideas did not apply sufficient critical caution, nor did they take sufficient account of the historical evidence.

There were explanations for the double streets and for phases in the development of the town provided by earlier writers. They were limited to very brief speculation on what happened before the Norman conquest. However there was much more substantial post-Conquest historical evidence that was directly affected by the imposition of Lee's defensive circuit and rival early focus. Lee himself seemed to be aware of this. It was subsequent interpreters of his ideas who disregarded not only Lee's reservations but the views of earlier historians in favour of a large late Saxon defensive circuit.

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T.A. WELSH

THE GEOPHYSICAL SURVEY AT CHURCH HILL, WADENHOE, NORTHAMPTONSHIRE: A MEDIEVAL MANORIAL SITE.

The irregular earthworks which are situated on a limestone promontory known as Church Hill, Wadenhoe, Northamptonshire, have been the subject of varying interpretations, ranging from disused quarries to Iron Age Hill Fort. An earthworks survey was conducted at Church Hill on behalf of the Royal Commission on Historical Monuments, and incorporated in the Inventory of the Archaeological Sites in North-East Northamptonshire. The survey recorded a series of house platforms within, and occasionally cutting, a rampart surrounding the natural spur (RCHME, 1975, 102-3).

An archaeological geophysical survey was commissioned by the Wadenhoe History Group, funded by the Wadenhoe Trust and Northamptonshire ACRE and carried out during the last two weeks of September, 1997. The brief for the geophysical survey was to detect the location of archaeological features and, more specifically, the possible presence of building remains. Both soil resistivity and magnetic techniques were employed for the survey. The survey was conducted systematically within a grid composed of 10 metre squares and located precisely by sighting on the nearby Church of St. Michael and All Angels (Fig 1).

A total area of 900 square metres was surveyed by soil resistivity measurement at 0.5 metre increments. Figure 2 displays the resistivity data as a grey scale diagram. Figure 3 illustrates the 17,000 logged magnetic values as shades of grey. Infilled trenches are displayed as dark shading, areas of burnt material as lighter shading, and occasionally, for a variety of reasons, dark and light shading are combined indicating positive and negative polarity in one

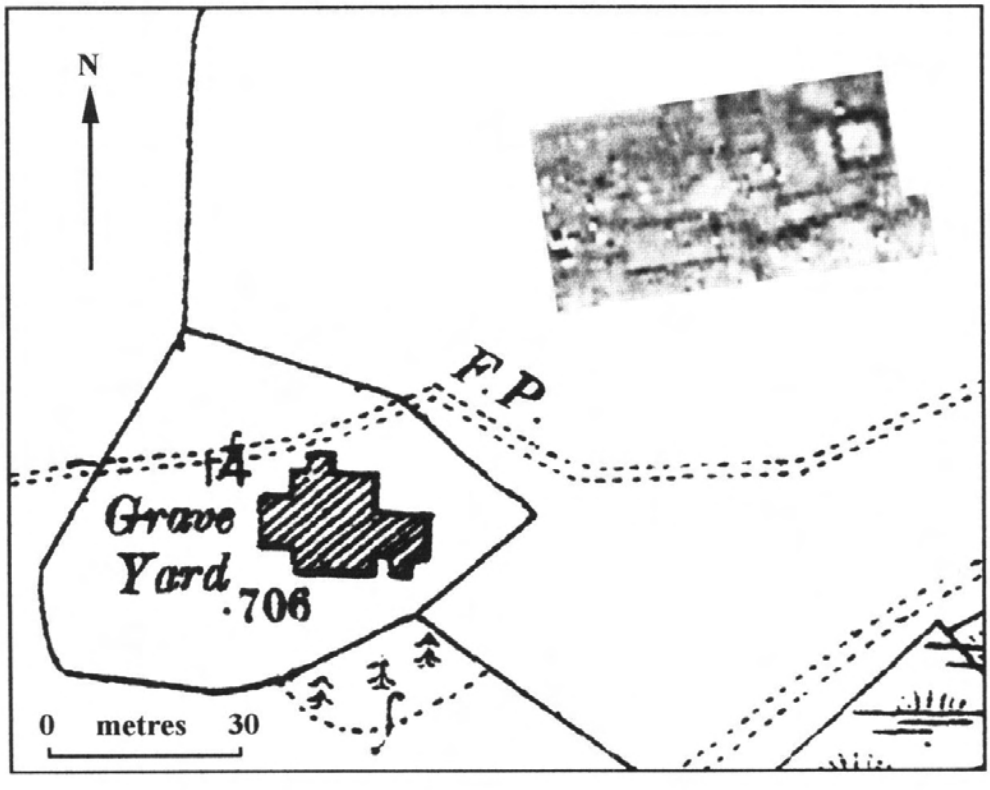

Fig 1 Magnetic survey located over survey grid.

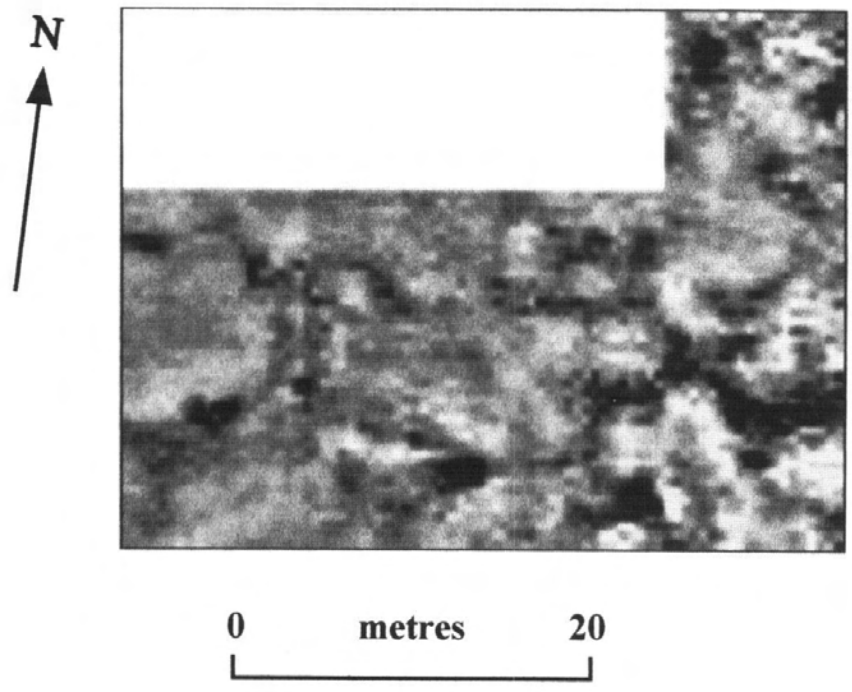

Fig 2 Church Hill resistivity survey.

feature. It should be noted that magnetic anomalies do not lie directly below where the maximum reading is obtained, there is normally a northwards shift. The amount of the northwards displacement depends on the burial depth of the magnetic anomaly; the shift for more deeply buried magnetic anomalies may be up to 0.5 metres to the north.

Correspondence occurs between the magnetic and resistivity survey data for some of the archaeological features. The coincidence between the different geophysical techniques can be seen on the interpretive diagram figure 4. It should be remembered that the plotted geophysical data displays the variations in the immediate geology as well as an indeterminate sequence of human activities. Also, geophysical survey cannot normally discriminate between the dates of the archaeological features or the construction phases of building remains. Bearing these factors in mind, the prodigious quantity of data from the Wadenhoe surveys was extensively analysed to identify the most significant archaeological features. The diagram, figure 4, is a plan of the identified structures which are lettered a to g and interpreted and described below.

The main structure (b) detected by resistivity is a rectangular building 15.75 metres long by 9.80 metres wide that may be a medieval hall. The dimensions of the Wadenhoe hall are similar to the 13th. century unaisled halls at the Old Deanery, Salisbury (15.24 by 9.60 metres) and Stokesay Castle, Shropshire (15.85 by 9.75 metres). The hall (b) has its long axis orientated E - W, with a 5.8 by 5.4 metres, approximately square, building attached to the hall's east wall. The square building forms an easterly extension to the hall from the N - E corner of the major structural east wall. A similar approximately square (5.5 by 5.2 metres) building is attached to the east wall of the hall of the 13th. century Manor House at Charney Basset, Berkshire. At Charney Basset the square building is an upper floor domestic chapel. The square structure at Wadenhoe may also be a chapel or a first floor solar, having storage areas below and access via a stairway. There is a good case for a stairway located in a 2 metre square building within a complex of structures situated against the north wall of the hall and the square extension building. Amongst the buildings built against the north wall, a 1.25 by 0.5 metre

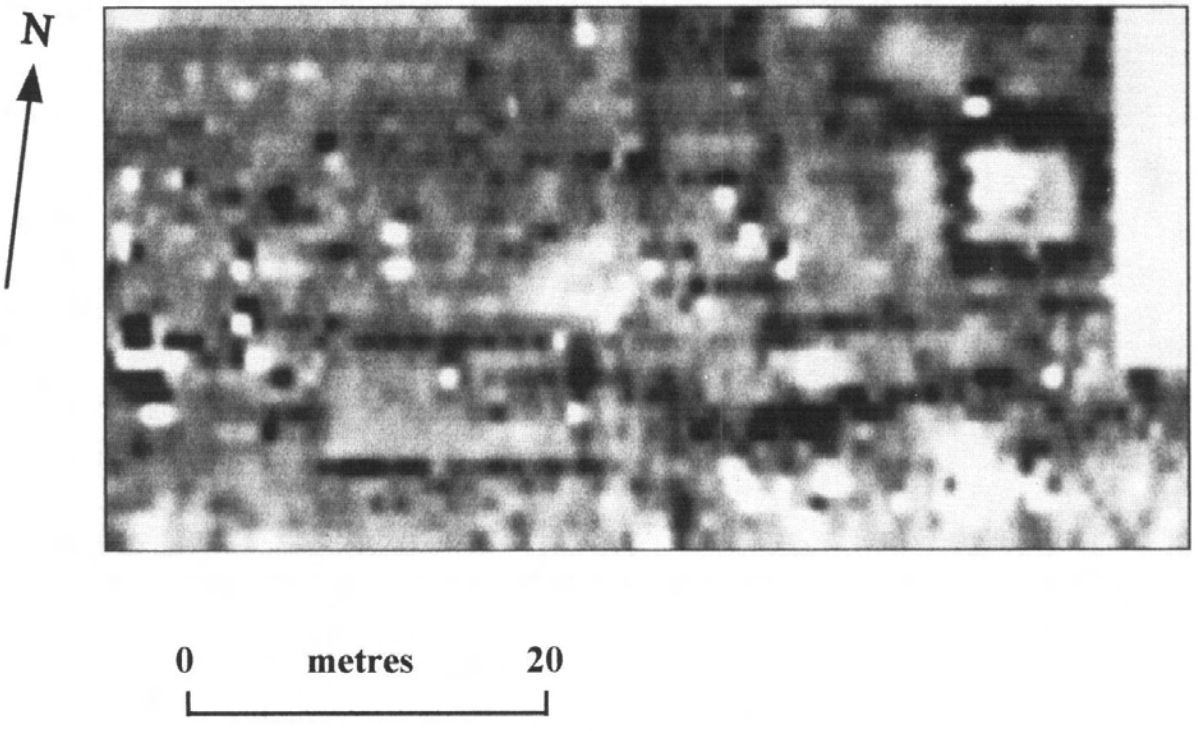

Figure 3 Church Hill magnetic survey.

structure may be interpreted as a garderobe, and a 4 metre square building is possibly a room with a north facing oriel. A 2 metre square building of unknown use is attached to the north wall of the square 'chapel or solar' by a 1.5 metre length of wall.

It is difficult to decide from the geophysical information if structure (b) is an aisled or open hall. The north wall of structure (c) was strongly detected by magnetic, and weakly by resistivity survey. Consequently, the north wall of (c) may form the foundations for a line of columns supporting the roof. The north wall of (c) lies at a location of a quarter the width of hall (b) which is proportionally the correct position for roof supporting columns. However, no indications of any column foundations forming a southern aisle could be discerned. On balance the geophysical information tends to indicate that structure (b) is an open hall, and, further the roof span of 9.8 metres would not require internal supports.

A very high magnetic anomaly is situated centrally within hall (b), and is likely to be the location of a central hearth. Another strong magnetic feature is located almost midway along, and lying across, the south wall at a position where resistivity has detected a wider section of wall. This high value magnetic feature together with the resistivity feature may be the location of a fireplace relating to hall (b) or hall (c) or to both building phases.

Structure (c) was mainly detected by magnetic survey and forms a 15.75 long by 7.30 metres wide hall. Allowing for magnetic shift, the south, east and west walls are common with hall (b), whilst the north wall is situated 2.5 metres to the south of the north wall of hall (b). It may be that hall (c) is a smaller, earlier building than hall (b). That hall (c) is earlier than hall (b) is further confirmed by the presence of an external drain, running from the north wall of hall (c), which lies below the floor and north wall of hall (b). The location within the south wall of (c) of a roughly central fireplace has already been referred to in connection with hall (b) above.

Hall (c) has a 3.75 long by 2.50 metres wide rectangular structure connected to the west wall by

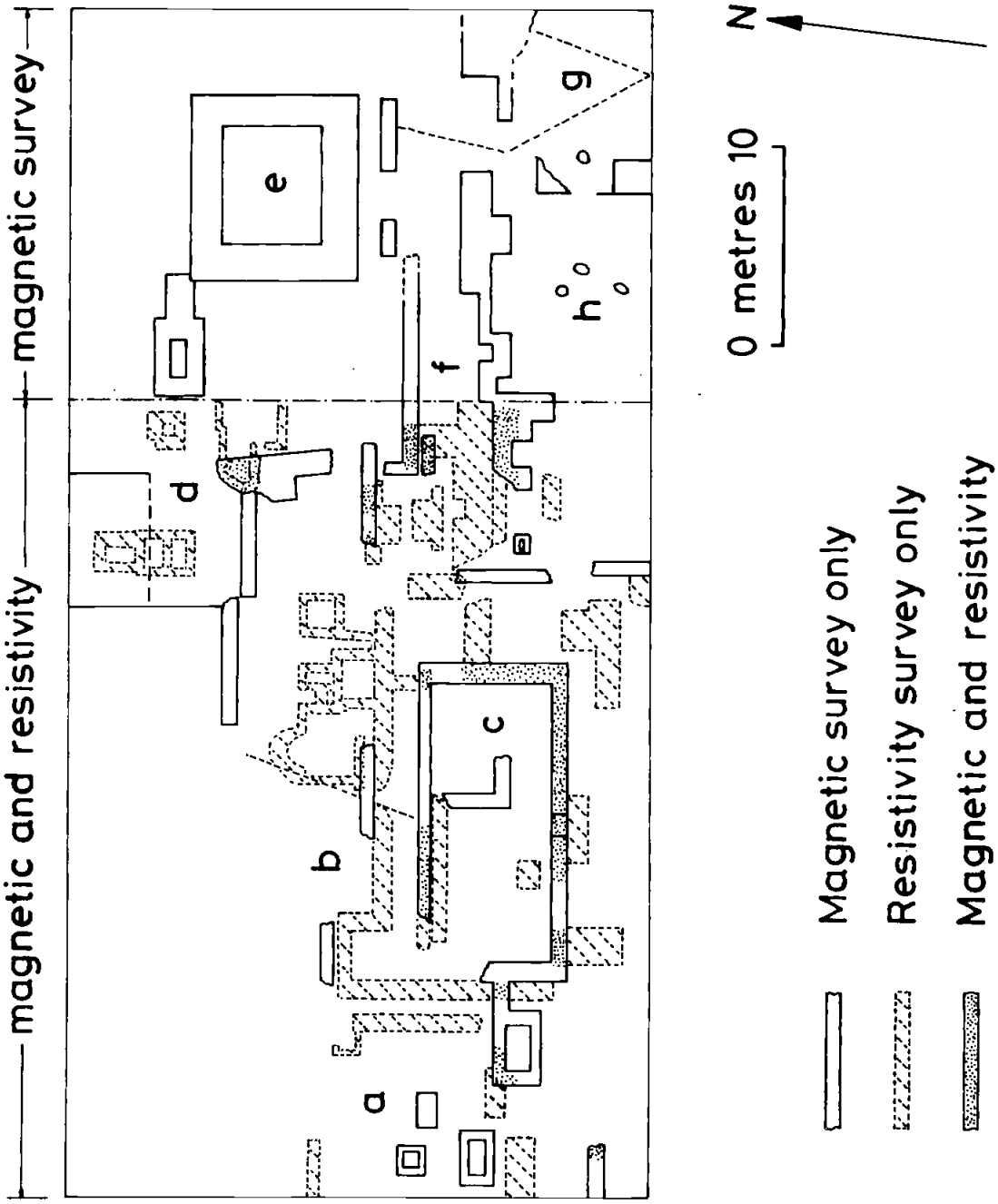

Fig 4 Interpretation diagram of geophysical data.

a 1.50 metre long length of walling. This rectangular building may have provided external storage facilities and fallen out of use when hall (c) was remodelled into the larger hall (b). A minor section of structure (a) is built over one corner of the building, confirming that the rectangular building had previously fallen out of use. The disconnected patches of high resistance within both halls are possibly the remnants of tile or slabbed floors. Area (a) appears to have suffered more depredation than any of the other surveyed areas. But fragments of walls have been identified and, if a west wall once existed outside the survey area, they would form a rectangular building or buildings, dimensionally more than 9 metres (E - W) by 11.5 metres (N - S). The building aligns with buildings (b) and (c). The east, north - south orientated, wall of (a), together with the west wall of (b) form a narrow passage. As the fragmentary walls in area (a) are slightly offset, separate buildings may be represented. It is likely that the building/s (a) are service apartments, incorporating a kitchen area deliberately separated from structure (b). The separation of buildings comprising (a) from structure (b) by the narrow passage suggests that hazardous activities may have been taking place in (a). Very high magnetic values were recorded in the western half of area (a); the activities indicated by high magnetic values normally involve the extensive use of fire, which fits in well for the location of a kitchen, probably within a separate building in area (a). The magnetically detected square and rectangular features may even be cooking hearths. To the east of the possible kitchen area, another separate building may be the site of a buttery and pantry, lying adjacent to the narrow passage between (a) and structure (b). The L-shaped structure located at the north west corner of the east wall of (a) may be the remains of an external staircase providing access to a possible solar, constructed above the pantry and buttery.

A group of small buildings (d), detected by resistivity survey, may relate to the hall as service buildings. It is possible that these external buildings fulfilled variable functions such as laundry, brewhouse etc. A case for the buildings relating to the hall is strengthened by the fact that all of the small buildings lie parallel to the overall geometry of the hall and its offices.

Structure (e) was detected by magnetic survey and forms a substantial, externally 9 metres square, building. The (robbed-out) walls are nearly 2 metres thick, indicating more than a single storey building. This square building may be interpreted as a tower, dimensionally identical to the early 14th. century Longthorpe Tower, near Peterborough, Cambridgeshire (V.C.H., 1906, 458-9). If the Wadenhoe tower is similar to Longthorpe Tower, it would have been of three storeys and classed as a domestic solar tower. At Longthorpe Tower the highly decorated first floor chamber is located over a vaulted undercroft, whilst the top floor chamber contains a garderobe. It is most likely that the Wadenhoe tower would have also contained a garderobe as a drain (g) leads away from the S - E corner.

Substantial, E - W orientated walls (f) were detected by both magnetic and resistivity survey, and fit in with the general site geometry. The walls although discontinuous, tend to form corridor - like rooms, varying in width between 2 and 3.5 metres. It is not possible to suggest how these rooms would fit in with a manorial site, although such smaller rooms were often devoted to a multiplicity of domestic offices and accommodation for senior retainers. Higher resistivity values between the walls at the western end of the 'building range' may indicate that some of the area was paved.

Area (g) marks the location of linear, presumably stone built, drains which fall towards the southern edge of the natural spur and the River Nene. The features at location (h) are possibly *c.*0.75 metre diameter pits or large postholes which form a semicircle and may relate to earlier occupation of the limestone promontory.

In conclusion, the survey has proved that the irregular group of mounds are not the result of quarrying, but relate to systematic stone robbing of medieval buildings. Archaeological geophysics has detected a complex series of stone robbed buildings. The dimensions and plans of the buildings have been compared against other well dated examples from lowland Britain and an example of an extensive, predominantly 13th. century, manorial settlement has been deduced. The layout of the buildings at Wadenhoe has a number of reasonably close parallels, a typical example being the arrangement of the, albeit larger, hall and services range at Bishop's Waltham Palace, Hampshire (Hare, J.N.,1988).

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A. CHALLANDS

ALAN HANNAN 1937 - 1997

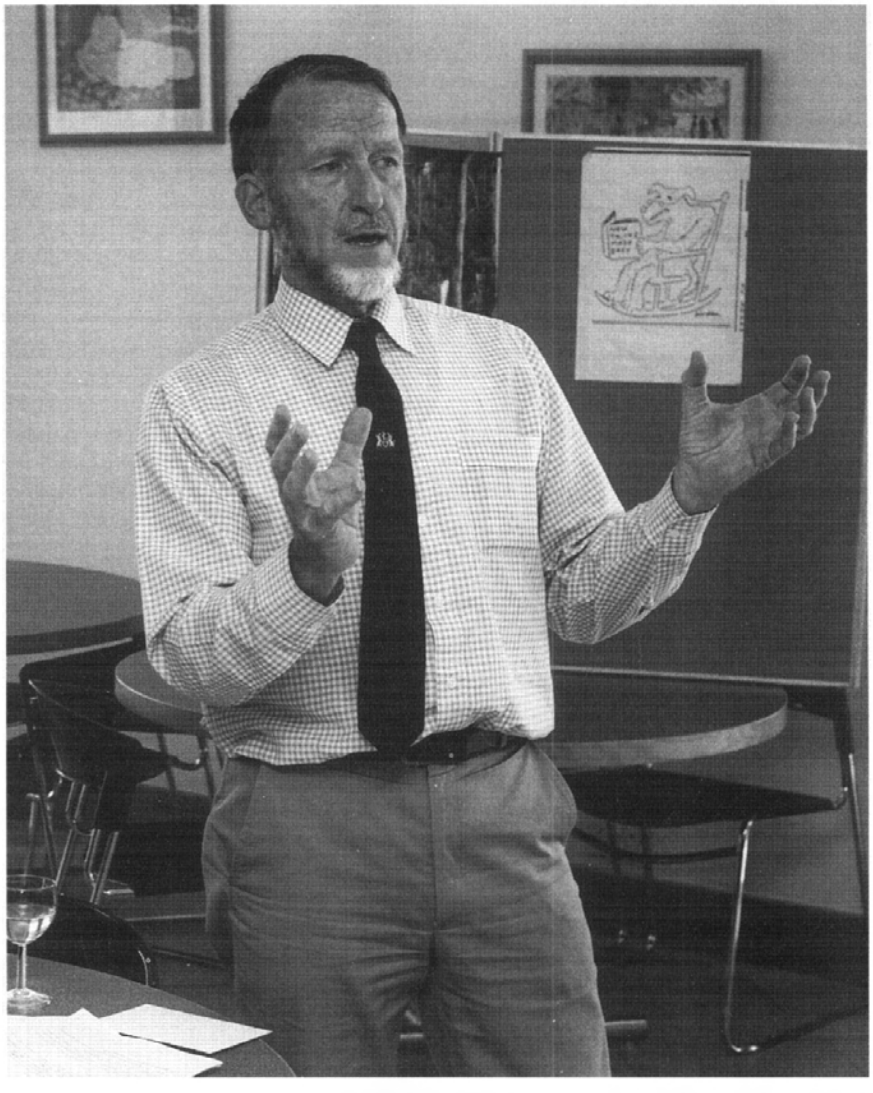
With the sudden death in August 1997 of Alan Hannan, Northamptonshire has lost its most modest and congenial archaeological ambassador. He was also a long term member of Northamptonshire Archaeological Society and a former member of its Council. An Australian whose first career was in education not archaeology, Alan's first professional post was at Tewkesbury Borough, as one of the small band of local authority archaeologists appointed in the early 1970s, in the first flush of 'rescue archaeology'. However, county based services were to become the norm and he soon moved on to the much larger challenge presented by the archaeology of Northamptonshire where he built up Northamptonshire Archaeology Unit, one of the new county Units.

Alan steered Northamptonshire through two decades of dramatic change in archaeological provision. Government grants for archaeology were not adequate to meet the increasing pace of development but Alan persuaded the County Council to fund rescue excavation on various county road schemes such as those at Clay Lane, Great Doddington and West Cotton on the A45. Such was, in the provinces at least, the origin of developer funded archaeology. He also made skilful use of that forerunner of the Welfare to Work Programme, the Manpower Services Commission and other funding sources to enable the Unit to undertake various rescue work with genuine research benefits, most notably the Raunds Area Project, the main fieldwork reports of which are now starting to be published. He was also keen to develop the full range of archaeological provision, including the establishment of one of the first education and interpretation services of any county Unit.

With the growth of developer funding in the late 1980s, Alan was one of the first Unit managers to impose the separation of curatorial (Northamptonshire Heritage) and contracting (Northamptonshire Archaeology) services which was the essential concomitant of the new commercial archaeology. This was a painful task but Alan always cared greatly about the welfare of his staff and when he retired in 1995 he left two teams well positioned to meet the challenges of the late 1990s.

Alan's native accent sometimes surprised those meeting him for the first time in the Northamptonshire countryside, though it quickly became apparent that he had a natural affinity for and deep love of, the English landscape and its past. It was this passion and commitment which helped ensure he remained an unashamed exile, but nonetheless one with a great attachment to Australia as exemplified through his avid following of the Ashes Series and Australian Rules Football, a sport which he once played at international level during a 10 year spell as a teacher in Papua New Guinea.

Archaeology is about people. To Alan this meant those of the present as well as of the past. It meant passion about education, in both schools and the field of adult education and it meant being accessible, always concerned with the welfare of those around him. As a result Alan inspired real affection and respect, a thoroughly good man. With characteristic modesty he was often content to stand back and let others take credit for the Unit's achievements yet always unhesitatingly ready to step forward and take the flak if mistakes or problems arose. This combined with a willingness to shoulder much more than his fair share of bureaucratic duties left others with space to develop their archaeological passions. A close family man with Audrey his wife and children Camilla and Duncan, his energies



extended beyond archaeology to music, ornithology, hill walking, and more often than not to the tending of an elderly and rather eccentric Czechoslovakian motor-cycle, an oft used mode of transport and later a pampered BMW K75. He was also a keen squash player and vegetarian cook as well as being dedicated to environmental issues, in particular Animal Rights.

We will miss him.

GRAHAM CADMAN

Alan Hannan; born in Australia 6th May 1937; educated University High School, Melbourne; University of Melbourne 1955; Bathurst Teachers' College, NSW 1956 - 1958; teacher and lecturer New Guinea 1959 - 1969; Ancient History & Archaeology BA Hons, University of Birmingham 1969 - 1972; Borough Archaeologist, Tewkesbury 1972 - 1976; County Archaeologist, Northamptonshire, 1976 - 1995; MPhil in progress, University of Leicester; died 26th August 1997.

ANTIQUITIES FROM NORTHAMPTONSHIRE IN WEST MIDLANDS MUSEUMS

The following note is a result of a survey of archaeological collections in West Midlands museums carried out by the West Midlands Archaeological Collections Research Unit under the auspices of the West Midlands Area Museums Service. All museums in the counties of Herefordshire, Shropshire, Staffordshire, Warwickshire, West Midlands and Worcestershire were included in the survey, but not private collections or material currently under study at Field Units. One of the aims of the project was to make the collections more widely known, especially artefacts of non-local origin, through a series of short notes in relevant county and specialist journals. This method of disseminating information was thought preferable to the compilation of a single catalogue which would be so disparate as to be of little appeal to the researchers we are trying to reach.

Five West Midlands museums have antiquities from Northamptonshire (post 1974 boundaries) and these are presented below, arranged alphabetically by site within periods. Resources have not allowed the compilation of full catalogue details nor the commissioning of professional drawings or photographs. Likewise, extensive trawls through documentation and literature have not been possible. As the primary intention of the listing is to give researchers an idea of the type and quantity of material held in West Midlands museums it is hoped that this brevity will be forgiven.

The following abbreviations have been used when citing museum accession numbers: **Avon** = Avoncroft Museum; **Bir** = Birmingham City Museums and Art Gallery; **Lap** = Birmingham University, School of Earth Sciences, Lapworth Museum; **War** = Warwickshire Museum; **Wos** = Worcester City Museum Service.

PREHISTORIC - P.J. Watson

Finedon Hill [SP9172] Neolithic flint axe 'July 1873' (Lap).

Little Houghton [SP8059] Polished Neolithic flint axe (Lap).

Northampton [SP7560] Polished Neolithic stone axe (Lap). Later flint flake tool (Wos).

Oundle [TL0388] Flint flake (Lap B65). Three socketed bronze axes from a hoard (Bir 1965A501-502, 1968A288). See Moore 1977, 209; Watson 1993, nos. 30-32.

IRON AGE - D.J. Symons

The coin described below was formerly in the collection of the late Mr. Ian Donal Finney of London. Mr. Finney presented it to Birmingham Museums and Art Gallery in 1992. He acquired it from a dealer in the London area and the provenance is that provided at the time of purchase. Full details and photographs of the coin have been deposited with the Celtic Coin Index, Institute of Archaeology, 36 Beaumont Street, Oxford OX1 2PG. (The Index aims to record all Celtic coins found in Britain and would be very pleased to hear of any material that is as yet unrecorded, as well as any new finds).

Oundle [near] Trinovantes gold quarter stater of Tasciovanus (Bir 1993C262 = FL298). Bought by Mr. Finney in 1986. C.f. Mack 1975, no. 151; van Arsdell 1989, no. 1688-1. Published Symons 1990, no. 105.

ROMAN - D.J. Symons

Blisworth [SP7253] (All found in 1887) Bone spindle whorl. Grooved decoration on both faces and around circumference. (Bir 1960A213). Glass bead. Squat globular bead of opaque white glass. Three grooves cut around circumference, leaving two raised bands; into each band are set six opaque red blobs (Bir 1960A214). Copper alloy fibula. Flat disc brooch type with plain edge and enamelled decoration (central disc and two surrounding circles; only the outer circle preserves traces of colour - in this case red). Very like Hattatt 1987, 171 no. 1027. (Bir 1960A215).

Duston [SP7261] Copper alloy fibula. Two-piece Colchester type of quite simple design. The relatively arched bow is scarcely broader than the catch-plate. (Bir 1953A670).

Upper Boddington [SP4853] Copper alloy fibula. Trumpet brooch of Collingwood's Group Rii. Blue and red enamelled decoration on the head, red on the leg. (Bir 1953A678).

MEDIEVAL - P.J. Wise

Byfield [SP5252] Pilgrim ampulla, lead, decorated on one side with a flower and on the other a crowned W flanked by the letters s and d. Identified by Brian Spencer as a Walsingham ampulla and

very similar in design to a find from Castle Rising, Norfolk (Spencer 1980, 17, no. 41). L 50 (War A2020).

POST-MEDIEVAL - T. Bridges and S. Lamb

Northamptonshire. Tiles, bricks and stone building fragments. (Avon).

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P.J.WATSON, D.J. SYMONS, P.J. WISE,
T. BRIDGES & S. LAMB.

ENVIRONMENTAL ANALYSIS OF A NEOLITHIC/EARLY BRONZE AGE PALAEOCHANNEL OF THE RIVER NENE AT TURNELLS MILL LANE, WELLINGBOROUGH, NORTHAMPTONSHIRE.

INTRODUCTION

ARC Central obtained permission in 1992 to extract sand and gravel from approximately 14 hectares of land centred upon SP 897 659 on the west bank of the River Nene, immediately south of Wellingborough and about 500m upstream from the Roman town of Irchester. An archaeological recording action brief issued by Northamptonshire Heritage in October 1992 identified the recording of palaeochannel activity as a requirement to provide an environmental context for archaeological data from the area and establish the pattern of land use associated with ancient settlements. Between September 1993-June 1994 an archaeological watching brief was maintained by I Meadows and C Jones of Northamptonshire Archaeology, in order to record any archaeological deposits which might be encountered.

RESEARCH BACKGROUND

The value of ancient river beds (palaeochannels) for the reconstruction of local and regional environments and floodplain land use is well recognised (Brown 1982; Brown and Keough 1992a; Brown 1997). Whilst late glacial and later prehistoric palaeochannels are a relatively common occurrence in the Nene floodplain (Brown *et al.* 1994; Brown forthcoming, a) Neolithic and early Bronze Age (4000-1500BC) river beds are rare and seldom contain substantial organic sediments.

Evidence of the reworking of gravels by the Nene changing its course during the mid Holocene has been recorded previously at Thrapston, Ecton and Ringstead (Castleden 1976). Most of these ancient channels are all noticeably smaller than the modern river bed because they were probably part of a multiple-channel (anastomosing) river system fed by slightly lower river flow due to the greater transpiration of the fully forested landscape which prevailed at the time (Lockwood 1979).

The study of organic deposits from ancient riverbeds found at Little Houghton, Titchmarsh and Orton Longueville suggests a clear discontinuity between the Late Devensian gravels (probably 25000-10500 BP) and the overlying channels and fine alluvial sediments (Holyoak and Seddon 1984). The sediments from Titchmarsh and Orton Longueville can be dated to the Iron Age on the basis of associated pottery and pollen. The pollen spectra are dominated by *Gramineae* (grasses) and herbs associated with pasture and waste ground, thus suggesting that the ancient watercourse post-dated local and regional forest clearance.

Pollen analysis from palaeochannels discovered during the Raunds Area Project has added further detail to the vegetational history of the middle Nene floodplain (Brown forthcoming, a). Out of four palaeochannel infills studied in detail, two are post-Roman, one is Late-Devensian to early Holocene (12500-9500 BP) and the other mid-late prehistoric from West Cotton. Although complicated by erosion the West Cotton diagram suggests at the base of the older (middle) core a forested floodplain with a high alder count, relatively high hazel count, low herbs, but no introduced species. A radiocarbon date associated with this level has given a calibrated date of 2906-2614 BC at the one-sigma level. Additional evidence of former floodplain woodland, the buried remains of an alder stand, has been dated to 5195 $\pm$ 60 BP: Brown and Keough 1992b).

TURNELLS MILL LANE: ARCHAEOLOGICAL CONTEXT

The remains of the former Wellingborough Mill survived as earthworks of a water course or leat, together with part of the former structure. A cast iron water-wheel remains *in situ* adjacent to the westbound exit road of the A45. Historic maps show several land parcels with names such as Long Meadow, Middle Meadow and Mill Holme. A mill, Staples Mill, is also recorded in 1803 (NRO 4204). The ground plan of its associated buildings had changed by 1847 (NRO T201), perhaps together with its owner since it was then recorded as Wallis's Mill.

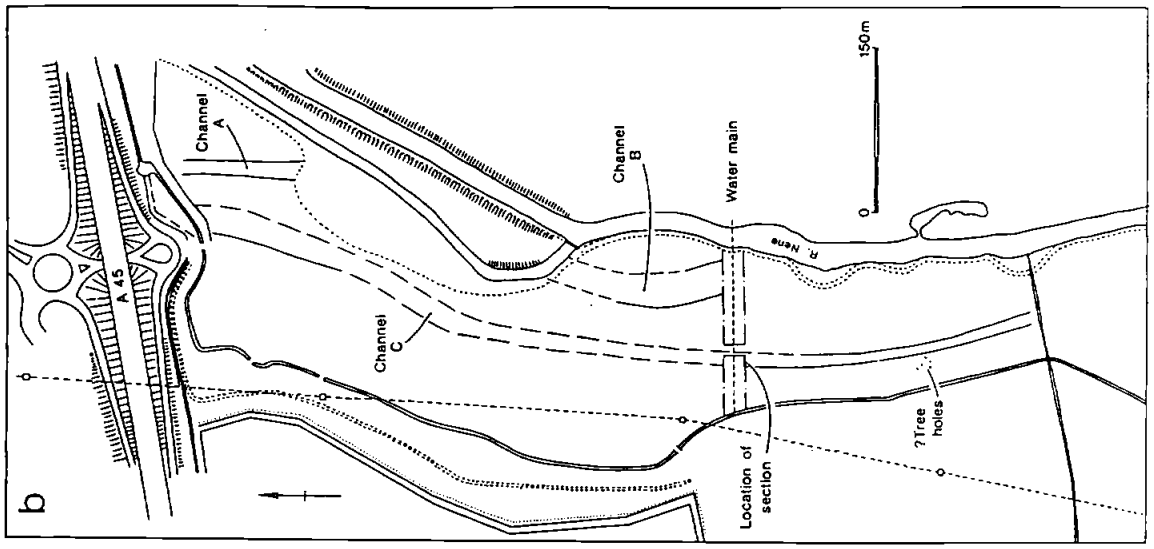
The thick alluvial cover, at least 500mm deep across the entire area, would prevent the formation of cropmarks, recognition of earthworks or the recovery of surface find scatters. Several archaeological sites, however, are known in the vicinity. About 1000m to the north-east is the Roman walled town of Irchester with its extensive suburbs, while 500m to the south the site of a Roman villa adjoins an extensive prehistoric and Romano-British landscape. A Saxon pottery scatter (County SMR no. 3834) recorded 200m to the south-west of the quarry may possibly be associated with a former cemetery.

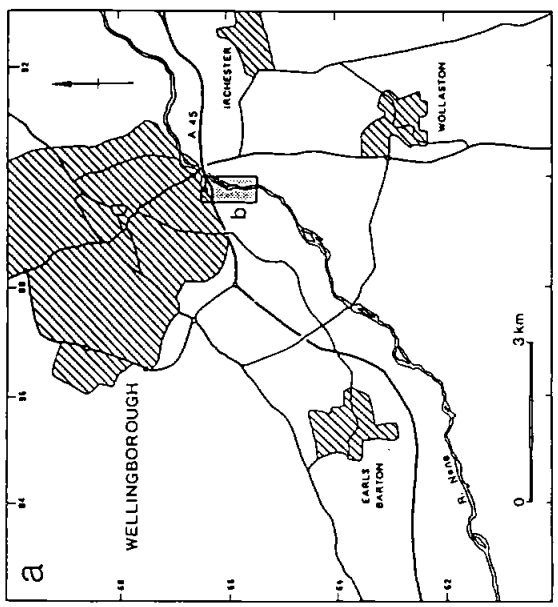
TURNELLS MILL LANE: STRATIFICATION AND SEDIMENTS

Overburden was removed by the site contractor (Barton Plant) using the front blade of a tracked excavator. Stripping was monitored on a weekly basis and features were planned at 1:1250 scale and recorded using written context sheets. A full photographic record was maintained throughout. The alluvial clays were buried under 0.5m of clayey topsoil. No traces of human activity were present beneath the alluvium. A concentration of nineteenth and twentieth-century building debris was recorded at the northern end of the quarry, close to the site of the former Wellingborough Mill. No attempt was made to study these remains in detail.

Three palaeochannels were exposed (Fig 1b A,B,C,). Channels A and B lay close to the present course of the River Nene and were probably associated with the mill, being those shown in nineteenth-century maps. No detailed analysis was undertaken. Channel C lay some 30m to the west and comprised a 50m-wide corridor of lenticular deposits of reworked gravels and organic materials denoting the intertwining of former river beds. It was clearly earlier in date and was studied in detail, including environmental sampling.

Channel C was exposed over a length of approximately 700m. Organic sediments including wood were sampled from its fills. The channel had cut into typical Nene valley gravels (lower gravels) which were moderately sorted and horizontally bedded by water-flow. To the north the gravels did not show signs of such bedding, suggesting that little or no reworking of the Devensian gravels by water had occurred. The migration of iron had localised iron/manganese-cementation of the gravels adjacent to the north bank of the palaeochannel. At the base of the channel root tracks penetrated the gravels and were filled with grey silty clay. The channel and its banks were buried under a silty clay which was gleyed at the base but gradually turned into yellow-brown mottled clay with fine sand. The channel itself contained a polleniferous organic-rich sandy silt (context 11) the lower part which comprised stiff, black-brown, organic silt, 420mm-500mm thick, which was rich in wood remains (*Alnus* and *Corylus*) including hazel nuts. The upper part of the deposit consisted of inorganic, stiff, red-yellow mottled sandy silt with occasional small stones. The boundary was depositional but modified by groundwater reduction/oxidation conditions.





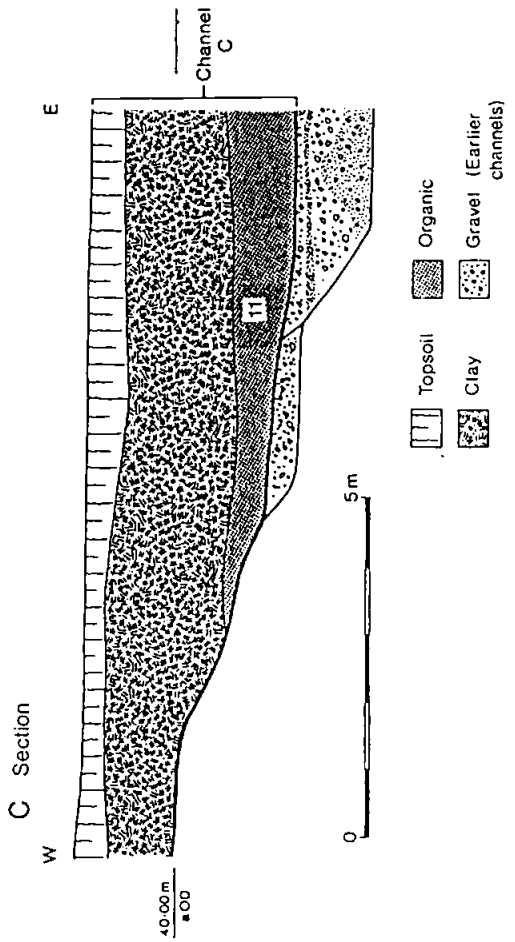


Fig 1a & b. Location plan of the Turnells Mill Lane palaeochannel.
Fig 1c Stratigraphic cross-section of the Turnells Mill Lane palaeochannel.

Table 1. The radiocarbon dates for the organic rich silt/clay at Tumells Mill Lane.

Lab. No.	Sample Depth	C14 date in years bp	1 sigma cal BC	2 sigma cal BC	Used for rates yrs BC
Beta-78585	TML. 1.2 0.7cm, mid 3.5cm	3170 ± 60	1511-1396 (1420)	1525-1269	1420
Beta-83791	TML. 1b 26-37cm, mid 31.5cm	3460 ± 70	1878-1680 (1750)	1937-1537	1750
Beta-83792	TML. 1a, 37-41 cm, mid. 39cm	4280 ± 100	3015-2703 (2890)	3260-2586	2890

POLLEN ANALYSIS: SAMPLING METHODS AND PROCEEDURE

Two monoliths (TML Mon. 1, TML Mon.2) were taken from Channel C with three supplementary samples (TML 1.1a, TML 1.1b, TML 1.2). Monolith 1 was subsequently sub-sampled for pollen every 40mm with samples being 5mm in thickness. They were processed using the standard double treatment with hydrofluoric acid, double acetolysis and micro-sieving (Moore *et al.* 1991). The pollen count at each level is 500 land pollen grains and standard keys were used in their identification (Moore *et al.* 1991; Faegri and Iversen 1975) as well as type-slide collections at Leicester and Exeter Universities. Traditional plant nomenclature (Clapham *et al.* 1987) has been followed instead of the new nomenclature of Stace (1991) in order to facilitate comparison with previous work.

THE POLLEN DIAGRAM

The pollen diagram (Figure 2) is subdivided into local assemblage zones rather than traditional pollen zones for two reasons. Firstly, although there are significant variations up the profile, the dominant pollen types are relatively constant and, secondly, both the thickness of the organic sediment (500mm) and the radiocarbon dates indicate that the sediment was deposited over a relatively short period of time, *c.* 1,500 years. The diagram has been divided into two primary assemblage zones TML I and TML II, and a further division of TML I into two sub-zones TML I(a) and TML I(b). A brief description of the local assemblage zones follows.

In TML I, 39.40-39.55m above OD, the main trees and shrubs (using the traditional pollen terminology) are *Alnus* (alder), *Corylus* (hazel) and *Quercus* (oak), with a small amount of *Tilia* (lime). *Alnus* falls during the zone and is replaced by *Corylus*. The zone has remarkably few herbs, the main types being *Gramineae* (grasses), *Cyperaceae* (sedges) and *Lactucaceae* type (members of the *Compositae* family, such as prickly lettuce), *Filipendula* (meadowsweet) and *Plantago lanceolata* (ribwort plantain). Ferns are more abundant than all the herbs, except *Gramineae*, and include *Polypodium* (common polypody), *Pteridium* (bracken) and an undifferentiated fern group. The division into sub-zone TLM I(a) and TML I(b) at 39.50m above OD is on the basis of a fall in *Alnus* (to its lowest percentage in the diagram) and a fall in *Corylus* with a corresponding rise in *Gramineae*, *Cyperaceae*, herbs and ferns. The herbs that increase are *Chenopodiaceae* (goosefoot family), *Lactucaceae*, *Plantago lanceolata* and, most significantly, *Pteridium* which rises to 20% TLP. The upper boundary of TML I is marked by a rise in *Alnus* and to a lesser extent *Corylus* and a relatively abrupt fall in all these herbs and ferns.

TML II 39.55-39.81m above OD is dominated by *Alnus*, with less *Corylus* than TML I and relatively low percentages of Gramineae and Cyperaceae. Herbs are infrequent and low but there is a continuous curve for *Plantago lanceolata*. At the top of the zone there are some minor changes, including an increase in *Filipendula*, *Artemisia* (mugworts) and aquatics, particularly *Myriophyllum verticillatum* (whorled water-milfoil).

DATING

Three samples were submitted for radiocarbon dating with the results given below (Table 1). The calibrations were performed using the CALIB computer programme (Stuiver and Reimer 1993) which uses the calibration curve of Stuiver and Pearson 1993.

No contamination was detected in the samples and all three were in the normal delta C^{13} ranges for terrestrial sediments and soils. The calibrated dates show that the pollen diagram spans the period from the early Neolithic to the early Bronze Age. This agrees with the low *Ulmus* values, which suggests that the diagram post-dates the elm decline (typically dated at *c.* 3300-3000 BC), which although not a marked feature can be discerned in the area (Brown in prep.). The calibrated dates give a low basal accumulation rate of 152 yrs cm^{-1} and a much higher upper accumulation rate of 12 yrs cm^{-1}. Using these dates the deforestation event of Zone TML1b started at *c.* 1826 BC (32 cm) and ended *c.* 1661 BC (24cm), giving an approximate duration of 160 years. The date for the start of the second decline of *Alnus* is *c.*1500 BC which would correlate with early-mid Bronze Age human activity on the floodplain.

INTERPRETATION AND DISCUSSION

Pollen analysis indicates that the floodplain was covered predominantly by woodland dominated by alder and hazel. Oak may have been growing on drier parts of the floodplain and the valley slopes. Lime was almost certainly growing on the valley side. The diagram suggests that *c.* 1800 BC the alder and hazel decreased, with accompanying increase of grasses and herbs. A climatic cause would seem unlikely since this is not a known period of increased precipitation and, more importantly, the

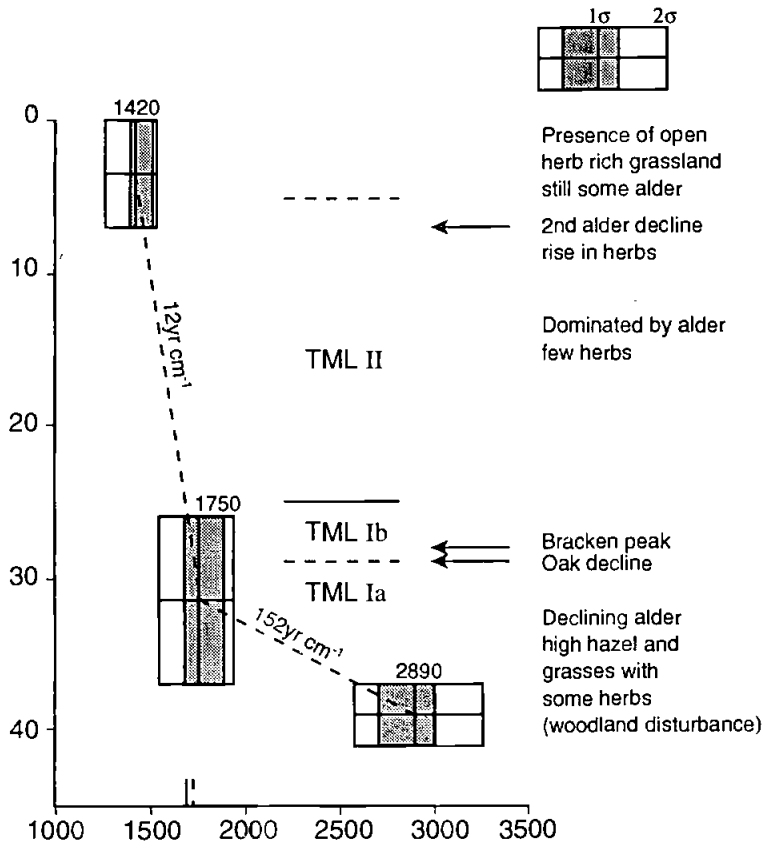


Fig 2 The pollen diagram from Turnells Mill Lane.

ecological requirement of alder and hazel are such that any climatic shift might have favoured one over the other rather than lead to a decline in both. Similarly there is no indication of a local hydrological cause from either the stratification or the pollen (no rise in aquatics). Sub-zone TML I(b) represents a brief period of *c.* 200 years when some of the floodplain around Turnells Mill Lane was opened up, favouring an expansion of grasses, sedges and herbs. Many of these herbs, such as *Plantago lanceolata*, are associated with pastoral agriculture (Behre 1981) and suggest that the nearby open parts of the floodplain were covered by wet pasture and/or hay meadow. The unusual but highly significant corresponding peak in *Pteridium* suggests that bracken was also growing on these open areas of floodplain. It is likely that these areas (fields?) were adjacent to the palaeochannel, otherwise due to the curtain effect of alder woodland (Janssen 1959) they would not have been registered here. Given that the clearance of the floodplain was probably under 50%, the most appropriate economic strategy would be some form of forest farming/plant husbandry (cf Zvelebil 1994). By the end of the sub-zone the area seems to be reverting back to alder-dominated woodland but with a lower hazel component than before.

The basal levels of TMLII are dominated by *Alnus* (45% total land pollen) and *Corylus* (35% TLP), along with low percentages of *Quercus*, *Salix*, and *Fraxinus* with some *Pinus* probably of long distance origin. There is very little *Gramineae* or *Cyperaceae* and only a very few herbs such as *Rumex acetosa* and *Hypericum*-type. Aquatics and spores are also low. The counts indicate a forested local floodplain with no cleared land near to the palaeochannel. The upper counts are significantly different however. Whilst *Alnus glutinosa* and *Corylus avellena* are still dominant there is more representation of other tree types including *Tilia*, *Ulmus*, *Betula* and *Fagus*. Thorny/scrub species are also present, including *Prunus*-type. Both *Gramineae* and *Cyperaceae* are much higher at c. 10-20% TLP and there is a high representation of herbs of cleared ground such as *Artemisia*, *Anthemis*-type, *Plantago lanceolata* and Ranunculaceae. Also present are *Linum*- and *Vicia*-types. The counts represent a partially cleared floodplain (possibly c. 50%) with wet woodland remaining fragmented by clearings and/or fields. The increase in the diversity of trees is almost certainly caused by the curtain effect (ie, the blocking of extra-local pollen by the high local pollen of the surrounding woodland), suggesting that these trees types were present in the surrounding area, particularly the adjacent valley slope, throughout the period of deposition of the organic rich sediments.

CONCLUSIONS

The Turnells Mill Lane palaeochannel provides a picture of changes in the local floodplain of the Nene for a period of one and a half millennia. Pollen analysis suggests that deforestation of the surrounding slopes had already started by the mid/late Neolithic, probably as a result of humans expanding these clearings created by natural factors such as Dutch elm disease and windthrow, possibly as part of a forest farming system (Groenman-Van-Waateringe 1983). The floodplain at that time was still covered by alder-hazel-oak woodland. The deforestation event in the middle diagram (Fig 2) is of local origin and would relate to the Neolithic/Bronze Age boundary. There is evidence of Neolithic clearance of oak on a segment of the Nene floodplain only 8 km to the north but this site could easily be the result of natural, opportunistically exploited, windthrow event (Brown in prep.). Thus although indicating exploitation of the floodplain by Neolithic peoples (Macphail and Goldberg 1990), it does not suggest long-term sedentary use. There is, however, evidence some 5 km downstream of Late Neolithic clearance in association with the construction of the Redlands Farm Long Mound (Wiltshire, pers. comm.). There is, also, abundant evidence of clearance and utilisation of the Nene and other floodplains by Bronze Age peoples (Wiltshire and Edwards 1993). The most obvious feature is the construction of barrows, nearby at Irchester and slightly further downstream at Irthlingborough and Raunds. There is now little doubt that at least some of these monuments were constructed on what were then floodplain islands isolated by two channels of a bifurcating (anastomosing) pattern of the Nene. The pollen diagram suggests that despite small-scale and generally temporary Neolithic clearance events, much of the floodplain remained still wooded until the mid-later Bronze Age or after and this is in agreement with unpublished pollen work from Wollaston, where samples from a variety of natural and artificial features indicate that large-scale deforestation of the floodplain took place in the late Bronze Age/early Iron Age and was maintained into the Roman period when the Nene valley had a dense pattern of settlements of all sizes (Taylor 1975).

The open sub-divided grassland floodplain of the middle Nene would appear to have been established by the middle Iron Age. This is a pattern which is emerging from other river valleys in the Midlands, such as the Soar and its tributaries (Brown in prep.), the upper Worcestershire Avon (Grieg 1996), and in Derbyshire where Wiltshire and Edwards (1993) have shown partial clearance of a floodplain during the Neolithic but with landscape-scale deforestation only in the late Bronze Age/Iron Age. One particularly interesting feature of the Turnells Mill Lane diagram is the pronounced peak of bracken during the clearance phase. The high quantity (20% TLP) and the calcareous nature of the surrounding soils suggest that bracken invaded the newly cleared floodplain prior to substantial deposition of calcareous flood sediments which resulted from agricultural activity in the catchment. Similar peaks in bracken pollen are recorded in Iron Age contexts from the Nene at Titchmarsh and Orton Longueville (Holyoak and Seddon 1984), together with Wollaston, and in the Soar valley at Kirby Muxloe (Brown forthcoming b). Bracken macrofossils from Iron Age ditch fills at Wollaston suggesting that it was cut for bedding. Sites in the region are thus revealing a picture of fragmentary small scale use and alteration of the environment in the Neolithic, probably as part of a forest farming economy, which was replaced by more intensive ritual and agricultural use of the floodplain in the Bronze Age and almost total clearance for agriculture in the Iron Age.

ACKNOWLEDGEMENTS

The writers would like to thank ARC Central for access and support and Art Ames for laboratory support at Exeter.

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A. G. BROWN, DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF EXETER
I. MEADOWS, NORTHAMPTONSHIRE ARCHAEOLOGY

THE PIONEER HELMET

Excavation and watching brief work during gravel extraction in Wollaston are continuing (see Archaeology in Northamptonshire 1996/7), the project has been funded by Pioneer Aggregates (UK) Ltd. A significant element of the excavation has been a total metal detector survey of extraction areas both before and after topsoil stripping. This is to better characterise the finds patterns which might be encountered above rural sites. The work has been carried out by Mr S Critchley and all the finds have been recorded with relation to the main site grid. In March 1997, in an area where the topsoil had been stripped to allow for the construction of a subsoil stack, the rich 'princely' burial was found.

The find comprised an oval grave pit 2.8m long and 1.3m wide and with a maximum depth of 0.15m. Within the grave lay the fragmentary remains of an adult male, aged about 25. He laid in a supine position with his head originally propped on a pillow and his knees slightly raised.

Around the body there were a number of grave goods. Beside the skull, and tipped away from it, lay a bronze hanging bowl. It was old when buried and showed signs of at least one repair. Also, only one of five decorative mounts originally on the bowl were recovered. The mount was circular and contained a symmetrical arrangement of square millefiori glass rods set into red enamel.

In the area of the legs there lay a large double edged sword 0.9m long and 55mm wide. X-rays have

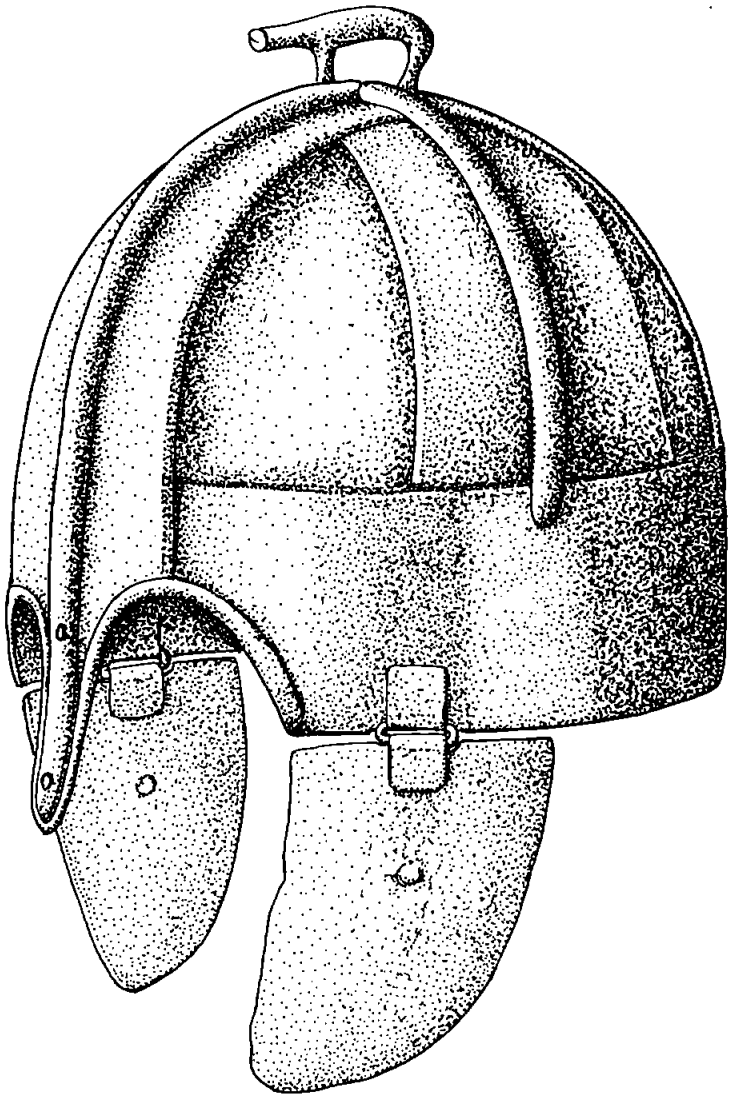

Fig 1 The Pioneer helmet (Drawn by L. Meadows)

shown it to be of pattern welded manufacture. The pattern welding extends from grip to tip and is an elaborate alternating straight and twisted design which changes about every 80mm down the blade (Lang and Ager 1989 type C2b). The corrosion products on the blade preserved evidence of the scabbard constructed from wooden boards with a leather outer binding and possible fleece lining. Traces of the grip and lower guard of horn survived but no trace of a pommel was recognised.

To the left of the probable body line lay the remains of the helmet (Fig 1). It had been placed in the grave resting on its let side with the left cheek guard folded inside the cap before the nasal guard was deliberately bent inwards. This ritualised 'killing' of the helmet was the only sign of pre-depositional damage, other damage did not take place until the iron had been oxidised and had consequently become brittle.

The construction of the helmet of strips and plates

was similar to the Coppergate helmet (Tweddle 1993), the Pioneer helmet is, however, significantly larger. The additional size was possibly to allow for a substantial padded lining, traces of which survived in the corrosion of the interior. The helmet was surmounted with a crest formed from a single piece of metal which had been drawn to form the simple shape of a standing boar. Boar crests, although well known from Saxon literature such as Beowulf, have only been identified positively once before on a helmet from Benty Grange, Derbyshire (Bruce-Mitford 1974). A possible detached crest is also known from Guilden Morden in Cambridgeshire (Foster 1977). Corrosion on the exterior of the helmet bore the traces of two different textiles and feathers; these may represent bedding or cushions within the grave. In addition the impressions of fly pupae cases were preserved in the rust, and their identification may help determine whether or not this burial took place immediately or some time after death, even possibly the season of death.

A number of small artefacts were also present in the grave, beside the grip of the sword lay a small iron knife and iron buckle with a small D-shaped buckle adjacent to the scabbard. At the left shoulder a further small buckle occurred and in the upper chest area a copper alloy cast hook was found, this latter item was presumably a clothes fastening. These small artefacts are important, they are of forms not characteristic until the later seventh century and therefore they provide a *terminus post quem* for the burial.

The material in the plough drag beside the helmet included several short rods, perforated at least at one end. These rods were thought originally to be related to the helmet, perhaps forming part of an aventail, further consideration, however, would suggest they are part of a separate item in the grave, perhaps a belt, similar pieces are known from contemporary German burials (Paulsen 1978).

The location of the grave adjacent and parallel to a Roman road suggests the route may still have functioned in the later seventh century. No tangible evidence for a barrow was recovered but one is likely to have originally surmounted the grave. The work of analysis is continuing and a fuller report will then be produced.

ACKNOWLEDGEMENT

Conservation was carried out by Rolly Read

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IAN MEADOWS NORTHAMPTONSHIRE ARCHAEOLOGY

AN IRON AGE AND ROMANO BRITISH SETTLEMENT SITE AT POTTERSPURY

Archaeological excavation of part of a Romano-British settlement site was undertaken by the University of Leicester Archaeological Services (ULAS) in 1997 during the installation of the 1000mm trunk main pipeline between Potterspury (SP 753 442) and Deanshanger reservoir (SP 744 415), phase 3 of the Salcey to Deanshanger Pipeline Duplication scheme by Anglian Water Services Limited. The site is located 8km to the south east of Towcester and 1.2km to the south west of the village of Potterspury (SP 7474 4253). The site lies at the top of a south facing slope (c.105m OD) within the field on the eastern side of Redmoor Copse and within the parish of Potterspury. Aerial photographs of the site have revealed the existence of cropmarks (Fig. 1).

During the construction of the pre-existing

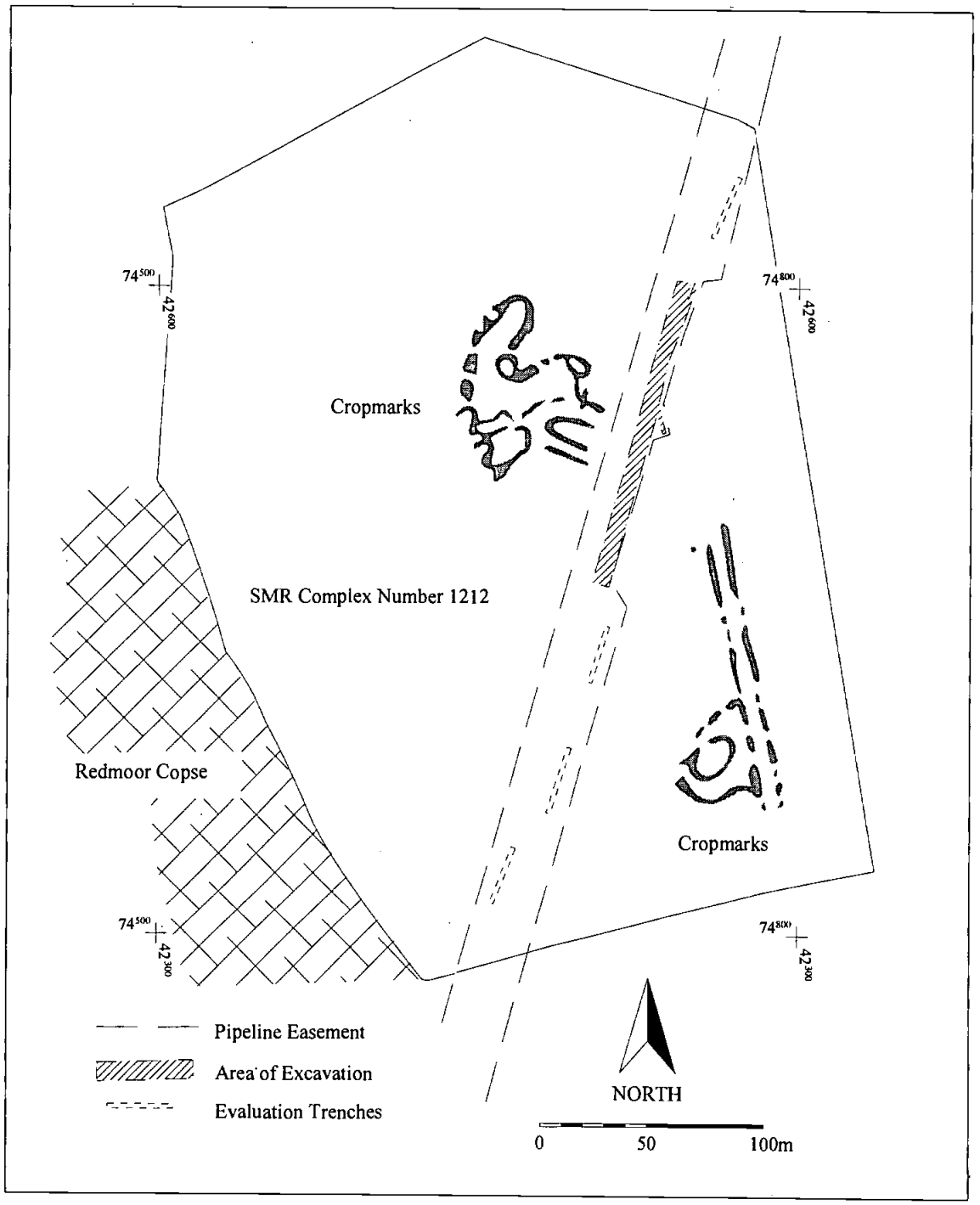

Fig 1 Location of Redmoor Copse, pipeline easement and excavation area

pipeline in 1979, archaeological observation was undertaken by D. Jackson for the Northamptonshire Archaeological Unit. A number of features were recorded on the site and Iron Age pottery was recovered. Fieldwalking and metal detecting across the site have located some Iron Age and substantial quantities of Romano-British material (Clay, Cooper and Courtney, 1996; Kings and Clay, 1997). Archaeological evaluation was carried out by ULAS immediately prior to the excavation (Meek, 1997). The site was defined from the evaluation and the area of the excavation was a 150m long and 12m wide strip of the pipeline easement (Fig. 2). It was evident from the outset of the machining that the site had suffered considerable damage from plough erosion and the western edge of the site was very badly disturbed, having been within the easement of the pre-existing pipeline in 1979 and subject to disturbance from heavy machinery. Archaeological features were concentrated at the southern and northern ends of the excavation area.

The remains of a discrete, possible Iron Age circular structure 8.5m in diameter was revealed in the northern part of the site. Small fragments of Iron Age pottery were recovered from the excavated sections of the ring gully. Possible evidence of two Romano-British circular structures were revealed in the southern part of the site. One of these structures was evident as a discontinuous possibly circular gully with associated postholes. The remains of the other structure was visible as a curving gully on the western edge of the site the majority of which would have been destroyed by the construction of the pre-existing pipeline in 1979. The northern area of the site contained many gullies and small ditches of Roman date. A number of postholes were also recorded and there is the suggestion that some of the gullies and postholes may represent the remains of Romano-British structures in the area. A large ditch aligned north-south was excavated within the north eastern corner of the site, which could be seen running into the area to the north of the excavated area where it joined a large ditch aligned east-west. A second ditch within the excavated area, aligned east-west lying c.15m from the northern edge of the site, was investigated and seen to comprise of three separate linear features, two small gullies on the outer edges of a larger central ditch. This group of linear features bounded the majority of the Romano-British features in the northern part of the site. The archaeology within the southern part of the excavated area was bounded to the north by a ditch aligned south-east to north-west *c.*36m from the southern edge of the site. Enclosed within this area were a number of shallow pits, gullies, the two possible circular structures and spreads of material possibly representing working hollows. A second ditch running east to west was also visible c.16m from the southern edge of the site. Two deep pits were also recorded within the area. A ditch and pit of likely Roman date were recorded to the south of the excavation area during the construction of the pipeline. The pits within this area make it quite distinct from that of the northern area, with the environmental evidence also showing a contrast of activity.

Environmental analysis of samples from the site was undertaken (Monckton, forthcoming). The main cereal found was glume wheat, mainly spelt with a little emmer. The only evidence for other cereals was a few grains of oat and barley. The few weeds represented in the samples could have grown on the soils of the surrounding area and the cereals are likely to have been grown near by. Processing of glume wheat in the southern part of the site is indicated because the most numerous remains were of wheat chaff, mainly glumes, with some grains and weed seeds. The proportions of remains compare with those found in the cleanings of glume wheat separated from the grain by fine sieving after parching and pounding, the waste was then burnt possibly as fuel or kindling and then dumped or accumulated in pits and the ditch. Other samples appear to represent a scatter of the same type of waste. This waste therefore indicates the dehusking of glume wheat on the site. There is insufficient evidence from the plant remains or structures to suggest the scale of the processing of wheat at this site, but this activity is widespread on Roman rural sites and it is likely that any surplus would have been traded.

Crossing the site *c.*60m from the southern edge of the excavated area was an area of small, compacted pieces of limestone. Possible edges were revealed implying that this area of stone was a linear arrangement crossing the site in a south-west to north-east direction, possibly representing the remains of a road or trackway of Roman date. The ditches recorded upon the site all appear to include at least one recut within them, implying prolonged usage of the features. Some of the ditches are likely to be contemporary features associated with Romano-British enclosure systems. The cropmarks

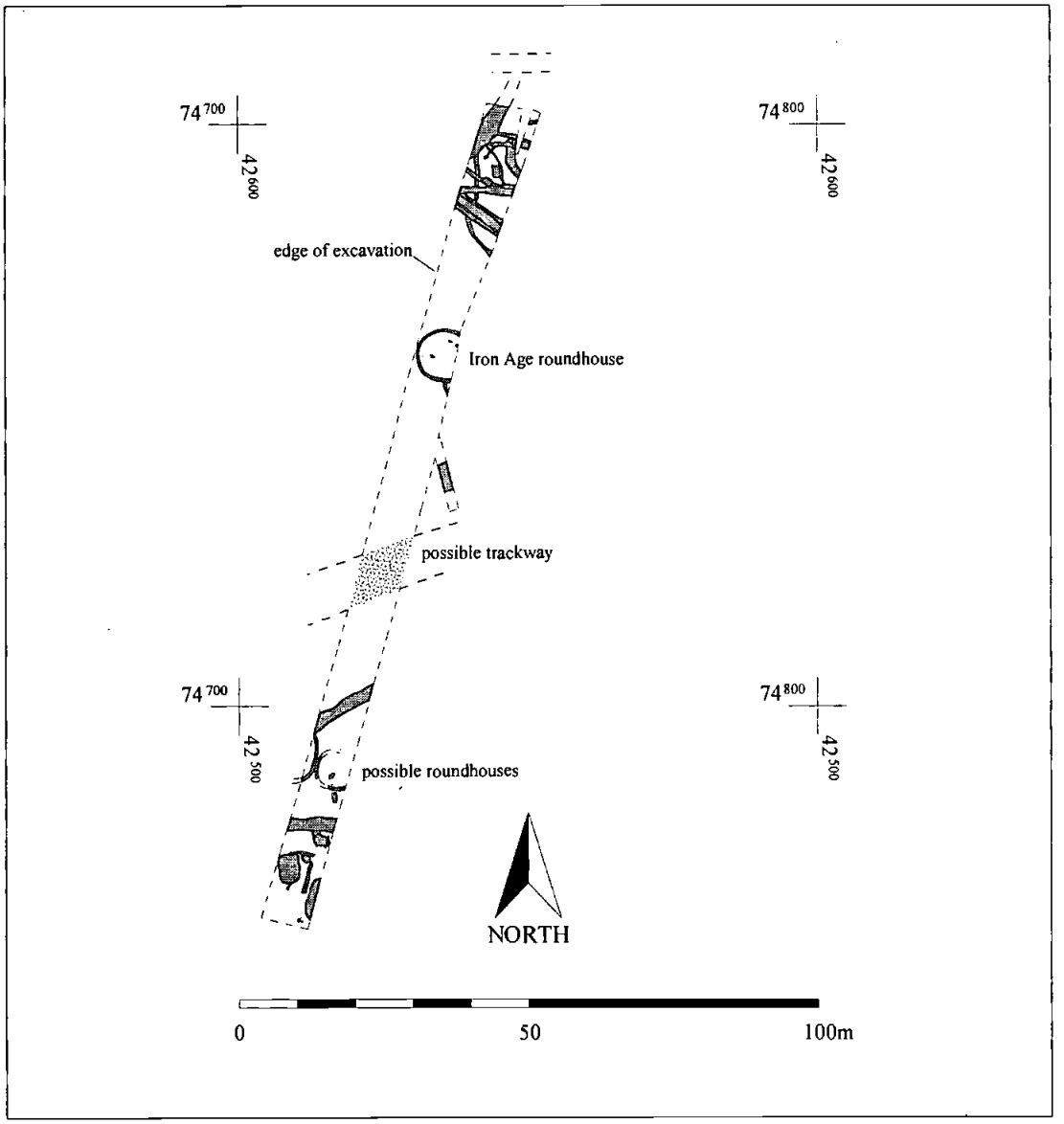

Fig 2 Site plan of Potterspury showing excavated features

and finds recovered within the field suggest a large Romano-British site. The excavated area uncovered a thin swathe through this much larger site. The existence of features recorded on the site and finds recovered from previous surveys of the field dating from the Iron Age and throughout the Roman period would suggest a continuation of occupation on the site through the transitionary period.

The majority of the pottery recovered from the site dates from the later first to third centuries, with some diagnostic material dating to the later third and fourth centuries (Cooper, forthcoming). The impression is that occupation did not continue until the end of the Roman period. This is based on the distinct lack of diagnostic regional wares which become widespread in the second half of the fourth

century such as the late products of the Harrold shell tempered industry, the late products of the Lower Nene Valley colourcoated ware industry, and red colourcoats from Oxfordshire, all of which have been identified in such groups from sites in the Milton Keynes area, immediately to the east of Potterspury (Marney 1989). Metal work and coins recovered from the site, the vast majority of which have been found by Bob Kings surveys (Midlands Archaeological Research Society) in the area since 1988 (identified by Northampton Museum), date from the mid-late first to fourth century, with a concentration in the later third (Cooper, forthcoming).

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JAMES MEEK. UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

EARTHWORKS AT BENEFIELD

This group of earthworks lies in pasture land on the steeply sloping southern side of an unnamed tributary of the Nene close to the north-eastern boundary of the parish of Benefield, where it abuts the township of Biggin, formerly in the parish of Oundle (Fig 1). They were surveyed in 1993 and 1996 by the authors and by students of the Department of Adult Education of the University of Leicester.

Site A (SP 9978 8957: Fig 2) is a ditched sub-rectangular enclosure 50 x 40m with a low internal bank which represents the remains of a stone wall. Within is a rectangular depression; air photographs (taken by Dr S Upex for the Nene Valley Research Committee) show that the internal features represent a rectangular stone building. The northern side of the earthwork, which fronts a track, has been partly quarried away. A plough ridge immediately outside the site on the east runs down to the track and this might suggest that the earthwork had been set on earlier ridge and furrow. However, the evidence of the terminal mounds shows that the site was in use when the ridges immediately to the south of it were being ploughed ; and the presence of plough-ridges running east-west in the field to the west on a different alignment from these, shows that the site was placed on land which lay at the junction of two different open-field furlongs. There is no evidence of date beyond the fact that the boundary of the site, with no internal structures, is shown on a map of 1747 (N.R.O. Map 5539); it had gone by 1824 when Benefield was enclosed (this particular part of the parish had been enclosed before this date; N.R.O. Map 2885 (a) and (b), Enclosure Map of Benefield).

Site B (TL 0000 8946: Fig 3). It is possible to distinguish a sequence of development here. The earliest feature was an embanked enclosure c. 60m square; a dark green patch in the grass along the southern side might indicate a ditch. This undated enclosure shows up well on air photographs (N.M.R. SP 9989/14, 01 Jan 85, NHC 2731/19) but less so on the ground. The northern side with its original entrance is well preserved (a); the eastern side has been entirely removed; there are faint traces in places of the western side and of the SW and SE corners (b) and (c).

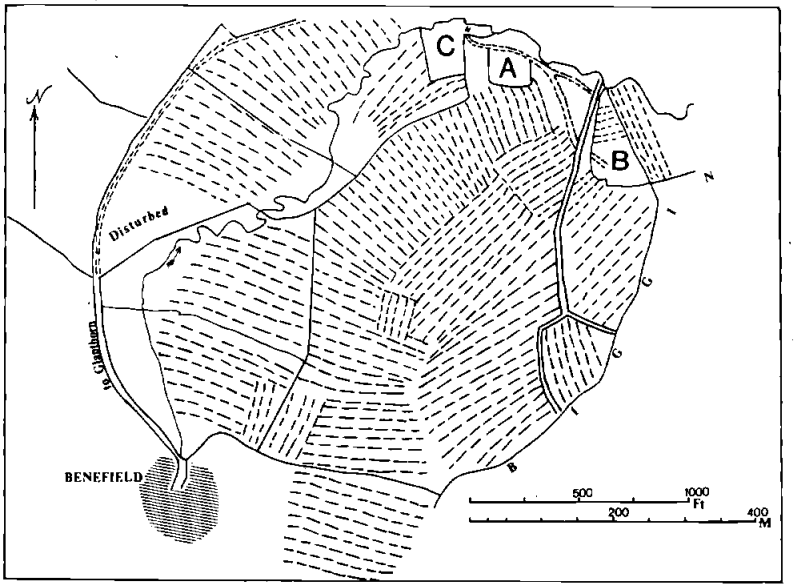

Fig 1

The southern part of the enclosure is over-ploughed with ridge and furrow. The relatively good state of preservation of the northern boundary is due to the fact that it marked the junction between two furlongs. In this area, in a comparable position to Site A, is a rectangular enclosure (e), approached from the north-west by a branch of the same track as fronts Site A, which cuts through the north-west corner of the early enclosure at (d). Site A and this phase of Site B might therefore be contemporary. It is quite possible that this enclosure was defined on the east by a hedge which was in existence when the map of 1747 was made; its bank remains (f). The establishment of this hedge put the east-west ridge and furrow to the north of the site down to grass and went along with the relaying of the ridge and furrow

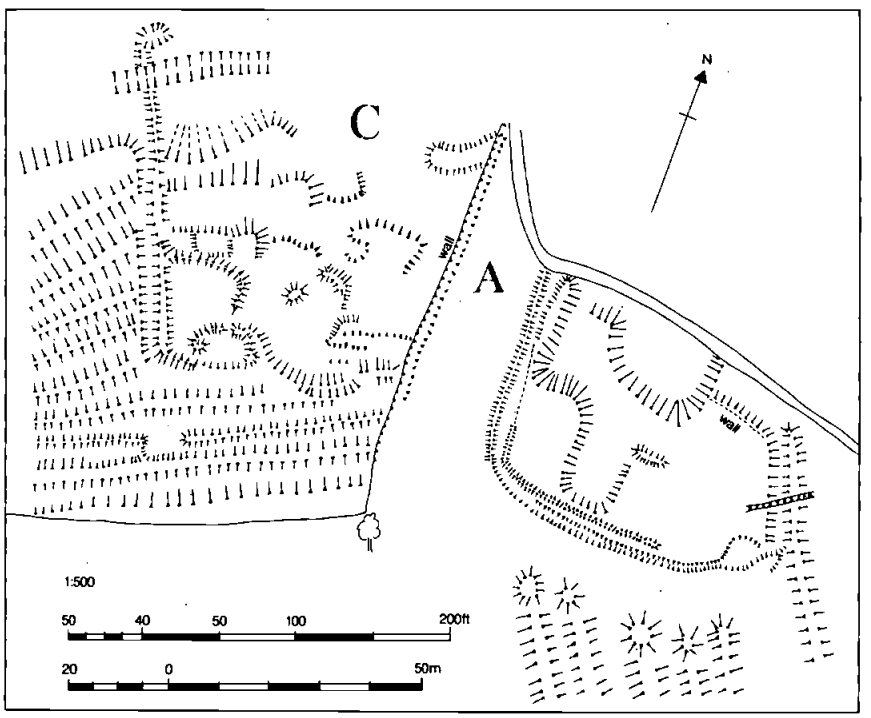

Fig 2

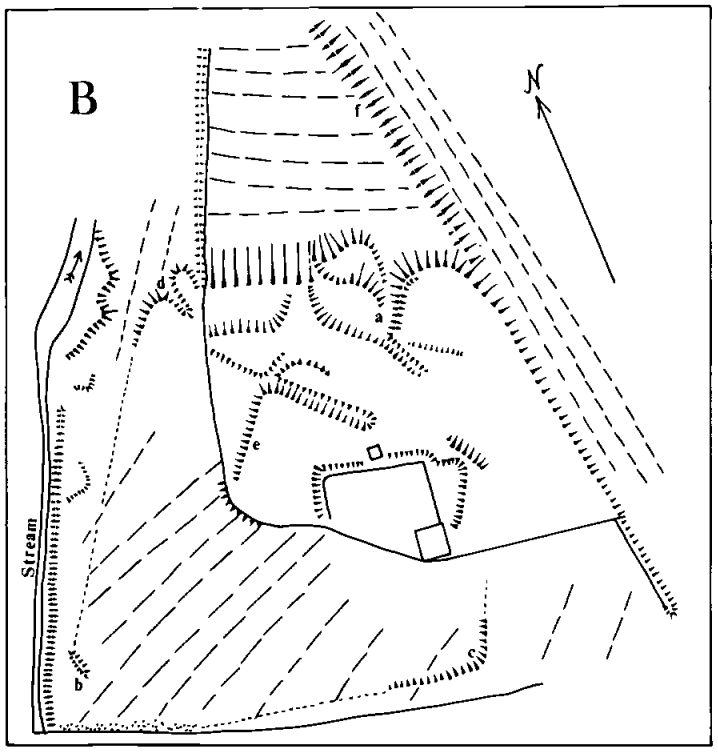

Fig 3

to the east of (f), which now runs from north to south.

Later developments involved the blocking of the trackway (d) by a pair of plough ridges running NE - SW and the erection of a stone barn, now demolished, on top of the enclosure (e); this had a hedge round it. The barn with its hedge is shown on the OS six inch map of 1889 and still stood until fairly recently but was not there in 1824. The stream to the west of the site has spoil from cleaning out along its eastern edge.

Site C (SP 9976 8957: Fig 2) is different from A and B in that it quite clearly cuts through ridge and furrow in a way which shows that this was not in use or was now put out of use. It consists of a trapezoidal enclosure with a small stone building against its southern side. To the north of this there are other enclosures and platforms; many of the enclosures had had stone walls around them.

GENERAL OBSERVATIONS

The undated square enclosure at B pre-dates the ridge and furrow and is of great interest. The other features are equally undated. Site A might be linked with a contraction in the ridge and furrow in the area in which it is set, but was in use when the ridge and furrow was still being ploughed. Site B seems to have gone with the definite contraction of the area being ploughed, as was Site C. Sites A and B had gone by the mid 18th century; no part of Site C appears on any map. A common feature seems to be an association with the contraction of the area under the plough; if so, then these sites are relatively late in date and belong to a period when ridge and furrow was being turned over to grass. This in turn might suggest that they were related to the management of sheep, which is supported to some extent by the name of the field which contains Site C on the Enclosure Map of 1824, The Ewe Ground. There is a comparable earthwork, a simple building within an earthwork enclosure, at Kelmarsh, which has been interpreted as a sheepfold (R.C.H.M. 1981, 112).

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A.E. BROWN and A.G. JOHNSTON

LITTLE NEWTON
A CENTRAL NORTHAMPTONSHIRE DESERTED VILLAGE

The isolated position of the church of St Faith at Newton, 250m to the east of the village, seems at first sight to represent a classic case of settlement shift. The church of St Faith is in fact the church of the now vanished village of Little Newton. The existing village of Newton, known at least since the early 18th century as Newton Willows, is the village formerly known as Great Newton. The church of St Leonard belonging to this village no longer survives, having finally disappeared in the 16th century.

Little previous research has been carried out on the decline and desertion of Little Newton other than the outline of known facts given in the reconnaissance of deserted villages in Northamptonshire by Allison, Beresford and Hurst (1966) and the bringing together of the salient points of the manorial history by Bridges (1791). An interpretation of the evidence of recent fieldwork and documentary research has however allowed some ideas to be formulated not only on the decline and desertion of Little Newton but also on its origin and early development and that of its partner Great Newton, which is integral to any study of the former.

In 1994, a watching brief of topsoil stripping in the field adjacent to the church of St Faith (now Newton Field Centre) failed to discover any evidence of the DMV of Little Newton but fieldwalking of the ploughed land to the south of the church located settlement evidence dating from the 11th-14th centuries on an ironstone knoll 140m to the SW of the church (Fig 1). Pottery from the site consisted of Stamford Ware, shelly medieval wares and green glazed Stanion/Lyveden wares, together with a spread of iron slag. Extensive quarrying for ironstone earlier this century appears to have destroyed part of the site. A further area, 200m to the north of the church, was also fieldwalked to determine if medieval settlement extended in this direction. No evidence of this was found but early/middle Saxon pottery and iron slag was found over an area of 2ha, with a small Romano-British

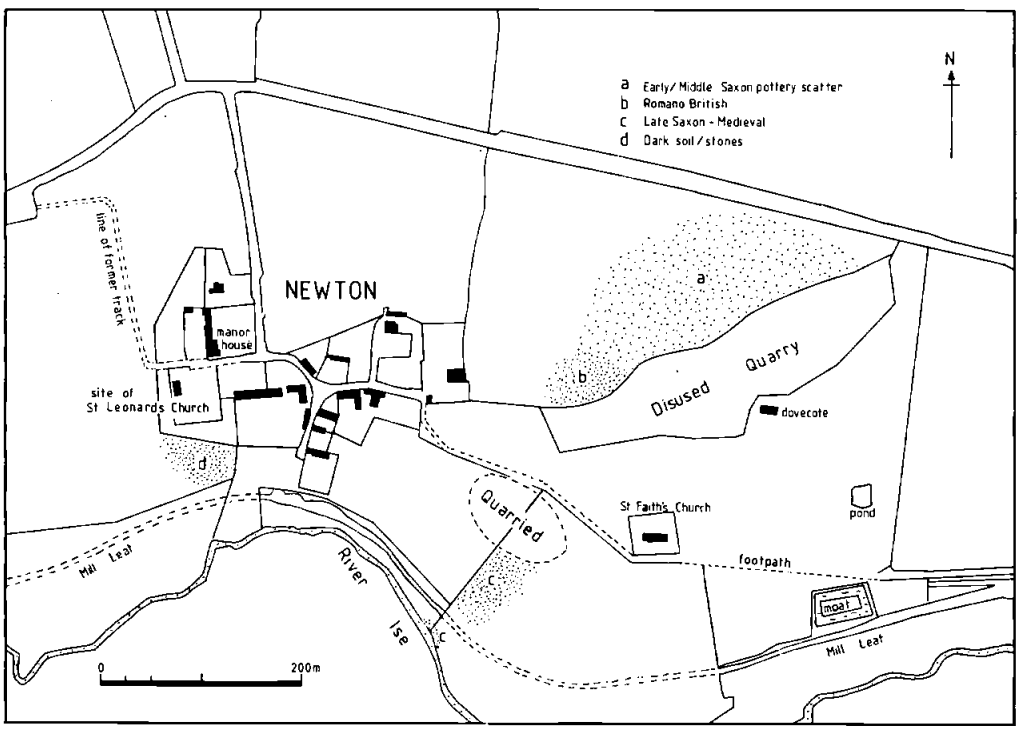

Fig 1. Newton 1994: The Fieldwalking evidence

site overlapping the western edge of the area. These scatters of pottery correspond with Romano-British and Saxon features seen by the writer in the adjacent quarry face in 1973.

In the 1920s, the field immediately to the north of the church was quarried for ironstone practically up to the churchyard wall, effectively destroying any settlement evidence. Only the area to the NE, now under permanent pasture, remains relatively undisturbed but even here the site of Tresham's house and gardens have been partly quarried away leaving the dovecote on an island of unquarried ground. The remainder of the manor earthworks were levelled in 1971 and subsequently ploughed. Some degraded earthworks, possibly representing garden terracing, still survive and this could well be the most likely site for the DMV of Little Newton (RCHME 1979, 113). To the south of Tresham's gardens a low moated feature that is fed from the overflow of a nearby pond, seems more likely to be a garden feature than a moated manor site. Intervening between this feature and the church, a sub-rectangular banked enclosure, which has produced medieval pottery, is a more likely candidate for part of a manorial complex.

THE MANORIAL DESCENT

In 1086 Newton comprised of three equal holdings of 3 virgates 1⅓ bovates. Though not exactly rare in the Northamptonshire Domesday, the recording of bovates is nonetheless, infrequent and these are recorded in only 11 Northamptonshire entries. Such precise division of holdings is however uncommon and may reflect an earlier shared inheritance. The bovate is traditionally regarded as one eighth of a carucate (Thorn & Thorn, 1979) and this is seen to be so in the carucated counties (Wheatley 1954, 176). Nevertheless, at Newton the bovate can be seen to represent one sixteenth of a hide. In the Northamptonshire Survey *c.*1124 (VCH, 1902, 357-92) the hidage for Newton is given as 2½ hides, which plainly shows that there are 4 bovates to the great virgate, giving a total of 10 virgates for Newton, or 2½ hides. Prior to the conquest these three holdings were in the hands of Thorgar, Azor and Bondi. Bondi also held the adjoining manor of Oakley. After the conquest both of Bondi's manors were held by Lanzelin from the Countess Judith. The Countess also held the manor of Thorgar, who remained the under tenant after the conquest. The third manor, previously held by Azor, now being held by Gunfrid de Cioches. In the Northamptonshire Survey, Newton and Oakley are included together in the 2½ hides of the fee of King David and 1½ h and 1 great virgate of William de Houton, also of the fee of King David. This latter manor clearly represents Lancelin's Domesday holding at Oakley. No mention is made of the Chokes fee in 1124, this appears to be included with the fee of King David.

An interpretation of Bridges' (1791) work on Newton can help us here to disentangle the descent of the three Domesday manors and assign them to their relative vills (if we disregard the entry for Woodnewton which Bridges erroneously includes with Newton). In 1315 the Nomina Villarum (Feudal Aids 1906) lists together, without any distinction, Henry de Tichmersh and Alice de Kirkeby as lords of Little Oakley and Great Newton failing to clarify which lord relates to which vill. Likewise, Theobald de Gray, Henry de Tichmerch and Margeria de Leon are named as lords of Great Oakley and Little Newton, again failing to note to which lord these vills belonged. A manorial descent of Oakley (Pipewell Cartulary, BL , Cott Otho Bxiv, fol 165) is of assistance here enabling us to disentangle this

Table 1. Landholdings in Newton and Oakley

	1066	1086 Tenant in chief	Under tenant	1124
NEWTON	Bondi	Judith 3v 1⅓b	Lancelin	
	Thorgar	Judith 3v 1⅓b	Thorgar (freely)	2½ hides fee of King David
	Azor	Gunfrid 3v 1⅓b	Gunfrid	
OAKLEY	Bondi	Judith 1½h ½v	Lancelin	1½h 1v fee of King David

confusion and conclude that Henry de Tichmerch was lord of the Huntingdon Fee lands in Great and Little Newton, the former lands of Countess Judith. At this same time Theobald can be seen to be the holder of the former Chokes Fee in Little Newton. Sometime around the middle of the 14th century the Huntingdon Fee manors came to Thomas Colpeper and in 1378 a key factor in the descent of the Newton manors took place, when all three Domesday manors passed into the hands of John and Margeret Mulso. From this family, in the early years of the 16th century, both Newtons passed by marriage into the possession of the Treshams. From the Treshams, the manors were purchased by Sir John Langham around 1660 and finally obtained in 1715 by the Duke of Montagu, being still held by his descendant, the present Duke of Buccleuch. The distinction Great and Little Newton can first be found in a document of 1229 where Henry III grants to Walter de Bresbock a wood of 3 acres 'next to Little Newton'. This does not however preclude the fact that it may have existed much earlier and have been silently included with the entry for Newton in Domesday. The notion that the prefixes Great and Little came about by the splitting of a single settlement may be mistaken. It is far more likely to be the result of the fission of an estate and therefore, in the case of Newton, of Saxon origin rather than a medieval event (Dodgshon 1980, 139). How and why this distinction came about is puzzling, it may seem logical that the prefix Great would be applied to the vill with the two manors but this, as we have seen, is not the case. Possibly this distinction may have originally been applied to the two Domesday manors held by the Countess Judith, one of which supported 4 villeins and 4 cottagers while the second manor, supported 8 villeins and 4 cottagers. This of course takes no account of the remaining manor, that of the Chokes fee. What does seem certain is that at least two of the Domesday manors are represented by late Saxon pottery discovered during excavations on the site of the church in Great Newton (Hall 1972, 44), and the above mentioned pottery scatter recently found to the SW of Little Newton Church. To recap, Newton began as three manors, probably consisting of two and possibly even three separate settlement focuses. Prior to the beginning of the 13th century the two Huntingdon fee manors had become Great and Little Newton, the latter, sometime before the early 14th century, can also be seen to encompass the manor of the Chokes fee.

EARLIER SETTLEMENT

Fieldwalking has shown that early-middle Saxon settlement in this part of the Ise Valley, and over the ridge into the Harpers Brook Valley, is of a similar dispersed nature to that seen in the Roman period (Bellamy 1994, 34-5), though this remains the only similarity. Whereas the Romano-British sites are located mostly on the higher, boulder clay ground, early-middle Saxon settlement is confined, almost without exception, to the limestone soils of the lower slopes. Few of the pottery scatters associated with the dispersed Saxon sites exceed .25ha in area and most are of a size to suggest that they represent perhaps a single dwelling. A common factor of these sites, regardless of size, is the presence of iron slag, and while it is plain that iron smelting was taking place, whether this played an ancillary role to agriculture is uncertain. Two of the larger of these sites, each covering approximately 2 ha, have been found in Newton parish. (Fig 2). In view of the dispersed nature of settlement in this period, it seems then, that the 5th/6th century Saxon cemetery, found in the parish during ironstone quarrying in 1927 (as reported in the Kettering Leader and Guardian of October 12th 1928), probably relates to one or both of these sites and not to the medieval villages of Newton. But considering the early date of the cemetery and the difficulties in dating early/middle Saxon pottery it is also possible that the cemetery pre-dates even these two sites.

DESERTION

The desertion of Little Newton accords well with the period 1450-1700, the classic period of desertions in Northamptonshire when possibly as many as 60% of all desertions took place (Allison, Beresford and Hurst 1966, 15). Its desertion was not a unique event in this part of the Ise Valley, the desertion of Barford, Glendon and Boughton, all within 4km of Little Newton also occurred in this same period and in common with these, Little Newton was already plainly in decline well before 1450. In 1086 all three manors are included under the single heading of Newton with a total recorded population of 28. From the later manorial records we have seen that Little Newton consisted of two manors, one being the Chokes fee manor with a Domesday population of eight and the other being one of the Huntington fee

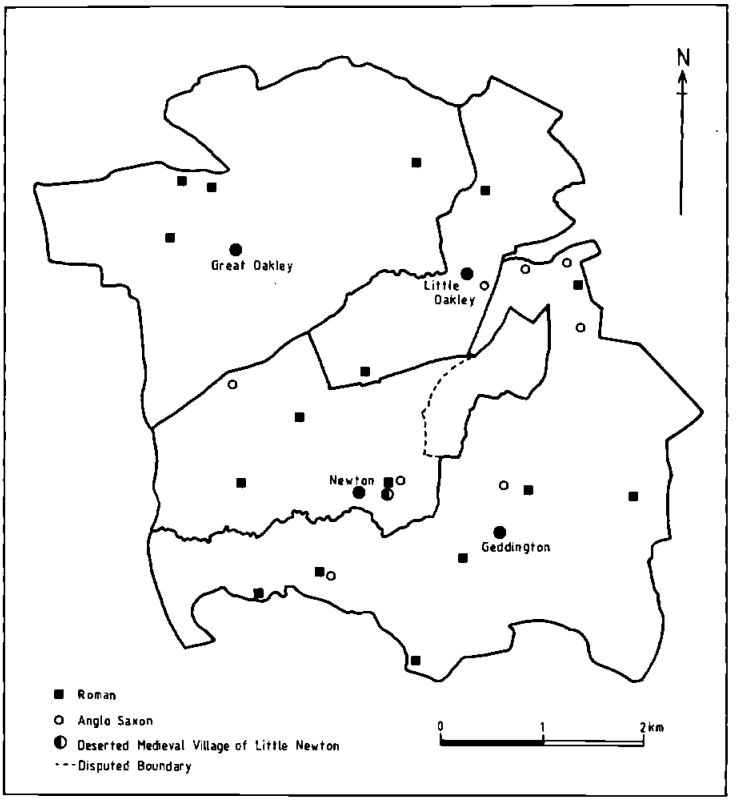

Fig 2. Roman and Anglo-Saxon sites in and around Newton

manors, this was probably the smaller one though it is at present uncertain so the recorded population at the time was eight or twelve, giving a total population for the two Little Newton manors of either 16 or 20. Compared with the surrounding vills and the to be deserted vills of Barford, Boughton and Glendon, this was not unduly small in 1086. The Lay Subsidy of 1334 jointly assesses Great and Little Newton at 39 shillings, the average Northants vill paying 93 shillings. Plainly both Newtons were of reduced stature at this time, their combined assessment, which was 41% of the county average, being only marginally greater than the 36s and 5d paid by the average to be deserted vill. Perhaps not surprisingly the 1377 Poll Tax only serves to confirm the smallness of both Newtons. At this time Little Newton could only muster 18 taxpayers, a mere 12% of the 140 persons of the average Northamptonshire

Table 2. Population change in Northamptonshire

	1086	1377
Great Oakley	21	64
Geddinton	18	153
Corby	13	144
Rushton	21	161
Brigstock	26	251
Stanion	6	97
Newton	28	(Great) 52 (Little) 18
Boughton	11	12
Barford	9	
Glendon	9+	Glendon with Barford 52

vill and only 28% of the average to be deserted vill. Although Great Newton was somewhat larger at 52, the margin was not considerably so, this being itself only 37% of the county average and still well below the 64 persons of the average to be deserted vill.

It is evident then, from the 1377 taxation, that the populations of both Little and Great Newton were considerably reduced when compared with that of other nearby vills with the exception of the to be deserted vills of Barford, Boughton and Glendon (Table 2). Nevertheless, Newton was not alone in suffering from a reduced population at this time. In the adjacent vill of Geddington in 1374, holdings 'lay waste and unoccupied through lack of tenants', ten cottages were 'of no yearly value because they are entirely waste' (Cal Inq Vol IV, 346). Little improvement was seen by 1381-5 when rents in Geddington and its members Barford and Glendon were still reduced through lack of tenants (Cal Inq 1381-5, 120). Though there may have been some intervening improvement, things were little better in 1454 when the king's manor at Geddington still 'lay waste'.....'the tenants, impoverished by frequent returns of the plague and the heaviness of their rents, having quit the place' (Bridges 1791, 309). Nor was this confined to Geddington, similar accounts of hardship and depopulation survive for Brigstock in 1440 (Hall 1995, 215). How widespread this impoverishment was is uncertain but it is difficult to imagine how Newton, a mere 0.8 km from Geddington, could have escaped unscathed. A rental of the Huntington fee manors in Great and Little Newton, undated but probably mid 14th century (NRO Montagu,Box 1350,10.30), lists seven tenants on the holdings in Little Newton and nine in Great Newton, four of these in Great Newton being absentees possibly taking up vacant tenancies. By 1395, the number of free tenants in Great and Little Newton had fallen to 12, three of these held tenancies in both vills and others were also tenants at will on the demesne lands of Great Newton, the accumulation of holdings was clearly taking place but whether this was a direct result of a shortage of tenants is unclear. No mention is made at this time to the Little Newton demesne, this presumably still being in the lord's hands. Nor is any mention made of the other manor of Little Newton, all three manors at this time being held by John Mulso who may have been undertaking some seignorial reorganisation of his lands at Newton. It is possible that the decline of Little Newton may have set in when both of the Huntington fee manors in Great and Little Newton came into the hands of Henry de Tichmersh sometime shortly before 1315, it is not impossible that Henry, when lord of both manors, may have consolidated his manor at Great Newton and allowed Little Newton to decline. The opportunity for the final depopulation came when all three manors came under a single lord, around 1378. It is difficult to see how, prior to this event, depopulation could have taken place without the agreement of the lords of both manors.

The parish of Newton was enclosed by Thomas Tresham in 1612 and though it was a comparatively early enclosure it was certainly too late to have contributed to the desertion of Little Newton. The strength of Tresham's views on enclosure were amply displayed in 1607 when he set about enclosing the Brand Common, which he claimed to be in Newton parish, a claim strongly disputed by the neighbouring parish of Geddington. Tresham's illegal enclosure of the Brand caused riots which resulted in between 20 and 30 deaths (Bellamy 1986, 41-3). A map of 1717 (NRO map1374) shows the closes in Newton resulting from the enclosure of 1612 and clearly shows the manor house and formal gardens of the Treshams. Evidence of small scale emparkment is suggested by a close called The Park intervening between Newton village and the church. The gardens of the house and the Hall Close appears on the map to be laid out partly over Lower Westleys Close, therefore post dating enclosure. The present road between Geddington and Newton is plainly also post enclosure, being diverted across Lower Westleys Close and Coney Geer Close, leaving a corner of Coney Geer detached (Fig 3). The intention of this diversion appears to have been to prevent traffic from passing in front of the house and gardens. The original route of the road, now represented by a footpath, passed 100m to the south of the house and close by the church of St Faith. A second map of Newton, also dated 1717 (NRO map 1377) but probably slightly later, shows, for some reason, no evidence of the formal gardens and grounds to the house in Hall Close.

THE CHURCHES

The church of St Faith, as we have seen above, is the church of the now vanished village of Little Newton. The present village of Newton, is in fact the village

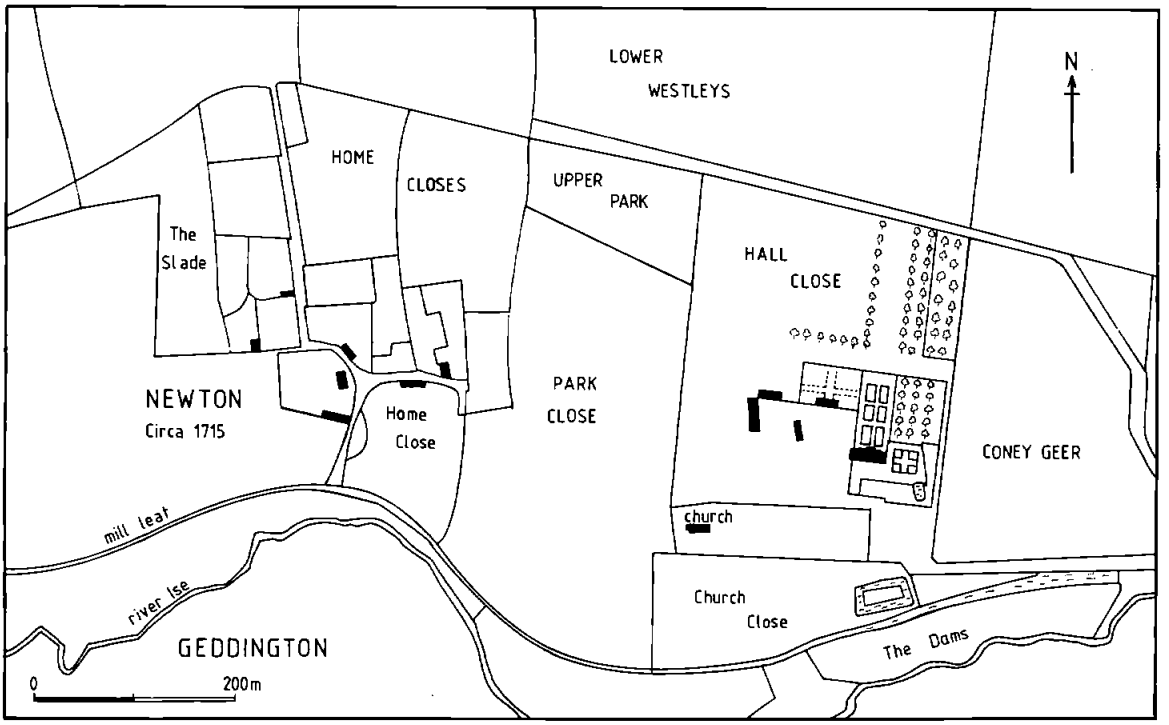

Fig 3. Great Newton and Tresham's manor, later 'enlarged and beautified' by Sir James Langham. From a map of 1717

of Great Newton which now has no church. Both St Faiths, and the remains of St Leonards, discovered around 1971, have been partially excavated, but dating evidence for their construction was inconclusive. In 1969, ten years after it became redundant, around 40% of the nave of St Faiths was excavated (Hall and Hutchings 1969). The earliest evidence from this excavation suggests that it was in use at least by 1300-1350, while excavations on the site of St Leonards revealed the S wall and SW corner dating to the 12th century, with underlying late Saxon pits and occupation evidence (Hall 1972, 44). No evidence of earlier churches on the sites was found. The early 14th century date for St Faith's, suggested by the excavations, may point to this being a chapel to the Chokes manor built after Henry de Tichmersh consolidated the Huntingdon Fee manors sometime shortly before 1315. Perhaps we can infer from the comparative lateness of this Church that it was constructed away from the fully occupied core of Little Newton, taking up a site on the margins of the settlement. This may account for the lack of settlement evidence on the south side of the church. This does not rule out the possibility that an earlier church existed at Newton in a different position.

The Medieval chapels of Great and Little Newton and the chapel of the adjacent manor of Great Oakley were within the parish of Geddington and all of these, along with the church of the adjoining *vill* of Barford, were appropriated to the nearby Abbey of Pipewell in 1356. Both chapels of Newton had burial rights independent of the mother church at Geddington at least by the mid 14th century (Thompson 1911, 87-8) and also it seems, baptismal rights. St Michael's at Great Oakley however, was merely a field chapel without graveyard or font, making use of St Faiths for baptisms and burials. In 1405, the inhabitants of Great Oakley petitioned the Pope for the provision of a cemetery and a font and also a priest 'to celebrate masses and other divine offices' (Cal Pap Reg 1904, 108). At an inquiry into the state of the chapels of Great and Little Newton in 1450, it was found that there were only four parishioners at Little Newton. The Abbot of Pipewell

petitioned that St Faiths and St Leonards should be united and as St Leonards was already in a ruinous state it was abandoned and the villagers were allowed the use of the materials, when and if necessary, for the repair of St Faiths. One can only say that a considerable amount must have still been standing in 1548 (Pat Rolls 1911, 311) when, in what was probably part of the post reformation tidying up, the chapel of St Leonard was granted to John Byll and Frances Samwell 'with walls, stones, lead, glass, iron, timber, tiles and bells'.

GREAT NEWTON

With the construction of only one house this century and one in the latter part of the last century, Newton has remained virtually unchanged since being purchased by the Duke of Montagu in 1715. The population, which averaged around 100 between 1801 and 1951 with a high of 136 in 1921 and a low of 68 in 1891 now stands at only 39. The 19 houses of 1801 has remained fairly static throughout this time, only falling to 17 in recent years. The population numbers have possibly remained little changed since the 20 families of 1721 (Bridges 1791, 322). It is perhaps not surprising that the form and extent of the village, as seen on a map of 1717, also remains unaltered, due in no small part to its nature throughout this time as a closed, estate village. The early nucleus of the village is difficult to discern from its present form, but evidence suggests that this was on a limestone knoll on the western edge of the village. Here we can find the 'manor house' lying adjacent to the site of the former chapel of St Leonard. Excavations here revealed evidence of underlying late Saxon occupation (see Churches above). Fieldwalking has provided no evidence of settlement extending to the west of the village, in fact earlier settlement in this direction is unlikely as the village is delimited in this direction by a small valley referred to on the map of 1715 as the Slade. Earlier settlement then, was in an easterly direction towards Little Newton, but whether this went beyond the limits of the present village is uncertain as quarrying has destroyed any possible evidence. As a result of this it is impossible now to say if its present size is due to medieval shrinkage or lack of growth.

The original east-west route through the village appears to have followed the present footpath from Geddington, passing to the south of the church of St Faith and entering Newton by its eastern access. This then passed through the village, leaving between the manor house and the church of St Leonard, turning sharply northwards up the Slade valley and then westwards towards Rushton. This road is shown as a trackway on the 1887 OS map and is plainly visible in the ploughsoil. From the western side, the road entered the village via a funnel shaped close, clearly shown on the map of 1717 and also visible on aerial photographs (R.A.F. photograph F2182/RAF/865, 286) . This close may represent an earlier lateral green. The importance of Newton as a settlement lies in its virtual lack of any development for almost 300 years to confuse its earlier plan. Its uncluttered form can best be described as a 'basic cluster', a form suggested by Roberts (1987), to represent 'antecedents of the true villages of the middle ages'. The unchanged nature of Newton offers opportunities, rare elsewhere, for the study of medieval village development.

SOME IDEAS ON ORIGINS

As Newton and the adjoining townships possess no Anglo Saxon charters it is impossible for the most part to say what changes, if any, the boundaries have undergone in the past. Nevertheless, it is possible with the help of maps and documents to gain a certain degree of insight into the relationship of Newton's boundary with that of its neighbours. As a parish boundary this is relatively recent, probably dating to the 15th century (see Churches above), but this almost certainly coincides with the earlier township boundary. A rental of 1395 listing virgates and acreages in both Magna and Parva Newton seems to confirm that there were two separate townships at that time, if this was the case it may be safe to assume that the late medieval boundary would have been formed by merely combining the two. The boundary to the south is a simple, natural boundary, being separated from Geddington by the River Ise, and as such tells us little. To the west, along with Geddington, Newton is limited by the road from Kettering to Uppingham, the present A6003. This is clearly an early road and is used frequently along its length as a parish boundary. To the north the boundary is shared with Great Oakley and follows a small tributary stream of the Harpers Brook towards Little Oakley, turning abruptly south then east and following the furlong boundaries as far

as Geddington parish to a point where the boundaries of Newton, Little Oakley and Geddington meet. A map of 1604 (in Boughton House) shows this point to be marked with a meare stone, this is probably on the site of an earlier boundary point called the Hechene Ash. The boundary between Newton and Geddington was plainly in place by the late 13th century when the perambulation of the Forest of Rockingham followed 'the hedge between the fields of Newton and Geddington'(NRO, the Warkton Book, M204). On the higher ground, between the valley of the Ise and the Harpers Brook, an area of uncultivated land, called Newton Waste and the Brand Common, still remained at the beginning of the 17th century. The boundary here was in dispute at this time, both parishes claiming the Brand as their own, but uncertainty of boundary is not unusual where woodland or waste lay at the limits of the parish. This section of the boundary also bordered on an area on the edge of Geddington Wood known in the 13th century as the Westleigh. Its name suggests that it was indeed in Geddington, yet after the boundary dispute and the proposal to have the 'bounds of the parishes of Newton and Geddington fixt' (NRO, Montagu 10.13); in 1610 (NRO Montagu B, 10.13), it became part of Newton.

The lack of evidence to support an early link between Geddington and Newton contrasts with the amount of evidence supporting pre-conquest links between Oakley and Newton. As we have seen above, tenurial links between these townships already existed in 1066, other evidence suggests that this may have gone much deeper. Taking firstly the evidence of fieldwork, it can be seen on 18th century estate maps that the boundary between Oakley and Newton is of an angular type, making many sharp turns to accommodate furlong boundary headlands on either side of the boundary and following few natural features. To support this, the furlong name Crawthorne on the Little Oakley side of the boundary also occurs as the Crawthorn Closes on the Newton side of the boundary. There is also an apparent alignment of furlong boundaries in Oakley with the hedgerows of closes on the Newton side, as if these were laid out along corresponding furlong boundaries. This boundary then, should be considered of late formation, being set out between the furlongs of what was almost certainly once a single land unit.

Added to the tenurial links and the lack of a clear frontier of interest between Newton and Oakley, further evidence exists for the disintegration of an earlier Oakley far larger than that of 1086 which may have implications not only for Newton but for a far wider area. The cartulary of the Abbey of Ramsey (Dunn Macray 1886, 111) records, in 922 AD, a gift of land at Oakley made by Godric to his younger son Aednotho, the abbot of Ramsey. This should not be confused with the grant supposedly made to the Abbey of Ramsey at Oakley in Bedfordshire, the Abbey asserted that they in fact recieved Oakley from Eadnoth. (VCH, Bedfordshire, Vol III ,150.) The VCH also states that there is no direct evidence of connection between the grant and Oakley in Bedfordshire. This was probably the same land at Oakley given to the Abbey in 1050-60 by Aednotho's grandson. A further bequest of land from Oakley, sometime during the 10th century, was made to the Abbey of Ramsey by Athelwine, Earl of Anglia and co-founder of the abbey, this was almost certainly part of Athelwine's foundation grant to the abbey. The massive accumulation of lands by abbeys in the 10th century eventually incurred the anger of the relatives of abbey patrons, who did not look kindly upon their birthright being put to monastic use (Raftis 1957, 13). In what was probably an attempt to regain the land at Oakley, Leofwine, the son of Athelwine, laid claim in *c.*978, to 8 hides of land at Oakley and 10 hides at Weekley, a manor 3km to the SW, which he said were his (Dunn Macray 1886, 76-8). Set against the 1½ h and ½v of 1086 and the 3v of Little Oakley in 1124, the 8 hides at Oakley can only be accounted for by the inclusion of the lands of other vills with that of Oakley. The pre-conquest links with Newton reinforces the likelihood that it was also part of this estate. This need not imply that Oakley was the centre of a multiple estate, it may merely have been itself a component part of an estate. It is possible however, that both Oakley and Weekley could conceivably have once been part of an even larger estate, as the pre-conquest holder of Weekley was Earl Aelgar, also a descendant of Athelwine.

Between the late 9th and mid 11th centuries, the great royal estates administered from the royal tuns were in the process of fragmentation into smaller tenurally independent units and even single manors by the granting away of lands to *thegns* and ecclesiastic or monastic houses. This process can clearly be seen taking place nearby in the 10th and 11th centuries with a grant of 7 hides at Warkton made by King Eadred to Wulfric in 946, 10 hides at

Kettering from King Edwy to Aelfsige in 956 and lands at both Deene and Sudborough granted to the Abbey of Westminster in 1065 (Hart 1975, 56-7, 65. Sawyer 1979, 41). The complex links, both pre and post conquest, tenurial and ecclesiastic, uniting Newton, Oakley, Weekley, Warkton and Boughton with Brigstock and its Domesday members of Geddington, Stanion and Islip, suggest these may have been once part of an extensive Middle Saxon estate centred on the royal tun of Brigstock (Fig 4) (for earlier work on the Brigstock estate see Foard 1985, 187-93). It is now generally accepted that the process of estate fragmentation was closely linked with the break up of the Saxon minster *parochiae* which were often centred upon the royal tuns. Just as the royal estates were reduced to smaller tenurally independent units, so the old minster *parochiae* also became fragmented into smaller parishes with bounds often coterminous with those of the new estates (Croom, 1988; Foard, 1985). Recent work on the identification of minsters (Franklin 1985) suggests, though perhaps rather tentatively, that Brigstock church with its extended parish and dependent chapels may have formerly held minster status. It is not then inconceivable, that its member, Geddington, with its parish encompassing the Newtons and Oakley, was not also once part of the *parochiae* of Brigstock. The late Saxon date of Geddington church *c.*850-950 (Taylor & Taylor 1965) is not dissimilar to that of Brigstock church, suggesting perhaps that Geddington may have been a chapel or satellite church of Brigstock put to use as a parish church for the putative Oakley estate.

PLACE NAMES

The place name Newton tells us nothing of the date of its origin, and although the secondary nature of the name has obvious chronological implications, where this fits into the settlement sequence is unclear. Are we to believe that due to Newton's ecclesiastic relationship with Geddington that it is secondary or a daughter settlement of this *vill* (RCHME 1979 p xlviii), or do the pre-conquest links with Oakley make this a sounder choice? Disregarding both these possibilities, the assumption that Newton is secondary to any existing settlement may well be misplaced. The name Newton may be secondary or 'new' only in the sense that the settlement has moved

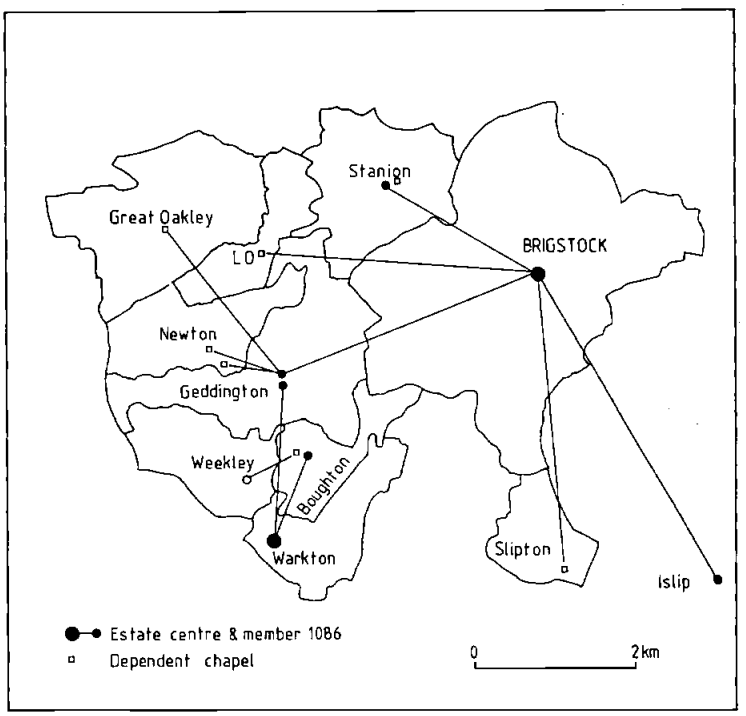

Fig 4. Domesday estates and members with ecclesiastical dependencies from later sources

from a previous site that in some way proved unsuitable. Given the dispersed nature of early/middle Saxon settlement in this area it is not impossible that the name predates the medieval villages of Newton and was originally applied to the early/middle Saxon site to the north of St Faith's church. Alternatively and more likely, is it not possible that the place-name 'Newton' dates from the break up of Oakley and refers to the creation of a 'new township' carved out of Oakley, probably sometime in the 11th century.

In her study of the Birmingham region, Gelling (1978, 118), contrasts the *leah* names, 'settlements in a woodland environment', with the *tun* names, which can be shown to be related to settlements in open countryside. But little research of this kind has been carried out in Northamptonshire and we are strongly advised against making comparisons of place name usage between different regions. Nevertheless, the abundance of Iron Age and Roman sites along the slopes of the Ise Valley, together with the numerous early/middle Saxon sites and pagan burials does suggest continuous settlement of the valley and therefore the strong likelihood of open countryside. It is not unlikely then, that the rash of adjoining tun names along the south and west facing slopes of the valley, Rushton, Newton, Geddington, Boughton, Warkton and Barton, signifies some similarity of place name usage to that of the Birmingham region. There is little agreement here however, with the suggestion, again from outside the region, that place names with the element 'new' are mainly found on the poorer soils (Gelling 1979, 121. Watts 1979, 127) and by this token denote later settlements. Both Newtons, in keeping with most of the settlements along the Ise Valley, were on south facing, well drained limestone and ironstone soils and there is certainly no evidence from choice of site that they belonged to a later stage of colonization or expansion. In fact, the 5th/6th century cemetery discovered at Newton in 1927 indicates a particularly early settlement of the area is more likely.

The place name Oakley sits well with the accepted ideas on the origin of *leah* names. Field name evidence and 18th century maps (Hall 1984, 49; NRO maps 1386 & 1374) show that woodland covered the south facing slopes of the Harpers Brook Valley above Great and Little Oakley in the medieval period with much still remaining on the higher slopes as late as the 17th century. The Rockingham Forest perambulation of 1299 (Bellamy 1982, 305) shows that both Great and Little Oakley were just within the confines of the forest at this time but Newton was outside the bounds, the Harpers Brook forming the forest boundary at this point. The perambulation specifically excluded the wood of Henry de Tichmersh from the bounds of the forest. From the evidence of the Rockingham Forest perambulations, Domesday Book, field names and existing woodland, it can be shown that the watershed between the Ise and Harpers Brook valley roughly coincides with the limit of the core of late Saxon woodland (Bellamy 1994, 31-3). We should then, perhaps look upon the 'tun' names along the Ise Valley as 'leading edge' settlements fronting open countryside, with scattered woodland to the south and west, and heavier woodland behind, to the north and east.

CONCLUSIONS

Early settlement of this part of the Ise Valley does not appear to be in doubt. Fieldwalking and quarrying have produced evidence of burials and occupation from at least the 5th/6th centuries AD and Roman settlement of an even more widespread nature. The Ramsey Cartulary suggests the existence of a considerable Anglo Saxon estate in the process of disintegration at Oakley in the 10th century, this estate, probably belonging formerly to Aethelwine earl of Anglia, almost certainly included Newton and may have been part of a larger multiple estate. Remnants of this link between Oakley and Newton may still have been in place on the eve of the conquest, continuing after the conquest as the lands of the Huntingdon fee. The combining of the three Domesday manors under one lord in the 14th century was undoubtedly instrumental in the desertion of Little Newton, and though all of the classic causes for desertion were active there, i.e. manorial garden construction, emparking and early enclosure, these appear to have been of a secondary nature, taking place as in many cases, when the village was already well on the way to desertion.

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BURL BELLAMY

EARTHWORKS AT PILTON

These earthworks, in a grass field (known as Hall Close) some 12.34 hectares in area, were surveyed in 1994 and 1995 by students of the Department of Adult Education of the University of Leicester. The remains fall into three parts (Fig 1):

1. At (a) on both sides of a track running north eastwards from the Lilford road to the church, is a series of well preserved rectangular earthwork closes containing, in some cases, the sites of buildings. Air photographs taken in 1990 (N.M.R. NHC 13145 ii, 27-30, 1.8.90) show that many of the banks indicate the former presence of stone walls. The track meets another which runs NW-SE.

2. At (b), is the line of a stream, which runs in a SE direction to a set of three fishponds, which have a bypass channel on their southern side. The fishponds cut through earlier ridge and furrow. To the west of the fishponds, on both sides of the stream, are small, squarish earthwork enclosures, some of which also contained buildings.

3. To the north of the fishponds and to the east of the church and manor house is well preserved ridge and furrow cut by a scarp at (c); this is in turn cut by a bank and ditch (d) which is itself cut by a rectangular mound (e).

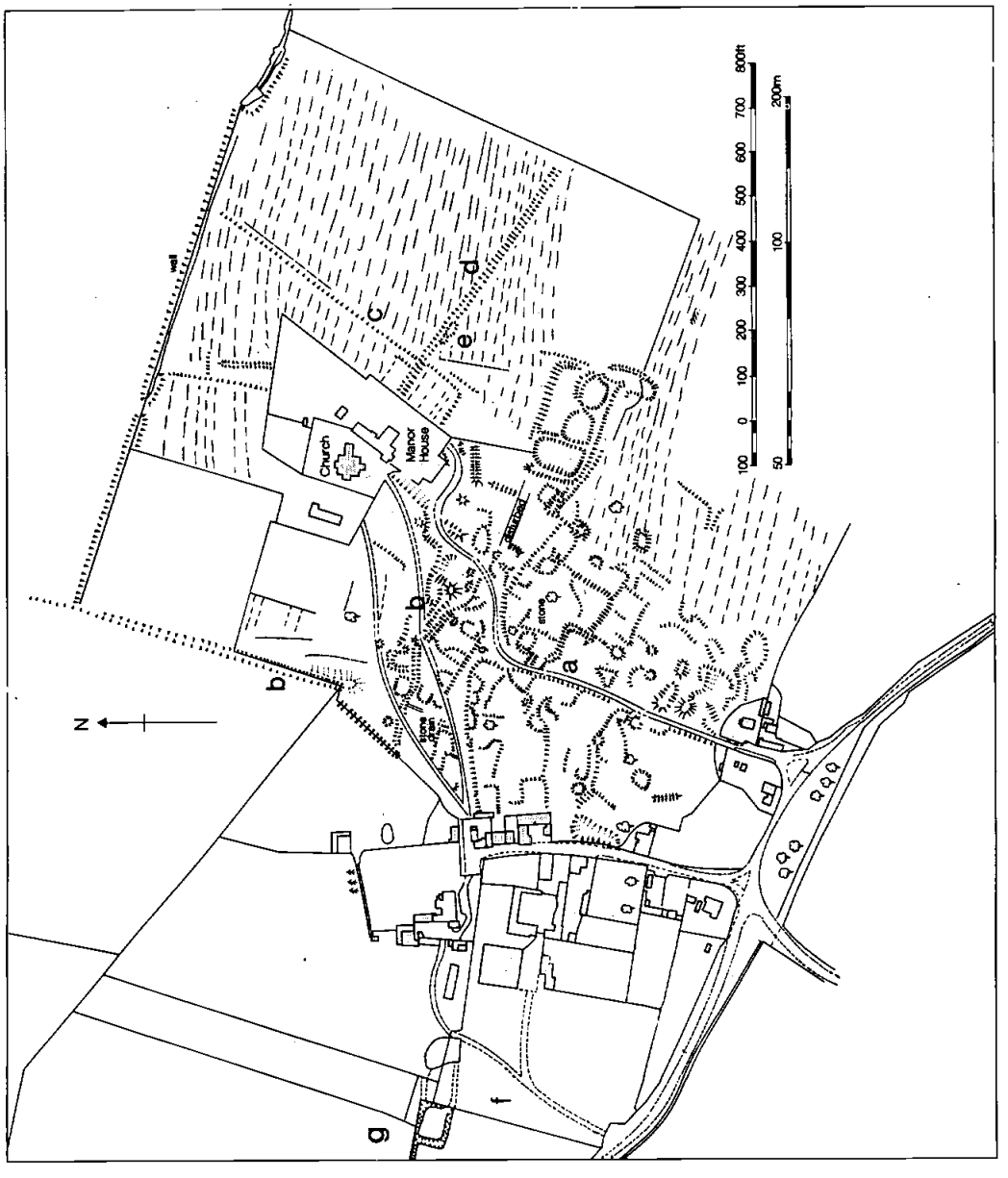

Fig 1. Earthworks at Pilton

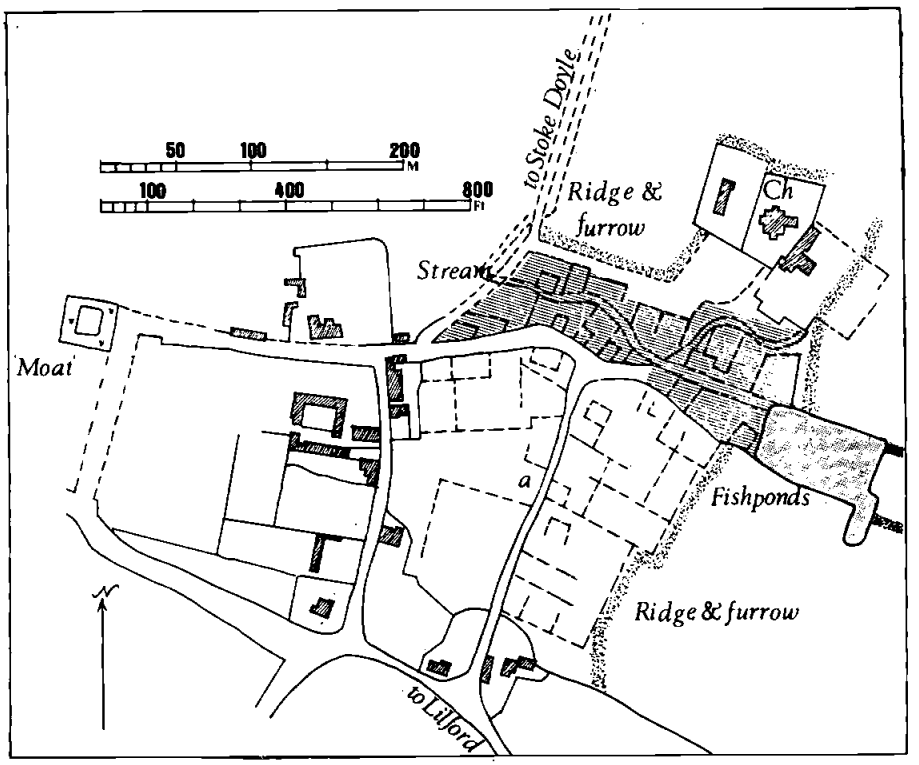

Fig 2. Interpretation of earthworks

INTERPRETATION (Fig 2)

The track (a) is parallel with the present village street. Parallel with this again to the west, and twice the distance away from it as track (a) was a third track (shown as (f) on Fig 1, now angled towards the north-east) shown on an estate map of 1769 (N.R.O. Map 3768). With its rectangular closes and parallel streets, Pilton appears to be a planned medieval village.

These three tracks run into an east-west track which ran in the direction of the River Nene. This could in fact have lead to Lilford; there is a gap in the ridge and furrow east of the fishponds which continues the line, and an island in the Nene which could have facilitated a crossing at the point of junction between the two. A track on the Lilford side of the supposed crossing point picks up the line for a short distance.

This east-west track follows the line of the stream (b). This stream fed the fishponds, but the relationship between the ridge and furrow shows that these were a (relatively) late feature which had the effect of blocking the trackway. Traffic over the Nene would now use the present road to Lilford; the bridge is first mentioned in the reign of Edward I (V.C.H. Vol 3. 1970, 129). The small enclosures on either side of the stream could well represent encroachment by houses and small closes going with them, on what was now vacant land.

The church and manor house sit oddly in relation to the rest of the village. Despite of the lack of a clear stratigraphic relationship, the way in which they are closely hemmed in by ridge and furrow suggests that they too are relatively late additions to the village plan. The church contains work of late 12th century date; the first recorded institution was in 1221 (V.C.H. 1970, 131). If this line of argument is accepted, then at least part of the planned village must be 12th century or earlier.

That there were still houses in this field in the 16th century is shown by a deed of 1548-9 which records

one messuage in the Upper Street of Pilton (the present village street) and four in the Lower Street, our track (a) (N.R.O. Powys Lilford Group 5, Pilton, Tresham Estate, X990-5 box). Two of these lay on either side of a close called Chambers, which formed part of a charity set up for the poor of the parish by the will of Thomas Thurlby in 1515, and which was marked, as an empty close, on all 18th and early 19th century maps of Pilton (V.C.H. 1970, 131; N.R.O. Maps 3768 (1769), 3769 (1820), ZA 5856 (1819)) . A document of 1660 gives the area of Hall Close as 13 acres, but by 1769 it had grown to 38 acres, to which by 1819 a further 3 acres had been added (the area between road (a) and the present village). By then it had been planted by ornamental trees. These developments were the work of the Powys family, who bought Pilton from the Treshams in 1714 and the creation of a landscaped view from Lilford Hall, which they also owned, was probably the intention.

The scarp at (c) is undated but the bank and ditch (d) appear as a hedge on the map of 1769, but had gone by 1819. The mound (e) cuts this hedge and must therefore be a late feature.

The 19th century maps mark a moat like feature, (g) on Fig 1, of uncertain age and function to the west of the village, in Moat Orchard according to the Tithe Map of 1838 (N.R.O. T115). This site is now badly overgrown, but consists of a ditch 3m wide, fed by a ditch running in from the north-west. This is all rather small for a genuine medieval moated site, and the site may not be medieval at all, but of more recent origin (Taylor, C.C. 1978, 5-13).

ACKNOWLEDGEMENTS

To Mrs H. Graybard and Mr K. Lee for access to the site; to Mrs G. Johnston and Mrs K. Gowland for help with the surveying. Fig 1 was drawn by Debbie Miles of the School of Archaeological Studies, University of Leicester.

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