

6

Late Bronze Age, Iron Age and Roman settlements and landscapes

by Alison Deegan

Late Bronze Age and Early Iron Age settlement and boundaries

Although numerous, the monuments of the Middle Bronze Age and earlier, discussed in the previous chapters, represent a very small proportion of the cropmarked and soilmark features mapped by the project. The majority of cropmarks and soilmarks, and a handful of surviving earthworks, are probably the remains of settlements dating from the Late Bronze Age to the Roman period. However, as most are undated, this evidence may include a proportion of so far unrecognised earlier or later features.

After the increasingly prolific monument building of the Neolithic and Early to Middle Bronze Age, the Late Bronze Age appears to signal a return to relatively low levels of archaeological visibility, from the air as well as on the ground. Ritual or funereal landscapes, which dominate our knowledge of earlier periods, are known in the Middle and Late Bronze Age only from the chance discovery of a few cremation cemeteries (Chapman 1999, 7). As with the earlier periods, Late Bronze Age and Early Iron Age settlement evidence is sparse, relatively ephemeral and, at favoured sites, often overwhelmed by the more abundant cropmarks of later activity. Nevertheless it is possible that some elements of Late Bronze Age and Early Iron Age landscapes can be found among the wealth apparently later cropmarks recorded in the project.

Open settlement

The project has generated a significant, although undoubtedly very incomplete, record of later prehistoric open settlement in Northamptonshire. This contrasts with the experience of other Midlands NMP projects, which have reported an absence of any air photo evidence of unenclosed round houses (Winton 1998, 53; Deegan 1999, 41). During reconnaissance it can be very difficult to detect ephemeral settlement remains that

are not enclosed or associated with more substantial ditches, and so unenclosed settlement is probably under-represented in the aerial photographic record for the county.

The excavation record for Late Bronze Age and Early Iron Age open settlement in Northamptonshire is slim, but does indicate considerable diversity. The site at Great Oakley consisted of just two huts or shelters of probable Early Iron Age date, which were possibly associated with nearby iron smelting (Jackson 1982). In contrast, Early and Middle Iron Age open settlements at Crick developed into extensive and long-lived sites: Long Dole and Crick Covert were subsequently enclosed, but the settlement at the Lodge remained unenclosed into the Late Iron Age (Chapman 1995). On Rainsborough Hill, Newbottle, sparse remains of an open settlement were found on the site of a later hillfort (Avery *et al* 1967). None of these examples of Early Iron Age open settlement, or others excavated at Weekley Hall Wood and Wilby Way, had been recorded from the air.

Almost all of the round houses identified by the project are represented by circular or sub-circular gullies, and very few post-defined structures have been identified where gullies are not also present. Based on the excavated evidence, Jackson suggested that the gullied form, although possibly influenced by geological conditions, was 'rarely found before the Middle Iron Age' (1979b, 14). If Jackson is correct, then the Early Iron Age house is largely unrepresented in the air photographic record for the county and, while some of the many Middle to Late Iron Age open settlements had earlier origins, it is probably a very incomplete record of Late Bronze Age and Early Iron Age open settlement as a whole.

Late Bronze Age and Early Iron Age hillforts

The earliest defended sites are the small, Late Bronze Age ringwork at Thrapston, which covers less than 1ha, and the large, undated,

contour fort at Borough Hill, Daventry, which encloses some 52ha (Jackson 1996–7, 152; Hull 2001). The small, sub-rectangular, defended enclosure at Thenford may also be early, as may the initial defences at Hunsbury and Rainsborough, Arbury Camp (also known as Arbury Banks) at Chipping Warden, and Arbury Hill, Badby (Jackson 1993–4, 16–20; Kidd 1999, 20). RCHME dismissed the latter as a natural feature, but the archaeological interpretation was recently revived by Kidd (RCHME 1981, 8–9; Kidd 1999, 20). Kidd also suggested that the large, undated curvilinear enclosure on Warden Hill, Chipping Warden, was an Iron Age hillfort (1999, 20). Field-walking in this area has not retrieved any Iron Age material but a substantial Neolithic flint scatter was recovered from a neighbouring field (D Hall pers comm.). It is suggested here that the enclosure was built in the Neolithic, but the trackway or boundary that skirts the inside of the enclosure is probably of later date (*see* Chapter 4, Fig 4.2: 5).

Land boundaries and communications

The earliest known ditched land divisions come from excavations on the floor of the Nene Valley. At Grendon a small arrangement of ditches may have predated a double-ditched ring ditch of probable Bronze Age date, and at Stanwick and Raunds the 2nd-millennium stock-control gullies, ditches and trackways appear to have been planned with reference to the existing Bronze Age monuments (Jackson 1997, 5; Healy *et al* 2007, 191–6). At Wollaston, extensive open-area investigations have unravelled the development of land division defined by pit alignments, and ditches and farmsteads, which were first identified through aerial reconnaissance (Meadows 1995, 44). Here the valley floor appears to have been cleared of woodland during the Bronze Age, then maintained as open grassland, and ultimately divided up into large rectangular blocks of land. The earliest boundaries were demarcated by pit alignments, many of which were subsequently re-defined by ditches. This framework persisted through the Iron Age, when small, enclosed farmsteads were built at the corners of the land parcels; some of these settlements, or their successors, were still occupied in the Roman period.

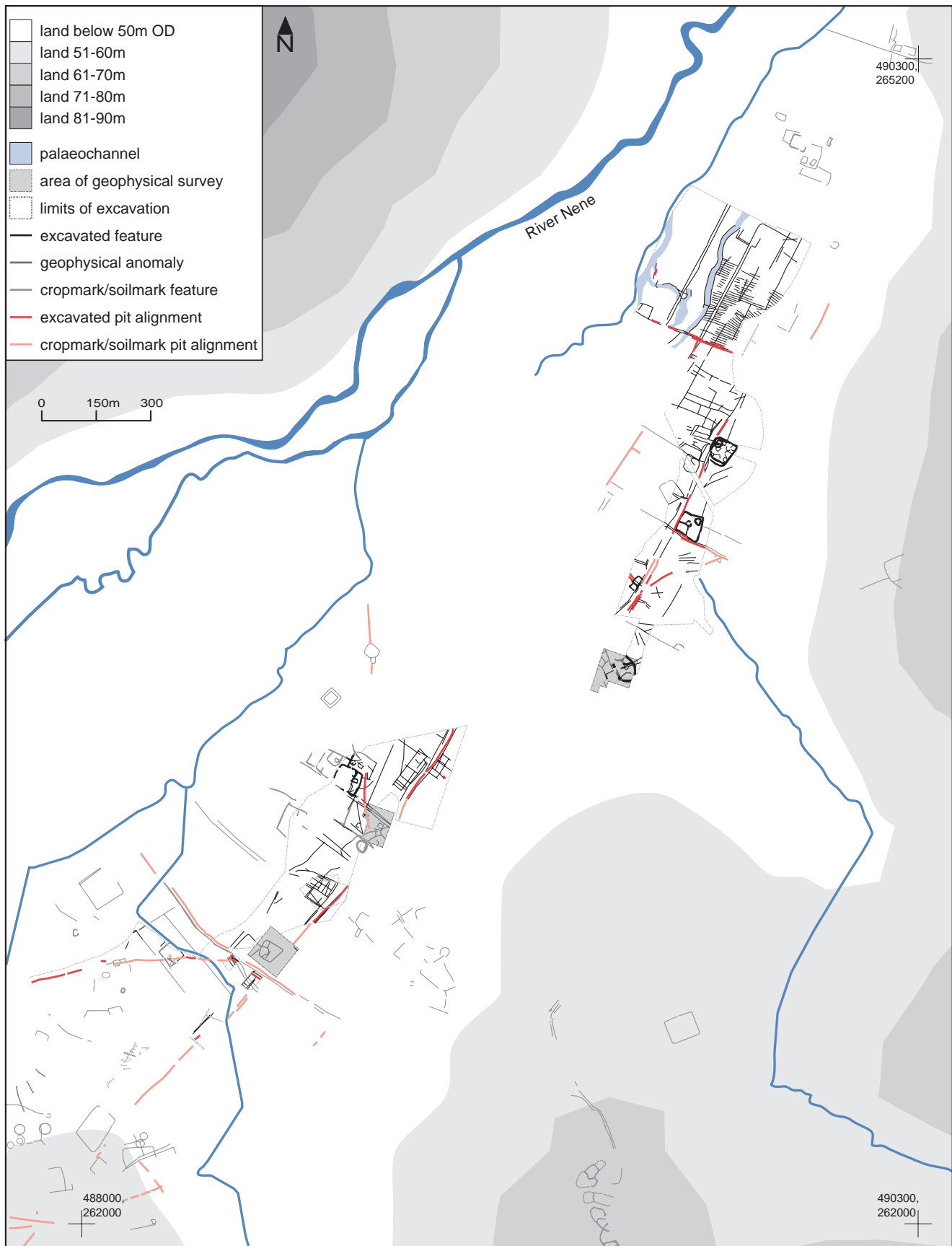
The most striking feature, known from excavated and aerial data, is a pit alignment

that runs along the valley for more than 2km (Fig 6.1), parallel to, and approximately 550m south east of a tributary of the Nene, together with traces of a second parallel alignment 230m farther south-east, at the edge of the valley floor. A series of shorter boundaries traverse the valley floor, from its edge to the tributary, intersecting the main pit alignment at right angles. Together these divide the valley floor into relatively regular rectangular blocks, suggesting a significant element of planning. There are other pit alignments that run diagonally across the orientation of the main alignment, which may relate to an earlier and abandoned phase of land division, as they are not respected by the later settlement enclosures.

Pit alignments occur in many other parts of the county (*see* Panel 1 and Fig 6.2). Some of these pit alignments are arranged in coherent rectilinear systems, often associated with single and double-ditched boundaries, which are similar to the orderly land division seen at Wollaston. The most extensive and coherent examples are in the south-west of the county, at Newbottle (Fig 6.3); to the north of Northampton, in the parishes of Harlestone, Church Brampton and Chapel Brampton, and near by in Pitsford, Moulton and Boughton (Figs 6.4 and 6.5); Stowe-Nine-Churches (Fig 6.6) and at Ketton in Rutland (Fig 6.7). Inevitably the cropmarks disappear as they cross onto the less permeable geologies, and, as the geology of the county can change significantly over short distances, most of our evidence for these landscapes is regrettably disjointed. However, the distribution of long lengths of single pit alignments in between these fragmentary arrangement hints that the landscapes defined by pit alignments were far more extensive and represent a dramatic phase of land division in late Bronze Age and/or Early Iron Age Northamptonshire (*see* Fig 6.2).

This phase of landscape development extended into some, but probably not all, areas of poorer agricultural land on the less permeable geologies. Evidence for pit alignments is absent from the boulder-clay-capped plateaux of Rockingham Forest and the Nene–Ouse watershed. Though cropmarks do show surprisingly well on the latter, experience, particularly from reconnaissance, would suggest that the definition of the cropmarks there is generally insufficient to distinguish chains of pits from continuous ditches. There are pit alignments on the clays of the Nene–Avon

Fig 6.1 (opposite)
Schematised and simplified overview of the air photo, geophysical survey and excavation evidence of the ancient landscapes at Wollaston (geophysical survey and excavation evidence reproduced with the kind permission of Northamptonshire Archaeology) (scale 1:15 000).



MAPPING ANCIENT LANDSCAPES IN NORTHAMPTONSHIRE

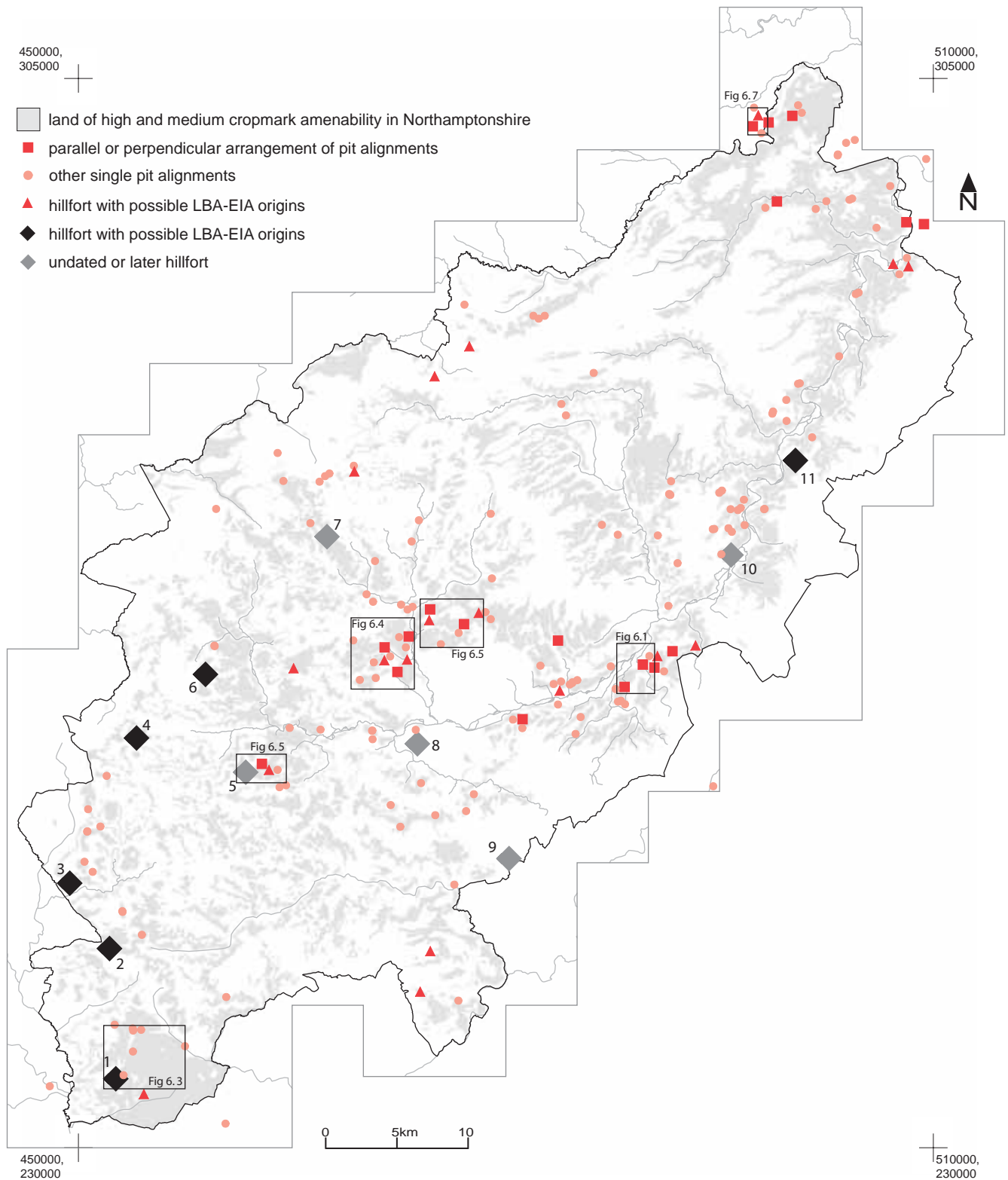
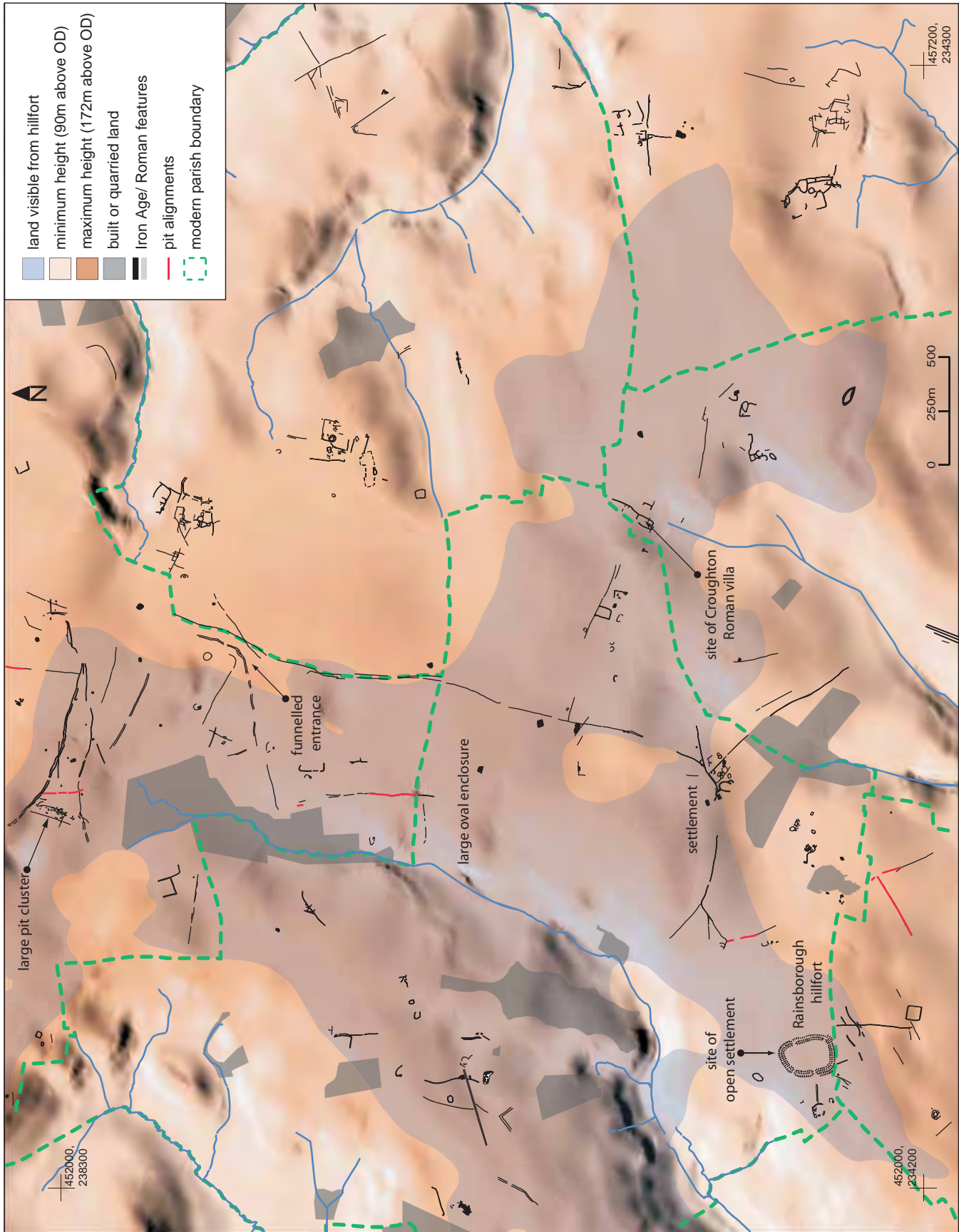


Fig 6.2
 Distribution of pit alignments and known and possible hillforts: 1 Newbottle (Rainsborough); 2 Thenford; 3 Chipping Warden (Arbury Banks or Camp); 4 Badby (Arbury Hill); 5 Farthingstone (Castle Yard); 6 Daventry (Borough Hill); 7 Guilsborough; 8 Northampton (Hunsbury); 9 Hartwell (Egg Rings); 10 Irthlingborough (Crow Hill); 11 Thrapston (scale 1:400 000).

Fig 6.3 (opposite)
 Overview of the ancient landscapes at Newbottle and environs and viewed from Rainsborough hillfort (scale 1:25 000).



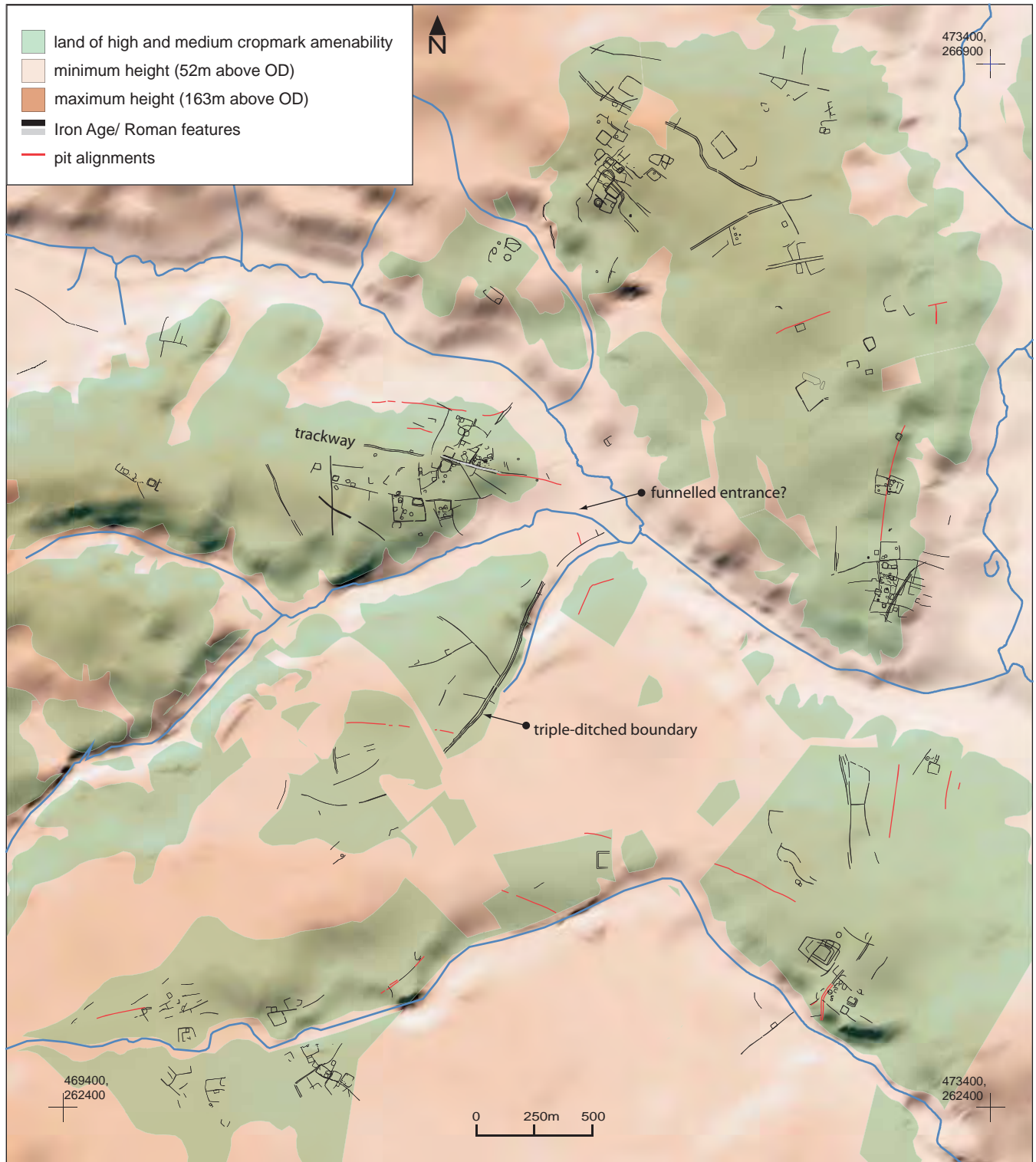


Fig 6.4
Overview of the ancient
landscapes at Harlestone,
Church Brampton and
Chapel Brampton
(scale 1:25 000).

watershed at Naseby, while excavations at Crick revealed other clayland examples, suggesting that pit alignment land divisions may well have extended onto the highest ground in the north-west of the county (Kidd 1999, 5). Long pit alignments are

also largely absent from the basin drained by the River Tove, although here it may be because the areas of permeable geology are widely dispersed among heavier soils.

A significant element in the prehistoric landscapes at Stowe-Nine-Churches, the

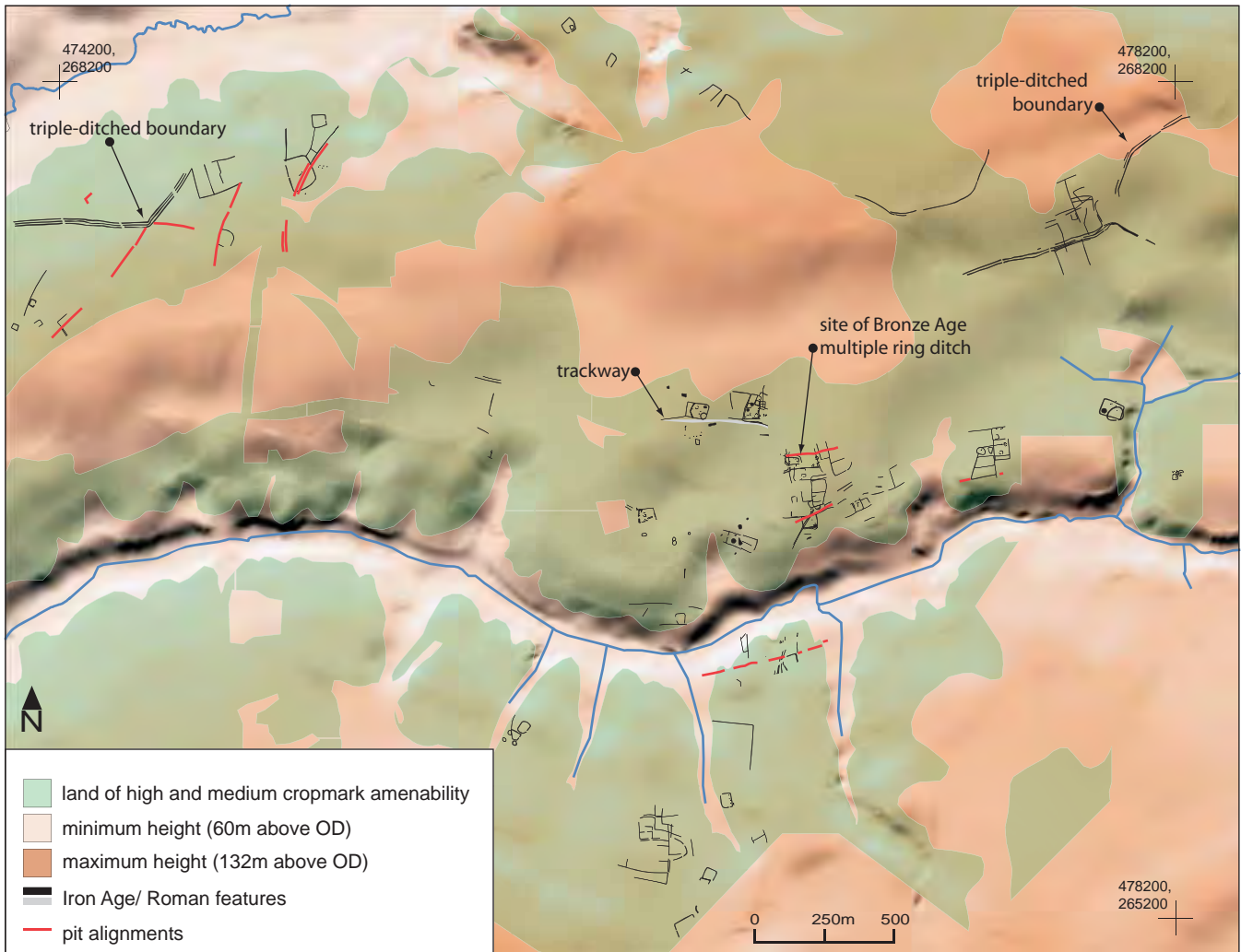


Fig 6.5 (above)
Overview of the ancient landscapes at Pitsford, Moulton and Boughton (scale 1:25 000).

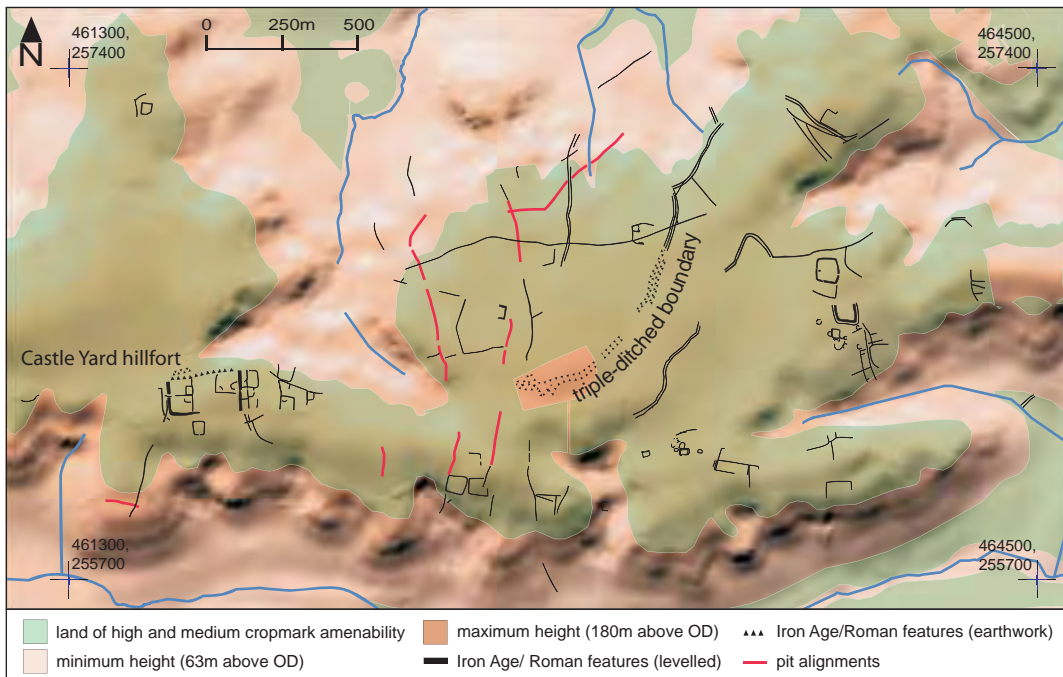
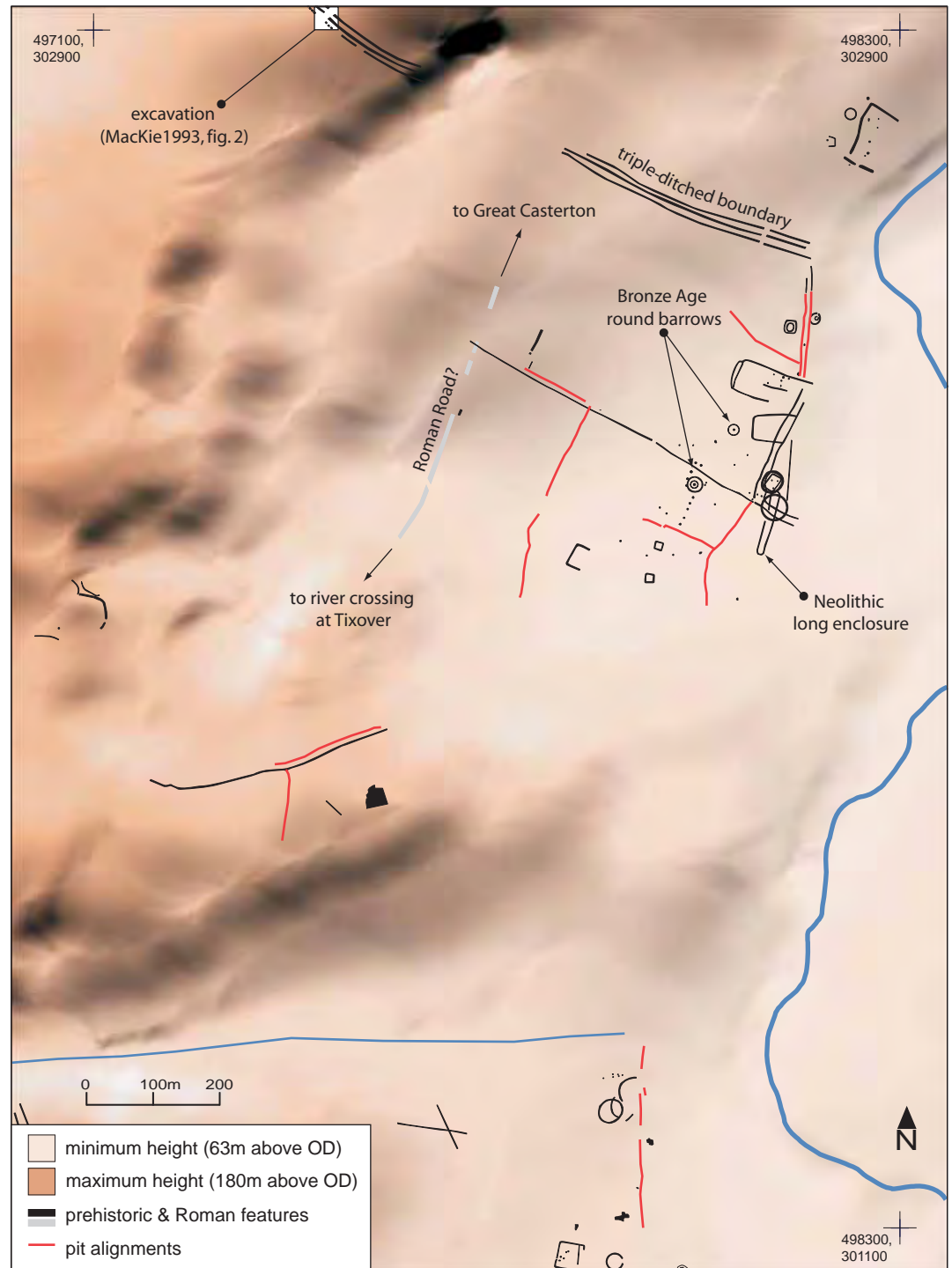


Fig 6.6
Overview of the ancient landscapes at Stowe-Nine-Churches (scale 1:25 000).

Fig 6.7
 Overview of the ancient
 landscapes at Ketton,
 Leicestershire
 (scale 1:10 000).



Bramptons and Ketton is the triple-ditched boundary (see Figs 6.4–7) Elsewhere there are other examples, including the pit and double-ditched linear features at Naseby. The coupling of the pits and ditches at Nosey and the manner in which pit alignments and triple-ditch boundaries articulate at Harlestone, Pitsford and Ketton suggest some degree of contemporaneity

in their use, or at least a high degree of continuity of the boundaries replaced by or evolved into triple boundary systems. The Stowe-Nine-Churches example, which survives in part as an earthwork, shows that some, if not all, triple ditch systems may originally have been accompanied by banks, forming massive earthwork boundaries (Moore 1973; RCHME 1981, fig 136).

Pit alignments yield little dateable evidence. For example, the Wollaston pit alignments were initially dated on the evidence of a single sherd of Early Iron Age pottery although they were also demonstrably earlier than the Wollaston Middle to Late Iron Age farms (Meadows 1995, 44). However, sufficient absolute and relative dates are now available from excavated sites to suggest that the regular, oblong pits that form most of the cropmark alignments probably date from the Late Bronze Age or Early Iron Age (*see* Panel 1).

Multi-bank and ditch boundaries also tend to lack dating evidence. Although sites in other counties have produced varied dates, a Late Bronze Age to Middle Iron Age date is suggested by excavations at the Ketton (Mackie 1993, 7; Boutwood 1998, 38–9). The function or symbolism of these boundaries, and the pit alignments in particular, is still much debated (for example Wilson 1978; MPP 1989; Pollard 1996; Waddington 1997; Thomas 2003). However from the Northamptonshire evidence it may be reasonable to conclude that, in this region at least, such boundaries were part of a large-scale and planned division of land initiated during the Late Bronze Age or Early Iron Age, of which only small, disjointed fragments are visible from the air.

Discussion

The evidence from Wollaston indicates that the pit-defined boundaries were built in a landscape that had been cleared in the Bronze Age and subsequently maintained as grassland. Interestingly, no Neolithic or Bronze Age monuments were reported in the area, but there was tentative evidence for some Neolithic activity (Meadows 1995); Kidd has also remarked on the absence of Late Bronze Age and Early Iron Age settlement evidence from the Wollaston area (1999, 5). However, at Ketton the sites of probable Bronze Age round barrows are found on land divided by pit alignments and ditches, although interestingly the possible Neolithic long enclosure may have been deliberately avoided by some boundaries (*see* Fig 6.7). At Pitsford a pit alignment was cut through the centre of a possible multi-ditched barrow (*see* Fig 6.5).

The Early Iron Age open settlement at Great Oakley, Corby, was sited on boulder clay in the Rockingham Forest area, apparently well beyond any known area of

planned landscape (Jackson 1982). In contrast, at Weekley Hall Wood, open settlement lay within an area that at some time was divided by a near-parallel arrangement of boundaries. These land divisions consisted of a north–south aligned Late Bronze Age or Early Iron Age double-ditched linear boundary and, 200–300m to the north-east, a pit alignment. The pit alignment was also associated with a perpendicular ditch. Early Iron Age settlement remains were found near both the double-ditched linear and the area of the pit alignment (Jackson 1976b). The pit alignment was not securely dated, and although some pits produced Early Iron Age pottery the excavator, using comparisons from other counties, favoured a later date.

The settlement and later hillfort at Rainsborough, Newbottle, were situated within an extensive landscape of long, linear boundaries (*see* Fig 6.3), which hints at a planned layout of regular rectilinear blocks, although central to the area is a large sub-oval enclosure defined by single and double ditches. This large enclosure encompasses a small valley and appears to have been entered through a broad funnelling trackway or drove road to the north-east, where the land is highest. Other boundaries of more rectilinear form radiate from the circuit of this enclosure, suggesting that it predates their imposition. It may be highly significant that part of the enclosure circuit is followed by the parish boundary (*see* chapter 7). There has been relatively little modern development in this area and, as a consequence, few excavations, so none of the elements of this landscape have been dated except the hillfort and the earlier open settlement. Although on current cropmark evidence it appears that the site of the hillfort was slightly peripheral to this system, it did have a good command over this landscape and, in particular, a full view of the large curvilinear enclosure (*see* Fig 6.3).

The photographic evidence for the large funnel-entranced enclosure was slowly gathered through years of repeat reconnaissance in this area. It is possible that there are other examples in the county that are either are unrecognised so far, or too poorly understood; the convergence of the multi-ditch boundary and trackway on a tributary of the Nene at Harlestone may be one such example (*see* Fig 6.4), and fragmentary evidence of another funnelled entrance, later largely filled by settlement,

may exist at Chapel Brampton (*see* Fig 6.12: 5). Other possible examples have been tentatively identified, not from aerial data, but rather fossilised in later medieval and post-medieval landscapes. This is a theme subject to ongoing research (*see* Chapter 7 and Foard *et al* 2005, 25).

For the most part, there is no tangible relationship between the known hillforts and the planned landscapes. Castle Yard is again seemingly peripheral to a well-demarcated system of pit alignments and other boundaries; the sequence of development is unknown, but, as the hillfort is dated to the Middle Iron Age, it is possible that it was built sometime after these divisions were first laid down. The hillfort's rectilinear plan may reflect a pre-existing rectilinear pattern of land division (*see* Fig 6.6). The rectilinear plan of other hillforts, such as Irthlingborough and Guilsborough, may also prove to have originated in this way.

The evidence from excavations alone may imply that the Late Bronze Age and Early Iron Age population was very low and widely dispersed. The Northamptonshire NMP does not contradict this with evidence of hitherto unsuspected settlements, but does suggest a population of sufficient size and level of organisation to take into hand large tracts of land. The population may well have been low but still mobile, perhaps engaged largely in pastoral, rather than arable, farming.

Rural settlement in the Middle to Late Iron Age and Roman period

Open settlement

Based on Jackson's observation that most ring-gullied huts were built in the Middle Iron Age or later, most such houses recorded by the project are attributed to these periods. The construction of post-built houses did continue throughout the Iron Age; remains of this type have been found preserved under villas at Deanshanger, and Alderstone Field, Ashley, but they were not visible on the air photographs consulted. (RCHME 1982, 41; Taylor and Dix 1985).

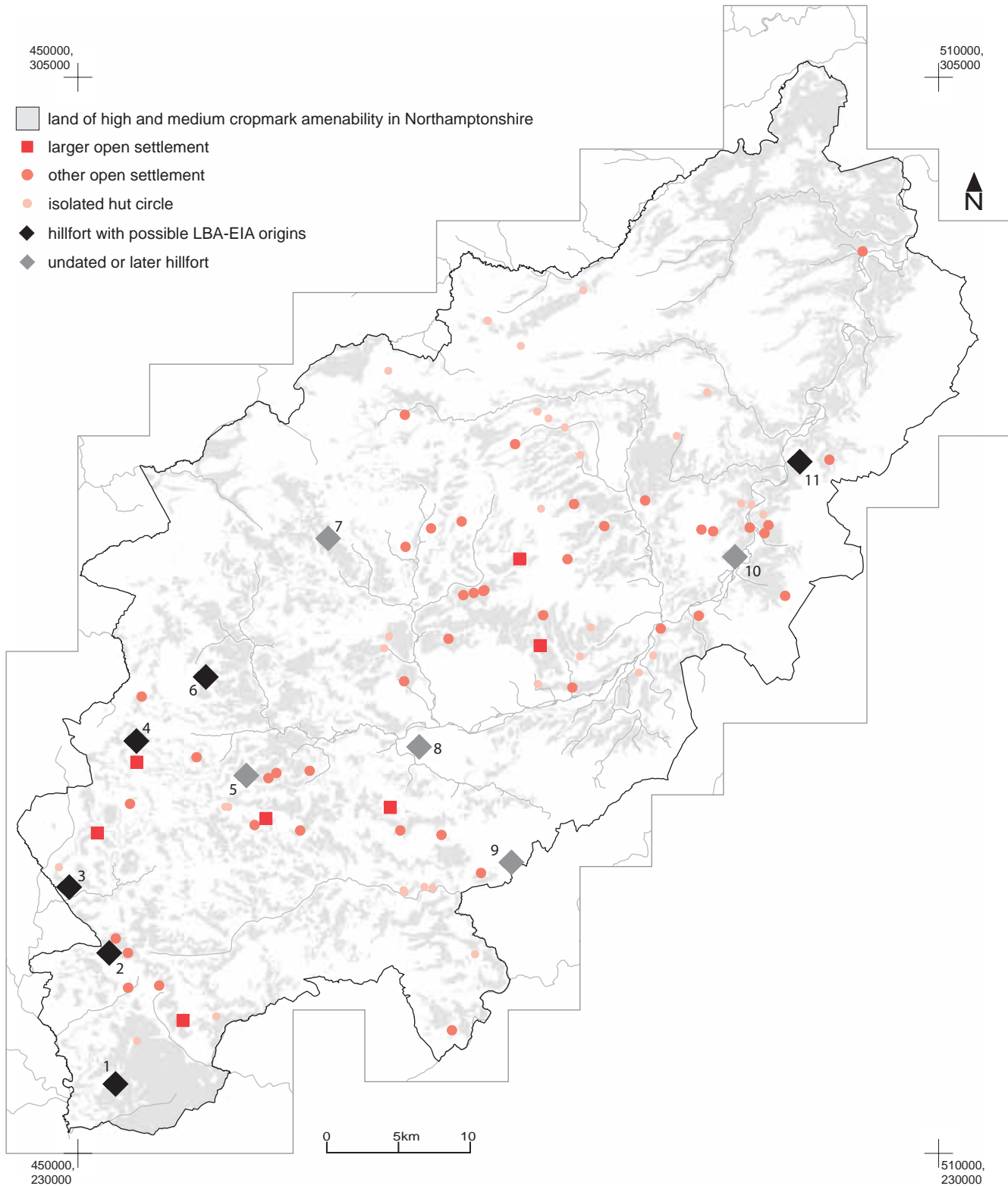
Hundreds of hut circles have been recorded from air photographs, but because it is difficult to identify open settlement among the cropmarks of

complex multi-period landscapes, many more are likely to have gone unseen or unrecognised. The enclosure of previously open sites, or the expansion of settlements beyond their earlier bounds, creates a particular problem when the chronological details are unknown.

The small settlement at Wakerley consisted of a sequence of huts, up to seven in total, arranged to the north of a large polygonal enclosure (Jackson and Ambrose 1978, fig 4). In a later phase the area of the huts was enclosed by a massive ditch, but the excavators suggest that by that time perhaps only one was in use, and that this was abandoned soon afterwards (Jackson and Ambrose 1978, 124; cf Gwilt 1997, 163–4). Similarly, at Twywell one or two structures were built within a palisaded enclosure; the palisade was later replaced by a ditch, but subsequent settlement developed outside the confines of the enclosure (Jackson 1975).

The project has revealed a dispersed pattern of single hut circles, but again this is undoubtedly incomplete (Fig 6.8). Some may be the mistaken ring ditches of round barrows; others may be the only visible indications of larger unseen settlements, but Dawson has noted similar singular sites in the Ouse Valley, such as Biddenham, which co-existed with the larger open settlements (2000, 115). The Northamptonshire examples are scattered throughout most of the county, although they appear to be absent north-east of Harpers Brook and in the area between the Nene–Avon watershed and the River Avon; both are areas where cropmarked sites are fewer and sparser (*see* chapter 3, Fig 3.1). Where such sites are spatially associated with otherwise unrelated features, it is unlikely that they will have been recognised as potential isolated settlements.

The open settlements mainly comprise loose groups of hut circles, together with small rectilinear, polygonal or curvilinear enclosures and clusters of pits (Fig 6.9). Small, square or rectilinear enclosures, often no larger than hut circles, are a particularly common feature at these sites (for example in Fig 6.9: 1, 6.9: 5, 6.9: 12). Shaw and Blinkhorn have suggested that the examples investigated at Top Lodge, Ringstead, may have been building enclosures or stock pens (1992, 5). Features of similar plan and scale have been excavated in the Ouse Valley and found to be stone-filled gullies, which Dawson has suggested are the remains of a new type of house structure that



appeared in the 1st century BC (2000, 115). Slightly larger enclosures, up to 0.1ha in size with an oval, rectangular, polygonal or even triangular plan are present at many of the open settlements (see Fig 6.9: 1, 6.9: 7, 6.9: 17, 6.9:

18). Two small, oval enclosures investigated at Sywell Aerodrome and Great Houghton were associated with nearby huts and considered to be related to stock management (Atkins *et al* 2000; Chapman 2000–1).

Fig 6.8
Distribution of isolated hut circles, open settlements and forts (see Fig 6.2 for key to hillforts) (scale 1:400 000).

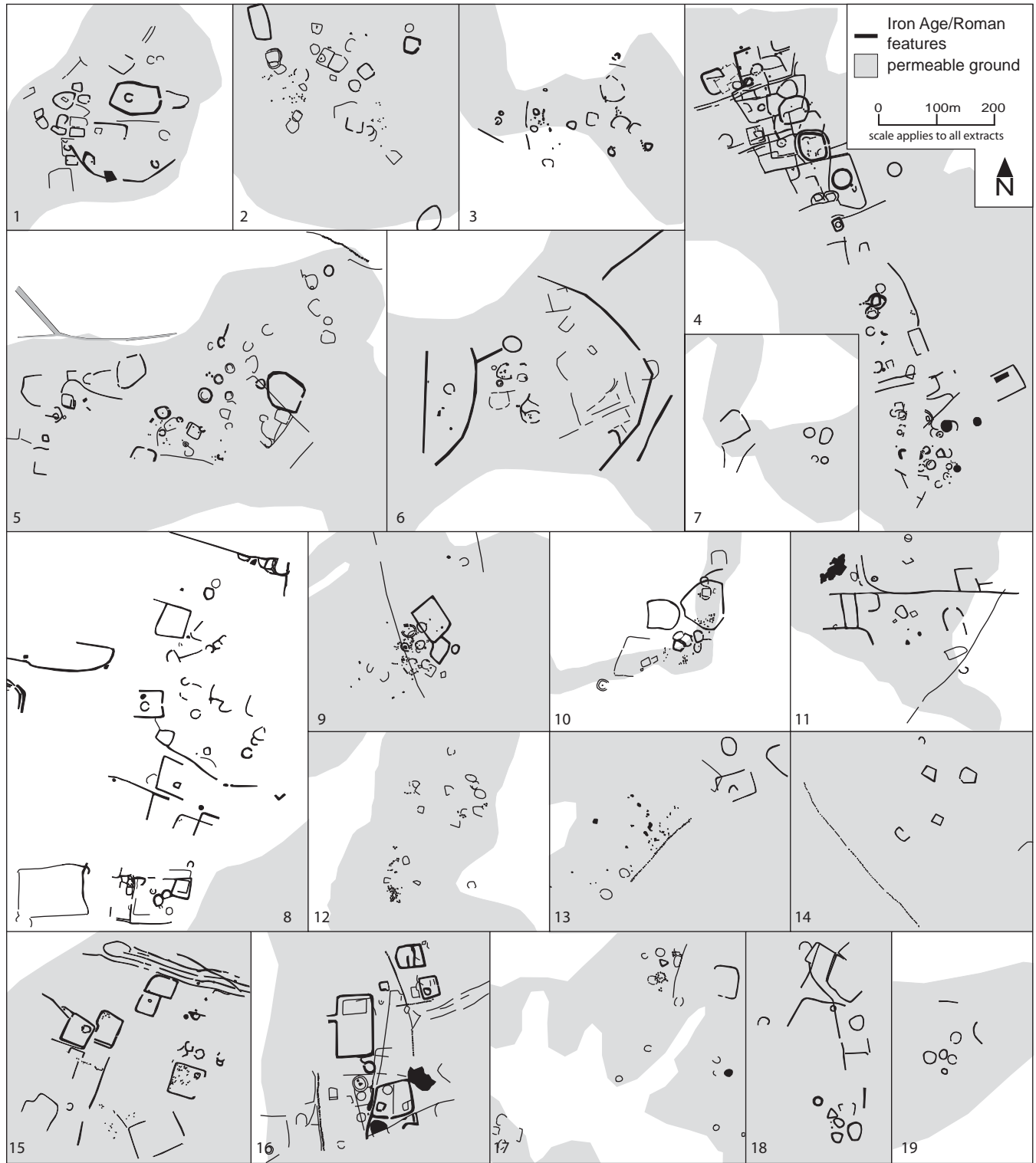


Fig 6. 9
 Open settlements:
 1 Charwelton;
 2 Catesby;
 3 Gayton;
 4 Ecton A;

5 Byfield;
 6 Everdon;
 7 Scaldwell A;
 8 Little Addington A;
 9 Rushden A;
 10 Marston St Lawrence;

11 Greatworth;
 12 Brackley;
 13 Blisworth;
 14 Titchmarsh;
 15 Cold Higham;
 16 Earl's Barton;

17 Litchborough;
 18 Moulton A;
 19 Bugbrooke)
 (scale 1:10 000).

A second, perhaps slightly earlier enclosure at Great Houghton yielded evidence for domestic activity and iron working, but also contained a pit group with a crouched inhumation (Chapman 2000–1, 31).

Similar small enclosures also occur in loosely-grouped clusters where evidence of round houses is absent (*see* Fig 6.9: 14). Some of these may also be the remains of open settlements with dwelling structures that remain hidden, either because their ring gullies are too slight to produce cropmarks in the local ground conditions, or have been ploughed out, or perhaps because they were solely post-built structures without any trench or eaves drip.

Pits appear at many of the open settlements, but their apparent absence at some may be due in no small part to the underlying soils and geology, and is not necessarily an accurate reflection of the buried archaeology. Large pit clusters were recorded adjacent to the open settlements at Marston St Lawrence, Brackley, Blisworth and Cold Higham (*see* Fig 6.9: 10, 6.9: 12, 6.9: 13 and 6.9: 15). There are other significant clusters at Staverton (*see* Fig 6.16: 5) and at Farthinghoe (*see* Fig 6.3). These groups of pits, often tightly-clustered, were long considered to be receptacles for grain storage, and thus an indication of the relative importance of arable cultivation to the settlement's economy (for example Keighley 1981, 119–20). Interestingly though, many of the settlements with pit clusters are located on rather small exposures of permeable geology and are surrounded by heavier clay soils that at the time would have been more conducive to pastoral than to arable farming. Generalised interpretations of pits as storage or refuse receptacles have been disputed by Hill (1992), and the ritualistic elements of pit deposits in the county are beginning to be recognised as a result of work at Great Houghton and Twywell (Chapman 2000–1, 31).

At Great Doddington, the massive ditch of the D-shaped enclosure appeared to cut across at least one hut circle in the unexcavated section, and close by, at Wilby Way, Wellingborough, open settlement was detected during excavations of the long-lived settlement (Windell 1981, 66; Thomas and Enright 2003). At Ecton A, Rushden A, and Marston St Lawrence there is clearly some degree of overlap between enclosures and hut circles, but at Charwelton, Little Addington A, and Cold

Higham the arrangement of features does not preclude coexistence or contemporaneous use, although it does not prove it either (*compare* Fig 6.9: 4, 6.9: 9, 6.9: 10 with 6.9: 1, 6.9: 8 and 6.9: 15).

There are great differences in the size of the cropmarked unenclosed settlements; they range from 0.5ha to almost 20ha, but comparison based on size alone is unlikely to have much archaeological significance. One of the larger cropmark complexes with evidence of unenclosed settlement runs along a low spur in the parishes of Sywell and Ecton (*see* Fig 6.9: 4). The spur is bounded on two sides by minor streams and it gently descends south-eastward towards the River Nene. This was an area of dense prehistoric activity and the evidence for the open settlement is intermingled with earlier monuments and later enclosures and fields. A small area of settlement has been excavated and dated to the 4th–2nd centuries BC (Atkins *et al* 2000). However, even the most extensive sites may be the result of 'short distance settlement drift' of one or more foci, and may have actually supported a much smaller community at any one time than the total hut count would suggest (Jackson 1975, 66).

The cropmark evidence is further complicated by the differences in crop response to buried features in different locations. The analyses in chapter 3 identified the areas where cropmarks could develop most readily, but this does not mean that all cropmarks in these areas will develop with equal clarity and detail, let alone be photographed when showing at their optimum. The NMP process does not record the quality of the cropmarks and, while this can only ever be a subjective appraisal, this may have been useful when comparing the presence or absence of features between sites. Thus, while the appearance of the sites at Byfield and Scaldwell A is very different, the rather faint and ill-defined cropmarks of the latter may belie a site of greater complexity and size (*compare* Fig 6.9: 5 with 6.9: 7).

Substantial open settlements occur more frequently in the south-east of the county on the watersheds between the Nene, Tove (Great Ouse tributary) and Cherwell (*see* Fig 6.8). Other, apparently smaller sites are scattered between the Brampton Arm of the Nene and the River Ise, on the slopes of minor valleys and across the Ironstone upper ground, as defined by Physiographic Model of the county (Northamptonshire

Archaeology 2003). Open settlements are more sparsely distributed along the Nene Valley floor and sides, although other examples may have been concealed by the superimposed cropmarks of unrelated enclosures and field boundaries that are so densely distributed across the permeable geologies in this zone.

At Byfield and Blisworth pit alignments run along the edge of the visible settlement remains but at Ecton A, Rushden A, Greatworth, and Thorpe Mandeville long linear boundaries appear to act as the focus of the settlement (*compare* Fig 6.9: 5, 6.9: 13 with 6.9: 4, 6.9: 9, 6.9: 11 and Fig 6.10: 7).

The same juxtaposition of pit alignment and open settlement was found under the villa at Wootton Fields but unfortunately the nature of the relationship could not be tested (NA 1999b). Assuming that the suggested chronology is correct, these arrangements indicate that, although perhaps originally intended as peripheral markers, the pit alignments and ditches later became the focus of activity and settlement.

Hillforts

The defences of the Crow Hill, Irthlingborough, and Castle Yard, Farthingstone, hillforts may have been constructed in the Middle Iron Age (Knight 1986–7, 39; Kidd 1999). Both are of sub-rectangular plan and about 2.5ha in size. The recently recognised hillfort at Guilsborough, which survived only as a very low earthwork and was not visible from the air, is of a similar plan and may be of this period, as may any of the undated possible hillforts at Arbury Camp, Arbury Hill, and unusual Egg Rings enclosure at Salcey (Woodfield 1980; Pattison and Oswald 1993–4).

The defences of the Hunsbury, Rainsborough and Guilsborough hillforts were probably remodelled at times in the Middle Iron Age, but only Crow Hill has produced evidence for Late Iron Age hillfort strengthening (Kidd 1999, 6 and 8).

The majority of the known and possible hillforts were built on the higher ground in the west of the county and, although they are clearly not all contemporary, they are relatively evenly distributed there (*see* Fig 6.8). The hillforts at Arbury Hill, Castle Yard, Hunsbury and Crow Hill are each situated in elevated positions overlooking the Nene Valley.

Land division and boundaries

The land parcels established on the valley floor at Wollaston in the Late Bronze Age and Early Iron Age continued in use through the Middle and Late Iron Age (Meadows 1995). At Gretton, a hoard of currency bars was buried near the intersection of a pit alignment and ditch, probably in the last century BC (Jackson 1974). Although the pits and ditch have not been securely dated, the insertion of the hoard into the edge of one of the pits suggests that these boundaries were probably visible in the landscape at the time of burial.

It is likely that the systems of land division recorded in many other parts of the county also persisted through to the Roman period, but this is not to suggest that, once established, there was stasis in the planned landscapes. The maintenance and development of pit and ditch-defined boundaries from the Early Iron Age and the subsequent millennium is an intriguing issue and one not yet fully resolved by excavation.

On Briar Hill an alignment of regular oblong pits had cut the line of an early boundary. This consisted of two, presumed contemporary, rows of smaller, more circular pits, some of which may have held timber uprights (Jackson 1974, 15). The later Briar Hill pit alignment and the Gretton example appeared to have been deliberately back-filled, in the case of the latter possibly within a year of construction (Jackson 1974).

It has already been noted that the grid-like arrangement at Wollaston may have been preceded by an earlier system on a different alignment (*see above*). Minor rearrangements of the pit alignments observed during excavations in the neighbouring parish of Grendon may have been a response to changing ground conditions and, in particular, increasing wetness from a rising water table (Jackson 1997, 9–10).

At Wollaston some of the pit alignments were re-cut by ditches or replaced by hedges, and it was noted that the usual detritus of occupation, including charcoal and pot sherds, was absent from the pit fills (Meadows 1995; Kidd 1999). The sterility of fills is a frequent observation, and, while this may often reflect rapid back-filling, it does not preclude a long history that was interspersed with events of

scrupulous cleaning or re-cutting of the pits. Clearly the apparent transience of the excavated pit alignments is incongruous with both the considerable labour required for their construction and the impact they had on the pattern of subsequent settlement (*see below*).

At Harlestone, Pitsford, and Ketton elements of these rectilinear frameworks were further formalised with the development of well-established trackways and, later, perhaps roads, which bear evidence of considerable compaction or even hard surfacing, although these events are untested and undated (*see Figs 6.4, 6.5 and 6.7*).

However, there are, in certain parts of the county, boundaries or trackways that do not conform to the regular rectilinear characteristics of the apparently planned landscapes. These display a degree of sinuosity that sets them apart from the trackways seen at Harlestone, Pitsford and far exceeds any influence the often rather gentle local topography may have had. The most extensive example is a double-ditched feature that meandered for nearly three kilometres across boulder clay and Oxford Clay through the parish of Titchmarsh. Another is the broad-ditched linear feature that descended from the boulder-clay-capped plateau down to Harper's Brook through Brigstock (*see Fig 6.13: 1*). Inevitably, dating of these long linear features is lacking, and in many cases it is not clear if the features are boundaries or ditched trackways. Recent photography of a sinuous double-ditched trackway at Strixton shows it was defined in parts by pits, which may indicate an Early Iron Age date (*see Fig 6.13: 2*).

Enclosed settlement

A record of nearly 5,000 possible Iron Age and Roman period enclosures demonstrates the expansion in enclosure building during the Middle and Late Iron Age. However, the persistence of open occupation at least through the Middle Iron Age, as at Geddington and Twywell, and probably up to the last century BC, as at Great Houghton, Sywell, Ecton and Wakerley, suggests that there was not a complete shift to enclosed settlement (Jackson 1975, 1979a; Jackson and Ambrose 1978; Atkins *et al* 2000; Chapman 2000–1).

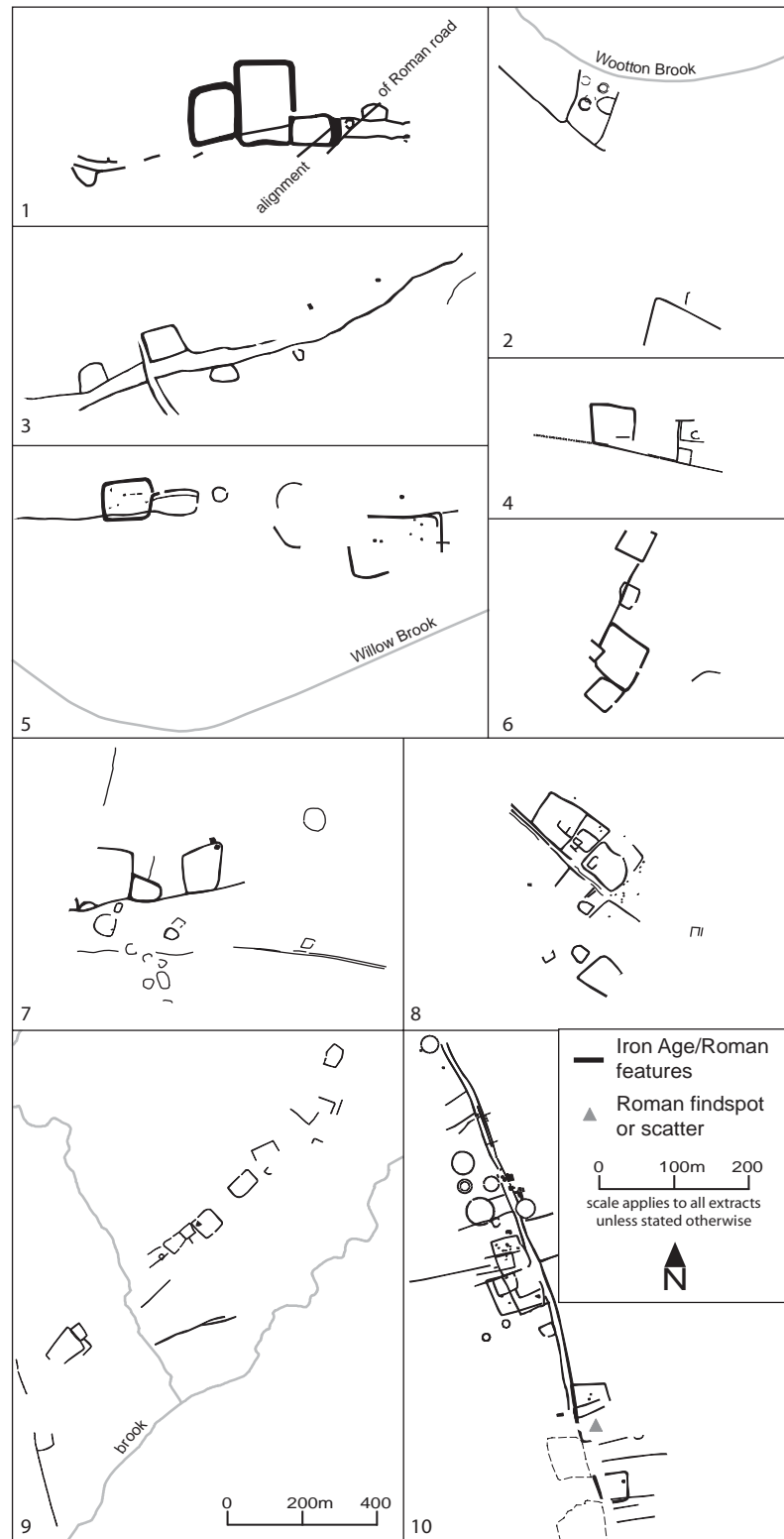
The rural landscape of Iron Age and Roman Northamptonshire was apparently

characterised by both single enclosures and groups of varying complexity and longevity, although not all would have contained settlement. Enclosure B at Wakerley was contemporary with the open settlement, but apparently never occupied, and when it was reinstated during the Roman period it was the focus of agricultural and industrial activity (Jackson and Ambrose 1978). Enclosures probably served a range of functions, including stock management, agricultural processing, industrial and craft activities; doubtless their function changed and developed over time, but in most cases they do indicate nearby occupation.

The predominant trend is a dispersed settlement pattern of mainly rectilinear enclosures or small groups of conjoined rectilinear enclosures. Often the cropmarks are too fragmentary or intermittent to establish the relationship of these settlements to the wider landscape, but in some cases it is possible to postulate a close relationship to the framework of pit and ditch-defined land boundaries. Commonly, rectilinear enclosures were built along one side of a long ditch or trackway. Excavations at Weekley demonstrated that a long, east-to-west-aligned ditch was one of the earliest features at the site and formed the axis for the subsequent settlement (Jackson and Dix 1986–7). Three simple, rectilinear enclosures were built along the boundary and then a fourth, more substantially-constructed example, was inserted between two of them, partially straddling the ditch (Fig 6.10: 1). At the western-most extent of the excavations the boundary consisted of two ditches, and in this part at least was recognised as a possible trackway (Jackson and Dix 1986, 70). This linear feature influenced the layout of the settlement from its earliest phases in the later Iron Age through to the beginning of the Roman period.

Two Iron Age settlements at Swan Valley, Rothersthorpe were arranged in a comparable manner (*see Fig 6.10: 2*). In each, enclosures containing hut circles and other small enclosures were arranged along ditches that ran along the valley side, parallel to the Wootton Brook. The lower settlement developed along the banks of the brook and the other was in an area 150m up-slope. The cropmark evidence was fragmentary and determined the positioning of excavation trenches, so little is known of the immediate environs, but it is likely that the parallel ditches were

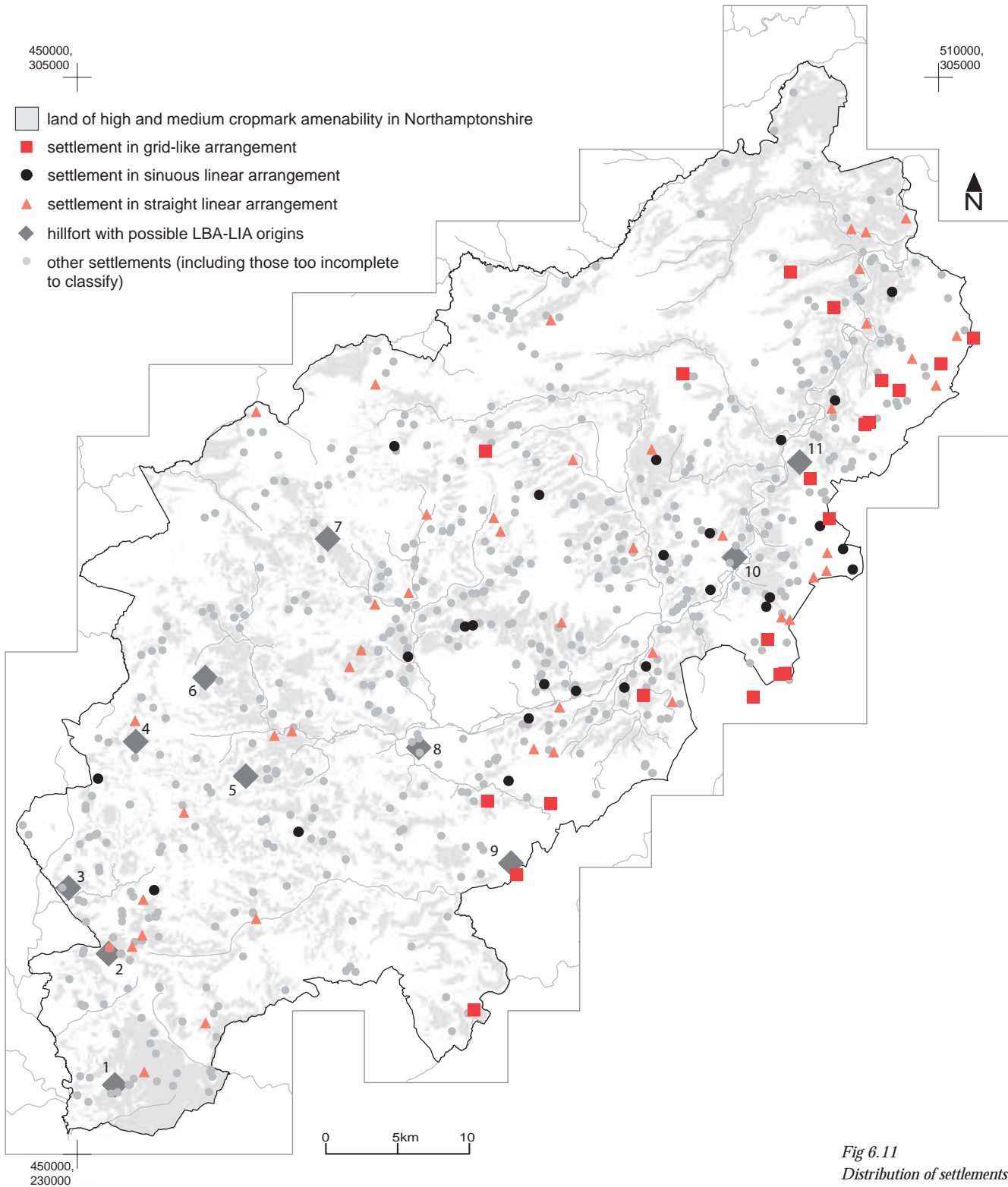
Fig 6.10
 Settlements in linear
 arrangements:
 1 Weekley (after Jackson
 1986-7, fig 3);
 2 Rothersthorpe (Swan Valley)
 composite evidence from NMP
 and geophysical survey (after
 Northamptonshire Archaeology
 1994, fig 3);
 3 Wilbarston A;
 4 Nether Heyford;
 5 Fotheringhay A;
 6 Spratton A;
 7 Thorpe Mandeville;
 8 Culworth;
 9 Lamport;
 10 Nassington A)
 (scales 1-8 & 10, 1:10 000;
 9 1:20 000).



part of a more extensive framework of land boundaries (NA 1994b; Holmes 1995, 41).

A similar scenario of ditched enclosures abutted to possibly earlier boundaries is seen in most areas of the county where

cropmarks develop (Fig 6.11). At Nether Heyford the defining linear feature was clearly a pit alignment that had been partially re-cut by a ditch (see Fig 6.10: 4). This settlement sat along the edge of



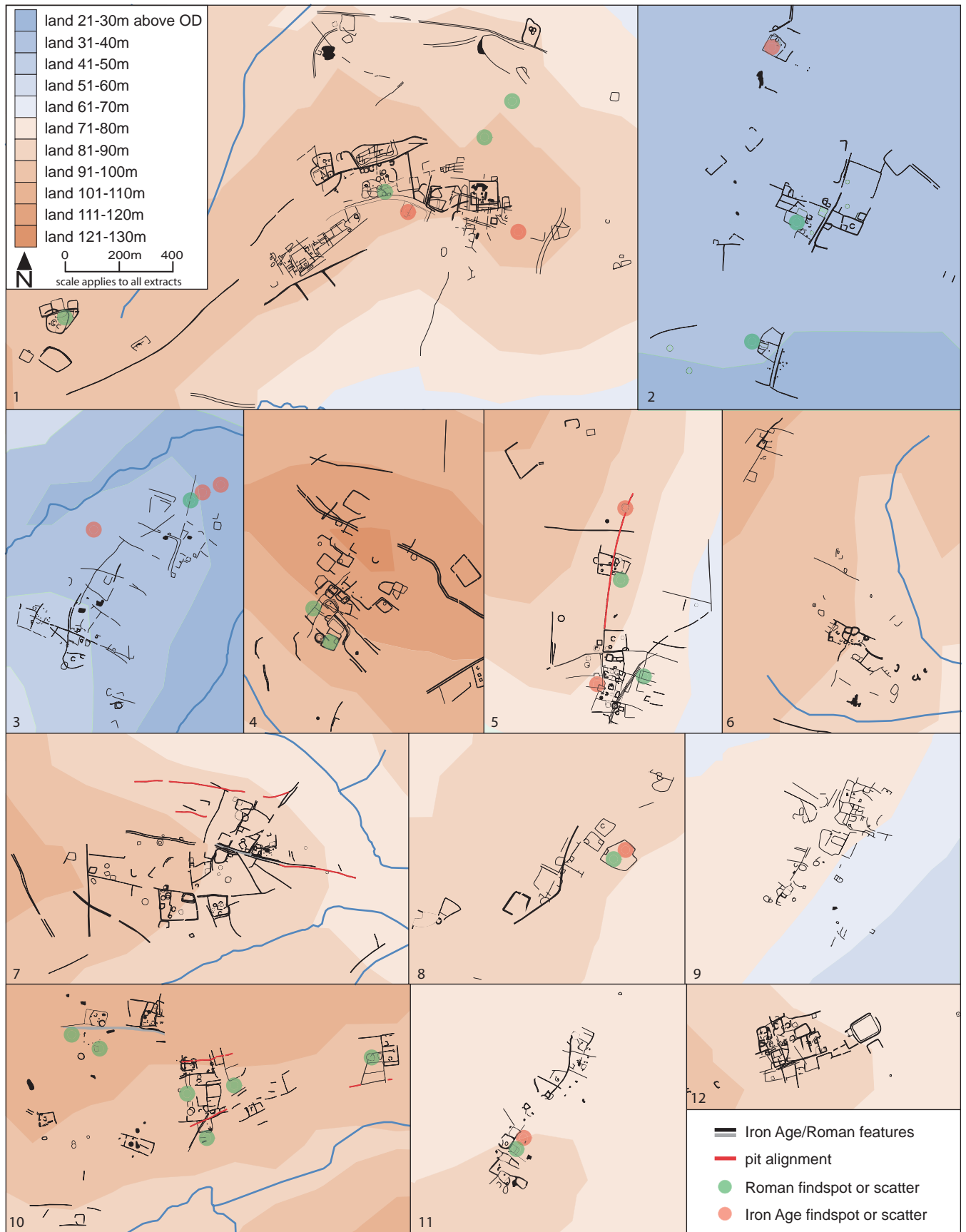
*Fig 6.11
Distribution of settlements
arranged in a regular linear or
grid-like pattern and those
associated with more sinuous
and irregular boundaries or
trackways (scale 1:400 000)
(see Fig 6.2 for key to hillforts).*

the valley floor with the river to the north. A similar arrangement of small, rectilinear enclosures developed on the same orientation 1km to the south-west, and on the north side of the river the

same trend was observed in a second pit alignment and the positioning of other ditches and enclosures.

The string of enclosures at Lampport maintained a common orientation over a

MAPPING ANCIENT LANDSCAPES IN NORTHAMPTONSHIRE



distance of more than 1km, and perhaps over a long period of development, although no axial boundary was visible (*see* Fig 6.10: 9). These remains lie on Upper Lias Clay, and the enclosure ditches produced rather faint cropmarks. The alignment of the settlement continued northwards in a long trackway that climbed up onto the Northamptonshire Sand and Ironstone.

A possible settlement at Wilbarston A developed in small rectilinear enclosures either side of a broad track or droveway (*see* Fig 6.10: 3). The trackway ran along the edge of the boulder-clay-capped plateau and overlooked a tributary of the River Welland. On the valley side below and parallel to this, the fragmentary remains of a pit and ditch-defined series of land units were visible.

On Thenford Hill, Thorpe Mandeville, three rectilinear enclosures abut the north side of an east-to-west-aligned ditch (*see* Fig 6.10: 7). A second ditch or trackway, of near parallel orientation defined the southern limit of a narrow strip of land and was perhaps the focus for the unenclosed settlement. The hillfort was constructed on the southern edge of the same hilltop.

At Wollaston it was the intersections between the boundaries that appear to have been the focus of settlement (*see* Fig 6.1). Farmsteads were built into the corners of the land parcels laid out some centuries before. The result was a community of small settlements dispersed across a grid of land boundaries on the valley floor. At Hardwick Park, Wellingborough, in an area now covered by housing, excavators revealed an orderly series of enclosures overlooking a stream (Foster *et al* 1977). The enclosures are thought to have been stockyards, and occupation evidence was identified in small enclosures built into the corners of one such yard.

Similar arrangements have been recognised from the air photo evidence farther downstream at Islip and Thorpe Achurch, and on higher ground at Cranford A and Chapel Brampton A (Fig 6.12). Even on the boulder-clay watershed between the Nene and the Great Ouse there is good cropmark evidence of settlements strung along long linear boundaries at Hargrave A and B and Raunds B.

The well-defined divided landscape at Harlestone contains enclosed and unenclosed settlement elements (*see* Figs 6.4 and 6.12: 7). The axial feature appears to have been a broad, straight track or road that ran down the middle of the spur towards the

streams confluence. Through the settlement the trackway appears to have been compacted or even metalled, but as it descends to the confluence it is defined only by a single pit alignment. The track was flanked by a series of rectangular pit or ditch-defined parcels, most of which probably exceeded 4ha. Small rectilinear enclosures and possible hut circles are dispersed across the area, but do tend to be concentrated along the boundaries and, in particular, boundary intersections. Others are grouped in large, well-defined enclosures built into the framework. Somewhat anomalous to this pattern was the large, broad-ditched, curvilinear enclosure that may have been cut by the road (*see* Fig 6.18: 14).

In a neighbouring valley at Pitsford much of the settlement appears to have been concentrated in a number of broad or double ditched enclosures that abut the long boundaries that divided up the valley side (*see* Fig 6.5).

It is notable that of the linear boundaries associated with groups of enclosures, few are visibly defined by pits, the Chapel Brampton A example being a rare exception (*see* Fig 6.12: 5). The alternation between ditch and pits along some linear features, such as the trackway through the Harlestone landscape and the linear at Nether Heyford, suggests that many boundaries originally marked by pits were later re-cut by ditches in the immediate vicinity of the settlements (*see* Figs 6.12: 7 and 6.4). This redefinition of pit alignments is commonly observed during excavation throughout the country (J Taylor pers comm).

Evidence from Wollaston, Weekley, Swan Valley at Rothersthorpe, and Hardwick Park, indicates that the enclosed settlements that became embedded within the planned landscapes of large rectilinear blocks originated in the Middle to Late Iron Age and also continued in use into the Roman period. At Wollaston, Roman farms with stone-founded buildings were constructed outside some of the Iron Age enclosures (Meadows 1995). At Hardwick Park, Roman debris, including a stony floor, was found to spread over the ditches of some of the Iron Age enclosure system that had already been left to silt-up, although some may have continued in use as before (Foster *et al* 1977). However, the main physical expression of Roman activity at this site was the numerous pottery and limekilns found among the earlier enclosures (Foster *et al* 1977, fig 3).

Fig 6.12 (opposite)
Settlements in orderly,
grid-like arrangements:
1 Great Harrowden;
2 Thorpe Achurch;
3 Islip;
4 Church Brampton;
5 Chapel Brampton A;
6 Cranford A;
7 Harlestone;
8 Hargrave A;
9 Hargrave B;
10 Pitsford/Moulton;
11 Raunds B;
12 Pytchley
(scale 1:20 000).

Fig 6.13 (opposite)
Settlements arranged along
sinuous and irregular
boundaries or trackways:
 1 Brigstock;
 2 Strixton;
 3 Hackleton;
 4 Barnwell;
 5 Sharnbrook, Bedfordshire;
 6 Kelmarsh;
 7 Raunds A;
 8 near Salcey Forest,
 Milton Keynes;
 9 Southwick
 (scale 1: 10 000).

The presence of Iron Age and Roman surface scatters on many of the cropmarked sites, such as Hargrave A, Thorpe Achurch, Islip and Woodford, also points to the probably continuity of use of these sites (see Fig 6.12). The problems inherent in using surface material to date buried sites are well established. It is also likely that Iron Age material will be less well represented than the Roman because of the differences in durability, wealth and diversity. However, many of the limitations are a result of the way in which the field-walking data were collected, which was often aimed simply to locate sites. What is now needed is a programme of systematic field-walking, complemented by systematic metal detecting, on a large number of these cropmark sites with known surface scatters, to seek more complex interrelationships between surface scatter and plan form. This may resolve not just the present question, but also contribute to the resolution of many of the issues raised throughout the present text, and representing one of the most important and straightforward research opportunities that flow immediately out of the Northamptonshire NMP project.

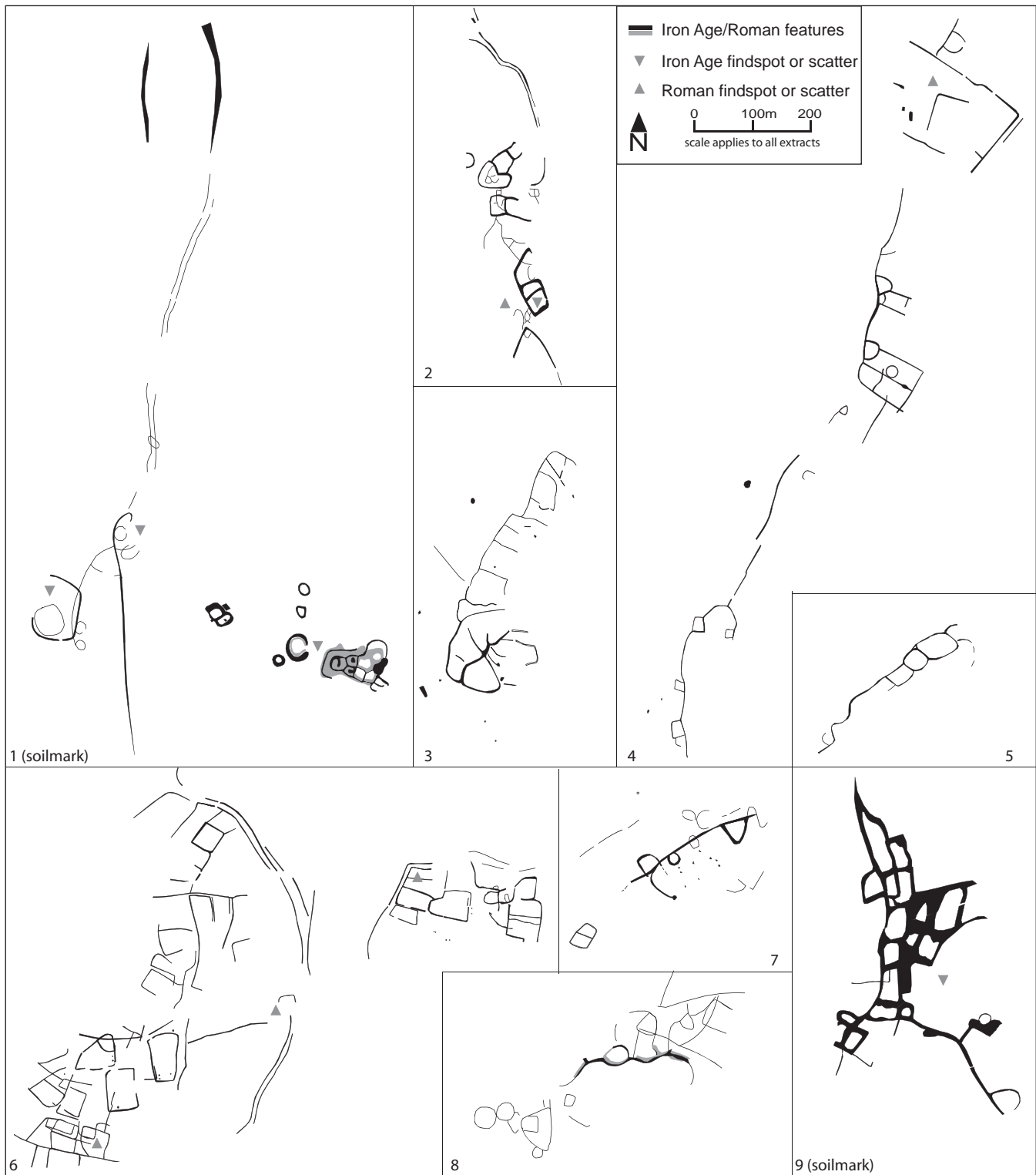
It appears likely that earlier frameworks of land division also influenced the layout of larger, more expansive settlements at Great Harrowden, Woodford and Pytchley, and that these continued to grow and develop through the Roman period (see Fig 6.12). It is unlikely that the extent of the cropmarks at any of these sites mirrors the extent of settlement at any one time; the remains at Great Harrowden in particular attest to a shift in occupation, which is reflected in the very different form and layout of enclosures in different parts of the visible site. There is considerable evidence for the rearrangement of features within the Harlestone, Pitsford and Church Brampton settlements.

As discussed above not all of the crop-marked boundaries and trackways appear to part of a planned, largely rectilinear system of land division. The sinuous linear features seen in the Rockingham Forest area and across the Great Ouse–Nene watershed are also associated with enclosures and probable settlements. The distinction between these two landscape patterns is exemplified at Strixton where a sinuous double-ditched boundary or trackway meandered down a spur that overlooked the straight grid-like arrangement of boundaries and farmsteads on the valley floor at

Wollaston (compare Figs 6.1 and 6.13: 2). The Strixton linear group is the focus for a series of rectilinear and irregular enclosures, one of which has been excavated and dated to the Iron Age (Hall 1971).

At Barnwell a long sinuous ditch is flanked by small, widely spaced, rectilinear and curvilinear enclosures, and some larger enclosures or fields, in a manner that is reminiscent of the ‘washing line’ systems identified in Lincolnshire (Winton 1998, fig 6) (see Fig 6.13: 4). These enclosures are undated, but the rather anomalous large rectilinear compound at the north-visible extent of this system enclosed the site of a Roman villa that was partially excavated in 1973 (RCHME 1975, 12). Significantly, these examples, and others at Hackleton, Brigstock, south of Salcey Forest (Milton Keynes), and near Sharnbrook (Bedfordshire), are mostly located on boulder clay, where they are interspersed with the evidence of more rectilinear landscapes like those at Hargrave and Raunds B (see Fig 6.11). Further examples are known from this project just across the Bedfordshire and Cambridgeshire borders. Moreover, many of the cropmarked sites on the boulder clay have only come to light in recent years, some after the area had been mapped by the project, and it is likely that others have been and will be discovered by recent and future aerial reconnaissance.

Among the enclosures of possible Iron Age and Roman date there are some particular forms that warrant further discussion. Dix and Jackson have identified a specific type of Iron Age enclosure, the Wootton Hill (WH) style enclosure, which they suggest is primarily defensive in nature (1989). Although as many as 16 examples are now known from excavation, only four of those were visible from the air, and it is difficult to identify comparisons among the unexcavated cropmark enclosures (Kidd 1999, 7). The main feature, the deep, v-shaped profile of the ditches, cannot be ascertained without excavation. While it is fortunate that this project recorded the widths of most cropmarks ‘as seen’, rather than with a standard line width as is normal NMP practice, this is not always an accurate indication of the width of the underlying ditch, let alone its depth. The remains of the four-post structures and posts and slots for gates that characterise these sites are also generally too slight to produce recognisable cropmarks. Indeed,



at Stanwell Spinney they were not identified on the air photographs, though excavation has shown them to be present on the ground. As a whole, the excavated WH-style enclosures are a morphological diverse group ranging from the near square plan

of Briar Hill to the oval layout of Stanwell Spinney. Most are defined by a single ditch, but examples at Briar Hill, Blackthorn and Wootton Hill have two, although there is a plausible argument for the inner ditch at the latter being a drain (Jackson 1988-9, 10).

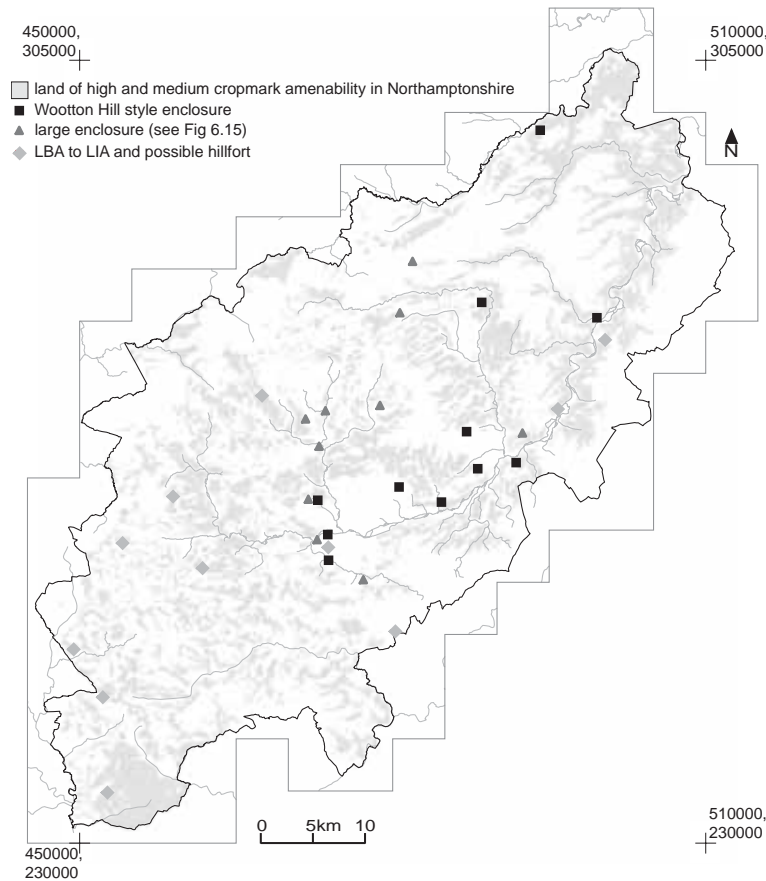


Fig 6.14
Distribution of excavated
Wootton Hill style enclosures
(after Jackson 1998–9,
Kidd 1999, 7) and large
enclosures (see Fig 6.15)
(scale 1:725 000).

Moreover if, as is suggested by Dix and Jackson (1989, 166), the WH-style enclosures were specifically a defensive response to the situation in the area between 100 BC to 100 AD, then any further candidates for this type must of be of this date and un-excavated enclosures simply cannot be dated with such accuracy, if at all.

The majority of the known WH-style enclosures are evenly distributed on either side of the Nene, between Briar Hill in the west and the Ise confluence in the east, with outliers at Weekly, Aldwinckle and Wakerley (Fig 6.14). Most were built on the permeable geologies. Proximity to the rich nodular iron at the Estuarine Clay outcrops is a common factor, but the possibility of coincidence should not be overlooked; there is little evidence from the excavations that iron-working was a significant activity at these sites.

While the Wootton Hill Farm enclosure enjoyed very extensive views of the valleys to the south and west, its outlook to the north and north-east was obscured by Briar Hill, and it would have been difficult to defend against an attack from this direction. Conversely, the possible WH-style enclosure

on the other side of Briar Hill had those views, but land to the south was shielded. Only the enclosure at Great Doddington has the topographic advantage of these two enclosures. Those at Blackthorn, Weekley, Stanwell Spinney and Wakerley are in inferior positions with some dead ground in their immediate vicinity, and views from the Aldwinckle, Irchester, Kings Heath and Wilby Way examples are very limited, or greatly interrupted. As many of these enclosures were founded on earlier settlements (Jackson and Dix 1989, 164), defendability was presumably not a primary consideration in the choice of site.

Double-ditched enclosures are numerous in Northamptonshire, and a proportion of these were probably built in the Middle to Late Iron Age. Many are smaller than 0.2ha, rectilinear in plan and occur in association with either dispersed groups of simple enclosures, or more ordered linear or polyfocal arrangements. The Blackthorn WH-style enclosure is of this form, but most examples probably fulfilled a range of functions from settlement to stock management, and the presence of two ditches may have been incidental to their use.

The possible double-ditched WH-style enclosure on Briar Hill was significantly larger, and trial excavation produced a small amount of Iron Age pottery. The ditches were more than 2m wide and set 13m apart, which, even allowing for a generous berm, may indicate the presence of a very substantial bank or rampart. Enclosures of comparable plan and size have been recorded at Old A, Creaton, Quinton and Finedon (Fig 6.15). The interior of the Briar Hill enclosure could not be investigated before development and thus the context and function of the site are unknown. By comparison the unexcavated Old A enclosure provides a wealth of detail (Fig 6.15: 3). The inner ditch is narrower than the outer, a characteristic common to the Creaton enclosure and more exaggerated in the Quinton circuits (Fig 6.15: 5 and 6.15: 4). These may have been trenches that held a timber retainer against an inner bank similar to the arrangement visible in the cropmarks of Irthlingborough hillfort and confirmed by excavation (Parry 2006, 145). Narrow gullies divide the interior of the Old A example into four uneven sections, and huts fall within each section, although these arrangements were not necessarily all contemporary. The enclosure's north-west facing entrance opened into an area divided

into small narrow plots by straight ditches and to the north-west there were at least eight conjoined paddocks or fields. There was no evidence for houses within the Creaton and Quinton enclosures, but the former has a small corner enclosure and there are other enclosures or paddocks clustered around the entrance of the latter. These examples are similar to the Briar Hill WH-style enclosure, which Dix and Jackson 1989 suggested was defensive in function,

but, as discussed above, it difficult to assess the defensive capabilities of enclosure ditches and long removed banks from the cropmarks alone. Perhaps similar to these are the large broad-ditched enclosures at Spratton B, Wilbarston B and Rothwell (see Fig 6.15: 9-11).

The Briar Hill enclosure was built on a north-facing slope, with the Hunsbury hillfort on the summit and the River Nene below, and the enclosures at Finedon, Spratton B

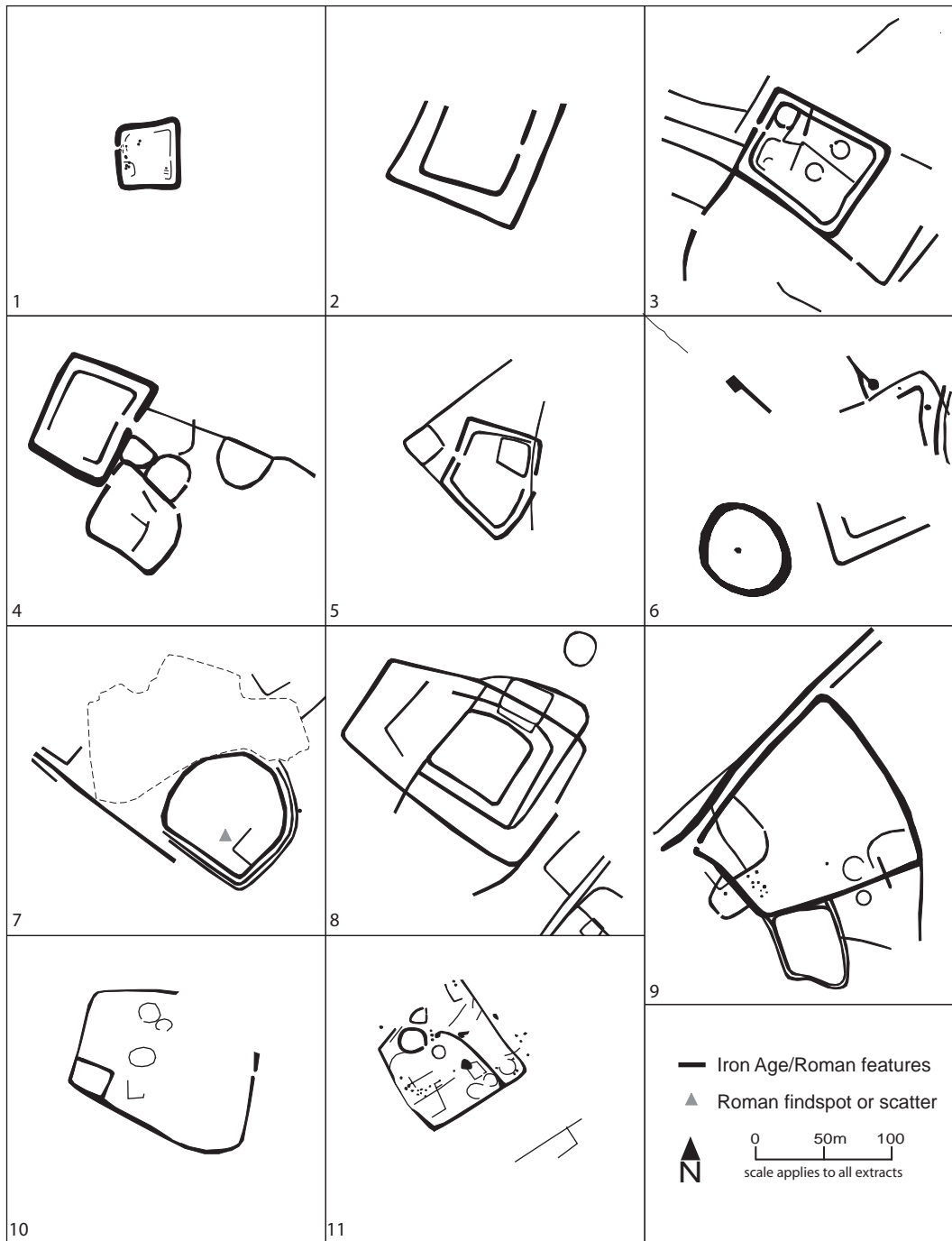
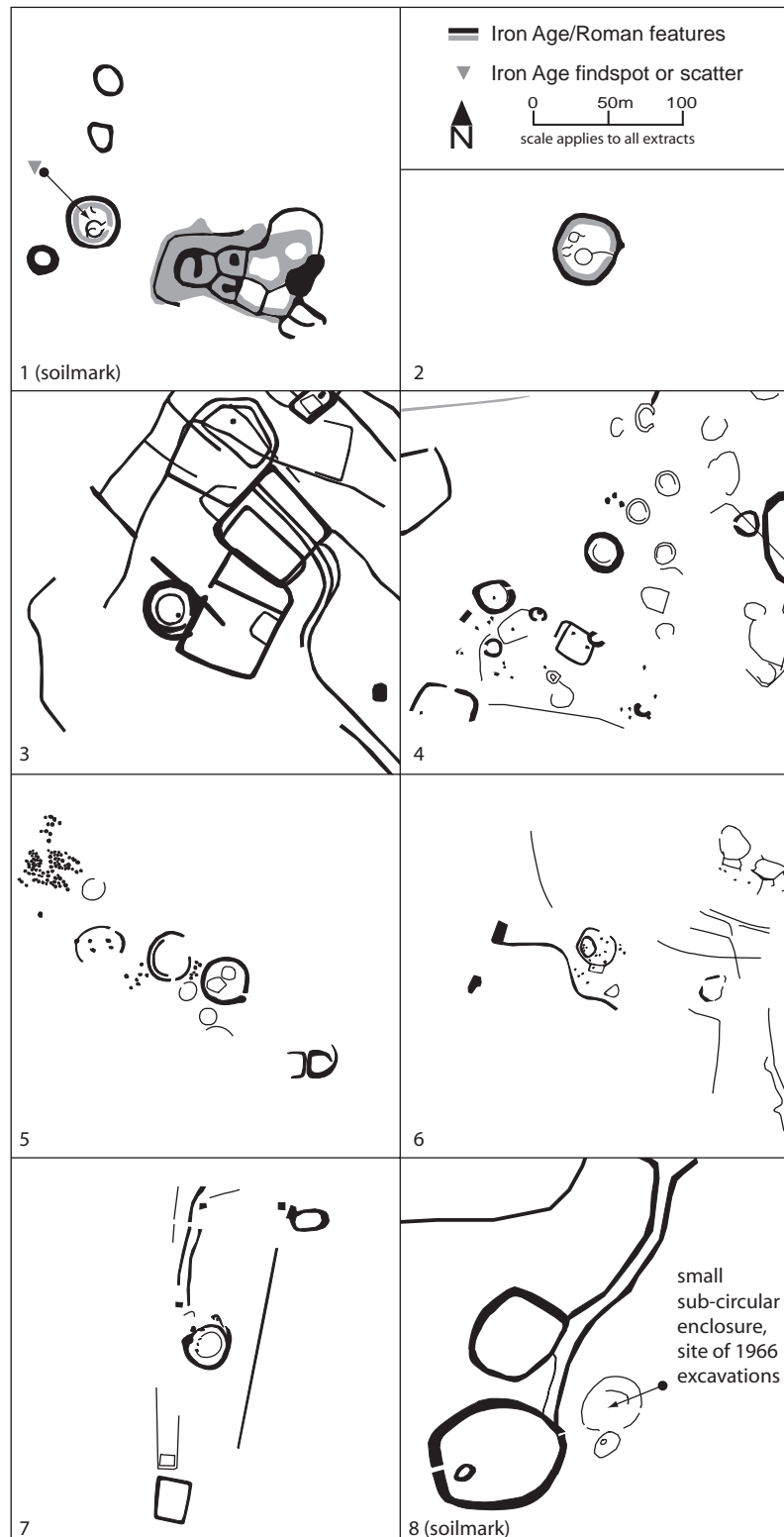


Fig 6.15
 Large enclosures:
 1 Wootton Hill Farm (after Jackson 1988-9);
 2 Northampton (Briar Hill);
 3 Old A;
 4 Quinton;
 5 Creaton;
 6 Finedon;
 7 Chapel Brampton B;
 8 Northampton (King's Heath);
 9 Spratton B;
 10 Wilbarston B;
 11 Rothwell
 (scale 1:5 000).

Fig 6.16
 Small sub-circular enclosures:
 1 Brigstock, composite NMP
 and excavation plan (after
 Jackson 1983, figure 3);
 2 Draughton, excavation
 plan (after Grimes 1961,
 figure 11.3);
 3 Church Brampton;
 4 Byfield;
 5 Staverton;
 6 Newbottle;
 7 Cranford B;
 8 Bozeat A)
 (scale 1:5 000).



and Rothwell likewise occupy mid-to-top-of-slope positions. Each of the examples at Old A, Quinton and Creton were constructed in low-lying positions, but within 500m of a major stream and

with water courses on three sides.

Only the Chapel Brampton B enclosure has produced surface finds, but this may be due simply to a lack of field-walking at the other sites.

In their discussion of the Wootton Hill Farm and other defended enclosures, Dix and Jackson also alluded to the possible defensive nature of two small, sub-circular enclosures at Draughton and Brigstock (1989, fig 10.3). The Monuments Protection Programme description for the WH-style enclosure specifically excludes these two sites, and the excavator of the Draughton enclosure conceded that it did not hold a strong defensive position (Grimes 1961, 21; MPP 1989a). Both enclosures have been dated to the Iron Age and were characterised by broad ditches and substantial internal banks (Grimes 1961; Jackson 1983) (Fig 6.16). Space within the enclosures was limited; at Draughton, 0.07ha and Brigstock just 0.04ha. Both enclosures contained one substantial hut and possibly other smaller huts or shelters, some of which may have preceded the enclosures. Both were built on boulder clay, and survived as earthworks into the 20th century. The Draughton enclosure was destroyed during the construction of a wartime airfield and the Brigstock example was visible as the soilmark of a recently denuded earthwork. The Brigstock example lay within 30m of a tight clustered arrangement of curvilinear enclosures, but although these are probably of Iron Age date they have not been fully investigated and the relative chronology of the two sites is unknown (Jackson 1983, 18–19).

Similar to the Draughton example are the sub-circular enclosure and its internal hut circle that were excavated at Bozeat A (*see* Fig 6.16: 8). The enclosure ditch was 2.4m wide but only 0.9m deep, although soilmarks at this site suggested that it too once had an internal bank (Hall 1971, SP8656/005). The internal area was again very small. The settlement was part of a group of recently-levelled enclosures, tracks and boundaries on the boundaries of Easton Maudit and Bozeat parishes, and among which there may be other comparable sites (*see* Fig 6.16).

Beyond this area there were few direct comparisons, and evidence for the presence of banks is generally unforthcoming from long-levelled, cropmarked sites. At Church Brampton, Byfield, Staverton and Cranford B there are enclosures of similar size and plan with broad ditches, each with one or more internal hut (*see* Fig 6.16: 3–7). The Cranford B example had a small, rectangular annex outside the broad ditch, an arrangement that is mirrored at

Newbottle (Fig 6.16: 6). The narrow circuit of the Newbottle example suggests that it was enclosed by a palisade trench rather than by a ditch and bank.

Although these small sub-circular enclosures are characterised by defensive-scale boundaries it is far from clear that defence was their primary function. None is in a particularly strong position and their small size would have left them easily surrounded by attackers. The economy at Brigstock is thought to have centred on sheep farming and associated crafts (Jackson 1983), but there would have been little space to harbour livestock within these enclosures in the face of an external threat. Grimes has suggested that the Draughton enclosure was the dwelling of iron workers who kept their raw materials close at hand (1961). Although there was little to indicate it in the material retrieved from the excavated examples, these sites may have been the expression of the different, perhaps elevated status and standing of a small family group. It may be of further significance that several of the examples where located close by other, larger settlements.

Thirty metres east of the small sub-circular enclosure at Brigstock lie the remains of a tight cluster of small sub-circular and curvilinear enclosures of possible Iron Age date (Brigstock B) (Jackson 1983, 19). A recently-denuded earthwork, the well-defined soilmarks suggest the presence of internal banks and small internal areas (Fig 6.17: 1). Similar clusters have been recorded 8km to the north-east at Benefield and in the south of the county at Easton Maudit (*see* Fig 6.17: 5 and 6.17: 3). Unfortunately, bank material rarely survives in areas with a long ploughing history, so other direct comparisons are difficult to make. However, the accreted arrangement of small curvilinear enclosures is reflected in settlements at Great Houghton, Loddington, Finedon and Old B (*see* Fig 6.17: 2, 6.17: 4, 6.17: 6 and 6.17: 9.). Trial excavations of the cluster of curvilinear enclosures at Bozeat B have confirmed the presence of Late Iron Age to Roman period activity in the area, but interestingly also Early to Middle Saxon remains (*see* Fig 6.17: 7). The nature of the elements that were visible from the air has yet to be fully revealed, but geophysical survey has confirmed their presence, as well as an unseen extensive system of small fields and paddocks and enclosures in the area to the south.

The small sub-circular enclosures and clustered small curvilinear enclosure settlements are rather anomalous to the generally more regular and rectilinear plan of most Middle to Late Iron Age enclosures,

although this apparent conformity doubtless belies a great variety of date, function and longevity. Among the other enclosures types there are small, irregular enclosures and settlements that are undated, have no

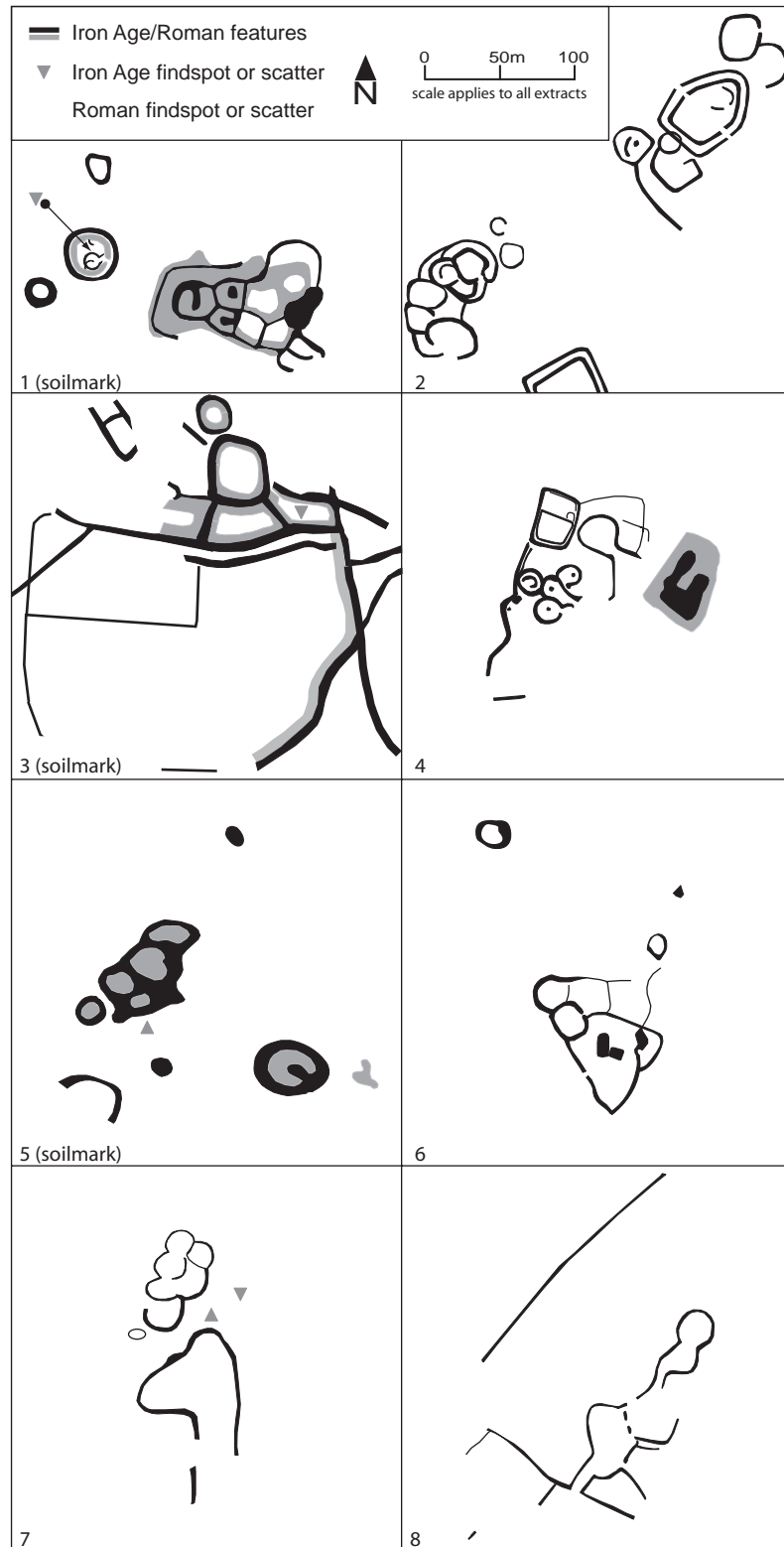


Fig 6.17
 Clustered small curvilinear enclosures:
 1 Brigstock B, composite NMP and excavation plan (after Jackson 1983, fig 3);
 2 Great Houghton;
 3 Easton Maudit;
 4 Loddington;
 5 Benefield;
 6 Finedon;
 7 Bozeat B;
 8 Old B)
 (scale 1:5 000).

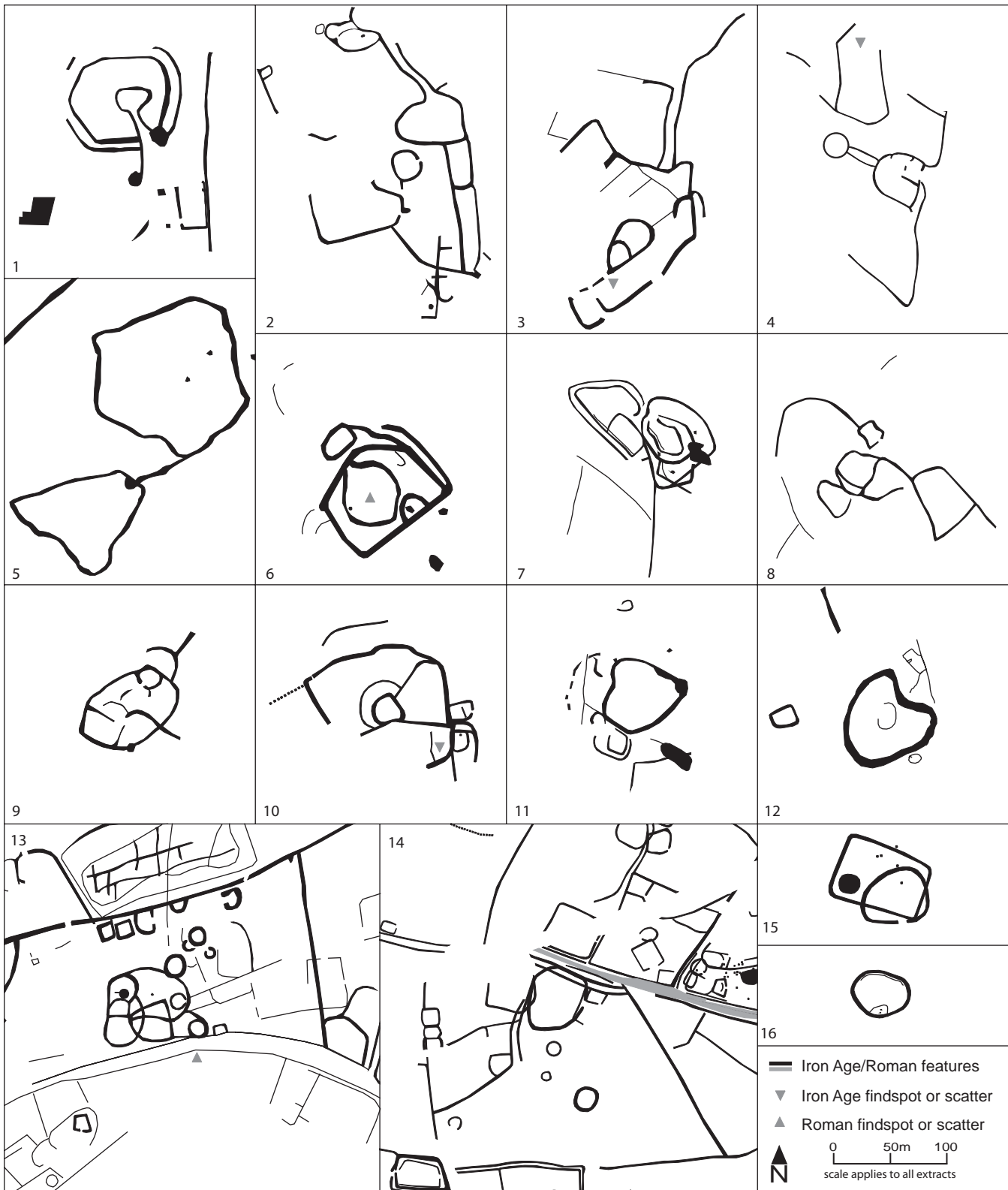


Fig 6.18
Irregular and
curvilinear enclosures:
1 Bozeat C;

2 Evenley;
3 Castle Ashby A;
4 Brafield on the Green;
5 East Carlton;

6 Irchester;
7 Sulgrave A;
8 Rushden B;
9 Castle Ashby B;

10 Little Houghton A;
11 Cranford C;
12 Mears Ashby A;
13 Great Harrowden;

14 Harlestone;
15 Moulton B;
16 Wellingborough)
(scale 1:5 000).

excavated parallels and generally resist classification. Settlements at Bozeat C, Evenly, Castle Ashby A, Brafield, Irchester and Sulgrave A each contain a diverse range of enclosures and other elements, but the common presence of a funnel-like entrance or track invites their comparison with Middle to Late Iron Age banjo enclosures (Fig 6.18: 1–4 and 6.18: 7).

Groups at Great Harrowden, Harlestone and Moulton B are united by the common juxtaposition of the curvilinear enclosure against a landscape of otherwise rectilinear arrangements (*see* Fig 6.18: 13–15). It is interesting to note that each appears to be an early development of each site. The Wellingborough curvilinear enclosure is distinguished by the presence of a possible internal palisade trench (*see* Fig 6.18: 16). The distinctive lobed plan of the Cranford C and Mears Ashby A enclosures is also seen in an element of the linear settlement at Strixton (*see* Figs 6.18: 11–12 and 6.13: 2). Such irregularity may arise from the presence of unseen constraints rather than a choice of style, and so any coincidence of plan form may be meaningless.

Farming and industry

Understanding of the nature and character of later prehistoric farming in Northamptonshire is not particularly well-developed, and is limited to the evidence of a few key sites (*see* Kidd 1999, 9).

The evidence from sites along the Nene Valley floor and sides – Wollaston, Raunds, Blackthorn and Wilby Way – is consistent with a landscape that was cleared of woodland by the Bronze Age and remained open through the Iron Age. (Williams and McCarthy 1974; Meadows 1995; Thomas and Enright 2003; Campbell and Robinson 2007). Environmental evidence of the conditions on the higher ground, the boulder clay-capped plateaux and Lias upper ground, is sparse.

Farmers in the Iron Age settlements at Wollaston and Stanwick are thought to have engaged in a mix of pastoral and arable cultivation (Robinson 1992, 205; Meadows 1995, 44). The valley-side settlement at Twywell may have cultivated some crops, but the predominant activity was probably pastoralism complemented by associated crafts, such as weaving and possibly dyeing (Jackson 1975, 66). Beyond the valley and up onto the boulder clay, Jackson observed that the soil was fertile but thin and, with

underlying clay, would have been difficult to plough; and that, again, the economy of the settlement was focussed on sheep rearing and the processing of wool (1983, 21).

The small rectilinear and curvilinear enclosures, interpreted by some as animal pens, are ubiquitous at the known open settlements and common at most other Iron Age settlements, and may attest to the significance of pastoralism at this time.

The management of the livestock in the wider landscape is more difficult to reconcile with landscapes revealed by the project. The pit-defined and ordered land parcels laid down in the Late Bronze Age and Early Iron Age are unlikely to have been the sole agent in the containment of stock, not least because the pit alignments would have been a permeable and thus ineffective barrier. It has been suggested that the large, sub-oval area at Newbottle, with its funnelled uphill exit, may have been a large cattle corral, and it is interesting that this feature appears to be embedded within the more regular rectilinear landscape (*see* Fig 6.3). The funnel-like entrances of the enclosures at Bozeat C, Evenley, Castle Ashby A, Brafield, Irchester and Sulgrave A may also point to the importance of controlling stock movement at these sites.

On the valley floor at Grendon a system of undated spade-dug trenches, possibly for growing grape-vines, appears to have been contained by the arrangement of pit alignments (Jackson 1997). In general though, it is perhaps unlikely that land parcels thus defined were conceived as individual fields. It is possible that they were subdivided by more ephemeral features, such as hedgerows or fences, marking the divisions of ownership and to protect crops from animals, both wild and domesticated.

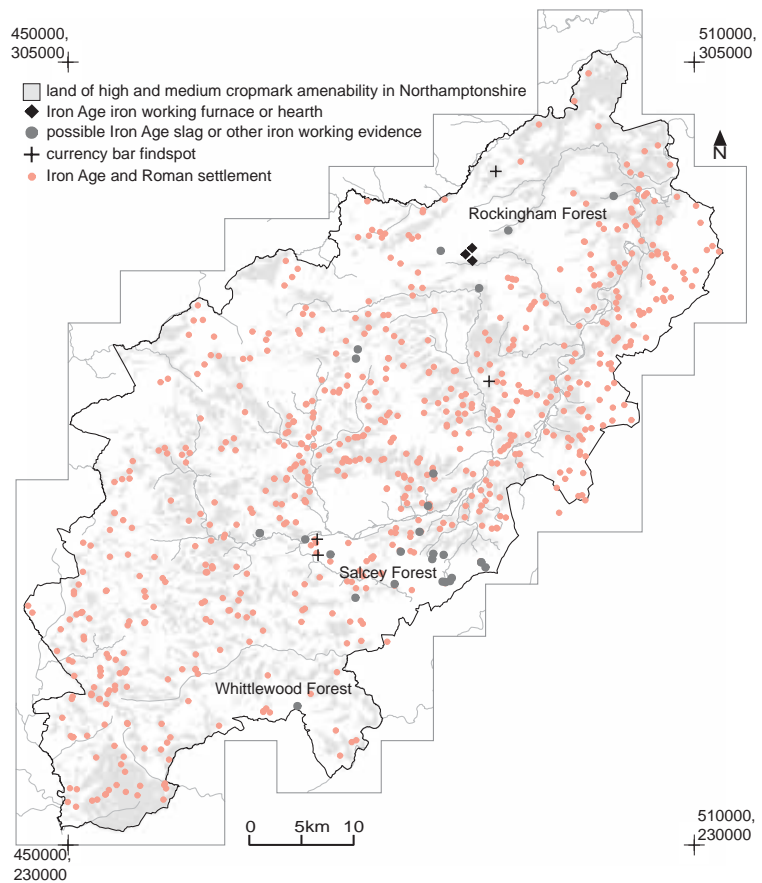
It has been argued that the density of Iron Age settlement, the predominance of sheep over pigs and deer, and the presence of quernstones in the claylands around Brigstock indicate an open landscape with the possibility of cereal production (Jackson 1983, 22). However, there is insufficient evidence to support or refute this inference. Robinson has noted that although the boulder clay areas of both the Rockingham Forest area and the Nene-Ouse watershed were occupied at this time, this affected no major changes on the Nene floodplain in the manner that extensive ploughing was to do in the Late Saxon and medieval periods, when arable expansion over most of the boulder clay plateaux is well documented

(1992, 206). The absence of any indication of a major alluviation event on the valley floor at this time suggests that ploughing and cultivation on the boulder-clay-capped watersheds were minimal, and that a stable ground surface was maintained by permanent grassland and, in some areas, woodland as the following industrial evidence implies.

Of the other crafts and industries practised in the Iron Age, iron smelting has left the most tangible physical remains (see Panel 2). Direct evidence for possible Iron Age smelting, in the form of hearths or furnaces, has been recovered in the parishes of Great Oakley, Wakerley and Harringworth, all in the Rockingham Forest area (Jackson and Ambrose 1978; Jackson 1981, 26; Jackson 1982). A wider distribution of iron working activities can be inferred from the distribution of iron smithing and smelting slags. Slags of Iron Age, Roman or uncertain date have been recorded at more than 160 sites, either during excavation or field-walking (from the SMR and D Hall pers comm). The dating of such material is often based on spatial associations to other features, a particularly precarious method for surface finds.

At approximately one fifth of these sites the iron working slag has been tentatively dated to the Iron Age. The greatest concentration of possible Iron Age slag has been found in south-west of the county in the Whittlewood and Salcey Forest areas (Fig 6.19). Relatively little of Iron Age date has been recovered and identified from the Rockingham Forest area beyond the known Iron Age hearths. In the south, slag has been recovered from an area largely covered by boulder clay and where, although the nodular outcrops found in the north-east of the county are absent, iron-rich erratics could have provided a local source of ore. The fuel requirements of even small-scale iron working imply the availability of appropriate fuel and possibly even managed coppice woodland. It may be no coincidence that the main foci for iron working were on boulder clay soils that have always been the least suited to arable or pastoral agriculture and the most appropriate for woodland (Beaver and Allen 1943).

In the Whittlewood and Salcey Forest areas much slag was recovered from the vicinity of probable Iron Age enclosures, particularly in the parishes of Bozeat, Yardley Hastings and Easton Maudit. However, the evidence of the excavated



Rockingham Forest hearths suggests that smelting often took place beyond the confines of settlements. The distinction between smithing and smelting slags is an important one (see Panel 2); unfortunately they cannot be readily differentiated in the record sources, although the majority are thought to be the result of smelting.

Looking elsewhere for evidence of iron working, the quantity of slag recovered from the Castle Yard hillfort, Farthingstone, suggests some industrial processing, but, as it came from within the rampart core, it is possible that this took place prior to the hillfort's construction (Knight 1986-7, 39). Smaller quantities have been recovered from the Daventry and Rainsborough hillforts and, although slag was notably absent from Hunsbury hillfort, the discovery of unfinished iron goods suggests some iron working was also undertaken on that site or in the surrounding area (Jackson 1993-4, 44). At Draughton, on the edge of Rockingham Forest, Grimes interpreted the presence of rich ironstone blocks as evidence of its occupation by a small group of iron workers, although presumably all work took place beyond the enclosure, as no

Fig 6.19
Distribution of Iron Age iron working furnaces and hearths, possible Iron Age slag or other iron-working evidence and iron currency bars (after SMR and D Hall pers comm) (scale 1:750 000).

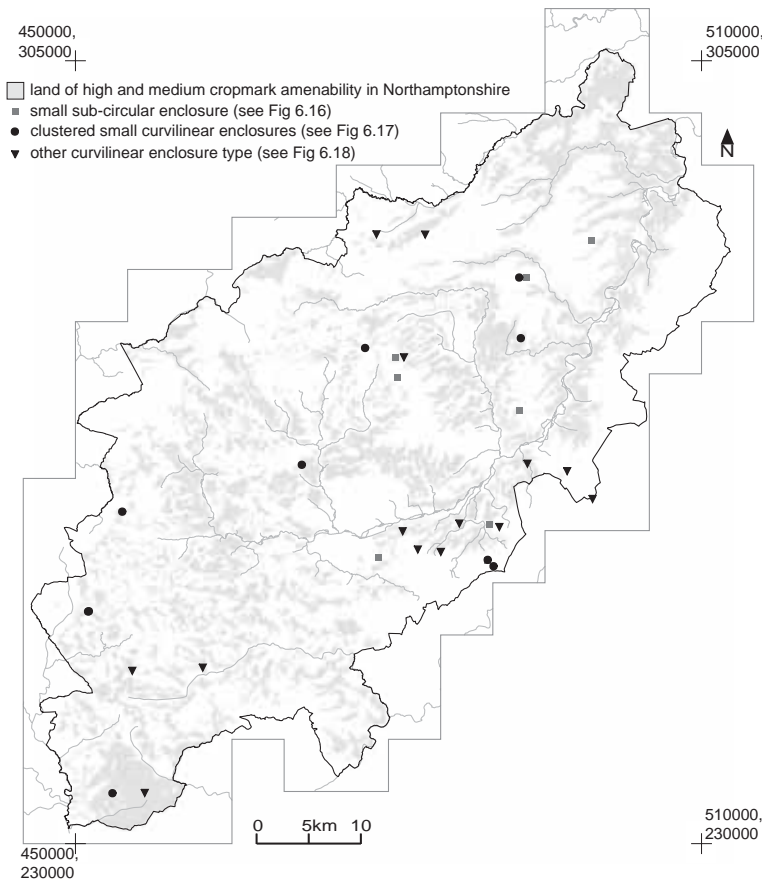


Fig 6.20
Distribution of small sub-circular enclosures, clustered small curvilinear enclosures and other curvilinear enclosures (see Figs 6.16–6.18) (scale: 725 000).

slag was reported. (1961, 21–3). A small quantity of slag was recovered from the Wootton Hill Farm enclosure, as was part of single currency bar, but on the whole iron working does not appear to have been a significant activity at the other WH-style enclosures that have been excavated.

Iron currency bars have been recovered from the Wootton Hill Farm enclosure and Hunsbury hillfort; hoards of more than 80 and 40 bars were found at Burton Latimer and Gretton, respectively, and others come from just outside the county at Madmarston Castle, near Banbury, Oxfordshire, and from Orton Meadows, near Peterborough (Hingley 1990). Their presence is undoubtedly of some relevance to the state of the iron industry of the time, but their precise significance is debated. Ehrenreich has suggested that the bars were the stock of a mobile blacksmithing community and others have claimed that they were buried for safekeeping (Allen 1967, 318; Ehrenreich 1985, 78). Hingley, though, has refuted the solely practical interpretation of the bars, which come in at least three different forms – plough, sword and spit – and he doubts that any iron worker would be

ignorant of the likely degradation to iron work that burial would cause (Hingley 1990). He suggests that in the context of burial (or, as in the Orton Meadow example, watery deposition), often of bars that were deliberately broken or bent, these acts with the bars fulfilled some symbolic function. This alternative interpretation should not detract from the significance of these objects being available in the county, and that perhaps processed iron was sufficiently abundant that substantial quantities could, as Hingley puts it, be ‘decommissioned’.

Discussion

The character of Middle to Late Iron Age and Roman rural settlement in Northamptonshire is variable. The dominant pattern seems to have been one of dispersed settlement in small groups, either in or around small clusters of rectangular enclosures or small open settlements. Distinctive among these are the Iron Age small sub-circular enclosures and possibly some of the WH-style enclosures, whose massive ditches and banks, although suggestive of defence, may have been an expression of higher or different status.

There are expansive open settlements, such as at Ecton A, Catesby and Byfield, but it is unclear if these represent substantial communities or simply settlement drift and longevity. The arrangements of huts within some of larger enclosures, such as Old A, Wilbarston B and Rothwell, may have supported larger groups.

In many areas, such as like Wollaston and Harlestone, numerous small settlements and farmsteads developed within a framework of older boundaries, suggesting that communities of were unified in their common observance of the inherited boundaries.

There is recurrent, albeit piecemeal, evidence that many of the Middle to Late Iron Age settlements developed within and with reference to planned landscapes established in the preceding centuries.

However, from certain areas, particularly on the claylands, impressions of different landscapes are emerging. The claylands are as yet poorly understood, despite a considerable history of investigation and excavation. Nonetheless, some key trends can be identified. The distribution of settlements like Brigstock A and B, which are quite distinctive from the majority of rectilinear-plan settlements, show a bias towards the less well-drained soils, in the

Rockingham Forest area and in the Nene-Ouse watershed (Fig 6.20). Other unusual forms, such as the antennae entrance enclosure, are similarly concentrated on the boulder clay between the Nene and the Ouse. The distinctive plan form of these settlements may reflect a specific strategy for farming and general landscape management in these areas.

Cropmarks or soilmarks of extensive boundary and settlements systems are sparse in the Rockingham Forest area, where the combined influence of soils, geology, historic and present land use reduce visibility from the air. However, such landscapes do occur extensively on the boulder clay of the Whittlewood-Salcey and Bromswold areas, where they are visible as cropmarks. Some of these settlements, like those at Hargrave A and B and Raunds B, display the regularity seen elsewhere on more permeable geologic conditions, but they are interspersed with more sinuous linear settlements and more meandering trackways, as at Strixton and Barnwell (*compare* Figs 6.12: 8, 6.12: 9, 6.12: 11 with 6.13: 2 and 6.13: 4). While topography is a possible influence in the overall routing of these features, it does not appear to be a direct factor in the localised irregularities and sinuosity, and there may have been other unseen influences. Despite Jackson's doubt that any extensive woodland existed on the claylands in the Iron Age, accumulated circumstantial evidence suggests that the heavier soils may have supported a mosaic of grassland and managed woodland. The apparent absence not only of Neolithic and Bronze Age monuments, but also of any contemporary sites or find spots, may be significant (*see* chapter 4, Figs 4.10 and 4.11). This evidence may indicate that these parts were not substantially cleared of trees in these periods. Certainly the demand for timber for building, and underwood fuel for the iron and pottery industries, can only have increased through the Iron Age and Roman periods, and it is to be expected that, as in later centuries, these industries were located very close to their sources of fuel.

Roman Northamptonshire

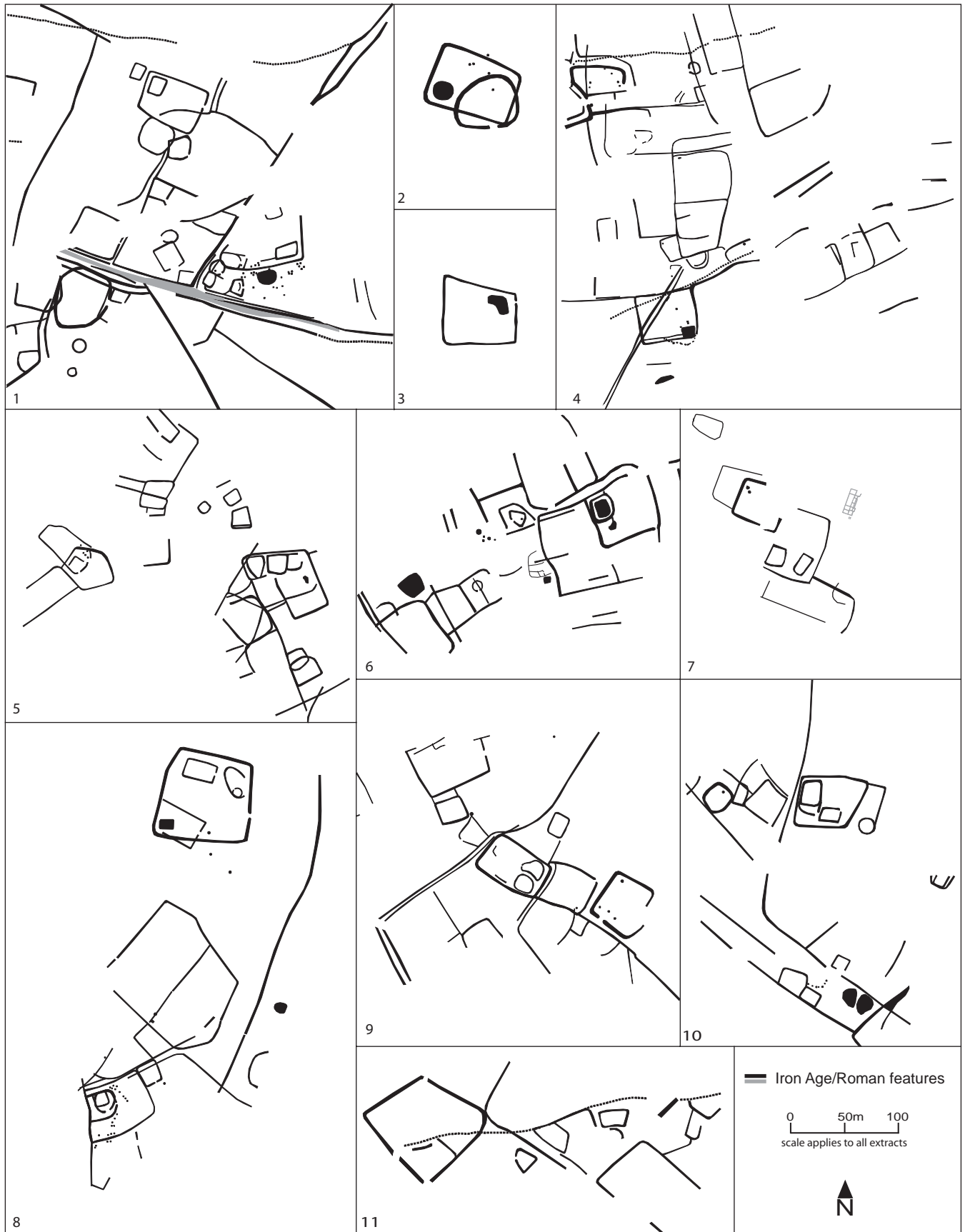
Rural settlement

Many of the rural settlements established in the Iron Age continued in use in the Roman period, as demonstrated by mixed Iron Age

and Roman surface scatters, including many from cropmarked sites (*see* Figs 6.11–12 and 6.16–18). However, at most sites it is difficult to distinguish any Roman elements from earlier settlement from NMP mapping alone, and in the absence of intensive, targeted and systematic field-walking studies, the correlation between surface finds and individual cropmarked features is too crude. Thus, some of the following suggestions of distinctions between Iron Age and Roman enclosures await more rigorous testing.

During the Roman period there was a change in building architecture from circular to rectilinear plan, and from timber construction to the increasing use of stone, but these developments were gradual and occurred with some geographic variations (Taylor 1999, 4). At Moulton D a large, well-defined, rectilinear cropmarked maculae or pit-like feature was revealed to be a stone-built, cellared structure of Roman date (feature 280 in NA 1999c, 10 and 91). This building was found at the south-east corner of a large rectangular, ditch-defined enclosure, which itself abutted a longer linear ditch that lay parallel to the stream below (Fig 6.21: 4). Farther east, a series of at least three enclosures or paddocks about the same ditch. Interestingly though, the ditch and enclosure cut obliquely across a pit alignment, which is presumed to be of earlier date and part of a wider land division (*see above*). Farther east again, along this small valley, and in the same parish, there is a second enclosure with a similar, although less regular, corner macula, perhaps an indication of a similar structure (Moulton B) (*see* Fig 6.21: 2). Interestingly, the rectilinear enclosure intersects the ditches of a distinctly curvilinear enclosure, which may be an earlier settlement or, as the name Castle Field suggests, a small ringwork of medieval date (Brown and Foard 1994, 121). There is a third example of a possible building in the same parish (Moulton C) and others at Scaldwell B (*see* Figs 6.21: 3 and 6.21: 8).

At Little Houghton B there are a series of enclosures and paddocks within which there are traces of similar possible buildings, and a round house (*see* Fig 6.21: 6). One of the possible buildings is enclosed by a ditch. This site has produced some evidence of Iron Age occupation, but also Roman pottery production, and it is likely that most of the visible enclosures and possible buildings relate to this phase of the site's occupation (RCHME 1979, 86).



Roman pottery production is also in evidence at a settlement at Long Buckby, where the cropmarks have revealed a dispersed arrangement of fields and enclosures, and of smaller rectilinear enclosures, across the hillside (see Fig 6.21: 10). There is a similar poly-focal settlement less than 2km east at East Haddon (see Fig 6.21: 5). Common to these, and to other settlements at Harlestone, Wollaston and Harpole, are the small rectilinear enclosures inserted at the edges or corners of rectilinear or polygonal enclosures. At present there are no known excavated correlates for these features, so any interpretation or dating is supposition. Certainly these enclosures are too large to be the actual foundation trenches of buildings, but they may have been dug to separate rectangular-plan buildings of either timber or stone from other activities and/or livestock. It may be significant that the Wollaston examples lie so close to the villa building.

The nature of continuity at sites of Iron Age settlement is undoubtedly complex. At Wakerley, during the Roman period, activity continued and indeed increased around the large Iron Age enclosure that lay south of the largely unenclosed settlement (Jackson and Ambrose 1978). The enclosure was re-defined and extended, and became the focus for corn-drying, pottery firing and iron-working. An aisled barn was built within the enclosure, but most occupation appears to have shifted, presumably beyond the area of investigation, possibly to a nearby villa. A similar scenario was played out at Weekley, with the addition that a Roman Road was cut oblique across the dominant alignment that had so influenced the development of the Late Iron Age settlement (Jackson and Dix 1986–7) (see Fig 6.10: 1).

Even at Great Doddington, where the great ditches of the enclosure were infilled in the Roman period, the presence of Romano-British debris in the ditch fills indicates the likelihood of contemporary settlement near by (Windell 1981).

Villas

At the time of writing there were 93 known or suspected villas in the county. Much of the evidence has been collated from the existing records and publications in a country-wide survey by Scott (1980, 139–49). The location information in this publication is very coarse, and so wherever

possible SMR data have been used to more accurately locate the known sites for this discussion. There may be an over-estimation of the number of villas because interpretation is based solely on surface finds of building materials.

This project has recorded possible evidence for 34 of these villas. In 22 cases the foundations or robber trenches of former buildings were visible from the air, and in four of those they were surrounded by a large enclosure or compound (Fig 6.22). The evidence for the villa structures themselves indicates considerable variability in architecture and size. Compounds, enclosures or ditches have been recorded at the sites of the other 11, but it is possible that these relate to other periods of occupation on the same site (Fig 6.23). The enclosures recorded at Thurning, Nassington B and Sulgrave B may also have been built around villas, but no evidence of any internal structures at these sites has yet come to light. Taylor has noted that enclosure of villa sites occurred relatively late (Taylor 1999, 3).

The known and potential villas are densely concentrated along the River Nene and the valleys of minor tributaries, in places the distance between neighbouring sites is no more than 1km to 2km, although of course not all were necessarily contemporaneous (Fig 6.24). There is a much more sparse distribution on the Lias clays in the north and west of the county, but there is a considerable presence on the boulder clays of both the Rockingham Forest area and the Nene-Ouse watershed. The concentration in the north-eastern part of Rockingham Forest may, in part, reflect the proximity of the major Roman town of Durobrivae, while management of the substantial iron industry by villa estates might also have played its part in generating this distribution.

Roman stone buildings of circular plan have been excavated at Ringstead, Overstone and Thorplands, and are visible at the villa sites of Cotterstock, Great Doddington, Stoke Bruene and Blather-wycke, and at the small town of Titchmarsh. The nature of the evidence at Thorplands, a settlement of 'reasonable prosperity' engaged in animal husbandry and small-scale iron working, suggests that the circular stone building was not in itself a dwelling of high status (Hunter and Mynard 1977, 108). In the other examples, the spatial relationship between the circular buildings

Fig 6.21 (opposite)
Possible Roman elements among Iron Age and Roman rural settlement:
1 Harlestone;
2 Moulton B;
3 Moulton C;
4 Moulton D;
5 East Haddon;
6 Little Houghton B;
7 Wollaston;
8 Scaldwell B;
9 Harpole;
10 Long Buckby;
11 Holdenby
(scale 1:5 000).



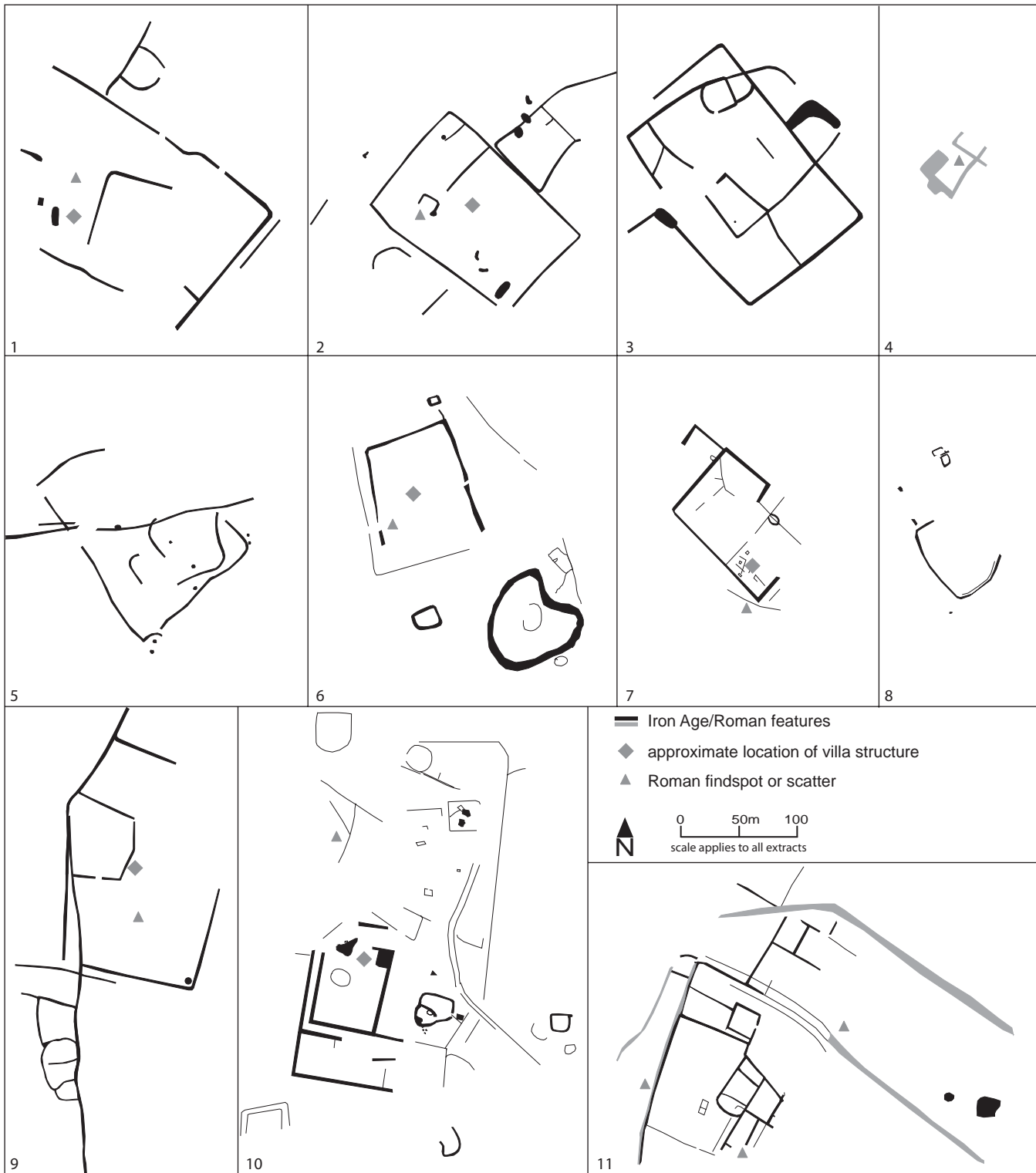
Fig 6.22 (above)
 Villa structures:
 1 Wollaston;
 2 Little Addington B;
 3 Fotheringhay B;

4 Wakerley;
 5 Great Doddington;
 6 Stanwick; 7 Cotterstock;
 8 Blatherwycke)
 (scale 1:2 500).

Fig 6.23 (opposite)
 Large rectilinear enclosures
 at known and possible
 villa sites (SMR; Scott
 1980; D Hall pers comm):
 1 Barnwell;

2 Hemington;
 3 Thurning;
 4 King's Cliffe;
 5 Nassington B;
 6 Mears Ashby B;
 7 Glapthorn;

8 Sulgrave B;
 9 Clopton;
 10 Thenford;
 11 Higham Ferrers)
 (scale 1:5 000).



and main villa ranges is a close one, and appears to be the results of contemporaneity rather than succession. The possibility that some were temples in the manner of the Brigstock shrines has already been mooted (Williams 1976, 112).

Nucleated settlements

Excavations of the villas and their immediate environs at Higham Ferrers, Stanwick and Cosgrove have revealed nucleation of Roman settlement on these

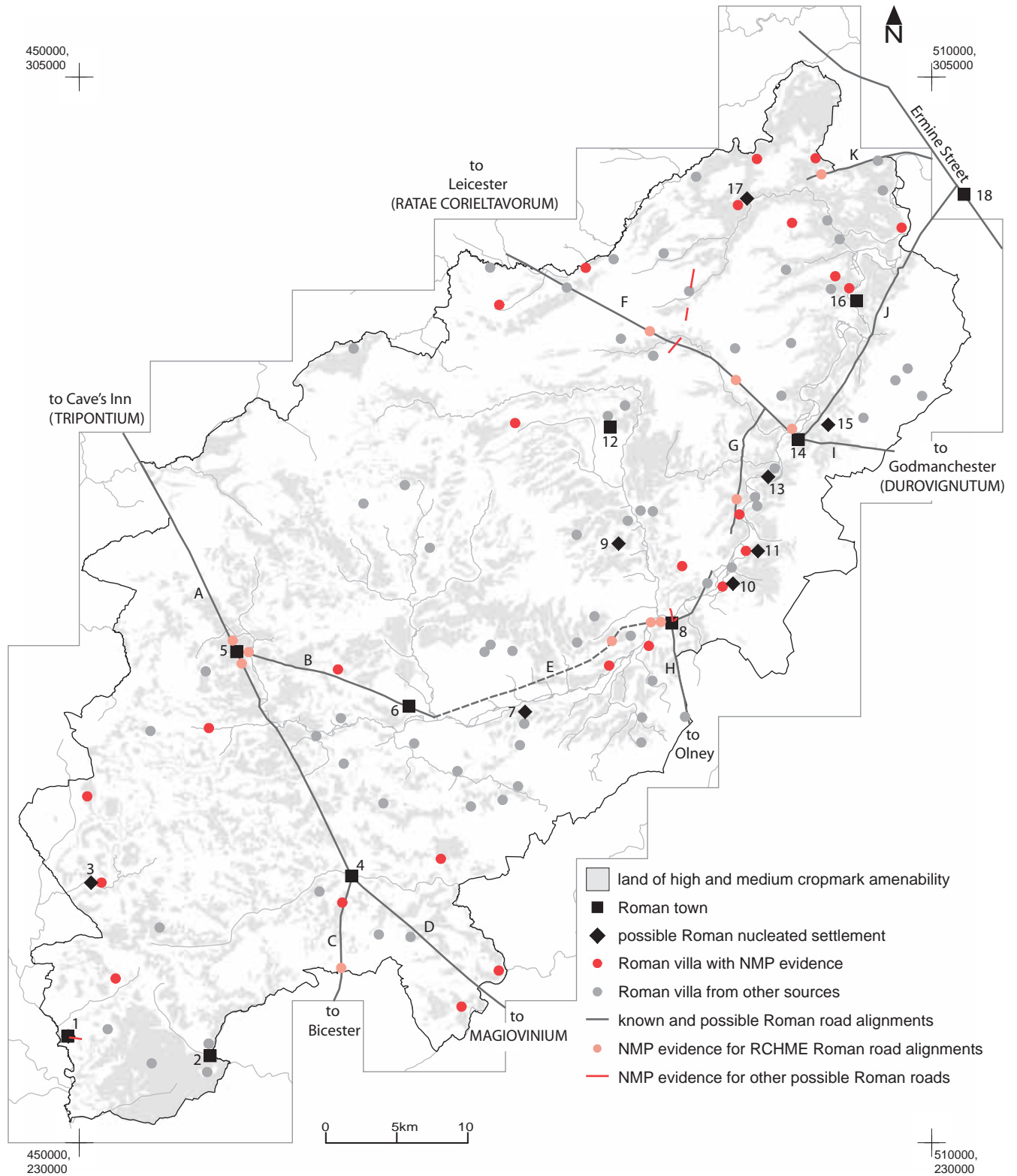


Fig 6.24
Distribution of Roman towns, nucleated settlements, villas and the layout of the road network (for roads see

Table 1): 1 Blacklands, Kings Sutton; 2 Brackley; 3 Black Grounds, Chipping Warden; 4 Towcester; 5 Whilton Lodge (Bannaventa); 6 Duston;

7 Little Houghton; 8 Irchester; 9 Little Harrowden; 10 Higham Ferrers; 11 Stanwick, Raunds; 12 Kettering;

13 Woodford Huxloe; 14 Titchmarsh (town); 15 north of Titchmarsh village (?nucleated settlement); 16 Ashton;

17 Laxton; 18 Waternewton (Durobrivae) (D Hall pers comm; RCHME 1975, 1979, 1981, 1985; Scott 1980; SMR) (scale 1:400 000).

high-status settlements. Although the villa structures at Higham Ferrers and Stanwick were visible on air photographs, there was little to distinguish the surrounding features from the more common fragments of Late Iron Age or Roman rural settlement.

A combination of surface finds and cropmark evidence around the villas at Black Grounds, in Chipping Warden, and Woodford Huxloe, in Woodford, suggests that they may also have been the focus of associated settlements. Large quantities of Roman finds have been recovered from the area around Black Grounds, indicating that it was a larger settlement than the rather sparse cropmarks suggest (RCHME 1982, 29). South-west of the second Woodford villa there is a linear arrangement of tightly clustered enclosures, boundaries and pits visible over an area of approximately 4.5ha.

Complex cropmarks at Little Harrowden and north of Titchmarsh village may represent similar concentrations of population, but there is no supporting evidence from surface finds of the status or even the likely date of these remains. Little is known about the complex buildings and enclosures at Little Harrowden. These were mapped from infra-red photography and the prints were not available for review at the time of writing. However, the example north of Titchmarsh village is much clearer and may be associated with a possible temple site, which is 0.5km to the south-west, in the direction of the small town at Titchmarsh (*see below*).

RCHME suggested that the crop marks recorded at Little Houghton B (*see* Fig 6.21: 6) were part of a 'semi-urbanised or at least very densely occupied settlement' (1979, xiv), but this interpretation appears not to be supported by the NMP evidence, the surface scatter or related evidence in the SMR. Excavation of a large cemetery and buildings attest to the presence of a nucleated settlement at the industrial-scale iron works at Laxton, but there is no evidence for this visible on the air photographs consulted (Jackson 1998–9, 159).

Small towns

Aerial photography has revealed details of the plan and layouts of the Roman small towns at Whilton Lodge (Bannaventa), Irchester, Titchmarsh and Ashton, and some features at Blacklands at King's Sutton (Figs 6.25 and 6.26). No information was recorded from the



air photographs for the small towns of Brackley, Duston, Towcester (Lactodorum) and Kettering. This is because Duston and Kettering were largely quarried and built over in the late 19th and early 20th centuries, and Towcester's Roman levels are masked because the site was refortified as a Late Saxon *burh* and developed into a medieval and modern town.

At Bannaventa air photographs have revealed the plan of an expansive settlement that developed at the junction between Watling Street and a spur road that led to the small town at Duston (*see* Fig 6.26: 2). Only the western side of the town is well defined, whereas the section east of Watling Street, which was partly quarried in the 1970s, is barely visible. The dominant features are the ditches of the town's defences, which appear to cut across other elements.

Fig 6.25
View of cropmarks and parchmarks at Irchester Roman town, looking east (NCC photograph SP9166/307 10th July 1994 NCC copyright).

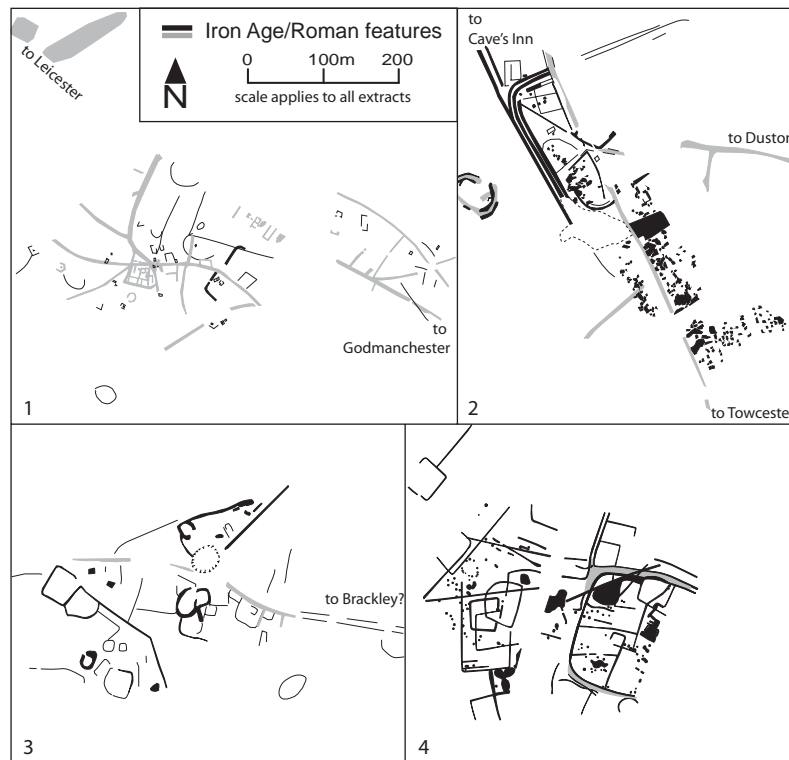


Fig 6.26
 Roman towns:
 1 Titchmarsh;
 2 Blacklands, Kings Sutton;
 3 Ashton;
 4 Whilton Lodge
 (Bannaventa)
 (scale 1:10 000).

Possible buildings have been detected along the road some 650m south of the town.

The majority of the town at Irchester is visible on air photos in exceptional detail (see Fig 6.25). The town core occupies a modern field unit of some 7ha with a high density of buildings, enclosures and streets, but other more dispersed elements are visible in neighbouring fields up to 300m away. The town appears to have been planned along a series of streets branching from the main north-south road, although some elements may predate the final road layout. More than 200 possible buildings or structures are visible within the town. Roads can be clearly seen leaving the settlement heading west to Duston, north to Kettering via a causeway across the floodplain, and east to Titchmarsh. A fourth road is known from fieldwork to extend southward to Dungee Corner and possibly beyond to Olney in Buckinghamshire.

The visible remains at Titchmarsh are rather more fragmentary and dominated by a complex, dendritic pattern of roads (see Fig 6.26: 1). A handful of buildings front the road that leads to Leicester, a road visible 300m to the north-west as a causeway crossing the valley floor. Less than 200m south-west, a second concentration of structures is visible, focussed on the junction of several minor roads. These

structures are arranged within a rectangular compound and may represent the remains of a mansio or perhaps a temple complex (J Taylor pers comm); 100m to the south-west the air photographs have recorded four sides of a pentagonal or hexagonal structure: another possible temple.

The town of Ashton is located close to the river but over 1.5km from the presumed line of the Roman road that ran between Waternewton (Durobrivae) and Titchmarsh. Unlike Titchmarsh and Irchester, there are few structural remains visible on the air photographs at this site, the principle elements being large, superimposed rectilinear enclosures, sub-divided by a network of metalled roads, and with a high density of large pits (see Fig 6.26: 4). However, extensive excavation has demonstrated buildings lining the main north-east-south-west road, immediately south-east of the cropmarks mapped here.

At Ashton, Titchmarsh and probably Irchester, the plan form thus appears to be based upon a main through-road lined with structures, but with the majority of the settlement focussed around a loop road running off the main route and back again. In the case of Irchester, only this core area was enclosed by defences.

By contrast the visible elements at Blacklands, Kings Sutton, in the far south-west of the county do not distinguish themselves as the remains of a town and could perhaps be mistaken for a smaller road-side settlement, although the distinction between the two may be largely artificial in any case (J Taylor pers comm.) (see Fig 6.25: 4).

Roman roads

This project has recorded more than 50 sections of possible road from air photographs, some as earthworks, but mainly as cropmarks, parchmarks or soilmarks. The majority are undated and, although many are believed to be Roman, few can be securely attributed to this period. Some, such as the embankments at Laxton and Fineshade, can be demonstrated to be of post-medieval date by reference to contemporary maps (AHRC Project digital archive). It has not been possible to undertake detailed historic map work of potential road-like features as part of the NMP, so a detailed reconstruction of the Roman network must await the analysis phase

of the AHRC-funded Northamptonshire Landscape project (Foard *et al* 2005).

Some good sections of cropmark or soilmark road do run along the routes of Roman roads suggested by the RCHME (1975; 1979; 1981; 1985), but these represent only a small proportion of the overall sample (*see* Fig 6.24 and Table 6.1). The other, more secure, examples can be found in and around the known Roman towns of Irchester, Titchmarsh, Blacklands in Kings Sutton and Ashton (*see* Figs 6.25 and 6.26). The longest sections of possible Roman road are visible as soilmarks over a distance of more than 3km

across the parishes of Stanion and Weldon. These probably link to the road excavated on the Weekley Iron Age and Roman settlement, and suggest a route from Kettering north-eastward to Great Casterton (Jackson and Dix 1986).

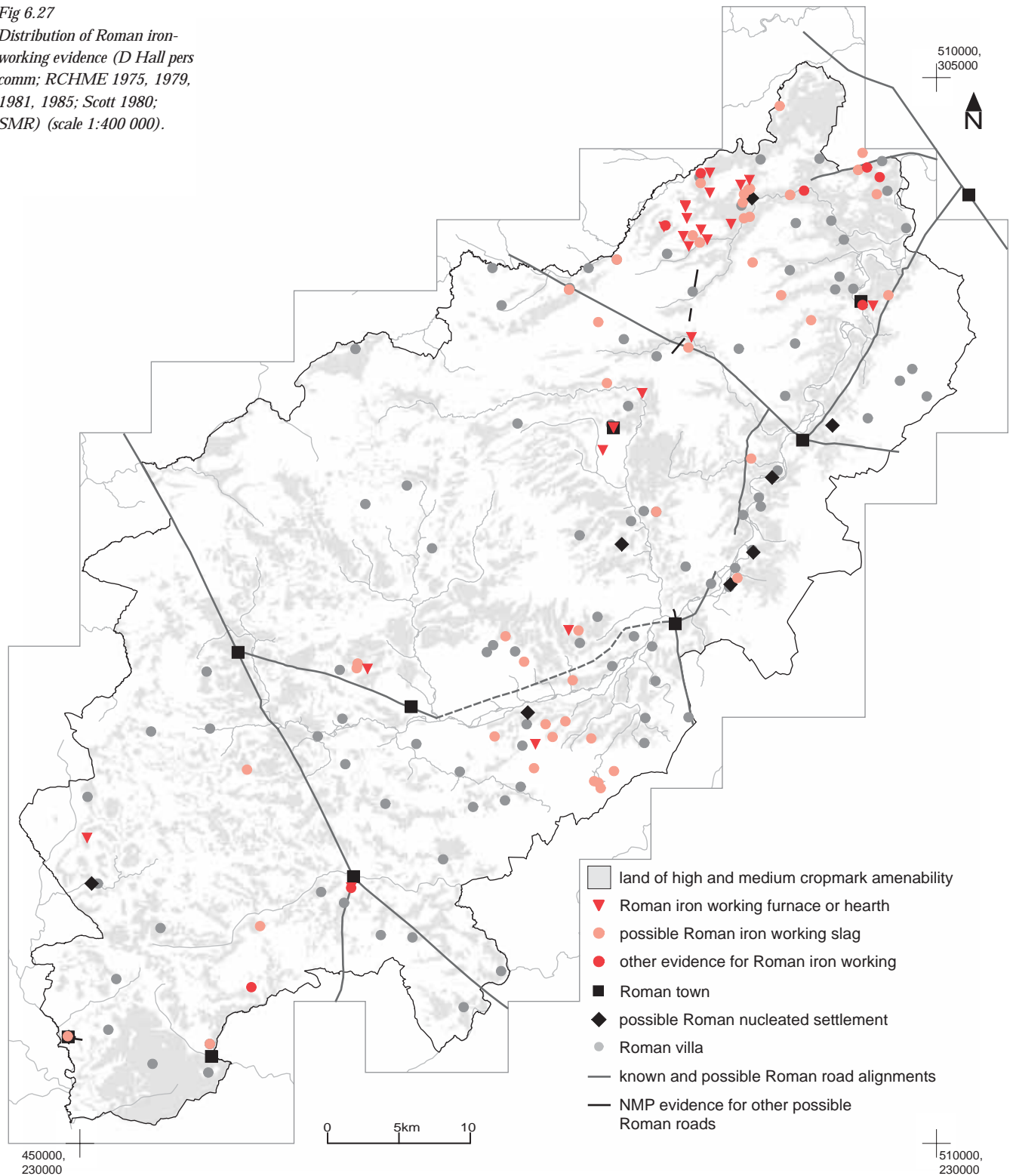
Iron working

The Whittlewood and Salcey Forest areas continued to produce iron through the Roman period, but the evidence suggests that the Rockingham Forest area came to dominate the industry (*compare* Figs 6.19 and 6.27). Beyond these two areas

Table 6.1 Summary of the evidence for Roman roads in Northamptonshire

label on Fig 6.24	road name	Margary no.	route (local)	RCHME source	NMP evidence
A	Watling Street	1f	Towcester (Lactodurum) to Whilton Lodge (Bannaventa) to Cave's Inn (Tripontium)	RCHME 1985, figs 129–130	NH399.1.2 –parchmarks of road to the north and south of Bannaventa Roman town
B	–	17	Whilton Lodge (Bannaventa) to Duston	RCHME 1981, fig 158	NH399.1.2 – parchmarks of road leading east from Bannaventa Roman town
C	–	–	Towcester (Lactodurum) to Bicester	RCHME 1985, fig. 13	NH258.1.1 cropmarks of road
D	Watling Street	1f	Towcester (Lactodurum) south-east to Magiovinium	RCHME 1985, fig. 130-131	–
E	–	–	Irchester to Duston	RCHME 1979, 188	NH38.4.1 parchmark of road, NH52.56.1 parchmark of road, NH52.59.2 parch mark of road leading west from Irchester Roman town
F	Gartree Road	57a	Titchmarsh to north-west to Leicester (Ratae Corieltavorum)	RCHME 1979, fig. 169-170; RCHME 1975, fig.125-126	NH87.1.1 soilmark of road, NH26.6.1 cropmarks of road, NH398.6.1 soil marks of causeway
G	–	?570	Titchmarsh to Irchester	RCHME, 1979, fig. 170; RCHME 1975, fig. 124	NH195.2.1 cropmarks of trackway on this alignment
H	–	170	Irchester to Olney	RCHME 1979, fig. 171	–
I	Gartree Road	57A	Titchmarsh south-east to Godmanchester (Durovignutum)	RCHME 1975, fig. 125	–
J	–	570	Titchmarsh north-east to Waternewton (Durobrivae)	RCHME 1975, fig. 122-123	–
K	–	571	?Leicester to Waternewton (Durobrivae)	RCHME 1975, fig. 127	NH435.44.1 soilmark of road

Fig 6.27
 Distribution of Roman iron-
 working evidence (D Hall pers
 comm; RCHME 1975, 1979,
 1981, 1985; Scott 1980;
 SMR) (scale 1:400 000).



the evidence for Roman ironworking is more widespread than for the Iron Age, but is still sparse.

Significant numbers of iron-working hearths or furnaces have been excavated in the

Rockingham Forest parishes of Harringworth, Bulwick, Laxton and Wakerley, while the furnaces and slag recovered at Laxton indicate iron production on an industrial scale (Jackson and Ambrose 1978; Jackson 1979b;

Jackson 1981; Jackson 1998–9;). Finds of slag are also common elsewhere in these and neighbouring parishes. In this area the evidence for iron working is strung along the sides of the minor valleys, where the thin bands of nodular ironstone are accessible below the Upper Estuarine Series formations. The upper ground is covered with a blanket of boulder clay, which again is the most likely source of the charcoal fuel. As the demand for iron increased, so must the need for intensive management of the woodland to support an expanding charcoal industry.

Evidence for charcoal-burning hearths is common in the Rockingham Forest area, and although it is accepted that the majority relate to medieval or later production, among these there may be earlier, Iron Age and Roman survivors, for the methods of production were probably similar (*see* chapter 7; Foard 2001a, 85).

Evidence for Roman period iron working has been recovered from the small towns of Kettering and Ashton, both on the fringes of the Rockingham Forest area, and from Blacklands, King's Sutton, in the far south-west of the county. Kettering and Ashton are part of a wider group of small towns in Leicestershire, Rutland and south Lincolnshire that were associated with Roman iron production and working (Schrufer-Kolb 1999). Condon has suggested that Ashton was a specialised smithing centre that could have out-supplied the local demand (1997, 10).

There is evidence of iron working in or around several of the Rockingham Forest villas: Great Weldon, Cottingham, Gretton, Harringworth, Blatherwyke and Kings Cliffe. Ironworking slag has also been recovered from villas at Brafield, Burton Latimer, Brackley, Harpole and Thorplands, and an iron-smelting furnace was found at the villa at Piddington. Whereas the evidence from some sites, such as Great Weldon, is securely stratified, for most sites the finds are from field-walking and the association does not therefore prove that iron-working activity was contemporary with the occupation of the villas, although this is likely.

Iron working does not appear to have been a major activity within non-villa rural settlements of the period. There is relatively little correlation between the distribution of the highly numerous cropmarked enclosure and complexes and that of iron-working evidence. This may be because investigations, particularly those of an antiquarian nature, were biased towards

the villas or because resolution of find-spot recording is too coarse. However, it is interesting to note that there was no known nearby settlement to the furnaces discovered at Bulwick and Gretton, and that those at Wakerley were not directly associated with any contemporary domestic occupation. Indeed at Wakerley, while kilns for corn drying and pottery firing lay mainly within the Roman enclosure, the smelting hearths were constructed outside the enclosure ditch (Jackson and Ambrose 1978, figs 1 and 25).

Many of the Roman iron-working sites in the Rockingham Forest area are well placed to exploit the road network that provided links to the major centres of population within the county and large urban centres beyond, particularly Durobrivae.

Discussion

Although there is considerable evidence for continuity of Iron Age settlements into the Roman period this was often accompanied by a change in use or adjustment of the settlement layout. At Harlestone and Holdenby possible Roman enclosures were built slightly against the grain of the earlier pit alignments, as was observed at Moulton D (*see* Fig 6.21: 1, 6.21: 11 and 6.21: 4). It is worth reiterating that most pit alignments in the close vicinity of Iron Age settlement appear to have been re-cut by ditches. That these examples survived as pits and were not re-cut may suggest that they were beyond the focus of earlier settlement; by the end of the Iron Age and beginning of Roman period their presence may have been undetectable. Excavation showed that the enclosure around the villa at Wootton Fields cut across a pit alignment and the remains of unenclosed settlement (NA 1999b).

Excavations at Ashley, Weekley, Ringstead, and Wakerley have suggested that areas of older settlement were frequently re-used for a range of craft, industry and agricultural activities, but that the site of the main villa range was slightly removed (Jackson and Ambrose 1978; Jackson 1980; Taylor and Dix 1980; Jackson and Dix 1986–7). A localised shift of settlement was also noted at Wollaston (Meadows 1995). While this may reflect the increasing status of the occupants of the original settlement, it might alternatively reflect the displacement of the earlier inhabitants.

Dix and Jackson considered the proximity of villa sites to the defended enclosures at Wootton Hill Farm and Weekley to be indicative of the growing status of the latter (1989, 164). Certainly the WH-style enclosures at Blackthorn and Great Doddington are also within 700m of sites of possible Roman buildings, but given the relative density of villas in the areas of these enclosures, such longer-distance correlations are perhaps better attributed to coincidence.

Conclusion

Although the aerial photographic evidence for the Iron Age and Roman landscape is extensive and widespread, despite the efforts of carefully-targeted reconnaissance and intensive analysis the recovered pattern is still highly fragmented. It may be that this reflects the reality of the Northamptonshire landscape during this period, and that it lacked the type of contiguous

articulated landscapes seen in other parts of England, as on the North Nottinghamshire sandstones and the Yorkshire Wolds. Through the various datasets available to this study it has been possible to define where cropmark and soilmark evidence might be present, and hence where the presence or absence is significant. The next stage should be to identify those areas where survival might be expected. Paradoxically these will probably be the areas where visibility from the air is acknowledged to be poor: the unploughed zones, longstanding woodland and under alluvial deposits on the valley floors. Once mapped, these zones might be prioritised for other intrusive and non-intrusive investigations, which could be either research-led or achieved through the planning process in response to development threats. One clear path for investigation, as discussed earlier, would be for a systematic, intensive field-walking programme to complement the data and to test and elaborate the analysis presented here.

Panel 6.1 Pit alignments

The pit alignments excavated in England and Scotland have yielded a broad range of dates, from the Neolithic to the Roman period. It has been suggested that while alignments of oval-plan pits may have had a long period of currency the more rectangular or oblong-shaped features, characterised by straight sides and flat bottoms are often Late Bronze Age to Middle Iron Age in date (MPP 1989).

Both forms are present in Northamptonshire. Pits of variable but predominantly round or oval shape were cut along the northern edge of the Briar Hill causewayed enclosure and, although undated, were considered by Bamford to be of possible Neolithic date (1985, 49). Approximately 500m to the south-east, farther up Briar Hill, there were two close-set alignments of small, round- to oval-plan pits, which had subsequently been cut by substantially larger rectilinear pits along the same path. Again there was no dating evidence, but it was suggested as a multi-phase part of the surrounding Iron Age landscape (Jackson 1974, 24). Pits excavated at Grendon, Gretton and Wollaston, Ringstead, like the later boundary at Briar Hill, are characterised by

their regular oblong shape, size and spacing.

In 1974 there were 25 pit alignments known in the county, mainly from aerial photography, but very few had been excavated (Jackson 1974, 44, fig 1). Three decades later the project has mapped some 144 pit alignments as either single features or elements of more complex systems, while a rapid survey of mapping from later photography not yet integrated into the NMP dataset has revealed yet more, giving a total of more than 36km of pit alignments in the county. The geographic range has also been extended with some areas previously devoid of evidence, such as that between Aldwincle and Grendon, now well endowed with examples (*see* Fig 6.2; cf Jackson 1974). The majority of them, in part probably owing to the biases of recovery, lie on permeable geology. They are most numerous on Northampton Sand and Ironstone (44 examples, averaging 1 per 4.2 km²) and Great Oolite Limestone (26; 1 per 4 km²), but the density is highest on the terrace gravels (1 per 2.6 km²). Surprisingly nearly a quarter of all pit alignments appeared or extended onto less permeable geologies, mainly the Upper Lias Clay, and although in some cases the resolution of the geological data on which these analyses are based may be too coarse, excavation at Crick suggests that pit alignments are

indeed present in some areas of clay soils (Kidd 1999, 5).

It was recognised early in the project that the general shape of each pit was potentially significant and, in a departure from standard NMP recording practice, the pit shape was represented in the mapping. Over three-quarters of the alignments mapped consist of pits that are oblong or rectangular, with the remainder unknown or possibly round. The oblong or rectangular pits are generally less than 2.5m long and less than 1.8m wide, although they can range from rather elongated slots to near square features. The longer axis of each pit is always in line with the overall orientation of the alignment and the spaces

between pits are rarely longer than the pits themselves. The alignments of oblong pits are characterised by a high degree of regularity in pit size, shape and spacing, although many make abrupt changes in direct or take curving paths; and some show possible groupings of pits and minor realignments between groups that may be indications of gangwork. These characteristics are consistent with Late Bronze Age to Early Iron Age excavated examples and thus they are also assumed to be of this date. However, excavation has repeatedly demonstrated that these boundaries are more complex in form and development than the simple cropmark evidence would suggest.

Panel 6.2

An Overview of the Evidence for Iron Working in the Iron Age and Roman Period

Iron working in this period comprised two distinct processes: smelting and smithing. Iron first had to be separated from the parent ore. The furnace technology developed during the Iron Age and Roman period was insufficient to take iron to its melting point of 1534°C. Without achieving melting point, impurities in iron are less readily expelled and richer ores are required, but this was not necessarily detrimental to the finished object's function (Salter and Ehrenreich 1984, 146). Then, unlike bronze, which could be cast in moulds, objects in iron had to be forged and complex items rivetted or hammer welded (Salter and Ehrenreich 1984).

The raw materials for iron smelting and smithing were readily available in Iron Age and Roman Northamptonshire. The Northampton Sand and Ironstone outcrops widely in central Northamptonshire, but, although exploited on a massive scale in the 19th and 20th centuries, it is not clear if these ores were sufficiently rich for successful Iron Age and Roman smelting. The hardpan formed in sandstone by chemical leaching of the iron may have provided a more concentrated deposit (Salter and Ehrenreich 1984). An alternative source is the narrow band of nodular ironstone that outcrops beneath the Upper Estuarine Series in the north-east of

the county, which can also be reached by quarrying. Evidence for iron ore extraction of this period is rather scarce in the excavation record and all but absent in the NMP record. At Great Oakley, scoops thought to be prospecting for ironstone erratics in the boulder clay may have been associated with two Early Iron Age structures (Jackson 1982), and at Bulwick Roman quarry pits would have accessed the underlying nodular ore (Jackson 1979b). There are many small hollows and pits visible on the air photographs, but it would be near impossible to distinguish those that were excavated for other purposes. Bellamy *et al* noted an association between the naturally-occurring pits in the Upper Estuarine Series along the edge of the exposed Lincolnshire Limestone and the presence of slag finds from all periods (2000, 108). They suggest that the nodular ironstone may have been quarried along the horizontal beds from where it was exposed in the walls of these natural shafts (Bellamy *et al* 2000, fig. 3). While this formation survives best in woodland, the NMP has recorded a narrow swathe of swallow holes as earthworks and soilmarks across the parishes of Harringworth, Laxton and Duddington. These are in an area rich with the evidence of early iron working, not least the industrial-scale complex of Roman furnaces and slag heaps at Laxton (Jackson 1998–9), less than 1km to the south-east. It seems unlikely that, if nodular ironstone beds were exposed in these shafts, such an easily accessible and rich source would not have been exploited to supply this

burgeoning industry. Clay for furnace construction was widely available, and again its extraction leaves little identifiable trace.

The third major ingredient for iron smelting and other working is fuel. Salter and Ehrenreich estimate that, in the conditions obtained by Iron Age and Roman smelting, 90kg of fuel was required to process 20kg of ore into 1kg of iron (1984, 146–7). Moreover, although wood was sufficient for ore roasting, the hotter processes would have required charcoal. On Cleere's estimations the ratio of wood input to charcoal output is 7:1 (1976, 240). In terms of the economics of resource availability, then, the supply of prepared fuel would appear to be a significant

consideration in the siting of iron smelting activity. Importantly, to give optimum airflow the charcoal particle size is crucial, and best obtained from wood of managed, that is coppiced, trees, where this factor could be controlled by the duration left between cropping (Salter and Ehrenreich 1984, 149). Managed woodland of this period is almost invisible in the archaeological record, but must have been a significant element of the Iron Age and Roman landscapes.

While the sites of iron production are rarely identifiable from the air, the impact the developing iron had on the landscape as a consequence of improved tool technology is inescapable.

The contribution of aerial photography to Anglo-Saxon studies

by Glenn Foard and Alison Deegan

Introduction

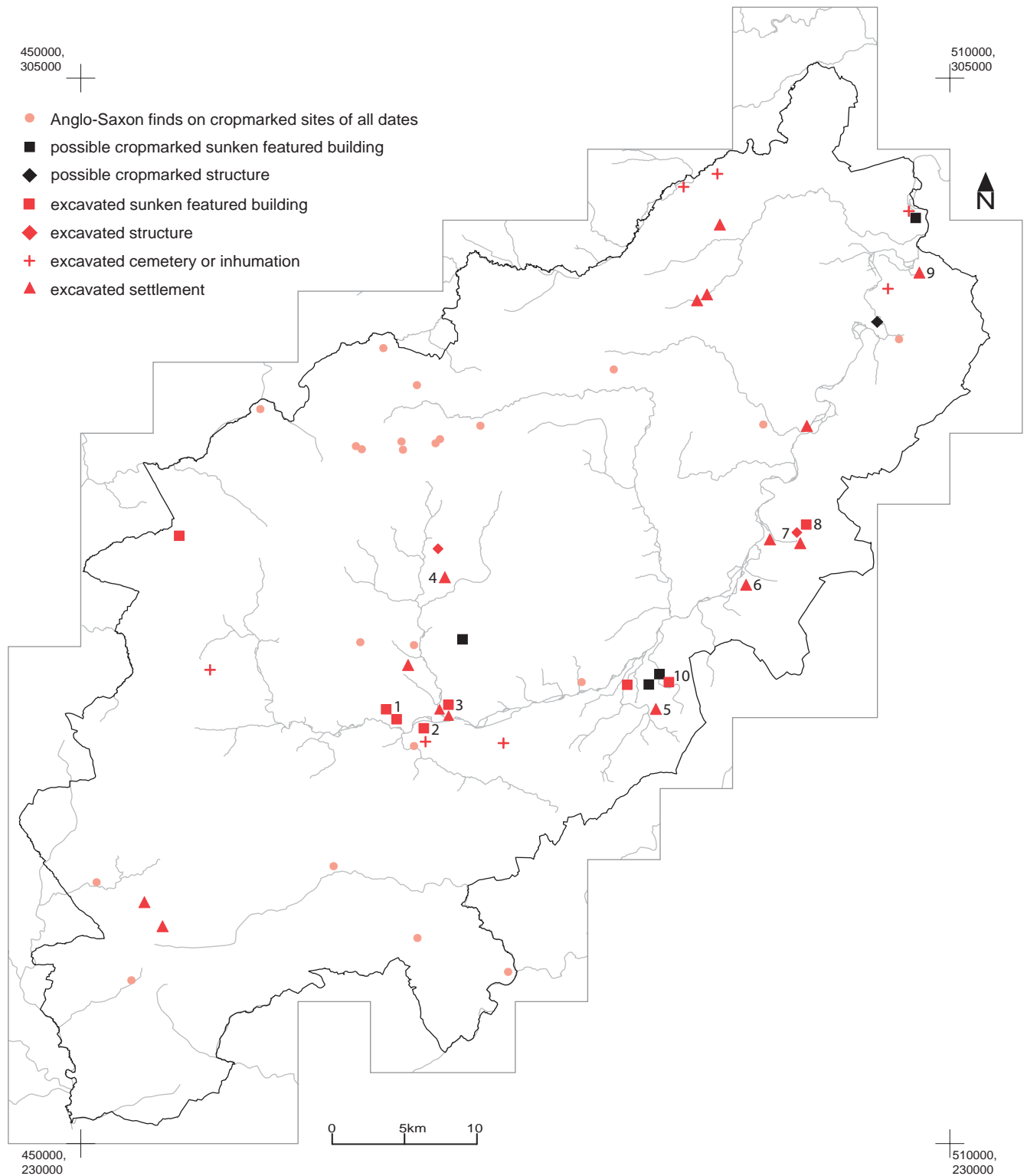
In the study of the post-Roman landscape of Northamptonshire, archaeological evidence is complemented by documentary and place-name evidence, although even by the Late Anglo-Saxon period this is still a minor contribution compared to that from archaeological investigations. Of the latter, aerial archaeology is, however, perceived to have a very limited contribution to this period. The Lincolnshire NMP project yielded little positive evidence of Anglo-Saxon settlement, other than that excavated at Riby Crossroads (Steedman 1994; Boutwood 1998, 58), while an earlier project in the Yorkshire Wolds identified just a few sites where groups of pits were interpreted as possible sunken-featured buildings (SFBs), and by association the groups of curvilinear enclosures in which they are found, as the possible remains of Anglo-Saxon settlement (Stoertz 1997, 17 and 59). Of the county-based resource assessments that informed the Regional Research Framework (RRF) for the East Midlands, only the Northamptonshire assessment discussed the contribution of aerial photography to the Anglo-Saxon resource (Foard 2001b, 1, 6, 9, 27), while mention of this remote-sensing technique is entirely absent from the main regional overview RRF chapter on the Anglo-Saxon period (Vince 2004). However, sites as diverse as the palace at Yeavering, Northumberland and the rural farmstead at Catholme, Staffordshire, both of which were recorded by air photographs, demonstrate that aerial photography does have a part to play in the identification and understanding of some Anglo-Saxon settlement (Hope-Taylor 1977; Losco-Bradley *et al* 2002). The present chapter assesses the degree to which this potential has been realised by aerial archaeology in Northamptonshire and what avenues there may be for further exploitation of this dataset.

The archaeology of the Anglo-Saxon period in Northamptonshire has been

subject to intensive study over the last 30 years: through field-walking surveys; in large-scale research projects involving field survey and excavation at Raunds and in the Whittlewood area; in other large- and small-scale excavations and related fieldwork required through the planning process; as well as through analysis of place-names and of the very slim documentary record of the period and through back projection from evidence in post-Norman conquest sources. The archaeological investigations have been particularly effective because there is reasonably good ceramic evidence in the region throughout most of the 5th to 11th centuries, even if there are some problems with the detail of dating within this evidence. As a result, unlike many other counties, there is extensive stratified and surface scatter evidence against which the aerial archaeology evidence can be assessed (Brown and Foard 1998; Brown and Foard 2004). The county's aerial reconnaissance programme since 1976, and the NMP project, were also conducted with the issues of Anglo-Saxon activity clearly in mind. Northamptonshire is thus an ideal area within which to assess the potential contribution of aerial archaeology to the understanding of the Anglo-Saxon period.

Evidence from archaeological survey

Field-walking has identified by far the largest number of sites of Anglo-Saxon settlement in the county (Brown and Foard 2004). The sites excavated at Brixworth, Upton and Higham Ferrers were found beneath scatters of Anglo-Saxon artefacts. Shaw observed that the Brixworth and Upton scatters were both relatively meagre: the former produced just 37 sherds and those were recovered over a number of visits (Shaw 1993–4). The quantity of scatters and find spots producing Anglo-Saxon material is considerable and well distributed across the county. Even if some of these



sites are no more than the results of manuring (Shaw 1993–4, 91–2), it is clear that where there has been intensive field-walking, most notably in the Raunds area, the known examples represent just a small percentage of the total number of

Anglo-Saxon settlements (Parry 2006).

A significant number of Anglo-Saxon pottery scatters coincide to some degree with the cropmarks, earthworks or soilmarks of earlier or later activity (Fig 7.1). At Welford, the site of a series of cropmarked

rectilinear enclosures, collections produced Anglo-Saxon as well as Roman sherds. At Naseby Anglo-Saxon sherds, along with Roman sherds and prehistoric flints, were from an area containing possible Neolithic and Bronze Age ritual monuments and possible Roman enclosures. The large complex of enclosures and trackways at Kelmarsh similarly produced Anglo-Saxon as well as Roman sherds. In these cases it has not been possible to distinguish any Anglo-Saxon features among the many cropmarks.

The absence of sherd distribution mapping on most sites makes it impossible to seek direct correlation between Anglo-Saxon surface scatters and particular cropmark elements. There is clearly an important potential here for further research based on systematic field-walking of good cropmark sites that have yielded both Roman and Anglo-Saxon ceramics.

Evidence of Anglo-Saxon activity has also been recovered from the Iron Age hillforts at Hunsbury; Crowhill, Irthlingborough; Borough Hill, Daventry; and Rainsborough. The re-use of some of the hillforts can be reconciled with the pressures of the prevailing political situation in the 5th century (Foard 2001b), but in several cases the evidence is primarily in the form of burials.

Perhaps the most common spatial association is to the sites of Roman villas with burials at Stanwick and Piddington and other remains or scatters recovered at Wollaston, Brixworth, Redlands Farm, Nether Heyford and Aynho (Foard 2001b). In some cases these may be no more than Saxon burial on abandoned sites (*see below*), but in various other examples there is clear occupation evidence, although issues of continuity can often only be satisfactorily resolved, if at all, through comprehensive excavation, and this has taken place only on one or two sites (Brown and Foard 2004). It could be argued that the apparent association with villas sites may owe more to the biases of the archaeological record than it does the real distribution of Anglo-Saxon settlement, but in Northamptonshire so many lower-status sites have also been investigated that such bias seems unlikely.

Excavated Anglo-Saxon sites

According to the SMR, an Anglo-Saxon element was identified in more than 150 sites of archaeological excavations or

observations. Although the failure of many of these to appear in the published literature implies that the Anglo-Saxon activity was of limited significance, many of the sites have yielded extensive evidence. The sites range in status from possible royal provincial centres down to modest peasant occupation, and, include major excavations at Northampton; Furnell's Manor and Langham Road, Raunds; Brixworth; Briar Hill; Warmington and Wollaston. Smaller-scale evaluations on various other sites, including recent work at Bozeat, have also yielded Anglo-Saxon evidence (*see Fig 7.1*). However, in most cases there has been little visible evidence for these remains on air photographs, even on the permeable geologies. In a substantial proportion of cases this is because the evidence was concealed beneath existing settlements, which have been occupied continuously since the Late Saxon or medieval period, as at Northampton, or beneath medieval settlement earthworks, as at Wollaston and Raunds. Even where cropmarks were present, for example at Warmington and Bozeat, where they provided part of the case for archaeological investigations prior to development, the features visible on the photographs are more likely to relate to Roman or Iron Age activity (Fig 7.2).

Fig 7.1 (opposite)
The distribution of excavated Anglo-Saxon sites, Anglo-Saxon find spots associated with cropmarked sites and possible cropmarked structures and sunken featured buildings (main excavated sites):
1 Upton;
2 Briar Hill;
3 Northampton;
4 Brixworth;
5 Bozeat;
6 Higham Ferrers;
7 Langham Road (Raunds);
8 Furnell's Manor (Raunds);
9 Warmington;
10 Wollaston).

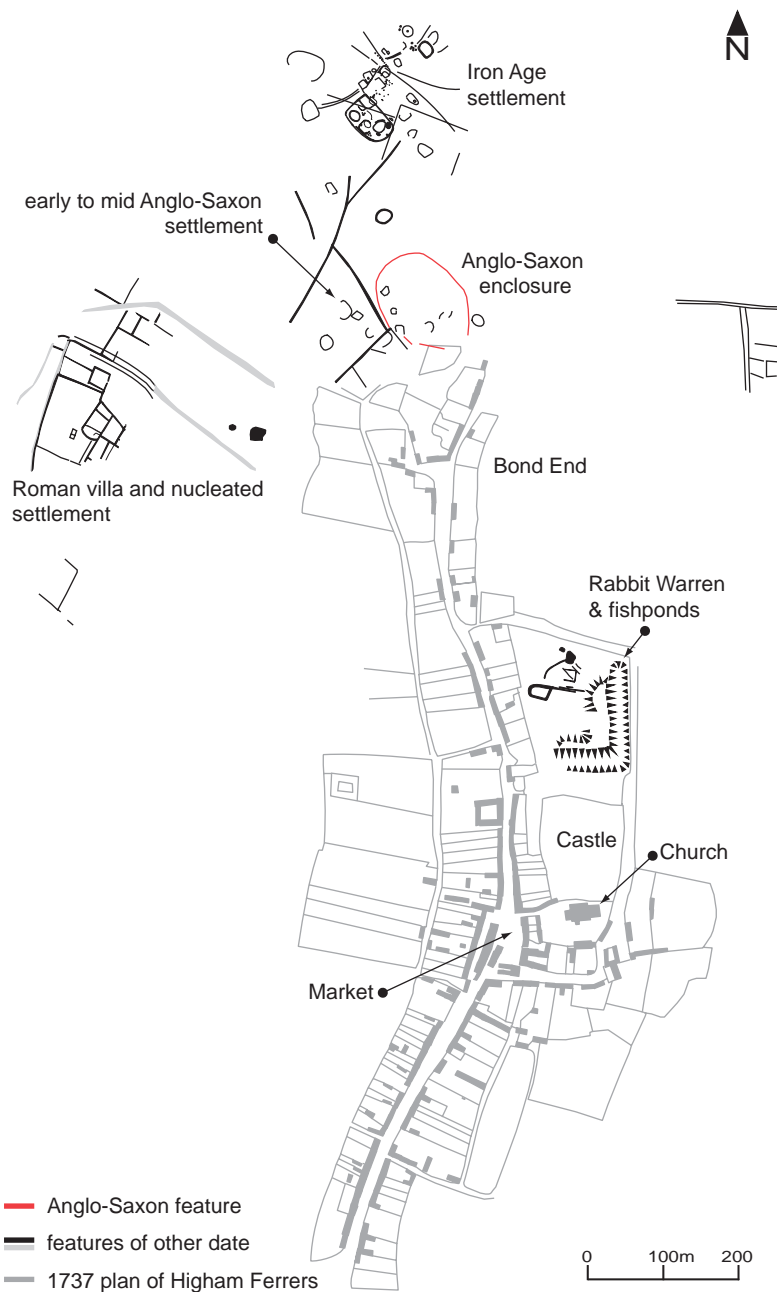
Fig 7.2
Curvilinear cropmarked features at Bozeat (NCC photograph SP8960/11 30th June 1989 NCC copyright).



Oval enclosures

Whereas at Northampton the high-status site has always been inaccessible to aerial survey, at Higham Ferrers the opposite was true. A large oval enclosure, on a spur overlooking the River Nene at Higham Ferrers, was identified by aerial survey. In later fieldwork, geophysics revealed more extensive detail of plan form for the occupation associated with the enclosure, while field-walking and then trial trenching indicated an Early to Late Anglo-Saxon date for the occupation and Early Anglo-Saxon

Fig 7.3
The Anglo-Saxon oval enclosure at Higham Ferrers.



for the enclosure. Large-scale excavation prior to development then revealed the detail of the plan, demonstrating that the enclosure was empty, but surrounded and respected by a sequence of occupation from the Early and Middle Anglo-Saxon period, replaced in the Late Anglo-Saxon by settlement that fitted the medieval and post-medieval plan of the town (Fig 7.3). Significantly, although there were substantial numbers of timber buildings and several SFBs, none of these had been revealed in the cropmark evidence, although the large enclosure and nearby Iron Age enclosures had shown clearly.

The Higham site lay within 300m of a nucleated Roman settlement associated with a villa, and on the northern edge of the medieval small town of Higham Ferrers. Other comparable oval enclosures were sought and found within the NMP data, but these are tentatively dated to the Iron Age or Neolithic period. It is likely that the Higham Ferrers site was a settlement of high status or specialist function within a royal multiple estate, and thus the form may be a rare element of the Anglo-Saxon settlement landscape. The existence of the Higham Ferrers example beyond the medieval settlement area may be the result of medieval replanning, with the addition of a market place to the south, probably by 1086, which led to the settlement expanding southward away from its earlier focus. The other examples of such enclosures are based largely on evidence of post-medieval settlement plan form, as they all lie below areas of subsequent medieval and later development. The high level of continuity of settlement from the Anglo-Saxon period to the medieval period means that such features are even less likely to be revealed by aerial archaeology than even the rarity of the site type might suggest (Brown and Foard 1998, 77-9).

Other settlements

Considerably more sites of lower status have been excavated, some of manorial and others of lesser importance. While a significant number of examples, such as Wollaston and Raunds, have been found beneath later occupation, a few have been excavated in open landscape contexts. With the exception of the oval enclosure from Higham Ferrers, settlements of this period are rarely associated with the sort of deep-ditched enclosure systems that make Iron

Age and Roman sites such a common feature of the cropmark record for Northamptonshire. Where ditch systems are associated with Anglo-Saxon sites they tend to be narrow, shallow features, which rarely produce good cropmark evidence. The identification of the sites from the air is therefore far more dependent on the cropmark evidence for the buildings and related settlement features. As has been seen with the unenclosed Iron Age settlements, this situation can cause problems of identification from the air, and is further complicated by the character of the domestic structures of the 6th to early 9th century, which take two distinctive forms: sunken-featured buildings, which were constructed above shallow rectangular hollows; and timber halls, which were supported by paired rows of timber uprights. Not only are they often fairly small and ephemeral features, the architecture of these structures is also not so unique that the resulting cropmarks are reliably diagnostic of Anglo-Saxon settlement. When reduced to a two-dimensional cropmark the SFB form is indistinguishable from a large pit, a small hand-dug quarry or a natural hollow of any date. The footprint of the Anglo-Saxon timber halls is perhaps more distinctively structural in origin, but there is potential for confusion with earlier buildings, particularly Roman aisled

buildings. These various factors, together with the problem of continuity with later, medieval to modern occupation, conspire together to make the identification of Anglo-Saxon sites through aerial archaeology particularly problematic.

Sunken-featured buildings

Sunken-featured buildings have been excavated on various sites, including in Northampton town centre; Briar Hill; Furnell's Manor, Raunds; Grendon quarry and two locations at Upton (Jackson *et al* 1969; Bamford 1985, 55; Dix 1986–7; Shaw 1993–4; Jackson 1997). Recent development-lead investigations have identified further examples at Wollaston; Kilsby; and Sol Central, Marefair, Northampton (short note in *South Midlands Archaeology* 31 (2001), 33–4; SMR6428; short note in *Medieval Archaeology* 45 (2001), 307–8). At least 22 known or potential SFBs have been recorded at these sites. They occur singly and in small groups, although exceptionally the group at Dando Close, Wollaston consisted of eight possible buildings (Council for British Archaeology Group 9 2001, 33–4).

During rescue excavations of the Neolithic causewayed enclosure on Briar Hill, up to five sunken-featured buildings of probable Early–Middle Anglo-Saxon date

Fig 7.4
Sunken featured buildings and earlier features at Grendon Quarry (left, ZE59 30th June 1959 copyright ULM, right Jackson 1995, fig 2).





were identified within and just outside the circuits of the Neolithic enclosure (Bamford 1985, 55). The causewayed enclosure was discovered by aerial photography, but the presence of the SFBs was unsuspected, and even in retrospect these cannot be discerned on the available photography. The site lies on Northampton Sand and Ironstone, but the cropmarks of even the major linear features were not particularly well defined. A proportion of the causewayed enclosure's three circuits were excavated and found to be of variable depth, but the base of some lay up to 1.5m from the stripped surface, in contrast the SFBs were no deeper than 0.4m. Unlike the rock-cut segments of the Neolithic enclosure, the SFBs seem to have cut only the sub-soil, which was a mix of weathered ironstone rubble in a matrix of sandy clay, and this may have been a factor in their apparent failure to produce cropmarks.

The remains of the known SFBs are characterised by rectangular-shaped, straight-sided hollows. The Grendon, Upton and Briar Hill examples were all less than 5m long and 2m to 3m wide. None of these examples survived to a depth of more than 0.5m. Only at Grendon do the air photographs indicate the presence of the buried SFBs. One of the known SFBs is visible as a faint cropmark, as is another possible unexcavated example (Fig 7.4). These features were mapped by the project, but their potential as the remains of Anglo-Saxon activity was not recognised at the time of recording. The cropmarks of SFBs, where they form at all, are relatively undistinguished and easily confused with the remains of other pits or small quarries of any date.

A few potential unexcavated examples can be seen on the air photographs and in the NMP mapping. At Nassington, among the complex cropmarks of Iron Age and Roman period settlement and earlier burial monuments, there are at least 20 rectilinear maculae of various sizes (Fig 7.5: 1). These features are arranged singly and in clusters and range in size between 3m ? 2m and 5m ? 3m. One group of smaller maculae, arranged in a common alignment, is concentrated within one of the presumed Iron Age or Roman enclosures; another group of slightly larger examples were cut within and to the side of the trackway that formed the main axis of the late prehistoric settlement. Undoubtedly some of these features relate to the Iron Age or Roman

occupation of this area, or perhaps even earlier activity, while others may be the remains of small hand-dug quarries exploiting the gravels below, but some may represent Anglo-Saxon SFBs. That SFBs are found intentionally placed within Iron Age and Roman enclosures seems clear from several excavations, for example at Stanwick, although there it is far from clear whether this indicates direct continuity of settlement (Brown and Foard 2004).

A substantial number of Early-Middle Anglo-Saxon sites known from field-walking and excavation is, however, in isolation. Thus, maculae identified in isolation at Wollaston may also prove to be the remains of Anglo-Saxon sunken-featured buildings (Fig 7.6). The identification of such small features during reconnaissance seems to occur when they are associated with more substantial features of other dates or natural features, and various other sites producing similar cropmarks without such associations may be regularly missed. In the Wollaston case, although there are not ditch systems, the possible SFBs are visible on the bands of freer draining soils, visible in the cropmarks where light and dark banding reflects the underlying geological variation between permeable and impermeable deposits. It was this geological cropmark that was the initial target identified from the air, not the potential SFBs.

Also of interest, if only to illustrate the ambiguity of some of the cropmark evidence, is the arrangement of rectilinear maculae at Boughton (*see* Fig 7.5: 3). Here, on almost level ground, there are two rows of at least 27 SFB-shaped and -sized cropmarks. The rows are relatively straight and separated by a distance of approximately 14m. Such large arrangements of SFBs are not without precedent: a single building targeted and excavated at New Bewick is known to be one of at least 20 possible examples visible on air photographs (O'Brien and Gates 1988). The arrangement of the New Bewick examples is less formal than the tentative Boughton group, but there is a suggestion that the buildings were arranged with respect to some of the pre-existing linear features. However, it should be noted that these features lay on the former Boughton Green, which was the site of a major medieval fair that may have generated a range of cut features. It was associated with a holy well and a turf maze, both perhaps suggestive of Early Anglo-Saxon pagan significance,

while Boughton is also one of only a handful of medieval churches in the county isolated from its village (RCHME1981, 16). In addition, Roman coins are said to have been found by metal detectorists (R Moore pers comm), while as late as 1813 there were also several small stone buildings standing on the Green in the general area of the cropmarks (British Library, Ordnance Surveyors' Drawings, 253c0204-05). This evidence could either support the Anglo-Saxon interpretation of the cropmark features or even suggest a medieval origin related to the fair (Foard 2001d).

Timber-post structures

Timber-post structures have been revealed by excavations on various sites including at Brixworth, Polebrook and Raunds Furnells, and aisled halls are reported from Dando Close, Wollaston (S Upex pers comm; Dix 1986-7, 3; Shaw 1993; short note in *South Midlands Archaeology* 31 (2001), 33-4). The larger of the two structures excavated in advance of the Brixworth by-pass was at least 10m long and 5m wide, and was defined by rows of pits that were no more than 30cm in diameter and spaced less than 1m apart (Shaw 1993). It seems unlikely that features of such scale could produce a recognisable and distinctive effect on growing crops, and indeed only one potential example was identified by the NMP. This consists of six paired pits arranged in two straight rows, suggesting a building 16m long and 5m wide (*see* Fig 7.5: 2). This probable structure is located among a rectilinear arrangement of enclosures, and in this context it is perhaps as likely that this is the footprint of a Roman aisled villa, especially as the site has produced Roman pottery during field-walking.

The Brixworth excavations were in an area that had produced a small quantity of Anglo-Saxon material (Ford 1995). The site of this settlement lies on the well-drained Northampton Sand and Ironstone, was regularly under arable during the period of reconnaissance, and the Brixworth area was kept under regular reconnaissance given the publication of extensive Anglo-Saxon evidence in 1979 (Hall and Martin 1979). Cropmarked features have been photographed and recorded within 140m of the site, but these were indistinct, ill-defined linear features of probable Iron Age or Roman date. There was no trace in the crop of the Anglo-Saxon structures that lay

Fig 7.5 (opposite)
Possible Anglo-Saxon
cropmarked sites: 1
Nassington; 2 Oundle; 3
Boughton Green,
Boughton).

Fig 7.6 (opposite)
Possible sunken featured
buildings at Wollaston and
Strixton (NCC photograph
SP8962/43 19th July 1996
NCC copyright)

below. The post-holes left by the structures, though numerous, were only 300mm in diameter and there were few other substantial features. So it is not surprising that these had little effect on the crops growing above.

One of the only major exceptions to this failure of aerial archaeology to reveal Early–Middle Anglo-Saxon sites in the county is at Polebrook, where a settlement of rectilinear plan was identified through aerial reconnaissance by Upex in 1988. These photos, which were not available to the NMP project, show up to six buildings, recognised from the timber slots, associated with a number of ditches. The site is on very shallow limestone subsoil, and unrelated ditches of possible earlier date on the same site have been recorded in later photography, but the Anglo-Saxon features themselves were not revealed on the latter images. Upex has suggested that the shallow nature of the features on a very well-draining shallow limestone may mean they have a very brief window of visibility, as cropmarks (S Upex pers comm). The site was subsequently field-walked, producing a small quantity of sherds of 5th–8th century date, including two decorated sherds. In 2002 the site was partially surveyed using geophysics, confirming and slightly elaborating the aerial archaeology evidence. It was then partially stripped and excavated, confirming the layout, but only recovering 19 sherds of Anglo-Saxon pottery (Upex 2003). The site lies approximately 300m west of the medieval village of Polebrook and appears to have a very closely associated alignment to the regular rectilinear plan of the post-medieval and hence medieval village.

Cemeteries

In all, some 58 pagan Anglo-Saxon cemeteries, both inhumation and cremation, have been identified in Northamptonshire (Brown and Foard 2004). While some, as with the ‘princely’ burial at Wollaston, were in isolation and others seem to represent no more than a handful of burials inserted into earlier barrows, as at Tansor (Chapman 1996), a cemetery at Kettering produced 100 and that at Wakerley 85 burials. With the exception of the last, most of the discoveries were made in the 19th and early 20th centuries, but clearly substantial numbers of large cemeteries must survive elsewhere. None has been securely

identified from the air. At Luddell Field in Paulerspury a substantial known cemetery, demonstrated by C¹⁴ dating and suggested by metal finds as at least partly of Anglo-Saxon date, has been subject to regular reconnaissance, yet has produced no secure evidence of burials. It has, however, produced cropmarks of a number of substantial ditches and fragmentary evidence of stone buildings, possibly temple or villa buildings of Roman date, given the metal and ceramic finds from the site (B Kings pers comm).

It is unclear whether the placing of the burials on such sites was due to cultural associations with the sites or simply because the abandoned Roman settlements represented suitable unused land within an otherwise wholly agricultural landscape, but it may explain the presence of Anglo-Saxon material on at least some Roman sites. A good modern excavated example of such association can be seen at Oundle (Council for British Archaeology Group 9: South Midlands archaeology newsletter Vol 30/2000).

There is also a clear association between Anglo-Saxon burial and earlier ritual monuments. Anglo-Saxon elements are reported from the vicinity of both Briar Hill and Dallington causewayed enclosures (Bamford 1985, 55; SMR5792). At Tansor, two Early Anglo-Saxon burials were recovered from the mound of a Neolithic burial monument (Chapman 1996–7, 19). A similar association is suggested at Pitsford between the possible Neolithic long barrow and Anglo-Saxon burials, but modern excavation of the earthwork would be required to confirm the Neolithic interpretation (RCHME 1981, 162). Elsewhere there are several Anglo-Saxon surface scatters that correlate with ring ditches mapped by the project, and these may represent other cases of burials inserted in earlier barrows.

Most of the cemetery sites currently on the SMR were discovered during destruction for mineral extraction and development, mainly before the 1950s, and so it is impossible to effectively assess whether aerial archaeology data do exist for Anglo-Saxon cemetery sites. No cemetery sites were identified by the project. Thanks to the Portable Antiquities Scheme, it may soon be fruitful to review the existing air photographs and mapping in light of the substantial new body of evidence arising from metal detecting discoveries and so to

investigate the associations between finds and cropmarks, and perhaps even to focus new reconnaissance on likely cemetery sites.

In light of this situation, it may soon be possible to review the existing aerial photography and mapping to seek associations with cropmark sites, or even to conduct new, targeted reconnaissance of probable cemetery sites.

Continuity or discontinuity between Roman and medieval landscapes

A major research theme in landscape studies concerns the degree to which there was continuity between the Early–Middle Anglo-Saxon and the preceding Roman landscape, and when and within what framework the medieval open field system was laid out. While it now seems clear that in Northamptonshire the medieval open field system originated in large part in a major Late Anglo-Saxon replanning of the landscape, it is still uncertain how early some elements of the system began to be created, or indeed what skeleton it inherited from the earlier landscape (Brown and Foard 1998).

The Anglo-Saxon landscape has always been invisible. It is unclear whether this was because Roman systems continued in use and hence there was no need for large-scale new land division, or because the land management did not involve the digging of major deep ditched boundaries, as was certainly true in the settlements themselves. But there are ways in which the problem can be addressed, and aerial archaeology has a major contribution to make in the investigation of this critical transition from the ‘Celtic’ to the ‘English’ landscape. This is because it can provide detailed and extensive, if often fragmentary, evidence for the layout of that Celtic landscape. However, the value of this data can only be fully realised once the large-scale patterning of the medieval open field landscape is also available in GIS, to overlay upon the ‘Celtic’ dataset provided through the NMP. Only then will it be possible to recognise the fine detail of continuity or discontinuity between the two.

This key issue cannot therefore be addressed here and must await the results of the ongoing AHRC funded project (2005–9) to map and analyse the historic landscape of Northamptonshire (Foard *et al* 2005). All that can be considered here are

associations with the basic mapping of township boundaries prepared in GIS from post-medieval mapping by Hall and Foard (Foard 2001c).

Some authors have suggested that medieval townships in general have very ancient origins (Taylor 1983, 104–5 and 124). In specific cases there is equivocal evidence that some of the medieval townships do indeed owe their origins, in part at least, to the administrative or tenurial arrangement of the Roman landscape (Foard 2001b, 5–6). It has been argued that the presence of Roman villas at the centre of townships is evidence that township origins lay in the estates of former villas. An assessment of the location of all the known villas suggests that in fact at least half lie on or close to township boundaries. Many township boundaries follow natural water courses and many villas were sited close to water sources, so it could be argued that any such association is coincidental. However, ‘dry’ township boundaries also pass through or close by known and possible villas, as at Overstone (SMR 2064), Wakerley (SMR site 5644), Yarwell (2729), Mileoak (734), Weekley (3910), Wellingborough (3636), Kettering (3957), Geddington (2571) and Gretton (3064). In effect, the areas that had been occupied by these villas seem to have become rather peripheral by the medieval period. This association is not restricted to the villa sites, for many township boundaries cut across the location of other Iron Age open settlements, and across Iron Age and Roman enclosed rural settlements.

In reality, however, if the argument has any validity, the associations are likely to be far more complex, as for example has been suggested for the massive Cotterstock villa. This lies in the centre of a large area of intercommoned land between the townships of Cotterstock and Glapthorn (Foard 1988). At present it does, however, seem that there is actually a high level of discontinuity between the two landscapes. But the detailed investigation of this theme lies outside the scope of the present study.

By far the clearest association between the township pattern and the underlying Celtic landscape is seen at Charlton, where there is a probable Iron Age boundary system representing a massive oval enclosure, with an apparent drove leading north out of it, ditched boundaries radiating out from it and with at least one Iron Age or Roman settlement set on its periphery

(see chapter 5). The township boundaries between Hinton and Steane follow the eastern boundary of the enclosure for 1.2km, while on the west the existing road system and part of the village of Charlton itself may follow its course, thus obscuring the boundary on that side (Fig 7.7).

There are other instances where sections of township boundaries are demarcated by cropland ditches, for example between Paulerspury and Alderton, and between Collyweston and Easton-on-the-Hill, but in these cases it is impossible to ascertain the antiquity of the ditches from the air photo evidence alone. These cropmarks may indicate no more than the remains of recently removed (19th–20th century) medieval or post-medieval boundaries that had themselves respected the township

boundaries. More significant perhaps are those township boundaries that appear to observe or respect Iron Age or Roman period settlements. Boundaries between Croughton and Charlton, and between Weston by Welland and Ashley appear to accommodate the sites of a Roman villa and a possible Roman building. Similarly the boundary between Thorpe Mandeville and Culworth skirts around a series of Iron Age or Roman enclosures.

To set against these examples there are other examples of a high level of discontinuity between the Iron Age and Roman landscapes and township boundaries, but the clearest evidence of continuity or discontinuity is only revealed when the medieval furlong pattern can be compared to the underlying cropmark patterns. This is most vividly demonstrated

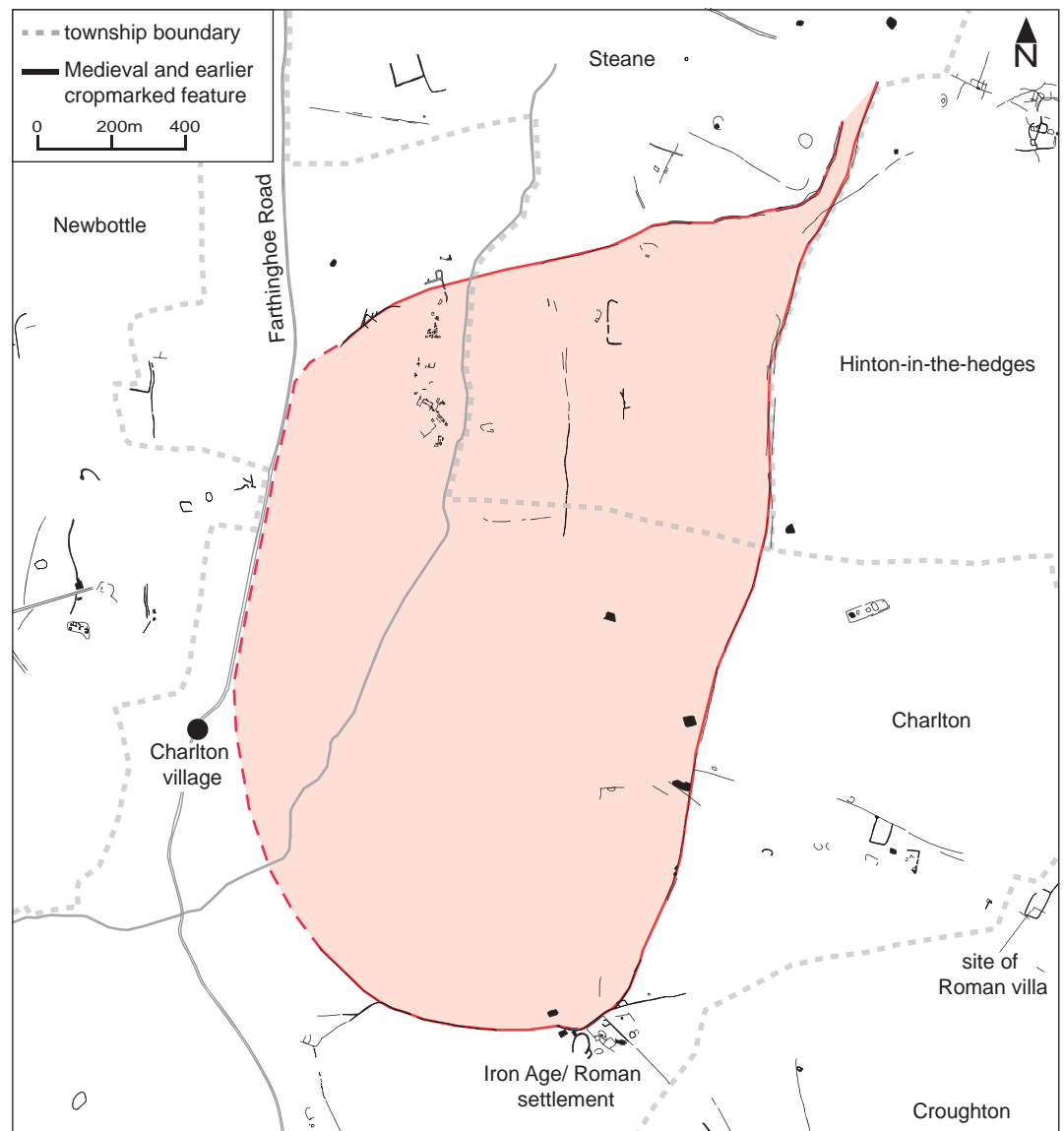


Fig 7.7
A large oval enclosure, with conjectural western boundary, at Charlton. It is entered via a wide drove at the north east corner and has radiating linear ditches. Although presumably of Iron Age origin, given the associated settlement on the south east side, it may have continued in use in the Anglo-Saxon period as it is respected by a township boundary.



*Fig 7.8
Discontinuity between the
Iron Age/Roman boundary
system and the pattern of
medieval furlongs at
Faxton. (NCC photograph
SP7874/018 1st August
1986 NCC copyright)*

at Faxton where complete discontinuity between the two systems is demonstrated (Fig 7.8). When such comparison is undertaken on a countywide scale using the NMP data, it is likely that some tracts of land will show high levels of discontinuity while others will show continuity, thus perhaps revealing a great deal about the nature of the Anglo-Saxon landscape.

Discussion and conclusion

Aerial survey has produced only limited evidence for the physical remains of Anglo-Saxon settlement and burial sites. It is likely that intensive and targeted research, particularly through well-recorded systematic field-walking of cropmark sites and by reassessment of cropmark evidence

on Anglo-Saxon cemetery and other sites indicated by metal detecting finds, would improve this situation. However, given the often ephemeral nature of Anglo-Saxon evidence where it has been revealed through excavation, one cannot expect anything comparable to the results aerial archaeology has yielded for the Iron Age and Roman landscape of Northamptonshire. Ironically, however, it is perhaps through the latter that aerial data may deliver by far the greatest contribution to the study of the Anglo-Saxon landscape, by making it possible to compare on a large scale the Iron Age / Roman landscape and the open field furlong pattern that was laid out in the Late Saxon period, enabling a detailed exploration of issues of continuity and discontinuity between AD 400 and 1000.