Figure 3.61 Grooved Ware rim fragment in the Durrington Walls substyle (Sf 3856) from the Ditched Enclosure.



the most irregular part of the circuit in the north (Fig 3.62: S19, S32 and S40). Initial natural silting was followed by localised recutting and backfilling, followed by further natural silting (Fig 3.62). The fills were as clean as those of the inner ditch, artefacts from all levels amounting to a core, a non-bulbar fragment, sixteen flakes and a blade, with small quantities of charcoal and charred grain. An irregular central feature (Fig 3.62: F1072) was heavily ploughdisturbed and was not excavated.

The scarcity of lithics in the ditches suggests that they were already silted by the time the bulk of the overlying flint scatter accumulated. The site was initially identified as a henge monument, but would be an exceptional one. Diverse as such enclosures are, there are few or none without entrances, and the disparity in diameter between the outer and inner ditches is unusual (Clare 1986; A Harding with Lee 1987). The closest approximation to the plan is perhaps to be found at Maxey, 40km to the north-east. The Maxey henge, itself atypical, was even poorer in cultural material than the Raunds monument. It did, however, post-date the Maxey cursus, and its outer ditch had almost completely silted before Collared Urn sherds weathered into it, so that a Late Neolithic date is probable. Other points of similarity include slightly elliptical plans for both outer and inner ditches with a common long axis, irregularity in the line of the outer ditch, and the presence of a central mound (Pryor 1985, 233–7). The comparison is, however, far from exact. The Maxey henge was almost twice as large as the Raunds monument, its irregularity of plan was less marked, and it had an entrance in the outer ditch, partly occupied by an oval barrow covering an articulated inhumation. It was also surrounded by other prehistoric monuments, whereas there is not a single ring ditch in the immediate area of the Cotton 'Henge' - the nearest lying 500m away at the north end of the West Cotton complex. If the Raunds monument was similar in concept and function, it may express an eastern English tradition also reflected in the proportions of the Arminghall henge on the outskirts of Norwich, where there is a substantial disparity between the diameters of the inner and outer ditches (J Clark 1936). Alternatively it may have been composed of a barrow set within an enclosure.

A further possible henge monument

А very small number of the many aerial photographs of the Raunds area show what may have been a more-or-less circular enclosure approximately 70m in diameter (Fig 1.4; Northamptonshire SMR ap id 038700270001, centred at NGR SP 970617 716397). It lay on the terrace, west of the Avenue and Segmented Ditch Circle and north of the Southern Enclosure. Figure 3.63 shows it occupying a slight rise in the gravel, surrounded by a greater depth of alluvium, which obscures parts of the circuit. Its eastern edge is cut by a modern field boundary, beyond which its course is not discernable. The cropmark cannot be plotted very exactly, because it is known only from oblique photographs, most of the landmarks on which have been quarried away. The area in which it lay was very incompletely excavated, because trial trenching there established that it lay beyond the southern limit of the Stanwick Iron Age and Romano-British settlement (Fig 1.5).

Most of the course of the cropmark falls in one of the largest gaps between trenches. There are, however, at least two cuttings in which parts of its west side may have been encountered. Trench B294 was excavated in the course of the Irthlingborough project, probably in an attempt to locate this cropmark. It exposed 5.50m of the rounded terminal of a ditch 2.30m wide and 0.80m deep (F60406), overlain by alluvium. All of the exposed length of ditch was excavated. The section shows an irregular, flattened V-profile with gently shelving sides, in which the central part of the primary silt seems to have been removed by a steep-sided recut. Animal teeth and charcoal were recovered from the topmost fill, which overlay the fill of the recut and may have long post-dated the cutting of the ditch. There were no finds from the lower levels.

Some 30m to the south, an un-numbered trench cut in the course of the Stanwick project exposed three intersecting ditches, also sealed by alluvium, which were planned but not excavated. The lowest, an east-west ditch of uncertain width, was cut by a ditch (F87056) that curved from north-west to south-east and seemed to be over 4m wide. This was cut by a further ditch, which may be a continuation of the north-south ditch seen forming a cross with an east-west ditch within the cropmark (Fig 3.63), and hence part of a major Iron Age and Roman boundary



Figure 3.62 Cotton 'Henge'. Trench plans and sections.



Figure 3.63

Circular cropmark (apid_038700270001, arrowed) between the Avenue and Segmented Ditch Circle and the Southern Enclosure, viewed from the north-east, 9 July 1962. CUCAP AGA 8 (© University of Cambridge Collection of Air Photographs). identified within the Stanwick settlement. The curvature of F87056 is consistent with its being part of the circular cropmark. The discrepancy in width between it and F60406 at first sight suggests that they are unlikely to have been parts of the same ditch. But the upper fill of F60406 extended over the flat surface of the gravel to either side, presumably spread by cultivation prior to alluviation. F87056 might, if excavated, have proved to be narrower than it appeared.

The site of the enclosure has been quarried away. If F60406 was part of it, there was an entrance in the west side. There may also have been an entrance or entrances in obscured parts of the circuit. There are some limits to the potential date and function of the enclosure. It certainly pre-dated the late-Saxon/early-medieval alluviation and, if F87056 formed part of it, it was cut by a probably Roman ditch. Among prehistoric monuments, the combination of a roughly circular plan and a diameter as great as 70m would be most likely to occur in rare late 4th- to early 3rd-millennium enclosures like Flagstones in Dorset (Healy 1997, fig 18) or the first phase of Stonehenge (Cleal et al 1995, fig 36); in more frequent 3rd-millennium henge monuments, like that at Maxey,

cited above; or in late 2nd- to early 1stmillennium ringworks, like that at Thrapston, downstream from Raunds (Hull 2001, fig 1). The quantity of artefacts and food remains commonly recovered from ringworks, and the apparent scarcity of internal features, make this the least likely option of the three. If there had been a concentration of Late Bronze Age cultural material comparable to that encountered at Thrapston one would expect some of it to have been encountered in the nearby trenches. The same would hold true if it had been a later 1st-millennium settlement enclosure.

Other activity

F31820, 2930–2570 Cal BC (SS1.22)

An isolated pit approximately 30m north of the Causewayed Ring Ditch contained a few Grooved Ware body sherds; a small assemblage of struck flint, including a serrated blade; burnt limestone; charcoal of oak, hazel and Pomoideae; charred remains of sloe and related species, crab apple, apple or pear, elder and hazelnut; one wheat grain; and one indeterminate cereal grain. Some of the charred hazelnut shell was dated to 2930–2570 Cal BC at 95% probability (4210±70 BP; Fig 3.22: OxA-3056). The burnt material, with its prevalence of wild species, echoes the contents of other pits, the contents of many of which seem selected and arranged (Campbell SS4.5.3; J Thomas 1999, 64–74). The recurrently consistent and distinctive composition of the plant remains in pits containing Grooved Ware may represent a particular activity or set of activities (2.1.2). F31820 is less elaborate than many, including multi-layered pits rich in Grooved Ware, other artefacts and food remains at Fengate on the lower Nene (Pryor 1978a), and at Barholm on the lower Welland (W Simpson 1993).

Artefacts

There is little hint of Late Neolithic activity among the scattered artefacts. A handful of small, abraded body sherds possibly of Grooved Ware came from the south 'quarry pit' of the Long Mound, Barrow 6, Barrow 5 and a later context on the terrace (Tomalin SS3.8.4: P57, P62, P63). In the first of these there was also an oblique arrowhead, a type that was scarce overall (Panel 3.5). A further sherd possibly of Grooved Ware came from a later 3rd-millennium pit beneath the south end of the Turf Mound, which is described below (3.5.2). There is one other possibly Late Neolithic element. Two stone axeheads from superficial contexts on the terrace are attributed to petrological group I (Panel 3.4). As most of the few group I axe heads found in association with pottery outside the south-west of England occurred with Grooved Ware (Cummins and Moore 1988, 43; R Davis *et al* 1988, 16; Evens *et al* 1972, 253; Roe 1999; I Smith 1979), the Raunds examples may have reached the area in the Late Neolithic.

Panel 3.4. Flint and stone axeheads

The flint axehead from the Long Barrow (Panel 3.3) is exceptional in having remained intact, although heavily used. There are no other complete ground flint axeheads from the Raunds project. Fifteen flakes and fragments, however, retain areas of grinding, and sometimes part of the form of the axehead from which they had been struck. All but two came from West Cotton, mainly from the Long Mound, indicating that they formed part of the earlier Neolithic industry represented there, perhaps deriving from the turves from which the mound was built (Fig 3.5). Also from West Cotton is a flake from a ground axe of Great Langdale tuff (petrological group VI), a rock that flakes in the same way as flint. The flint axehead from the Long Barrow is also nonlocal, of flint difficult to match in the immediate area. Some of the flakes and fragments are of mottled, light grey 'Lincolnshire' flint; it is not possible to be precise about their origins, but it is possible to be fairly confident that they had been brought to the Nene valley, like the group VI axehead, although probably not over comparable distances. Axehead fragments of flints different from those of the bulk of the industries in which they were found, and often apparently chosen for their visual appeal, recur over much of Britain (Healy 1998, 25-6). Local instances include flakes from polished implements of a light grey, opaque flint with fine cherty inclusions not matching other flint from the site at the Briar Hill causewayed enclosure (Bamford 1985, 60), and an orange-brown flint and a creamy-white flint with numerous inclusions at the Etton causewayed enclosure (Middleton 1998, 235). More-or-less remote origins and the skill, time and effort invested in their production - 22-24 hours to finish an allover-ground flint axe or 7–9 hours to finish one of Langdale tuff (Bradley and Edmonds 1993, 89) - could have reflected and contributed to the significance with which axes were endowed. Their occurrence. often whole, in hoards, pit deposits, burials and bogs and rivers (Edmonds 1995, 53) points

to connotations beyond their use as functional woodcutting and woodworking tools.

The fragmented, flaked-down state of the West Cotton flint axehead material is common, perhaps because the high-quality raw material provided by broken axeheads was reworked while intact ones were carried off for further use; perhaps too because some axeheads were deliberately destroyed

Flint axehead from the Stanwick hoard. The whole group is illustrated in Figures SS3.24–26.



(Edmonds 1995, 70-71; 1998, 268). A different history can be inferred from a group of at least six complete flint axeheads, again of non-local flint, found during housebuilding in Stanwick village in the 1930s with now lost 'Windmill Hill' pottery (Humble SS3.7.2). All are of similar form. and were originally ground over much of their surfaces. The cutting edges of three have subsequently been reflaked, but not reground; a fourth has been almost completely reflaked; and a fifth has been burnt to the point of disintegration. Here there is a hint of the many transformations that some axeheads may have gone through before they were finally deposited or



Blunt micaceous sandstone axehead from close to the Riverside Structure.

Panel 3.5 Flint arrowheads

Flint arrowheads were found throughout the excavated area, but the representation and the distribution of different forms were uneven. destroyed. The reflaked axes were buried before their new cutting edges were finished by further grinding. It is impossible to tell whether their refashioner intended to retrieve and complete them. While 'hoards' of axeheads often include implements in varying stages of completion (Pitts 1996, 340–1, 355–7), intermediate stages of *re*working, as here, are exceptional.

In the excavated areas of the valley bottom, four axeheads of coarser-grained rocks, worked by pecking rather than flaking, were less fragmented (Humble *et al* SS3.7.1). They also had a different distribution from the flint axehead fragments. Only one came from West Cotton, the other three being scattered along the terrace to the south (Fig 3.5). Two were of uralitized gabbro attributed to petrological group I, originating in the south-west peninsula, although it is debatable whether it was obtained from *in situ* sources, or as beach pebbles (Berridge 1995). Another was of greywacke, probably from north or west Britain.

The only stone axehead from West Cotton was of micaceous sandstone and had a non-functional blunt, rounded edge. It could not have produced the axe marks on the timbers of the Riverside Structure, close to which it was found (Fig 3.54). Blunted axeheads are rare, and are generally of flint, sometimes flaked, like an example from the Dorset cursus (Gardiner 1985a, fig 2:13), and sometimes with the edge ground blunt (Curwen 1939; Gardiner 1987, 61).

Leaf arrowheads, a classically earlier Neolithic form, were the most abundant and were concentrated in West Cotton, where early activity was most intense, and



The distribution of arrowhead types across the three main divisions of the area. scattered southward along the terrace, with only two tentatively identified fragments from Irthlingborough island, in superficial contexts on Barrows 1 and 3.

Chisel arrowheads, most frequently associated with Peterborough Ware and the Clacton and Woodlands substyles of Grooved Ware (Green 1980, 235-6; Manby 1974, 84), were evenly divided between West Cotton and the rest of the terrace, one of them in an Ebbsfleet Ware assemblage in a feature at the base of one of the 'quarry pits' of the Long Mound. There was only one on Irthlingborough island, incorporated in the mound of Barrow 4. There are only five oblique arrowheads, generally associated with Grooved Ware, especially of the Durrington Walls substyle, and they were confined to West Cotton and the terrace.

Barbed-and-tanged arrowheads, unlike all the other forms, were almost as abundant on the island as elsewhere. On the terrace, five formed part of the primary deposit under Barrow 5. None of the others scattered at West Cotton or along the terrace was near a surviving burial or barrow. On the island, all but a single example from an evaluation trench came



Leaf arrowheads from a treehole beneath the north part of the Turf Mound.

from post-construction contexts in Barrows 1 and 3, and may have originally been deposited with interments.



Chisel arrowhead from the mound of Barrow 4 and oblique arrowhead from an Iron Age context on the terrace.

Barbed and tanged arrowheads from the outer ditch of Barrow 3 and the disturbed mound of Barrow 1.

3.4.3 Discussion

The limited evidence from the valley floor suggests that this part of the landscape lost some of its earlier meaning in the first half of the 3rd millennium, during which few or no new monuments were built. If the later 4th millennium saw the episodic commemoration and reworking of an ancestral landscape, which incorporated the earthworks of earlier generations, then failure to continue this tradition in the first few centuries of the 3rd millennium - if failure it was - indicates a profound realignment of social life. Uncertainty here springs from the two undated but possibly early 3rd-millennium monuments: the Cotton 'Henge' and ap_id 038700270001. The low frequency of contemporary artefacts in the valley bottom is more certain, and perhaps emphasises that this was indeed a deliberate and sustained transformation. The exception to this general picture of declining use is the Riverside Structure, but this does not necessarily contradict such an interpretation, given its direct association with the river as opposed to the flanking dry land. While there is no definite evidence linking the Riverside Structure to the deliberate deposition of human and animal bone, this remains a distinct possibility, and would complement the Neolithic practice of placing axes in watery contexts (R Bradley 1990, 66-7).

This reduced level of activity extended beyond Raunds. Other 4th-millennium monuments in the valley bottom of the middle and upper Nene were abandoned, and Grooved Ware and its associations are as scarce there as Peterborough Ware is frequent. There is a single pit and one or two stray sherds from Grendon (Gibson 1985, 54; Last 2005, 341); a discoidal core, a chisel arrowhead and an oblique arrowhead from Earls Barton, 1km to the north (E Healey 1984, 23-4); and four sherds from a single Grooved Ware vessel from Orton Meadows (Bamford forthcoming). The Briar Hill causewayed enclosure, up on the valley side, was treated differently, becoming the site of a new timber setting in which Grooved Ware was deposited (Bamford 1985, 43-4, 104). Further downstream, a probable henge was built on the valley side at Elton, Cambridgeshire (A Harding with Lee 1987, 81-3), more than 3km away from 4th-millennium features in Dog Kennel Field in the same parish (French 1994b).

Downstream from this again, the lower Nene, where it approaches the fen edge, remained a focus of activity, with no hint of the abandonment seen in the upper reaches. Even here, however, there was an element of segregation. The predominance of Grooved Ware in pits excavated at Fengate in the 1970s (Pryor 1978a) contrasts with that of Peterborough Ware and Beaker in collections made early in the 20th century from the 'gravel pits' area immediately to the south (Abbott 1910; Gibson 1980b; Gibson 1982, 151-4, 383-99; Leeds 1922; I Smith 1956; G Wainwright and Longworth 1971, 281). The lower Ouse and the lower Welland similarly remained foci of activity. On the Ouse, Grooved Ware occurred in a dozen separate pit clusters at Barleycroft Farm and Over (Longworth and Cleal 1999, 180). On the Welland, the presence of Grooved Ware in pits and other contexts at the Etton causewayed enclosure echoes the re-use of Briar Hill (Pryor 1998a, 201-8), and there are contemporary pit and midden deposits nearby (French and Pryor 2005), as well as further pits at Barholm (W Simpson 1981, 42, 47-8). This area was also the site of the Maxey henge, which yielded no Grooved Ware at all, although a handful of sherds was found in secondary contexts nearby (W Simpson 1981, 42, 47-8; Pryor et al 1985, 68-70, 262, fig 177: 15, 16).

3.5 The later 3rd millennium and the Early Bronze Age monuments

3.5.1 Introduction

The reorganisation of the early 3rd millennium resulted in the valley bottom remaining largely unaltered for some centuries, except for localised regeneration of scrub and woodland. This part of the landscape, through its relatively unchanging physicality, and its association with the denuded remains of earlier monuments, would have become not so much an 'empty space' as perhaps a place of the ancestors and distant dead, where herds were pastured but ceremonial activity was at low level, if it took place at all. Grazing must have become more intensive as time went by, because a more open landscape than any that had obtained since the early Flandrian prevailed

by the late 3rd millennium. The timescale of this transformation is unknown, largely because it entailed the generation of very few archaeological features and the discard of very few artefacts. Nonetheless, all six of the late 3rd- or early 2nd-millennium round barrows for which evidence is available were built in pasture, and plant and insect remains from a 2nd-millennium deposit overlying the Riverside Structure suggest a catchment of relatively lightly grazed grassland (Ch 2). The only exception was the Long Barrow, where the roots of alders growing down into the earlier waterlogged deposits are dated to the late 3rd or early 2nd millennium Cal BC (Fig 3.31: OxA-6403, OxA-6404). These may, however, reflect scrub growth on the monument itself, rather than the vegetation of the surrounding area, where rows of barrows suggest clear sight lines (Fig 1.4).

It was at this time that the now open environment of the valley bottom again became a focus for monument-building and ceremonial activity, at least 400 years after the construction of the last dated Neolithic earthwork. This upsurge coincided with the adoption of Beakers, an association that seems to reflect the often-discussed view that the vessels themselves, and the practices in which they were used, represented a new form of political authority, which, in its early days, achieved validation and credence through the deliberate use of older sites (Braithwaite 1984; Shennan 1982; 1986; Thorpe and Richards 1984). At Raunds there was renewed activity at some Early Neolithic monuments from the mid-3rd millennium onwards, and by the turn of the 3rd and 2nd millennia the valley bottom had been transformed by the construction of round barrows. Formal burial had now become far more significant than before, and monuments were built on the island for the first time. It is not possible to tell if renewed activity preceded or accompanied the construction of the first round barrows. The three well-dated barrows (1, 6 and 9) were all built rather later, in the last quarter of the 3rd millennium (Fig 3.68), but others, notably Barrows 3 and 5, may have had longer histories than the available dates suggest, and many more remain uninvestigated. There were three clusters and alignments of mounds in the area, as well as dispersed monuments (Fig 1.4), so that the excavated barrows are an uneven sample of all of these, rather than of any single 'cemetery'.

3.5.2 West Cotton and the remainder of the terrace

Accretion to existing monuments was most marked at the long-established focus at West Cotton, where a ditched mound was built over the tail of the Turf Mound. and an existing alignment through the Turf Mound and the Long Enclosure was extended to the north-east by the construction of at least four more barrows (Figs 1.4, 3.64). Barrows were most tightly clustered here, where the space to the north-east of the Long Mound and the Long Enclosure was progressively surrounded by earthworks, including at least five uninvestigated ring ditches (Fig 3.65; Payne SS5; Parry 2006). The Ditched Enclosure, between Barrow 6 and an unexcavated ring ditch, which is described in the context of the earlier 3rd millennium (3.4.3), may have been built at this time. Its date and role remain uncertain. To the south, the alignment of the Long Enclosure and the Turf Mound, perhaps incorporating the Causewayed Ring Ditch, was extended by the construction of Barrow 5, and a hengiform monument - the Segmented Ditch Circle was built over the south-west end of the Avenue.

The Long Mound (SS1.1)

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A pit was cut through the west-centre of the Long Mound into the underlying palaeosol, where its base survived, truncated by a rabbit warren (Figs 3.9, 3.66: F5484). A fire had been lit on top of the surviving fills, reddening their surface, and charring four large fragments of oak, which remained intact. There were no artefacts, and it is impossible to tell if the fire had extended further up into the pit. Samples of sapwood from three of the oak fragments have yielded statistically consistent mid-3rd-millennium dates (Fig 3.14: OxA-7941, -7942, -7952).

Sherds from a large Beaker in an exceptional tufa-tempered fabric (Fig 3.67; Tomalin SS3.8.4: P64) were found in a recut in the base of the southern 'quarry pit', and more were found in a confined area in the overlying fills of the main 'quarry pit'. Only very small quantities of other Early Bronze Age and possibly Neolithic pottery were present. It is unclear whether all or a substantial part of the vessel was originally buried, to be dispersed by subsequent activity, or whether it was originally fragmented. Continued frequentation of the monument is also suggested by low numbers of Beaker and Early Bronze Age sherds, two barbed-and-tanged arrowhead fragments and a plano-convex knife from superficial contexts.

The south part of the Turf Mound, built *2470–2300 Cal BC* or later (SS1.3)

Andy Chapman, Tony Baker, Dave Windell, Jo Woodiwiss

A pit was cut at the tail of the north part of the mound (Figs 3.18, 3.69: F6047). At its



Figure 3.64 West Cotton and the terrace to the south at the end of monument construction. base, a partly charred wooden object survived as a coherent rectangular fragment of hazel charcoal continuous with two linear soil marks, close to the upper of which was a grooved, grog-tempered sherd of Grooved Ware or coarse Beaker. Above these was a red deer antler (Fig 3.69). A void at the surface of the pit suggested that organic material had decayed within it, causing the fills to slump. Two dates on the charred hazel fragment give an estimated age of *2470–2300 Cal BC at 95% probability* (Fig 3.22). A second pit, some 10m to the east, was observed only in section and no finds were recovered from it (Fig 3.18: F6082). A further pit was cut into the body of the north part of the mound, extending down to the palaeosol (Fig 3.18–19: pit D), and

Figure 3.65 Relationship of the magnetometer survey results from Wést Cotton to previously excavated features.



Figure 3.66 Long Mound. Burnt wood in F5484. See Figure 3.9 for location.



sherds from perhaps one or two Beakers with simple zoned, comb-impressed decoration were placed in it (eg Fig 3.67: 3, 4; Tomalin SS3.8.4).

The date for F6047 provides a terminus *post quem* for the construction of a slightly ovoid mound, the ditch of which cut F6082 and probably cut into the tail of the earlier, north, part of the mound (Figs 3.18–19). The long axis of the ditch corresponded to those of the existing north part of the mound and of the Long Enclosure. The turf-built mound seemed homogeneous, without any of the sand and gravel that would have been extracted from the surrounding ditch (Fig 3.20). The absence of artefacts from the mound, and their almost total absence from the ditch, may simply reflect the watching-brief conditions in which most of the monument was recorded, with only very limited controlled excavation. The absence of any burial, however, is almost certainly genuine, as the watching brief was continuous during overburden removal and gravel extraction. A small quantity of struck flint was recovered from the short length of excavated ditch, and there were a few Beaker and Early Bronze Age sherds in its upper silts. The character of the debitage from superficial contexts suggests a low level of postmound knapping.

Barrow 6, built *2140–2080 Cal BC (14% probability)* or *2050–1890 Cal BC (82% probability)* (SS1.17)

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Barrow 6 was built some 15m from the north-east end of the Long Mound (Figs

1.4. 3.64), and, like that monument, was much damaged by later activity (Fig 3.70). The initial barrow was of comparable size and construction to the south part of the Turf Mound, but differed from it spectacularly in covering an elaborate burial (Fig 3.72). Several features were cut into the area later covered by the mound, some of them perhaps pre-dating it by as much as 2,000 vears: a small stone setting was built (Fig 3.71: F3256); and Mesolithic and Neolithic artefacts were present (3.2.2). One pit (Fig 3.71: F199) is likely to have been open when the mound was built, as its fill matched the matrix of the mound. It is impossible to judge which of the others would have been visible when the primary burial was made, but they may have included a central treehole, which was cut by the central burial; a large, grave-like pit (F3384); and a pit (F3379) either cut by or cut from the base of the inner ditch (Figs 3.59, 3.71).

The central burial (Figs 3.72–3)

The incomplete, disarticulated remains of two individuals who had died in the late 4th millennium (3.3.2) were stacked in a small pit beneath the base of a much larger grave containing the articulated inhumation of a man who had died about a thousand years later, at the turn of the 3rd and 2nd millennia (Fig 3.68: *UB-3310, -3311*). It is impossible to tell whether the grave was cut over a marked and remembered pit in which the Neolithic remains had lain since shortly after excarnation, or whether they were brought from elsewhere to form part of the new burial. The common orientation of pit and grave suggest the latter.

A flint knife lay close to the hands of the crouched inhumation; a stylistically late rusticated Beaker was behind the feet; and a flint flake, a flint dagger and a large jet button were stacked on top of each other below the feet, with a fragment of chalk close by. The conical button lay point-down, with its base horizontal, and must thus have been attached to a garment or container when buried (Figs 3.72–3). The mixed but undifferentiated fill of the grave was consistent with its having been backfilled with the upcast from its excavation.

The first ditch and mound

The ditch was subcircular in plan around most of the circuit, with a flatter arc to the north-west (Fig 3.71). The difference in plan, combined with variation in size (Fig 3.74),



Figure 3.67 Reconstructed Beaker from south 'quarry pit' of Long Mound (1), Beaker or Grooved Ware sherd from F6047 under the southern part of the Turf Mound (2) and Beaker sherds from 'pit D' in the Turf Mound (3, 4).

could suggest that the terminals of an originally penannular ditch, open to the northeast, were subsequently joined. F199, apparently open when the mound was built, was at one end of this flatter arc, and close to its centre was a posthole (Fig 3.71: F3199), which penetrated into the natural sand and gravel. The post that it contained could Figure 3.68

Probability distributions of dates from round barrows and from Beaker or Early Bronze Age burials elsewhere. The format is identical to that of Figure 3.14 The distributions represented are: Long Barrow: OxA-5549

burial in F130; BM-2833 burial in F131; OXA-5550 disarticulated bone in F131 Barrow 9: skeleton 737 (OxA-5543 and -5544) peripheral burial in F729; BM-2866 peripheral burial in F741; skeleton 732 (OxA-5547 and -5548) peripheral burial in F725; skeleton 747 (OxA-5543 and -5542) central burial in F727.

Barrow 6: UB-3310 disarticulated double burial in F3390: UB-3311 central burial in F3259: OxA-7866 Pomoideae stake from cremation in F3219; UB-3315 charcoal (mainly Quercus) from cremation in F3206 Barrow 5: 291-55243 large animal tibia from pit F3219: OxA-3054 charcoal from cremation in F47087 Barrow 4: OxA-3053 Quercus plank within mound; OxA-3052 tubers from cremation in F60312 Barrow 3: OxA-3051 Quercus charcoal from posthole F39107: OxA-7903 and -7949 Rhamnus catharticus and Prunus sp charcoal from spread in ditch Barrow 1: OxA-2085 and -2086 aurochs molars from cairn over primary burial; OxA-2084 and -2087 cattle molars from badly preserved skulls in cairn over primary burial: OxA-4067 boar tusk from heap of grave goods at feet of primary burial; OxA-7902 Quercus sapwood from chamber containing primary burial; UB-3148 primary burial; UB-3147 peripheral burial.



either have been driven through the primary silts or driven into the base of the newly dug ditch and stood as the primary silts accumulated around it, to be removed before the ditch silted any further. Other possible postholes were tentatively identified in the ditch base nearby and, in the south-west, there was a shallow pit (Fig 3.71: F3379) in the base of the ditch, which contained a large cobble and was sealed by the primary ditch silts. The mound, as far as it survived, was homogeneous and built of turf and/or topsoil, with virtually no inclusions other than already-present artefacts. There was no sign in its make-up, or in the ditch silts of the sand and gravel that would have been dug from the inner ditch, to suggest that the spoil from the ditch was deployed elsewhere and/or that the ditch and mound were successive. The mound appears to have

THE DEVELOPMENT OF THE MONUMENTS



extended to the ditch edge, and the ditch to have silted-up with eroded mound material after a small amount of sand and gravel primary silt had accumulated (Fig 3.74).

The second ditch and mound

When the inner ditch was almost completely silted, a larger, deeper ditch was dug close to its outer edge, perhaps in a series of arcs, as variations in depth coincided with slight changes of direction in plan (Fig 3.59). Probably at the same time, sandy loam (likely to have been the topsoil from the excavation of the ditch) was applied to the mound (Fig 3.74: 3193), followed by gravel from lower down in the ditch, largely surviving at the time of excavation where it had eroded down into the upper part of the naturally silted ditch (Fig 3.74: 3192/3364, 3402), followed by slowly silted soil, proba-

bly representing a stable horizon (Fig 3.74: 3366, 3401). Loam with gravel may have resulted from further erosion, or, given its thickness and homogeneity, from a deliberate cleaning of the mound (Fig 3.74: 3192). On the evidence of the ditch sections, the enlarged mound would have come up to, or very close to, the ditch edge. Cut into layer 3192 at the south-east side of the barrow was a ramped postpit in which a post c 0.35m in diameter appears to have decayed *in situ* (Fig 3.59: F3210).

The third mound and ditch

1m

The outer ditch was slighter than the middle ditch. A shallower, flattened arc to the north-west echoed that of the first, inner ditch, and an ovoid plan, eccentric to the existing mound and including two breaks, was almost certainly prompted by a desire to

A NEOLITHIC AND BRONZE AGE LANDSCAPE IN NORTHAMPTONSHIRE

Figure 3.70 Barrow 6 and Ditched Enclosure. Excavation in progress, showing extent of disturbance to central area of barrow by later features (photo Northamptonshire County Council).



incorporate the Ditched Enclosure, which was already only 1m from the edge of the middle ditch (Fig 3.59). The mound was again enlarged, and would have extended to, or just beyond, the outer edge of the silted middle ditch, separated from the newly cut outer ditch by a berm of variable width and, in the south-east, by the Ditched Enclosure. The post in F3210 may have projected through the edge of the mound.

The outer ditch silted naturally, an exceptional find being a 0.35m length of carbonised wood, possibly a plank, in the secondary silts in the south of the circuit. A neonate femur in one of the topmost layers may have derived from an eroded burial, as may a Collared Urn fragment. The detached arm of ditch between the two causeways was recut in the south butt, and perhaps also in the north butt.

Peripheral cremation burials

Three cremation deposits were inserted in the area of the intersection of the outer ditch and the Ditched Enclosure (Fig 3.75). F3178, between the two ditches, contained the cremated remains of a young woman, with a stylistically late Collared Urn and a fired clay stud. The other two cremation burials were cut into the almost silted recut of the south butt of the detached arm of the outer barrow ditch. Both were below 3176, a layer that, with others in the adjacent parts of the main circuit and the Ditched Enclosure ditch, may have resulted from the levelling of the Ditched Enclosure bank, and that included a probably Middle Bronze Age sherd. It is not clear whether F3219 directly underlay this layer, as it was recognised only after its upper part had been excavated. Some flecks of the cremated bone of an infant were scattered with pyre material in the lower fill. There was more bone, together with charcoal, in a central stakehole, above which was a tight cluster of sherds from a miniature Collared Urn, which had been burnt, perhaps during the cremation, and seems to have been already broken when buried, with the base of the vessel within the mass of sherds. There was no urn in F3206, where cremated bone from an infant was placed in the base of the pit, followed by pyre debris. A Beaker sherd and a possibly Middle Bronze Age sherd from superficial contexts may have derived from destroyed burials.

Dating

The four measurements from the barrow form a stratified sequence (Fig 3.68). A bone from one of two incomplete disarticulated skeletons in F3390 beneath the central grave is dated by UB-3310 to *3360–3090 Cal BC at 95% probability*. The articulated burial in that grave is dated by UB-3311 to *2140–2080 Cal BC at 14% probability* or *2050–1890 at 82% probability*. Pomoideae



charcoal fragments from the stakehole in cremation pit F3219, cut into the silted outer ditch (OxA-7866) are later than the construction of the mound, and provide an estimate for the date of the cremation deposit of 2030–1870 Cal BC at 89% probability. The charcoal had probably formed part of the surrounding cremation deposit and entered the stakehole together with fragments of cremated bone after the stake

had decayed. Material from F3206, the second dated cremation burial from this ditch, was mature oak, and so provides a *terminus post quem* of *1750–1490 Cal BC at 95% probability* (Fig 3.68: *UB-3315*).

These last two measurements do not overlap (Fig 3.68), and the interval between them could be even greater than the probability distributions indicate, because UB-3315 may be a *terminus post quem*. However, F3206 Figure 3.71 Barrow 6. Detail of central area. The sinuous broken line running between the inner edge of the ditch and F3384 is the northern limit of the area where the premound soil survived.



Figure 3.72 (above) Barrow 6. Burials in F3390 and F3259. The labelled grave goods are, clockwise from the bottom left, flint knife (4640), chalk lump (4572), flint dagger (4569), flint flake (4570), button (4571).

Figure 3.73 (right)) Barrow 6. Burial in F3259 (photo Northamptonshire County Council).



was recognised at a higher level than F3219 (Fig 3.75) and may in fact have been cut from a higher level. Even the older cremation burial, F3219, was inserted when the ditch had been recut and was substantially silted, in other words some time after the barrow had already undergone three substantial modifications. Yet its estimated date of 2140-2080 Cal BC at 14% probability or 2050-1890 at 82% probability is virtually indistinguishable from that of 2050-1890 at 82% probability for the Beaker burial beneath the primary mound (Fig 3.68: OxA-7866, UB-3311), with the implication that the construction and two successive enlargements of the barrow took place within a couple of hundred years, and possibly much less.

The Double Ring Ditch (SS1.21)

Andy Chapman, Tony Baker, Dave Windell, Jo Woodiwiss

This monument (Figs 3.76–7) survived only in the natural sand and gravel and was so badly denuded that there was little



Figure 3.74

Barrow 6. Composite section. The upper part runs from WNW to SSE, the lower from NNW to SSE. See Figure 3.59. The turf of the first mound, whether in situ or eroded, is hatched, predominantly loam layers are blank, and predominantly gravel layers are stippled.



evidence of its original form, and none of its date. Two narrow, shallow concentric ditches, the outer one with a west-facing causeway, enclosed an area 3m in diameter (Fig 3.76). The inner ditch had been recut when fully silted, and both ditches may have been backfilled (Fig 3.77). Neither provided an inkling of the form or location of any original earthworks, and the only internal feature was a sterile feature of posthole-like profile, but with no evidence of a former post (Figs 3.76–7: F4968). The ditches may have surrounded a post, or a tiny burial mound. This monument and ring ditch 5, a double ring ditch at the north-eastern edge of the West Cotton complex (Fig 3.64), lie at the smallest extreme of the range for Early Bronze Age burial monuments. The area enclosed by the outer ditch was a little smaller than that enclosed by the ditch of Barrow 8 (Fig 3.32), and the scale of the monument compares with that of the smallest Beakerperiod ring ditches, such as those at Shorn-

Figure 3.76 Double Ring Ditch. Plan.





cote. Gloucestershire (A Barclav and Glass with Parry 1995), or the inner ditch of a barrow on Eaton Heath, Norwich (Healy 1986, fig 48). It may alternatively have been of Middle Bronze Age date, like some of the Raunds cremation burials, since very small barrows and ring ditches sometimes formed part of Middle Bronze Age cremation cemeteries, notably at Ardleigh and Brightlingsea in Essex (N Brown 1999, 36, 174-5). A ring ditch 4.40m across even surrounded an early 1st-millennium BC cremation site at Broom. (Palmer Warwickshire 1999. 36-56). None of these small Middle or Late Bronze Age ring ditches was, however, double like the Raunds example.

Barrow 5, built before *2140–1880 Cal BC*? (SS1.16)

Aidan Allan, Stéphane Rault, Jon Humble

Post- and stake-settings

Barrow 5 was excavated in near-salvage conditions, and had been damaged by the construction over it of a Romano-British temenos. The barrow was itself preceded by a freestanding arc of posts, probably a circle before being truncated by the inner barrow ditch. The postholes were steep-sided and flat-based, and ranged from 0.18m to 0.60m in diameter and 0.07m to 0. 38m in depth, with the larger ones concentrated in the west (Fig 3.78). No postpipes were identified, and only one contained charcoal, so that the posts are likely to have been removed before the barrow was built. The only artefact from any of the postholes was a single flint blade. There was a possible entrance 0.68m wide in the middle of a flattened arc to the southwest, with an external and an internal posthole at its west side. Inside the west part of the main arc were what may have been a shorter arc of postholes, at least four pairs of postholes, some set radially to the main arc, and a cluster of stakeholes between the two arcs (Fig 3.78). Further postholes outside the main arc to the south suggest that the complex may have been more extensive (Fig 3.78), although their prehistoric date is less certain than that of those beneath the mound. The fragmentary complex has many of the elements of freestanding Neolithic and Early Bronze Age timber circles: a defined entrance, post rows or fences to channel movement and uprights on which symbols, trophies or regalia might be displayed (Gibson 1998, 77-96). The interval between its construction and that of the barrow is unknown and may have been considerable.

Primary feature

A shallow central pit gave every impression of having held a burial, although no human remains were present (Figs 3.78-80: F47179). Two parallel linear soilmarks flanking a discoloured area on the floor of the feature suggest a bier. On the surface of a thin skin of fill were a crushed, slightly dispersed Wessex/Middle Rhine Beaker, five scattered barbed-and-tanged arrowheads, and a Collared Urn sherd. All the fills contained fragments of charcoal, sandstone and ironstone, and samples from those overlying the artefacts also included charred plant remains, fragmented burnt flint and fragmented burnt bone, especially in the topmost fill.

The first mound and ditch

The mound that covered F47179 was much damaged, and what remained of it was largely removed by machine. It seems to have been built of topsoil, or topsoil and turf. There is no record of a gravel capping on the mound, and no hint of one in the inner ditch fills (Fig 3.80), so that here, as at the south part of the Turf Mound and the first mound of Barrow 6, spoil from the inner ditch may not have been applied to the mound.

Secondary features in the centre of the barrow

Two pits were cut through the centre of the mound into the primary central feature (Figs 3.78-80: F47171, F47168). It is impossible to tell whether this was done before or after the excavation of the outer ditch and any mound enlargement that may have accompanied it. The edges of F47171 were difficult to distinguish both in the upper fill of the primary feature and in the fills of F47168, which suggests that the cutting of both features and the disturbance of the putative primary inhumation may have been a single event. The mouth of a Collared Urn inverted in F47171 lay in the upper fills of the primary feature, covering substantial parts of the cremated remains of three adults, one possibly male and one possibly female, accompanied by an unburnt bifacially flaked flint knife or dagger, which lay against the outside of the pot.

The lowest fill of F47168 (Fig 3.79: 47181) was recorded in the field as a sticky, gritty dark brown sandy clay loam with flecks of charcoal, decayed sandstone and ironstone, a description precisely matching











Figure 3.80 Barrow 5. Sections. The posthole at the east edge of the inner ditch was drawn as shown here, but aligns with others, which underlay the relict mound and/or were cut by the inner ditch.





5m

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that of the middle fill of the primary feature. Samples from it included fragmented burnt flint, burnt stone and burnt clay, as well as an array of charred plant remains commonly found in cremation deposits (Campbell Ch 2; SS4.5.4). In other words, the pit contained pyre debris that had also become incorporated in the disturbed upper fills of the primary feature.

Å cattle skull, a large jaw fragment, and a large artiodactyl tibia lay above the base of the pit (Fig 3.79), recorded as from 47181, but shown in section as possibly lying in the base of a recut filled by the topmost layer, 47170, the lower extent of which was unclear (Fig 3.79). The tibia is dated to the late 3rd or early 2nd millennium (Fig 3.68: $R_Combine$ 291–55243). 47169, which overlay 47181, had the mixed, jumbled character of backfill, with the same mixture of inclusions as 47181, but in smaller quantities. It also contained 10 sherds/206g of 1st-century Roman pottery. It is not known whether these were deep in the layer or superficial and possibly intrusive. The abruptness of the pan-lined interface between it and 47170 strongly suggests that the latter was the fill of a recut. 47170 was of similar character to 47169, but the 8 sherds/406g of

Figure 3.81 Segmented Ditch Circle. Plan, with later Field System ditch shown in outline.



Figure 3.82 Segmented Ditch Circle. After excavation, looking north-east along the Avenue (photo English Heritage).





Figure 3.83 (above) Segmented Ditch Circle. Antler pick on surface of primary silt in F87581 (photo English Heritage).

Figure 3.84 (left) Segmented Ditch Circle. Antler pick near base of F87641 (photo English Heritage).



Roman pottery from it were later, mainly 4th century.

Several interpretations of these features are possible. F47168 may have been cut in the 1st century AD, and animal bone recovered from the barrow may have been rearranged in it. If it is accepted that the original excavation of F47168, its lowest fill, and the animal bone deposit indeed date to the Early Bronze Age, then unclear boundaries between F47171, F47168, and the upper fill of F47179 could suggest that the disinterment of the burial in F47179 and the excavation and initial filling of F47171 and F47168 constituted a single episode. If so, F47168 may have been a pit over which bodies were cremated, the debris falling down into the pit, and the cremated remains being buried under the inverted urn to one side of it (Campbell SS4.5.4). Alternatively, the pyre debris may have been heaped beside the urn and entered F47168 when the latter was cut through the cremation deposit. The 1st-century Roman sherds in 47169, and its mixed, jumbled composition, suggest that the central feature may have been partly dug out when the shrine was established, perhaps for the insertion of a post or column, the sides of which are reflected in the near-vertical interface between 47169 and 47170. The 4th-century sherds in 47170 may date from the removal or decay of the same post or column when the shrine went out of use.

Although the upcast from the outer ditch would have been largely gravel, there was no evidence in its fills of gravel eroded from the interior (Fig 3.80), which suggests either that there was a berm between the ditch and mound, or that gravel from the ditch was again not applied to the mound.

Peripheral cremation burials

Two unaccompanied adult cremation burials post-dated the mound (Fig 3.78: F47111, F47143). A further adult cremation burial, in F47087 on the berm between the two ditches, may have been Neolithic (3.3.2; Fig 3.68: *OxA-3054*). Destroyed cremation burials may have been the source of both an Early Bronze Age body sherd in the topmost spit of the mound, and a collar fragment from an Early Bronze Age vessel in the inner ditch silts.

Dating

There were no suitable samples from primary contexts. Two dates on the tibia from F47168 are statistically consistent. Unless the bone was already old when buried, they may provide a *terminus ante quem* for construction, of *2140–2070 Cal BC at 15% probability*, or *2050–1880 Cal BC at 80% probability* (Fig 3.68: *R_Combine 291–55243*).

The Segmented Ditch Circle, built *2020–1680 Cal BC* (SS1.11)

Aidan Allan, Stéphane Rault, Jon Humble

Nearly 700m to the south, at some remove from all the barrows (Fig 1.4), a small hengiform monument was built over the southwest end of the Avenue, which must by then have survived as a set of shallow silted hollows. Its continuous circuit was made up of eleven interconnected pits, which all seem to have been cut at the same time (Figs 3.81-6). Primary silts were slight, and sometimes absent. Two antler picks, in the primary fill of one segment and on the surface of the primary fill of another, may have been placed in position once the monument was excavated (Figs 3.83-4). Above the primary silts the fills were mottled, jumbled and interleaved, suggestive of rapid backfilling, especially as the sides of the segments, the upper parts of which were cut in sand, had remained steep rather than weathered back (Fig 3.85). The sections of F87577, and of a pit between F87539 and F87541, suggest that they were filled largely from the interior (Fig 3.85), so that there may have been an internal bank or mound.

Oak charcoal and charred plant remains were most frequent where the enclosure cut the Avenue ditches, from which they seem to have been largely or wholly derived, given 5th-millennium radiocarbon dates on two samples (*see* below). A straight charred oak timber more than 3m long must surely, however, have been deliberately placed a little above the primary silts in F87559 (Figs 3.81, 3.86). Artefacts and food remains were confined to three flint flakes, a few unidentifiable bone fragments, and what appeared to be fish scales.

The cremated remains of a 10- to 15year-old in F87577 seem to have been incorporated in the course of backfilling (Fig 3.85). The same may be true of a second cremation burial, of a woman of over 50, in F87541. A third, of an adult male, occupied F87594, near the edge of the enclosure. A localised recut in F87549 contained less burnt material than the bulk of the fill.

Dating

A charred hazelnut shell from the cremation deposit in F87594 is dated to 8160–7590 Cal BC (Fig 3.87: OxA-7906) and was almost certainly redeposited. Also redeposited were two 5th-millennium tuber samples (Fig 3.87: OxA-7907, -7938). The two antler picks, from within and on the surface of the primary silt, provide two statistically consistent measurements (Fig 3.87: GU-5316, -5317), which give an estimated date for the construction of the circle of 2020–1680 Cal BC at 95% probability.

A further barrow?

To the west of the alignment, an undated ring ditch in the Iron Age and Roman complex may have been a barrow. F192143 (Figs 1.4, 3.64) was a continuous ring ditch approximately 23m in diameter, of variable profile and up to 3.70m wide and 1.95m deep. Its lower fills had stabilised, perhaps under turf, before it was recut in the late Roman period, and a Roman burial was in turn set into the recut. The lack of an entrance distinguishes the feature from ditches around Iron Age buildings on the site, and it was already silted before a 2ndcentury AD ditch was cut through it. The history of recutting and burial suggests a visible, recognised earthwork, as does the fact that two ditches apparently forming part of one of the later Bronze Age Field Systems may have been aligned on it (Fig 3.123). Its date and original function remain unknown (Crosby in prep).



Figure 3.85 Segmented Ditch Circle. Sections.

Irthlingborough island

Four widely spaced upstanding barrows survived on the island (Fig 1.4: Barrows 1-4), three of them (Barrows 1, 2 and 3) among the largest in the area. Barrow 2 was outside the area about to be guarried and survives as a Scheduled Ancient Monument. The other three were excavated, with diverse results. The pre-barrow soils of the rather lower-lying island tended to have a higher clay and sand content than those of the terrace and Redlands Farm (Macphail SS4.8.2), and one of the few common features of the Irthlingborough barrows was that their primary mounds were built of almost stone-free reddish-brown clay loams or sandy loams, in contrast to the dark brown

cores of the West Cotton mounds and Barrow 5, at least some of which were turfbuilt. It is not possible to tell whether the island barrows were soil- or turf-built, or both. Evidence for contemporary pasture comes from the soils beneath the barrows and from the general palaeoenvironmental record.

Barrow 3, built 2180-1930 Cal BC (SS1.14)

Aidan Allan, Stéphane Rault, Jon Humble

Pre-mound features

There was no primary burial. An irregular central feature, its base and fills heavily ironpanned, contained no artefacts (Figs 3.88–9: F39102). Three postholes were cut into it (Fig 3.88: F39107, F39394, F39396). Around the central feature were over 200 postholes and stakeholes, most of which could be reconstructed into at least seven circles, some of them incomplete, possibly laid out from six slightly different centres (Fig 3.88). Many post- and stake-pipes were recorded, as they had not been beneath Barrow 5, indicating that here the uprights had rotted *in situ*. They were more often pointed than rounded or flat, and clustered between 0.05m and 0.15m in diameter and 0.12m and 0.40m deep, without any clear size distinctions between rings. The larger timbers were set in postholes and the smaller ones driven in. Most were clearly truncated at the level of the pre-mound soil (Fig 3.92).

No postpipes or stakepipes were identified in plan in the body of the mound as it was being excavated. A few were, however, identified in section after most of the mound had been removed, suggesting that there may have been others. One section records a posthole with postpipe extending through the lower part of the mound and hence inserted after the mound was built (Fig 3.91: F39477); another more ambiguous section may show the same or may show a postpipe without a posthole extending through the mound, and hence already standing when the mound was built (Fig 3.89: F30941). These may all have been isolated posts; but this seems unlikely because £39477 and F30941 lay close to each other in the north part of the outermost ring, a location corresponding to those of a number of less clearly defined, unnumbered cuts through the edge of the first mound, which are identifiable in section (Fig 3.91-2). Some are more convincing that others, but, taken with F39477 and F30941, they could suggest that the whole of the outer ring was inserted after the first mound was built. Alternatively, the few posts definitely extending through the mound may have borne no relation to the settings beneath, especially as the plan suggests that part of the outer ring may have been slighted by the inner ditch to the south-east (Fig 3.88).



Other features beneath the mound did not form part of the circles. These include a cluster of postholes and stakeholes between two rings in the north of the area and postholes clustered around a pit between two of the inner rings on the east side (Fig 3.88).

The first mound and ditch

The shallow inner ditch was broken by a causeway in the north-east and seems to have provided the material for the first mound, which extended to the ditch edge. Skins of iron pan marked the interface of the mound with the underlying soil and with the overlying second mound, suggesting that both surfaces had undergone consolidation before they were covered. Within it, near the centre, were two joining fragments of an adult horse mandible (Davis SS4.6.2). This was almost certainly integral to the mound, as the only post-Bronze Age finds were two

Figure 3.87 Probability distributions of dates from the Segmented Ditch Circle. The format is identical to that of Figure 3.14.

The distributions repre-



Figure 3.86 Segmented Ditch Circle. Charred oak timber in main fill of F87557 (photo English Heritage).



Figure 3.88 Barrow 3. Postholes and other features beneath the mound. minute crumbs, respectively of Iron Age and Roman pottery, which were probably intrusive, given the volume of contemporary material over the disturbed surface of the barrow. Rabbit disturbance was, however, extensive. There was also a small amount of struck flint. A pit cut into the centre of the mound (Fig 3.90: F30847) contained a very small part of an adult cremation burial. The ditch silted naturally, the main fill in the north-east including concentrations of charcoal from scrub species.

The enlarged mound and recut ditch

The ditch was recut to a greater width and depth, around approximately half its circum-



ference (Fig 3.90). The mound was enlarged, this time with a gravel capping, vestiges of which survived at its base. Within the newly added material was a scatter of limestone blocks including discrete clusters, one of which incorporated an adult tibia and calcaneum as well as a third, indeterminate bone fragment. In another, the slabs were piled one on another (Figs 3.93-4). Further limestone in the overlying disturbed and displaced mound material was almost certainly displaced from these settings by cultivation or animal burrowing, and indicates that they were originally more substantial. The discrete clusters themselves are difficult to interpret. They may have been original, or they may reflect the deliberate dismantling of a more coherent structure, from which the disarticulated human remains may also have derived.

A pit (Figs 3.90: F30763) cut into the mound, just to the north of the limestone

cluster contained 'several large sherds of pottery' (missing at the time of writing), a fragmentary barbed-and-tanged arrowhead, and a flint flake. A small, bowlshaped pit cut into the east side of the mound, contained a densely packed mass of cremated bone from a 16-25-year-old female, with at least one fragment from another individual and only a few flecks of charcoal (Figs 3.90, 3.95: F30663). The ditch silted naturally; a spread of charcoal in the primary silt in the south-west may reflect scrub-burning. A Conygar Hill type barbed-and-tanged arrowhead from the silts may have derived from an eroded burial. Unstratified finds include two barbed-and-tanged arrowheads and probably a fragment of a third (AOR 37331), all from peripheral locations. An unstratified Collared Urn sherd is likely to have come from a disturbed cremation burial.

Figure 3.89 Barrow 3. Sections of F39102, F30847, F30663, F39039. Neither ditch would have provided enough material to build the apparently associated stage of the mound, and the deficit must have been made good from elsewhere. This may account for some of the uncharacterised hollows that surrounded the mound (Fig 3.90). However, the exceptionally low

frequency of gravel in the mounds (apart from the capping of the second) suggests that much of the additional material was topsoil.

Dating

A measurement of 2140–1740 Cal BC (3590±70 BP) for oak charcoal from posthole



Figure 3.90 Barrow 3. Overall plan.

F39107, cut into the large central feature F39102, provides a *terminus post quem* for that posthole and for the first mound (Fig 3.68: OxA-3051). A terminus ante quem for the construction is provided by statistically consistent dates of 2130-1820 Cal BC (3610±40 BP) and 2140-1880 Cal BC (3650±BP) for samples of Prunus sp and Rhamnus catharticus charcoal from the primary silt of the recut (Fig 3.68: OxA-7949. ditch -7903). Combined, this evidence provides an estimate for the construction of the barrow of 2180–1930 Cal BC at 95% probability.

Barrow 1, built *2140–1800 Cal BC* (SS1.12)

Aidan Allan, Stéphane Rault, Jon Humble

Pre-mound features

There was a stone line within the pre-mound soil profile (Fig 3.102: 30429). Earlier burning is indicated by microscopic charcoal and fragments of burnt clay in the soil, as well as by high magnetic susceptibility values. Natural features included a central treehole (Figs 3.96, 3.102: F30479), which was cut by the massive grave of the primary burial.

The primary burial

Most of the grave was occupied by a plankbuilt oak chamber or coffin, the charred remains of which covered and surrounded the burial (Fig 3.98). There was no charred oak beneath the burial. so that, if the structure ever had a floor, it was uncharred and did not survive. Within the chamber was the crouched skeleton of an adult male, 90% complete, but slightly displaced from articulation, almost certainly the result of the collapse of the chamber and the cairn built over it. At his feet was a stylistically late Beaker beside a compact pile of other grave goods, comprising three cattle-rib spatulae, a boar tusk, five jet buttons, an amber ring, a slate 'sponge finger', an elongated chalk object, a bracer, a finely flaked flint dagger, a triangular arrowhead (perhaps unfinished), two knives, two scrapers, a retouched flake, a core-side removal and five unretouched flakes (Fig 3.99). Animal bone found in the grave away from the heaped grave goods is more difficult to interpret, as it may have reached its final location when the chamber collapsed. This is particularly likely to be true of left and right cattle maxillae (perhaps the most durable parts of a whole skull) lying on top of each other near the knees of the skeleton at a point where no overlying cover of carbonised wood was recorded. The grave

was surrounded by gravel-rich upcast (Figs 3.96, 3.102: 30418) indistinguishable from the material that had been used to backfill the space between the chamber and the grave wall (Fig 3.102: 30467).

Over the grave, and slightly eccentric to it. was a cairn of local limestone (Figs 3.97, 3.100–101), the slabs of which had tipped into the grave. Over the cairn had been piled nearly 2.500 teeth and bones. a total that must originally have been higher, before decay, ploughing and the digging of a later pit reduced it. Preservation was poor, tooth rows often remaining where maxillae or mandibles had decayed. The deposit consisted almost entirely of the bones and teeth of subadult and young adult domestic cattle: 185 skulls, as well as other bones in far smaller quantities - mainly mandibles, scapulae and pelves. The anatomical imbalance, especially a disproportionately low number of mandibles in relation to skulls. combines with cut-marks on the bones to show that the bone was already defleshed when deposited. A shortfall of incisors and premolars suggests that any remaining flesh on the skulls and mandibles had decayed for a while, leading to the loss of these less firmly rooted teeth before deposition (Davis SS4.6.1; S Davis and Payne 1993). Also present were bones of aurochs (5 upper or ?upper molars, a horncore fragment, and possibly 2 scapulae), dog (a parietal fragment and palate), and pig (13 upper molars, most of them in fragmentary upper rows). The aurochs molars were not in tooth rows, but were found with loose domestic cattle teeth and other bones. In two cases there was a left and a right molar in the same find. Small quantities of horse and caprine bone, originally attributed to the cairn (S Davis and Payne 1993, 17), are in fact from later contexts.

The first ditch and mound

The grave was surrounded by a slightly ovoid ditch (Fig 3.96), with which it had a common long axis. A low mound of reddishbrown clay loam soil with a gravel capping (surviving where it eroded into the top of the inner ditch, eg Fig 3.102: 30364) was built over it, leaving a berm of variable width, greatest to the south. In the mound material were two Beaker sherds and a little struck flint. The ditch silted naturally. In the northwest, one section records what may have been a posthole, cutting the primary silts but sealed by the subsequent ones. Near the base of the ditch in the west of the circuit was a cluster of 14 pieces of knapping debris, some of which refitted (Ballin SS3.7.6).

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Figure 3.91 Barrow 3. Section S530.





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Figure 3.92 Barrow 3. Section S508.

NW

34.55







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Figure 3.93 Barrow 3. Limestone scatter in upper mound.



Figure 3.94 Barrow 3. Cluster 30782 within limestone scatter 30775 (photo English Heritage).



Figure 3.95 Barrow 3. F30663, cremation 6411 (photo English Heritage).

Secondary burials

F30449, cut down into the natural sand and gravel within the area of the first mound but clear of the cairn (Figs 3.96, 3.104), contained the well-preserved, fully articulated skeleton of a man of c 20–30 years. The only grave good was a perforated bone pin located above the head, which suggests that it may have been used to fasten the hair. The almost vertical sides of the grave suggest that it was backfilled rapidly, before any weathering had taken place.

F30017, towards the south side of the first mound (Fig 3.96), contained a very similar pin, which in this case had been burnt in a cremation. Heavy plough and animal disturbance had removed the upper part of what was probably a large tripartite Collared Urn, in which were the cremated remains of an adult ?male of 20–40 years and a child of c 13–14 years. As well as the pin, there was an unburnt riveted flat bronze dagger with traces of a horn hilt. An antler pommel was burnt, like the pin, and was so small as to suggest

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that it came from a different weapon from the dagger (Needham SS3.3.1).

30012 was a Collared Urn inverted on the top of the cairn (Fig 3.103) and truncated just below the base of the collar. No cremated bone survived, although the burnt state of a Green Low type barbed-andtanged arrowhead from the subsidence hollow over the central grave suggests that it may have formed part of such a deposit.

Close to F30017 in the badly disturbed upper mound, where material of all periods up to medieval was mingled, were three stone clusters: one of limestone slabs piled up to three high and grouped with three fragments of animal bone; one of three slabs of burnt limestone possibly associated with a tooth fragment; and one of three slabs and a smaller fragment possibly associated with fragments of animal bone. They were all clear of the cairn, and may perhaps have resulted from the rearrangement of material from it. Although proximity to F30017 suggests a prehistoric date, this is by no means certain.

The second ditch and mound

When the inner ditch was fully silted, the middle ditch was cut, in a series of lengths that gave it a subpolygonal plan, close to the inner ditch in the south, where the original berm had been widest, and farther from it to the north (Fig 3.96). The mound was

enlarged with progressively more gravelly material from the ditch, which then silted naturally. The ploughed-down and disturbed state of the mound top makes it impossible to tell if there was any relation between this episode and the secondary burials.

The third ditch and final enlargement

An outer ditch, again of subpolygonal plan, was cut outside the partly silted middle ditch. Large quantities of gravel, which entered the middle ditch from the exterior, were almost certainly the upcast from the outer ditch. The profile of these gravels suggests that they formed a bank rather than the capping of an enlarged mound (Fig 3.102). If the mound was enlarged, the remnant of this operation may have been a sandy loam with only very little gravel, which post-dated both the tail of the second mound and the gravel of the bank (Fig 3.102: 30227). A single posthole was cut through the primary silts and into the underlying natural deposits in the north of the circuit (Fig 3.96: F20044). There was no postpipe, and it did not extend through the upper silts, suggesting that the post was removed soon after insertion.

Peripheral cremation burials

F30030, cut into the gravel of the final enlargement where it had entered the

Figure 3.97 Barrow 1. Sections through primary burial F30426. Their location is shown in Figures 3.99 and 3.100.



middle ditch (Fig 3.96), contained the cremated remains of a child of perhaps 2–6 years, with charcoal and charred plant remains. Three further cremation burials, unaccompanied except for charcoal and charred plant remains, were clustered outside the barrow to the south-east (Fig 3.96: F30305, F30307, F30440). Two were of children, like F30030; the third was lost soon after excavation. A pit of similar size and profile to these, cut into the silted outer ditch, contained much charcoal and a similar array of charred plant remains to the cremation deposits (Fig 3.96: F30255).

Dating

The primary burial is dated by seven measurements: 2200-1920 Cal BC (3681 ± 47 BP) on the skeleton itself (Fig 3.68: *UB-3148*); 2400-2030 Cal BC (3775 ± 45 BP) on oak sapwood from the surrounding chamber (Fig 3.68: *OxA-7902*); 2890-2460 Cal BC (4100 ± 80 BP) on a boar tusk piled with other grave goods at the feet of the skeleton (Fig 3.68: *OxA-4067*); 2290-1680 Cal BC (3180 ± 80 BP) and 2470-1980 Cal BC (3810 ± 80 BP) on two cattle teeth from badly preserved skulls in the



Figure 3.98 Barrow 1. Charred oak planks over the burial in F30426. surmounting cairn (Fig 3.68: *OxA-2084*, - *2087*); and 2880–2340 Cal BC (4040±80 BP) and 2470–1980 Cal BC (3810±80 BP) on two loose aurochs teeth, also from the cairn (Fig 3.68: *OxA-2084*, -*2085*). The measurements on the skeleton and on the sapwood from the chamber are statistically consistent and the date of the construction of the mound is estimated as *2140–1800 Cal BC at 95 % probability*.

Two of the measurements, however, reflect the burial of already old material. The boar tusk was piled up with the other grave goods at the feet of the skeleton, and must have been placed there at the time of the burial, yet it was between *990 and 420 years old at 95% probability* when buried (Fig 3.68: *Difference Last Barrow_1 and OxA-4067*). The cairn must have been piled up after the burial was complete, yet one aurochs tooth was



Figure 3.99

Barrow 1. Primary burial. Not all finds are shown. Those labelled are, clockwise from the bottom left, L and R cattle maxillae, possibly introduced into grave when chamber and overlying cairn collapsed (35141–2), four out of five buttons (34861–4), flint knife (34866), elongated chalk object' (34869), boar tusk (35126), flint flake (35128), three cattle rib spatulae (34859–60, 34865), flint dagger (34868), Beaker (35135).



Figure 3.100 Barrow 1. The central cairn (30119) after the removal of the bone. between 960 and 330 years old at 95% probability (Fig 3.68: Difference Last Barrow_1 and OxA-2085). The difference in age between this and the second dated aurochs tooth (Fig 3.68: OxA-2086) makes them unlikely to have belonged to the same animal, although they were found together. Neither formed part of a longer tooth row, unlike both dated domestic cattle molars, which suggests that they were already loose when deposited.

Of the secondary burials, the articulated skeleton in F30449 is dated to *1920–1730 Cal BC at 93% probability* (Fig 3.68: *UB-3147*). A comparable date of 1950–1730 Cal

BC $(3520\pm40$ BP; GrA-22378) for cremated bone from the burial in F30017 was obtained after the chronological model was complete and is not included in it.

Two of the peripheral cremation burials are dated by measurements on charred tubers, short-life samples that should be close in age to their contexts. The cremation deposit in F30030 is dated to 1390–1140 Cal BC at 95% probability (Fig 3.68: OxA-3089); that from F30307 to 1390–1160 Cal BC at 95% probability (Fig 3.68: OxA-7948).). The first of these provides a *terminus ante quem* for the final enlargement of the monument.

Barrow 4, built 2020-1600 Cal BC (SS1.15)

Aidan Allan, Stéphane Rault, Jon Humble

A single post- or stakehole (Figs 3.105, 3.107: F60346) cut the heavily panned underlying dark sandy loam soil and was sealed by the mound. The mound was surrounded by a shallow, irregular ditch of subpolygonal plan with two more-or-less opposed narrow causeways on its longer north-west/south-east axis. The mound itself, also flecked with pan, was made up of successive dumps of almost stone-free sandy clay, topped or flanked by a gravelly loam that contained a small amount of struck flint, including a chisel arrowhead. There was a berm over 1m wide between mound and ditch. There was no primary burial. Within the body of the mound, however, near the centre and only just above the palaeosol, was a heap of five charred oak planks up to 1.50m long and 0.35m wide (Figs 3.106-7). A cremation burial (Fig 3.105: F60312) was recognised after the upper, disturbed mound material had been removed. It was probably cut into the mound, but incorporation during construction is not out of the question. The remains were those of a 12- to 16-year-old, accompanied only by charcoal flecks and charred tuber fragments. Four limestone blocks scattered to the south-east of it may

originally have formed a cist (Fig 3.105). The ditch silted naturally, the volume of material derived from the exterior suggesting that there may have been an external bank. There was a possible recut in the north-east of the circuit (filled by 60336 at the north end of Fig 3.107).

Dating

The planks heaped in the mound did not appear to be of heartwood, although the outside of the trees could not be identified. A date for one of them of 2110-1680 Cal BC (3530 ± 70 BP; Fig 3.68: *OxA-3053*) is therefore a *terminus post quem* for the construction of the mound.

Charred tubers from the cremation burial in F60312 are dated to 1940-1530 Cal BC (3450±70 BP; Fig 3.68: OxA-3052). If the cremation deposit was indeed cut into the mound, rather than inserted during construction, the mound must have been built between the dates of these two samples, and so, despite the lack of material directly dating this event, the date of construction can be estimated as 2020-1600 Cal BC at 95% probability (Fig 3.68: Event Barrow 4). If the cremation deposit was inserted during construction, its age provides a second *terminus post quem* for the construction of the mound, the date of which can be estimated as 1880-1520 Cal BC at 95% probability.



Figure 3.101 Barrow 1. Bone and stone cairn over central grave (photo English Heritage).



Figure 3.102 Barrow 1. East-west section S204.



Figure 3.103 Barrow 1. Detail of truncated Collared Urn context 30012 in situ on cairn (photo English Heritage).



3.5.4 Redlands Farm

At Redlands Farm, burials were inserted into the Long Barrow, a row of at least four mounds, including Barrow 9, was built at right angles to the river, and the axis of the Long Barrow was extended by an unexcavated barrow and by Barrows 7 and 8 (perhaps overlying an earlier monument) to the north-east and an unexcavated barrow to the south-west (Fig 1.4).

The Long Barrow (SS1.4)

Philippa Bradley

Late 3rd-/early 2nd-millennium inhumations

Three inhumations were set along the central axis of the north-east end of the barrow (Figs 3.108-9). All were ploughdamaged to varying extents. F130, at the north-east end of the row, contained the unaccompanied crouched burial of an adult of indeterminate sex. F131, in the



Barrow 1. Secondary burial F30449.

centre, contained the crouched burial of an adult female wearing a shale armlet and a copper-alloy 'earring' and accompanied by a fingernail- and comb-impressed Beaker and two unretouched flint flakes. Also present were two mandibular incisors, a frontal fragment and possibly an ilium fragment from a second adult and a humerus shaft fragment from a subadult. F163, in the south-west, contained the badly damaged and spread remains of a possible adult. An edge-retouched flint knife found beside the bone fragments may have been a grave good. Seven sherds from the base and lower body of a small Early Bronze Age urn may represent a further insertion into the mound, with or without a burial. A further pit, F279, was cut into





the upper part of the mound 2m south-east of F163, from the same level as the three inhumations.

Later 2nd-millennium cremation burials

A cluster of 15 cremation burials, three of them in Middle Bronze Age urns, was set beyond the north-east end of the barrow (Figs 3.108–9). A small amount of further cremated bone was recovered from a spread of burnt material in the same area and from one of three small deposits of ashy material in the upper fills of barrow ditches. A row of 13 postholes, flanking and in some cases cutting the south-east barrow ditch (Fig 3.110) may be dated to the same period by a Middle Bronze Age sherd from one of them.

Dating

Among the inhumations, bones of the possible male in F130 are dated to 2200–1890 Cal BC (3665 ± 45 BP; Fig 3.68: *OxA-5549*), significantly older than the elaborately furnished female in F131, whose femur and tibia are dated to 1890–1630 Cal BC (3450 ± 45 BP; Fig 3.68: *BM-2833*). The disarticulated subadult humerus shaft fragment from the same grave was significantly older than the skeleton with which it was buried, at 2290–1980 Cal BC (3730 ± 45 BP; Fig 3.68: *OxA-5550*).

The only date for any of the cremation burials is a *terminus post quem* of 1860-1420 Cal BC (3320 ± 80 BP; Fig 3.68: *OxA-2989*) provided by oak charcoal from F208.

Barrow 7 (SS1.18)

Angela Boyle

Excavation of this monument and of Barrow 8 was incomplete, because, once the monuments had been discovered during topsoil-stripping and their character had been established, it was decided to preserve them *in situ*, a feasible option because of their location at the edge of an area about to be quarried.

In addition to the possibly Neolithic features described above (3.2.3), a ditch of elongated subpolygonal plan surrounded two grave-sized features, both more-or-less on its long axis (Fig 3.32: F2000, F2004). Only F2000, which was less central than F2004, was excavated. It contained the crouched, supine burial of a young adult of indeterminate sex (Fig 3.111), unaccompanied apart from a Late Neolithic or Early Bronze Age body sherd in the fill. The ditch seemed to have silted naturally.



Barrow 8 (SS1.19) Angela Boyle

A slight ditch with an approximate internal diameter of less than 6m surrounded a redbrown sandy clay loam mound, which survived to a height of at least 1.40m above the surface of the natural gravel, and which seems to have extended beyond the ditch. The ditch was largely unexcavated, although a sherd from a Wessex/Middle Rhine Beaker was recovered from its upper fill. Set into the top of the mound was an urned cremation burial, with scorched clay visible in the top of the urn (Fig 3.32: F2009), which was left *in situ*. A few sherds, which came loose from the urn, are in a calcareous, probably Early Bronze Age fabric.

Barrow 9, built *2150–1950 Cal BC (90% probability)* (SS1.20)

Angela Boyle

Barrow 9 was visible as a cropmark, and no *in situ* mound survived. A slight subpolygonal ditch surrounded a central inhumation grave and three peripheral ones (Figs 3.112–13). The central grave was more than 1m deep and was subrectangular, its form obscured by a natural feature at the south end. At its base was the crouched burial of an adult male, flanked and partly overlain by a dark grey-brown silty sand loam without

Figure 3.106 Barrow 4. Charred oak planks in mound, just above old land surface.





charcoal, which appeared as a dark stain flattened against the bottom 0.20m of the grave (Fig 3.113: 750). This seems to have been the remnant of an uncharred chamber or coffin, which created a void about the body, and into which the grave fills fell when the structure collapsed. F741 contained the crouched burial of a child aged 4–6 years, with a large rusticated Beaker at its feet. The burial of a neonate (F739) was subsequently cut into the back-filled grave. The remaining two burials, both unaccompanied, were also of children: a 5–7 year-old in F729, and a 10–12 year-old in



F725. F741 and F729 both survived to almost 0.50m deep, F725 to only 0.18m, suggesting that at least the shallowest burial may have been cut through the mound rather than from the underlying surface. Whether before or after the insertion of these burials, a much larger and deeper outer ditch was cut, echoing the subpolygonal form of the inner ditch, and presumably providing material for an enlargement of the mound, although no trace of this survived (Figs 3.112, 3.114). There were no finds from the fills, despite the excavation of approximately 20% of the total, just as there were none from the excavated 40% of the inner ditch, and no lithics were collected from the area of the monument during fieldwalking (Humble 2006).

Dating

With the exception of the neonate, all the articulated skeletons were dated, with repli-

cate measurements on those from F727, F725 and F729 (Table 3.1). The two earliest burials are the adult male from the central grave (Fig 3.68: R Combine skeleton 747) and the unaccompanied child in F729 (Fig 3.68: $R_{Combine \ skeleton \ 737}$, with the central burial roughly twice as likely to be the earlier. The child buried with a rusticated Beaker in F741 is 85% likely to be later than the central burial (Fig 3.68: BM-2866). The latest dated burial, at 95% probability, is the child in F725 (Fig 3.68: R_Combine skeleton 732), which accords with the possibility that this particularly shallow grave was cut through the mound. A neonate burial cut into F741 remains undated. The lack of stratigraphic relation between the dated burials makes it difficult to estimate a construction date. If the central burial was indeed primary, its age puts the construction at 2150-1950 Cal BC at 90% probability.

Figure 3.108 Long Barrow. Location of Beaker burials and Middle Bronze Age cremation cemetery.



Cremations



Figure 3.109 Long Barrow. Detailed plans of Beaker burials and middle Bronze Age cremations.

3.5.5 Other activity

Discrete features (SS1.22)

Area excavation at West Cotton revealed few features around the monuments. The most likely to be of Bronze Age date are two unaccompanied cremation burials, one of an adolescent or adult near the east end of the Long Mound (Fig 3.64: F1741) and one of an adult north of the Double Ring Ditch (Fig 3.64: F4948). Further cremation burials may have been scattered through the area, on the evidence of one accompanied by an Early Bronze Age pygmy vessel, found outside Ringstead village to the north (Parry 2006), and another found at Marsh Lane, Irthlingborough, to the west, and dated to the later 2nd millennium (Parry 1995a; 1995b).

The remainder of the West Cotton features are dated only to the extent that



most were sealed by the palaeosol that had continued to develop up to alluviation and, unlike early medieval features, were not visible within it. A pair of postpits that would have held uprights 0.10m to 0.20m in diameter lay less than a metre apart between the West Cotton monuments and the main palaeochannel of the Nene (Figs 3.64, 3.115: F4932, F4933). There were also two irregular linear features, which may conceivably have formed part of a small, discontinuous enclosure (Figs 3.64: F1737, F1744); a pit, the fill of which was flecked with charcoal and mottles of burnt sand (Fig 3.64: F4948); and another possible pit (Fig. 3.64: F1732). A further pit containing burnt material but no diagnostic artefacts was found in the Redlands Farm villa complex, and there were five more, together with three possible postholes, among the burnt-out treethrow holes in trench B140 in the north of Irthlingborough island. An otherwise undated pit and gully were cut by ditches of the later 2ndmillennium Field Systems. The only nonfunerary feature certainly of Beaker or Early Bronze Age date was a pit at Redlands Farm, which contained a complete Wessex/Middle Rhine Beaker (Fig 3.116), with a flint flake, burnt flint and much other burnt material.

Artefacts

A dozen small, abraded Beaker sherds (eg Tomalin SS3.8.4: P75-8, P81-2, P86), with fewer Early Bronze Age ones (eg Tomalin SS3.8.4: P103), were scattered along the terrace in later and superficial contexts for a distance of about 300m south of the Causewayed Ring Ditch; three more were found further south again, in the area of the Avenue. Stray barbed-and-tanged arrowheads have a similar distribution, as do a small number of plano-convex and related knives (Ballin SS3.7.6). At Redlands Farm, fieldwalking recovered material of Beaker and Bronze Age affinities, including a barbedand-tanged arrowhead and two denticulates (Humble 2006). Evidence for activity other than barrow-building and use is exiguous. The valley bottom is as unlikely to have been inhabited in the 2nd millennium as it was in the 3rd millennium.

3.5.6 The chronology of the Bronze Age barrows

There are radiocarbon dates for nine of the twelve articulated Early Bronze Age inhumations, and these cluster tightly around 2000 Cal BC (Fig 3.68). These, and other dates Figure 3.110 Long Barrow. Detailed plan of posthole alignment.

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Figure 3.111 Barrow 7. Grave F2000 (photo Oxford Archaeology).



from the barrows, indicate that the first round barrow was built in the last quarter of the 3rd millennium and the last in the first quarter of the 2nd millennium, the primary construction of the barrows spanning approximately 250-500 years, followed by maintenance, refurbishment and expansion, which continued for a period of unknown duration, but was possibly also confined to the first quarter of the 2nd millennium. It was within this period that two cremation burials were inserted into the largely silted third, outer ditch of Barrow 6 (Fig 3.68: OxA-7866, UB-3315); and a charcoal spread accumulated in the primary silt of the recut ditch of Barrow 3, perhaps representing the burning of scrub off the mound (Fig 3.68: OxA-7903, -7949).

According to these results, the building of round barrows at Raunds began late, at a time when comparable monuments had already been built in Britain for three or four hundred years (Garwood 1991, figs 2, 5; Needham 1996, fig 2, table 3). This may not, however, be the whole story. Even leaving aside the possibility of earlier construction dates for some of the many uninvestigated barrows and ring ditches, the timber settings pre-dating Barrows 3 and 5 could both have had longer histories than the available dates suggest. At Barrow 5 too, the undated primary deposit was stratigraphically earlier than a large artiodactyl tibia dated to 2140–2070 Cal BC at 15% probability, or 2050–1880 Cal BC at 80% probability (Fig 3.68: *R_Combine 291-55243*). The condition of the sample and the lack of articulation mean, however, that it could have been redeposited. The possibility that the primary feature - almost certainly a grave from which the inhumation was removed during the Early Bronze Age - was earlier than the dated inhumations is heightened by the distinct character of the associated artefacts. The assemblage of five unspecialised barbed-and-tanged arrowheads and a Beaker of Clarke's Wessex/Middle Rhine group (1970, 84-107) contrasts with the more elaborate accoutrements of burials in Barrows 1 and 6 and the Long Barrow, the Southern Beakers placed with them, and the rusticated Beaker placed with a child burial in Barrow 9. Furthermore, dark morion quartz in the fabric of the Barrow 5 Beaker may suggest a non-local origin, while the others could all have been made of local clays (Tomalin SS3.8.4).

Wessex/Middle Rhine Beakers are among the more sharply defined of Clarke's groupings, in their form, decoration, surface colour, distribution and funerary associations. This is reflected in the robust coherence that they have retained in later classifications, occupying steps 2 and 3 in Lanting's and van der Waals' scheme for



Wessex (1972, 43, fig 1), forming a substantial part of Case's Middle style (1977, 72, fig 4.3), and subsequently an even more substantial part of his group D (1993, 260–63, figs 16–17). A consistent, geographically limited tradition of manufacture and deposition would accord with a restricted timespan. The radiocarbon chronology, however, indicates a currency coterminous with that of Beakers in Britain (Table 3.2). Like other smooth-profiled, simply decorated forms with at least general continental parallels, they seem to have been manufactured and used for centuries, Figure 3.112 Barrow 9. Plan.

Beakers in the south	Midlands				
Site	Description	Lab. No.	BP	Cal BC (95% confidence)	Reference(s)
Barrow Hills, Radley, Oxfordshire, flat grave F919	Incomplete, ?defleshed, neonate, accompanied by small amount of cremated bone from a 2–3-year-old, inside comb-impressed Beaker with simple zoned decoration, tentatively identified as W/MR	OxA-1875	3990±80	2860-2230	Kinnes <i>et al</i> 1991, 52–53; Barclay and Halpin 1999, 55–65; Cleal 1999, 202–8
Barrow Hills, Radley, Oxfordshire, flat grave F919	4-5-year-old with small Beaker with simple 'barbed wire' decoration, 3 copper rings, bone disc	OxA-1874	3930±80	2630–2140	Kinnes <i>et al</i> 1991, 52–53; Barclay and Halpin 1999, 55–65; Cleal 1999, 202–8
Barrow Hills, Radley, Oxfordshire, barrow 4A	Adult male with European Bell Beaker, gold basket 'earrings', 3 barbed and tanged arrowheads	OxA-4356	3880±90	2620-2040	Barclay and Halpin 1999, 153–6; Cleal 1999, 202–8
Barnack, Cambridgeshire	Adult male with W/MR Beaker, tanged copper dagger, gold- studded bracer and bone pendant	BM-2956	3770±35	2300-2040	Donaldson 1977, fig 9; Needham 1996, 128; Needham 1999, 189
Chilbolton, Hampshire	Adult male with comb-impressed Beaker with flaring neck and zoned decoration, gold basket 'earrings', gold bead, copper dagger, antler spatula, shale beads, other objects Beaker classed as European Bell Beaker by Russell (1990, 161–2) and Needham (1996, 128), as W/MR by Kinnes <i>et al</i> (1991, 52)	OxA-1072	3740±80	2500-1900	Russell 1990; Kinnes <i>et al</i> 1991, 52; Needham 1996, 128
Barrow Hills, Radley, Oxfordshire, flat grave F950	Adult male, complete but disarticulated, with broken, dispersed W/MR Beaker and barbed and tanged arrowhead	BM-2703	3720±50	2290–1950	Barclay and Halpin 1999, 59–60; Cleal 1999, 202–8
Little Pond Ground, Buckinghamshire	Elderly female buried with all-over comb-impressed barrel- shaped Beaker, copper-alloy awl, utilised flint flake. Beaker tentatively classified as European Bell Beaker with W/MR and East Anglian characteristics	HAR-340	3670±80	2290-1770	Green 1974, 108–18; Kinnes <i>et al</i> 1991, 53
Barrow Hills, Radley, Oxfordshire, flat grave F4660	Adult male with European Bell Beaker, copper knife-dagger, 2 barbed and tanged arrowheads, utilised blade and flake, wing-headed bone pin, antler spatula	BM-2704	3650±50	2200-1830	Barclay and Halpin 1999, 153–6; Cleal 1999, 202–8
Barrow Hills, Radley, Oxfordshire, ring ditch 201, grave F20	Incomplete disarticulated bones of ?female near centre of grave, damaged all-over-Cord Beaker in hollow at one end of grave 6	BM-2520	3630±50	2140-1820	Barclay and Halpin 1999, 133–8; Cleal 1999, 202–8
Smeeton Westerby, Leicestershire	Adult with W/MR Beaker and copper-alloy awl Recovered in extreme salvage conditions. 'It seems possible that the pipeline went through one skeleton and there is evidence from jaw bones of a least four individuals' (Rutland 1975). Some doubt hence attaches to the association of Beaker and sample	BM-2521	3440±50	1890–1620	Rutland 1975; Kinnes <i>et al</i> 1991, 51
Rotherley, Berwick St John, Wiltshire	Adult with W/MR Beaker	BM-2519	3390±50	1880–1520	Pitt-Rivers 1888, 50, pl 92; Clarke 1970, fig 153; Kinnes <i>et al</i> 1991, 51



Figure 3.113 Barrow 9. Grave plans.

alongside more angular-profiled and elaborately decorated insular styles (Boast 1995, 73–4; 1998, 399). The only conclusions to be drawn are that *some* Wessex/Middle Rhine Beakers were made in the second half of the 3rd millennium, and that the Barrow 5 example may have been one of them.

Four of the dated articulated skeletons at Raunds were associated with stylistically 'late' Beaker pottery: UB-3148 with a vessel of Clarke's Southern style in the primary grave of Barrow 1; UB-3311 with another of comparable affinities in the primary grave in Barrow 6; BM-2833 with a third in an inhumation inserted into the Long Barrow; and BM-2866 with a rusticated Beaker in a peripheral grave in Barrow 9. All these dates fall in the middle and later part of the currency for Beaker pottery suggested by Kinnes *et al* (1991). The primary burial in Barrow 1 (Fig 3.117: *Barrow 1 F30426*) is probably the earliest of these (61% probable), and the female burial in the Long Barrow (Fig 3.117: *Long Barrow F131*) is almost certainly the latest (over 95% probable). The Barrow 6 burial (Fig 3.117: *Barrow 6 F3259*) and the child burial in Barrow 9 (Fig 3.117: *Barrow 9 F741*) appear to be close in date, although the Barrow 6 burial is likely to be earlier (64% probable).

The seven dated cremation deposits are a minority of the total of more than 30 from the area, and may not be representative of them. The available dates show the cremation burials starting rather later than the inhumations and spanning a longer period, covering the entire 2nd millennium (Fig 3.117). The earliest dated Bronze Age cremation burial, in a miniature Collared Urn inserted into the silted outer ditch of







Barrow 6, is virtually indistinguishable in date from the primary burial (Fig 3.117: Barrow 6 F3219), and two undated ones may have been equally early. A multiple cremation burial in a Collared Urn may have been inserted into Barrow 5 at the same time as the cattle bone, which provides a late 3rd-/early 2nd-millennium terminus *post quem* for barrow construction (Fig 3.68: $R_Combine 291-55243$; and a cremation burial in a truncated Early Bronze Age urn in Barrow 1 was accompanied by a dagger likely to date to around the 20th century BC (Needham SS3.3.1). Subsequent cremation burials were almost all un-urned, apart from three in Middle Bronze Age vessels in the



cemetery at the north-east end of the Long Barrow. The latest dated cremation deposits were buried at the edge of Barrow 1, in 1390–1140 Cal BC and 1400–1160 Cal BC at 95% probability (Fig 3.117: Barrow 1 F30030, Barrow 1 F 30337).

3.5.7 Implications of the upsurge of activity in the late 3rd millennium

By the time the last barrows at Raunds were built, the monuments at and to the south of West Cotton formed an alignment nearly 700m long, extending from a cropmark ring ditch in the north-east to the Causewayed Ring Ditch in the south-west (Figs 3.64, 3.118, 3.119). The hub of the alignment lay at the confluence of a palaeochannel of the Nene with one or two tributaries, depending on whether one or both were active (Panel 2.1). If both were active, they and the river would have surrounded the area (Fig 3.64). Within it, a space some 50m across was surrounded by monuments of diverse form and size and in varying stages of erosion (Fig 3.120). These were, clockwise from the south-west, the Long Enclosure, the Long Mound, the Double Ring Ditch, Barrow 6, the Ditched Enclosure and a ring ditch (probably a barrow) identified by geophysical survey (Fig 3.65;

Figure 3.115 (left) Minor Features. Postpits F4932 and F4933 at West Cotton.

Figure 3.116 (right) Minor Features. Wéssex/Middle Rhine Beaker from pit F428 within the Redlands farm villa complex.



Figure 3.117

Probability distributions of dates for disarticulated human remains, articulated inhumations and cremations. Each distribution represents the relative probability that an event occurred at some particular time. The distributions correspond to aspects of the model outlined in the other graphs in this chapter. The format is identical to that of Figure 3.14.

The distributions represented are: Long Barrow cist (*OxA-5632 and -5633*) weathered human longbone from cist F233; Barrow 6 F3390 (*UB-3310*) disarticulated double burial; Long Barrow F131 (*OxA-5550*) disarticulated humerus; Barrow 1 F30426 (*UB-3148*) primary burial with Beaker and other grave goods; Long Barrow F130 (*OxA-5549*) unaccompanied burial; Barrow 9 F727 (*OxA-5543*, -5542) central burial, skeleton 747; Barrow 9 F729 (*OxA-5543*, -5544) peripheral burial, skeleton 737; Barrow 6 F3259 (*UB-3311*) central burial with Beaker and other grave goods; Barrow 9 F741 (*BM-2866*) peripheral burial with Beaker; Barrow 9 F725 (*OxA-5547*, -5548) peripheral burial; Barrow 1 F30449; (*UB-3147*) peripheral burial; Long Barrow F131 (*BM -2833*) burial with Beaker and other grave goods; Barrow 5 F47087 (*OxA-3054*) cremation between inner and outer ditches; Barrow 6 F3219 (*OxA-7866*) Pomoideae stake from cremation cut into outer ditch; Barrow 4 F60312 (*OxA-3052*) tubers from cremation cut into mound; Long Barrow F208 (*OxA-2989*) Quercus charcoal from cremation beyond barrow; Barrow 6 F3206 (*UB-3315*) charcoal (mainly Quercus) from cremation cut into outer ditch; Barrow 1 F30337 (*OxA-7948*) charred tubers from cremation beyond mound; Barrow 1 F30030 (*OxA-3089*) charred tubers from cremation between middle and outer ditches.

Payne SS5). The north-east side would have been closed off by Barrow 6, the Ditched Enclosure and ring ditch 1, corresponding to the course of the northern tributary, if it was active, and to the way in which, viewed from the south-west, the valley itself seems closedoff as the river takes a turn to the west. The only features within the arena-like space were an un-urned cremation burial, a pit containing burnt sand and charcoal, a pit or natural hollow, and two linear hollows, which may have formed part of a small, interrupted enclosure, or, from their irregularity, may have been natural. The space itself, and what was done in it, may have been of prime importance.

The significance of this focus may also be linked to the local topography. Just as visibility to the north of West Cotton is constricted by a bend in the river, so visibility to the south of Redlands Farm is constricted by rising ground, forming what might be seen as an enclosed area, beyond which the density of round barrows and ring ditches falls off to either side (Fig 5.15). Viewed from downstream at West Cotton, the Avenue, the Segmented Ditch Circle and a tract of the

terrace extending for over 400m south of the Southern Enclosure would not have been visible (Fig 3.121). Viewed from upstream, however, the entire terrace and all the monuments would have stretched ahead (Fig 3.122), the sites becoming more closely spaced and more obviously aligned as the West Cotton complex was approached. It is tempting to believe that this was the preferred access. This interpretation echoes Garwood's reading of the Barrow Hills complex on a terrace of the Thames at Radley in Oxfordshire, where he sees the cumulative result of barrow-building as the creation of a ceremonial space beside a founder monument (in this case the Abingdon causewaved enclosure) and a processional approach to it (Garwood 1999b, 305-9).

Renewed monument-building in the valley bottom was more than a return to a previously used area. It was a return to the early 4thmillennium monuments themselves. The Long Mound, the Turf Mound, the Avenue, the Long Barrow and a possible monument on the site of Barrows 7 and 8 were all reworked in one way or another, but the later 4th-millennium Long Enclosure and Causewayed Ring Ditch were not, although they would have been at least as visible as the Avenue, which at this stage would have survived only as a very slight depression. Furthermore, the Avenue, separate from the other monuments and differing from them in form, was the only one over which a hengiform was built. It is as if there was an ascription of particular roles or meanings to particular kinds of earthwork, even a consciousness that some forms of monument went back to the start of the current era. This is replicated elsewhere along the Nene valley, where all the known earlier Neolithic monuments served as foci for new barrows in the late 3rd and early 2nd millennia, when most, possibly all, of them were reworked (Table 4.1; Chapman 1999, 6). The pollen sequence from a palaeochannel at Turnells Mill Lane, Wellingborough – 8km upstream from Raunds - correspondingly records a clearance episode in the early 2nd millennium, which reduced the cover of alder-hazel-oak woodland with some clearings that had prevailed in the late 4th and early 3rd millennia (A Brown 2000, 54-8). There is the impression of a return to areas and sites associated with an older tradition. Activity closer to the fen edge continued unabated.

Disparate distributions for Grooved Ware and Beaker and their associated monuments are widespread across Britain, although the

character of the disparity varies from region to region. One recurrent feature is that, as in the Nene valley, Beaker tends to occur in the same areas and often at the same Neolithic monuments as Peterborough Ware, with which it was almost certainly not contemporary, more than it does in areas and at monuments associated with Grooved Ware, with which it was contemporary, probably for some centuries (Garwood 1999a, illus 15.7: J Thomas 1999, fig 5.10). This holds true, for example, of the upper Thames catchment (A Barclay 1999; J Thomas 1999, 188-97), Yorkshire (Manby 1988, figs 4.7, 4.15, 4.16; Thorpe and Richards 1984, 70-73), Salisbury Plain (M Allen 1997, pls 3-5; Cleal et al 1995, 477; J Thomas 1999, 174-83) and Cranborne Chase (Barrett et al 1991, 111-16). Alternative, spatially distinct foci were established, often drawing on the potency of older monuments (3.5.1); but this was often in addition to the continued use of Late Neolithic centres, as in the case of the proliferation of round barrows on the lower Welland, where the Maxey henge already stood (Pryor et al 1985, fig 15; French and Pryor 2005). The implication of these developments is that the adoption of Beaker pottery and other associated artefacts, together with metal-working and an increase in single grave burial, reflects a complex fusion of existing regional traditions and novel, ultimately continental, beliefs, styles and practices. This process gave rise to new social identities, but was contingent on earlier practices, beliefs and forms of political authority. The ways in which elaborate objects were deployed during the Late Neolithic would have predisposed to the use of newly adopted objects to define people, roles, events and actions (Barrett 1994, 97-107).

The extended chronology of these processes renders a complete break with established forms of political authority implausible. The political disruption previously argued on the basis of incompatibility between a stable, descent-based 'ritual authority structure' represented by henges, and an unstable 'prestige goods economy', based on personal power and direct control over resources represented by Beakers and their accoutrements (Braithwaite 1984: Thorpe and Richards 1984), called for a short timescale. Now that the 'incompatible' traditions seem to have co-existed for generations, it is easier to see a progressive transformation of the ways in which elites defined and identified themselves and perhaps of the location of power in society.



Figure 3.118 The development of the monuments: 4th millennium.

Much of the ceremonial activity of this period echoes long-established indigenous practices. The use of barrows for small nonfunerary ceremonies and acts of deposition echoes the intimate, small-scale deposits made long before in causewayed enclosure ditches and pits. The use of fire in ritual has equally deep roots. Repeated re-modelling and enlargement of some barrows could have filled the same social functions as the recutting of causewaved enclosure ditches and the reworking of hengiforms. The deployment of disarticulated human bone through all spheres of life, and the sometimes parallel treatment of human and cattle remains, had been part of insular tradition for two millennia or more. An effective enclosure - a communal monument - might even eventually be created by the construction of a barrow group, more-or-less circular, as at West Cotton or Barrow Hills, or a V formed by two converging rows of mounds, as in Borough Fen (Hall and Coles 1994, fig 48).

These practices were more than indigenous; they were very old. Many were more marked in the 4th and early 3rd millennium than they were in the period immediately preceding the upsurge in barrow construction. They underscore the dislocation, physical and ideological, of the Late Neolithic (3.4). It is as if sectors of society had progressively become more powerful, and had severed themselves from the existing regime by adopting new, ultimately continental, technologies, artefact styles and modes of burial, and had at the same time emphasised customs that had a pedigree more ancient than prevailing beliefs. In a climate of legitimation by affiliation with an ancient past, both the use of old monuments and the curation of old objects would have had their rationale.

3.6 Society and the work of monument construction

It is clear from the above account that the construction and use of monuments at Raunds was uneven throughout the 4th, 3rd and early 2nd millennia. Rather than a continuous sequence, there were periodic bursts or pulses of activity, separated by lulls or sustained periods of inaction (Fig 3.6). This began no later than the first few centuries of the 4th millennium, when four monuments were built. The available evidence hints at the broad contemporaneity of these sites, and, if this is the case, then perhaps what were being created were complementary foci. It is also probable that two of these early monuments

had short lifespans, which ended in deliberate acts of destruction, followed, during the latter half of the 4th millennium, by more modest acts of construction. The beginning of the 3rd millennium witnessed a major reorganisation of the landscape, with the valley bottom no longer the focus for monument-building. This could have lasted for as long as 500 years, but what then ensued during the last quarter of the 3rd millennium was a major upsurge in activity, with the construction of round barrows along the entire length of the river valley.

The implication is that monument-building was not so much a constant feature of society as a series of events that occurred in particular social circumstances. This makes more sense if we recall that acts of monument construction often peak during periods of initial change and the establishment of a common ideology (eg Adler and Wilshusen 1990; Cherry 1978). It may explain why the most labour-intensive monuments at Raunds were built in the early 4th millennium (Panel 3.6), during a period of profound social transformation, with the monuments themselves acting as 'instruments' in the negotiation of new beliefs and practices (3.2.4). As many as 200 people might have come together to build the Long Mound, the scale of which, as both a monument and an enterprise, greatly exceeds that of all the other monuments, especially if both parts of it were built at once (Panel 3.6). This number overshadows the 15 or 20 likely to have gathered for even the final enlargements of the early 2nd-millennium round barrows. The construction of the Long Mound would have been a communal exercise in which people from different families or other small groups could unite: an exercise in social integration that may have been complemented by smaller building events at the Turf Mound and Long Barrow, which themselves involved more labour expenditure than later monuments. The Avenue, by contrast, required the least amount of labour of all the sites at Raunds (Panel 3.6), perhaps reflecting the possibility that this was the 'founder monument', an early experiment in the creation of monumental foci (3.2.4).

There is one important respect, however, in which the evidence from Raunds runs counter to models that associate monument construction with periods of social change. It has been suggested that the building of these sites was the means by which elites, or other social groupings, legitimated a new social order and their position within it (Earle 1997, 156–7). Yet to associate the early phase of



Figure 3.119 The development of the monuments: later 3rd to early 2nd millennia.

monument-building at Raunds - or in Britain as a whole - with the aspirations of a leadership seems inappropriate in the light of the possible organisation of labour implicit in their construction. The bay structure of the Long Mound, the interrupted plan of the Avenue and the pit-dug ditches of the Long Barrow are all instances of the partitioned building methods most clearly seen in causewaved enclosures. A lack of evidence for partitioned construction in the north part of the Turf Mound may simply reflect the fact that very little of it was excavated in controlled conditions. These modes of construction have been interpreted as appropriate to a segmentary society in which the contributions of diverse groups were emphasised, in contrast to the trench-digging of the Early Bronze Age, when individual burial had become frequent and when differences in authority and wealth were more marked (B Startin and Bradley 1981, 293). An estimate of 440-470 worker days for the west and centre of the Long Mound (SS1.1) is comparable with one of 380-415 worker days for the outer circuit of the Briar Hill causewayed enclosure (Chapman 1985, 144). Since the outer circuit accounts for half of Chapman's labour budget for the construction of the whole monument, it can be taken as comprising half of the estimated 120-40 original pits that constituted the circuits before they were elided by recutting (Bamford 1985, 130-31). These 60–70 pits could have been dug by as many as 180-210 people, again an estimate comparable with that for the Long Mound. Similar numbers of people may have come together to build or add to both communal foci, although the monuments themselves were very different. As well as generating and symbolising collaboration between groups,

segmentary construction could have made for speed, because it could be undertaken by large numbers at once (D Startin 1982, 154).

It might be expected that, once a new set of beliefs and practices had been initiated, subsequent monuments, and the reworkings of existing ones, would have been on a smaller scale, and indeed, there is a fall-off in the labour expended in major episodes of construction at Raunds after the early 4th millennium. The later 4th-millennium Long Enclosure could have been built by a workforce of 50 or more, but the scale of this undertaking is less that those of the earlier acts of primary construction, with the exception of the Avenue (Panel 3.6). The contrast is even more apparent when the broadly contemporary Causewayed Ring Ditch is considered. The decline in the amount of labour invested also seems to hold true of the earlier to mid-3rd millennium. The Cotton 'Henge', which may be of this date, would have called for a similar level of resources to one of the Early Bronze Age round barrows (Panel 3.6). Comparable estimates can be made for confidently identified henges elsewhere in the region. The Maxey henge (Pryor et al 1985, 66–70, 254–8) would fall in the same range, as would a probable henge monument at Elton, Cambridgeshire, downstream from Raunds (A Harding with Lee 1987, 81-3). To the east of the Fens, the slight outer circuit of the Arminghall henge in Norfolk (J Clark 1936) would only just exceed that range. Pryor's argument that the Middle and Late Neolithic monuments on the lower Welland, with their insubstantial ditches and scarcity of cultural material, were short-lived, even event-related (1985, 303), may extend to a wider region.

This decline in the investment of labour is associated with a change in the organisation of

Panel 3.6 Time and labour

The calculations assembled here are based mainly on the work of Startin (1982, 153) who gives a figure of 0.68m³ per hour for a prehistoric team of picker, shoveller and carrier (basketer?) working on gravel. It has been assumed that the widening of ditches by the erosion of their sides compensates for the vanished topsoil and the possibly eroded surface of the natural sand or gravel. Turf-cutting was estimated at the rate of 0.6 of an hour for cutting 1 square yard (taken as equivalent to 1m²; Hurst 1899, cited by Startin 1982, 50).

Most of the estimates were made by Stéphane Rault, with others by Andy Chapman, Paul Backhouse and Robert Whiteman. Additional estimates have been made for the Avenue, the Segmented Ditch Circle and the wooden elements of the Long Barrow, and revised estimates have been made for some monuments following revision of their phasing. Each estimate is to be found in the relevant Landscape Unit description (SS1). They are summarised in terms of worker days (assuming a 10-hour day) in the bar chart, in the order in which

the structures are described in this chapter. Ditches and mounds are shown separately where the mound was almost certainly not built of material excavated from the ditch (as with the turf-built southern end of the Turf Mound. in which there was no trace of the gravel excavated from the surrounding ditch), and are combined where the reverse is likely. In some cases even the most approximate of estimates was impossible, notably the Southern Enclosure and the Riverside Structure, the extent of both of which is unknown. All entail substantial uncertainty, not least because any one monument may have been the product of many more episodes of construction than can be teased out of the stratigraphic record.

Time and labour estimates alone convey very little, whatever their (in)accuracy. Pryor's caveat - 'For all I know the work was so special that it could only be carried out left-handed, after dark and when intoxicated after prolonged religious feasting and fasting' (1998b, 23) - is a sound one. It is pertinent that the construction of a modest timber monument now known as Seahenge, less than 7m in diameter and made up of 55 posts and a central tree trunk, entailed the use of 51 different axes, the marks of which survived on the timbers. The excavators interpret this as reflecting the participation not only of 51 axe-wielders. but of many more people, on the grounds that each of the 15-20 trees used to





Monuments where the form hints at possible work organisation

Monument	Considerations	Suggested organisation
Long Mound	The division of the monument into bays, probably delimited by hurdles, on either side of a possibly turf-built axial line (Figs 3.7–9), could mean that each bay was built by a separate group, as Startin has suggested for bayed long barrows and cairns (1982,	West and centre built by 180 people in three days. East end built by 30 people in nine
	154–5). The bays here were around 6–7m wide, substantially larger than those in the Beckhampton Road and South Street long barrows in Wiltshire which were around	days. Whole monument built by 210 people
	1.5–2m (Ashbee <i>et al</i> 1979, figs 14, 25), and closer in size to the stone-built cellular units of the Hazleton North long cairn in Gloucestershire (Saville 1990, fig 46). Each bay in the Long Mound could have accommodated two people stacking turves side-by-side.	in four days.
	with, perhaps, two others supplying turves to each. West of F5290, an extrapolated total of 30 bays (13 each side of the axial line in the more regular part of the structure, plus another four for the less regular part) could have accommodated a workforce of 180 or more. This can be translated into a ratio of three people to every 2m length of mound, which would in turn suggest a possible workforce of 30 for the substructureless east end.	
Avenue	The slight, discontinuous features that made up the Avenue could all have been dug at once, the smaller ones by one person. The irregular plans of the larger ones suggest that they were dug in segments (as many as four in F87575; Fig 3.15). As with the Long Mound, but on a smaller scale, the long, thin plan of the monument means that relatively large numbers could work at intervals along it.	Whole monument built by six people in one day or 12 people in half a day.
Long Barrow	The plans of the flanking ditches suggest that they were pit-dug, with at least three subdivisions in each ditch (Fig 3.23). These could have been worked by six teams of three. Just as many people could have worked on the wooden revetment, especially if some were felling, preparing and transporting timber while others were erecting the posts.	Ditches deturfed and dug and mound built and revetted by 18 people in seven to eight days.
Long Enclosure	The relatively regular plan and section and flat base (Figs 3.40–43) suggest that the ditch was trench-dug rather than pit-dug (Startin 1982, 154). There would have been room for a large workforce, even as many as 70 or 80, along its 117m length.	Built by 48 people in five days.
Causewayed Ring Ditch	Slight changes of direction in the plan (Fig 3.45) suggest that the ditch was trench-dug in five to six lengths. The suggested figures are arrived at by assuming that each length was dug by a team of three.	Built by 15 people in five days.
Cotton 'Henge'	Changes in direction in the plan of the outer ditch (Fig 3.62), especially in the north, suggest that it may have been trench-dug in 11 lengths of 20–24m. The suggested figures are arrived at by assuming that each length was dug by a team of three. Those for the more regular inner ditch are arrived at by arbitrarily dividing its circumference into similar lengths.	Outer ditch and bank(s) built by 33 people in three to four days. Inner ditch and bank(s) and/or mound built by nine people in one to two days.
Barrow 6	The subpolygonal plans of all three ditches (Fig 3.69) suggest that they were trench- dug in a series of lengths. Changes of direction suggest three lengths in the inner and middle ditches and five in the outer, including the separate length of ditch within the Ditched Enclosure. The suggested figures are arrived at by assuming that each length was dug by a team of three.	Inner ditch dug by nine people in one day. Middle ditch dug and mound enlarged by nine people in four days. Outer ditch dug and mound enlarged by 15 people in five days.
Segmented	All of the eleven conjoined pits which made up the circle could have been dug at once.	Built by 22 people in three hours.
Barrow 1	The subpolygonal plans of all three ditches (Fig 3.95) suggest that they were trench-dug in a series of lengths. Changes of direction and sometimes dimensions suggest three lengths in the inner ditch, five in the middle ditch and six in the outer. The suggested figures are arrived at by assuming that each length was dug by a team of three.	Inner ditch dug and mound built over cairn by nine people in five days. Middle ditch dug and mound enlarged by 15 people in four days. Outer ditch dug and bank built by 18 people in five days.
Barrow 4	The plan (Fig 3.104) suggests that each half of the ditch was trench-dug in three lengths.	Built by 18 people in two days.
Barrow 7	The subpolygonal plan of the ditch divides into four to five lengths (Fig 3.32). The suggested figure is arrived at by assuming that each length was dug by a team of three.	Built by 12 people in one and a half days.
Barrow 9	The subpolygonal plan of the inner ditch divides into four lengths, that of the outer ditch into four to five (Fig 3.111). The suggested figure is arrived at by assuming that each length was dug by a team of three.	Inner ditch dug and first mound built by 12 people in one day. Outer ditch dug and mound enlarged by 15 people in eight days.

build the monument would have been felled, dressed and transported by a team of three or four, with others involved in transportation and construction (Brennand and Taylor 2003, 24–30, 62). The form of the monuments nonetheless provides some pointers to how they might have been built (Startin 1982, 154). Tentative conclusions, where they seemed possible, are set out in the table opposite. Numbers of people in the final column are maxima; if a barrow ditch was dug in five lengths, it does not follow that each was dug by a separate team and at the same time.

Panel 3.7 Post-mound flint industries from Barrows 1 and 3 *Torben Bjarke Ballin*

In the later Bronze Age, Barrows 1 and 3 were the scenes of flint-knapping episodes that generated dense clusters of worked flint unmatched elsewhere in the excavated area. The characteristics of three substantial assemblages are summarised here, namely:

- 1 Two clusters overlying Barrow 1, each compact enough to suggest that it resulted from a single episode (right).
- 2 Material from the outer ditch of Barrow 1, mainly from the upper fill.
- 3 A cluster beyond the north-east edge of Barrow 3, as compact as those on Barrow 1 (below right).

This panel combines the information presented in Chapter SS3 (Ballin SS3.7.6) with the results of further analysis carried out after that section was completed (Ballin 2002).

The three assemblages share many features that distinguish them from the earlier industries of the area.

The post-mound industries are based on small nodules and pebbles of local flint. Most of the flint is fine-grained, but approximately 10% is coarse-grained flint likely to have been brought from the Boulder Clay plateau to either side of the valley. Flint of this kind is more frequent than in earlier industries, and combines with the results of the fieldwalking survey to s uggest that the plateau may have been more fully used in later prehistory than before. A number of attributes indicate a degree of 'scavenging', or reuse of lithic material from earlier periods; this practice is well documented from analyses of contemporary collections.

The small size of the collected nodules and pebbles is reflected in the small size of the flakes and the high proportion of wholly or partially cortex-covered pieces.

In general, the nodules were rotated and struck wherever a fairly flat surface was available, and usually without any preced-





(below left) Graph showing length and width measurements for a sample of the flakes from the Barrow 3. A trendline has been inserted.

(below right) Drawings of, from top to bottom, scraper/ piercer AOR 18212, unnumbered denticulate from context 30225, scraper AOR 37182. ing attempt to prepare the core or its platform. The resulting flakes are thick, squat and irregular, with average angles of 109–113° between the platform and the ventral face, and almost a third of them have cortical platforms.

Freehand flaking with a hard hammer is reflected by the prominent bulbs of percussion and Siret fractures, where flakes have split longitudinally at the time of detachment. Poorly positioned blows are evidenced by circular impact scars on up to half of the flakes, as well as by crushed platform-edges. The application of insufficient force resulted in hinge fractures on around half of the flakes and, more rarely, in multiple bulbs, generated where more than one blow was needed to remove a flake.

The few modified pieces were made by minimal edge retouch, with none of the invasive flaking of earlier industries, such as that of some of the artefacts in Figure 3.7. They are mainly scrapers (many of them denticulated), other denticulates, notches, piercers and unspecialised retouched pieces.

The whole is the residue of the expedient production of effective cutting, scraping and boring implements, among which unmodified flakes may have been the most commonly used.



the workforce. The relatively regular plan of the later 4th- and 3rd-millennium monuments suggests trench-digging rather than segmentary construction, and the adoption of this building technique may illustrate that the labour force was more tightly organised (B Startin and Bradley 1981, 293). Trenchdigging is evident at both the Long Enclosure and Causewayed Ring Ditch, built in the final few centuries of the 4th millennium, further emphasising the importance of distinguishing between an 'Early' and 'Middle' Neolithic (3.3.1). The outer ditch of the Cotton 'Henge' was dug in as many as eleven separate lengths of 20–24m (Panel 3.6; Fig 3.62), and this technique of construction was also apparent at the later round barrows, each of their ditches the product of between three and six



digging teams. The only exception to the adoption of this building technique is the pitdug early 2nd-millennium Segmented Ditch Circle (Fig 3.81). Minimal to non-existent primary silt in the pit bases (Fig 3.85) may be significant here. For whatever reason, it may have been desirable to dig the circle and backfill it, incorporating cremation deposits, in a single operation. If all the pits were dug simultaneously, this could have been accomplished in less than a day (Panel 3.6).

The monuments of the later 3rd and early 2nd millennia appear to express new social priorities. The round barrows each involved small investments of labour and a number of discrete building episodes. It appears that these events were the product of small teams of usually less than 20 people (Panel 3.6) - perhaps even made up of family members, or other close-knit social groupings to whom the dead individual may have belonged, if it is considered that the burials with which these monuments are commonly associated could reflect a concern with genealogical affiliation and authority (Barrett 1994, ch 5; Garwood 1991). Such an explanation provides a framework for the progressive modification of individual barrows, because ancestry, by

its very nature, is ever-changing, as life cycles take their course. The living often need to renegotiate their relations of inheritance, obligation and affinity with the dead, and this could be achieved by returning to and transforming these monuments (Barrett 1994, 125–8). In many ways this activity echoed the spirit and the scale of the practices of small groups and individuals at pits and recut segments in earlier enclosures.

3.7 After the monuments

3.7.1 Flint knapping on the barrows

There was often more struck flint in the disturbed, mixed upper levels of the barrow mounds than in the underlying deposits. These superficial collections were all dominated by material of full Bronze Age character. The largest and best-defined of these, over Barrows 1 and 3, are described in Panel 3.7. Very low quantities of contemporary lithics from the evaluation trenches on Irth-lingborough island show that such activity was indeed concentrated on the barrows (Ballin SS3.7.6). Comparably sited scatters are common. Local examples include Roxton, Bedfordshire (Gardiner 1985b);

Figure 3.120 Reconstruction of the West Cotton monument complex in the early 2nd millennium Cal BC. Orton Meadows, Cambridgeshire (Bamford forthcoming); and the Butcher's Hill ring ditch at Barleycroft Farm in the same county (C Evans and Knight 2000, 99). At Barleycroft Farm, and possibly at Orton Meadows, the monuments stood within ditched Bronze Age fields that had been laid out around them. Concentration of knapping debris at the edges of these monuments and of many barrows in comparable locations elsewhere evokes Bellamy's (1997, 154) interpretation of barrows at Dorchester, Dorset, as uncultivated islands in an increasingly tilled and grazed Middle Bronze Age landscape, where raw material collected from broken ground could be knapped out of the way of stock and crops. At Raunds, the barrows with knapping debris lay outside the Bronze Age Field Systems described below, but would, on all the available evidence, have stood in pasture (Ch 2). It is easy to see them as places affording shade and shelter to herders.



Figure 3.121

Viewshed for Ring Ditch 5. The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

3.7.2 The Field Systems (SS1.23)

Aidan Allan, Angela Boyle, Vicky Crosby, Frances Healy, Jon Humble, Liz Muldowney, Stéphane Rault

Two overlapping systems of ditched enclosures and droveways were established on the terrace in the course of the 2nd millennium Cal BC. The sequence between them is unknown, as the only identified intersection was not excavated. Coincidence with the area of dense Iron Age and Roman activity made for bad preservation, reflected in a fragmented, incomplete plan (Fig 3.123). Their extent is unclear. If the systems on the terrace were continuous with a fragment in the Redlands Farm villa complex, then the whole ran for 2km or more.

The north block (Fig 3.123: ditches 1–13)

The alignment of ditches 5 and 6 on the centre of ring ditch F192143, which was



Figure 3.122 Viewshed for Barrow 9. The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.


Figure 3.123 Field Systems and related structures. Overall plan.

almost certainly an Early Bronze Age barrow (3.5.2), suggests that the block was laid out from the monument. The northwest/south-east divisions (ditches 3, 5, 11, 12 and 13) tended to fall at intervals of 110m to 130m, except for ditch 13, which was only about 40m from ditch 12. Divisions at right angles to these (ditches 1, 6, 7 and 8) formed a less regular pattern, although an interval of approximately 120m between ditches 6 and 7 suggests that they and parts of ditches 3 and 5 enclosed an area that was almost square.

The ditches were between 0.23m and 1.30m wide and 0.07m and 0.45m deep. They were steep-sided, often V-profiled, with narrow, flat bases and sinuous in plan. Not all were open at once; at two points, completely silted ditches were cut by newly excavated or newly cleaned-out ones (ditch 5 by ditch 11; ditch 4 or ditch 5 by ditch 3). The ditches almost all had single fills of stone-free, or virtually stone-free, sandy clay loam. The total collection of artefacts amounts to seven flint flakes, one flint blade, one chip, three scrapers and one miscellaneous retouched piece. Charcoal flecks and fired clay or daub in ditch 8 may have derived from an earlier posthole cut by the ditch.

A 2.50m-wide band of nine undated postholes south of ditch 3 (Fig 3.123: 158146) is tentatively related to this block by its approximate alignment. Its extent is unknown, as it ran diagonally across a 4.50m wide trench. F30519, one of a pair of parallel ditches encountered in a trial trench to the north of the main excavation, was edged by a row of stakeholes.

The south block (Fig 3.123: ditches 15–29)

The ditches here were between 0.10m and 1.90m wide, and between 0.05m and 0.90m deep and generally slightly larger than those of the north block. They were steep-sided, flat-based and V- to U-profiled. Distances of 140m between ditches 19 and 23, and 130m between ditches 23 and 26 suggest enclosures of similar size to those in the north block. There were, however, much shorter intervals between less fully recovered eastwest ditches within this area and beyond it. There were no intersections between the ditches, which butted rather than cut into each other, nor did any continuous ditch turn a corner, as ditch 5 did in the north block. There were several localised recuts, all in east-west ditches and mainly in butts. As in the north block, the ditches and their recuts almost all had single fills of stone-free,

or almost stone-free. sandy clay loam or silty loam. Some showed signs of gradual silting. An incomplete, inverted adult cranium lay near the top of the fill of ditch 18. Animal bone was very scarce and fragmented, and charcoal was recorded in only a handful of sections. The total collection of artefacts comprises 2 small, abraded Beaker sherds (Tomalin SS3.8.4: P77, P82); 10 Iron Age sherds and rather more Roman ones (all probably intrusive); and 31 pieces of struck flint. The lithics consist largely of broad, thick flakes compatible with a Bronze Age date (Ballin SS3.7.6). Finds were slightly less scarce in ditches 26 and 27 than elsewhere. A large Middle Bronze Age basallooped spearhead (Fig 3.125; Curteis 1992, 113; Northamptonshire SMR 1738/0/0) was found by a digger driver engaged in building a lay-by on the terrace. The lay-by is crossed by the projected line of ditch 23 just 50m east of the limit of excavation (Fig 3.123), and it is possible that the spearhead came from the ditch. It may, indeed, have been deposited as a complete spear, since wood remained in the socket when it was found. The likelihood of its having come from the ditch is enhanced by two finds of spearheads in recuts of Bronze Age field ditches elsewhere: a Taunton phase weapon at Perry Oaks, Middlesex (Barrett et al 2001, 223) and a decorated side-looped spearhead, the wood in the socket of which is dated to 1000-820 Cal BC (2758±41 BP: KIA-11047), at Brambledown on the Isle of Sheppey (S Coles et al forthcoming).

There was an undated post-built structure 6.10m in diameter to the north of ditch 18 (Fig 3.123: 192161). Between ditches 26 and 27 was a second circular structure 6.45m in diameter with a west-facing porch (Fig 3.123: 191135). One of its postholes contained an eroded neck and rim sherd. possibly of Beaker (Tomalin SS3.8.4: P86). The structure was surrounded by a scatter of pits and postholes, among which two fencelines could be picked out. An ash post in one of these had burnt in situ, and is dated to 1390-1040 Cal BC (Fig 3.124: GU-5320). A sample comprising half the upper fill of a posthole in the other fenceline contained over 600 charred grains, mainly of emmer wheat. This provides the first substantial evidence for cereal growing in the area, but, as it consisted almost entirely of cleaned grain, it might have been brought to the site fully threshed rather than grown on the valley floor (Ch 2). Two separate grains from the deposit are dated to 1110-830 Cal BC

Figure 3.124

Probability distributions of dates from postholes in fencelines related to building 85151 at Stanwick and F239 on the axis of the Long Barrow. Each distribution represents the relative probability that an event occurred at a particular time. These distributions are the result of simple radiocarbon calibration (Stuiver and Reimer 1993).

The distributions represented are: OxA-5551 ?Cervus elaphus humerus from pit F239 in Long Barrow; OxA-7905 and -7946 Triticum dicoccum grains from top fill of posthole F85106 in fence near hut; GU-5320 Fraxinus charcoal from posthole F85059 in second fence near hut.



(Fig 3.124: OxA-7905) and 1050–830 Cal BC (Fig 3.124: OxA-7946). The difference in age between the stake and the grain deposit may stem from different dates for the two fences, or from the deposition of the grain after the fence had gone out of use.

Redlands Farm

Seven ditches or gulleys, at the base of a sequence of many others, formed parts of a drove and an enclosure with an entrance between the two. The ditches were between 0.40m and 1.40m wide and 0.19m and 0.35m deep, with generally open and rounded profiles. Three of them seemed to be successive cuts of the same line. The fills were generally sandy silts with few to no inclusions. The only finds were two small, probably intrusive, sherds of Roman grey ware. Inside the enclosure, a structure some 10m in diameter was formed by limestone-packed postholes.

The relation of this structure and the two roundhouses in the south block to the boundaries is purely spatial. The three have some common features in that they were all small, simple, unditched and poor in artefacts, unlike some of the Iron Age houses on the site. Not all buildings of the period were comparable, however: in Scours Field, immediately north of Irthlingborough island, a more complex circular or ovoid slot- andpost-built structure surrounded by an external gully was recorded during a watching brief, and the few sherds recovered, some from structural contexts, suggest a Middle or Late Bronze Age date (Tomalin 2006).

Dating

The late 2nd-/early 1st-millennium dates quoted above for samples from postholes in the south block may relate to any stage in the development of the Field Systems. No samples suitable for radiocarbon dating were obtained from the ditches themselves, despite large-scale sampling. A *terminus ante quem* for the north block is provided by a pit containing Late Bronze/Early Iron Age pottery, which cut one of its ditches (Crosby in prep). A terminus post quem for the south block is provided by the fact that one of its ditches cut the Segmented Ditch Circle, dated to 2020-1680 Cal BC at 95% probability. Other ditches in both blocks were cut by Iron Age and Romano-British features. This broadly places the boundaries in the later 2nd and early 1st millennia, but leaves open the nature of the transition between the monumental landscape and the Field Systems. Cremation burials may have continued to be inserted around the barrows after the boundaries had been established, as the latest dated examples, at the edge of Barrow 1, were deposited in 1390-1140 Cal BC and 1400-1160 Cal BC at 95% probability (Fig 3.117: Barrow 1 F30337. Barrow 1 F30030).

Layout and function

The alignment of the north part of the north block on the main palaeochannel of the Nene and on ring ditch F192143 (Fig 3.123) suggests that it was first laid out in that area and subsequently extended southward. Similarly, the alignment of the south part of the south block on the adjacent part of the palaeochannel suggests that it may have been laid out there and subsequently extended northward. The two blocks could have been contemporary through much of their use, with one eventually extended into the area formerly covered by the other. The layout of both bespeaks animal management, especially the ditched east/west tracks leading to and from unenclosed pasture by the river and entrances such as those between ditches 3 and 7, or 21 and 23, at which stock could be diverted into one enclosure or another (Fig 3.123). In scale, detail and idiosyncrasies the layout matches the better-preserved and more extensively excavated 2nd-millennium droveways and enclosures on the fen edge at Fengate, 30km downstream (Pryor 1978a; 1980; 1998b, 125-30; 2001a, fig 1.4).

The exiguous ditches and the spoil from them would have been no barrier to people or animals, even though their original depth from the contemporary surface would have been at least 0.30m greater than their excavated depth (a figure based on the depth of soil preserved beneath the Raunds barrows). They must have been reinforced in another medium, the two possibilities being fences and hedges.

In favour of fences is the fact that the ditches were often so narrow, steep and flatbottomed that they were recorded as 'palisade trenches'. This would accord with the survival of two postholes in the bottom of ditch 15 and, more tentatively, a 'heavily pitted bottom' in a section of ditch 3. On the other hand, sporadic recutting on the terrace, and repeated recutting at Redlands Farm, indicate firmly that at last some ditches were open.

Pryor (1998b, 87) argues persuasively that the Fengate boundaries were reinforced with hedges, grown from cuttings set in the slight banks of upcast from the ditches, which could have reached functionality in about five years. This would mean either an interval of years before a set of boundaries became operational, or the use of other barriers in the interim. The Raunds ditches may originally have held fences that were later removed, some of the ditches eventually being recut. Steep, narrow 'palisade slot' profiles occurred in half or more of the ditch sections in both blocks at Raunds, generally where there was no evidence of recutting. They were completely absent from Redlands Farm, where repeated recutting of a single ditch echoes the history of parts of the Newark Road subsite at Fengate (Pryor 1980, figs 31-2). 'Palisade slot' profiles were also absent from Fengate itself, where ditch profiles were generally splayed (Pryor 1978a, figs 7-10; 1980, figs 11-12, 26, 33, 41-3, 49-50, 87). However, a handful retained slot-like bases, suggesting that they may originally have been much narrower and steeper (eg Pryor 1980, fig 11). Another contrast between the Raunds ditches and the Fengate ones is that artefacts were less scarce at Fengate. Densities like those in parts of the Fengate system, where there could be several finds in one ditch butt (Pryor 1980, figs 25, 51, 52), were not approached at Raunds. Both distinctions could have a single explanation. While the Fengate system lasted for at least a millennium (Bayliss and Pryor 2001), the Raunds ones may have been more shortlived, a shorter span accounting for less modification of ditch profiles by recutting, and even less accumulation of artefacts.

A system in which ditches were a minor part of the total barrier and were cleaned out at intervals would account for the apparent sequences between ditches in the north block. They could all have been parts of the coherent system that their plan suggests, but recut at different times, the final recuts making some ditches appear later than others. There is perhaps more evidence for sequence in the relation of structures to their adjacent ditches. The Redlands Farm structure could not have been contemporary with a gully attributed to the Field Systems. which crossed the line of its wall (Fig SS1.214). The location of structure 191135 within the apparent drove formed by ditches 26 and 27, and the way in which the pits and postholes that cluster around it extended beyond ditch 26 (Figs 3.123, SS1.205), strongly suggest that the drove and its hypothetical hedges were absent when the building was in use.

The axes of the Raunds systems ran parallel and at right angles to the main palaeochannel of the Nene, as those of the Fengate system did to the fen edge, which invites a similar interpretation, adapted to the topography, of the droves and paddocks on the higher, better-drained terrace forming part of a seasonal round in which stock were turned-out onto summer pasture on the lower, wetter floodplain and islands in summer. It is a matter for conjecture whether the parcelled-up terrace served as densely stocked winter pasture for large numbers of animals, in which the boundaries made it possible to 'rest' some areas by keeping animals out of them, or rather as a zone of organisation and control, through which stock were moved between winter pasture close to settlements on the valley sides and summer pasture on the floodplain. The construction, maintenance and use of the systems would have brought people together, conceivably on the same scale as the communal monuments of earlier periods, with the same level of social and ceremonial synergy (Pryor 1996).

The use of the valley bottom as pasture in the late 3rd and early 2nd millennia, before the boundaries were established, suggests that land use may have changed far less than methods of land division. The immediate context of these developments is the proliferation of comparable, although by no means uniform, systems on the lower reaches of the

Nene. Welland and Great Ouse. as well as the adjacent fen edge (French 1994b; Malim 2001; Pryor 1998b, 89-130; Pryor 2001a, 74-80). Pryor sees these as emerging within a long-established tradition of predominantly pastoral farming, in which natural features and monuments served as durable, visible, territorial boundaries. The late 3rd-millennium upsurge in barrow building corresponded to a subdivision of communal territory among smaller groups. It was this subdivision that provided the framework around which existing land tenure was built more formally into the landscape when the livestock population passed a critical threshold, at the start of a period of intensive and successful sheep- and cattle-farming, which endured up to an abrupt collapse in the early 1st millennium (Pryor 1998b, 82-7,150). The decision to enclose land that had been unenclosed pasture for hundreds of years, cannot, however, be seen in local terms alone. Like the earlier adoption of Beaker pottery and more frequent barrow burial, the proliferation of built field boundaries formed a part of developments on a north-west European scale (A Harding 2000, 123, 161-3). In both cases it was the uptake and the manner of it that were shaped by local circumstances.

In the south block, ditch 23 was succeeded by a pit alignment flanked by a slight ditch, which ran up to ditch 23 at an oblique angle and ended on its line (Fig 3.123: 15794, 87464). It is impossible to tell if the pits and their flanking ditch were contemporary or successive. The exiguous interval between them (there was none between the edges of the ditch and three of the pits) suggests the latter. These features do not relate to any of the Iron Age land divisions in the area and their ending on ditch 23 suggests that it was still visible when they were cut. This tallies with the Late Bronze Age/Early Iron Age date of the few south-east midland pit alignments from which any evidence has been recovered (French et al 1993; Gurney et al 1993; 1974b; 1977; 1978b; 1995; Jackson Meadows 1995; Pollard 1996). The coupling of ditch and pit alignment is unusual but not unparalleled. It occurs for example, at Wollaston, upstream from Raunds (Meadows 1995) and at St Ives, Cambridgeshire, in the Great Ouse valley (Pollard 1996), although these may be successive rather than contemporary markers of the same boundaries. Pit alignments were elements of new systems of land division, which were far more extensive than the enclosures and droves that preceded them. Kidd (2001) documents 136 pit alignments in Northamptonshire alone. While concentrated on the gravels of the river valleys, they also occur on the interfluves (Knight 1984, map 20: Kidd 2001). suggesting an extension of enclosure to new terrain. With rare exceptions, the pits did not hold posts and were left to silt naturally. They would never have presented physical barriers and have often been interpreted as marking major, socially significant boundaries (Jackson 1974b; Pollard 1996; Pryor 1993b). Pollard's suggestion that their excavation may have been more important than their continuing visibility is sometimes borne out by distinctly non-random finds. These include selected, unrepresentative hedge-trimmings and a broken but complete caprine skull in the waterlogged pits at St Ives (Pollard 1996, fig 9); human skull fragments, right cattle limb bones and most of a horse skull at Tallington, Lincolnshire (French et al 1993, 42, table 10); an incised sandstone plaque at Briar Hill, Northamptonshire (Jackson 1974b); a fragmentary ring-headed copper-alloy pin with mineralised textile remains and a nearcomplete pot at Gretton, Northamptonshire, where a hoard of iron currency bars was buried in a scoop that cut one of the silted pits of the alignment (Jackson 1974b); and a complete pot at Ringstead, just downstream from Raunds (Jackson 1978b).

3.7.3 Reuse of barrows

In the early 1st millennium, as the Field Systems went out of use, they were succeeded on the terrace at Stanwick by a settlement that was to last to the end of the Roman period. It was at this time that F239 in the Long Barrow was disturbed (Fig 3.124: OxA-5551) – if this was indeed a primary feature and not an Iron Age intervention (3.2.3). The Romano-British complex at Redlands Farm was not established until the 2nd century AD (Biddulph *et al* 2002).

The 1st century AD saw renewed interest in round barrows. Barrow 5, at the northern edge of the Iron Age and Roman settlement, became a shrine and remained one into the 4th century, with periodic remodellings, including the construction of a surrounding wall. Roman pottery from the 1st and 4th centuries in two successive fills of a central feature may reflect the insertion and removal of a column or post (3.5.2). The wall was surrounded by a mass of oyster shell, probably discarded by those visiting the site. Votive deposits included coins, a bronze frog and a set of bronze leaves that may have formed a wreath (Crosby in prep). A surviving barrow mound 1.8km to the south-west, between the Long Barrow and Barrow 9 (Northamptonshire SMR 1766/0/1), may have had a similar history, as geophysical survey yielded signals suggesting that it may have been surrounded by a stone wall (Pavne SS5), 'Old Flat-Top' (its local name) suggests that reuse may have entailed modification of the profile. Only 200m from Barrow 5, ring ditch F192143 (3.5.2) was apparently ignored in the late 2nd or early 3rd century, when it was bisected by an enclosure ditch. but was accurately recut around most of its circuit in the mid- to late 4th century, when a large amount of pottery and some animal bone was deposited, followed by the insertion of an inhumation at a later date (Crosby in prep).

Different practices took place on Irthlingborough island, where early Roman weapons were placed at two barrows (Wardle SS3.3.3). The iron head of a 1st- or 2ndcentury throwing spear or lance was thrust into the gravel outside the ditch of Barrow 1, in the same quadrant as two fired clay slingshots, and two halves of a 1st- or 2ndcentury sword were placed one over the other outside the ditch of Barrow 3. The weapons lay in scatters of Roman pottery (nearly 6kg at Barrow 1 and over 1kg at Barrow 3), which surrounded the barrows and were predominantly of the same 1st- or 2nd-century date, although a small amount could be as late as the 4th century. Some Iron Age sherds were also present (119g at Barrow 1 and 265g at Barrow 3). The pottery was concentrated in rings around the barrows, and did not extend to the edges of the rectilinear excavated areas. It is thus unlikely to have been introduced during manuring, a process that would have resulted in a more even distribution. The comminuted, abraded state of the sherds is undoubtedly the effect of ploughing, but that ploughing could have taken place at any time up to alluviation. Pottery and weapons seem to have been placed around the barrows in the course of similar acts, if not the same acts. Barrows 1 and 3 were roughly equidistant between the Stanwick and Redlands Farm settlements and well-removed from both. They may have been the sites of more private and occasional rites than the longused Barrow 5 shrine at Stanwick.

The cultic use of four or five of the Raunds barrows in the Romano-British



Figure 3.125 Field Systems and related structures. Middle Bronze Age basal-looped spearhead found 50m from the easternmost excavated extent of ditch 23 during the construction of a lay-by crossed by its projected line. After a drawing in the Northamptonshire Sites and Monuments Record, supplied by Northamptonshire County Council. period suggests rediscovery and adoption rather than long-sustained traditions. New round barrows were occasionally built in the Iron Age and Roman periods, some in the Nene and Great Ouse valleys (A Taylor 1981, 111–13), and in the Northamptonshire Uplands a linear cemetery of several mounds was built on Borough Hill, on the outskirts of Daventry, in Roman times (RCHME 1981). The mounds at Raunds would have been recognised for what they were. It is not surprising that they were accorded extra-mundane significance.

Romano-British use of Bronze Age mounds and earlier monuments is not uncommon. At Haddenham. Cambridgeshire, a round barrow was the site of two successive Romano-British shrines (Hall and Coles 1992. 114): at Diddington. Cambridgeshire, higher up the Ouse, a Romano-Celtic temple enclosure, surrounding a circular shrine and a central treehole, was built next to four Early Bronze Age ring ditches and a possibly Neolithic rectangular enclosure (C Evans 1996; Malim 2000, 70-72); at Maxey, Cambridgeshire, a double-ditched square enclosure, of similar plan to a Romano-Celtic shrine and possibly of 2nd-century date, was built inside the cursus, and two smaller Early Iron Age square enclosures, perhaps outlying barrows, from a larger group to the north, were built on either side of the north terminal of the henge ditch (Prvor et al 1985, 73-7, 100-4, 237, 243, 260, figs 40, 44, 46, 165-6, 168); and at Harford Farm, Caistor St Edmund, Norfolk, another possible Romano-Celtic shrine was built on a Bronze Age round barrow, forming one end of a row of square enclosures of similar size laid out between this barrow and another (Ashwin and Bates 2000, 52-140). Closer to Raunds, although no structure was built at the Bronze Age barrow at Orton Meadows, pottery ranging from the 1st century BC to the pagan Saxon period, and apparently deposited largely as complete vessels, was recovered from its surface, together with two 1st- or 2ndcentury pennanular brooches, and two

Roman coins. The significance of these finds may be enhanced by close proximity to a palaeochannel of the Nene from which iron currency bars, La Tène swords, and other metalwork were recovered, together with Middle Iron Age pottery, prompting the suggestion that the barrow may have provided a platform from which they were hurled into the river before itself becoming a focus for deposition in the 1st century BC (Mackreth forthcoming). There are also fairly frequent instances of the insertion of Roman burials into prehistoric earthworks, like the central mound of the Maxey henge (Pryor *et al* 1985, 112–13, fig 46).

3.7.4 Land use beyond the settlements

Roman pottery was otherwise scarce on Irthlingborough island, despite area excavations at Barrow 4, where there was very little, and in trench B140, where there was none. The remaining total, of just over 1kg, was concentrated in the palaeosol in trench B42, 100m south of Barrow 3, with more in an east-west ditch flanked by a gully in trench B43, 200m west of B42. Both the scarcity and the uneven distribution argue against extensive manuring and cultivation. The island may have been pasture through much of the Roman period. There was, on the other hand, unequivocal evidence for Romano-British cultivation at Redlands Farm, where contemporary cross-ploughing extended over all of the Long Barrow, cutting completely through the mound at the lower, south-western end (Fig SS1.58), and Barrow 9, closer to the villa, was flattened before the end of the Roman period (SS1.20). The development of the Saxon hamlet at West Cotton seems to have born no relation to the underlying monuments. Away from West Cotton, the barrows would have remained visible up to alluviation. Following alluviaton, ploughing resumed, seen most clearly in a spread of medieval sherds, probably of the 13th or 14th century, across the planed-off top of Barrow 1.