



McDONALD INSTITUTE MONOGRAPHS

Pattern and Process

Landscape prehistories from Whittlesey Brick Pits:
the King's Dyke & Bradley Fen excavations 1998–2004

Mark Knight and Matt Brudenell



CAU Must Farm/Flag Fen Basin *Depth & Time Series* — Volume I

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Brick Pits: the King's Dyke & Bradley Fen
excavations 1998–2004

By Mark Knight and Matt Brudenell

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On the cover: *Bradley Fen 2001 (excavating the watering hole F.866).*

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want to employ it as a sensitive instrument. The monograph was proofread and indexed by Vicki Harley.

The monograph describes the core prehistoric archaeology of King's Dyke and Bradley Fen and is an expression of many peoples hard work in the field as well as in the library, lab and office. The excavation teams were as follows:

King's Dyke 1998: Marc Berger, Craig Cessford, Duncan Garrow, Cassian Hall & Mark Knight.

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Being in the field at King's Dyke and Bradley Fen was a process of sustaining a close engagement with context and circumstance. Much of the time we did this surrounded by the roar, exhausts and dust of heavy plant as it uncovered the ground in front of us or removed the ground behind us. The process was fairly rapid and there was a sense of things being done at a pace. Throughout, however, we tried to stay contextual and we achieved this largely by talking through our individual features, putting into words *cuts*, *fills*, *layers* and *finds*. Friday afternoons (invariably after chips) frequently involved walking around the site discussing each other's postholes, pits, ditches and deposits. In this manner, we were able to articulate and correlate different features and begin to recompose sites and landscapes. These grounded conversations occurred at the top of the contour, at King's Dyke, and continued all the way to the bottom of the contour, at Bradley Fen. As we moved down, the depth and complexity of sediment increased and our postholes, pits, ditches and deposits became progressively better preserved. In these sunken spaces, upcast banks and mounds endured. Buried soil, silt and peat horizons intervened between things. All of these details amplified our comprehension or, what we called at the time, our 'confidence in context' – in this we came to be immersed.

Summary

The King's Dyke (1995–1999) and Bradley Fen (2000–2004) excavations occurred within the brick pits of the Fenland town of Whittlesey, Cambridgeshire. The investigations straddled the south-eastern contours of the Flag Fen Basin, a small peat-filled embayment located between the East-Midland city of Peterborough and the western limits of the 'island' of Whittlesey. Renowned principally for its Bronze Age and Iron Age discoveries at sites such as Fengate and Flag Fen, the Flag Fen Basin also marked the point where the prehistoric River Nene debouched into the greater Fenland Basin.

In keeping with the earlier findings, the core archaeology of King's Dyke and Bradley Fen was also Bronze Age and Iron Age. A henge, two round barrows, an early fieldsystem, bronze metalwork deposition and patterns of sustained settlement along with metalworking evidence helped produce a plan similar in its configuration to that first revealed at Fengate. In addition, unambiguous evidence of earlier second millennium BC settlement was identified together with large watering holes and the first burnt stone mounds to be found along Fenland's western edge.

The early fieldsystem, defined by linear ditches and banks, was constructed within a landscape pre-configured with monuments and burnt mounds. Genuine settlement structures included three of Early Bronze Age date, one Late Bronze Age, ten Early Iron Age and three Middle Iron Age. Despite the existence of Middle Bronze Age wells, bone dumps and domestic pottery assemblages no contemporary structures were recognised. Later Bronze Age metalwork, including single spears and a weapon hoard, was deposited in indirect association with the earlier land divisions and consistently within ground that was becoming increasingly wet. By the early Middle Iron Age, much of the fieldsystem had been subsumed beneath peat whilst, above the peat, settlement features transgressed its still visible boundaries.

Combined, the King's Dyke and Bradley Fen excavations established a near continuous transect across the Flag Fen Basin's south-eastern gradient – the former exposing its very top, the latter its top, middle and base. The different elevations yielded different archaeologies and in doing so revealed a subtle correspondence between altitude and age. The summit of the gradient contained Roman as well as prehistoric features, whereas the mid-point contained nothing later than the early Middle Iron Age, and the base, nothing later than the very beginnings of the Middle Bronze Age. At the same time, there was a palpable relationship between altitude and preservation. A shallow plough soil was all that protected the most elevated parts. The very base of the gradient however, retained a buried soil as well as silt and peat horizons contemporary with prehistoric occupation and which preserved surfaces, banks and mounds that were not present higher up. The same deposits also facilitated the preservation of organic remains such as wooden barriers, log ladders and a fragment of a logboat.

The large-scale exposure of the base of the Flag Fen Basin at Bradley Fen uncovered a sub-peat or pre-basin landscape. A landscape composed of dryland settlement features related to an earlier terrestrial topography associated with the now buried floodplain of the adjacent River Nene. Above all, the revelation of sub-fen occupation helped position the Flag Fen Basin in time as well as space. It showed that the increasingly wet conditions which led to its formation as a small fen embayment transpired at the end of the Early Bronze Age. In the same way, the new found situation dissolved any sense of an all-enduring and all-defining fen-edge and instead fostered a more fluid understanding of the contemporary environmental circumstances. In this particular landscape setting wetland sediment *displaced* settlement as much as it *defined* it – the process was dynamic and ongoing.

*...simultaneity is mere appearance, surface, spectacle. Go deeper. Do not be afraid to disturb this surface,
to set its limpidity in motion. (Lefebvre & Régulier 2004, 80)*

Chapter 3

A pre-fieldsystem landscape

Chapter 3 is the first of the four evidence chapters and, as its title suggests, presents Bronze Age landscapes that existed prior to the imposition of mid second millennium BC field boundaries. In its narrative structure, the chapter offers contextual detail on three principal feature groups revealed: *Monuments*, *Early Settlement* and *Watering Hollows and Burnt Mounds*. In chronological terms, the majority of the features belong to the Early Bronze Age, though some of the metalled surfaces revealed traces of earlier occupations.

As well as presenting material in a broadly chronological order, the chapter offers the first real chance to illustrate how this landscape has its own intrinsic spatial-temporal coherency, which can be drawn upon to articulate different occupations and activities. It demonstrates how subtle changes in altitude can correspond to a change in time and how particular deposits can separate things into their authentic temporal order. This is crucial. In gathering together all of the pre-fieldsystem features and presenting them as seen through the King's Dyke and Bradley Fen excavation apertures, there exists a very real danger of assembling compelling spatial constellations out of things that were once temporally distinct. The task, then, is to work against this foreshortening effect by placing the emphasis as much on temporal duration as on spatial extent. To do this it is vital to explore patterning in the vertical as well as the horizontal; the result being that seemingly 'self-evident' relationships begin to dissipate and become less certain or fixed.

Describing the pre-fieldsystem archaeology also presents an opportunity to put into practice ideas about how the disassembly of palimpsest makes possible a much clearer comprehension of tenure. Part of the reason for approaching the archaeology this way is to establish a contrast between this chapter and those subsequent, on the premise that the features described here may have belonged to a kind of *long fallow* system of landscape inhabitation, as opposed to the kind of

short fallow systems described in the later chapters. This is a deliberate consideration of Barrett's ideas about tenure and different intensities of land-use as defined by the length of time things were allowed to go fallow (Barrett 1994, 143). In keeping with Barrett's understanding, the use of the terms *long fallow* and *short fallow* are taken beyond the ways and means of cultivation and applied to other types of landscape 'use' or tenure, such as the building of monuments, the burial of the dead and, most crucially, the movement of people and animals. If the features incorporated in this chapter shared anything, it was a sense of cumulative practices dislocated by extended periods of inactivity. Similarly, the dispersed character of the archaeology would appear to be a direct manifestation of extensive, rather than intensive, systems of occupation equivalent in many ways to much earlier traditions. To borrow from Thrift, as places in the landscape, these features represent '*stages of intensity*' (1994, 212–13 our emphasis) and are tangible 'traces of movement, speed and circulation' as much as they are the remains of past practices. As with Pollard's thoughts concerning settlement practices in the British Neolithic, we also identify 'temporality and mobility' as well as scale as key areas when it comes to appreciating settlement as social practice (Pollard 1999, 77–79).

It is exactly for this reason that watering hollows, animal tracks and compacted surfaces are given the same descriptive prominence in this chapter as the 'concrete' architectures of monuments, burnt mounds and settlement. The intention is to articulate the magnitude and the intensity of occupation prior to fieldsystems, irrespective of how fleeting or enduring it might have been.

Topographies and environments c. 2200–1500 cal BC

It has been proposed that there were three main kinds of wetlands – peat bogs, sedimentation basins



Figure 3.1. Pre-Flandrian landscape c. 2200–1500 cal BC. Dashed line delineates -1.0m OD contour and land-edge delineates ordnance datum.

and drowned land – ‘each with its specific qualities and restrictions’ (Kooijmans 1999, 109). Of these three categories, it is the last that best represents Bradley Fen and King’s Dyke. As a category, it combines both the wet (water) and the dry (land), with the former condition inexorably transforming the latter. In addition, as a category, *drowned land* shares exactly the same spatial-temporal trajectory as our publication – from dry to wet. As stated before, this trajectory is our scale and consequently, out of all of the chapters presented in this publication, Chapter 3 is by far the driest.

Before embarking on descriptions of the contextual evidence, it is imperative to outline the wider landscape setting; the topographies and environments which characterized the site and its immediate surroundings in the late third and early second millennium BC. Here we present a series of brief summary ‘snapshots’ of what was a fluid landscape, the texture of which was radically transformed over the course of the period in question. Clearly, this was anything but a static backdrop to occupation and this dynamic can be described across different scales including in relation to the three principal landscape frames outlined in the previous chapter (*The Bradley Fen Embayment, The Flag*

Fen Basin and The Lower Reaches of the River Nene); the key geographical focus throughout being the Flag Fen Basin, in all of its different ecological guises.

The Flag Fen Basin (c. 2200–1500 cal BC) – from marine conditions to fen encroachment

At the start of the sequence considered in this volume, the Flag Fen Basin was predominantly free draining with only the very deepest contours (below -1.00m OD) submerged (Fig. 3.1). Toward the close of the third millennium BC, the adjacent stretch of the River Nene was tidal and estuarine, with an accompanying floodplain that was largely made-up of salt marsh.

The same marine conditions pervaded within the low areas between Thorney and Whittlesey, whilst reed swamp (initiated by localized ponding rather than direct fen encroachment) began to invade the deepest parts of the Flag Fen basin (Scaife 2001, 351–81). Sediment and pollen analysis carried out at King’s Delph as well as 4km to the south at Farcet indicate that this marine environment reached its maximum extent sometime after 2140–2080 and 2060–1920 cal BC (Geary et al. 2009) and 2175–1985 cal BC (Waller 1994, 191) respectively. Both dates were obtained from the base of the upper peat which overlay the marine clays. At King’s Dyke the peat/marine clay contact was located at -1.55m OD whilst at Farcet it was -1.03 to -1.05m OD.

Most importantly, in terms of the basin reconstruction, it would appear that apart from the channel corridor, the landscape was dry and as yet unaffected by the adjacent, encroaching fen. Indeed the pollen and buried soils suggest that the high ground, including large parts of the basin itself, was characterized by areas of well-drained brown earth soils. These are indicative of a landscape composed of mixed deciduous woodland (French 2001d, 400–01), which, since the Neolithic, were subject to episodes of ongoing forest clearance and the subsequent establishment of open pastoral vegetation (Scaife 2001, 351–81).

By c. 1800 BC, the infringement of true fen conditions along the Nene Valley corridor as well as the deeper contours to the north of Whittlesey Island was well underway (Fig. 3.1). The silts that had characterized the presence of salt marsh in these spaces were now being succeeded by steady peat growth. The consequent increase in the water table encouraged further localized development of wet reed swamp (dated to 2030–1680 cal BC (ibid.)) which in turn led to the formation of a large lagoon or pool situated more or less centrally within the Flag Fen Basin. At the same time, the Bradley Fen Embayment was becoming a much more prominent feature. Concurrently, the accompanying pollen sequence indicates the formation of wet woodland along the fringes of the river corridor as

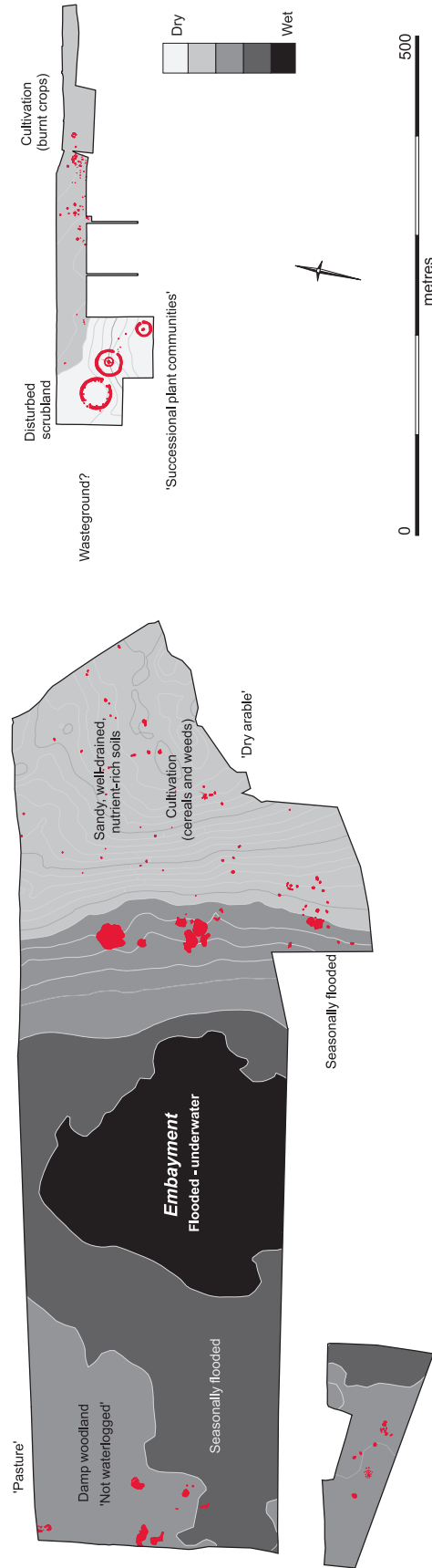


Figure 3.2. Changing textures – transitional landscape c. 2200–1500 cal BC. De Vareilles and Ballantyne’s reconstruction of the immediate environs of sampled features can be used to generate a series of landscape textures or environments contemporary with Early Bronze Age occupation (indicated by features shown in black). The plant remains derived from the King’s Dyke monument contexts included ‘successional plant communities’ indicative of disturbed or cleared ground whereas the upper slopes of Bradley Fen yielded plant remains symptomatic of sandy, well-drained and nutrient-rich soils coinciding with cultivated seeds and arable weeds. At the same time, the lower end of Bradley Fen was becoming damp but not yet waterlogged woodland. The intervening embayment zone (below -0.40m OD) was wet and frequently underwater whilst its immediate fringes were subject to seasonal flooding. Formally, in the Neolithic, the lower contours were dry and colonized by oak woodland and grassland. Subsequently, in the Middle Bronze Age, the same zone became waterlogged and dominated by alder carr. The Early Bronze Age pre-fieldsystem low zone was a landscape in transition – neither completely dry nor entirely wet.

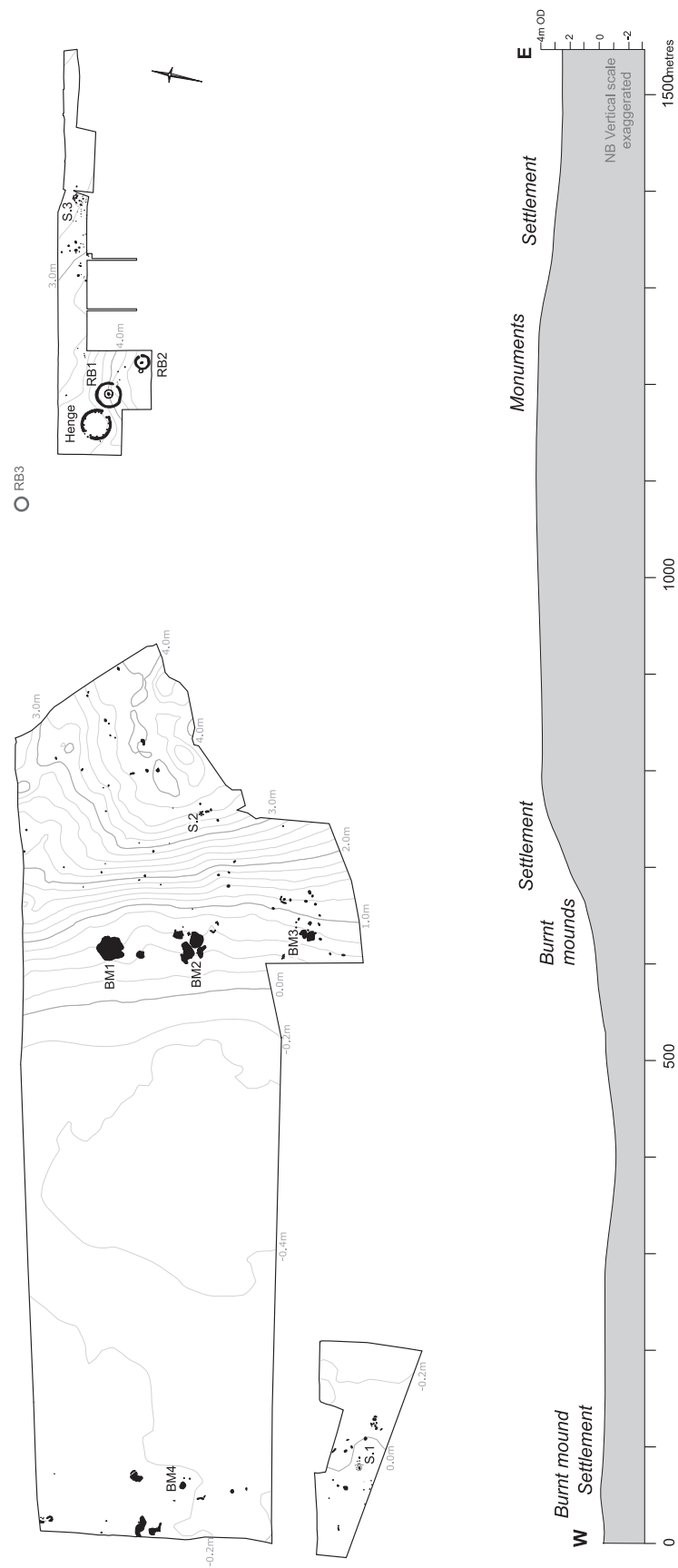


Figure 3.3. Pre-field system landscape – Bradley Fen and King's Dyke excavation areas with schematic transect. Note the vertical scale is greater than the horizontal scale.

well as around the intervening skirtlands associated with the encroaching fen.

Shifting resolution, the Bradley Fen Embayment appears to replicate the broader environmental history of the Flag Fen Basin in microcosm (Fig. 2.13). The deepest parts of this landscape (at c. -1.00m OD) have revealed a sediment sequence equivalent to the series recorded within the Nene corridor, only at a greatly reduced scale. The presence of a thick band of fen clay demonstrates that a salt marsh environment had also once persisted in and around the mouth of the inlet around c. 2200 cal BC. Similarly, along its 'higher contours' (0m OD) ongoing work on the soils and pollen profiles suggests the area was also characterized by well-drained dry woodland soils with patches of open vegetation.

By the opening of the second millennium BC, fen had encroached within the embayment. Conditions conducive to invasive reed swamp development had emerged, as reflected by the presence of a myriad of preserved reed cases found throughout the lower contours where they penetrated the old land surface. Slightly higher-up, on what might be described as the embayment's own skirtland, damp and wet woodland was beginning to circumscribe its margins. Higher still, the evidence points towards well-drained nutrient-rich soils suitable for dry arable cultivation, within areas previously stripped of their forest cover.

At the more concise 'site' scale of Bradley Fen and King's Dyke, it is possible, drawing upon the pollen, soils and plant remains, to map a mosaic of environments ranging from disturbed scrubland on the highest ground to standing water on the lowest (Fig. 3.2). The intervening spaces included seasonally flooded margins as well as damp woodland/pasture. Higher up successional plant communities indicative of disturbed or cleared ground bordered well-drained, nutrient-rich soils, with features containing cultivated seeds and the remains of arable weeds. Formally, in the Neolithic, Bradley Fen's lowest contours were dry and colonized by mixed deciduous woodland interrupted by areas of grassland. But by the Middle Bronze Age, the same zone had become waterlogged and dominated by alder carr. Temporally situated between these, the Early Bronze Age pre-fieldsystem low zone was a landscape in transition – neither completely dry nor entirely wet.

The challenge now is to re-situate monuments, early settlement, burnt mounds and watering hollows into this fluid terrain and, at the same time, articulate how these things related to its ever-changing textures (Fig. 3.3). Crucially, attributes of particular features were straight reflections of the different qualities of the landscape during these times. The Flag Fen Basin

was made-up variously of dry-space and wet-space architectures: a place where certain types of features 'favoured' free-draining locations whilst others 'preferred' increasingly wet ground. Accordingly, our narrative begins at the driest end of this 'hydrological' spectrum and opens with the monuments. It then moves to examine settlement remains, before culminating in a description of the burnt mounds and watering hollows. However, the connections between these features and individual spaces are also explored, with the intention of linking contemporary processes and patterns of movement in the landscape.

Monuments

The King's Dyke henge and barrow group represents the first major monument complex to be excavated in the Flag Fen Basin since E.T. Leeds's investigations of the Eye barrow group at the beginning of the twentieth century (Leeds 1910; 1912; 1915). In addition, their discovery adds to an ever-increasing distribution of 'new' monuments both within and around the basin. In combination, the emerging monument pattern is beginning to illustrate a previously unacknowledged and deeply buried facet of this landscape's history. In view of this, the morphology and chronology of the King's Dyke complex have important implications for the way in which we might understand the broader relationship between monuments and the Flag Fen Basin.

Four monuments were revealed by the excavations, all confined to the most elevated contours of King's Dyke (Fig. 3.4). The group comprised a Class II henge with internal pit-circle, two round barrows (Round Barrow 1 and Round Barrow 2) and a diminutive ring-ditch. Both barrows were constructed over central inhumations whilst secondary/satellite cremations occurred inside, around and between the monuments. Non-monument-related burials of this period also occurred across both King's Dyke and Bradley Fen, including both inhumations and cremations (4 in total).

The monuments are described below by order of size, whilst the inhumations and cremations are presented either by context (e.g. Round Barrow 1) or as part of the isolated burial groups.

The henge and pit-circle

Henge

The henge was 30.80m in diameter and consisted of two large C-shaped ditches, F.851 and F.857 (Fig. 3.5). The gaps, or causeways, between the two ditches measured 7.40m in the southeast and 7.80m in the northwest. The

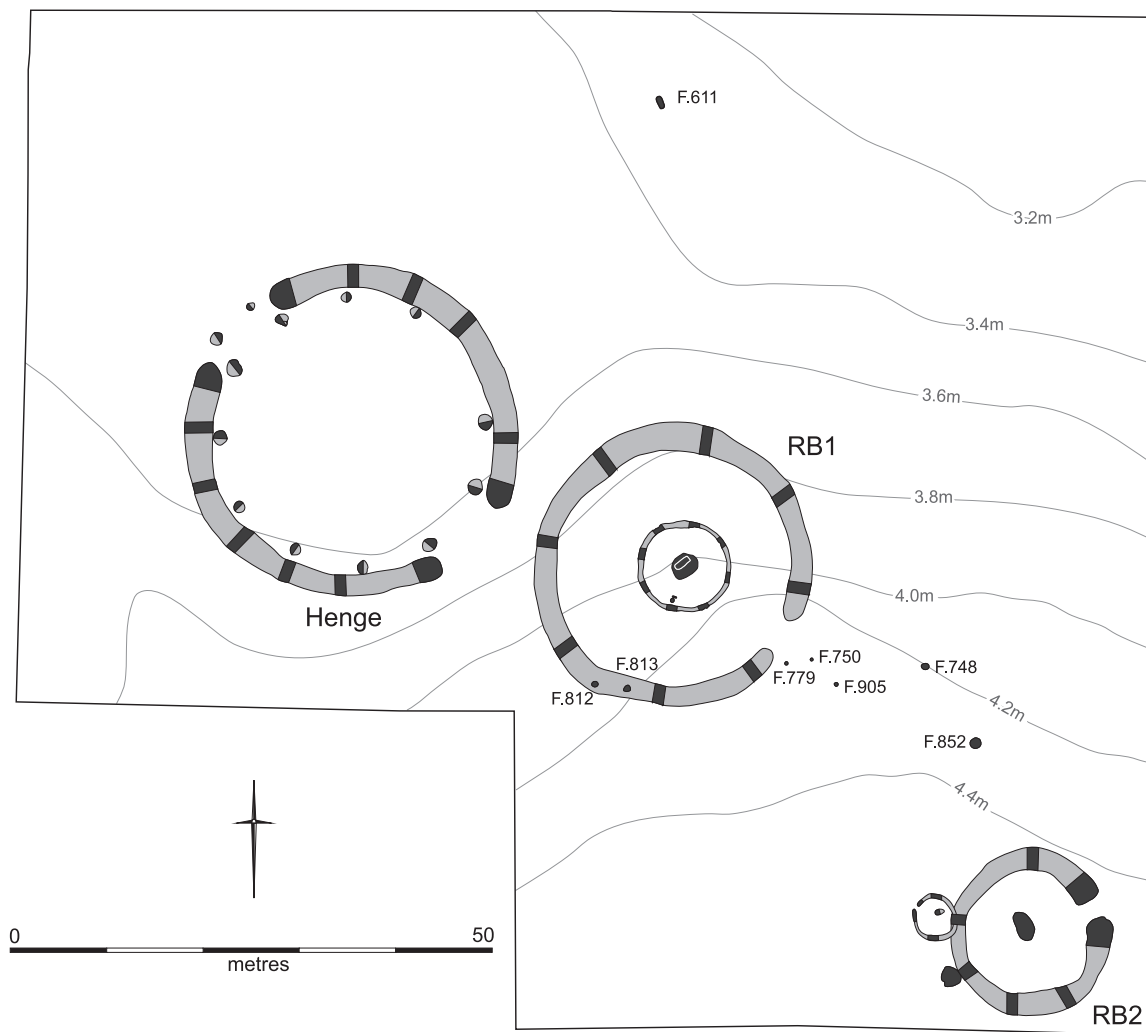


Figure 3.4. *King's Dyke monument complex.*

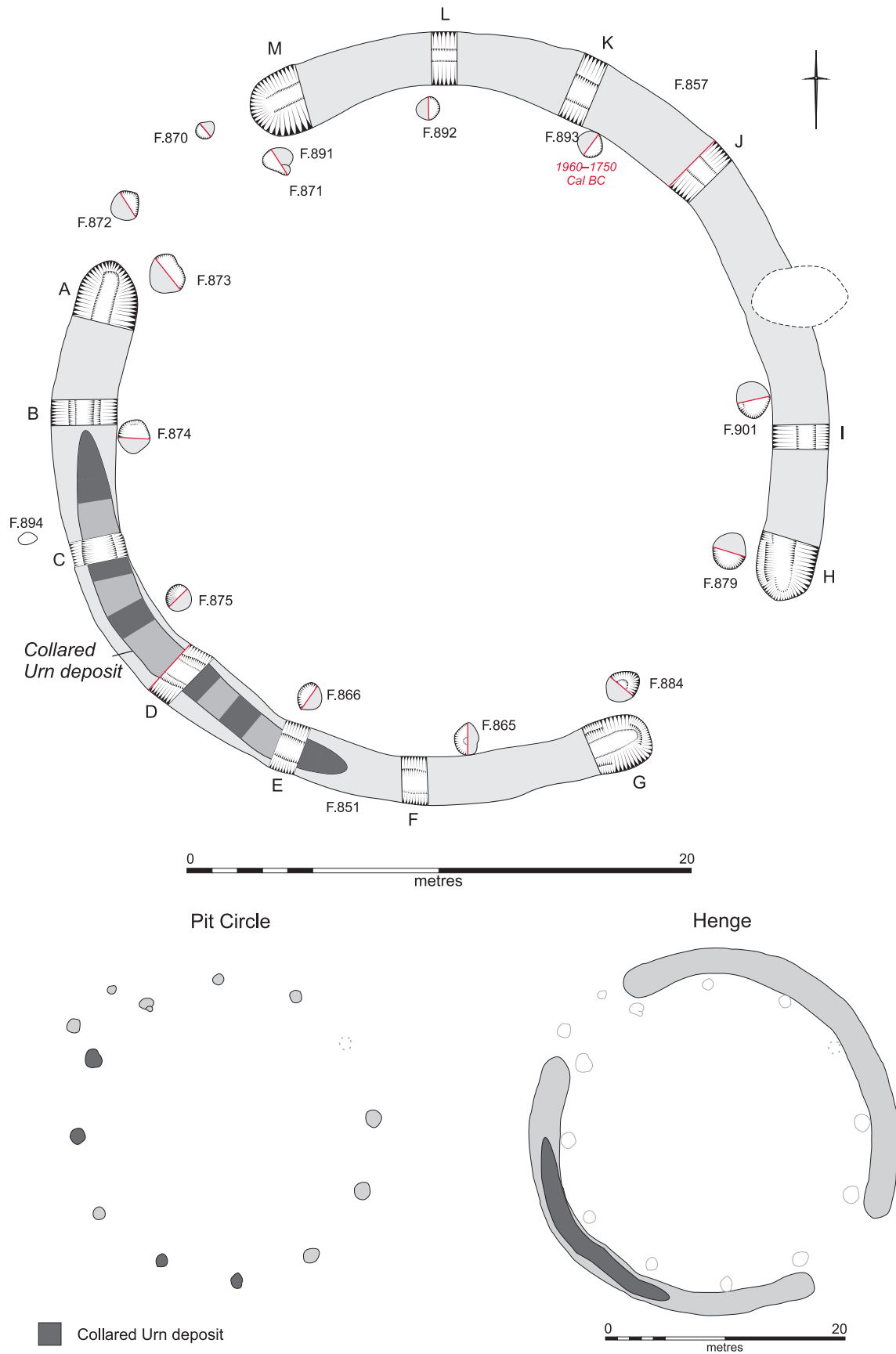
Table 3.1. *Henge ditch dimensions.*

Slot	Feature	Context	Width (m)	Depth (m)
A	851	1076	2.32	1.32
B	851	1086	2.48	1.35
C	851	1087	2.38	1.40
D	851	1088	2.49	1.54
E	851	1089	1.99	1.16
F	851	1090	2.07	1.18
G	851	1091	2.07	1.15
H	857	1079	2.20	1.20
I	857	1080	2.35	1.19
J	857	1082	2.40	1.37
K	857	1083	2.50	1.35
L	857	1084	2.00	1.25
M	857	1085	2.45	1.34

ditches were of equivalent size to each other displaying steep V-shaped profiles, narrow bases (average width: 2.28m; average depth: 1.29m, see Table 3.1) and similarly shaped rounded terminals, lending symmetry to the monument's overall appearance.

The initial infilling sequence for the ditches was consistent and asymmetric with edge erosion deposits, comprising major slumps of fine silty-sand from the interior edge, overlapping with minor slumps of coarse gravel from the exterior (both regularly interrupted by pockets of slow-accumulating silt; Fig. 3.6). Higher up

Figure 3.5 (opposite). *King's Dyke pit-circle and henge overall plan. (Collared Urn capping deposit highlighted); plus plans of pit-circle and henge and relative distribution of capping deposit.*



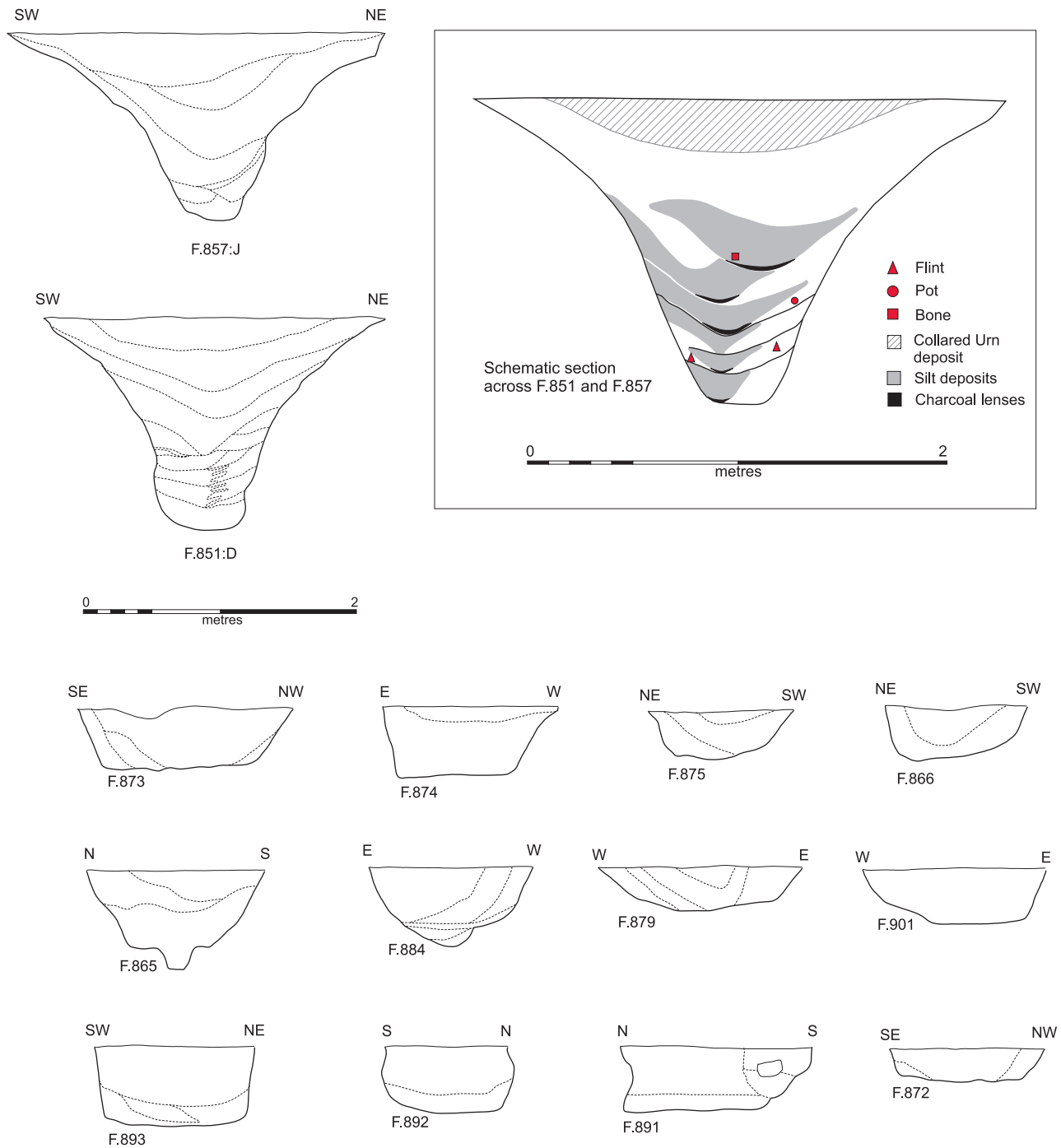


Figure 3.6. Pit-circle and henge sections; includes schematic reconstruction of combined depositional sequences of ditches F.851 and F.857.

the profile, as the ditches splayed outwards, silt pockets of increasing thickness accumulated, indicating longer periods of stability between punctuated moments of edge erosion. Occasionally small lenses of charcoal accompanied the upper profiles of the silt deposits, but otherwise direct evidence of adjacent activity was rare.

Of note is the south-eastern terminal of F.851 (Slot G), where one of these charcoal lenses was substantial and included a pattern of overlapping pieces of compacted charred wood. Other finds from the lower half of the ditch profile comprised five pieces of Neolithic flint derived from the early outer-edge erosion slumps in

Slot C. Elsewhere, very small amounts of worked flint and butchered animal bone (8 and 6 pieces respectively) were recovered from the upper silt deposits in Slots D of F.851 and Slots J, K and M of F.857. Such small quantities would appear to be representative of the scale and character of deposition during the early ‘use’ of the henge.

In stark contrast, the very top of the southern ditch was capped with a dark ‘midden’-like deposit (blackish-brown sandy-silt with abundant charcoal) that included a comparatively rich array of finds; five 1m wide sample slots produced 45 sherds of Early Bronze Age pottery (Collared Urn), 73 pieces of worked flint, 74 pieces of animal bone (including calcined pieces) and 12 fragments of burnt clay. Generally the appearance of the capping fill and its material content made it comparable with the backfills of the Collared Urn settlement pit clusters located about 160m to the east (described below). More significantly, the same capping deposit was not obviously present along the northern ditch of the henge, but was identified within the tops of the internal pit-circle.

Pit-circle

The pit-circle was 24.80m in diameter and comprised 11, possibly originally 12, regularly spaced pits (Pits 1–11; set c. 6m apart except for a 12m gap for the ‘missing pit’ in the northern part of the circuit) plus two addition/external pits forming a porch-like construction (Pits 12 and 13) (Fig. 3.5). The ‘porch’ provided the circle with a formalized entrance, oriented towards the northwest.

Variable in depth and diameter (Table 3.2), the majority of the pits consisted of steep-sided, flat-bottomed features containing horizontally layered fills.

Table 3.2. *Pit-circle dimensions.*

Pit	Feature	Context	Diameter (m)	Depth (m)
1	873	1100	1.57	0.45
2	874	1101	1.28	0.50
3	875	1102	1.07	0.34
4	866	1093	1.04	0.38
5	865	1092	1.30	0.72
6	884	1111	1.20	0.57
7	879	1106	1.50	0.32
8	901	1138	1.34	0.41
9	893	1125	1.17	0.58
10	892	1124	0.90	0.48
11	891	1123	1.40	0.42
12	870	1097	0.70	0.35
13	872	1099	1.20	0.42

None of the pits revealed definite post-pipes or evidence for post-packing, though Pits 5 and 6 did display indents in the centre of their bases, which could have been made to support upright timbers. Pits 7, 9, 10 and 11, all located around the northern half of the pit-circle, also contained charcoal-rich basal fills which included some large chunks, possibly the charred remnants of former posts. In terms of finds, only 4 of the 12 pits produced artefacts (Pit 1: 21 sherds of pottery, 2 pieces of flint and 1 fragment of bone; Pit 2: 6 sherds of pottery; Pit 4: 2 pieces of flint and 3 pieces of burnt flint; Pit 5: 2 flints). Importantly, the majority of the artefacts came from the top fills of the pits and shared the same matrix as the capping fill of the southern henge ditch.

The interior of the circle was empty except for natural hollows or tree-throws devoid of artefacts. In fact, the nearest ‘external’ feature was shallow hollow F.894, located 4m to the west of Pits 2 and 3 and probably lying beneath the line of the projected external bank of the henge. This yielded just a single sherd of flint-tempered pottery thought to be of Late Neolithic date.

Concentric monuments – henge and pit-circle

Superficially, the pit-circle and henge have the appearance of a single unified monument, with one being arranged inside the other (Fig. 3.7). The external diameter of the pit-circle corresponds almost exactly with the internal diameter of the henge, whilst both shared the same dominant northwest–southeast orientation. Crucially, the two features abut rather than overlap, which, as a consequence, means that it is not immediately obvious what sort of temporal gap, if any, might have existed between their construction: were the pit-circle and henge built together or one after the other? A lack of material culture from the basal contexts of both also adds an opacity to the order of things. The presence of fragments of Early Bronze Age pottery as well as worked flint from the uppermost fills of both the henge and the pit-circle, demonstrated that the latter stages of both features were contemporaneous.

Initially, it looked as if the henge was built after the pit-circle as the ditch appeared to just truncate the fringes of Pits 5 and 9. However, on closer scrutiny this ‘stratigraphic relationship’ is far less secure than first appeared. For instance, it is equally possible that the pits were dug up against the weathered internal circumference of the henge ditches and had therefore acquired the appearance of being ‘cut’ by the further erosion of its internal edges. Similarly, since the former presence of external up-cast banks can be deduced from the slumping patterns observed in both ditches, it is arguable that their location would have structured any subsequent elaboration of the

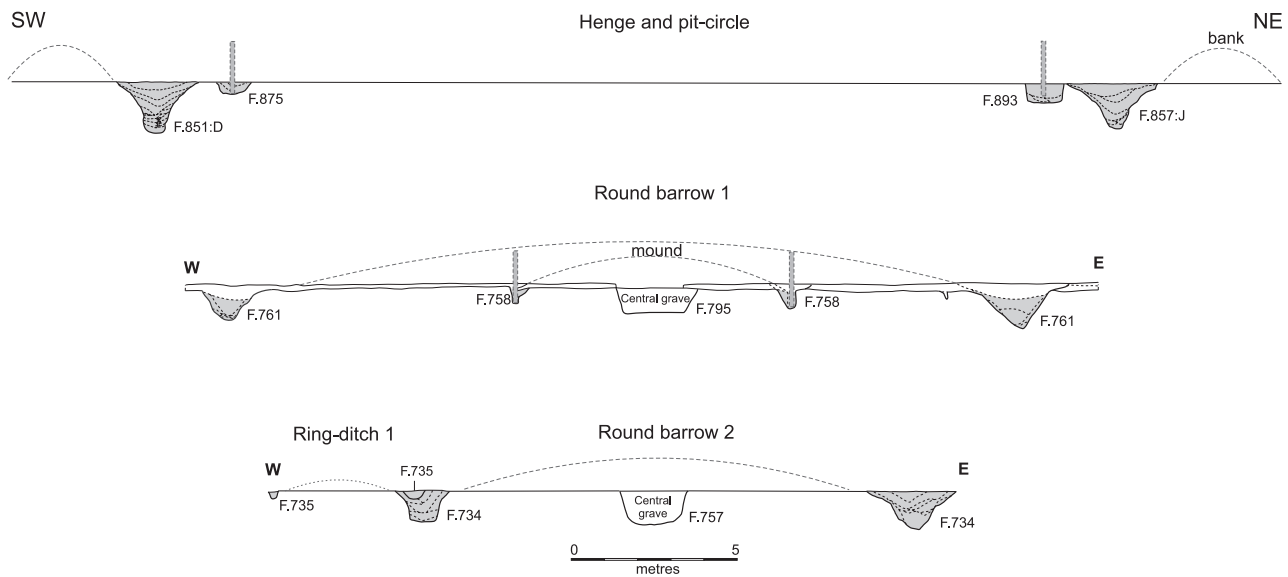


Figure 3.7. Section across pit-circle and henge, Round Barrow 1, Round Barrow 2 and Ring-ditch 1 (dashed lines indicate projected locations of banks, posts, palisades or barrow mounds).

monument, meaning that the pits could only have occupied the internal circumference. From this point of view, it might be postulated that the henge was the very first thing to be built; its banks and ditches defining extent and orientation long before the circle of pits was made.

In support of this interpretation, the similarities in the material from the pit-circle and upper henge deposits could be cited – both being essentially Collard Urn related. With fresh unweathered profiles, the pits are arguably features that were dug and backfilled in relatively quick succession, whilst the ditches of the henge had long depositional histories, only receiving material contemporary to the pits at the close of their fill sequence. But even these connections do not offer unequivocal proof that the henge was constructed first. Although it is irrefutable that the pits have ‘pristine’ unweathered edges, this may have been a consequence of posts (which were probably burnt *in situ*) being dug-out at the end of their life/upon destruction, leaving enlarged pit-like holes which were subsequently back-filled – a process which may explain why definite traces of post-pipes were not encountered. In other words, the evidence does not preclude the possibility that the pit/post-circle was erected first. Indeed, the material connections only serve to demonstrate that these two phases of monument-use came to a close at the same time. As such, the radiocarbon date of 1960–1750 cal BC (Beta-269134: 3540±40 BP) achieved for a charred seed from F.893 cannot be taken as a *terminus ante quem* for the henge.

Analogous examples dictate that post-circles precede henges (Barclay 1983; Gibson 1998) and so following this model it is, on balance, the more likely sequence. Of course, this interpretation hinges on the status of the pit-circle as a post-ring, for which the evidence is admittedly inconclusive. Nevertheless, the uniform spacing of these features combined with the elaborate ‘porch-like’ arrangement does suggest that the pits were never just backfilled hollows, but settings for timber uprights. Thus, it can be argued that the circle did indeed precede the earthwork and that, as an architectural feature, this ring of posts also became the context for the building of a henge.

It is worthwhile reflecting on what the artefacts recovered from these architectures reveal about the nature of activity. In general, the distribution of material from the henge and pit-circle indicates varying intensity in activity. What began somewhat quietly in terms of material accumulation ended with what amounts to a ‘Collared Urn flourish’ – a flourish that perhaps coincided with the deposition of whole Collared Urns into, and around, the neighbouring barrows (discussed below).

As will be shown, the earlier depositional history of the henge and that of the adjacent barrows were comparably uneventful, beyond slumping caused by weathering, silt accumulation during periods of stand-still and the formation of occasional, diminutive lenses of charcoal, blown in from adjacent activities (Table 3.3). From this perspective, there was very little to distinguish the different monuments other than the effects of time.

Table 3.3. Distribution of principal materials in F.851 and F.857 (greatest quantities highlighted). The distribution of material culture, charcoal and charred plant remains can be separated into three groups: henge, pit-circle and capping fill. The last of these categories affected the other two in that it topped or covered parts of both and as such represented the last significant depositional event. The bulk of the material culture was restricted to the third category whereas the primary fills of the henge and pit-circle were comparatively sterile except for occasional charcoal ‘events’ characterized by large fragments of oak wood (pits F.879, F.892, F.893) or by discrete, compacted remains or shadows of bigger pieces of burnt wood (F.851 and F.857). Charcoal was also present in the capping fill but here it was broken-up and dispersed throughout the deposit. Charred plant remains coincided with charcoal dumps found in the pit-circle and also occurred within the capping fill. Faunal material from primary fills of the henge, associated with the construction and use of the monument itself was scarce, amounting to a total of four assessable bone specimens, three of which were identified as cattle.

	Burnt clay	Animal bone	Flint	Pottery
F.851 Capping	121g (79.1%)	996g (94.7%)	764g (93.4%)	402g (99.0%)
F.851	0	10g (0.9%)	11g (1.3%)	4g (1.0%)
F.857 Capping	32g (20.9%)	0	6g (0.7%)	0
F.857	0	46g (4.4%)	37g (4.5%)	0
TOTAL	153g (100%)	1052g (100%)	818g (100%)	406g (100%)

The round barrows and associated ‘cemetery’

The linear arrangement of monuments at King’s Dyke was completed by a series of three ring-ditches or barrows, two of which were exposed in the investigations (Round Barrow 1 and Round Barrow 2); the third evidenced as a cropmark to the north of the site (Round Barrow 3). The two barrows excavated in the project share the same distinctive penannular, or causewayed, ring-ditch plan: Round Barrow 1 oriented southeast and Round Barrow 2 oriented northeast. The enlarged Round Barrow 1 all but abutted the south-eastern circumference of the henge, whilst Round Barrow 2 was located nearly 55m to the southeast. Between these two barrows was situated a small flat ‘cemetery’ comprised of two cremations (one of which was contained within a pot) and three empty inverted urns. These were accompanied by two Deverel-Rimbury type cremations buried high up within the southern arc of the Round Barrow 1 ring-ditch.

Round Barrow 1

Round Barrow 1 consisted of a central inhumation, F.795, a post-ring, F.758 and a penannular ring-ditch F.761 (Fig. 3.8). Three cremations were present: one immediately inside the southern arc of the post-ring F.755 and two situated within the upper fill of the

southern part of the ring-ditch, F.812 and F.813. No barrow mound survived although circumstantial evidence suggests that one did exist.

The central inhumation, F.795, consisted of a large, oblong grave pit (dimensions: 2.30 × 1.40m; depth: 0.77m) at the base of which was a small rectangular grave-shaped cut oriented northeast–southwest (dimensions: 1.50 × 0.60m; depth: 0.22m). The lower grave cut contained a single tightly crouched inhumation (length: 0.70m; width: 0.40m), positioned on its right-hand side (Fig. 3.9). The head was located at the south-western end of the cut, facing towards the southeast, with the hands raised upwards towards the face. Behind the head, approximately 0.05m from the skull, was a small flint knife.

The body was surrounded by a dark black humic material which was discrete to the lower grave cut and distinct from the main grave fill. This material was found to both cover and underlie the skeleton and would appear to represent traces of a small log coffin that had decayed to the point where it collapsed under the weight of the upper grave fill.

Round Barrow 1 primary inhumation F.795 – Sub-adult (Natasha Dodwell)

The body, aligned southwest–northeast, lay tightly crouched on its right side with its head in the southwest of the grave. The skeleton was fragmentary, with many post-mortem breaks, and the cortical bone was extremely abraded. Much of the face and all of the vertebrae were absent. There was a septal aperture, a non-metric trait more commonly, but not exclusively, found in females on the left humerus. The dentition was complete except that the third molars were unerupted. No pathological changes were observed.

Encircling the inhumation was post-ring F.758, an 8.25m diameter post-trench averaging 0.50m in width and 0.90m in depth. The cut of the trench, the profile of which displayed a vertical outside edge and angled inner face, was filled with a post-packing soil matrix preserving a series of clear post-pipes (0.25–0.35m diameter) located tight against the exterior wall of the trench. The excavation of eight 1m-wide slots at cardinal points around the trench circuit revealed a total of 23 post-pipes. All were of irregular size and shape; some being full-circles others half-circles. The base profiles of the post-pipes suggested that the uprights had rounded rather than pointed ends. The gaps in-between post-pipes varied with some touching while others were separated by up to 0.30m.

Located just within the post-ring was a partially truncated cremation F.754/755 that had been so badly disturbed by later ploughing that there was no obvious definition of a cut feature. The interment comprised two clumps of calcined bone found together alongside a flint knife and sherds from a possible Collared Urn, which may have once served as a receptacle for the bone.

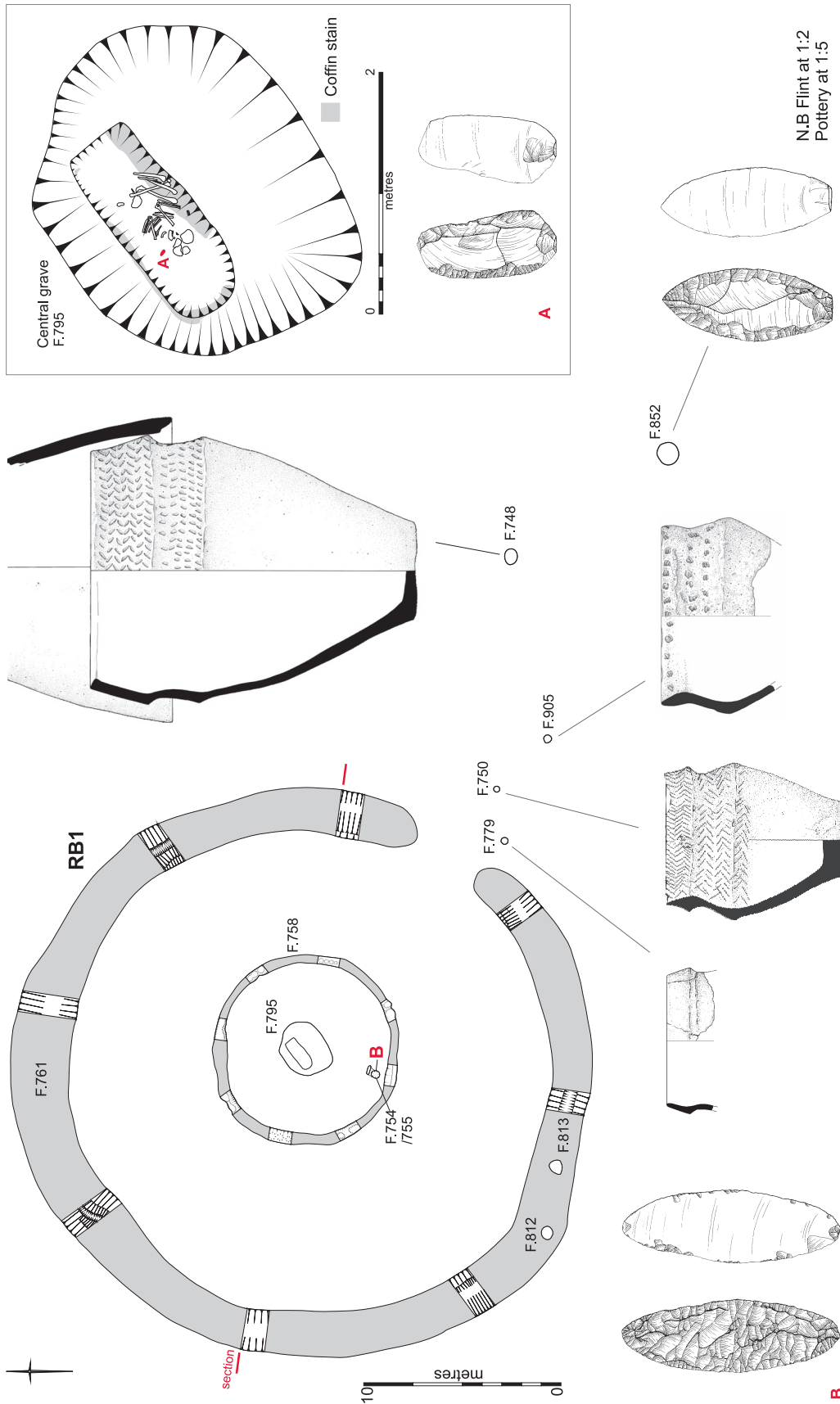


Figure 3.8. Plan of Round Barrow 1 showing detail of central grave F.795 plus secondary and satellite cremations and associated material culture.



Figure 3.9. *Central burial F.795 with 'coffin' stain (Round Barrow 1).*

Further encircling this suite of funerary features was a penannular ring-ditch (diameter: 25.65m), with a south-east-orientated causeway measuring 3.25m. The width of the ditch ranged from 2.35–3.15m and displayed a broad V-shaped profile up to 1.30m in depth. Its infill sequence was comparable with that of the henge, comprising an asymmetrical edge erosion pattern interrupted by silts indicative of gradually increasing stabilization periods. Towards the top of this sequence, two cremations, F.812 and F.813, were inserted; one of which (F.812) survived within fragments of a coarse 'bucket' type urn.

The relationship between the post-ring and the ring-ditch was unclear. In plan, the former appears off-centre to the latter suggesting that the two features

were constructed at different times. However, given the relationship between the post-ring and the coffin inhumation, it seems likely that ring-ditch was a secondary construction, probably dug to form an up-cast mound to cover cremation F.754/755. Once established, these earthwork then became a focus for future burial, evidenced by the surviving cremations in upper profile of the ring-ditch.

Round Barrow 2

Round Barrow 2 was situated 27m to the southeast of Round Barrow 1. It comprised a central inhumation, F.757, encircled by a penannular ditch, F.734, with an east-facing causeway (Fig. 3.10).

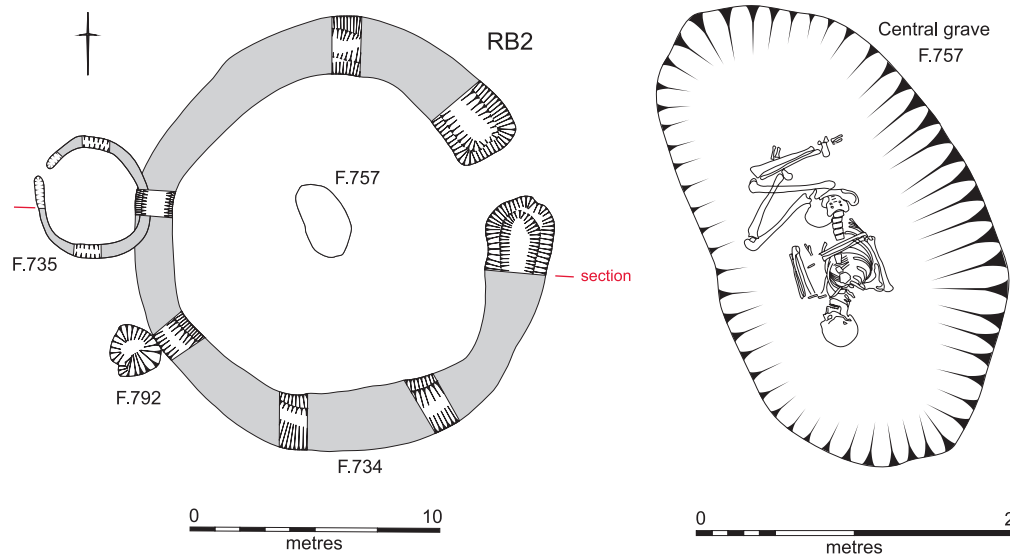


Figure 3.10. Plan of Round Barrow 2 and Ring-ditch 1 plus detail and photograph of central grave.

As with Round Barrow 1, the central inhumation was crouched, with the skeleton positioned on its left-hand side, its head located at the southeast end of the grave cut. The body faced west, with the left hand raised to its face and the right arm bent across the chest. The grave cut itself (orientated northeast–southwest) was a deep (0.89m), narrow rectangular hole measuring 2.00 × 1.35m. Mirroring the grave of Round Barrow 1, the base contained a faint trace of the same black humic material, suggesting that the body had also been interred inside a wooden coffin

Round Barrow 2 primary inhumation F.757 – Young adult male, ht 1.66m (5' 5") (Natasha Dodwell)

This skeleton was aligned northwest–southeast with his head in the south of the grave. He lay on his left side, legs tightly flexed at right angles to the body, portraying a 'seated' posture. His right arm was flexed at a right angle across the torso and the left hand curled under the chin. The bones were in excellent condition although many of the long bones had suffered recent post-mortem breaks and there was insect and root damage to the cortical bone. There were lesions characteristic of porotic hyperostosis on the occipital and parietal portions of the skull. The muscle attachments in his right shoulder (proximal humerus and inferior clavicle) were very pronounced and he had a bifurcated right rib, an asymptomatic congenital abnormality where the sternal end of the rib is cleaved in two. One of the third molars was not present and another tooth was lost post mortem. Slight to moderate deposits of calculus were recorded on all of the remaining teeth.

The surrounding ring-ditch was 15.40m in diameter and displayed an V-shaped profile (width: 2.30m; depth: 1.05–1.25m), with a 1.75m wide causeway. The fill sequence was unremarkable with very little artefactual material recovered (25 flints in total). As with the henge and Round Barrow 1, some charcoal staining was observed within lenses of silt interrupting edge erosion deposits.

'Cemetery' and isolated inhumation

The 'cemetery' group was made up of two cremations: F.748 and F.852 and three empty inverted urns F.750, F.779 and F.905. The cremations were located roughly centrally between the two barrows whereas the three urns were situated immediately adjacent to the causeway of Round Barrow 1.

Cremation F.748 consisted of two 'joined' Collared Urns (one upright and one inverted) propped against the western edge of an oval-shaped grave pit measuring (0.75 × 0.67m; depth: 0.40m; Figure 3.11). The upright urn was complete and contained the remains of two cremated individuals. The vessel mouth was sealed by the inverted urn which served as a lid. This urn was missing its collar and neck and had been purposefully trimmed so as to fit flush on top of the upright vessel in a manner that concealed the decorated collar. This ceramic 'capsule' was effectively held upright in the pit by the backfilled soils. These were essentially clean, gravel-rich sands, except in the capping, which appeared to comprise residual charcoal-rich pyre material. However, this was notably free of any calcined bone, suggesting the pyre debris had been carefully scoured, with human remains picked for inclusion in the urn (which was itself free of pyre material).

In contrast, the adjacent cremation F.852 was unurned and formed a discrete circular 'plug' of calcined bone (diameter: 0.40m; depth 0.10m) found centrally within a larger back-filled circular pit (diameter 0.67m; depth: 0.35m). The cremated bone, like that from F.748, was free of pyre material and was accompanied by an unburnt plano-convex flint knife (Fig. 3.8a). The surrounding fill consisted of a fine sandy-loam with abundant pea-gravel and occasional



Figure 3.11. Cremation pit F.748 and Collared Urn 'capsule'.

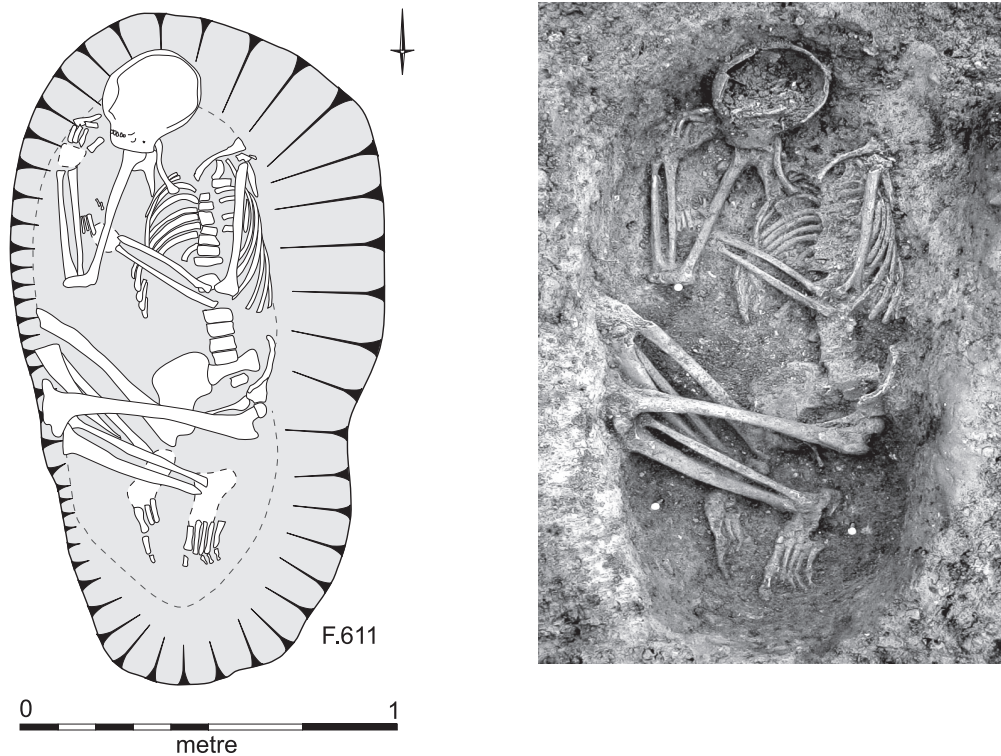


Figure 3.12. *Isolated inhumation F.611; plan and photograph.*

charcoal. This appeared to encase the bone 'plug', suggesting the remains may have been placed in some kind of organic container that had subsequently decayed.

The remaining components of the cemetery comprised three small Collared Urns (found empty of human bone) and a single isolated inhumation. The urns were recovered from the buried soil horizon rather than discrete, sub-soil-penetrating cut features. One of the urns, F.750, was complete, whereas the other two (F.779 and F.905) were truncated below the collar. The complete urn was situated on its side with the mouth facing eastwards, whereas the truncated urns were inverted, lying close to the surface of the buried soil. The survival of the complete urn seems to be an attribute of its horizontal positioning and its relative depth within the buried soil.

The isolated inhumation, F.611, was located c. 25m to the north of Round Barrow 1 (Fig. 3.12). It was located within a shallow oblong-shaped grave cut (1.25 × 0.78m; depth: 0.18m) oriented northeast–southwest. As with the inhumations from Round Barrow 1 and Round Barrow 2, the skeleton was crouched, lying on its side. The head rested at the northern end of the grave facing west with the right hand raised towards its mouth and the left arm rested across the chest. There were no accompanying grave goods.

Isolated Burial F.611 – Younger middle adult female, ht. 1.56m (5'1")
(Natasha Dodwell)

The skeleton lay in a crouched position, lying slightly on her right side with her head in the northeast of the grave, facing west. The bones are extremely fragmentary with many of the joint surfaces missing. *Cribra orbitalia*, indicative of anaemia was recorded in the left orbit. Both femora are platymetric (flattened), once thought to result from the persistent adoption of the squatting posture, although nutritional deficiencies are often cited as a possible cause. The dentition is complete with the exception of a single tooth lost post mortem and a premolar lost some while prior to death. Slight to moderate deposits of calculus were recorded on the surviving teeth. Hypoplastic lesions on the enamel of the central maxillary incisors are indicative of episodes of ill health or nutritional stress in childhood.

The small penannular ring-ditch, F.735, consisted of a discontinuous shallow gully (diameter: 4.00m; depth: 0.12m; Fig. 3.10). The break in its circuit was oriented to the northwest and measured 0.40m. Its infill was similar to the uppermost fills of the adjacent ring-ditch (pale-brown silty-sand with common gravel) and, internally, the gully encompassed a small off-centre oval-shaped pit (0.90 × 0.50m; depth: 0.12m) that was devoid of finds and backfilled with re-deposited natural. A lack of material culture makes the dating of this feature problematic although its ring-ditch form and proximal relationship with Round Barrow 2 suggests that it too belongs to the monument complex.

Beyond the King's Dyke 'cemetery group', there were three non-monument-related burials at Bradley Fen: two *in situ* cremations or pit-pyres (F.1024 and F.1279) and a single 'urned' cremation (F.1; Fig. 3.13). The lowest of these was F.1279 which was situated at 0.00m OD and approximately 10m to the west of Burnt Mound 4. On the surface it appeared as a

small ovoid-shaped pit (0.54 × 0.41m) with a black, charcoal-rich core and a fire-reddened circumference. White flecks of calcined bone and iron-stained lumps of charcoal added to the contrast of colours. Excavation showed the feature to be 0.18m deep and full of sizeable fragments of cremated human bone and large fragments of charcoal. In amongst this mix were 32



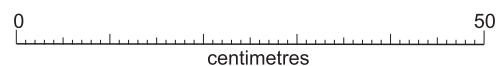
F.1279 cremation



F.1279 Collared Urn



F.1024 cremation



F.1 Collared Urn

Figure 3.13. Cremation pit-pyres and cremation-associated Collared Urns.

sherds of re-fired pottery which refitted to make a small Collared Urn. The 'completeness' of the vessel along with the evidence of burning implies that the urn had originally accompanied the body on the pyre. The intensity of burning had oxidized the upper edges of the pit but the base of the pit remained untransformed suggesting that the pyre had been set above, rather than within, the feature; as the pyre blazed, pieces of expended fuel, calcined bone and heat-fractured pot dropped into the bottom of the pit (see Dodwell below; Dodwell 2012).

Close by (c. 1m distant) was another ovoid-shaped pit, F.1285, which, although similar in size ($0.56 \times 0.34\text{m}$), did not have oxidized edges or contain a charcoal-rich backfill. It did contain a few small tiny flecks of calcined bone along with a moderate amount of charcoal, but these inclusions were part of a matrix of dark grey sandy-silt. The pit was 0.09m deep.

A second pit-pyre was found about 10m to the east of Burnt Mound 2 and very close to the 1m contour. This feature had the same black core and reddened circumference appearance as F.1279 and measured $0.52 \times 0.40\text{m}$ and was 0.38m deep. Its contents included large fragments of calcined human bone and large lumps of carbonized wood. The pit cut the old land surface and, as with F.1279, only its uppermost profile was oxidized.

By contrast, the cremation pit, F.1, was found high up (c. 2.8m OD) and towards the eastern edge of the Bradley Fen excavations. It consisted of a large ovoid pit with a flat base (dimensions: $0.55\text{m} \times 0.46\text{m}$; depth: 0.42m). Standing upright against its eastern edge was a large Collared Urn, the uppermost part of which had been ploughed away. Inside the urn was the cremated remains of a single individual whilst the fill surrounding the pot was pale grey sandy-silt with occasional flecks of charcoal and rare flecks of calcined bone.

Monuments, burials and material culture

The monument complex was built up over an extended period of time that included relatively short, material-rich bursts of activity separated by sustained lulls (Fig. 3.14). The bursts involved acts of deposition which included the incorporation of human remains, as well as whole pots and discrete flint tools (Fig. 3.15). In the case of the two barrows, it was mortuary practice that generated the majority of material, whereas for the henge, it was a form of occupation (as indicated by the 'midden'-like capping deposit). Part of the depositional history of the monument complex is obscured because of the abrasiveness of the various sand and gravel-rich fills and the inherent leaching

effect characteristic of gravel sites. As will be made apparent by the different specialist reports (by their very presence or absence), in these circumstances the bias of preservation has favoured robust inorganic remains and, in particular, things that were deposited with a certain degree of care. General contexts such as the fills of the ring-ditches produced remarkably little material except for the odd piece of abraded/mineralized animal bone. The specialists' section includes human bone, flint, ecofacts, animal bone and fired clay. Pottery from the monument complex is described and interpreted alongside pottery from settlement contexts in the Early Settlement specialist section, in order to investigate the relationship between funerary and settlement derived 'types'.

Treating the dead (Natasha Dodwell)

A total of 11 burials accompanied the monument complex and the King's Dyke/Bradley Fen broader Early Bronze Age settlement spread (Table 3.4). These included two primary inhumations associated with Round Barrow 1 and Round Barrow 2, an isolated inhumation north of the monument group and eight cremation burials. Five of these cremation burials formed a 'cemetery' comprised of both urned and unurned Bronze Age cremations, inserted in and around Round Barrow 1.

As the inhumations have been described earlier in the chapter, the focus here will be on the cremation burials, with a wider context provided by a brief discussion of other contemporary formal burials in the Flag Fen Basin.

Early and Middle Bronze Age cremations from the King's Dyke 'cemetery'

The King's Dyke cemetery included five cremation burials (Table 3.5). Three of these are dated to the Early Bronze Age on the basis of their material associations: Collared Urns from F.754/755 and F.748 and plano-convex flint knives from F.754/755 and F.852. The cremation in F.754/755 constitutes a secondary burial in Round Barrow 1, located within the inner post-ring, whilst the two other Early Bronze Age cremations were buried between Round Barrow 1 and Round Barrow 2. The ring-ditch of Round Barrow 1 was also the focus for two later cremations in the Middle Bronze Age, one deposited in Deverel-Rimbury-type urns (F.812).

F.748 – Middle adult female and sub-adult/adult (urned): A total of 1677g of cremated bone was examined. The majority of fragments (78.4%) were greater than 10mm and the largest fragment measured 118mm, although two fragments of radius shaft from different spits within the urn refitted to give a maximum length of 124mm. The bone was a uniform buff white colour. There was no deliberate organization of skeletal elements within the urn, although smaller elements such as phalanges and teeth had filtered down towards its base. Two right

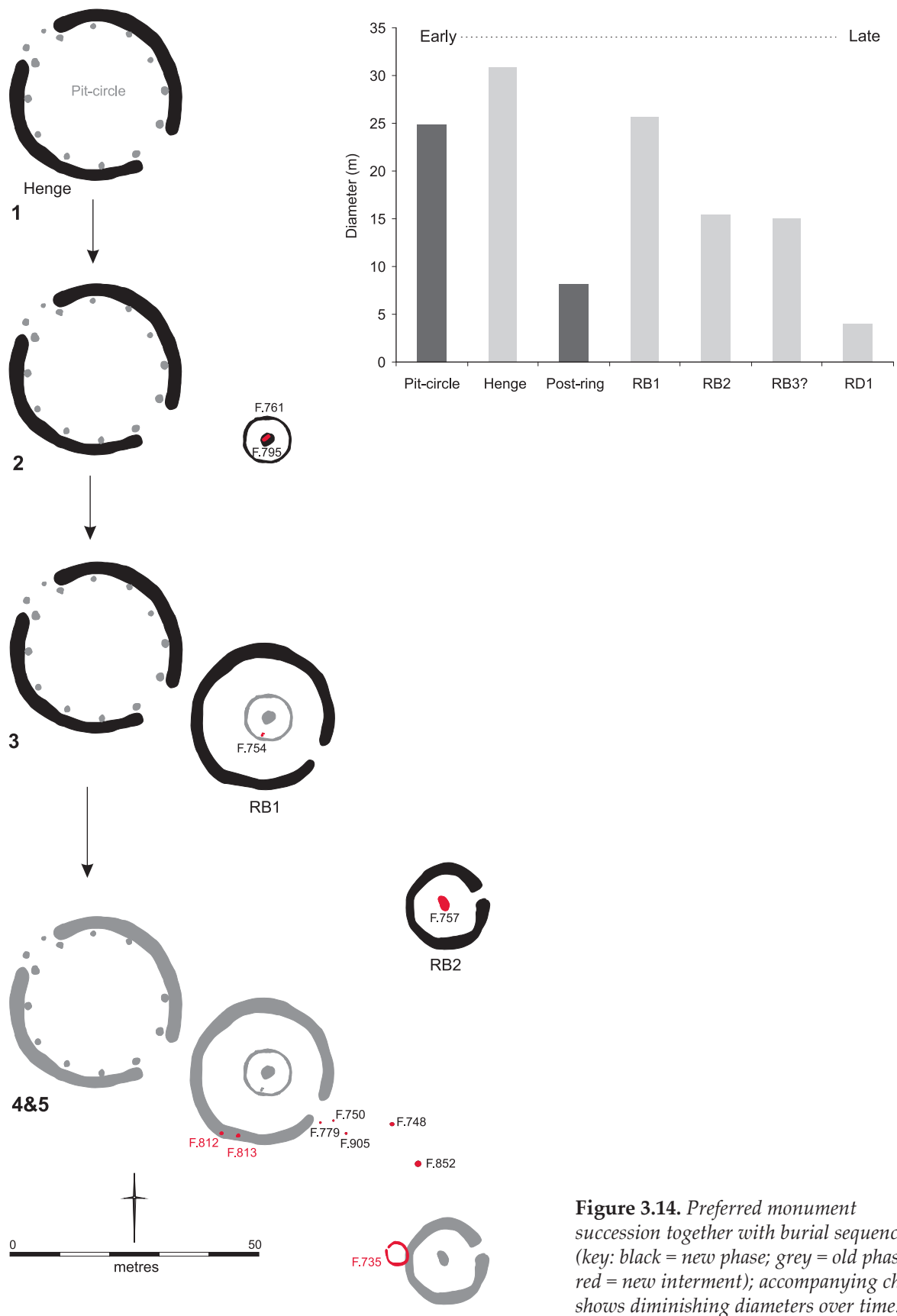




Table 3.4. Early Bronze Age and monument associated burials at King's Dyke (KD) and Bradley Fen (BF).

Burial	Site	Age/sex	Location	Context	Feature	Period
Inhumation	KD	Sub-adult/?	Round Barrow 1	Primary	F.795	EBA
	KD	Young adult/male	Round Barrow 2	Primary	F.757	EBA
	KD	Younger middle adult/female	Isolated	-	F.611	EBA
Cremation	KD	Adult/?	Round Barrow 1	Secondary	F.754/755	EBA
	KD	Middle adult/female & sub-adult/?	Flat cemetery	Satellite	F.748	EBA
	KD	Adult/?	Flat cemetery	Satellite	F.852	EBA
	KD	Adult/female?	Round Barrow 1	Tertiary	F.812	MBA
	KD	Middle mature adult/? & infant/?	Round Barrow 1	Tertiary	F.813	MBA
	BF	Juvenile/?	Isolated	-	F.1	EBA
	BF	Older sub-adult/young adult/?	Isolated	-	F.1024	EBA
	BF	Adult/female?	Isolated	-	F.1279	EBA

Table 3.5. King's Dyke cremation burials (b=burnt, ub = unburnt).

Feature	Weight >2g	Deposit type	Age/sex	Colour	Pathology	Pyre/grave goods
F.748	1677g	Urned (2 Collared Urns)	Middle adult female (& sub adult/adult)	Buff white	Schmorl's nodes	
F.754/55	1891g	Urned (Collared Urn)	Adult	Buff white	?compression fracture (lumbar vertebra)	Flint plano-convex knife (ub), sheep-sized limb & frags (b)
F.852	771g	Unurned, organic container	Adult	Buff white with charred distal femur & shaft	Porotic hyperostosis	Flint plano-convex knife, 2x flakes, flake core (ub)
F.812	770g	Urned (Deverel-Rimbury Urn)	Adult ??female	Buff white with blue/black ulna head & femur shaft	?porotic hyperostosis	Fish vertebra (b)
F.813	1576g adult + 21g (min.) immature	Unurned	Middle/mature adult & infant (c. 2yrs)	Buff white with blue/ black adult skull, femur shaft, clavicle & scapula	Adult skeleton exhibits porotic hyperostosis & marginal osteophytes on vertebral bodies, eburnation on a sesamoid	Utilized flint flake (b), pig scapula (ub), sheep/goat humerus, radius, vertebra (b)

patellae were identified but they were the only identifiable duplicated elements and so although two individuals were represented in this burial the proportion of each is unclear. Schmorl's nodes were recorded on several of the thoracic vertebral bodies.

F.754/755 – Adult (urned): This cremation was disturbed by ploughing. A total of 1891g of cremated bone was examined with the majority of the fragments (54.6%) measuring greater than 10mm. The largest bone fragment was 72mm. The bone was uniformly a buff white colour. The wedge-shape observed on a lumbar vertebral body may be evidence of a compression fracture. A small quantity of burnt sheep-sized bone was recovered from the vessel, as was an unburnt flint plano-convex knife.

F.852 – Adult (unurned): A total of 771g of cremated adult bone was examined, with the majority of fragments (92.5 %) measuring >10mm. The largest bone fragment was 87mm. The fragments were predominantly well calcined, although the distal end and shaft fragment of a femur were charred black. All areas of the body were represented, although there is an under representation of the axial

skeleton and small bones of the hands and feet. Pitting, similar in appearance to orange peel on the ectocranial surface of several skull fragments was characteristic of portotic hyperostosis. A plano-convex knife, two flakes and a small flake core, all unburnt, were recovered.

F.812 – Adult(?) female (urned): A total of 770g of calcined bone was examined. The bone fragments size was relatively small, the largest fragment measuring only 59mm, with 45.3% of bone fragments being between 5–10mm and 42.9% being over 10mm. The bone fragments were predominantly a buff white colour with blue/black charred femur shafts and an ulna head. Pitting on the ectocranial surface of several small fragments of skull may be evidence of porotic hyperostosis. A single burnt fish vertebra was recovered.

F.813 – Middle/mature adult and infant (unurned): Skeletal elements from two individuals were identified; amongst the 1597g of cremated bone that were examined, at least 21g were from an immature individual aged c. 2 years old (more could be amongst the unidentifiable fragments). The largest bone fragment was 66mm and although many (47%) of the bone fragments were larger than

Table 3.6. *Isolated Bronze Age cremation burials (b=burnt, ub = unburnt).*

Feature	Weight >2g	Deposit type	Age/sex	Colour	Pathology	Pyre/grave goods
F.1	396g	Urned (Collared Urn)	9–12 years	Buff white		In a collared urn
F.1024	568g	Unurned, <i>in situ</i> burning	Older subadult/ young adult	Buff white with charred patella, tibia femur & humerus shafts	?compression fracture (lumbar vertebra)	Sheep-sized rib(ub)
F.1279	1253g	Unurned, <i>in situ</i> burning	Adult ?F	Buff white with blue/black femur shaft, patella, metatarsal & metacarpal		Refitting sherds of burnt collared urn

10mm almost as many (43%) were between 5–10mm in size. The bone fragments were predominantly a buff white colour but several of the adult skull fragments, fragments of femur shaft, the clavicle and scapula were charred a blue/black colour. Marginal osteophytes were recorded on the surviving vertebral bodies and almost half of the surface of a sesamoid bone (from either a hand or foot) was eburnated. Burnt artefacts, presumably placed on the pyre with the bodies, included a utilized flint flake and several sheep/goat bones. An unburnt pig scapula was also recovered.

Isolated Early Bronze Age cremations from the rest of the site

The site's three other Early Bronze Age cremations were widely dispersed across Bradley Fen (Table 3.6). Two of the cremations were dated by their Collard Urn associations; one interred within a vessel (F.1); the other mixed amongst fragments of a burnt Collared Urn in a scorched pyre-pit (F.1024). The final cremation (F.1279) was urned, but was also recovered from a pyre-pit located east of Burnt Mound 2.

F.1 – Juvenile (urned): The urn contained 396g of calcined human bone in a matrix of mid-brown sandy-silt with occasional charcoal fragments and rare small stones. The main concentration of bone fragments was towards the lower two-thirds of the vessel and towards the base of the pot the bone size decreased. The upper third contained very little bone. In contrast, the pit fill that surrounded the vessel contained <1g of unidentifiable cremated bone and rare small fragments of charcoal. The bone was moderately well burnt and buff white in colour. The fragment size was generally small (the largest fragment measuring 53mm), with only 43.2% measuring over 10mm and a similar quantity, 38.4%, being recovered from the 5–10mm sieve.

F.1024 – Older sub-adult/young adult (unurned, pit-pyre): The cremated bone (568g) had been deposited in a small sub-rectangular pit (0.52 × 0.40 × 0.38m) whose upper 0.15m was scorched red. The main deposit of bone (511g) lay at the base of the pit, mixed in a black charcoal-stained silt with large fragments of burnt wood (100mm) and occasional small fragments (50mm) of burnt clay. The largest bone fragment was 70mm and, although most were far smaller, 81% of the bone measured >10mm. A lumbar vertebrae exhibited evidence of a compression fracture. The fragments were generally buff white in colour with some blue/black elements (patella and tibia, femur and humerus shafts). The main deposit was capped by a buried soil mixed with occasional fragments of charcoal and small fragments of calcined bone (57g). An unburnt sheep-sized rib was recovered.

F.1279 [1402] – Adult (?) female (unurned, pit-pyre): The cremated bone was contained within a small oval pit, with near vertical sides and a flat base (0.54 × 0.42 × 0.18m). The edges of the cut were scorched red at the surface, especially in the northern half of the pit, but not at the base. The fill at the base of the pit was predominantly large fragments of wood charcoal and, above this, well-preserved calcined bone (1253g) was recovered mixed within a dark matrix of grey silty-sand with ash and fragments of charcoal. The largest bone fragment measured 89mm and most of the fragments were c. 40–50mm, with 87.4% being greater than 10mm. The bones were predominantly buff white in colour, although fragments of the femur shaft and patella were dark blue/black as were a metatarsal and metacarpal. A large quantity of refitting Collared Urn sherds were recovered with the burnt bone. These represent a complete vessel, which appears to have been burnt on the pyre with the body.

Discussion

The remains of 10 individuals were identified in the 8 cremation burials; F.748 and F.813 contained the remains (or partial remains) of two individuals. The 'population' represented in this small group comprises six adults (three of which have been sexed with various degrees of confidence as female), one older subadult/ young adult, one subadult/adult, one juvenile and one infant.

The weight of bone recovered from the cremation burials ranges from 396–1891g, with the weight range for features containing a single adult being 770–1891g (Tables 3.5 & 3.6). Given that the quantity of recoverable bone from a modern adult cremation ranges from c. 1000g–2400g, depending on the sex and build of the individual (McKinley 1993), the weights achieved in this instance suggest that very little or none of the bone originally interred has been lost, despite a degree of truncation of most features. This is not to say that *all* the remains were ultimately interred. Indeed, it is rare for cremation burials from any period to contain all of the bone that would remain at the end of the cremation process. The adult burial F.852 illustrates this phenomenon; despite being an un-truncated cremation, the total bone weight is only 771g and there is an under representation of the axial skeleton and small bones of the hands and feet.

Table 3.7. Degree of fragmentation of cremated bone. (In many site reports, the smaller residues remain unsorted and only the total weight of bone >5mm is recorded. For comparative purposes both weights are presented. The percentage of bone collected from each mesh size is from total bone weight >2mm). A=adult, SA=subadult/adult, I=immature.

Feature	Age	Date	Largest fragment (mm)	Bone >10mm		Bone 5–10mm		Bone 2–5mm		Total >5mm	Total >2mm
				Weight (g)	%	Weight (g)	%	Weight (g)	%	Weight (g)	
F.1/48	I	EBA	53	171	43.2	152	38.4	73	18.4	323	396
F.748	A+A/SA	EBA	118	1314	78.4	299	17.8	64	3.8	1613	1677
F.754/5	A	EBA	72	1033	54.6	736	38.9	122	6.5	1769	1891
F.812	A	MBA	59	330	42.9	349	45.3	91	11.8	679	770
F.813	A+I	MBA	66	741	47	687	43.6	148	9.4	1428	1576
F.852	A	EBA	87	711	92.2	58	7.5	2	0.3	769	771
F.1024	A/SA	EBA	70	460	81	87	15.3	21	3.7	547	568
F.1279	A	EBA	89	1095	87.4	147	11.7	11	0.9	1242	1253

In general, the colour of cremated bone reflects the efficiency of the cremation process, specifically the temperature to which the bone is exposed. This, in turn, is dependent on factors such as the architecture of the pyre, the position of the body on the pyre, fuel type, the length of time that the pyre was allowed to burn and how carefully (or not) the pyre was tended. The vast majority of the cremated bone fragments analysed from the King's Dyke cemetery group and the isolated cremation burials were a buff white colour, indicative of complete oxidization. However, some fragments displayed a grey, blue or black colouration, which results from a more reduced atmosphere during burning. The bones most affected were from the lower limb, particularly the femoral shaft, although the skull, clavicle, scapula, ulna and extremities in several of the graves also have a charred appearance. This could result from insufficient time for the completion of the cremation process or from the pyre not being tended closely enough to allow for complete oxidation (although see below for comments on fragment size). The charred metatarsals and metacarpals from the pit-pyre F.1279 may be the consequence of the extremities protruding beyond the intense heat of the pyre. Alternatively, poorly fired fragments may derive from those elements which fell to the base of the pyre and became smothered with wood which would cut off the supply of oxygen and thus curtail the cremation process.

Analysis of cremated bone fragment size can also reveal further details of the cremation process and funerary practices more generally. Fragment size is dependent on numerous factors such as the efficiency of the pyre, the depositional environment, methods of excavation and post-excavation processing (McKinley 1994). Although the number of burials associated with the barrows is small, it is striking that the bone fragment size is considerably larger in the Collared Urn burials

than in the later Deverel-Rimbury interments (Table 3.7 and Fig. 3.16) and this mirrors the pattern observed in other sites in the region (Dodwell 2016). Not only is the largest fragment size observed in the earlier burials (72–118mm rather than 59–66mm), but the majority of bone was recovered from the 10mm sieve fraction.

Whilst there is almost no evidence for the deliberate post-depositional fragmentation of cremated bone from burials in *any* period in Britain (McKinley pers. comm.), the possibility should not be discounted. Although the sample size is very small, it could be argued that smaller bone fragments in the two Middle Bronze Age burials, if not indicative of deliberate fragmentation, suggest better/more attentive pyre-tending than in the Early Bronze Age.

Of the bodies themselves, two adults from cremations F.748 and F.813 exhibited lesions associated with joint disease in the spine, with the individual from F.813 having also suffered from osteoarthritis in the hand or foot. Individuals in F.754/755 and F.1024 both had a wedge-shaped lumbar vertebra, possibly a compression fracture resulting from trauma such as falling from a height. Moreover, fragments of adult skull from three of the cremation burials (F.852, F.812 and F.813) and one of the inhumations (F.757) exhibited porosity on the outer surfaces of the vault, characteristic of porotic hyperostosis, a condition usually associated with chronic iron deficiency anaemia. This type of anaemia results from not only an iron deficient diet but iron malabsorption or loss of iron due to diarrheal disease and intestinal parasites (Roberts & Manchester 1995, 166). Further evidence that the population may have been under nutritional stress and/or a high parasitic load, is reflected in the orbital roof lesions and hypoplastic defects in the teeth of inhumation F.611.

In terms of understanding the Early Bronze Age cremation process, the unurned burials with heavily

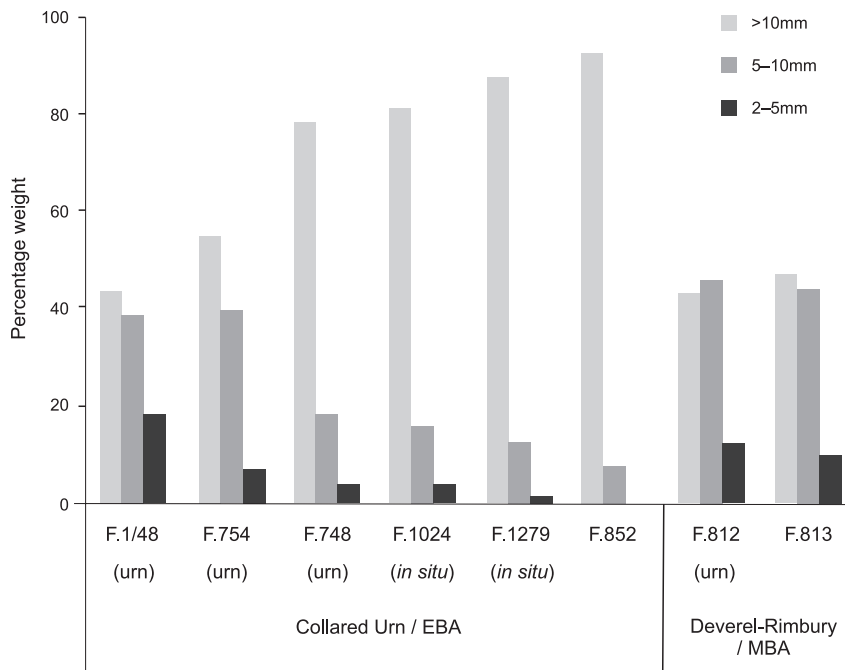


Figure 3.16. Calcined bone fragment size from Collared Urn (EBA) and Deverel-Rimbury (MBA) cremation features (percentage weight by size).

scorched sides (F.1024 and F.1279) are of particular interest. Both pits had scorched salmon pink/red edges (not bases) and contained large quantities of pyre debris, including fragments of burnt timber up to 0.10m long mixed with the cremated bone; this is suggestive of *in situ* burning. Recent experimental pyres constructed above small pits (0.7 × 0.5 × 0.35m) resulted in temperatures of almost 1000°C (high enough to cremate a body) and left the pits with highly scorched edges, identical to those observed at Bradley Fen (Dodwell 2012). The pit would act as a flue for the pyre and the subsequent high temperatures and oxidizing environment would mean that the sides became bright red, almost ceramic-like, while the base was smothered in falling ash/timber and so remained unaltered. These types of pit-pyre features have been recorded elsewhere in Cambridgeshire; at Briggs Farm, Thorney (Dodwell 2011), Butcher's Rise, Barleycroft (Dodwell 1998), Diddington (Evans 1997b), Eyebury (Leeds 1915), Over (Dodwell 2016) and Snow's Farm, Haddenham (Lee 2006). Unlike those recorded at Bradley Fen, all these other examples were directly associated with monuments. In several of these pit-pyres, a degree of articulation between skeletal elements has been observed and the spatial arrangement of the skeletal elements within the pits suggests that the cremation itself occurred *in situ*, i.e. that the body was placed on a pyre built over the small pit, into which it collapsed as the cremation progressed, similar to Roman *bustum* burials (Dodwell 2012). Unlike the pit-pyres at Snow's Farm, Haddenham (Lee 2006), Butcher's Rise, Barleycroft (Dodwell 1998) and several from the Over

Barrows (Dodwell 2012; 2016), neither of the pit-pyres from Bradley Fen showed any clear (partial) articulation of calcined skeletal elements. However, through careful excavation (Fig. 3.17) and planning of the bone in F.1279 the spatial patterning of the elements within the pit suggests that the body was placed in a tightly crouched position on the pyre, possibly on her left side with her head in the north.

Bustum style burials or pit-pyre burials appear to be a distinct burial type and enrich our understanding of attitudes to the body and death in the Early Bronze Age. The direct deposition of the body into the pit would negate the need to handle the bone (i.e. collect it from the pyre) and although the cremation process itself might transform the body/corpse into another substance it does not necessarily destroy the body.

On a broader note, the 11 Bronze Age formal burials detailed in this chapter join a growing corpus from the Flag Fen Basin, which now includes 46 definite or probable Early and Middle Bronze Age cremations and 26 largely undated, but probable Bronze Age inhumations (Table 3.8). Despite these figures, the deeply dug crouched coffin inhumations from the King's Dyke monument complex are best paralleled outside of the Basin, with similar burials recovered upstream in the Nene Valley at Raunds (Harding & Healy 2007, 217, fig. 4.3). In terms of body posture, burial F.611 would appear to be related to this group and, purely by merit of its form, has some parallels with the crouched inhumations excavated at Cat's Water, particularly Burial 3 (Pryor 1984, 119, fig. 93). Lacking grave goods, these were



Figure 3.17. Excavation of pit-pyre F.1279.

Table 3.8. Bronze Age formal burials in the Flag Fen Basin (total cremations 46; total inhumations 29).

Site	Cremations					Inhumations	
	EBA		MBA		BA/ uncertain	EBA	BA/ uncertain
	Urned	Unurned	Urned	Unurned	Unurned		
Cat's Water (i)	-	-	-	-	2	-	4
Briggs Farm, Thorney (ii)	1	-	-	-	5	-	1
Stanground (iii)	-	-	2	17	-	-	1
Tanholt Farm (iv)	-	1	1	14	2	3	1
Elliott Site (v)	-	-	-	-	-	-	1
Storey's Bar Road (vi)	1	-	-	-	-	-	2
Newark Road (vii)	-	-	-	-	-	-	1
Padholme Road (viii)	-	-	-	-	-	-	1
King's Dyke (ix)	2	1	2	-	-	3	-
Bradley Fen (x)	1	2	-	-	-	-	-
Pode Hole (xi)	-	1	-	-	-	-	2
Total	5	5	5	31	9	6	14

provisionally assigned to the Iron Age, though an earlier Bronze Age date seems more likely. That said, caution is needed, since a recent programme of radiocarbon dating at Over, in the lower Ouse Valley, has served to demonstrate that the tradition of crouched burial was still in vogue during the Middle Bronze Age (Evans et al. 2016). This is also suggested at Fengate by the finds of two isolated crouched burials in the lower ditch silts of Bronze Age field boundaries at the Padholme Road and Newark Road sub-sites (Pryor 1980, 5, 39–40).

Flint (Lawrence Billington)

A total of 60 worked flints were recovered from features associated with the monument complex at King's Dyke, including the henge, the two round barrows and several burials. This mostly represents residual material incorporated into the monument ditches as they silted. Some pre-date the monuments' construction and attest to low-level Mesolithic and earlier Neolithic activity the residue of which was incidentally caught up in these features. Other finds, most deriving from a flake-based technology consistent with later Neolithic/Early Bronze Age industries, could be broadly contemporary with the monuments, reflecting, in very broad terms, the pulse of activities occurring in and around these architectures.

Against this background rhythm of visitations, where flint was periodically worked, discarded and eventually incorporated into the fabric of the monuments, there were moments when flint became much more central to the practices and proceedings in these spaces, namely during the funerary process where bodies were burnt and interred. Here we find flints being used as grave goods – sometimes accompanying the body on the pyre – with artefacts including scrapers and plano-convex knives being deposited alongside burials F.795, F.754, F.813 and F.852. These deposits are detailed below, together with a summary of the assemblages from each of the major components in the monument complex.

Henge

A total of 24 worked flints, together with three unworked burnt flints came from the henge ditches (excluding material from the Collared Urn deposit, discussed by Billington below in *Settlement finds and material practice – Flint*) and the pit-circle (Table 3.9). Among the 14 flints recovered from the ditches were a high proportion of blades and narrow flakes, including a fine retouched blade from F.857, representing residual Mesolithic and earlier Neolithic material. The size of the assemblage and large proportion of demonstrably residual material suggests that flintwork rarely, if ever, made its way into the ditches during the use of the monument.

The small number of flints from the pit-circle features includes small squat flakes, several with cortical platforms, accompanied by a crudely flaked gravel flint core from F.865. This material is closely comparable to the Collared Urn associated flintwork from the upper fills of F.851 and suggests this deposit, or contemporaneous activity, may have spread over a portion of the south-western half of the monument's interior. A fine narrow flake from F.892 is probably residual, whilst a retouched flake from F.867 may be broadly contemporary with the construction of the pit-circle or its use.

Round Barrow 1

Thirty-two worked flints were recovered during the excavation of Round Barrow 1; five of which were directly associated with the inhumation or cremation burials (Table 3.10). The lower fill of central grave cut, F.795, contained a small flake, probably inadvertently caught up in the backfill of the feature. A flake knife made on a very worn and yellow-stained flake blank was found placed behind the head of the inhumation. Grave goods were also included in two of the cremation burials. F.754 contained an exceptionally fine plano-convex knife, unburnt; this would appear to have been added to the deposit after the body's cremation. The medial segment of a utilized narrow

Table 3.9. *Flint assemblage from the henge monument (with Early Bronze Age material from F.851 excluded).*

Feature	Henge ditches		Pit-circle					Unstrat.	Total
	F.851	F.857	F.865	F.866	F.867	F.873	F.892		
Flake	2	4	1	2	1	2	-	1	13
Blade/bladelet	2	-	-	-	-	-	-	-	2
Narrow flake	1	3	-	-	-	-	1	-	5
Irregular core	-	-	1	-	-	-	-	-	1
Retouched flake/blade	1	1	-	-	1	-	-	-	3
Total worked	6	8	2	2	2	2	1	1	24
Burnt unworked flint (wt g)	-	-	-	3 (34.8)	-	-	-	-	3 (34.8)

Table 3.10. *Worked and burnt flint from the round barrows and 'cemetery'.*

Context	Round Barrow 1								Round Barrow 2				Cemetery
	Grave	Post ring	Ring ditch	Cremation F.812	Cremation F.754	Buried soil	Cremation F.813	Total	Grave	Pit	Ring ditch	Total	Cremation F.852
Chip	-	-	4	-	-	-	-	4	-	-	-	-	-
Chunk	-	-	1	-	-	-	-	1	-	-	1	1	-
Flake	1	3	12	-	-	-	-	16	1	-	5	6	-
Narrow flake	-	-	-	-	-	-	1	1	-	-	1	1	-
Bladelet	-	-	-	-	-	-	-	-	1	-	-	1	-
Flake core	-	1	4	-	-	-	-	5	1	-	3	4	-
Bladelet core	-	-	-	-	-	-	-	-	-	1	-	1	-
Core fragment	-	-	1	-	-	-	-	1	-	-	1	1	-
Retouched flake	-	-	1	-	-	-	-	1	-	-	-	-	-
Flake knife	1	-	-	-	-	-	-	1	-	-	1	1	-
Plano-convex knife	-	-	-	-	1	-	-	1	-	-	-	-	1
Polished knife	-	-	-	-	-	1	-	1	-	-	-	-	-
Thumbnail scraper	-	-	-	-	-	-	-	-	1	-	-	1	-
Serrated flake	-	-	-	-	-	-	-	-	-	-	1	1	-
Arrowhead	-	-	-	-	-	-	-	-	-	-	1	1	-
End scraper	-	-	1	-	-	-	-	1	-	-	-	-	-
Total worked flint	2	4	24	0	1	1	1	33	4	1	14	19	1
Burnt unworked (wt g)	-	-	-	12 (26.5)	-	-	-	12 (26.5)	-	-	-	-	-

flake accompanied the double cremation burial F.813. This piece was heavily burnt, presumably having passed through the cremation process with the bone.

A single flint was recovered from the buried soil beneath the barrow, an edge polished blade. Some later retouch has cut its polish and heavy abrasion at one end indicates additional use as a fabricator. Polished knives of this form are most familiar as grave goods accompanying Neolithic inhumation burials, broadly coinciding with the use of Peterborough Ware pottery (see Kinnes 1979; Bradley 1999, 224). Both the post-ring and ring-ditch contained small assemblages of worked flint, mostly representing residual material incorporated into the features as they filled up. Flint-working waste is well represented by chips, waste flakes and high proportion of cores. Mostly deriving from a flake-based technology consistent with later Neolithic/Early Bronze age industries, some of this material could be broadly contemporary with the monument's construction and use.

Round Barrow 2

Excavation of Round Barrow 2 produced a smaller assemblage of 19 worked flints. Four of these were

associated with the central inhumation. Only one of these, an invasively flaked thumbnail scraper, appears to have deliberately accompanied the body. Pit F.792 contained a well-reduced, burnt, bladelet core, probably of Mesolithic date. The 14 flints from the ring-ditch included a high proportion of flake cores alongside flake based debitage. A serrated flake, probably of Neolithic date was also recovered. A flake knife with invasive bifacial retouch may be broadly contemporary with the construction and use of the barrow, as could the broken tip of an arrowhead, which has markedly straight sides suggestive of a barbed and tanged form.

Cemetery features

Cremation F.852 contained a plano-convex knife alongside two secondary flakes and a small flake core, all unburnt.

The flintwork deposited with inhumation and cremation burials in and around the round barrows draws on a restricted range of Early Bronze Age tools, familiar from funerary deposits at a national level but also readily paralleled in the Beaker and Collared Urn domestic assemblages from the site. Flintwork thought to have deliberately accompanied the body in death

Table 3.11. *Worked flint grave goods associated with inhumation and cremation burials.*

Feature	Round Barrow 1			Round Barrow 2	Cemetery
	795	813	754	757	852
Burial type	inhumation	cremation (unurned)	cremation (urned)	inhumation	cremation (urned)
Age	subadult	adult and infant	adult	male	adult
Sex	unknown	unknown	unknown	young	unknown
Flintwork	plano-convex knife	utilized flake (burnt)	plano-convex knife	thumbnail scraper	plano-convex knife

together with information on the sex and age of the burials is shown in Table 3.11. Plano-convex knives are the dominant grave good. The two examples from cremation burials are unburnt, not having passed through the cremation process, and perhaps added to the deposit when the cremated bones were placed in the urn. The unurned double cremation burial F.813 stands out, containing a utilized flake rather than a formally retouched tool, which appears to have been cremated along with the bone.

Plant remains and ecofacts (Anne de Vareilles)

As with the evidence for material culture, the monument complex and associated funereal features at King's Dyke yielded only a small number of plant remains and other ecofacts. In total, 182 litres of soil, forming 23 samples from 14 features were processed and analysed (Tables 3.12 & 3.13). Plant remains other than charcoal were found in only nine samples in which wild plant seeds were relatively prolific. Conversely, cereal grains were represented by a single broken caryopsis, found in the henge ditch F.851. In general, this reflects the transient or episodic nature of activities in and around these monuments: moments when groups came together to engage in construction, funerary rites or other practices related to the use of these architectures. For the most part, these have left few traces behind, as least in terms of charred plant remains and ecofacts. The record is therefore as fragmentary, or ephemeral, as those moments themselves, giving us only a flickering insight into their character and the broader nature of the surrounding landscape. These traces can be detailed nonetheless and offer some resolution, no matter how partial.

Henge

Charcoal was found throughout the henge fills, although concentrations remained constantly low, except in the tertiary silts of F.851. This paucity of remains from the early fills suggests that few activities resulting in burnt plant macro-remains were performed in or around the monument during the initial stages of its life history. In fact, most of the

remains were recovered from the late capping fills associated with fragments of Collard Urn and other artefacts indicative of nearby settlement. As well as more pronounced charcoal content, these deposits, yielded three seeds: a single cereal grain (not identifiable), a wild oat seed (*Avena* sp.) and a possible arable weed seed of orache (*Atriplex patula/prostrata*).

These are the earliest evidence for cultivated plants from the excavations and show how the use of the monument was transformed during the Early Bronze Age. Like the henge capping deposits, the postholes of the pit-circle were also rich in charcoal, predominantly of oak (*Quercus* sp.), possibly derived from the burning of the uprights (though the status of the remains as *in situ* is ambiguous). This is thought to mark the end of the first sequence of monument development. However, given the contrast in charcoal quantities between the early episodes of henge infilling and that of the pit-circle postholes, it can only be assumed that the burnt posts and evidence of other activities associated with the monument, were cleared away before the construction and primary silting of the henge ditches.

Aside from charcoal, three of the postholes in the pit-circle (F.872, F.873 and F.893) yielded fruits of shrubs: wild rose (*Rosa* sp.), sloe (*Prunus spinosa*), hawthorn (*Crataegus monogyna*) and dogwood (*Cornus sanguinea*), none of which were found in the Collared Urn capping deposits of the henge. These species are common in hedges and scrub-land and are often found together as a successional plant community upon calcareous soils (Rodwell 1991). The absence of obvious charcoal from these species relative to oak could indicate that the fruits had been collected. Such fruits have indeed been found at other Neolithic and Early Bronze Age sites in Britain, suggesting the continuing importance of seasonally foraged foods in the diet throughout this period (Greig 1991; Moffett et al. 1989).

Round Barrows 1 and 2

The Early Bronze Age ring-ditch monuments were both sampled twice. The samples were similar in containing no artefacts or ecofacts other than a little

Table 3.12. Henge and pit-circle plant remains. Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. P = present.

Context			1085	1084 a	1084 b	1084 c	1080	1091	1129	1127	1128	1086	1100	1099	1123	1124	1125	1106	1111
Feature			851 - west ditch					857 - east ditch					873	872	891	892	893	879	884
Feature type			NNW butt	N ditch	N ditch	N ditch	E ditch	SSE butt	S ditch	SSW ditch	SW ditch	W ditch	WNW	WNW	NNW	N p.h.	NNE p.h	ESE p.h	SSE p.h
			prim. fill	silting	silting	silting	prim. fill	prim. fill	tert. fill	tert. fill	tert. fill	prim. fill	NW entrance			inside	inside	SE entrance	
Sample volume (litres)			15	2	2	2	15	15	15	15	15	15	2	2	2	2	2	2	2
Flot fraction examined (%)			50	100	100	100	50	50	50	50	50	50	100	100	100	100	100	100	100
Charcoal	Large charcoal (>4mm)			-				-	-	++	++			+	+	++	+++	+++	
	Med. charcoal (2-4mm)			-			-	+	-	+++	+++		+	++	++	+++	++	+++	
	Small charcoal (<2mm)		-	+	+	-	+	+	+	+++	+++	++	++	+++	++	++	++	+++	+
	Vitrified charcoal								-	-									-
	Large <i>Quercus</i> sp. charcoal	Oak														++	++	++	
	Charred small roots															3			
Cereal Grains & non-cereal seeds	Indeterminate cereal grain									1									
	<i>Atriplex patula</i> / <i>prostrata</i>	Oraches								1									
	<i>Rosa</i> sp.	Rosehip															9		
	<i>Rosa</i> sp. sepal base	Rosehip															1		
	<i>Prunus spinosa</i> L.	Sloe															2		
	<i>Crataegus monogyna</i> Jacq.	Hawthorn															4		
	cf. <i>Cornus sanguinea</i> L.	Dogwood											3	1					
	cf. <i>Avena</i> sp.	Wild oat									1								
	<i>Phleum bertolinii</i> DC.	Cat's tail															1		
	Indeterminate seed												1						
	Indeterminate nutlet fragments																7		
Other residues	Charred concretion										1		3	3	5				
	Blob indet.										1								1
	Burnt bone fragments									+	-								
	Bone fragments										++	-							
	Modern contamination (roots, seeds etc.)										P								

Table 3.13. Early Bronze Age cremations & Round Barrow 1 plant remains. Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. P = present WL = waterlogged, U = untransformed.

Site			Bradley Fen			King's Dyke	
Context			1402	1402	5	890	903
Feature			1279			1	761 758
Feature type			Collared Urn Cremations			Barrow 1	
Sample volume (litres)			12	15	3	12	13
Estimated charcoal volume (ml)			1400	800			
Flot fraction examined (%)			25	25	100	100	100
Charcoal	Large charcoal (>4mm)		+++	+++	+ incl. oak		
	Med. charcoal (2-4mm)		+++	+++	++		
	Small charcoal (<2mm)		+++	+++	+++		+
	Twig charcoal		+	+			
	Parenchyma frags - undifferentiated plant storage tissue		+				
Non cereal seeds	<i>Ranunculus acris/ repens/ bulbosus</i> L. - Buttercup		1	1			
	<i>Ranunculus ficaria</i> L.	Lesser Celandine bulbs	++	++			
	<i>R. Subgen, BATRACHIUM</i>	Crowfoot		1 u			
	<i>Alnus glutinosa</i> (L.) Gaertner	Alder seeds (cones)	1 (1)	16			
	<i>Chenopodium rubrum</i> L.	Red Goosefoot	2	8			
	<i>Chenopodium polyspermum</i> L.	Many-seeded Goosefoot			1		
	<i>Chenopodium</i> sp.	Goosefoot		3	++ u		
	<i>Stellaria neglecta</i> Weihe	Greater Chickweed	2	1			
	<i>Cerastium</i> sp.	Mouse-ears		1			
	Indeterminate Caryophyllaceae - seed of the Pink family			1			
	<i>Fallopia convolvulus</i> (L.) A' Löve	Black bindweed			1		
	Small <i>Rumex</i> sp.	Dock kernel			1		
	<i>Brassica / Sinapis</i> sp.	Cabbages / Mustards	1	1			
	<i>Alchemilla/ Aphanes</i> sp.	Lady's-mantle/ Parsley piert		2			
	Large <i>Medicago/ Trifolium</i> sp.	Medick or Clover		2			
	<i>Myosotis</i> sp.	Forget-me-not			1u		
	<i>Lamium</i> sp.	Dead-Nettle	2				
	<i>Mentha</i> sp.	Mint		1			
	<i>Lycopus europaeus</i> L.	Gipsywort		1			
	<i>Veronica cf. chamaedrys</i> L.	Germander Speedwell		2			
	<i>Veronica hederifolia</i> L.	Ivy-leaved Speedwell		1			
	<i>Odontites vernus</i> (Bellardi) Dumort. - Red bartsia		1				
	Small <i>Galium</i> sp.	Cleaver		1			
	<i>Bromus</i> sp.	Brome		2			
	<i>Phleum bertolonii</i> DC.	Lesser Cats-tail			1		
	Medium Poaceae indet.	medium wild grass	3	6			
	Small Poaceae indet.	small wild grass		1			
	Indeterminate wild plant seeds		9	15			
Other residues	Modern contamination (roots, seeds, leaves, insects,...)				++		
	Burnt bone		+++	+++	-		
	Small burnt bone				++		
	?Burnt sand/soil				+		
	Pottery sherds			+	-		
	Fired clay				-		
	Burnt stone		+++	++	+		

charcoal dust (<2mm fragments). This suggests that, unlike the Collared Urn deposits in the henge and settlement area, few charring events or activities occurred close to these ring-ditches during their infilling. Given the presence of cremated remains in both barrows, this is somewhat surprising and implies that the pyres were not located in the immediate vicinity.

Cremations

Two Collared Urn cremations from Bradley Fen were flotation sieved: F.1, an urned cremation, and F.1279, which showed evidence of *in situ* burning. The plant remains differed both in quantity and type, with charcoal clearly more abundant in F.1279, where remains had not been displaced after the funerary rite. F.1 contained four seeds, all of which are indicative of dry arable or waste ground. Uncharred seeds of goosefoot (*Chenopodium* sp.) and one forget-me-not (*Myosotis* sp.) appear to be modern intrusions.

Charred seeds from plants immediately around and within the pyre-pit dug for cremation F.1279 provide some of the clearest evidence for the nature of vegetation in the area immediately around the Bradley Fen embayment. This was evidently characterized by damp woodland where alder (*Alnus glutinosa*) dominated the canopy whilst lesser celandine (*Ranunculus ficaria* tubers), along with other plants that favoured damp soils, covered the ground. Red goosefoot (*Chenopodium rubrum*), greater chickweed (*Stellaria neglecta*) and germander speedwell (*Veronica chamaedrys*), amongst others, indicate that although the top soil was not waterlogged in this lowland zone, it remained damp throughout most, if not all, of the year. Moreover, the numerous charred lesser celandine tubers suggest that, as has been found in other Bronze Age cremations, turf may have been used to cover the funerary pyre to create more heat and less flame; sites with botanical signatures for similar practices include Barleycroft Farm and Over in the Ouse Valley, Cambridgeshire (Stevens 1997; de Vareilles 2010b).

Other finds (Grahame Appleby and Vida Rajkovača)

Other finds from the monument complex included a very small quantity of fired clay and bone. In total, only 14 fragments of fired clay (177g) were recovered from two features associated with the henge monument, F.851 (11 fragments, 145g) and F.857. One piece from F.857 (22g) measured c. 30mm by 35mm and preserved a flat surface with a curved edge. The remaining fragments are undiagnostic. Faunal remains were almost completely absent, with the barrows yielding just five fragments of bone (246g), two of which were assigned as cattle.

Monument discussion

The King's Dyke barrows shared similar beginnings, both originating with single crouched inhumations placed in small wooden coffins, buried in deeply cut graves. Architecturally, the burial beneath Round Barrow 1 was commemorated primarily by a small, round mound encompassed by a ring of tightly spaced vertical posts. This was erected several metres from the south-eastern entrance of the henge and was sufficiently offset so as not to interfere with the projected alignment or 'passage' of the earlier monument. A secondary burial, this time a cremation accompanied by the remains of a small Early Bronze Age urn and a flint knife, was inserted into the southern side of the mound and ring. This interment prompted, or initiated, the digging of a much larger encircling ditch and the consequent construction of a much larger barrow mound. On the other hand, the burial under Round Barrow 2 was not subject to such a complex succession of builds and burials, but was instead 'instantaneously' enclosed by a ditch and covering mound.

Having then diverged in their trajectories, both monuments came to share one last flourish in the Middle Bronze Age, at the close of their sequences. In Round Barrow 1, the last significant event involved the interment of two Deverel-Rimbury type cremations into the top of its ditch. Whilst at Round Barrow 2, the final traceable act involved the construction of a small Ardleigh-type ring-ditch (Ring-ditch 1) onto its westernmost circumference – a ditch presumably also surrounding a cremation now lost to plough truncation (Brown 1999).

Looking at the sequence more broadly, it would appear that the architectural progression for the monument complex was ostensibly a story of ever decreasing-circles and ever-diminishing earthworks (Fig. 3.14). The opening constructions, the pit-circle and henge, attained a total diameter of at least 30m (not including a possible external bank), whereas the ultimate construction, the diminutive ring-ditch (Ring-ditch 1) achieved only 4m. If diameter or size can be employed as a measurement of sequence then perhaps it is significant that the final form of Round Barrow 1 measured nearly 26m whereas Round Barrow 2 only managed 15m. In the context of this particular monument complex, it seems, diminishing scale could also be a straightforward indicator of changing levels of investment from the start of the Early Bronze Age to its end.

What is absolutely certain in this space, however, is that monuments – be they ceremonial or sepulchral – diminished in size over time. The remains of the dead entered this telescopic succession only part way through (after the henge) but once they became

involved they remained so until the very end. The *first dead* were buried deeply and always at the ‘new’ centre of things. By way of contrast, the *last dead* were placed in shallow graves and located at the periphery. Appropriately, the *middle dead* quite literally fell between two stools and occupied the ground in-between monuments. The first bodies were buried whole and the last as small calcined fragments; overall the pattern was of things disappearing or coming to an end.

Early settlement

The structures of early settlement occupied different ground to the monuments and so, in order to explore these constructions, it is necessary to move down the slope and away from post-circles, ring-ditches and barrow mounds. As will be shown, this detachment is purely spatial as there is ample evidence to suggest that the people who made these monuments chose different spaces when it came to building dwellings. Once again, the scale of investigation – literally the *different* ground that it covers – has enabled these things to be observed in actual relationship: *house – henge – burial* (scale *articulating* pattern). In an archaeological context where tangible structural remains of settlement of this period are often non-existent and certainly far less visible or ubiquitous compared to contemporary monuments, this represents a novel window on the patterning and articulation of the social landscape. Indeed, genuine early structures remain extremely rare across the whole of East Anglia (Bradley 1993, 7–8), so to locate them in the same vicinity as a major monument complex is nothing short of remarkable.

In relation to the King’s Dyke/Bradley Fen transect, three early dwellings were located almost as far apart as they could be from one another across the 1.35km excavation window (Fig. 3.3). Structure 1 occupied a small knoll at the low-lying western end of Bradley Fen (0.10m OD), whilst Structures 2 and 3 were situated towards the top of the high ground, at 2.8m OD (King’s Dyke) and 3.6m OD (Bradley Fen) respectively. A substantial assemblage of Beaker pottery was found in association with Structure 1, whilst Structures 2 and 3 generated impressive collections of Collared Urn pottery. In addition, the assemblage also includes a cluster of Collared Urn pits and a Collared Urn ‘midden’ spread situated within the

confines of the aforementioned henge monument. As a group, these early structures and their associated settlement scatters have been separated for analysis from the other evidence of pre-field-system activity because they are pottery-period ‘attributable’ in a way that the burnt mounds and watering hollows are not. Single radiocarbon dates were obtained for each of the buildings and indicated a gap of at least 200 years between the Beaker structure and the two Collared Urn structures (Table 3.14).

Beaker house and associated pits and postholes

The Beaker house, Structure 1, was built upon a slight rise (up to 0.10m OD) sited along the then dry western margins of Bradley Fen Embayment (Fig. 3.18). The structure was made up of a circle of postholes (F.1291–98), fronted by an exaggerated post-built porch extension (F.1283–86) and arching façade-like arrangement (F.1287–90; Fig. 3.19). The house plan was symmetrical and, by British prehistory standards, its footprint was both relatively robust and visually impressive (Brück 2000, 283; Brück 2008, 25). All of these features cut the old land surface and were constructed, used and abandoned prior to the formation of peat at these contours.

The post circle had a diameter of 5.15m and comprised eight small postholes (diameter 0.24–0.33m, 0.16–0.43m in depth) spaced approximately 1.75m apart (Fig. 3.20). Four larger postholes (diameter: 0.39–0.55m, 0.33–0.48m in depth) framed the east-facing porch, which was a narrow funnel-like setting, 3m long, with a 2.50m wide entrance. The inner set of porch posts were flanked by a façade of four regularly spaced postholes (1.75m apart, diameter: 0.19–0.28m, depth: 0.08–0.28m). Inside the structure was a large hearth feature (F.1299) accompanied by a small oval pit (F.1300). The hearth was central to the post-ring and consisted of a large but shallow irregular hollow (2.00 × 1.25m; depth: 0.15m) that had been scorched a pink-orange colour, but still retained the relatively intact remains of four charred logs – a sample of which generated a radiocarbon date of 2200–1950 cal BC (Beta-205539: 3690±40 BP). The adjacent pit was by comparison plain (0.80 × 0.65m; depth: 0.18m) and distinguished only by a high charcoal content. Eastwards, and 2.50m in front of the house, were a small

Table 3.14. Early Bronze Age structures – radiocarbon dates.

Structure	Feature	Pottery type	Height OD	Conventional age	Radiocarbon date (2 sigma)
1	1299	Beaker	0.10m	3690±40 BP	2200–1950 cal BC
2	636	Collared Urn	3.60m	3390±40 BP	1760–1610 cal BC
3	349	Collared Urn	2.80m	3360±40 BP	1740–1530 cal BC

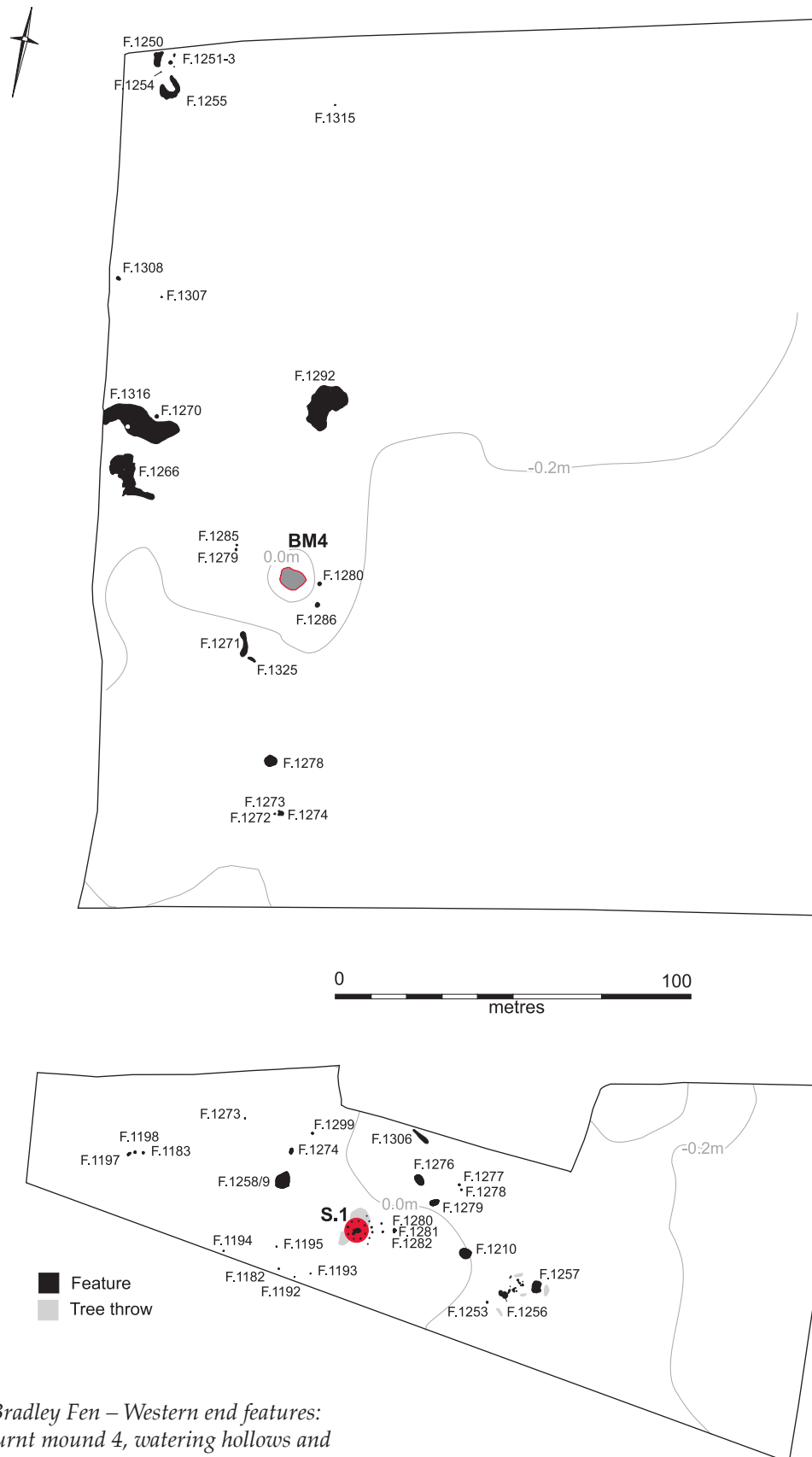


Figure 3.18. Bradley Fen – Western end features: Structure 1, burnt mound 4, watering hollows and metallised surfaces.

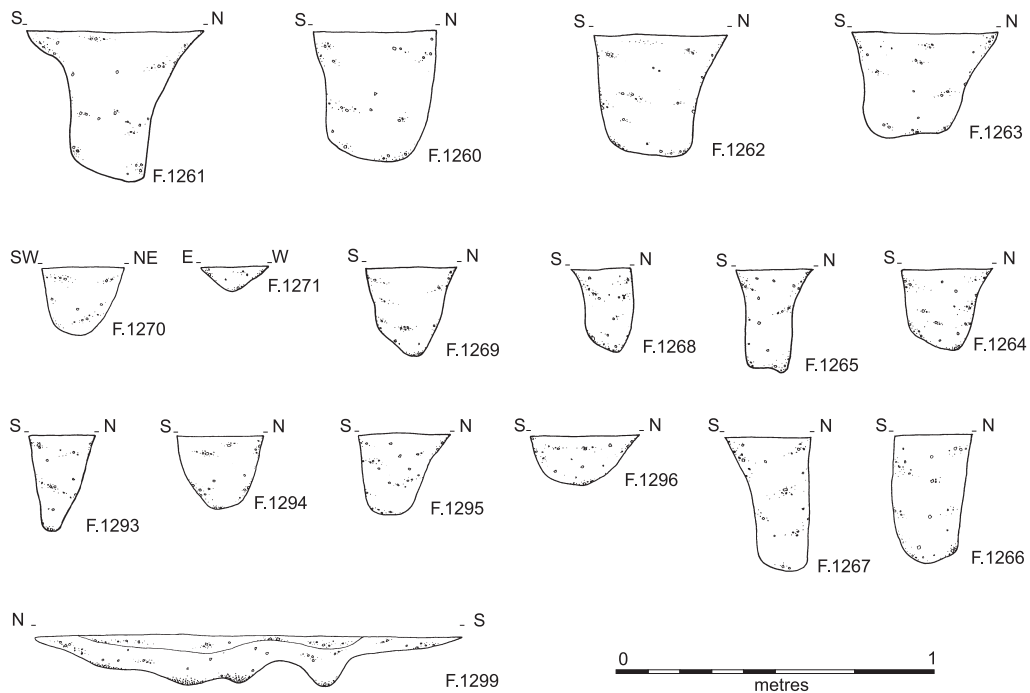
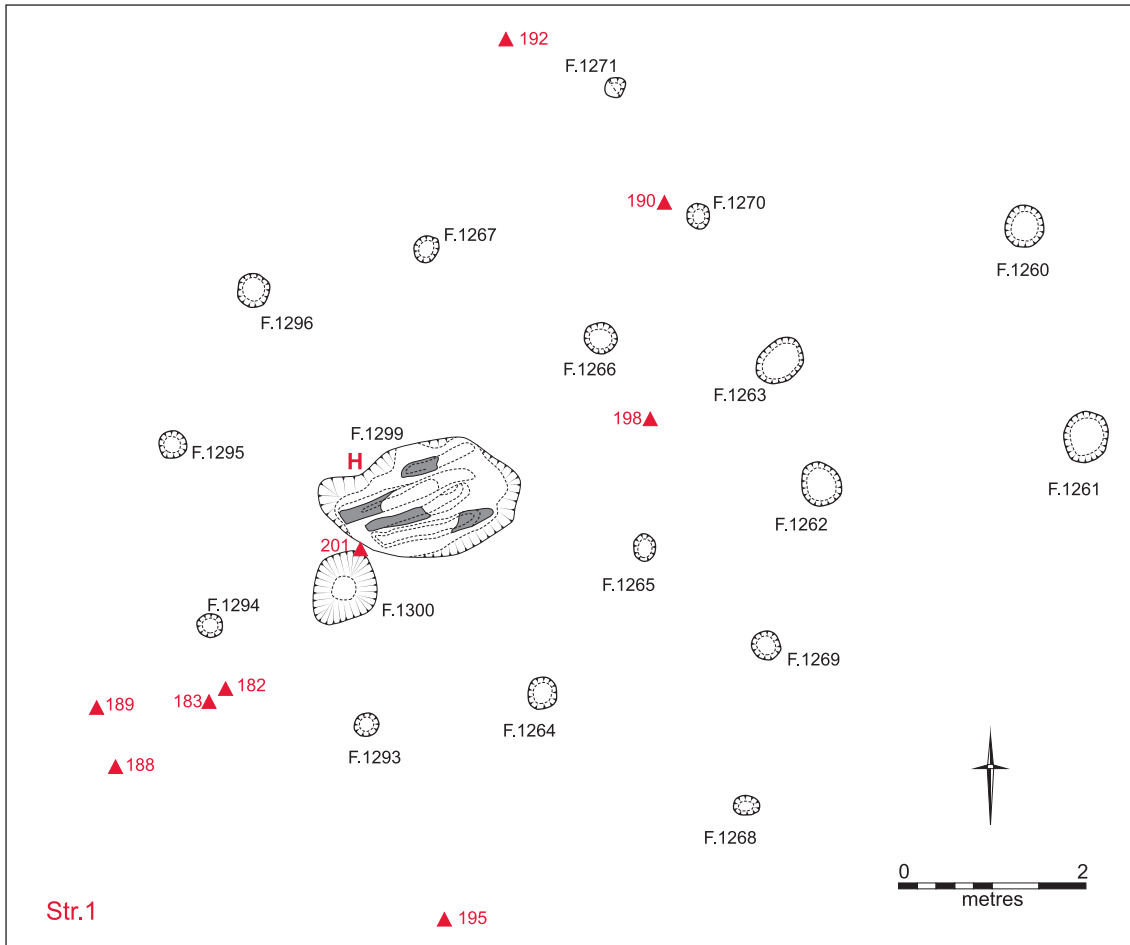




Figure 3.20. *Photograph of Structure 1 (looking southwest).*

cluster of pits/postholes, F.1280, F.1281 and F.1282. These had similar fills to those of the structure, comprising light grey silty-clay.

Slightly further away to the west, but occupying the same contour as the house, was a large pit, F.1258 (diameter: $5.45 \times 3.89\text{m}$; depth: 0.41m). The uppermost profile of the feature was 'uneventful' and comprised a pale grey silt-rich fill sequence. However, at its base was a small circular pit, F.1259 (diameter: 0.35m ; depth:

0.27m), made visible because of its dark brown silt fill and the presence of three large slabs of Beaker pottery. A further four somewhat slighter pits/postholes with light grey silty-clay fills were scattered between the 0.00 to -0.10m OD contours. Amongst them was pit F.1183, which had a pointed profile (diameter: 0.32m ; depth: 0.30m) and produced 55 sherds pottery from a single rusticated Beaker. Also of note was pit F.1182, which displayed steep-sides, a flat base (diameter: 0.45m ; depth: 0.22m) and yielded 20 fragments of Food Vessel Urn.

In terms of material culture, only a few artefacts were found in direct association with the adjacent structure (either within features or within the confines

Figure 3.19 (opposite). *Structure 1 plan and sections (includes small finds distribution).*

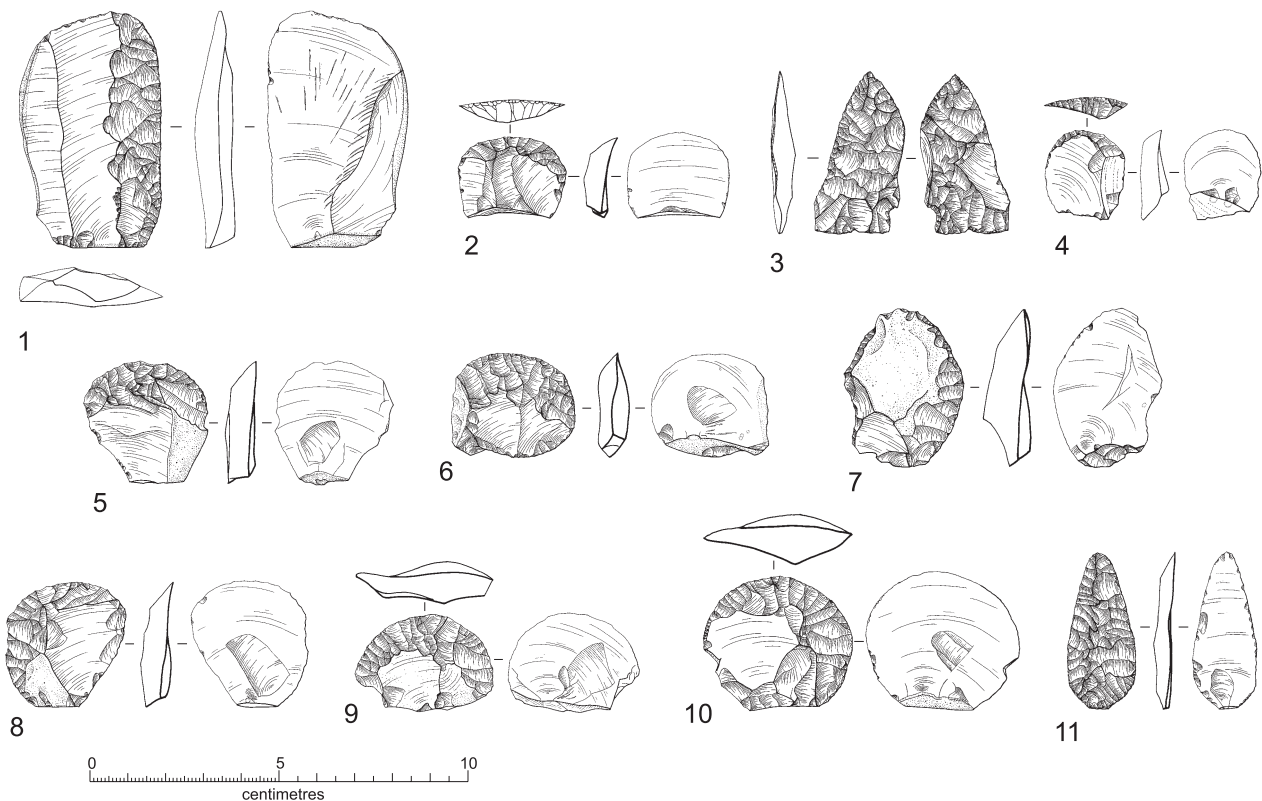


Figure 3.21. Flint tools from Structure 1: 1) flake knife (invasive dorsal retouch on one edge naturally backed by cortical edge; SF.182), 2) thumbnail scraper (SF.183), 3) broken arrowhead blank (SF.188), 4) thumbnail scraper (SF.189), 5 & 6) sub-circular scrapers (SFs 190 & 192), 7) flake knife (invasive dorsal retouch on one edge backed by steeper retouch on other lateral edge; SF.192), 8-10) sub-circular scrapers (SFs 195-198) and 11) plano-convex knife (SF.201).

of its plan), postholes F.1286 and F.1298 yielding single sherds of Beaker. In addition, two fragments from a fine incised Beaker, which matched the sherd recovered from F.1298, were retrieved from between postholes F.1291 and F.1298 (SF 198). A small plano-convex knife was also found between the central hearth and its adjacent pit, with burnt flint and a piece of calcined bone deriving from the hearth itself. Adding to this was a small but coherent assemblage of flint tools collected from between the postholes of the structure (Fig. 3.21). Buried soil test-pits produced very little material although discrete zones of the old land surface did produce localized concentrations especially in the same area as the house but also adjacent to a small group of earlier pits. An 'unfinished' or incomplete perforated stone or macehead was recovered from just 12m to the east of Structure 1.

Structure 1 and its smattering of contemporary external features can be understood as belonging to a far more extensive pattern of occupation, that extended throughout the lower contours of the Flag Fen Basin and, in particular, along the drier margins

of the Bradley Fen Embayment. Given the magnitude of the investigations in this context and the range of spaces covered, its singular occurrence could be seen as a direct expression of the authentic scale of Beaker settlement (a house every 25ha?). Most importantly, its discovery makes explicit the presence of early 'terrestrial' sites below, rather than beside, fen-sediments.

The Collared Urn structures and associated settlement swathes

To explore the Collared Urn settlement evidence, it is necessary to move upslope to the higher contours of the western end of Whittlesey Island and away from the margins of the Bradley Fen Embayment (Fig. 3.22). This is a temporal as well as a spatial shift and reflects a deliberate change in the choice of settlement location. Whilst movement was in part a consequence of the increasing saturation of the embayment's skirtland, the shift was no doubt motivated by other considerations, such as proximity to the comparatively well-drained and nutrient-rich soils of the upper gravels. Certainly, the lower contours were not entirely wet at this stage, as

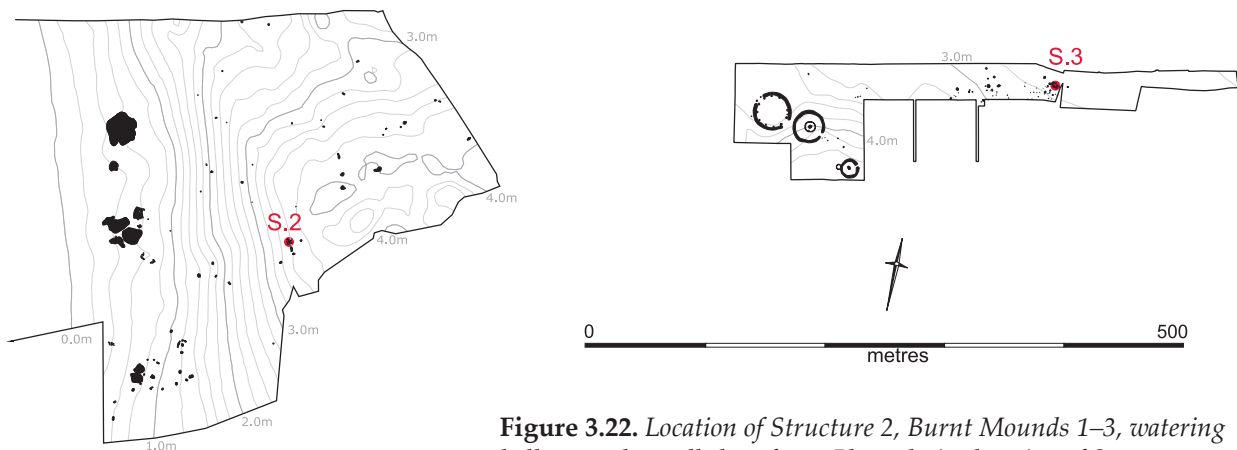
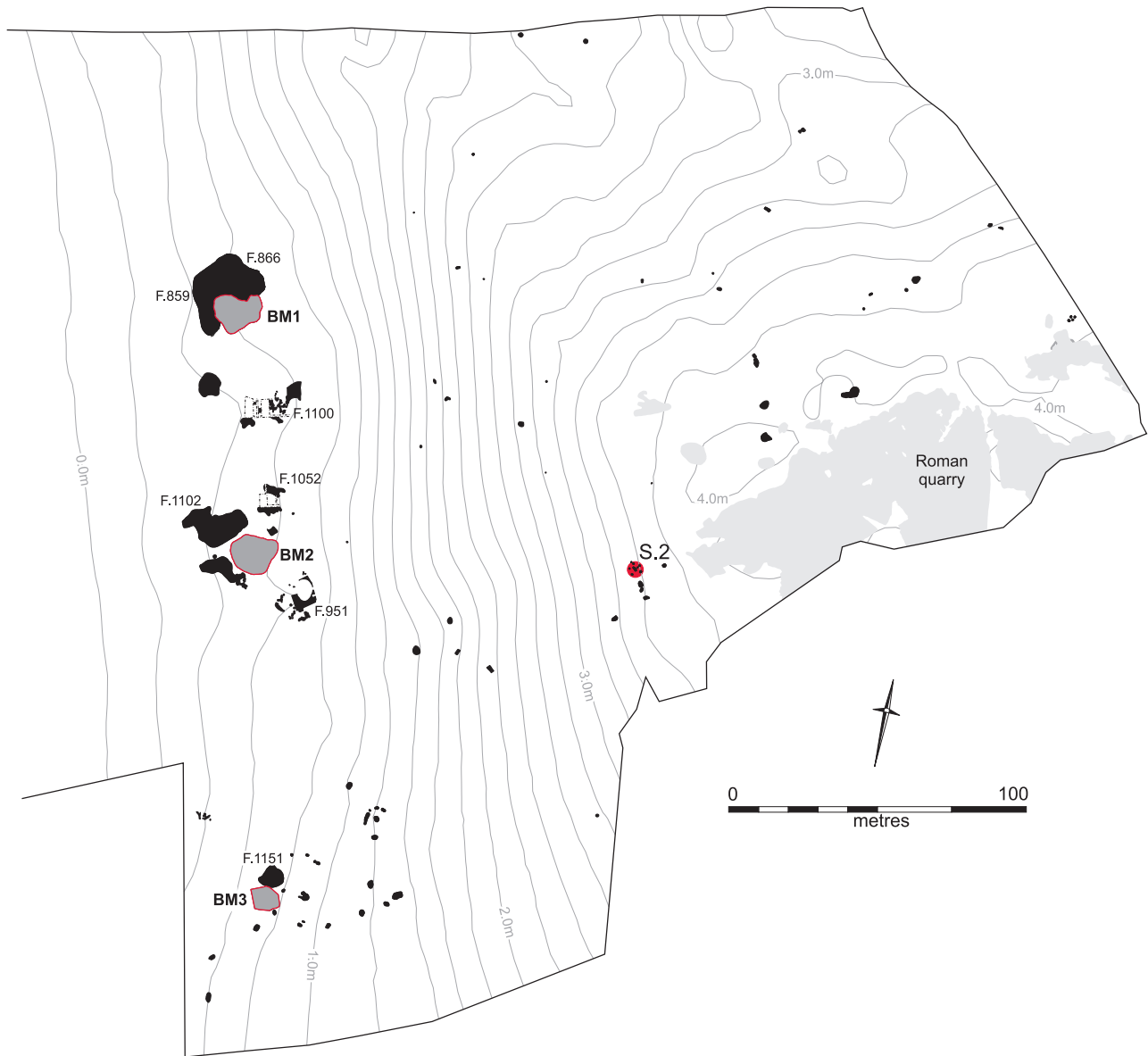


Figure 3.22. Location of Structure 2, Burnt Mounds 1–3, watering hollows and metallated surfaces. Plus relative location of Structures 2 & 3.

demonstrated by a pre-peat *in situ* pit-pyre containing a Collared Urn close to the edge of the Bradley Fen Embayment at about 0m OD (Fig. 3.18).

Aside from this interment, and within the wider context of the King's Dyke/Bradley Fen transect, the Collared Urn settlement evidence consisted of two feature concentrations situated either side of the elevated monument complex: one major (King's Dyke, Structure 3) and one minor (Bradley Fen, Structure 2; Fig. 3.22). Bridging the gap between these two occupation foci, was the 'midden'-like deposit situated within the confines of the henge, which yielded a similar material assemblage as the two adjacent settlement concentrations.

Structure 2 and adjacent feature scatter

Structure 2 comprised a small circle of five postholes (F.632–36) with an external diameter of 4m (Fig. 3.23). The postholes ranged between 0.35 and 0.80m in diameter and 0.17 and 0.34m in depth. From the surface, the structure was made obvious by its grey silty-clay fills and occasional darker, charcoal-rich post-pipes (visible in every posthole except F.680 and F.693). Posthole F.636 produced a radiocarbon assay of 1760–1610 cal BC (Beta-269126: 3390±40 BP) from a charred seed.

The structure's post-ring surrounded a central arrangement of four further postholes (F.647–49, F.693) and a central pit (F.637). An additional external pit/posthole, F.680, was located 0.50m immediately to the north of the circle. The central pit, F.637, produced the greater number of artefacts, including fragments of Collared Urn pottery as well as pieces of burnt clay. Otherwise, the artefact count was low and restricted to odd pieces of worked flint or pottery from the various postholes (flint: F.632–35; pottery: F.636).

Fragments of Collared Urn pottery were also recovered from nearby pits such as F.653, a large oval-shaped pit (2.00 × 1.40m; depth: 0.55m) located 3 metres to the south of the building and F.671 (1.25 × 1.10m; depth: 0.43m), situated 7 metres to the east. Both of these features contained dark charcoal-rich fills equivalent to the post-pipe fills of the adjacent structure. F.681, located immediately beside F.653, also produced a piece of Bronze Age pottery and, like F.653, displayed an undercut profile (1.50 × 0.90m; depth: 0.30m) and a dark charcoal-stained fill.

Structure 3 and adjacent feature scatter

Structure 3 comprised a small circle of six pits (F.347–48, F.374, F.376, F.906–07) with an external diameter of 4m and a southeast-facing 'porch'-like structure

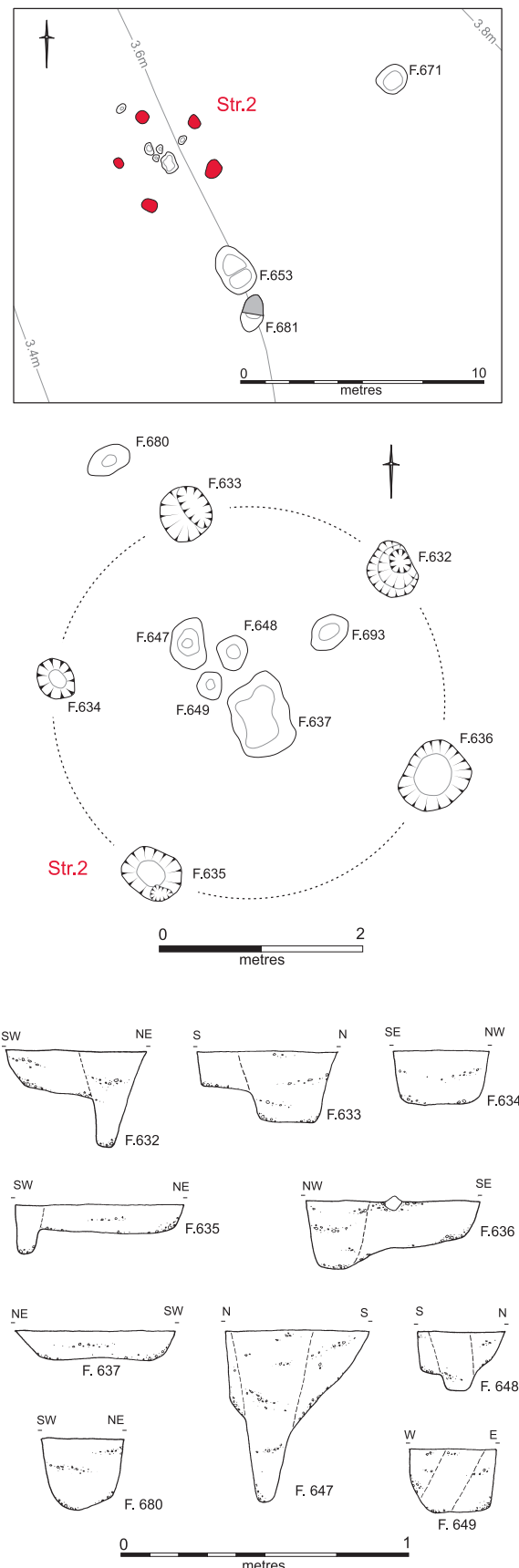


Figure 3.23. Structure 2 plan and sections.

composed of four postholes (F.373, F.428, F.433, F.913; Fig. 3.24). The pits ranged between 0.45 and 0.55m in diameter and 0.13 and 0.32m in depth. They displayed steep bowl-shaped profiles filled with mid-grey sandy-silt with occasional charcoal; none showing obvious post-pipes. Similar fills characterized the postholes in the porch structure, which were smaller, but shared features in common with the other post-settings revealed within, or immediately adjacent to, the building's interior (F.372, F.429–31, F.910–13, F.433; diameters ranging from 0.15 to 0.45m; depths 0.02 to 0.12m).

Of note is pit F.349 (0.80 × 0.70m and was 0.27m deep) which cut the eastern side of structural pit

F.374. As with the majority of the pits that made up the structure's footprint, F.349 contained a large number of distinctively calcined flints. Unlike the other fire-cracked flints encountered elsewhere on the site, these nodules and flakes had been burnt to such an extent that they had turned a brilliant white colour. F.349 also contained 38 sherds of Collard Urn; all of which had been burnt, including three sherds that had been so severely heat distorted that they had begun to vitrify. Along with the burnt flint and burnt pottery, large lumps of fired clay were also recovered from pit F.349. The fired clay came in different shapes but nearly all the pieces had fingertip, wood grain, cereal

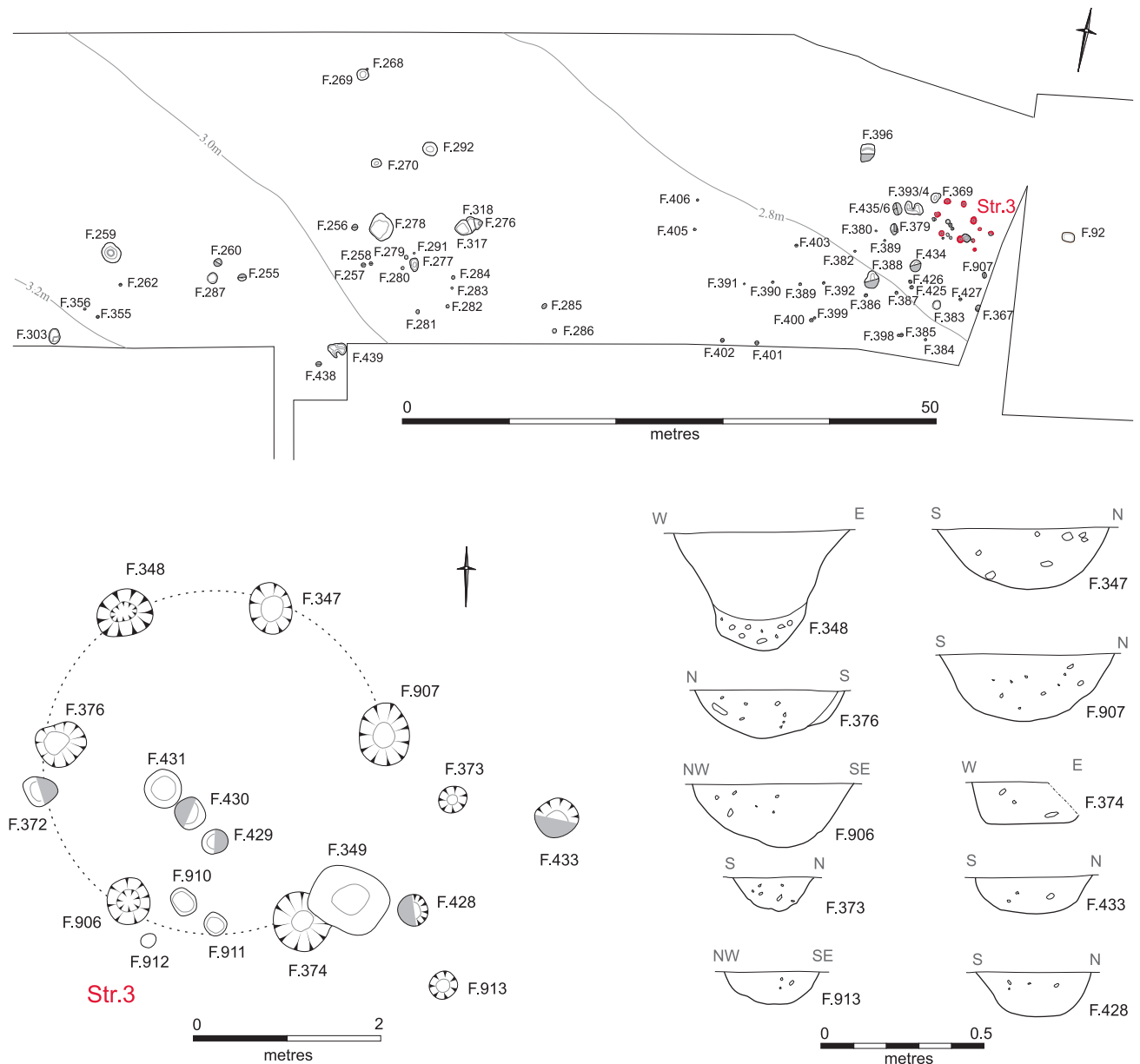


Figure 3.24. Structure 3 plan, sections and associated pits.

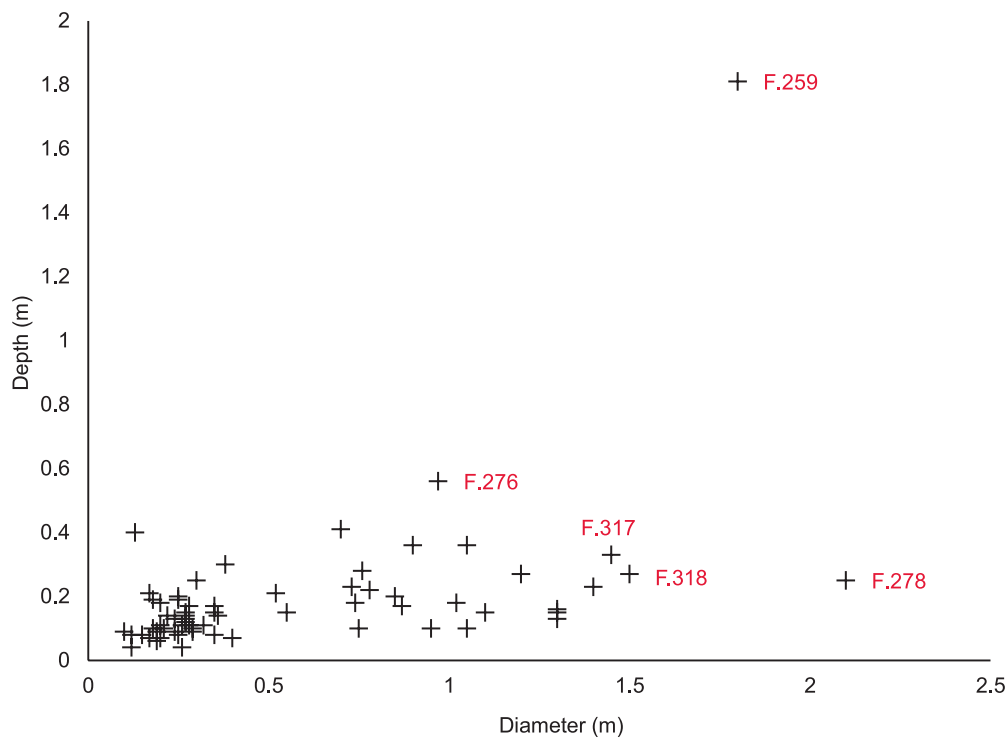


Figure 3.25. Diameters/depths of Early Bronze Age pit/posthole swathe associated with Structure 3. Larger pits labelled.

grain or basket-like impressions, or a combination of these elements. The fingertip impressions were clearly defined and occurred on the opposite side from the wood, basket or grain impressions. Importantly, the clay appeared to be the same as the clay used in some of the pottery. Pit F.349 also included a small amount of charred grain, from which one grain generated a radiocarbon date of 1740–1530 cal BC (Beta-269130: 3360±40 BP). The date represents a *terminus ante quem* for Structure 3. However, F.349 was undoubtedly closely linked to the building, as both sets of features contained the same characteristic white calcined flint.

In terms of its wider location, Structure 3 lay at the eastern end of a long, c. 100m swathe of contemporary 29 pits (diameter >0.35m) and 36 small pits/postholes (diameter <0.35m; Fig. 3.25). These were dated to the Early Bronze Age by a combination of artefact associations (Collared Urn, cylindrical loomweights, worked and burnt flint) and/or shared feature fills (generally dark grey sandy-silt) and were clearly different to those associated with the later Early Iron Age setting in this zone (see Chapter 5). The settlement spread coincided with the 2.8 to 3.0m OD contours, locating it slightly down-slope from the monument complex to the west. The pattern of postholes did not suggest any obvious structures and can best be described as irregularly spaced pairs or random lines. The pit distribution was

similarly scattered, with only a few inter-cutting features and loosely defined clusters – most pits being shallow, irregularly profiled hollows with individual fills. Few of these are worth detailing individually, though note can be made of some of the larger pits which contained important assemblages or more complex fill sequences.

The first of these is shaft F.259, which was the only feature of substantial depth (1.81m). The infilling sequence comprised primary weathering deposits (yellow-brown sandy-silt followed by pale brown/yellow silty-sand) overlain by a 0.30m thick silt accumulation (mid brownish-grey clayey fine silt). Above the silt deposit was a 0.65m deep slump of brown silty-sand derived from the weathering of the upper profile. Finally, a capping fill similar in character to the surrounding buried soil horizon (pale grey silty-sand) would appear to illustrate a combination of further weathering and the eventual re-establishment of the soil profile. Abraded sherds of Collared Urn-type fabric pottery were present at the top and base of the shaft but these would appear to be incidental inclusions, whereas a basal dump of unarticulated animal bones would appear to represent a deliberate deposition.

The largest assemblage of artefacts came from a set of inter-cutting pit features (F.276, F.317 and F.318), located to the east of the shaft. The primary pit F.318 was relatively empty but the two features



Figure 3.26.
Excavation of inter-cutting pits F.276, F.317 & F.318.

(F.276 and F.317) that infringed its boundaries produced substantial amounts of pottery and flint. F.318 was irregular in plan (1.50m × 1.25m), cut to depth of 0.27m, and much of its upper fill had been truncated by the two later pits. By comparison, F.317 was larger (1.45m × 1.40m), deeper (0.33m) and contained a darker fill (brownish-black sandy-loam). F.276 was smaller (0.97m × 0.56m) but was also cut to a greater depth (0.35m) and contained a darker fill (Fig. 3.26).

Summary

The scale of Collared Urn settlement was different to that of Beaker settlement, even if the overall spatial distribution of the two pottery types was almost identical (Table 3.15). Whereas structurally, Beaker

settlement indicated a singular focus, Collared Urn settlement revealed at least two, possibly three significant concentrations. By dwellings alone, the incidences of occupation was doubled. At the same time, the 'midden' deposit allied patterns of settlement to the closing moments of the henge's depositional history and, along with the funerary contexts, established an explicit relationship between occupation and the middle stages of the overall monument complex. If anything, the scale of Collared Urn occupation was equivalent to that of the ongoing and contemporary development of the monuments. The suggestion being that those who inhabited the structures also initiated/attended the activities within and around the henge and barrows. As with the monuments, the

Table 3.15. *Structure/settlement material culture breakdown (no./wt).*

	Pot	Flint	Burnt flint	Fired clay	Animal bone
Structure 1	2 (14g)	0	1 (1g)	0	3 (3g)
Associated settlement	61 (689g)	0	0	0	0
Total	63 (703g)	0	1 (1g)	0	3 (3g)
Structure 2	17 (532g)	6	2 (5g)	2 (5g)	19 (170g)
Associated settlement	12 (147g)	3	1 (2g)	1 (318g)	8 (175g)
Total	29 (679g)	9	3 (7g)	3 (323g)	27 (345g)
Structure 3	49 (755g)	9	236 (492g)	32 (1009g)	18 (26g)
Associated settlement	211 (1931g)	93	30 (178g)	117 (3356g)	170 (879g)
Total	260 (2686g)	102	266 (670g)	149 (4365g)	188 (905g)
Henge 'capping'	31 (402g)	85	4 (116g)	4 (121g)	112 (996g)
Grand total	383 (4470g)	196	274 (794g)	156 (4809g)	330 (2249g)

unambiguous ground plans of the two structures helped to specify set points in the landscape; precise places where movement coalesced. In this context, the interpretive value of two recognizable structures is qualitative as much as it is quantitative in that it expresses a change in the density of settlement as much as in the frequency.

Watering hollows, metalled surfaces, hoofprints and burnt mounds

Having explored the architecture of settlement, as characterized by post-built structures and features bearing relatively large concentrations of domestic debris, it is now time to return to the margins of the Bradley Fen Embayment and explore a suite of features that shared a similar chronology but almost no artefactual material. This section addresses a group of burnt mounds and watering hollows, as well as a series of metalled surfaces and animal tracks found in association with them.

Out of all the pre-field system features, the burnt mounds and hollows that encircled the embayment represent the most palpable manifestations of cumulative or reiterative practice. These were features made-out of individual processes, repeated over and over again and, as such, portray an entirely different kind of landscape imprint to that made by the developed monument sequences or contracted settlement patterns described above. Collectively, they outlast specific monument stages or individual settlement episodes and, accordingly, they appear to represent an enduring class of feature which, for this part of the landscape, persisted all the way through the Early Bronze Age, more or less unchanged. In truth, an absence of artefacts might represent a direct expression of the enduring quality of these features; the processes involved in the creation of mounds and hollows were not 'period' or 'type' specific but corresponded instead to a kind of lasting practice (such as boiling water (see Barfield & Hodder 1987, 370–79).

The shift in focus back down the slope to the embayment edge shows the burnt mounds and watering hollows to be spatially 'governed', in that their location corresponded precisely to the embayment's increasingly wet margins. The enhanced preservation of these features (i.e. the fact that they survived as positive entities) was more or less dependent on such circumstances, as the ensuing saturation eventually led to these things being subsumed by a deep blanket of peat. The evidence implies that the location was damp (hence the erosion of the old land surface, the preservation of animal prints and the need to consolidate patches with metalling) but not yet fully saturated. First and foremost, the features described in this section

were integral to an occupation that occurred *on* the old land surface as it was becoming increasingly wet but before it was wet enough to instigate peat growth. The distinction is subtle but nevertheless significant in that it shows to the mounds to be significantly pre-peat.

Detailed here is the patchwork of features that occupy this zone: 1) *Watering hollows, metalled surfaces and animal tracks* and 2) *Burnt mounds (BM1–4)*. It is difficult to disentangle the various activities without turning them into a series of disjointed fragments. However, for the sake of narrative, this sequence has been adopted since it basically mirrors the collective order of things, placing burnt mounds last, as a way of illustrating their cumulative quality and the manner in which, stratigraphically, they fitted into, or accrued amongst, the wider patchwork of activities.

Watering hollows

The shape and form of the early waterholes was that of large, relatively shallow pools or ponds, as opposed to deep wells or shaft-like features. As gradually descending pits, they were purpose-built for groups of animals to gain easy access to water, sometimes via clear ramp-like cuttings. The addition of metalled surfaces covering the approaches to these features, as well as their bases, indicates that they were regularly used and carefully maintained.

The quasi-regular spacing of the waterholes suggests a linear distribution strung out along the embayment margins, at the general divide between increasingly wet and persistently dry ground. Some, but not all of these waterholes, later became the foci for burnt mounds. Dependent on which side of the embayment the features were situated, the waterholes can be split into *Eastern* and *Western* groups. The eastern group comprised F.859, F.866, F.1093, F.1102 and F.1038 (Fig. 3.22); the western group: F.1266, F.1292 and F.1316 (Fig. 3.18).

Eastern group

By far the largest of the waterholes was F.859 and its accompanying 'internal' pit F.866 (Figs 3.27 & 3.29). Combined, these two features made a very large, irregular C-shaped hollow (3.8m wide east–west; 14.2m wide north–south) which descended to a maximum depth of 1.50m. F.866 was situated at the deep, eastern end of F.859 and was connected via a shallow access ramp (Fig. 3.28). The eastern edges of F.866 were very steep, except for the weathered upper reaches of the cut. These were filled with edge-erosion deposits of yellowy-orange sandy-clay, which overlay a slow-forming deposit of brown-grey silty-loam. In plan, F.866 was sub-rectangular (8.10 × 5.90m), its base contiguous with the access ramp. The bases of F.866 and F.859 were

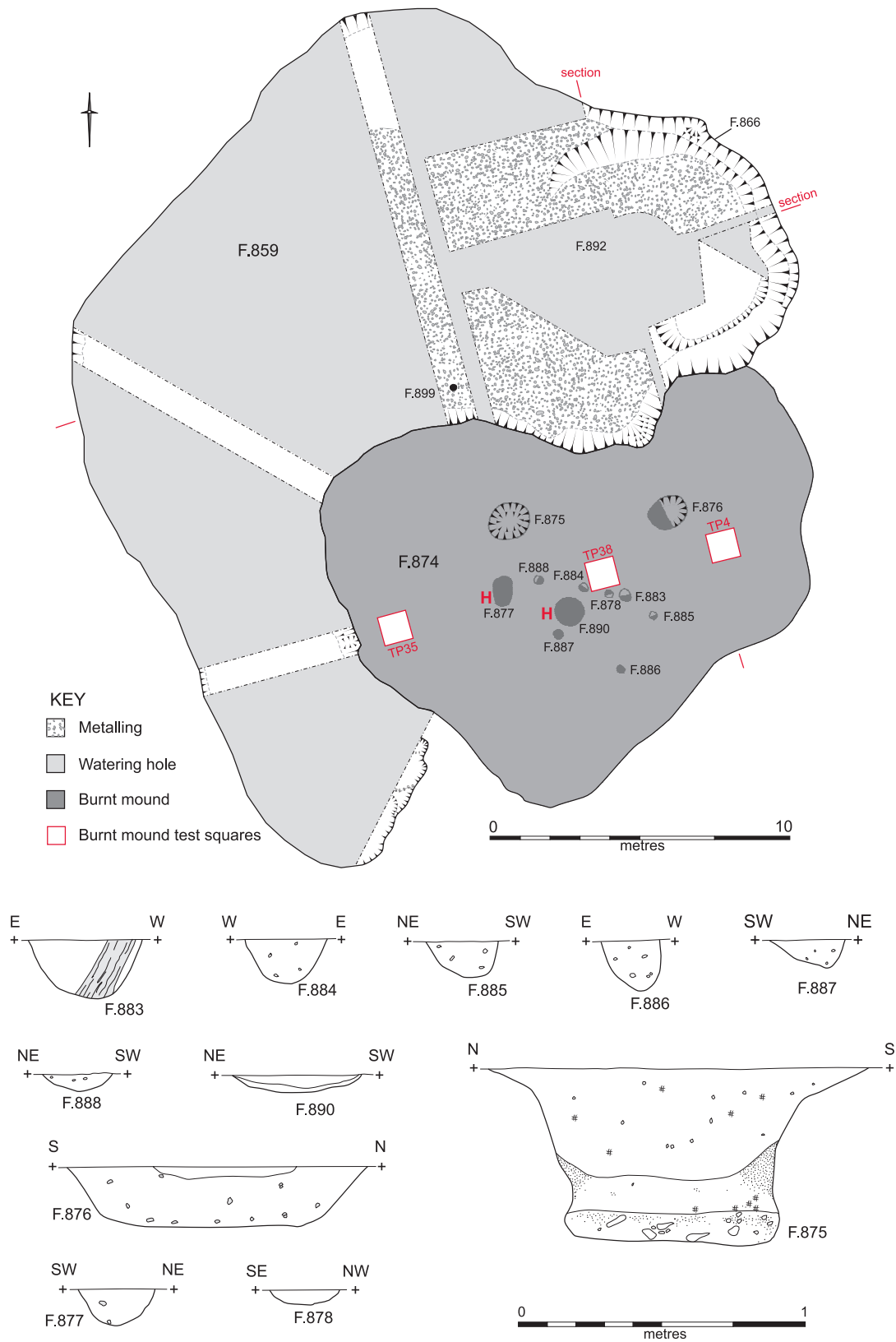


Figure 3.27. Plan of waterhole F.859/F.866 with accompanying burnt mound features (Burnt Mound 1) and later wattle pit-guard F.892 (described in Chapter 4).

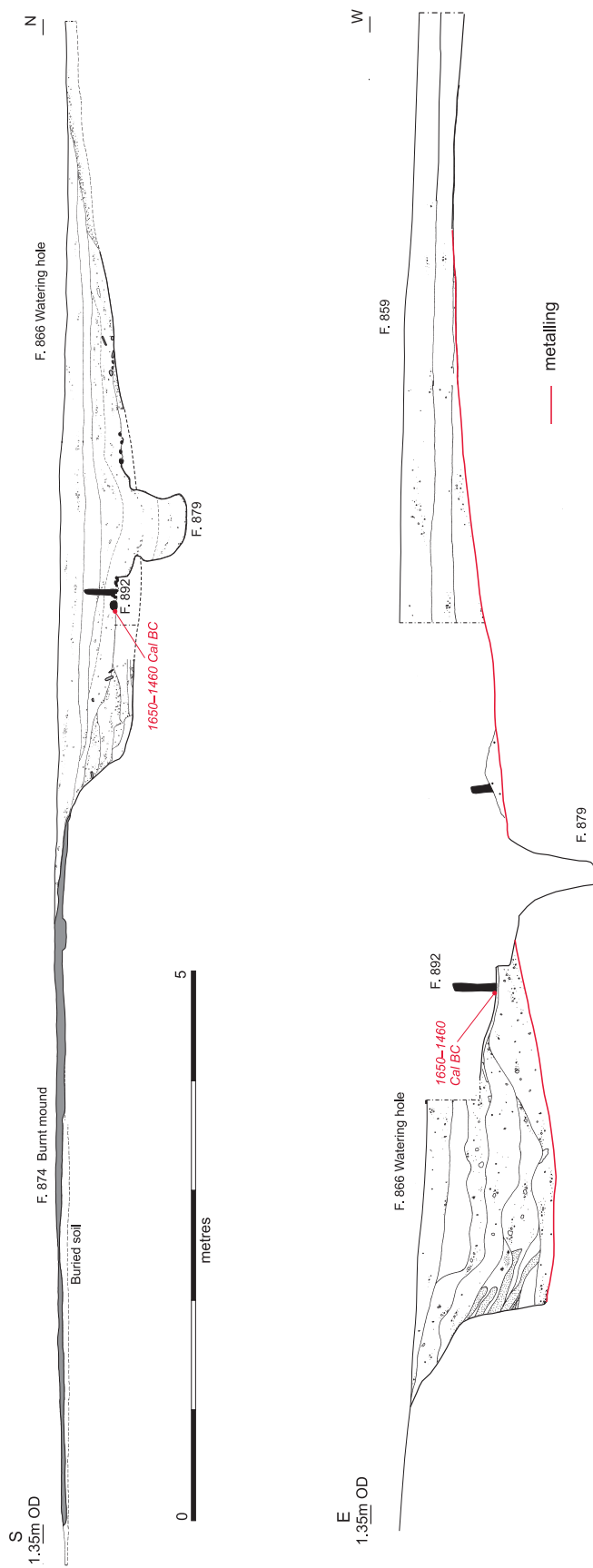


Figure 3.28. Section of waterhole F.859/F.866 with accompanying burnt mound.



Figure 3.29. Photograph of commencement of excavation of F.859/F.866.

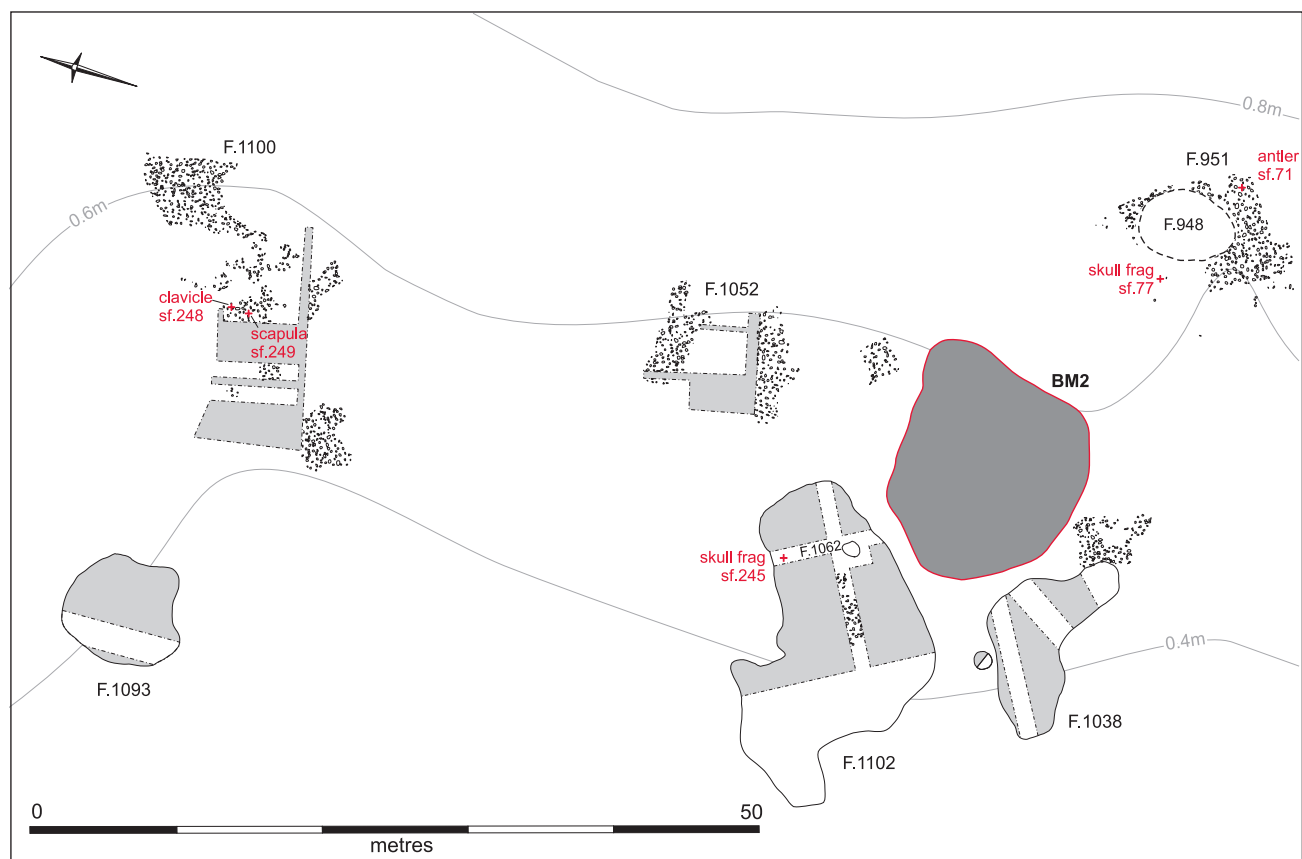
covered by a metallised surface made up of compacted gravels and re-deposited rounded river pebbles. The orientation of the ramp was such that access by animals to the depths of F.866 was gained from the embayment side of the complex. The eastern edges of F.866, on the dry or upslope side, were too steep, meaning access to the water could only be gained by ladder or bucket.

Just 12m to the south of this complex was another shallow hollow, F.1093 (dimensions: 7.41 × 7.28m; depth: 0.30m), whose appearance was not dissimilar to the southern end of F.859 (Fig. 3.30). The feature had an undulating base and gently sloping sides, filled with mid-grey silty-clay beneath peat. Further south still, around 25m from F.1093, were two more large irregular hollows, F.1102 and F.1038 (Fig. 3.30). The first of these, F.1102, was roughly kidney-shaped and predominantly shallow (0.30m) except where it was punctuated towards its eastern end by a single circular pit, F.1062 (dimensions: 1.50 × 1.40m; depth: 0.75m). Blue-grey silt infilled the hollow but only after a metallised surface had been laid across its broad flat base. A fragment of human skull was recovered from close to its base along its north-eastern edge. The second hollow, F.1038, was L-shaped in plan. It displayed a very shallow cut (0.18m in depth) but incorporated a deeper north-south trench within its eastern arm (1.0m deep). Combined, the two arms were just less than 10m

in length, whereas the width at the centre measured 4.39m; fills comprised a sequence of slow-forming bluish-grey silts and slumps of bright orange sands.

Western group

The western group comprised two very large irregular watering hollows, F.1266 and F.1292, situated about 35m apart. F.1266 was 11.10m long, 6.80m wide and up to 0.28m deep (Fig. 3.31). In plan, it was made up of a narrow, shallow 'pathway' (5.25m in length, 1.80m in width and 0.03m in depth) that connected to an elongated ramp, leading down to a large sub-circular hollow (diameter c. 6.00m; depth: 0.25m). All three of these elements were lined with the same compacted gravel surface (Fig. 3.32). The fringes of the complex were uneven but generally survived as a series of gentle slopes leading down to the base of the hollow. In places, the sides were disturbed by hoofprints discussed below. The southern end of the ramp was disturbed by an irregular-shaped pit, F.1282 (dimensions: 0.51 × 0.42m; depth: 0.13m), which cut the metallised surface. The same relationship was observed towards the centre of the main hollow, where two postholes were encountered, F.1267 and F.1268. The former was a deep set posthole, 0.35m in diameter and 0.58m in depth, the latter shallower and smaller (0.18m in diameter and 0.09m in depth).



F.1100



F.951



F.1052

Figure 3.30. Waterholes (F.1093, F.1102 & F.1038) and metalised surfaces (F.951, F.1052 and F.1100).

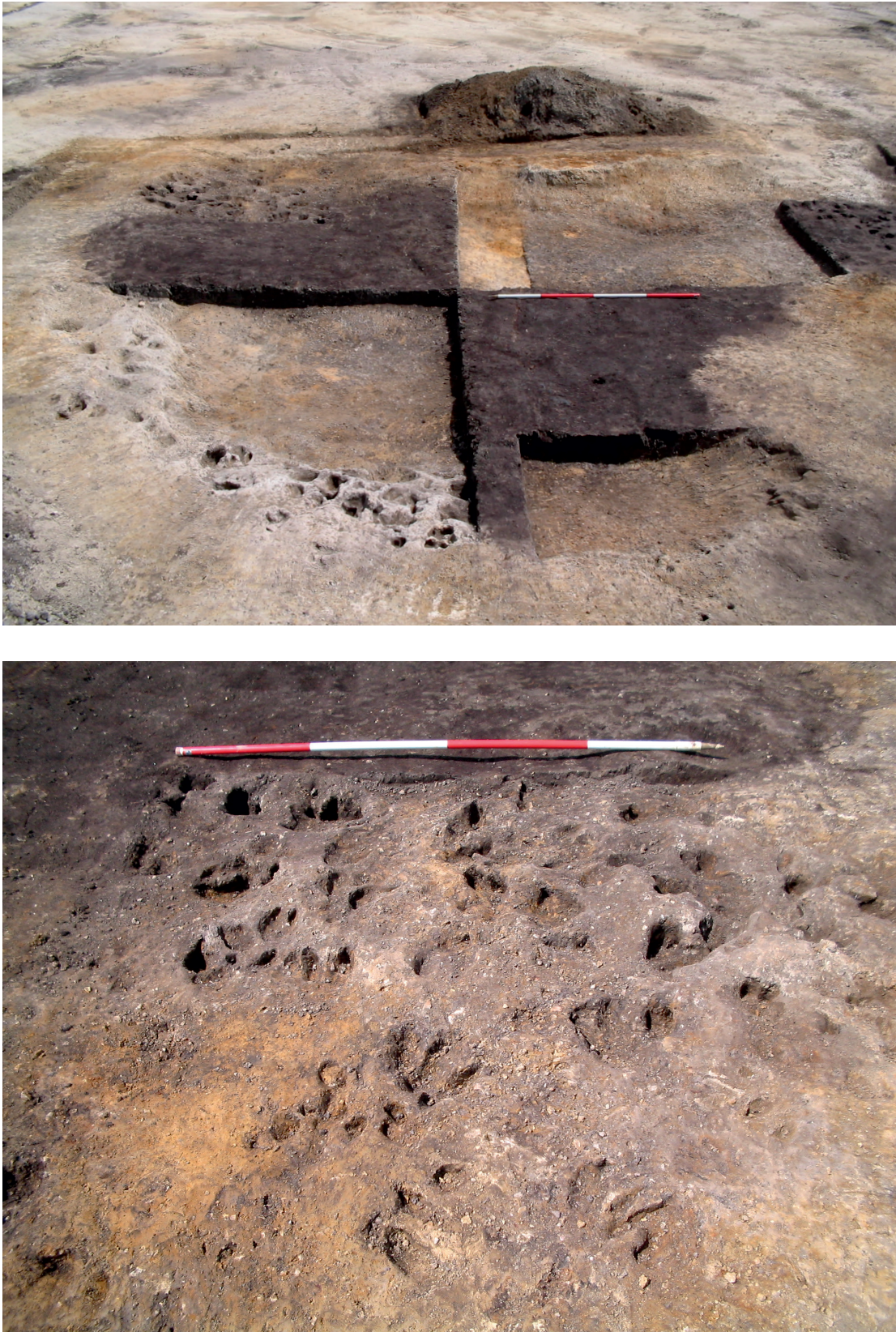


Figure 3.31. *Photograph of waterhole F.1266 (looking to the west) and detail of Area 2 hoofprints.*

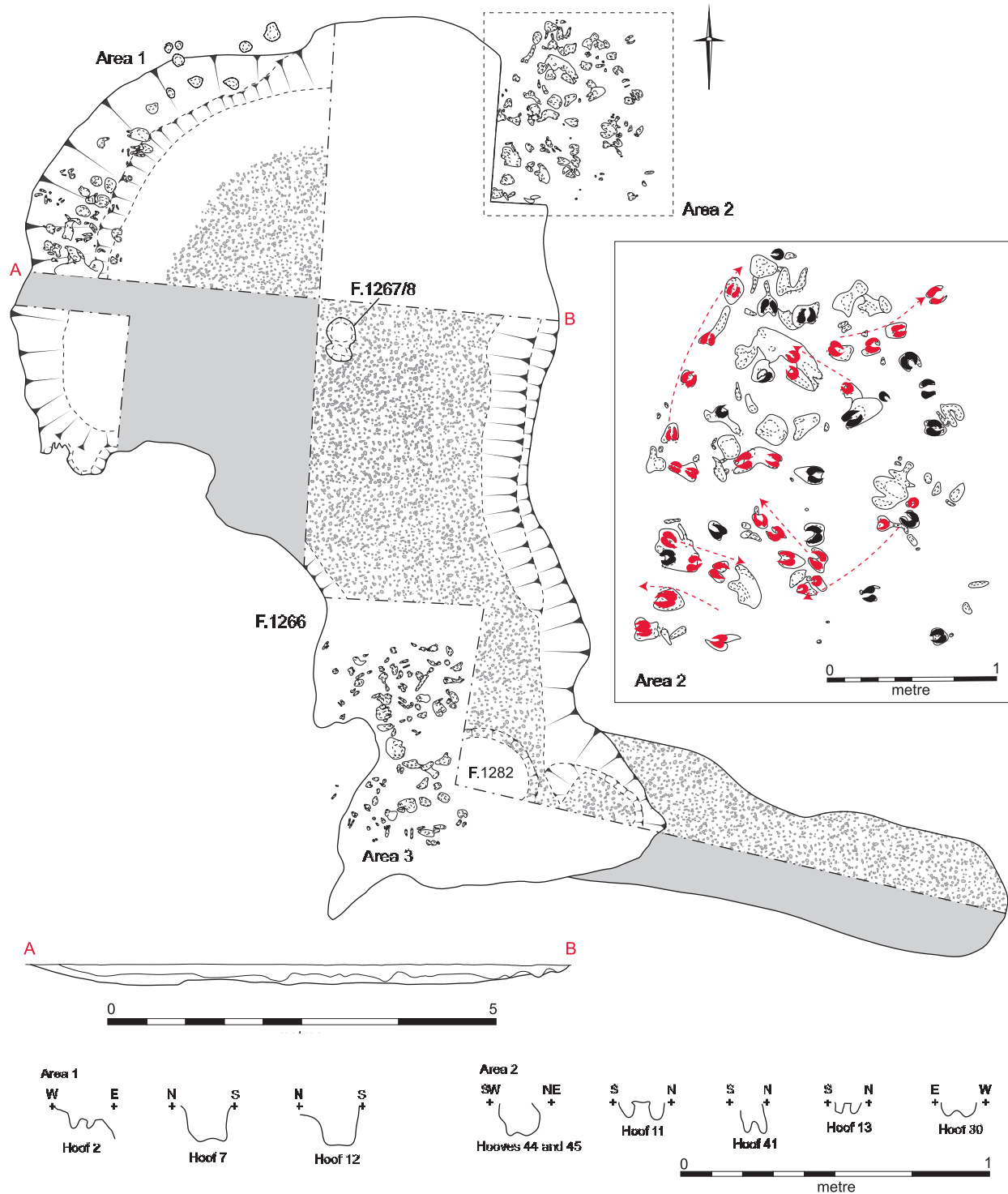


Figure 3.32. Plan and section of waterhole F.1266 and sections of selected Area 2 hoofprints.

The second hollow, F.1292, was kidney-shaped in plan (dimensions: $12.80 \times 6.55\text{m}$; depth: 0.26m) and had gently sloping sides and a broad flat base. It was very similar in character to F.1266 but did not share the same frequency of hoofprints.

Metalled surfaces

Certain attributes were common to all of the metalled surfaces. In their make-up they comprised spreads of small to medium sized stones that had been forcefully compacted to make a hard-standing surface. They

occurred in places where the buried soil had been removed either by the digging of features or through erosion. In some places, prolonged and continual trample of the exposed underlying aggregate was enough to create a hardened surface, whilst in other areas the metalling was purposely laid or augmented with imported materials, such as re-deposited gravels or rounded river pebbles. As described above, the surfaces occurred along the bottom of waterholes and on access ramps, along pathways and as a patchwork of pavements around the margins of the embayment.

The best preserved areas of metalling, independent of the waterholes, were located along the eastern edge of the embayment, slightly upslope of the cut features. The largest section was F.1100 which survived as a broad, if irregular, strip or pathway, measuring approximately 24m in length and nearly 10m in width (Fig. 3.30). The strip was oriented roughly east–west traversing the 0.6–0.4m OD contour. Its surface was patchy and in places punctuated by an irregular

group of small scoops or puddles. The surfaces of the surviving metalling were worn smooth and, through continued use, made extremely hard. Adjacent areas of exposed natural had been similarly compacted and transformed into something equivalent to a rammed mud-floor. Immediately above both these surfaces was a horizon of waterborne sandy-silt (medium grey), which blanketed the metalling and compacted ground to a depth of between 0.10 and 0.15m. Artefacts, including pieces of worked flint, a cattle scapula (with a perforated blade; Fig. 3.33) and human clavicle were recovered from this deposit at the interface with the underlying metallated surface.

A smaller patch of metalling (F.1052, dimensions: 9.36 × 7.41m) was located 20m to the south of F.1100. Here the surface was subsumed by the same waterborne silt as F.1100 and, as before, the interface between the two horizons yielded artefacts – a total of 166 worked flints (Figs 3.34 & 3.35). Again the surface was patchy and some of its edges were caught by machining.



Figure 3.33. *Perforated scapulae (Vida Rajkovača):* The perforated cattle scapula SF.249 (left; oval-shaped puncture: 34 × 25mm) came from F.1100. An analogous example, SF.1007 (right; oval-shaped puncture: 62+ × 45mm), was found at the adjacent Must Farm investigations (Knight & Murrell 2011b). Both examples were found in low lying areas in association with metallated surfaces. The puncture on the Bradley Fen scapula appears to have been made by an object being pushed through from the posterior side, whereas the Must Farm scapula was made from the anterior side. This type of butchery mark is characteristic of Romano-British faunal assemblages and interpreted as evidence of meat hanging for smoking or brining. Equivalent Late Neolithic examples have been found in the south of France, near Montpellier (Fontbousse culture, Vianney Forest, INRAP [Institut National des Recherches en Archéologie Préventive], pers. comm.).

Metalled surface F.1052 (Lawrence Billington)

A total of 166 worked flints were collected from metalled surface F.1052 and the surrounding eroded natural. The majority of the flints were recovered from the surface of the metalling and must represent activity contemporary with the use of the surfacing. It seems unlikely that much residual material could have come to be deposited on the metalled surfaces, excepting perhaps larger pieces such as cores which may have been collected alongside natural stones and incorporated into the surface. The flintwork therefore provides important evidence for the date of the metalling as well as hinting at the use of these areas.

The assemblage is almost exclusively good quality fine grained flint. Approximately 20% of the flints are made from a translucent orange flint,

probably derived from local gravel deposits. Where cortex survives it is generally thin and weathered. The remainder of the assemblage is made up of good quality dark flint, often with a reddish colour and sometimes with lighter brown bands. Several pieces retain the fresh unabraded cortex suggestive of primary chalk flint. The condition of the pieces is very good and fresh although the assemblage is dominated by small, often fragmentary tertiary removals. Chips, pieces with a maximum dimension of 10mm, are well represented at 18.7% of the assemblage. The unretouched flakes are often little bigger than the chips: 51.6% weigh 1g or less. Despite a concerted effort, no refits could be made between any pieces and it is clear that the assemblage represents numerous episodes of reduction and that parts of these sequences, especially larger flakes and blades, are missing. On the basis of

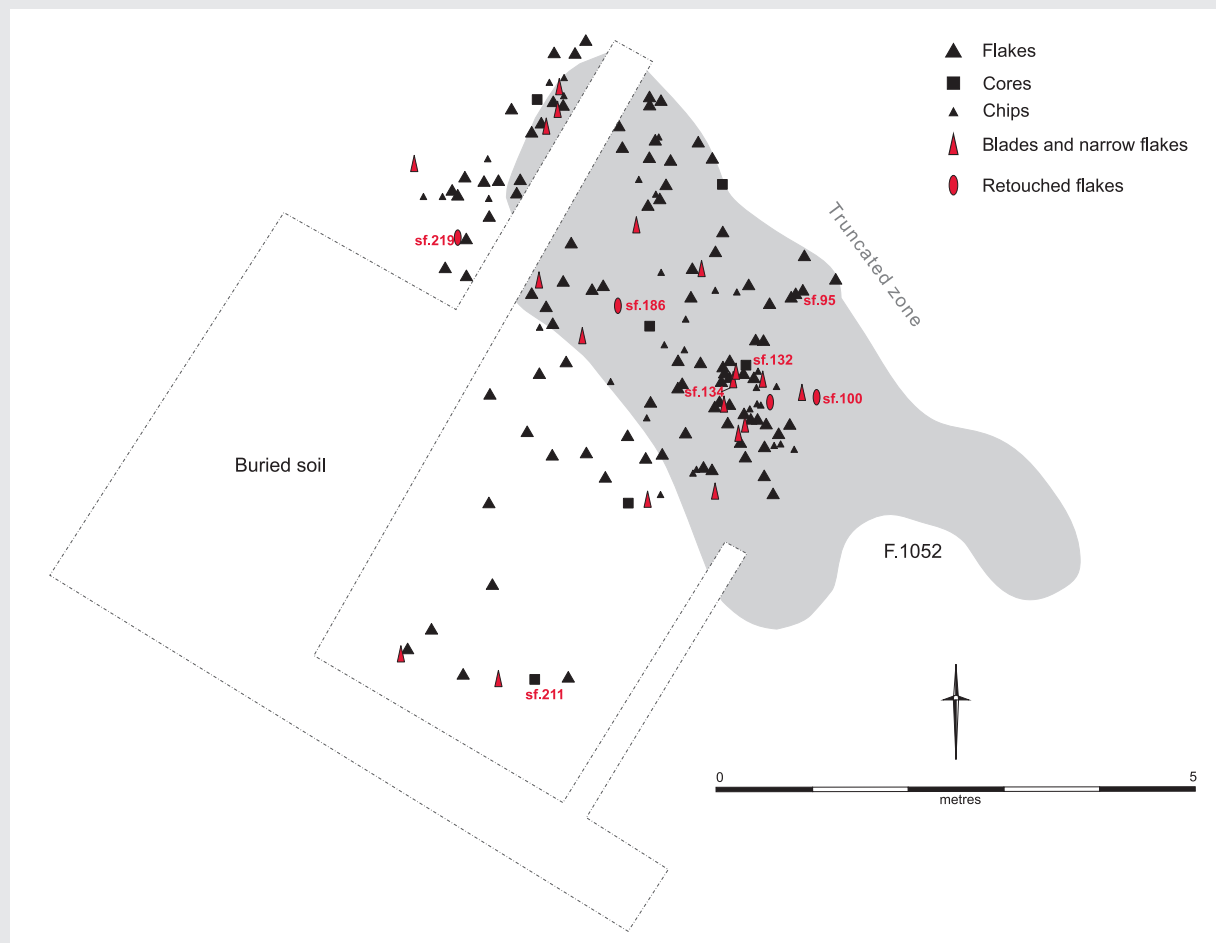
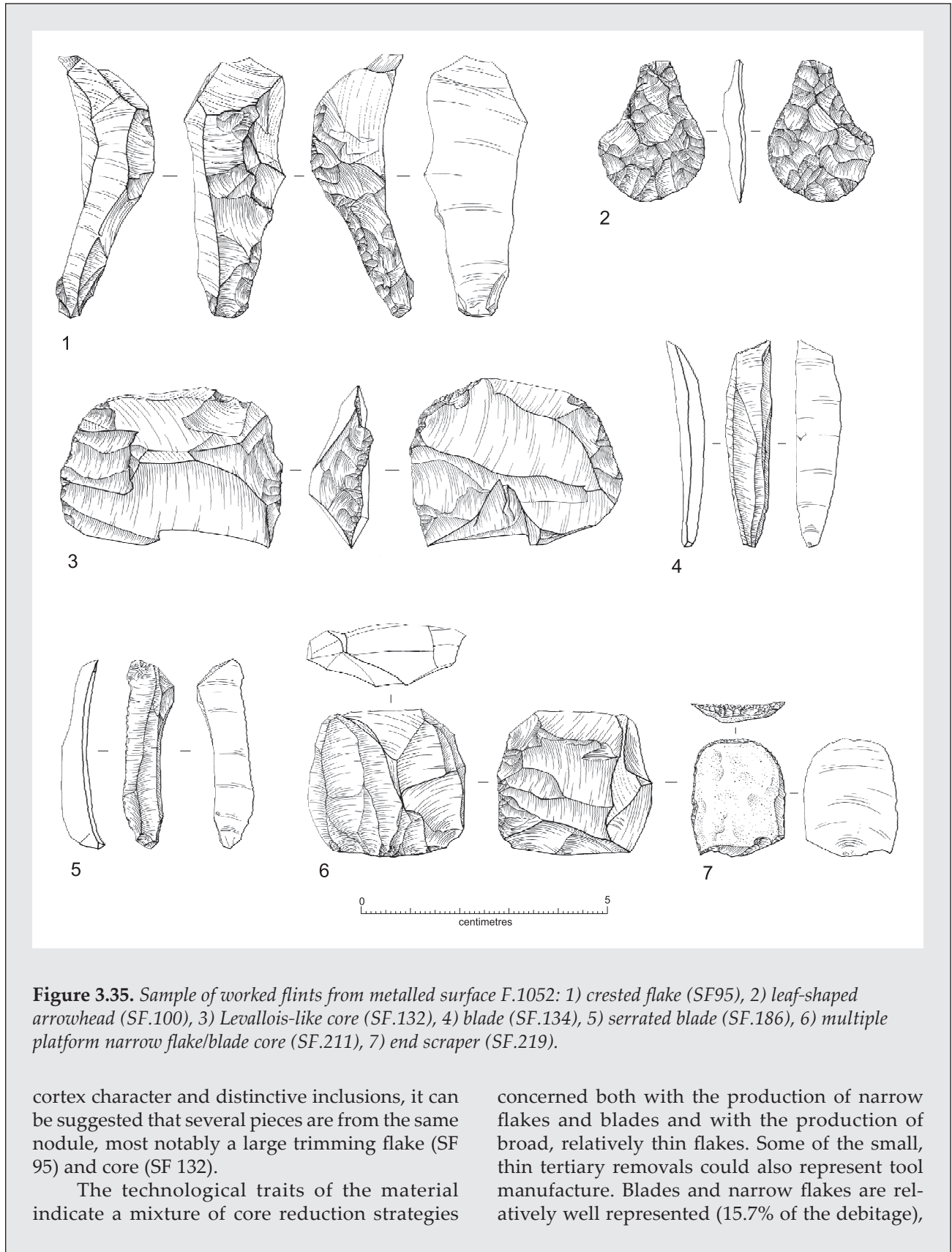


Figure 3.34. Plan of metalled surface F.1052 and distribution of worked flints.



these invariably have trimmed or abraded striking platforms and are soft hammer struck. One heavily utilized or serrated blade has opposed blade scars on its dorsal surface indicating the use of an opposed platform core. Several other flakes show different characteristics including the distal end of a large broad and thin flake probably struck from a Levallois-type core and several pieces with carefully faceted platforms. Seven cores were recovered. One is a single platform core with narrow flake scars and carefully trimmed platform edges. Two further single platform cores on small gravel nodules appear to have produced only a few small flakes, but also show traces of platform trimming. Two well worked out multiple platform cores weighing 14.4g and 14.6g show very similar technological traits, with fine narrow flake scars and platform trimming. Two further cores, with somewhat different technological characteristics, were recovered: one was a keeled core with some platform faceting and some fine narrow blade scars whilst the other was a very neatly worked and exhausted Levallois-type discoidal core.

Table 3.16. *Flint assemblage from metalled surface F.1052 (*excludes chips).*

	F.1052
Chip	31
Chunk	5
Flake	99
Blade/bladelet	4
Narrow flake	15
Core rejuvenation flake	1
Flake core	6
Blade/narrow flake core	1
Retouched flake/blade	1
Serrated flake/blade	1
End scraper	1
Leaf arrowhead	1
Total	166
<i>Burnt and worked (%)</i>	7 (4.2)
<i>Broken (%*)</i>	57 (42.2)
<i>Retouched (%*)</i>	4 (3)
<i>Utilized (%*)</i>	8 (5.9)

Nevertheless, the compaction was not restricted to the metalling but extended across areas of the exposed or eroded natural, as did the scatter of lithics.

As little as 20m to the south, F.948 was a small oval-shaped mound of buried soil (6.00 × 4.50m; 0.15m in height) that stood proud within an area where most of the buried soil had been truncated. The mound itself was encircled by a compacted spread of gravel pebbles, F.951, that formed a hard, resilient surface which masked the softer underlying clay-rich natural (Fig. 3.30). Overlying the metalled surface was a thin deposit of grey sand-rich silt that looked very much like buried soil but was much more friable in texture and had a water-lain appearance. As with the metalled surface, the grey sandy-silt deposit also encircled the mound butting up against its lower edges. A large deer antler (SF 71) came from this context.

Stratigraphically, the surfaces can be shown to have been formed early in the sequence and to pre-date the burnt stone mounds in their final form. They survived as a tangible artefact of people and animals progressing up and down the sides of the embayment and, as such, they represent past movement made manifest. The damp, softened ground that made up the margin was, it seems, particularly susceptible to being affected in this way and because of this the

surfaces are only fragments of much bigger journeys that happened to cross yielding ground. In effect, these spaces were critical points, where it really mattered that practicable access was maintained.

Animal tracks

Discrete patches of hoofprints were found at Bradley Fen. All of the prints occurred below 1.5m OD and all were below the peat. Unambiguous examples were recorded over the top of the small buried soil knoll, F.948, on the old land surface beneath Burnt Mound 4, around the exposed edges of at least three of the large watering hollows and across the primary silts, that infilled one of the hollows. The prints comprised clusters of small to large cloven-hoof impressions that occasionally formed discernible paths or tracks. The quality of prints varied between contexts with the watering hollow sets being the best preserved. Dependent on context, fills included silt, peat and burnt mound matrix. The sub-1.50m OD distribution of hoofprints corresponded to the deepest and best preserved areas of the site. It also corresponded to the increasingly wet zone of the site. The prints were present on exposed surfaces of the old land surface or the exposed edges of contemporary features. The prints were absent in areas of metalling and exposed areas of natural gravels.

The deepest, sharpest and best defined of the clusters of prints survived within the exposed un-metalled edges of watering hollow F.1266 (Figs 3.31 & 3.32). Some of the prints were up to 13cm deep and the high clay content of the surrounding natural was, it seems, the perfect consistency for preserving prints. A group of 20–25 cloven-hoof prints were recorded around the hollow's north-western circumference and the majority of these had been made by the larger middle toes or cleaves (toes 3 and 4) although some also incorporated the back toes or dew claws (toes 1 and 5). The prints appeared to represent more than one kind of animal and included both large (length: 12cm; width: 12cm) and small (length: 4.5cm; width: 5cm) examples. The majority of the prints were longer than they were wide (72%) with the remainder having either an equal length–width ratio (17%) or a greater width to length (17%) ratio (Fig. 3.36). Some prints were identifiable as particular species and included cow, pig and deer, but not sheep. Similarly, walking patterns were also apparent with sets of prints entering and leaving the waterhole. The full palimpsest effect was visible around F.1266 in that animal tracks were identified both below and above its silt infilling. Splayed and exaggerated forms suggested that some of the prints had been made by animals slipping down the edge of the hollow.

The prints that cut the top of the buried soil knoll and the old land surface beneath Burnt Mound 4 were less sharp and considerably less deep (4cm max.) and

as a result they were difficult to identify in terms of species. Their overall size matched those found around the hollows and their density was also the same.

Burnt mounds

Four burnt mounds were revealed at Bradley Fen (Burnt Mounds 1–4): their details listed in Table 3.17. Three were located along the eastern fringe of the Bradley Fen Embayment (Burnt Mounds 1–3; Fig. 3.22), whilst the fourth was uncovered directly opposite, on its western margin (Burnt Mound 4; Fig. 3.18). All were situated below the 1.00m OD contour and lay within areas where the old land surface was still mostly intact. Without exception, the currency of the mounds pre-dated the formation of a peat horizon across the contours at this altitude.

Architecturally, the mounds comprised large accumulations of fire-cracked stones incorporated within a dark, humified sandy-silt matrix. Though the group shared features in common, such as the presence of a hearth beneath every mound, individually, however, the sub-mound and extra-mound features were quite distinct, particularly with regard to the relationship to existing, possibly 'relict' waterholes.

Burnt Mound 1

Burnt Mound 1 was irregular in plan, measuring c. 15m in length, 13m in width and was up to 0.20m thick (Figs 3.27 & 3.28). The mound material comprised dark grey

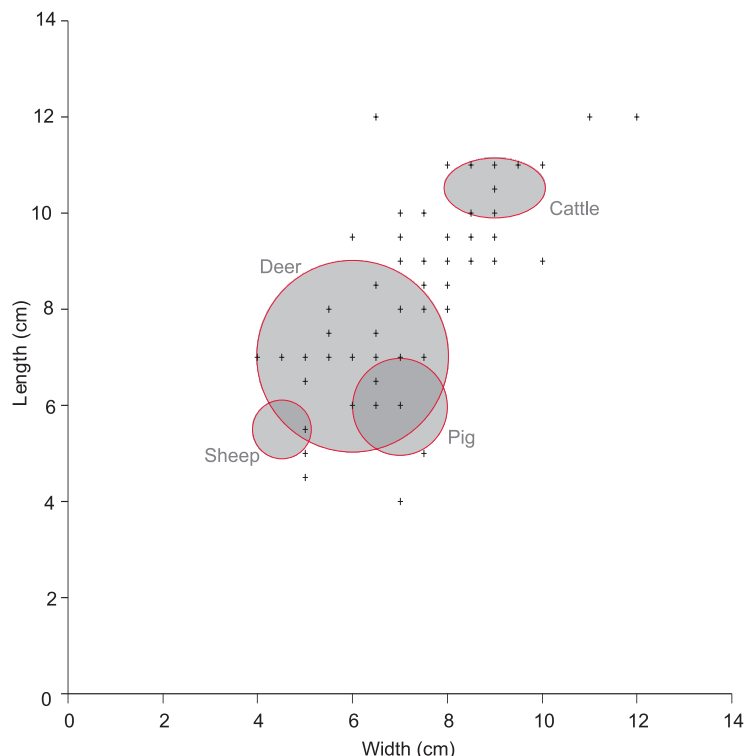


Figure 3.36.
Hoofprint chart
(length and width
ratio by species).

Table 3.17. Burnt mounds (area, altitude and sub/extra-mound 'complexity'; MT=metalling; WH=watering hollow). Pottery (with the exception of an inserted pot base within Burnt Mound 3), worked flint and animal bone were almost completely absent from the mounds and, although a small amount of worked flint and animal bone was recovered from adjacent features, there was no direct link between the creation of the mounds and the deposition of artefacts. This particular relationship was made clear by a corresponding absence of burnt stones from the same adjacent features. If nothing else, the processes involved in the accumulation of large amounts of burnt stones were shown to be discrete.

Burnt Mound	Area m ²	Height OD	Sub-mound features	Extra-mound features
1 (F.874)	148.55	0.70m	11 (F.875–78, F.883–90)	MT: F.865 WH: F.859 F.866
2 (F.1095)	155.33	0.80m	4 (F.966 F.1086–88)	MT: F.1102 WH: F.1038 F.1102 F.956
3 (F.1148)	69.29	0.70m	2 (F.1149, F.1157)	MT: None WH: F.1151
4 (F.1284)	31.15	0.00m	1 (F.1283)	MT: None WH: F.1280 F.1286

to black humified sandy-silt replete with fragments of fire-cracked sandstone river pebbles. The mound was formed alongside the south and western edges of the large C-shaped watering hollow F.859.

Located underneath the mound and central to a very slight hollow in the preserved buried soil (0.11m thick), were a series of features including two hearths, (F.877 and F.890), six postholes (F.878, F.883–88) and two further pits (F.875 and F.876). Hearth F.877 was oval-shaped (0.90 × 0.80m), whilst F.890 was circular (diameter: 0.85m). Both stood out as orangey-red scoops against the grey buried soil background, filled with a pale orange sandy-silt with occasional fragments of burnt stone. The postholes, on the other hand, were filled with the same matrix as the mound material. These displayed small diameters (0.19–0.29m) and shallow, U-shaped profiles (0.06–0.18m in depth), with postholes F.884–87 forming a neat four-post arrangement that partially encompassed hearth F.890.

Three metres to the northwest of this 'structure' was circular pit F.875 (diameter 1.60m), which had a bell-shaped profile (depth 0.60m) accentuated by a splayed weathering cone. Its basal fill included fragments of burnt stone held within a soil matrix, comparable with the mound material itself. A similar fill characterized pit F.876, which was situated nearly 4m to the east. It had a squat profile comprising a flat base with splayed sides (diameter: 0.90m).

Burnt Mound 2

Burnt Mound 2 was also irregular in plan and measured 15.5 × 14.0m (Fig. 3.37). At its thickest, the mound was 0.28m thick and overlain by a thin (0.08m max.) buried soil horizon. The mound material comprised dark brown, almost black, humified sandy-silt with occasional yellowy-orange sandy-silt lenses and abundant fragments of burnt stone.

Four features were sealed beneath the burnt mound: a hearth (F.966) and three pits (F.1086–88). Of

these, F.1086 proved to be the deepest and displayed a complex depositional sequence. The pit was roughly oval in plan (3.40 × 3.00m) and had near-vertical sides and a stepped base (1.52m in depth). This had been re-cut, but only after the original feature had been completely infilled.

The basal fills of the primary cut consisted of grey-brown organic silts with fragments of waterlogged roundwood and small pebbles. Hazelnut shells were also present. Three fragments of animal bone (30g) were recovered from the paler, secondary fills. The lower dark organic silt fills associated with the re-cut produced fragments of bark, moss, hazelnut shells, worked wood, nine pieces of animal bone (175g) and three pieces of burnt stone (555g). In contrast, the capping fill was continuous with the overlying burnt stone spread.

To the west of F.1086 were two smaller pits, F.1087 and F.1088, both of which were also capped by mound material. F.1087 was an irregular shaped hollow (1.35 × 1.30m and 0.16m in depth), whereas the adjacent F.1088 was 'trough-like', having a box-shaped lower profile but eroded upper edges (2.10 × 1.35m and 0.55m in depth). As well as the mound-derived capping fill it also appeared to be lined with mottled grey sandy-clay along its two longest sides.

Burnt Mound 3

Burnt Mound 3, F.1148, was oval in plan (12.00 × 8.00m) and up to 0.08m thick (Fig. 3.38). The mound overlay a buried soil horizon that varied between 0.02 and 0.07m in thickness. As with the other two mounds, the burnt mound matrix comprised dark grey-black humified silty-sand with abundant burnt stone.

Features located beneath the mound included hearth F.1150 and pit F.1149. The hearth feature was located centrally to the burnt mound spread and stood out as a scorched (orangey-pink) hollow in the surface of the underlying buried soil. Immediately adjacent to

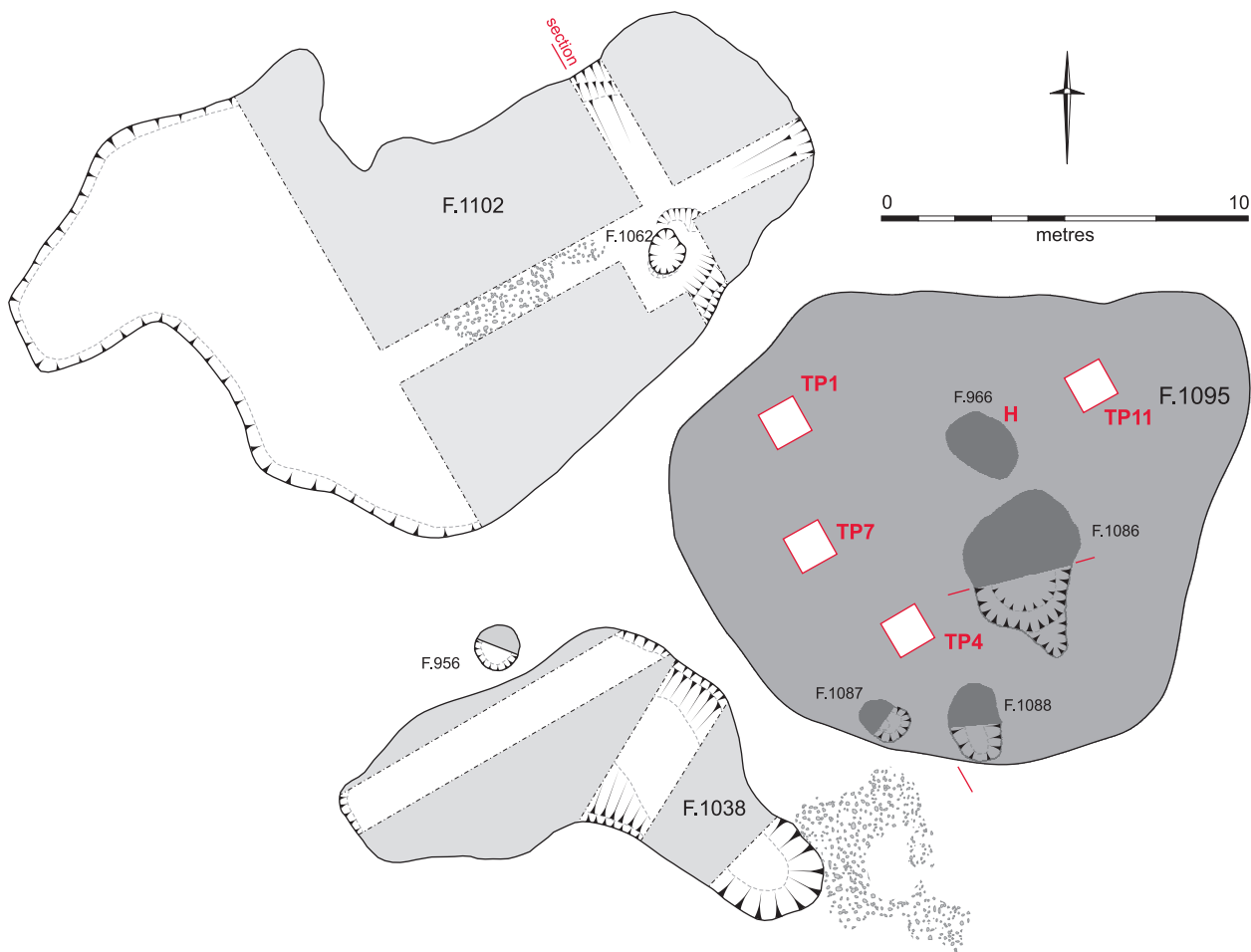


Figure 3.37. Plan of Burnt Mound 2 incorporating earlier waterholes F.1102 and F.1038.

this was the basin-shaped pit, F.1149 (2.05 × 1.05m), which displayed a U-shaped profile cut to a depth of 0.49m. Fragments of burnt stone lay on the base of the pit, overlain by a silt deposit that also yielded fire cracked stones. Above this, the upper fill was effectively a continuation of the burnt mound spread, which slumped noticeably into the pit.

Smaller, shallower pits with profiles not dissimilar to F.1149 were recorded close to the southern and eastern edge of the mound. One, F.1145 (1.70 × 1.10m, 0.36m deep), had a basal fill rich with fragments of burnt stone. Like F.1140 its upper fills were essentially composed of burnt mound material. The other, F.1146 (diameter: 1.10m, 0.30m deep), contained similar fills once again replete with fragments of burnt stone.

Burnt Mound 4

Burnt Mound 4 was oval in plan (7.00m in length, 5.50m in width), with an accumulated deposit that was 0.15m thick (Fig. 3.39). It was situated upon a slight

rise, resting above a 0.10m thick buried soil. As with the other three burnt mounds located along the opposing eastern edge of the embayment, the composition of Burnt Mound 4 was dark grey to black humified sandy-silt with abundant fragments of burnt stone.

Located beneath the centre of the mound, but above the buried soil, was a small hearth, F.1283. It was oval in plan (1.75 × 1.20m) and survived as a 0.08m deep hollow infilled with a mottled orange-yellow-grey ash deposit. The surface of the hollow was scorched, transforming the underlying buried soil from pale grey to reddish-orange. Outside of the hearth, the surface of the buried soil beneath the mound was pock-marked with very small semi-circular hollows (c. 0.15m in diameter) that held pockets of the burnt mound material. These had the appearance of weathered or compacted hoofprints, perhaps partially obliterated by the creation of the mound.

The western edge of the mound was bordered by a crescent-shaped hollow, F.1281 (3.75 × 0.95; depth

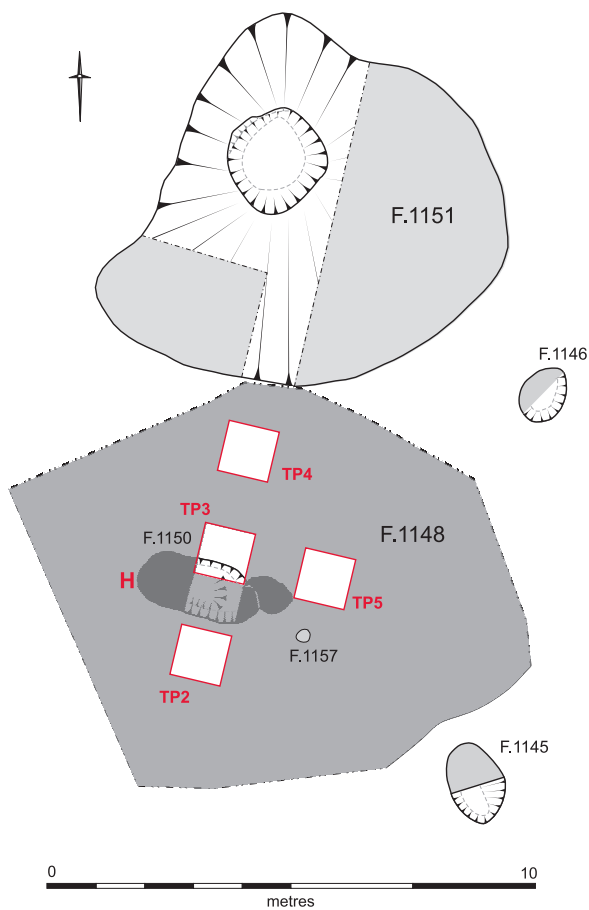


Figure 3.38. Plan of Burnt Mound 3 incorporating waterhole F.1151.

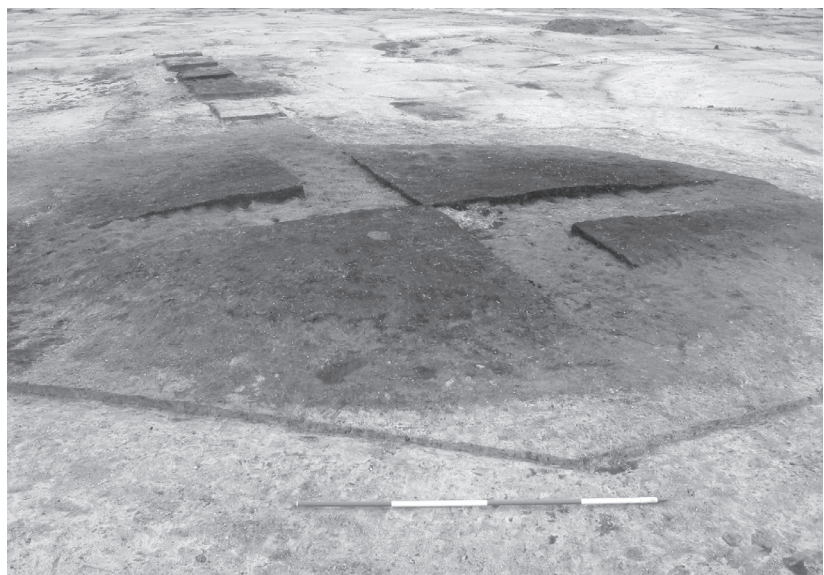
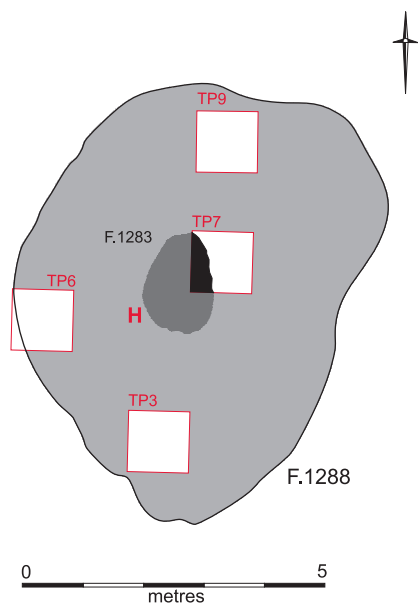


Figure 3.39. Plan of Burnt Mound 4 (with photograph looking north).

0.33m), infilled with pale grey sandy-silt over a lower fill of sandy-gravel that included flecks of charcoal as well as a single fragment of animal bone.

A few metres away from the mound were two sub-circular pits, F.1280 and F.1286, both of which were capped with peat. F.1280 was 0.85m in diameter and 0.38m deep, had a basal fill of pale grey clayey-silt and a U-shaped profile. By comparison, F.1286 was over three times as deep (1.10m deep) and had a worn profile indicative of an 'open' feature. A broad weathering cone (1.50m in diameter) marked the top of the pit, whilst the lower profile was only 0.85m in diameter, with vertical sides and an irregular base. The primary fill was a blue sandy-silt and included small twigs, a tangential wood chip and some fragments of bark. Above this deposit was a split roundwood stake (0.80m in length and 0.10m in diameter) which was engulfed by a 0.70m thick deposit of re-deposited natural. The uppermost fills consisted of pale grey silt beneath peat.

Burnt mound scale and composition

Whilst the four burnt mounds differed both in total area (31.1–155.3m²) and the overall density of their burnt heavy fraction (average weight of burnt fraction per 15 litres ranged between 676.5 and 1707.5g), they nonetheless demonstrated remarkable consistency in terms of *relative* composition (Table 3.18; Fig. 3.40). From this, it may be surmised that the four mounds represent the products of equivalent processes or practices but that they differed in their intensity of use. The largest mounds (Burnt Mound 1 and Burnt Mound 2) had the

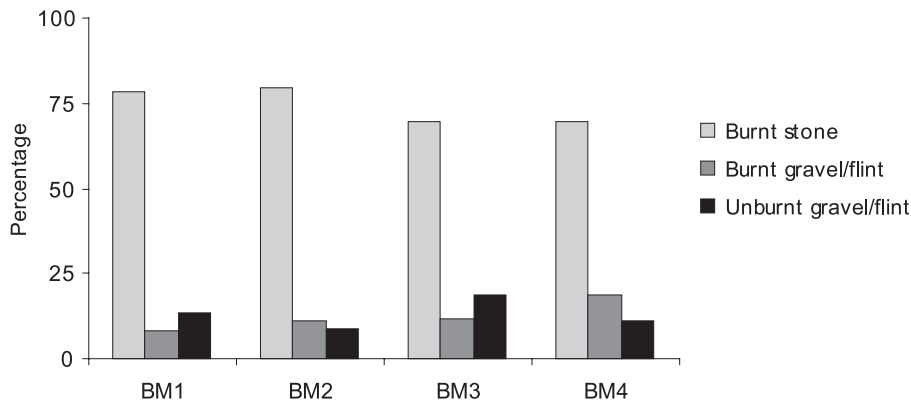


Figure 3.40. *Percentage heavy fraction composition of four burnt mounds.*

greatest density of burnt heavy fraction, suggesting that their size was a straightforward reflection of their scale of use. The burnt stones from Burnt Mound 2 were also the most heavily fragmented (mean stone weight 1.5g) and were on average almost half the weight of the those from the other three mounds (Burnt Mound 1: 3.4g; Burnt Mound 3: 3.6g; Burnt Mound 4: 2.7g).

Single charcoal samples taken from the four Bradley Fen burnt mounds produced AMS radiocarbon dates that, at 95% confidence, spanned the entirety of the accepted Early Bronze Age chronology (c. 2400–1500 cal BC; Table 3.19). Single AMS dates taken from mass charcoal events can only really be used to construct coarse-grained chronologies. Equally, there is every chance that samples taken from elsewhere within each of the mounds might have produced slightly different dates. For example, the ‘early’ assay obtained from Burnt Mound 2 might, in actual fact, be a product of dating old wood. Given that Burnt Mound 2 was part of the same ordered arrangement as Burnt Mounds 1 and 3 and shared the same aspect and altitude, this seems entirely plausible. The age/altitude model would

suggest that Burnt Mound 4 was, in reality, the first of the four mounds and that the almost indistinguishable dates generated by Burnt Mounds 1 and 3 represent, or are indicative of, a distinct burnt mound horizon to which Burnt Mound 2 also belonged.

In places the burnt mounds and large watering hollows were located side by side, whilst in others the two feature-types were much more distinct. Remarkably, the mounds consistently coincided with areas where the buried soil horizon was still intact, whereas the metalled surfaces only occurred where the same horizon had been effaced. Occasionally, there were subtle suggestions that the burnt mounds overlapped with the metalled surfaces or even that the circumstances that brought about the necessity to augment the ground surface with compacted spreads of gravels were being circumvented by the intervention of large accumulations of burnt stones. So, for example, the hoofprints located beneath Burnt Mound 4 or in the ‘trampled’ hollow beneath Burnt Mound 1 might have indicated places which would have eventually required metalling, had it not been for the making of the mounds.

Table 3.18. *Burnt mounds – area and heavy fraction composition.*

Burnt Mound	Area (m ²)	Average weight per 15 litres	Burnt stone Average % per 15 litres	Burnt gravel/flint	Unburnt gravel/flint
1	148.5	1087.5g	78.5 (1241g)	8.3 (131g)	13.2 (208g)
2	155.3	1707.5g	79.8 (1459g)	11.3 (206g)	8.9 (163g)
3	69.3	983.5g	69.7 (1622g)	11.5 (268g)	18.8 (438g)
4	31.1	676.5g	69.8 (598g)	19 (163g)	11.2 (96g)
			Aver. 74.4%	Aver. 12.5%	Aver. 12.8%

Table 3.19. *Burnt mound – radiocarbon dates.*

Mound	Sample	Conventional age	2 sigma (cal BC)	1 sigma (cal BC)
1 (SQ 35)	Charcoal	3360 ± 40 BP	1740–1530	1690–1610
2 (SQ 1)	Charcoal	3770 ± 40 BP	2300–2120 & 2100–2040	2270–2260 & 2220–2140
3 (SQ 2)	Charcoal	3320 ± 40 BP	1690–1510	1650–1530
4 (SQ 3)	Charcoal	3490 ± 40 BP	1910–1700	1880–1750

Settlement finds and material practice

The majority of the finds came from the higher, drier zones, whilst low-lying features that occupied what was to become the saturated zone yielded comparatively small quantities of all materials, except for fragments of burnt stone. As stated above, pottery assemblages from both monument and settlement contexts are presented in this section. Although comparatively small, the faunal and plant assemblages from settlement-related contexts were substantial enough to offer some insight into facets of diet and waste management as well as glimpses into aspects of livestock, agriculture and environment.

Prehistoric pottery (Mark Knight)

This report focuses on the site's Early Bronze Age ceramic component and describes a small collection of Beaker and a large assemblage of Collared Urn (Figs 3.41 & 3.42). The latter section also includes other Early Bronze Age 'non-collared' forms such as vase-type Food Vessels, biconical and ancillary vessels. By any standard, the Collared Urn assemblage is impressive. It also represents a significant facet of the earlier landscape material trace and as such warrants particular attention. Similarly, the composition and scale of the Collared Urn assemblage has implications on the interpretation of the preceding and subsequent ceramic phases, in particular the ensuing Deverel-Rimbury component. Consequently, the contextual and distributional differences between the Collared Urn and Deverel-Rimbury assemblages are explored further in the following chapter. For now, it is necessary to demonstrate the composition and scale of the Early Bronze Age pottery.

Beaker

The Beaker assemblage comprised 163 sherds weighing 1237g. The pottery can be separated into three spatially distinct groups: *King's Dyke*, *Bradley Fen (high)* and *Bradley Fen (low)*. The bulk of the assemblage came from the last of these groups (Table 3.20). Most of the material comprised small sherds and included fine, comb-zone and incised decorated forms along with coarse, rusticated or raised plastic forms. The focus of the assemblage was a singular structure

Table 3.20. *Beaker pottery distribution by site and by elevation.*

	No. sherds	Weight (g)	% Weight
King's Dyke	12	95	7.7
Bradley Fen (high)	38	156	12.6
Bradley Fen (low)	113	986	79.7
Total	163	1237	-

Table 3.21. *King's Dyke features with Beaker pottery.*

Feature	Context	No. sherds	Weight (g)	Fabric
82	82	10	81	12
757	897	2	14	12

(Structure 1) situated at the low end of Bradley Fen whilst everything else pointed towards a thin or diluted background distribution.

King's Dyke

The King's Dyke excavations generated 12 sherds of Beaker pottery weighing 95g (Table 3.21). Ten fragments came from a tree-throw feature (F.82) and the remaining pieces from the backfill of a grave (F.757). The tree-throw contained abraded pieces from a single Beaker decorated with incised lozenges. The two pieces from the grave included a small comb-impressed fragment and an equally small rusticated piece decorated with crude 'crowsfoot' or fingernail-raised pellets. The comb-impressed piece was made of a grog-tempered fabric and the rusticated piece was flint tempered.

Bradley Fen (high)

The Beaker fragments incorporated thin-walled pieces with incised or comb-impressed decoration alongside thicker pieces with rusticated raised plastic or 'crowsfoot' designs. Fabric-wise the sherds were predominantly sand and grog rich. Of the 39 identified pieces, 5 were rim fragments (simple rounded) and 26 were decorated (Table 3.22). F.225 contained fragments of a small thin-walled vessel (c. 12cm diameter) decorated with a compact pattern of comb-impressed lines forming horizontal bands, filled chevrons and herring-bone decoration. Abraded fragments from at least two vessels came from F.652 with pieces of a fineware form decorated with bands of short vertical incised lines bounded by horizontal lines, a comb-zoned fragment and three rusticated pieces with 'crowsfoot' decoration. A residual 'crowsfoot' sherd was also located within F.544.

Table 3.22. *Bradley Fen (high) features with Beaker pottery.*

Feature	Context	No. sherds	Weight (g)	Fabric
225	132	20	50	2
329	258	1	5	2a
338	267	3	15	3
353	284	2	10	3
544	500	1	4	1
652	613	12	76	3
Total	6	39	160	4

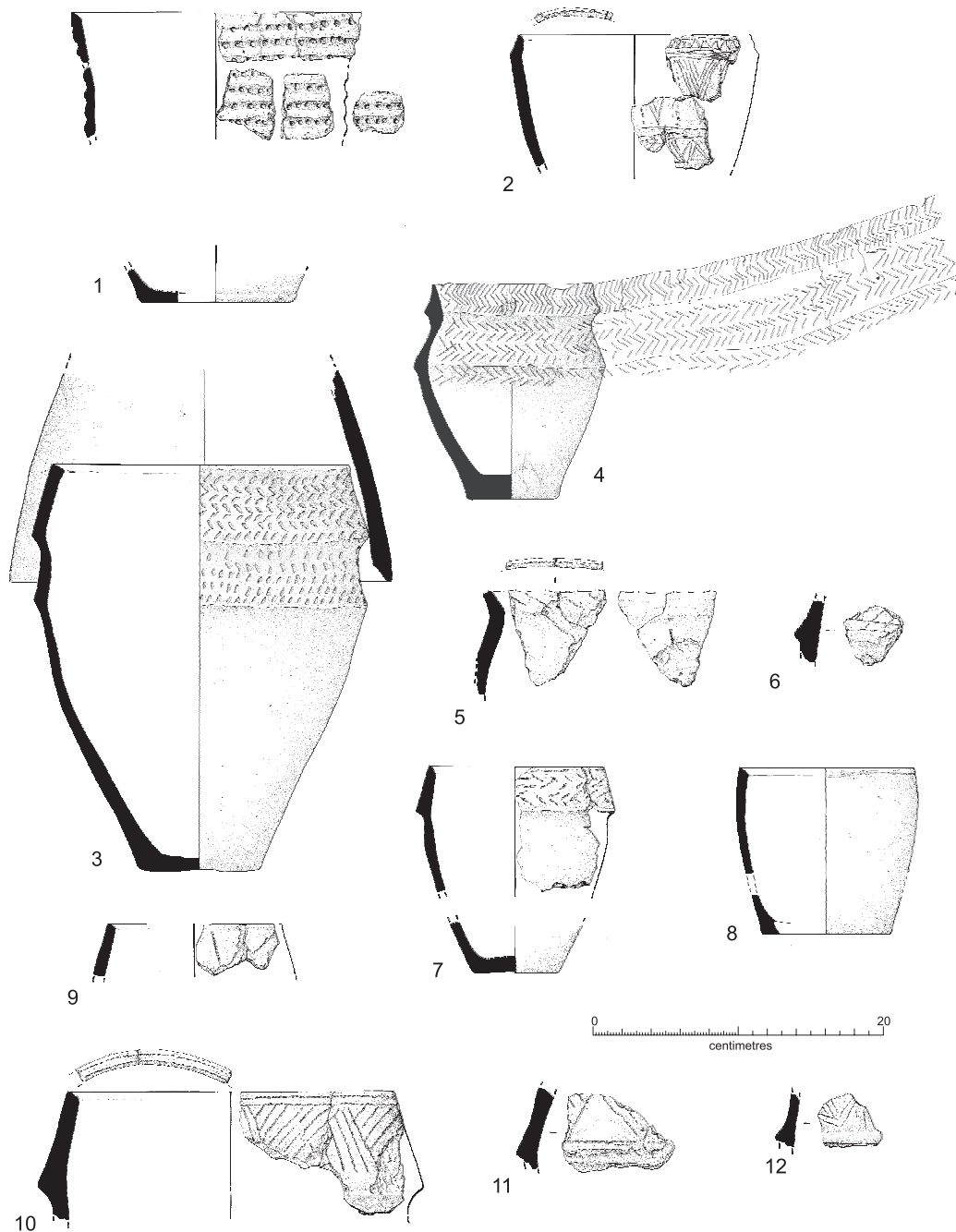


Figure 3.41. Beaker (Str. 1) and Collared Urn (Henge, Cemetery and Settlement) pottery: 1) Beaker, rim, body and base sherds of 'fluted' form incised all-over with horizontal grooves punctuated with small oval-shaped dots (SF.197); 2) Beaker, rim and neck fragments with incised lozenges infilled with a single line of short stabs (SF.198/F.1266); 3) Collared Urn, large bipartite form with incised 'herring-bone' decoration around its collar and neck (F.749); 4) Collared Urn; small bipartite form with impressed herring-bone decoration extending across its collar, neck and uppermost shoulder (F.750); 5) Food Vessel (bipartite 'vase-type'), angular outline with impressed cord decoration (F.851); 6) Collared Urn, collar fragment with impressed twisted cord lattice (F.851); 7) Collared Urn, small bipartite form with twisted cord herring-bone decoration on collar only (F.349); 8) 'collarless Urn', plain with internally bevelled rim (F.349); 9) Collared Urn, rim sherds (internally bevelled) with twisted cord triangles (F.349); 10) Collared Urn heavy slab-built collar decorated with impressed twisted cord (filled triangles; F.636); 11) Collared Urn, decorated collar fragment impressed twisted cord triangles (F.276); 12) Collared Urn, small collar fragment with twisted cord impressed decoration (F.276).

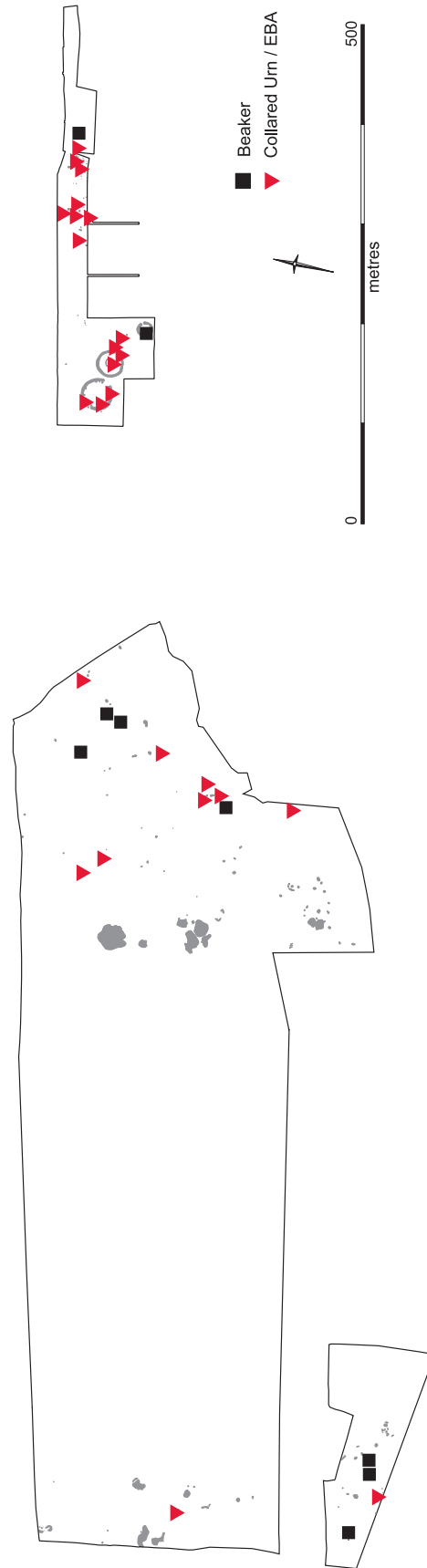


Figure 3.42. *Distribution of Beaker and Collared Urn pottery.*

Bradley Fen (low)

A concentration of Beaker pottery was found in the vicinity of Structure 1. The find spot SF 197 generated 49 sherds, 23 of which were decorated and 10 of which were base fragments. On 21 of the 23 decorated sherds the decoration comprised 'all-over' incised horizontal grooves punctuated with rows of small oval stabs. This decoration was associated with an internally bevelled rim and the various body sherds indicated a splayed or slightly fluted overall form. The fabric was medium hard with frequent small sand, common grog and occasional small voids. Found alongside these fragments were three other decorated sherds made of the same fabric; one with lines of twisted cord, another with thin parallel, incised lines and a base angle with vertical, incised grooves.

Find spot SF 198 and posthole F.1266 of Structure 1 produced three sherds belonging to the same elaborately incised fineware Beaker. The mouth of the vessel was slightly closed and had a short tapered profile with a flattened top that was impressed with a single line of short stabs. The front of the rim had horizontal lines bordering an incised zigzag. The neck was decorated with incised lozenges also infilled with a single line of short stabs.

F.1183 produced 55 fragments of a very large, high-shouldered Beaker decorated with widely spaced, lightly plastic, paired thumb and finger-nail 'pinches'. Aside from crumbs, every piece showed signs of the same characteristic finger-nail decoration (c. 40 pieces). The fabric contained frequent grog and occasional small calcined flint. Non-plastic, widely spaced finger pinching was also present on three large sherds from F.1259 as well as a single sherd from SF 48.

Collared Urns and other Early Bronze Age forms

By far the largest part of the earlier prehistoric pottery assemblage was made up by the Early Bronze Age component (Table 3.23). Collared vessels dominated this category and included whole pots, as well as fragmented remains of both tripartite and bipartite urn forms. Parts of non-collared urns were also present but, significantly, these were found in the same contexts and alongside fragments of urns with collars. They also shared the same fabrics, surface treatments and characteristic pale colouring. A few undecorated forms were identified but decoration was common and

Table 3.24. Early Bronze Age/Collared Urn pottery context division (the King's Dyke settlement category includes the pit-circle and henge assemblage).

	Funerary (wt g)	Settlement (wt g)	Total (wt g)
King's Dyke	6313	3514	9837
Bradley Fen	3063	607	3670
Total	9376	4121	13497

was mostly executed with impressed twisted cord, but also included comb-point, linear and non-linear incision and impressed whipped cord. Decoration was confined to the upper half of vessels (rim, collar, neck and shoulder) and consisted predominantly of horizontal lines or filled-triangles motifs.

Whole urns (small and large) were exclusive to funerary contexts although not always in direct association with human remains, whilst the settlement or 'domestic' element comprised mixed assemblages of small sherds with most vessels being represented by just one or two fragments. Significantly, other attributes of the funerary urns differed noticeably from those connected with settlement contexts suggesting divergent patterns of deposition as well as potentially dissimilar chronologies. At the very least, the spectrum of fragmentation (ranging from complete urns in fresh condition through to small abraded fragments) would appear to indicate that whilst some vessels were removed from 'circulation' early, others continued in 'use' and as a consequence experienced increasing levels of attrition.

King's Dyke produced the greatest quantity of Early Bronze Age pottery (72.8% by weight) and its assemblage can be split into three key contexts: funerary (282 sherds, 6313g), pit-circle and henge (60 sherds, 946g) and settlement (255 sherds, 2568g). By comparison, the Bradley Fen assemblage included a relatively small funerary component (98 sherds, 3063g) and an even slighter settlement component (32 sherds, 607g; Table 3.24). In reality, the pottery retrieved from the King's Dyke pit-circle and henge context was more or less identical in character to the adjacent settlement material and as such probably corresponds to the same or possibly another occupation event.

When calculated by weight, there appears to be a significant disparity between the funerary- and settlement-related contexts across the two sites, with the funerary category generating twice as much pottery as the settlement. When calculated by number of sherds, however, the disparity is much less obvious, with the former generating 380 sherds and the latter 347 sherds. Importantly, the differences in weight illustrates the intactness, or less fragmentary character, of the ceramics

Table 3.23. Collared Urn pottery by site.

	No. sherds	Weight (g)
King's Dyke	597	9827
Bradley Fen	130	3670
Total	727	13497

Table 3.25. Early Bronze Age/Collared Urn pottery – minimum number of vessels by principal context.

	MNV
Cemetery	8
Henge	6
House	6
Settlement	18
Total	38

recovered from contexts associated with burial; whole pots weigh a lot more than the disassembled and abraded remnants of broken-up pots. To get at the authentic scale of the different assemblages (*whole* versus *broken*) it is necessary to look beyond overall weight or the total number of sherds and to focus instead on the number of vessels represented in each of the key contexts. This exercise will produce a conservative estimate based upon recognizable individual forms and is distorted to a degree by the incompleteness of forms present. The minimum number of vessels for each of the different contexts shows the balance to be significantly different with the highest number of vessels coming from the most ‘fragmented’ context (i.e. settlement pits; Table 3.25). The henge, house and settlement contexts can be understood as being equivalent in that they all generated mixed and partial assemblages. Understood this way, the assemblage looks very different with over 78% of the total number of vessels coming from occupation-related contexts.

The condition of the material varied dramatically between contexts with the pottery associated with burial contexts being predominantly fresh whereas the mixed settlement assemblages comprised mainly small pieces of which most were abraded and/or burnt. Crucially, the prevalent contextual evidence suggests that the relatively poor condition of the settlement material, its damage so to speak, had happened for the most part *after* the pots had been broken but *prior* to deposition. In comparison to the whole urn cemetery context, the delay in deposition was extra-prolonged and expressed a sequence or trajectory of *whole urn – sherds – delay – deposition*.

Fabric types

Two main fabrics types were identified. Both contained grog as the principal opening material but were distinguishable by the differing amounts of sand present. As a result, fabrics varied texturally between being exceptionally abrasive to being particularly soapy; Fabric 1 was medium to medium hard and included frequent to abundant amounts of grog and common to frequent amounts of sand; Fabric 2 was medium hard with frequent to abundant grog and rare sand. Occasionally,

rare to moderate amounts of small burnt flint or other small grits were also recorded within the two main fabrics (Fabric 1a and Fabric 2a). The grog inclusions varied in size (small to large) and sometimes occurred as multicoloured lumps that contrasted with the main fabric colour. The pots’ exteriors were oxidized and pale pink, pale orange, pale grey or reddish-brown in colour. The un-oxidized interiors showed much less variation, being either black or dark grey. Fragments displaying evidence of being burnt or re-fired after being broken were quite common and very often had lost any definition between an oxidized exterior and an un-oxidized interior. At the same time, burnt sherds had a tendency to be noticeably lighter in weight and also have a ‘dry’ pumice-like texture.

Forms

Variations in form were best illustrated by the differences in overall shape between the complete urns found in association with funerary contexts located adjacent to the round barrows and the reconstructed urns of the mixed sherd-based assemblages from settlement contexts. Isolated cremation urns buried away from the monument complex had forms equivalent to the settlement pots. Consequently, it is possible to determine two broad types or groups:

Group 1: Tripartite – simple rims above a convex or straight collar, above a concave vertical or concave asymmetrical neck; the diameter of the collar being either equal to, or smaller than, the diameter of the shoulder.

Group 2: Tripartite and Bipartite – simple or expanded rim above concave or S-shaped collar, above an S-shaped, straight vertical and straight angled neck; the diameter of the collar being either equal to or greater than the diameter of the shoulder.

Variants on these forms included simple bipartite profiles with vestigial or ‘false’ collars constructed out of raised cordons as well as plain, almost neutral, bipartite forms without collars and simple internally bevelled rims. In addition, the truncated upper portion of a small vase-type Food Vessel was recovered from next to two Collared Urns (one of which was similarly truncated) and sherds from a second and, possibly, third vase-type Food Vessel were found alongside Collared Urn sherds within the capping deposit of the southern henge ditch.

Decoration

Techniques of decoration included corded and non-corded examples and in almost all cases their application was confined to rim, collar and neck areas of vessels (Table 3.26). In all, five different methods were identified and in order of frequency these included: Twisted Cord (21 times), Comb-point (2

Table 3.26. Collared Urn Decoration: Technique (Non-linear incision, Linear incision, Whipped cord, Comb-point and Twisted cord) and Motif (A = Horizontal lines; E = Diagonal lines; G = Zigzag; H = Filled triangles; J = Herringbone; M = Horseshoes, loops and rings; after Longworth (1984)). Vase-type Food Vessels denoted in bold.

	Pot	NLI	LI	WC	CP	TC	A	E	G	H	J	M
Cemetery	1											
	2											
	3											
	4											
Henge	5											
	6											
	7											
House	8											
	9											
	10											
Settlement	11											
	12											
	13											
	14											
	15											
	16											
	17											
	18											
	19											
	20											
	21											
	22											
	23											
	24											
	25											
	26											
	27											
	28											

times), Non-linear Incision (2 times), Linear Incision (2 times) and Whipped Cord (1 time).

Decoration made by non-linear incision and whipped cord occurred only in cemetery contexts; settlement-related contexts had almost exclusively twisted cord. Undecorated or plain urns were also present. Within the range of reconstructed forms, there were no incidences of urns with more than one type of decorative technique although the technique was often employed to create more than one type of motif on the same vessel. A total of six different motif types were recorded and, in order of frequency, these included: Horizontal Lines (18 times), Filled Triangles

(9 times), Herringbone (6 times), Diagonal Lines (4 times), Zigzag (1 time) and Horseshoe/Loops (1 time). Horizontal lines were absent on urns associated with the cemetery contexts but present on almost all of the settlement related vessels.

Law, in his analysis of Collared Urns in the East Anglia region (2008, 180), recognized similar patterns and suggested a propensity for the use of vertical lines and herring-bone motifs for funerary contexts. Conversely, he also recognized a balance in favour of filled triangles and lattice designs for non-funerary contexts. Importantly, however, there are singular examples that cross the division, illustrating that the pattern is not rigid.

Table 3.27. ‘Cemetery’ Collared Urns and Vase-type Food Vessel.

Pot	Mouth (dia. cm)	Height (cm)	Base (dia. cm)	Weight (g)	Type
F.1	estimated: 40.0	estimated: 45.6	15.0	2555	CU
F.749	21.0	29.5	8.5cm	2758	CU
F.750	11.6	15.0	6.3	813	CU
F.779	11.6	-	-	85	CU
F.905	14.7	-	-	371	FV
F.1279	12.8	17.8	8.0	508	CU

‘Whole’ cinerary urns and associated vessels

The cemetery or burial group comprised eight urns in total (four whole and four partial; Table 3.27). Of these, six were Collared Urns (F.1, F.748–50, F.779 and F.1279), one was a vase-type Food Vessel (F.905) and another survived as little more than a pile of crumbs interspersed with the odd sherd and lots of calcined human bone (F.754). Urns F.748 and F.749 were found as a conjoined pair – the base of the body section of one (F.748) being inverted and utilized as a lid for the, whole, other (F.749; Fig. 3.43). Five of the eight urns, including the conjoined vessels, were found in association with cremated human bone and the remaining three (F.750, F.779 and F.905) were found empty. The largest vessel (F.1) was found as an isolated cremation situated close to the eastern edge of Bradley Fen. The other Bradley Fen urn was F.1279 which comprised a complete collection of refitting sherds caught up in a matrix of partially articulated cremated human bone and large pieces of charcoal. The empty urns were found close to the ‘entrance’ of Round Barrow 1, two inverted (F.779 and F.905) and one on its side (F.750; Fig. 3.43). The inverted vessels had lost all but the upper portions of their respective profiles and consequently may have once contained bone. Alternatively, the small empty vessels may have accompanied cremation burials within the mound of Barrow 1 but when the mound was truncated by later Roman activity the pots were disturbed/re-deposited, separating them from the cremated remains.

Differences in form showed some correspondence with differences in context with Group 1 type profiles occurring exclusively within contexts located between the two round barrows and Group 2 profiles occurring in ‘isolated’ contexts away from the burial mounds. However, it should be noted that six urns in total represents a very small sample size.

Sherd assemblages – henge

A small assemblage was recovered from the capping fill of the southern henge ditch and from the upper or capping fills of some of the pits that made up the internal pit-circle. Most of the fragments were small and abraded and comprised mainly plain body sherds

or plain base angles. Parts of what may have been two vase-type bipartite Food Vessels came from this context; sherds incorporating an angular outline with impressed cord decoration on the inside of an open rim and on the external surface of the neck. These were found in the same deposit as two unambiguous collar fragments (one with incised decoration and one plain).

Structures and settlement

Structure 2 and Structure 3 and their accompanying settlement features, produced an assemblage of 213 sherds weighing 2276g. In total, it included 21 rims, 10 base fragments, 31 decorated pieces and 19 collar fragments. Except for a couple of examples, most vessels were represented by just one or two small sherds and, because of this, only fragmentary profile reconstructions were achievable. As well as being partial, the assemblage also included sherds that had been burnt or re-fired and that, as a consequence, had an appearance remarkably similar to the urn fragments from the *in situ* pit-pyre F.1279. Frequently, the burnt pieces were found alongside burnt flints, fired clay, pieces of calcined animal bone and also within a charcoal-rich matrix. Characteristics such as bubbled, extremely pale or even iridescent surfaces, as well as dried-out textures showed that some of the sherds had experienced high re-firing temperatures. Much of the re-firing appears to have occurred post-breakage as the sherds’ broken edges also exhibited the same range of transformation.

Structure 2

The structure produced five pieces of pottery weighing 168g (Table 3.28). Posthole F.636 yielded two refitting rim/collar fragments belonging to a medium-sized

Table 3.28. Structure 2 – pottery assemblage breakdown.

Feature	No. sherds	Weight (g)	Fabric	MSW (g)
636	2	135	1	67.5
637	3	33	1	10.0
653	9	104	1	11.5
671	2	20	1	10.0
Total	16	292	1	18.2



Figure 3.43. *Whole Collared Urn vessels (F.749 & F.750).*

diameter (c. 17cm) urn (Fig. 3.41). The rim/collar was decorated with impressed twisted cord in the form of two parallel lines along the rim and filled triangles around the collar (Fabric 19). The rim was internally bevelled. A small piece of a rounded internally bevelled rim came from a rectangular pit inside the structure (F.637).

External pits F.653 and F.671 also produced small collections of Collared Urn: a plain rim and collar belonging to a bipartite form and a decorated rim (twisted cord, filled triangles) from the former, a decorated rim (twisted cord, filled triangles) from the latter.

Structure 3

Three of the principal postholes of Structure 3 generated pottery (F.347, F.348 and F.906), as did the ancillary posthole F.911 (Table 3.29). A small pit, F.349, which superimposed part of the entrance to the structure, also produced a significant assemblage of Collared

Urn. In fact, the material from F.349 was the most substantial and included complete profiles of two diminutive urns (one with a collar and one without) as well as the uppermost profile of a third. All of the sherds had been transformed through being re-fired or burnt. The smallest vessel was collarless, plain and distinguished only by a slight lip and an internally

Table 3.29. *Structure 3 – pottery assemblage breakdown.*

Feature	No. sherds	Weight (g)	Fabric	MSW (g)
347	2	8	1	4.0
348	10	219	1, 1a	21.9
349	35	512	1, 1a	14.6
373	1	3	1	3.0
906	1	4	1	4.0
911	1	6	1, 1a	6.0
Total	50	752	2	15.0

bevelled rim (11cm tall; diameter c. 11cm). Of similar size was a small bipartite form (12cm tall; diameter 11cm) with a collar and pointed rim. This vessel was decorated with twisted cord in a herring-bone design on its collar only. Its profile retained a vestigial shoulder. The third vessel was present as four rim/collar fragments only. Unfilled twisted cord triangles adorned the external surface of the collar. These fragments had been so intensively burnt that they had a bubbled surface with an almost iridescent aspect, as well as a stark bright yellow colouring and two of the fragments had adhered together.

A posthole on the opposite side of the structure yielded 10 burnt sherds amongst which were a couple of small, internally bevelled rim fragments decorated with twisted cord in parallel horizontal lines.

Structure 3 settlement swathe

The settlement swathe comprised a spread of pits and postholes some of which contained substantial pottery assemblages (Table 3.30). Six pits (F.92, F.272, F.276, F.287, F.317 and F.394) produced assemblages greater than 100g.

The principal characteristic of the pit assemblage was small sherd size. It included an assortment of body, rim, collar, neck, shoulder and base fragments belonging to multiple vessels. Selection was not evident as there was an approximate correspondence between rim, body and base pieces.

Table 3.30. *Structure 3 settlement swathe – pottery assemblage breakdown.*

Feature	No. sherds	Weight (g)	Fabric	MSW (g)
92	13	191	2	14.7
259	8	33	1	4.1
269	6	19	1	3.1
272	27	109	1	4.0
276	34	337	1	9.9
277	2	8	1	4.0
278	1	11	2	11.0
287	20	386	1, 2	19.3
292	3	96	1	32.0
303	2	20	1, 2	10.0
317	35	404	1	11.5
383	2	23	1, 2	11.5
390	1	4	1	4.0
394	47	196	1	4.2
396	1	10	1	10.0
405	1	8	1	8.0
439	2	36	1	18.0
Total	205	1891	2	

The rim forms included simple, expanded and internally bevelled examples. Exaggerated or heavy slab-built collars occurred alongside vestigial collars (made by applied cordons) whilst decoration was located on rims, collars and neck zones. Except for a single example of comb-point, decoration was consistently executed with lines of impressed twisted cord, horizontal lines or filled triangles representing the predominant motif. Incised decoration was absent.

The fragmentary nature of the assemblage made the reconstruction of whole profiles impossible although elements of original forms were apparent. Aspects of both tripartite and bipartite forms were recorded, but missing from the assemblage was any indication of profiles equivalent to the Group 1 ‘cemetery’ category. Diameters were equally difficult to determine, as was vessel size. Overall the impression was of small-to medium-sized vessels, which fell within the same range as the cemetery group.

Refits were extremely rare (again an attribute of the partialness of the assemblage). Fragments from the same rim were found in F.292 and F.317 (a distance of 8m) whilst the adjacent features F.317 and F.276 contained adjoining rim sherds. Burnt and unburnt sherds shared the same contexts.

Discussion – urns and urn-sherds

The King’s Dyke/Bradley Fen Collared Urn assemblage can be separated into two groups: *urns* and *sherds*. The first group encompasses all of the Collared Urns that were buried complete and the second group, all of the urns that were deposited broken. Paradoxically, the second group can often represent the least material but, at the same time, the greater number of vessels. In terms of the trajectory of deposition, and therefore in the context of this discussion, sherds can be looked upon as *urns redistributed*. In the same vein, we can regard complete urns as sherds *curtailed*. Under these conditions, we can think of sherds as having extended trajectories and urns as having comparatively reduced trajectories. By trajectories, we mean duration and extent of the ‘paths’ taken prior to deposition. At the same time, when these things were ‘made’ the trend was unidirectional (urns to sherds) whereas through our pottery analysis things can be appreciated in reverse. The pathway from sherds to urns entails piecing back together different trajectories as much as it involves piecing back together different sherds.

Of course, it is complete vessels that pervade in the Collared Urn corpus (Longworth 1984; Burgess 1986; see also Law 2008), to such an extent that you could be forgiven for thinking that nobody ever broke a pot in the Early Bronze Age. Their completeness, it seems, relates directly to their context of discovery, or

more realistically, to the context of their deposition. Unlike many other later prehistoric ceramics, it would appear that Collared Urns were invariably buried before they could break or be broken. So much so that Burgess was convinced that urns of the collared variety were made exclusively for sepulchral use (1986, 341). His argument was predicated upon Longworth's comprehensive and nationwide survey of Collared Urns which showed thousands of whole-urn examples related to funerary contexts but only a handful of sherd-based examples associated with occupation (1984). In the case of Collared Urns, and at a national level, the balance of evidence strongly favours urns over sherds or, in our terminology, curtailed trajectories over redistributed ones.

In reality, Longworth records 22 'occupation sites' of which 11 are located in East Anglia, including 9 (41%) situated adjacent to the Fens (1984, 76–78). In addition, his catalogue lists many other fen-edge, sherd-based assemblages and includes multiple entries for Fengate as well as several other Lower Nene Valley sites. The majority of entries document single sherds and, judging by the accompanying descriptions, all of smallish size. Evidently, not only does Collared Urn of the long trajectory variety exist but it would appear to have a discernible Fenland distribution and, especially, a strong relationship with the lower reaches of the Nene.

Since Longworth's study, investigations at Oversley Farm, Cheshire, generated small fragments of at least 64 different Collared Urns associated predominantly with a midden-like deposit (Allen 2007, 53). Whereas in the more immediate region, excavation of the West Row Fen surface scatter managed to articulate a large collection of Collared Urn sherds with unambiguous settlement evidence (Martin & Murphy 1988). Slightly closer to hand, and maintaining the Fenland connection, the ongoing Over Lowlands investigations which straddle the lower reaches of the Great Ouse, have consistently produced substantial pit-related assemblages (Evans & Knight 2001; Evans & Vander Linden 2008a; Evans & Tabor 2008).

It is at a local level, however, that sherd-based assemblages have the greatest prevalence and, to date, several Lower Nene Valley excavations have yielded extraordinary collections. Together, sites such as Tanholt Farm (McFadyen 2000; Patten 2002b; 2009) and Edgerley Drain Road (Beadsmoore & Evans 2009), as well as the earlier Fengate sites of Newark Road, Fourth Drove and Storey's Bar Road (Pryor 1978, 1980) corroborate a discernible localized focus. In the same way, lesser sherd-based assemblages from Pode Hole (Morris et al. 2009) and Briggs Farm (Knight 2011) add to the impression of a connection between Collared Urn

settlement and this particular stretch of the Nene. It is within this pattern that we must situate the King's Dyke and Bradley Fen Collared Urn assemblage. In the context of this space, the prevailing 'national' pattern of urns over sherds would appear to be turned firmly on its head, with the balance tipping in favour of thousands of sherds over just a handful of urns.

Fragmentation

Levels of fragmentation were analysed in relation to the four principal contexts: *cemetery*, *henge*, *house* and *settlement*. An arbitrary measurement scheme, equivalent to that employed for the Late Bronze Age and Iron Age assemblages, was used to split sherds into large (>8cm), medium (4–8cm) and small (<4cm) size categories. Under this scheme, fragments of vessels that were deposited whole are counted as still part of a complete vessel and therefore recorded as greater than 8cm.

Firstly, the different contexts revealed contrasting patterns of fragmentation. The 'intactness' of the cemetery pottery stands in stark contrast to the 'brokenness' of the settlement pottery, with the two categories being situated at opposite ends of the fragmentation spectrum. The pattern of large, medium and small sherds from the henge context was remarkably similar to that of the settlement, in that it too was made up of predominantly small fragments, suggesting equivalence between these contexts. Perhaps most tellingly, the house context produced its own unique configuration, which revealed a preponderance of medium-sized sherds. Just as in Fig. 3.44, by this patterning we could suggest that the house context resided somewhere between the cemetery and the settlement. In our understanding of long and short, or redistributed and curtailed, trajectories, the house context falls somewhere amid the two and shows a much greater depositional immediacy or exigency than the settlement context but much less than the cemetery. Whole pots in the context of a house were either recently broken or 'removed' (either to be used elsewhere or employed in a cinerary capacity).

An equivalent house and settlement assemblage from Edgerley Drain Road revealed a remarkably similar fragmentation pattern, with its 'house' retaining for the most part medium to large fragments (mean sherd weight >25g) whilst the adjacent 'settlement' features yielded comparatively small pieces (mean sherd weight <15g; Knight 2009c, 162). At the same time, the whole-urn component of the greater landscape maintains its indubitable funerary connection at sites such as Newark Pits, Fengate (Longworth 1961), Storey's Bar Road, Fengate (Pryor 1978) and Briggs Farm, Thorney (Pickstone & Mortimer 2011).

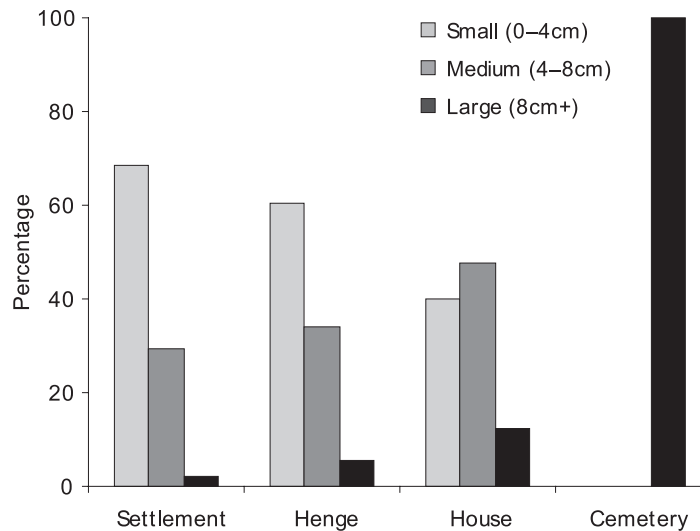


Figure 3.44. *Collared Urn fragmentation by key context.*

A near complete, diminutive urn with comb-point decoration from Newark Road, Fengate (Pryor 1980) was recovered from a non-funerary context, although unfortunately the report does not record how complete/incomplete the vessel actually was. Indeed, an absence of weights or numbers for the Fengate Collared Urn assemblages makes comparison problematic. It is certain, however, that there was a significant Collared Urn sherd-based component associated with the Fengate 'shoreline', including Edgerley Drain Road, which collectively currently represents the remains of approximately 26 different vessels (see Evans 2009c, 241). Similarly, fragments of at least 22 different vessels were excavated at Tanholt Farm (Knight 2009b). In total, the whole urn funerary component of the Flag Fen Basin equals 10 known vessels, whereas the minimum number of vessels from the sherd-based assemblages currently equals 78.

Summary

Although relatively small, the character and composition of the Beaker assemblage is comparable with other fen-related assemblages including the material from across Fengate. Its domestic make-up fits with a growing corpus of fen-edge/East Anglian material, as typified by the presence of fine ware comb-decorated vessels alongside fine and coarse, fingertip and fingernail decorated Beakers (Bamford 1982; Gibson 1982).

First and foremost, the Collared Urn assemblage serves to reiterate the presence of a localized focus situated within and around the lower Nene Valley/Flag Fen Basin. At the same time, the distributed and curtailed fragmentation patterns established for this particular assemblage addresses the false impression

that Collared Urns represented 'specialized funerary pottery' with little or no settlement constituent (*pace* Burgess 1980; 1986). Within the specific context of this landscape, Collared Urn had an unambiguous settlement signature which took priority over the funerary component.

Flint (Lawrence Billington)

A total of 579 worked flints were recovered from Early Bronze Age settlement related features and deposits on the site, including material from the Collared Urn associated capping fill of the henge. Although this combined assemblage includes a number of residual Mesolithic and Early Neolithic artefacts, primarily from the burnt mounds, most of the material is typical of Early Bronze Age industries and derives from securely dated contexts. Of greatest significance are the flints recovered from the site's three Early Bronze Age structures, which offer a rare insight into the artefact repertoires and material practices associated with 'domestic' architectures of this period. These are duly described in detailed below, along with other flint from contemporary features.

The Beaker structure and other contemporary features

No worked flint was actually recovered from any of the cut features making up the Beaker structure (Structure 1), other than the central hearth F.1299. However, a number of flints were collected from the surface within the building and from buried soil deposits caught up in adjacent tree throws F.1301 and F.1307. These flints are presented in Table 3.31, which excludes a sub-circular scraper, probably related to the assemblage recovered from outside the structure

Table 3.31. *Flint assemblage associated with Beaker Structure 1 and other securely dated features.*

Feature	Beaker Structure 1 and associated contexts					Contemporary pits		
	F.1307	F.1301	Internal	F.1299	Total	F.225	F.652	Total
Chip	-	-	-	-	-	-	1	1
Chunk	1	-	-	-	1	-	-	-
Flake	5	2	-	-	7	-	1	1
Blade	1	-	-	1	2	-	-	-
Retouched flake/blade	-	-	-	-	-	-	1	1
Arrowhead blank	1	-	-	-	1	-	-	-
Thumbnail scraper	2	-	-	-	3	1	-	1
Sub-circular scraper	-	2	2	-	3	-	-	-
End scraper	-	-	-	-	-	1	-	1
Flake knife	1	1	-	-	2	-	-	-
Plano-convex knife	-	-	1	-	1	-	-	-
Total	11	5	3	1	20	2	3	5

(SF 195). These flints formed part of a much larger assemblage of surface finds collected on, and around, the slight rise upon which Structure 1 was situated, but are isolated here on the grounds of their proximity to the structure and on the high number of diagnostically Early Bronze Age pieces, which were otherwise rare in the spot find assemblage as a whole.

Overall, what is most striking about the structure assemblage is the number of retouched tools, 50% of the assemblage (or 60% when clearly residual Mesolithic/Earlier Neolithic material is excluded) and the quality of the retouch that characterizes the artefacts (Fig. 3.21). Scrapers dominate; the six examples have been divided into sub-circular and thumbnail forms. The two thumbnail scrapers are made on tertiary blanks, one on a small complete flake and the other on the distal end of a flake. Retouch is semi abrupt and neat, restricted to the distal end of the pieces. Three of the four sub-circular scrapers have been struck from natural corticated or cortical platforms, whilst the fourth has reused a re-corticated flake. The retouch on these scrapers is generally more invasive than on the thumbnail scrapers, giving a lower scraper angle.

Alongside the scrapers are three flake knives, all of different forms. A plano-convex knife was collected from the centre of the structure, between pit F.1300 and the hearth, F.1299 (Fig. 3.19). Its dorsal surface has been completely flaked by fine invasive retouch, producing a leaf shape with an unretouched ventral surface. A second knife is made on a thick cortical flake and has abrupt, somewhat crude, retouch on one edge backing fine dorsal retouch on the other. The third knife is made on a large regular blank, one edge has invasive dorsal retouch, naturally backed with cortex. The final retouched piece is an unfinished

arrowhead, made up of two co-joining pieces, with a transverse break, typical of accidental breaks during pressure flaking. It is notched on one side at the base, suggesting it was intended to be barbed and tanged.

Accompanying these retouched tools was a small number of unretouched flakes. Two blades, one from hearth F.1299, are clearly residual and reflect the wider scatter of Mesolithic and earlier Neolithic material across the site. The remaining flints are consistent with an Early Bronze Age date, consisting mostly of irregular hard hammer struck flakes. One exception is a thin tertiary flake with a carefully faceted platform, probably a discoidal core product. The small amount of flint working waste implies little core reduction took place in the immediate vicinity of the structure, although the arrowhead blank suggests it may have been an appropriate setting for the final stages of tool manufacture.

The assemblage includes all the retouched forms classically associated with Beaker assemblages, including small invasively flaked scrapers, flake knives and a possible barbed and tanged arrowhead blank. Such forms are familiar from 'domestic' Beaker sites in the wider region, but are generally associated with large amounts of flint working waste, pottery and burnt flint (e.g. Wainwright 1972; Bamford 1982; Healy & Peterson 1986; Garrow 2006, 128–30). In contrast, the Bradley Fen assemblage does not represent flintwork caught up with other materials in midden-like deposits, be they surface spreads or the fills of cut features, but represents a set of tools intimately associated with activities taking place in and around the structure.

Burnt mounds

Very little worked flint was found during the excavation of the burnt mounds and their associated features

Table 3.32. *Flint assemblages from burnt mound features.*

	BM1			BM2		BM3			BM4
	F.874	F.859	F.866	F.1086	F.1038	F.1148	F.1150	F.1151	F.1288
Feature	Mound	Hollow	Shaft	Pit	Hollow	Mound	Hearth	Hollow	Mound
Flake	1	-	1	-	-	2	-	-	1
Blade/bladelet	-	-	-	-	-	-	-	1	-
Narrow flake	1	1	-	1	-	-	-	-	1
Core fragment	-	1	-	-	-	-	-	-	-
Retouched flake/blade	1	-	-	-	-	-	-	-	-
Serrated flake/blade	1	-	-	-	-	-	-	-	-
Plano-convex knife	-	-	-	-	-	1	-	-	-
Side scraper	-	-	-	-	1	-	-	-	-
Misc scraper	-	-	-	-	-	-	-	1	-
Total worked flint	4	2	1	1	1	3	0	2	2
Burnt unworked flint (wt g)	-	3 (50.1)	1 (49.3)	-	-	-	3 (113)	-	-

(Table 3.32). The majority of the pieces appear to represent residual material incorporated into later deposits and reflect the relatively abundant flint from the buried soil and surface deposits around the mounds. This residual element is seen most clearly in the relatively high proportion of blade and narrow flake based material of Mesolithic/earlier Neolithic date.

A small number of retouched forms may represent activity broadly contemporary with activity at the mounds. Amongst the burnt stone and flint of Burnt Mound 3 was an unburnt plano-convex knife; a scraper was also recovered from associated hollow F.1151. The hollow associated with Burnt Mound 2, F.1038, produced a fine side scraper (or flake knife?) made on a distinctive coarse-grained flint.

The Collared Urn structures and other contemporary features

Over a quarter of the entire flint assemblage from King's Dyke and Bradley Fen was recovered from features and deposits associated with Early Bronze Age, generally Collared Urn, pottery. The two structures identified produced very different lithic assemblages. Structure 3 contained a large assemblage of 203 worked flints and 37 unworked burnt flints, concentrated in features making up the western part of the building. All but one of the worked flints had been heavily burnt, with many thermally fractured fragments and chips. In contrast, only 10 worked flints were recovered from Structure 2. Most of the Early Bronze Age pits and postholes produced similarly small assemblages, with the exception of intercutting pits F.276, F.317 and F.318 which contained a total of 139 worked flints. Another focus for the deposition of substantial amounts of flintwork was

the partly silted-up south-western ditch of the henge monument, F.851, which produced 107 worked flints.

Despite some differences in condition and composition between the assemblages from different contexts, notably the burning of the Structure 3's flint, there is an underlying uniformity to the Early Bronze Age flintwork signature, both in terms of technological traits, suggesting similar reduction strategies, and in the presence of a fairly restricted and distinctive retouched tool component. The assemblages are listed by type and feature in Tables 3.33 and 3.34. Selected technological traits of the unretouched removals from the larger feature assemblages are also presented in Table 3.35.

None of the assemblages represent anything like complete reduction sequences and the heterogeneity of the raw materials alone suggests that the material derives from numerous episodes or working. In contrast to the site's earlier material, there is no evidence for the use of chalk flint and, instead, small nodules of gravel flint, probably collected locally, appear to have been used in most circumstances. Some of the flint is of very poor quality with unworkable inclusions and flaws. This has resulted in a high proportion of irregular waste, split nodules and tested pieces, which partly accounts for the high number of cortical or partly cortical flakes.

Together with this catholic approach to raw material selection, there is evidence for a more casual and informal approach to core reduction. In general, flakes are relatively small and squat, with large striking platforms. The high frequency of cortical striking platforms is notable, demonstrating that reduction commenced without the creation of a striking platform. The dorsal scar patterns on the flakes also suggest that

Table 3.33. Flint assemblage from Early Bronze Age pits and postholes *excluding chips.

Feature	Settlement Swathe (King's Dyke)																								Pits (Bradley Fen)			
	92	257	259	269	270	276	277	278	287	317	318	439	369	375	383	393	394	396	403	406	438	-	653	671	619	-		
Type	Pit	Ph	Shaft	Pit	Pit	Pit	Pit	Pit	Pit	Pit	Pit	Pit	Ph	Pit	Pit	Pit	Pit	Pit	Ph	Ph	Pit	Total	Pit	Pit	Pit	Total		
Chip	-	-	-	-	-	2	-	1	-	4	2	-	-	3	-	-	-	-	-	-	1	13	-	-	2	2		
Chunk	-	1	-	1	-	6	-	-	1	7	3	1	-	1	-	-	-	-	1	-	-	22	-	-	1	1		
Flake	1	1	1	3	1	34	2	11	1	44	8	4	-	6	4	-	1	1	1	-	-	124	-	-	6	6		
Blade/bladelet	-	-	1	-	-	1	-	1	-	1	1	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-		
Narrow flake	-	-	-	-	-	1	-	1	-	3	-	-	-	1	-	-	-	-	-	-	-	6	1	1	-	2		
Core fragment	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	1		
Irregular core	-	-	-	-	-	3	-	-	-	4	2	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-		
Flake core	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1	-	-	-	-	-	-	4	-	-	-	-		
Retouched flake	-	-	-	-	-	2	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-		
Flake knife	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-		
Plano-convex knife	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-		
Notched flake	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-		
End scraper	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-		
Sub-circular scraper	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-		
Thumbnail scraper	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	4	-	-	-	-		
Misc scraper	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-		
Chisel arrowhead	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-		
Total worked	3	2	2	4	1	52	5	16	3	70	17	7		13	5	1	1	1	1	1	1	206	2	1	9	12		
Burnt unworked flint (wt g)	-	-	-	-	-	2	-	7	-	-	-	5	1	-	-	-	-	-	-	-	-	15	-	-	1	1		
						(11.1)		(54.1)				(15)	(0.3)								(80.5)			(1.1)	(1.1)			

Burnt and worked (%)	0	2	0	0	1	6	1	6	1	1	2	1	0	0	0	0	1	1	1	0	0	23	0	0	4	4
		(100)			(100)	(11.5)	(20)	(37.5)	(33.3)	(1.4)	(12)	(14.2)	0	0	0	0	(100)	(100)	(100)	0	0	(11.2)	0	0	(44)	(33)
Broken (%*)	0	1	1	0	1	16	3	4	1	9	1	1	0	1	1	0	1	1	0	0	42	1	0	1	2	
		(50)	(50)		(100)	(32)	(60)	(26.7)	(33.3)	(14.1)	(6.7)	(14.2)	0	(10)	(20)	0	(100)	(100)	(100)	0	0	(22.1)	(50)	0	(14)	(20)
Retouched (%*)	2	0	0	0	0	5	3	2	0	6	1	2	0	0	0	0	0	0	0	0	21	0	0	0	0	
	(66.7)					(9.6)	(60)	(13.3)	0	(9.1)	(6.6)	(28.5)	0	0	0	0	0	0	0	0	(10.9)	0	0	0	0	
Unretouched utilized (%*)	0	0	0	0	0	2	0	2	0	5	0	0	0	0	1	0	0	0	0	0	10	0	1	1	1	
						(4.1)	0	(13.3)	0	(7.8)	0	0	0	0	(20)	0	0	0	0	0	(5.3)	0	(100)	0	(10)	

Table 3.34. *Early Bronze Age flint assemblage from henge ditch F.851, Structure 2 and Structure 3 *excluding chips.*

Feature	Henge	Structure 3, King's Dyke								Structure 2, Bradley Fen					
	851	374	906	907	912	348	376	349	-	632	633	634	635	637	-
	Total	Ph	Ph	Ph	Ph	Ph	Ph	Pit	Total	Ph	Ph	Ph	Ph	Pit	Total
Chip	4		51		1	2	27	9	90	1		2			3
Chunk	14	1	8			3	3	5	20						
Flake	58	1	36			5	12	21	75			3	1	2	6
Blade/bladelet	1						1		1						
Blade like/narrow flake			2			1			3						
Polished axe flake	3														
Core fragment	2		1					3	4						
Irregular core	8														
Flake core	3							1	1						
Retouched flake/blade	2		3					1	4		1				1
Flake knife	2														
Plano-convex knife	1														
Fabricator	1														
End scraper			1						1						
Sub-circular scraper								1	1						
Thumbnail scraper	5							2	2						
Misc scraper			1						1						
Irregular scraper	1														
Core scraper	1														
Total worked	106	2	103		1	11	43	43	203	1	1	5	1	2	10
Burnt unworked flint (wt g)	3 (91.3)	1 (2.8)	6 (7)	1 (12.8)		1 (2.2)	9 (14.8)	19 (85.4)	37 (125)						

<i>Burnt and worked (%)</i>	13 (12.1)	2 (100)	103 (100)	0	1 (100)	10 (91)	43 (100)	43 (100)	202 (99.5)	0	0	0	1 (100)	1 (50)	2 (20)
<i>Broken (%*)</i>	27 (26.2)	0	21 (40.4)	0	0	3 (33.3)	5 (31.3)	12 (35.3)	68 (60.2)	0	1 (100)	1 (33.3)	0	1 (50)	3 (42.9)
<i>Retouched (%*)</i>	14 (13.5)	0	5 (9.6)	0	0	0	0	4 (11.7)	9 (7.9)	0	1 (100)	0	0	0	1 (10)
<i>Unretouched utilized (%*)</i>	5 (4.9)	0	0	0	0	0	0	0	0	0	0	2 (66.6)	0	0	2 (28.6)

cores were commonly flaked from one platform. The cores themselves are most readily divided into two main groups. The first comprises cores of good quality material, invariably with multiple striking platforms. These have been extensively worked down and reflect the final stages of reduction. Knapping errors appear to have been frequent, with many hinged scars, crushed platforms and misplaced hammer blows. The second group consists of irregular, often unclassifiable cores – tested and flaked pieces usually of poor quality,

coarse-grained gravel flint with frequent flaws and inclusions. A core from pit F.276 appears to have been worked to produce very small flakes. Cores of this type, whilst not common, were recognized in a Collared Urn associated assemblage from Edgerley Drain Road, on the western edge of the Flag Fen Basin, where it was suggested they could represent a distinctive Early Bronze Age type (Beadsmoore 2009).

Very few refits were identified in the assemblage, but they are consistent with the technological traits seen

Table 3.35. *Selected non-metric traits of unretouched flakes from selected Early Bronze Age features.*

		King's Dyke					
		Settlement swathe	%	Henge	%	Structure 3	%
Cortex	Primary	9	6.7	2	3.4	4	5.3
	Secondary	84	62	39	66	44	57.9
	Tertiary	42	31	18	31	28	36.8
Platform type	Plain	66	62	21	43	27	55.1
	Trimmed	7	6.6	4	8.2	1	2
	Faceted	1	0.9	2	4.1	0	0
	Cortical	28	26	18	37	16	32.7
	>1 scar	4	3.8	4	8.2	5	10.2
Scar direction	Single	91	79	48	86	53	94.6
	Single blade	5	4.3	1	1.8	0	0
	Blade	0	0	0	0	0	0
	Multiple	19	17	7	13	3	5.4

in the rest of the material. Pit F.349, part of Structure 3, produced a core to which two flakes could be refitted; both were small and struck from the cortical platform of the core (Fig. 3.45). Two refitting flakes were also recovered from henge capping deposit fills and a chip was refitted with an exhausted core from pit F.375.

Residual pieces were present in small numbers. Particularly distinctive were a number of Mesolithic/earlier Neolithic bladelets, including individual pieces from pits F.276, F.317 and F.318. The inclusion of three polished axe fragments in the deposits from the top of the henge ditch is also noteworthy, especially considering the small quantity of more 'mundane' residual material.

The retouched tool types are dominated by scrapers, over half of which are of thumbnail form. These are neatly retouched, generally with a regular convex scraper edge, although few display truly invasive retouch. The flake blanks for these scrapers are often somewhat irregular, with little evidence for careful production or selection. Of the other scrapers, two, from posthole F.906 and from the henge capping deposit were expediently produced, with minimal retouch. A flake core from henge deposit has also been retouched as a scraper. The remainder are generally finely retouched, again showing care in the secondary modification of flakes rather than in the production of the blanks themselves. The finer examples include a side and end scraper, with shallow, knife-like retouch, from pit F.278 and two sub-circular scrapers, from pits F.317 and F.319.

Other tools include a variety of flake knives, three of these are of plano-convex type with fine invasive retouch. A fabricator was recovered from henge

capping deposit. Alongside these relatively carefully produced pieces were a number of more expediently edge-retouched flakes, one of which, from pit F.277, reused an old corticated flake. In some cases, there appears to have been a preference for the use of longer blade-like flakes, although irregular and broad flakes were also retouched. Among the unretouched utilized flakes there is a clearer preference for such narrow flakes and also for the use of edges which are naturally backed with cortex.

The range of tools is characteristic of Early Bronze Age assemblages (Ford et al. 1984, table 4), showing a more restricted range of forms than in the later Neolithic. Although thumbnail scrapers and knives have strong funerary associations, it is clear they were also being used in a domestic context (e.g. Petersen & Healy 1986; Bamford 1982). Barbed and tanged arrowheads are absent from this assemblage, perhaps suggesting that they were rare part of the domestic 'tool-kit' or were subject to different practices of deposition.

Assessing the conditions under which flintwork was deposited is more difficult. It is clear from the incompleteness of reduction sequences that the assemblages represent only a small component of larger groups of material, perhaps midden-like accumulations containing flint working waste and discarded tools. Complex pre-depositional histories for the assemblages can be seen in the way some pieces have been burnt or broken whilst others remain relatively fresh. Most striking is the burning of almost all the flint from Structure 3 at King's Dyke. That being said, there was no obvious evidence for the patterned or structured deposition of artefacts, the flint assemblage being part of a broader range of materials – pot, bone, fired

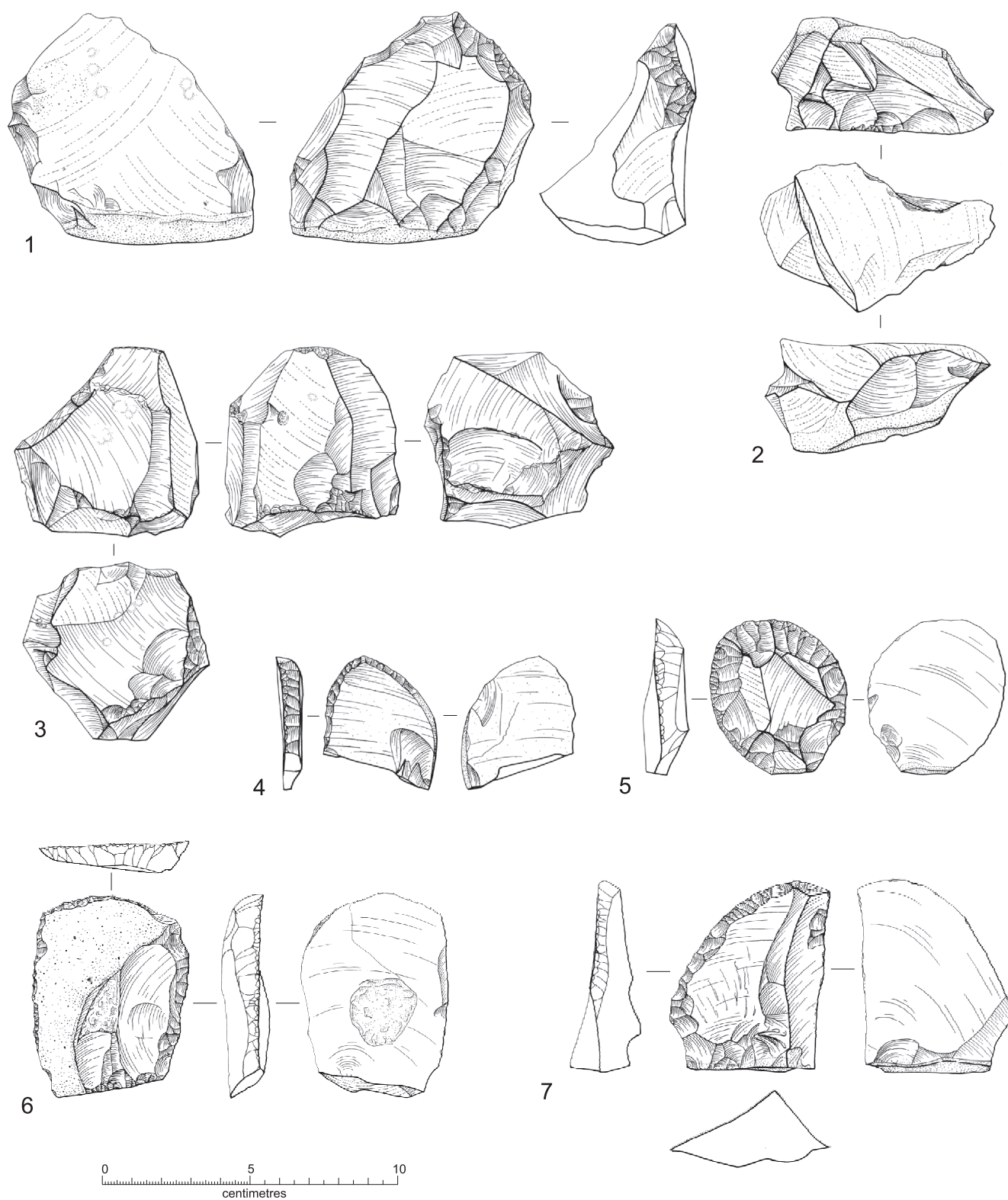


Figure 3.45. Worked flint from Collared Urn contexts: 1-7) scraper on flake core (1 from F.581), flake core with two refitting flakes (2; F.349), multiple platform flake core (3; F.581), scrapers (4; F.349, 5; F.581 and 6; F.906) and a flake knife (7; F.851).

clay and so on. This, together with the representation of all stages of core reduction, suggests a wide range of domestic activity took place alongside the actual working of flint.

Comparable assemblages and broader contexts

The small number of comparable Collared Urn associated flint assemblages includes recently published material from outside the region at Oversley Farm, Cheshire (Wenban-Smith 2009) and Taplow Hillfort, Buckinghamshire (Cramp & Lambdin-Whymark 2009). Locally, the assemblage recovered from excavations at Edgerley Drain Road is very similar in terms of technological traits and retouched tool forms, including flake knives and thumbnail scrapers (Beadsmoore 2009). The circumstances of deposition also appear broadly similar, with deposition of flintwork in pits and features making up a circular structure, although the higher percentage of retouched tools (19%) at Edgerley perhaps suggests subtle differences in the nature of occupation. Investigations along the lower Ouse, at Over, have revealed a number of Collared Urn features with lithic assemblages which contained a similarly high proportion of retouched pieces, dominated by scrapers (Billington 2016). These assemblages also included a very high proportion of burnt flintwork, comparable to the material from Structure 3 at King's Dyke.

When seen in the relation to these wider parallels, the material from Bradley Fen and King's Dyke West appears to reflect a distinctive Early Bronze Age approach to flint working. Flake production is very informal, with the use of a wide range of locally available raw material with no evidence for the production of pieces with a specific morphology. This contrasts with Late Neolithic, Grooved Ware associated, technologies, which invariably include evidence for the use of specialized, prepared core technologies, alongside more expedient core reduction (see Ballin 2011). It seems likely that some production of specialized flakes was taking place in the Early Bronze Age, particularly to produce blanks for the larger knives and arrowheads that often appear in funerary contexts. That there is no evidence for this here, in an ostensibly domestic assemblage, suggests that such practices may have become more restricted, perhaps to certain individuals, places or times.

In some respects, the material from these Collared Urn contexts has as much in common with Middle to Late Bronze Age technologies as it does with later Neolithic material. The important differences between earlier Bronze Age and later assemblages would appear to reside in the character of retouched tools and in the amount of flintwork recovered from contemporary features. Whether this trend reflects a reduction in the

amount of flint working being carried out, a transformation in depositional practices, or simply changes in the places and times at which flint working was conducted, is difficult to assess. Traditionally, such changes were seen to reflect the increased availability of metal tools (Ford et al. 1984), but in recent studies, a greater emphasis has been placed on the declining social role of flintwork (e.g. Edmonds 1995; McLaren 2010). The Early Bronze Age assemblages considered here would suggest that considerable effort was spent on teaching and learning skills surrounding the production of specific retouched tools, rather than specialized aspects of core reduction. The foregrounding of these later stages of tool production perhaps indicates that the retouch and finished form of tools had become central to the discourse surrounding the use of flint, whereas the importance given the working of cores and production of flakes was increasingly marginalized. This trend is thought to have its roots in technological changes during the Neolithic (Brown 1991), but seems to reach its peak in this period, prior to the apparent abandonment of many finely retouched forms in the Middle Bronze Age.

Faunal remains (Vida Rajkovača)

Early Bronze Age faunal material was sparse (96 assessable specimens, 3738g), poorly preserved and mostly calcined (Table 3.36). No bone was found in connection with Structure 1, but the two Collared Urn structures (2 and 3) generated small assemblages, as did the henge capping deposit and the pit cluster associated with Structure 3. Livestock species dominated the structure/pit cluster collections, whilst henge material showed some variation with red deer and wild boar also being identified.

Henge and henge capping deposit

Three cattle elements were recovered from the primary fills of both ditches (F.851 and F.857). The composition of the bone assemblage from the tertiary or capping fills of F.851 exceeded that recovered from the structures and their associated pits.

In terms of skeletal element representation, the henge material showed a prevalence of mandibular elements and loose teeth (12 specimens), although cattle and red deer meat-bearing bones were also recorded. Overall, the moderate level of preservation enabled three-quarters of the sub-set to be identified to species (c. 76%). It also offered the possibility of recording butchery, gnawing (cow scapula) and even the sex of a small number of elements (male pig canine). Unlike the settlement material, only four specimens showed signs of burning; all of which were calcined bone crumbs smaller than 1cm in diameter. In addition, there

Table 3.36. *Number of Identified Specimens for all species from all Early Bronze Age features from King's Dyke and Bradley Fen. The abbreviation n.f.i. denotes that the specimen could not be further identified.*

Taxon	Structure 2	Structure 3	Pit cluster	Henge	Total
Cow	1	-	7	7	15
Ovicaprid	1	2	2	-	5
Pig	-	-	1	2	3
Red deer	-	-	1	3	4
Wild boar	-	-	-	4	4
Vole sp.	-	1	-	-	1
Sub-total ID to species	2	3	11	16	32
Cattle-sized	-	1	5	5	11
Sheep-sized	-	5	3	-	8
Mammal n.f.i.	2	5	2	-	9
Total	4 (175g)	14 (27g)	21 (835g)	21 (1096g)	60 (2133g)

was evidence for the exploitation of wild fauna in the deposit with bones of red deer and wild boar recovered.

Caveats about preservation and sample size notwithstanding, it is clear that bone was relatively more abundant and also slightly less fragmented in the 'mid-den-type' deposits in the henge, than from the other settlement related deposits. Given the arguments above about waste being cleared from household structures, this trend is, arguably, not that surprising. Indeed, it seems probable that the henge midden within which the faunal material accumulated was the final point of destination for bone waste generated from adjacent settlement – material accruing over time. Crucially, there is certainly nothing to suggest that these remains represent a single episode of processing and/or consumption. Of course, there remains the possibility that some of this detritus resulted from activities associated with the henge itself. This is hard to untangle, but there are no obvious signs of any 'ritual intent' behind their deposition or any overt 'structure' in the way material had been interred. Even though the species composition was slightly different to that from the neighbouring settlement, it is far more likely that these remains also derived from a 'domestic' context.

The Collared Urn structures and associated settlement features

The two Collared Urn structures yielded very small, highly fragmented faunal assemblages. Structure 2, pit F.653, contained four fragments of animal bone: a cow tibia axially split for marrow, a sheep/goat humerus and two unidentifiable mammal bone fragments derived from the heavy residues of wet-sieving.

The group of small pits and postholes that made up the Structure 3 and formed the focus of settlement at King's Dyke, yielded a similarly small quantity of

faunal material, amounting to just 14 fragments from 6 features (F.349, F.369, F.373 F.374, F.376 and F.906). The remains were highly fragmented, with 12 recorded as calcined (c. 86%). This only allowed three specimens to be identified to species level; two as ovicaprids and one as vole (Table 3.36). The remaining calcined material was not diagnostic, with the fragments usually measuring <1cm in diameter. Owing to these circumstances of preservation, it was not possible to record levels of weathering, surface erosion, ageing or to take measurements.

The high level of burning and paucity of remains suggests that food waste was regularly cleared away and disposed of elsewhere, probably on rubbish heaps/surface middens. The size and condition of the calcined bone crumbs recorded here support this notion, representing what could be sweepings from cleared-out hearths, or other material 'missed' by the inhabitants.

Beyond Structure 3 at King's Dyke, six pits in the Collard Urn associated settlement swathe yielded faunal material (F.259, F.276–79, F.317 and F.439). Pit F.259 was the richest in terms of the quantity of bone, though this contained just 11 specimens in total (c. 58% of the sub-set). The other features, however, contained no more than two or three fragments each; most being unidentifiable specimens or calcined bone crumbs, c. 5mm in diameter. That being said, the degree of burning noted on the faunal material was not as severe as that from Structure 3, with only five specimens showing signs of calcination (a near complete combustion of the organic component). Nonetheless, the remains were heavily fragmented and sometimes weathered, especially one juvenile cow metatarsal from F.259, which represents the only ageable specimen within the sub-set (death occurring before the age of two years). In fact, of the 19 specimens recovered, 8 were loose teeth

Table 3.37. Number of Identified Specimens for all species from features associated with burnt mounds.

Taxon	BM 1	BM 2	BM 3	Total
Cow	12	3	2	17
Ovicaprid	2	3	-	5
Pig	1	-	-	1
Red deer	1	-	-	1
Fox	1	-	-	1
Sub-total ID to species	17	6	2	25
Cattle-sized	6	-	-	6
Sheep-sized	1	3	1	5
Total	24	9	3	36 (1605g)

or mandibular or skull elements. This composition reflects the poor preservation of the bone and includes elements that, because of their dense structure, tend to survive better in the archaeological record.

Burnt mounds and waterholes

The burnt mounds did not produce any faunal material. However, the waterholes and other features associated with them have yielded small quantities of animal bone (Table 3.37). Twenty-four assessable fragments were recovered from hollows F.859 and F.866, associated with Burnt Mound 1. A red deer tibia was recovered from the later wattle fence (F.892) and a fox ulna was found in F.866. The remainder of the assemblage was dominated by cow mandibles and loose teeth. A complete cow metacarpal was measured, giving a shoulder height of 118–125cm, implying that the individual was potentially a male. Two features associated with Burnt Mound 2 yielded nine assessable fragments, the majority of which came from pit F.1086, which was sealed by the mound. Rodent gnawing marks were observed on several bone specimens.

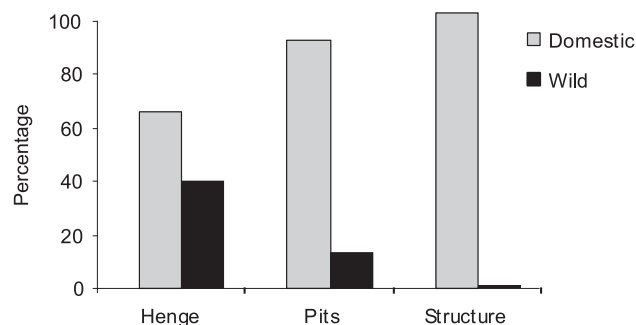


Figure 3.46. Percentage of domestic species relative to wild by feature categories; *Henge includes all contexts associated with the monument.

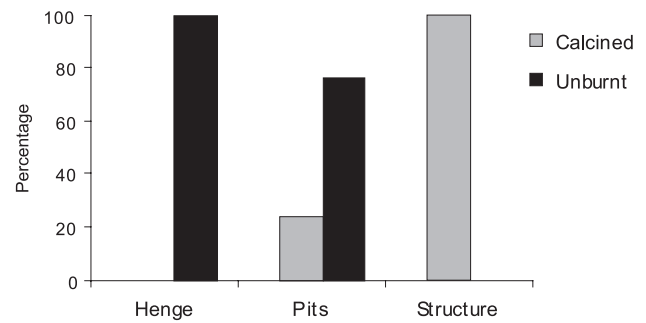


Figure 3.47. Percentages of calcined animal bone by feature categories; Henge includes all contexts associated with the monument.

Discussion

The relative paucity of faunal material derived from Early Bronze Age contexts limits interpretation. The henge, house (Structure 3) and settlement swathe relationship showed some patterning which included differences in the distribution of wild and domestic species (Fig. 3.46), as well as some indication of contrasting taphonomies. Consequently, the main thrust of this discussion focuses on these attributes, followed by a short summary of regionally analogous assemblages.

Unlike the faunal material from the henge contexts, settlement features (both pits and the Structure 3) contained no evidence of wild species, except for a single red deer antler being recovered from the easternmost pit within the settlement swathe. The absence of evidence for the consumption of wild species from settlement features is further emphasized by the fact that the red deer antler did not represent a consumable portion of meat, but was probably intended to be used as a raw material.

The faunal material identified from features that were associated with, or constituted, Structure 3 was sparse and comprised exclusively of ovicaprid remains. The extent of calcination of the faunal assemblage points to either relatively intense or prolonged periods of burning (Fig. 3.47). Other material types recovered from the structure such as flint, pottery and burnt clay also displayed signs of exposure to high temperatures. Interestingly, a comparable assemblage was recovered from an almost identical context at Edgerley Drain Road. A pit connected to an almost identical Collared Urn structure produced a single cow molar and 12 unidentifiable fragments of calcined bone (Swaysland 2009, 169). Regardless of any other emerging patterns, the overall dearth of faunal material represents a recurring theme of the Early Bronze Age for this locality.

Plant remains and ecofacts (Anne de Vareilles)

Structure 1

Three postholes of the Beaker house were 100% sampled for plant macro-fossils: F.1261, F.1293 and F.1295. The only plant remains consisted of charcoal in relatively high amounts.

Structure 2, Structure 3 and adjacent pit features

All five structural postholes of Structure 2, four of its interior pits/postholes and two pits external to the structure (F.680 and F.653) were sampled. Of Structure 3, pits/postholes F.376, F.906 and F.349 were sampled, as was F.278, from the adjacent pit cluster.

Six-row naked barley (*Hordeum vulgare* subsp. *vulgare*) and spelt wheat were the main cultivated cereals. Other types of glume wheat and barley may be present within the samples but poor preservation has precluded further identification. Naked barley is not unusual in Neolithic and Early Bronze Age sites in Britain (Greig 1991). However, a preference for spelt over emmer wheat has commonly been attributed to the Iron Age, although evidence for the early use of spelt in the East of England is growing – sites include West Row Fen (Martin & Murphy 1988), Barleycroft Farm (Stevens 1997) and Must Farm (de Vareilles 2010a).

The wild plant seeds produced good evidence for cultivation upon sandy, well-drained but nutrient-rich soils. Goosefoots (*Chenopodium ficifolium* and *C. album*) and black nightshade (*Solanum nigrum*) are well represented and tend to grow on wasteland and cultivated soils rich in nutrients (Hanf 1983). The latter species is considered a common early prehistoric crop weed in small plots of non-intensive cultivation, e.g. hoe or garden cultivation (Bakels 2000). Other species include musk mallow (*Malva moschata*), corn spurrey (*Spergula arvensis*) and small vetches or wild peas (*Vicia/Lathyrus* sp.), all of which are also associated with cultivated and disturbed land. Corn spurrey is a calcifuge species, found mainly on sandy, calcareous soils with a good to average nutrient supply (ibid.). Vetches and wild peas also point to cultivation upon sandy soils.

The distribution of plant remains is uneven, with botanical finds prevalent in pit/posthole F.349 of the Structure 3. This pit not only contained the most cereal grains but also had many wild plant seeds, despite the near absence of any chaff. Structure 2 was relatively rich in wild plant seeds, 90% (45 out of 48) of which were found in the external ring of postholes, namely F.634. The only chaff in the Structure 2, a spelt glume base (*Triticum spelta*), was also found in F.634. The removal of remaining weed seeds after chaff had been threshed and sieved out appears to have occurred in individual

houses. It is possible that the removal of chaff was a communal effort and one wonders if it was done before storage (Stevens 2003). The concentration of burnt crop processing waste/loss in the external wall, relative to the interior pits, could indicate that such activities were allocated to the periphery of dwellings. F.349 appears to have been an entrance pit and contained the most artefacts and ecofacts from that structure. This pattern is repeated in the later prehistoric structures at Bradley Fen suggesting either that entrance postholes were traps to surface accumulations once posts had wasted away/been removed, or that the entrance way, where light was prominent, was where most activities occurred.

Pit F.278 contained only four seeds, a thorn and a little fine charcoal. The botanical and artefactual remains from the Early Bronze Age pits and structures correspond well to the henge's 'Collared Urn' capping deposit and, though the latter contained fewer finds, results clearly indicate a settlement environment where mixed farming played an important role.

Burnt mounds

Samples were taken from all four burnt mounds but, apart from Burnt Mound 4, only generated small flots with very low densities of charcoal. These results were not altogether unexpected since the mounds were primarily composed of burnt stone, the majority of which had passed from heat source to water before creating the mounds. Features around the mounds, however, have enabled a description of their contemporary environments.

Six samples were taken from features associated with Burnt Mounds 1 and 2. F.890, beneath Mound 1, and the nearby pit F.875 produced few plant remains other than charcoal. The adjacent waterhole F.866 and its smaller re-cut F.879 both contained waterlogged assemblages. The basal fill of a large pit beneath Burnt Mound 2 (F.1062) and waterhole F.1086, located immediately to the north of Burnt Mound 2, also produced waterlogged assemblages. All four waterlogged assemblages were very similar and contained a mix of semi-aquatic herbs and plants commonly ascribed to open landscapes of human occupation with arable land and/or pasture. Stinging nettles (*Urtica dioica*), fat-hen (*Chenopodium album*), common chickweed (*Stellaria media*), knotgrass (*Polygonum aviculare*), black nightshade and thistles (*Carduus/Cirsium* sp. and *Sonchus oleraceus/asper*) point to an open, disturbed and nutrient-rich environment. Crowfoot (*Ranunculus* Subgen. *BATRACHIUM*), fool's water-cress (*Apium nodiflorum*), gypsywort (*Lycopus europeus*) and true sedges (*Carex* spp.) not only suggest that the waterholes were vegetated but that the land around the mounds was damp

and, perhaps, seasonally flooded. The occasional alder, brambles (*Rubus* sp.) and elder (*Sambucus nigra*) add an element of scrub to the otherwise open, damp land surface. Water-flea egg cases (*Daphnia* sp.) in the water-holes indicate shallow, stagnant water. F.879 contained a slightly higher relative ratio of semi-aquatic plants which may indicate a rise in the water table since the original construction of the waterholes.

F.1157, beneath Burnt Mound 3, and its adjacent waterhole F.1151 had not retained waterlogged assemblages. Only charcoal was found in F.1157 and the occasional seeds of stinging nettles, brambles and crowfoot were the only untransformed plant remains in F.1151. Burnt Mound 3 appears to have accumulated in a similar environment to that described for Burnt Mounds 1 and 2.

Fired clay objects (Grahame Appleby)

A total of 179 fragments of fired clay, weighing 4900g (range: 2–1348g), were recovered from pits and post-holes associated with Structures 2 and 3 and the capping deposit of the henge. The majority of the smaller fragments are irregular, undiagnostic. All the pieces, notably the larger fragments are highly fired and completely converted to ceramic.

Several fragments contain impressions of wattles and roundwood, with surviving wood-grain impressions. One piece also preserved the impression of axe or adze marks where the wood has been worked. At least one, probably two, cylindrical loomweights were also recovered in addition to a largely complete conical loomweight (F.287; Fig. 3.48). These are described in more detail below.

Pit F.287

Some 15 fragments, weighing 2220g, including one complete, one partially complete and one identifiable fragment of a third cylindrical loomweight, were recovered from pit F.287. Additional small fragments with curved edges were also recovered, possibly also from loomweights of the form of the broken examples described here.

F.287 (a) Complete, large cylindrical loomweight, 1220g in weight, slightly tapering, 80mm high, c. 100mm in diameter on the upper surface and 120mm diameter at the base (Fig. 3.48.3). Possessing a single, central perforation 16.6mm in diameter, the weight appears to be expediently made from two clay types and fired in an oxidizing atmosphere. The surface varies from reddish-pink to a pale beige colour; the clay, although fired at a high temperature, is not completely converted to ceramic. A possible cord impression is present on the lateral surface, originating towards the base and 'spiralling' towards the middle.

F.287 (b). Large, conical-shaped loomweight, weight 808g, with flat upper and lower surfaces (diameters c. 60 and 116mm), height 122mm (Fig. 3.48.4). Approximately 50% survives. There is one

transverse perforation 22.5mm from the top of the weight 15.5mm in diameter. Due to the colourization of the surfaces the loomweight may have broken prior to secondary firing, with evidence for an oxidizing and reducing atmosphere evident on the interior exposed surfaces, dark grey and buff-orange surfaces both being present. Secondary firing at a high temperature has resulted in the clay being converted to a hard ceramic.

F.287 (b). Fragment of a small cylindrical loomweight weighing 212g. (Fig. 3.48.5). Approximately one third survives, including the base (estimated diameter of 85–90mm) and part of an off-centre lateral and incomplete perforation. The surface has a pale orange colour indicative of firing in an oxidizing atmosphere after it was broken.

Structure 2

Only a small quantity of fired clay was recovered from Structure 2. This consisted of five fragments, with a total weight of 335g. One fragment (318g) is bun-shaped, c. 85mm in diameter and c. 45mm thick (from pit F.653). Consisting of a relatively sandy fabric with large angular and sub-angular pieces of flint and gravel, heat exposure and penetration has reddened one side in comparison to the other (pale creamy-grey). Although slightly friable, this fragment has been heated to a high temperature and it probably represents a fragment of hearth lining.

Structure 3

A total of 32 fragments of fired clay (1009g) were recovered from features associated with Structure 3. These include 31 largely non-diagnostic pieces of varying hues of buff to pale orange/red coloured fragments. Four fragments preserve impressions of wood and possibly cordage, all recovered from pit F.349. Pieces that are vesicular in nature were recovered from F.906.

F.349 [367]. This is a thin, highly fired fragment c. 73mm long, 9.5mm thick and slightly curved along its longest length. The 'inner' surface has a smooth appearance, possibly lightly wiped with either wet fingers or a tool, while the 'outer' flatter surface are more rough, preserving wood-grain impressions. This fragment may therefore represent an exposed daubed surface.

F.349 [367]. Two refitting fragments with combined weight of 161g; the smaller piece has broken off the end of the larger. The outer surface has an irregular, pale beige coloured appearance as if roughly manufactured. This contrasts with the inner and flat bottom surfaces, both either pale pink or grey. The inner surface is also relatively smooth, with what appears to be either finger-nail or grain-like impressions. This surface also breaks to a grey, curved surface with possible cordage impressions; the base has a clear impression of a split, flat piece of wood. The overall appearance of this fragment, tapering from a flat base to a thin upper wall, with an interior smooth surface, suggests it was part of a larger object used to either line a pit or hold a secondary container, possibly organic.

F.349 [367] This is an irregular fragment of structural daub (or similar), weighing 162g. One surface preserves finger smoothing from where the clay has been fixed around the wood. Two pieces of wood are represented by the preserved impressions, both clearly the proximal ends of worked roundwood. One impression provides an estimated diameter of 130mm for the wood, with the wood-grain clearly visible. The second impression, some 25mm by

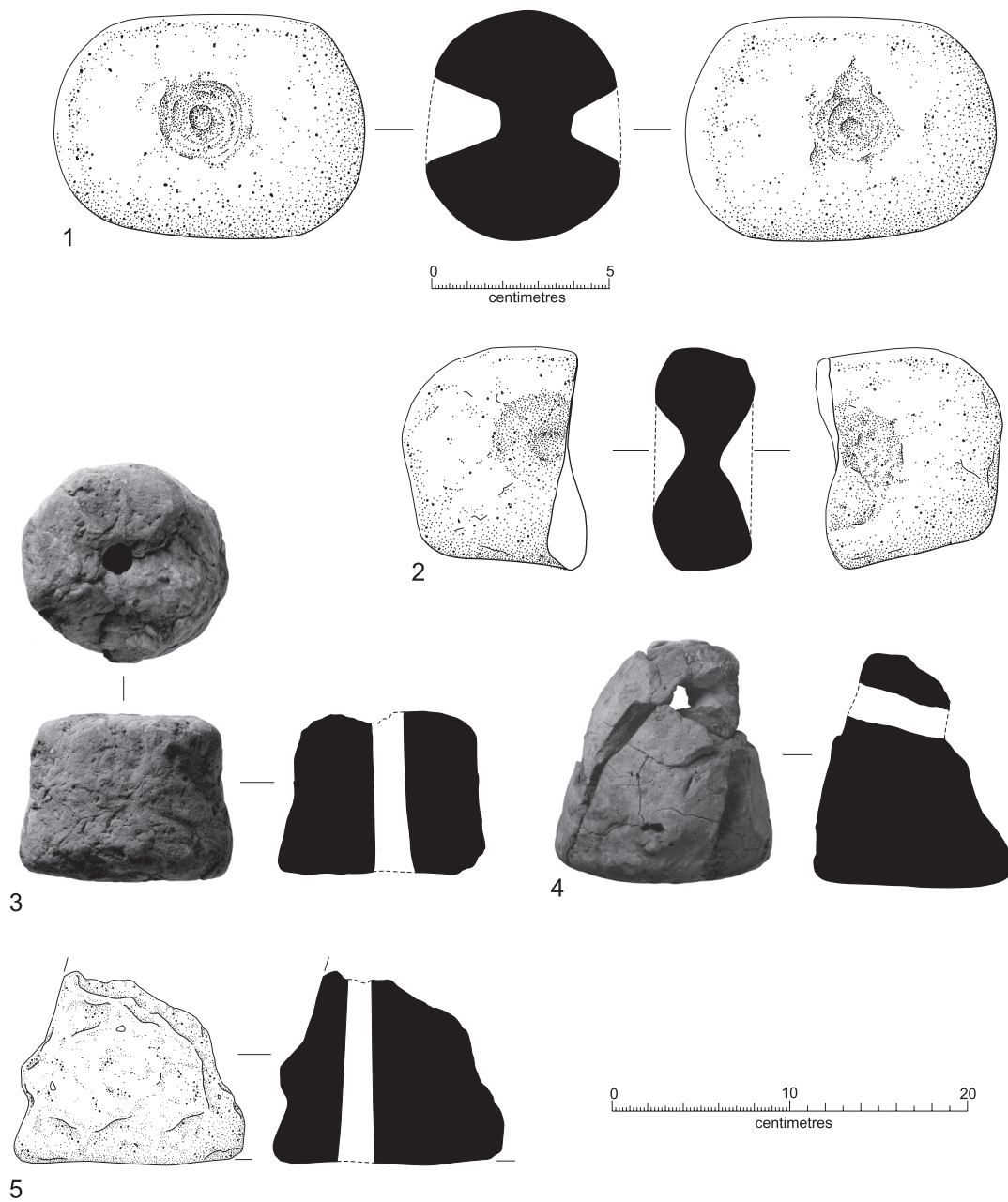


Figure 3.48. Loomweights and 'perforated' pebbles.

31mm, preserves chop or cut-marks caused by working the wood with either an axe or adze, the former most likely.

F.349 [367]. This is a large, relatively heavy fragment (313g) of structural daub, triangular in cross-section. Measuring *c.* 160mm long, one surface clearly shows numerous finger impressions where the clay has been pressed between two pieces of relatively wide roundwood; one impression (24mm long) shows part of an adult finger in profile. The other two surfaces, both slightly concave, preserve traces of the wood grain and give an estimated diameter for the timbers in the region of 250–300mm, although these may have been shaped/trimmed along their long axis prior to use.

F.906 [380]. This small assemblage consists of fragments of vesicular burnt clay, weighing 108g. The three larger lumps refit, are crumbly and have, on initial inspection, a slag or fuel-ash like appearance. However, these fragments are neither of these and are included here due to their similarity in nature and appearance to Collared Urn pottery recovered from the same feature.

This is a relatively small assemblage, but when considered together with the quantity of Collared Urn pottery recovered from the same structures and features it assumes a greater importance than when considered

alone. Fired clay is ubiquitous on many prehistoric sites within the region and is generally classified as structure related or associated with hearths. The assemblage described here shows remarkable similarity to that recovered from the Edgerley Drain Road (Appleby 2009), where 84 fragments of fired clay were recovered from pits and postholes containing Collared Urn sherds and are thus clearly contemporary in their deposition into these features.

What is less clear, and discussed by Morris in relation to the remarkable assemblage of loomweights recovered from probable Middle Bronze Age features at Pode Hole (Morris 2009, 73), is whether the objects were in fact re-deposited from elsewhere. The secondary firing of the fragments post-breakage would suggest this is a distinct possibility. Nonetheless, the similar condition of some of the Collared Urn assemblage demonstrates that both class of object have been subjected to the same pre- and post-firing processes.

Cylindrical loomweights are thought to be of Early/Middle Bronze Age date and similar weights have been recovered from the Fengate investigations including a complete example found in a pit in association with Collared Urn pottery (Site O (Pryor 2001, fig. 2.11). Parts of the Fengate fieldsystem produced seven other axially perforated loomweights: two from the Padholme Road sub-site (Pryor 1980), four from Newark Road (*ibid.*) and one from the Elliott Site (Evans & Beadsmoore 2009, fig. 3.25).

Worked stone (Simon Timberlake)

Worked pebble F.276a (276a). 144g. Dimensions: 50mm × 65mm × 28mm (Fig. 3.48.2). A broken and slightly heat-cracked sandstone pebble, perhaps originally a small glacial erratic from the gravels. This has been worked from both sides in the middle (as circular grinding hollows each approx 10mm deep), though the perforation is incomplete.

Macehead SF 49. 590g. Dimensions: 90mm × 70mm × 40–60mm (Fig. 3.48.1). A well-shaped worked stone macehead composed of a carefully chosen dense rock type, possibly dolerite. The macehead shows little evidence of having been used and the hour-glass perforation through the middle of this is also incomplete. The deepest of these perforations is between 20–25mm in diameter and about 20mm deep and is conically shaped.

The incompletely perforated pebble may have been an attempt to produce a shaft-hole implement or a perforated stone weight or net-sinker. However, given the unworked nature and relative poor quality of the pebble, this was probably intended as a practice piece. Given the position of the fracture through the pebble, it seems likely that it cracked as a result of the percussive activity associated with trying to make the hour-glass perforation. The macehead may be a rejected example.

Discussion

In a chapter which has moved back and forth between different parts of the site, describing different architectures and features with different durations and extents, it is understandably difficult to wrap these things up in a straightforward narrative. Such difficulties are further compounded by the fact that in our pursuit of movement we have chosen to emphasize process over form, both in terms of features and in terms of the landscape they occupied. As detailed at the very beginning of this chapter, every facet of the pre-fieldsystem landscape was fluctuating, including its environment. But how then do we make sense of this mutability without reducing everything into a single *mean* image of a pre-fieldsystem landscape?

The approach taken here is to be more selective in our focus and concentrate the discussion on just two fronts. Here, we allow the monuments to set the discursive tone for everything else, for as a collective, these constructions out-endured everything else and, as will be shown, had a distribution that extended beyond the reach of all other features. As such, the best way of illustrating the monuments' spatial-temporal pre-eminence is to compare them to the burnt mounds, the sites other enduring features, and the second focus for the following discussion. This way we can establish a series of landscape parameters or boundaries into which we can situate the more obvious traces of settlement or inhabitation.

Critically, not only did the monuments share a different distribution to the mounds, they also shared markedly different ecologies. If the henge and barrows were, to all intents and purposes, *dry* features, then the burnt mounds were increasingly *damp*. The two feature-sets existed at opposing ends of our particular landscape spectra and, therefore, framed everything detailed in this chapter. For sure, compelling evidence for single household-based settlement resided within this sphere. However, it has been decided to postpone a *detailed* discussion of this evidence until the final chapter (Chapter 7), where it can also be related to settlement from other places and periods. This is partly because unambiguous structural evidence for Early Bronze Age settlement is exceptionally rare, both regionally and nationally, and therefore warrants extra attention.

The other key discursive benefit of contrasting monuments and mounds is that, as feature-types, they are both easily identified in other landscapes, at a local and regional scale. Through these entities it becomes possible to articulate significant scalar shifts and reach beyond the narrow confines of site without having to resort to bland universals.

Monuments

Nene Valley geometries and distributions

The distinctive single causewayed ground-plans of the two King's Dyke barrows have immediate parallels at Fengate (Pryor 2001) and at Must Farm (Knight & Murrell 2011b). Sharing the same penannular plan but different orientations and different dimensions (largest diameter 25.6m; smallest 14.2m), the four examples also occupied different topographies. The King's Dyke pairing occupied the high ground (4.4m OD), Fengate the middle ground (1.08m OD) and Must Farm the low (-0.2m OD). Together, the monuments bracketed the available contours of the immediate landscape. Importantly, the low-lying situation of the Must Farm monument ensured that its barrow mound was almost fully preserved whereas the 'high' King's Dyke monuments were, by contrast, bereft of their earthworks beyond the tip-lines of mound erosion within their respective ditch profiles. Pryor (2001, 46) records the Fengate ring as being without any obvious mound or associated burial and accordingly described its appearance as 'hengi-form' (*ibid.*, 47). Conversely, the King' Dyke and Must Farm examples both contained burials.

Material culture was uncommon in all of the causewayed forms although a plain Peterborough Ware, Mortlake-style, bowl was found at the centre of the Must Farm mound and the King's Dyke pairing produced some fragments of Beaker and Collared Urn pottery early on in their respective sequences. Unfortunately, none of these causewayed forms have been securely dated (a radiocarbon sample from King's Dyke Round Barrow 1 failed), although a similar penannular form situated nearly 100km upstream at Raunds has an estimated construction date of 3340–3020 cal BC (95% probability (Harding & Healy 2007, 102)). Other than sharing analogous geometries and a Nene Valley distribution there would appear to be little consistency between these monuments. If nothing else, the implication here is that we should not focus on geometry when comparing monuments, but instead, as suggested above, place the emphasis on individual processes and their wider distribution.

Practice made place

The King's Dyke monument complex incorporated a sequence of timber and earthen architectures, knitted together by a succession of deposits and burials. In plan, the overall monument *geometry* implies a straightforward linear progression of henge to hengi-form barrows, diminishing in scale and elaboration, and simultaneously evolving from the ceremonial to the sepulchral. The actual monument *morphology*, however,

suggests that the architectural division between henge and barrow was much less opaque and that an intentional distinction was made between the different types of earthwork, expressed by the conscious construction of open (*henge*) or closed (*barrow*) spaces. The foundations of the monuments may have been similar, but the superstructures were not. Part of the difference was also relational and this was made tangible, for example, by the close association of the principal barrow (Round Barrow 1) to the henge.

Individually, each of the monuments had its own 'internal' sequence, which was often long and relatively complex. When brought together, these sequences can be seen to reflect configurations of concerted activity as well as patterns of dormancy across the different spaces. In this sense, it may be more appropriate to think of these different features (the timber and earthen architectures) as continuously shifting in and out of *active* focus, rather than being simple expressions of sequence, i.e. one monument followed by another, followed by another. When viewed in this light, the monuments can be considered not as finished and therefore concrete, but as enduring construction sites – features always in flux and open to further material flourishes.

The raw timescale of the monument complex was informed by two radiocarbon dates and typological parallels. The chronology of the complex appeared to incorporate at least three ceramic periods, with a 'Beaker' beginning, Collared Urn middle and a Deverel-Rimbury end. A failed date for the primary interment of the first of the barrows means that its start has to be deduced via analogy. Likewise, the first moments of the pit-circle and henge configuration must also be approximated. A charred seed from the pit-circle generated a radiocarbon date of 1960–1750 cal BC, though the burning episode to which this relates is thought to correlate with the small charcoal deposits in the middle henge fills. At best then, this date only provides a *terminus ante quem* for the beginning of the monument complex. Fortunately, the exaggeratedly deep 'coffin' burials situated at the centre of the King's Dyke barrows have parallels further up the Nene Valley at Raunds (Harding & Healy 2007, 240–243), where they have been shown to have Beaker affiliations (c. 2400–1900 cal BC) or date to the late third millennium BC. Similarly deep 'coffin' burials have been excavated in Cambridgeshire (Evans & Tabor 2010) and Norfolk (Lawson 1986) and shown to be part of a broader Beaker-related tradition. Meanwhile, small diameter timber circles equivalent to the one that encircled the primary interment of Round Barrow 1 have been exposed at low tide at Holme-next-the-Sea and demonstrated to belong to the very end of the third millennium BC (Brennand & Taylor 2003).

If the opening chronology of the monument complex was 'Beaker-like' then its core was coincident with Collared Urn. The pit-circle and henge capping deposit along with the satellite burials and 'empty' urns were all allied to this ceramic phase. The double Collared Urn 'capsule' cremation produced a date of 1880–1630 cal BC, whilst two samples linked directly to adjacent settlement accumulations (equivalent to the henge capping deposit) generated dates of 1760–1610 and 1740–1530 cal BC respectively (Table 1.1). The other end of the monument chronology, its final flourish so to speak, was defined by two Deverel-Rimbury cremations and the construction of a diminutive Middle Bronze Age ring-ditch. Fittingly, the end of the monuments corresponded with the end of urns.

The extended duration of the complex shows it to be as much a product of temporal practice as spatial. By this we mean the gross chronology was extremely long (minimum 600 years) and those involved in its construction could only ever have had a partial association. At best, the complex represents a kind of architectural composite; an amalgam made-up of familiar elements, but brought together in a distinctive arrangement. One can envisage similar processes occurring throughout the Flag Fen Basin, or along the Nene Valley, with different 'monument' spaces being transformed or added to at different times. The inference being drawn is that, if the King's Dyke complex was a composite, then so were other monument groups in the region, both large and small. Seen this way, there never was a single burial space, or even a single monument, but in truth, a whole series of spaces interconnected or unified by analogous kinds of *monument practice*. Individually, each site evolved its own inimitable arrangement, or its very own composite, each regulated or articulated by time. As such, apparent gaps in the different composites can be equated to gaps in time, or dormant periods, when very little happened at these particular places. However, these disjunctions are not reflective of holes in the record, but equate to *long fallow* or fluid systems of tenure in the earlier Bronze Age (Barrett 1994). In this sense, we are describing a kind of inhabitation that bears a strong resemblance to earlier traditions such as those also envisaged for the Early Neolithic (Pollard 1999), a time when monuments also predominated the architectural range. Perhaps, what is absent from this Early Bronze Age version of the monuments and mobility model are palpable points of episodic, large-scale settlement aggregation, such as the big enclosure or pit agglomeration sites typical of eastern England in the fourth millennium BC (Garrow 2006, 25–58; Pryor 1998a). Instead, the post-Neolithic Nene Valley settlement pattern was epitomized by individual households dotted up and down its length.

Here the episodic character of settlement matched the episodic character of monument construction in that it too was broadly distributed.

With this perspective, we might begin to situate the dead in relation to these constructions somewhat differently. Given the extremely protracted time-spans involved in the making of these sites, it is hard to envisage each individual barrow as a predetermined ancestral place, as if every monument was built in anticipation of accommodating future members of the same family or restricted lineage. The evidence suggests the exact opposite. The realized genealogy of these spaces was seldom linear. Instead, it entailed a much more convoluted process. Crucially, these were not architectures made *for* the dead – they were architectures made *of* the dead (Barrett 1988, 39). The development of a monument was conditional on fresh interments, otherwise the whole thing stagnated. In this light, we might better think of composite burial monuments as points of temporal convergence (they were, so to speak, *short* spaces made over *long* times). Understood in this way, burial monuments represent a unique kind of stratification in that they contain major gaps between ostensibly analogous practices. As constructions, round barrows are the spatial unification of temporally discordant, but socially equivalent, performances.

Understandably, there is something compelling about the physical stratification of bodies, especially when it comes to finding ways of understanding past social relationships. It is easy to see how physical stratification can be taken as a straightforward index of social relationships (in all of its variants: Garwood 1991; Mizoguchi 1993; Last 1998). This is especially true if the overriding perspective is spatial and for that reason the evidence is flattened. Under these interpretive circumstances, individual monuments, or monument groups, can be understood as fixed ancestral plots tied to specific places in the landscape (Garwood 2007, 47; Healy & Harding 2007, 66). Conveniently, each plot accommodates or amasses its own collection of ancestors (primary, secondary, satellite etc.) and each collection of ancestors can be used to advocate an unbroken lineage rooted to one particular locale. To top it all, each unbroken lineage comes supplied with its very own ceramic line of descent (Beaker, Collared Urn and Deverel-Rimbury). From a purely spatial point of view, there is little discordance and stratification prevails at several levels.

Paradoxically, in the context of burial monuments, stratigraphy is used to conflate rather than separate and thus *form* is once again given priority over *process*. In this way, we end up with monuments as static foci connected to individual 'families or other close-knit

social groupings' (Harding & Healy 2007, 210), whilst the super-extended time-spans associated with these spaces become a straightforward proxy for concepts such as inheritance, obligation and commemoration (ibid., 216), a kind of continuity from discontinuity (Mark Edmonds pers. comm.). Equally, with form as the controlling frame of reference, monuments can be subdivided into specific types and given quantified chronologies (Garwood 2007, 30–52). Space and time are certainly present within these discourses but they occur as disconnected properties related to the same retrospectively privileged point of view.

An alternative approach is to reconnect duration and extent and at the same time reorientate ourselves in terms of scale. Instead of thinking of individual burial monuments as spatially *distinct* but sharing the same broad temporalities, we might think of them as spatially *related* but incorporating different temporal intensities. The distinction is subtle and involves a change in perspective that once again prioritizes *process* over *form* and simultaneously situates 'stratification' at a scale much larger than that of individual monuments or even necessarily monument groups. It also entails a change in the scale of movement as, under these new conditions, barrows can no longer be regarded as static foci or plots connected to individual families or groups.

To understand this particular point of view, it is necessary to envisage a whole series of equivalent practices occurring at different parts of the landscape, but carried out by members of the same social groupings. No one group builds anything, but instead shared practices, such as deep graves with coffins, post-rings, causewayed ring-ditches or cremations accompanied with Collared Urns, develop over time into forms we come to recognize as burial monuments. The process was such that some spaces developed more than others. This is why we can find more or less developed combinations of different elements at different places. Practice was regulated temporally, as well as spatially, which is why specific features or architectures can be absent as much as present. In this sense, practice made place, not the other way around. By the same token, persistence was determined by practice not place.

Crucially, at any given time, the buried population was represented not at a single monument but across a chain of monumental practices, stretched out over the distance of a landscape, pathway or river. The burials found at individual monuments or monument complexes represent a composite of divergent communities, communities that frequented similar spaces but at completely different times and in different ways. The inconsistency of monuments, their heterogeneity, can be understood as exact architectural expressions

of how they were made. Each one was an amalgam of different durations and extents.

Individual Early Bronze Age monuments or monument groups cannot simply be interpreted as repositories of restricted lineages or genealogies (real or invented). The scale at which people lived and died was far more dispersed. Family, or other close-knit social groupings, were not attached to one place but to a whole chain of places and, as such, created wide-ranging constellations of the dead that extended way beyond a single place or monument. Lineages or genealogies were made manifest horizontally, not vertically, and were purposely constructed to be comprehended on these terms. The historical component of past social relationships had its own kind of stratigraphy that could only be appreciated in the course of protracted movement. If nothing else, this way of seeing things proposes that during these times and within in these spaces, people had a *distributed* rather than *centred* notion of what it was that constituted place (cf. McFadyen 2008). Furthermore, while there is not necessarily a contradiction between an extensive wide-ranging use of a landscape and individual groups being connected to particular monument clusters, this relationship still needs to be demonstrated and not just assumed (especially as it is questionable that the vertical arrangements of bodies within burial monuments ever stood as a straightforward index of past social relations).

Burnt mounds

At the time of discovery, the four burnt mounds from Bradley Fen, reported in this volume, represented the first such features ever to be found along the western edge of the Fens. Previously, the Fenland Survey had established a direct relationship between large isolated piles of fire-cracked flint and the eastern edge of the Fens (Silvester 1991), with principal, published examples of burnt mounds on the eastern fen-edge at sites such as High Fen Drove, Northwold (Crowson 2004), Feltwell Anchor, Feltwell (Leah & Crowson 1994) and Swales Fen, West Row (Martin 1988) and more recent discoveries at Fairstead, King's Lynn (Beadsmoore 2005b) and Fordham (Mortimer 2007). Burnt mounds are also scarce on the Lincolnshire fen-edge: the Fenland survey found two, both in East Kirkby, on the northern edge of the fens (Lane 1993, 104). Although three further mounds have now been found at Must Farm on the western edge (Tabor 2008a; Tabor 2010; Knight & Murrell 2011b) and isolated mounds have been recorded along the southern fen margins in the lower Ouse Valley, with examples at Haddenham (Evans & Hodder 2006a) and Over (Evans & Tabor 2010, 47–51; Tabor & Evans 2013, 46), the distribution

is still very much concentrated around the eastern fen-edge in Norfolk and Suffolk.

The western edge has never been renowned for its large lithic scatters (burnt or otherwise) and even beneath the surface, its sites have tended to produce markedly diminutive assemblages when compared to the east (Healy 1991). Breckland-sourced flint has been identified along the western edge but invariably as imported ready-worked material rather than in its 'raw' state. Mostly, the western-edge assemblages comprise small flints in low densities, as characterized by the features in around the Bradley Fen burnt mounds. Significantly, the dearth of 'good' flint along the western fen-edge was visible in the composition of the Bradley Fen burnt mounds in that they were made-up of masses of fire-cracked sandstone river pebbles as opposed to heaps of burnt flint.

Samples from the centre of each of the Bradley Fen mounds produced an average mixture of 78.5% burnt stone, 12.5% burnt gravel and 12.8% unburnt stone/gravel. The Must Farm mounds were also made up predominantly of burnt stone and the southern example at Over generated a composition almost identical to the Bradley Fen mounds. At Fairstead, on the eastern edge, however, the mound composition was almost the exact reverse: 3.5% burnt stone, 94.5% burnt flint and 2% unburnt stone/flint (Fig. 3.49). Published descriptions of the other eastern mounds describe a similar pattern of only small amounts of burnt stone amongst masses of heat-shattered flint (Crowson 2004). Overall, the pattern suggests that the eastern mounds had access to copious amounts of flint ('enough to burn'), whereas the southern and western examples did not. Importantly, the different materials seem to reflect differences in geography rather than

differences in practice as all of the mounds – east, west or south – shared almost identical morphologies. The dark, humified matrix that held the fire-cracked rocks was the same regardless of stone type and in plan and profile these distinctive heaps are indistinguishable.

Returning to the distribution of the mounds at Bradley Fen, their spacing and close linear relationship to the embayment edge hint at a pattern of burnt mounds occurring every 60m or so, continuing to the north and south of the excavation area, between the 0.60 and 0.80m OD contour. Likewise, we can extrapolate that their associated features, made up of water hollows, metalised surfaces, hearths and small pits and postholes, also occurred with equivalent regularity. Such a configuration would be comparable to the 'pot-boiler' pattern recorded along the edge of the Wissey Embayment, where Silvester (1991) identified 23 discrete burnt flint scatters spread out over a distance of about 1300m: one approximately every 55m. These occupied a juncture between the chalk upland and the deeper peat fen, sandwiched between Early/Middle Neolithic flint scatters (ostensibly found further out in the peat fen) and a series of Iron Age sites (located inland and higher up on the chalk); just as at Bradley Fen, the pattern was linear, edge-related and, most pertinently, historically contingent.

In both landscapes, the burnt mounds were intimately linked to the presence of a wet-ground skirtland. At Bradley Fen, the slow but progressive saturation of the site's lowland embayment generated a series of wet edges, or localized damp/dry margins, along which the burnt mounds and other features were established. Through the close association between burnt mounds and increasingly damp ground these features had an almost magnetic relationship with

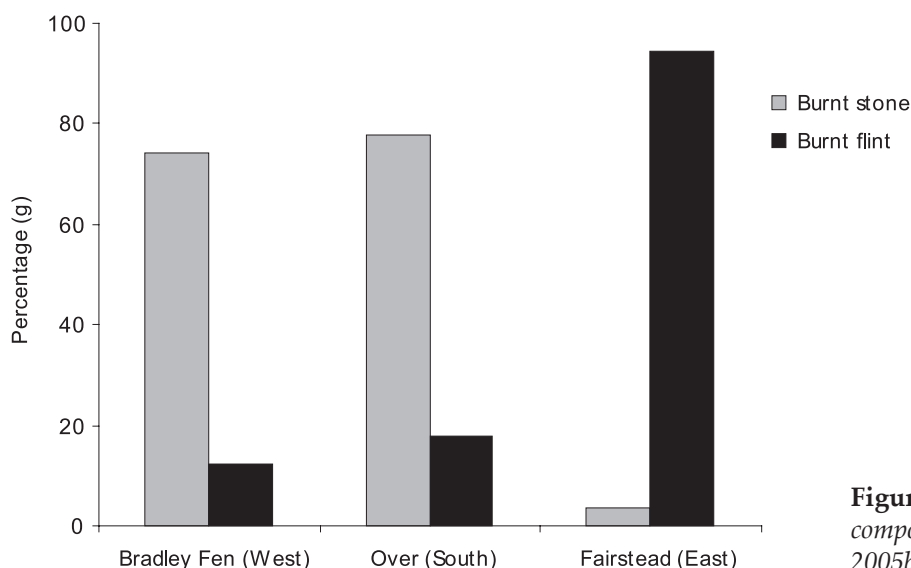


Figure 3.49. 'Fen-edge' mound composition contrast (Beadsmoore 2005b; Evans & Tabor 2010).

the transforming hydrology of the landscape and, as barometers of such change, they represent particularly sensitive entities. Indeed, it seems that the inexorable progression of the increasingly wet edge was marked by, and therefore can be measured from, the upward progression of the burnt mounds.

The mounds corresponded to the contemporary 'high-water' mark, a thin strip of ground which, according to the season, shifted between being entirely sodden or comparatively dry. Those involved in setting fires and heating stones were presumably very familiar with the changing textures of the encroaching saturation. Seeing the mounds in plan, it is tempting to orientate them as facing-outwards, like a series of small havens dotted around the edge of the embayment, although there is every possibility that these particular features faced inwards and encircled or enclosed the land still open for settlement.

Whatever their orientation, these features are testimony to the shifting perimeter of the embayment, with the Bradley Fen and Must Farm burnt mounds falling between the -0.90m and +0.80m OD contours. The corresponding dates of these features reflect the shifting embayment edge over time, with the deepest mound at Must Farm (Burnt Mound 6), being associated with a radiocarbon return of 2200–1970 cal BC (Beta-263158: 3710±40 BP (Tabor 2010, 7)), whilst two of the highest mounds at Bradley Fen (Burnt Mounds 1 and 3), produced dates of 1740–1530 and 1690–1510 cal BC respectively. Appropriately, the 'middle' mound, Burnt Mound 4, produced a 'middle' date of 1910–1700 cal BC. The only glitch in this neat upward trajectory was Burnt Mound 2, whose early date may be a product of wood-age offset (2300–2120 & 2100–2040; Table 1.1).

Here, in the space of few hundred metres, the accepted chronological currency of Fenland burnt mounds is played out in a spatial and temporal sequence. The absence of burnt mounds from the higher contours, i.e. above 1m OD, would explain why similar features have not been found elsewhere around the Flag Fen Basin or, for that matter, elsewhere along the western fen-edge. At Bradley Fen and Must Farm at least, these features inhabit a limited window both in time (c. 2300–1500 cal BC) and in space (c. -1 to +1m OD).

Similarly, the same limited window revealed a series of watering hollows and metalled surfaces related to earlier, pre-fen occupation associated with the increasingly damp fringes of the Bradley Fen embayment. Billington's analysis of the lithics recovered from immediately on top of the metalled surface F.1052 identified the assemblage as being coherent and therefore *in situ* and dated it to the 'middle' Neolithic on the basis that it incorporated both Early and Late

Neolithic traits. None of the other surfaces produced anything so chronologically attributable but all of the metalled surfaces represented primary features in relationship to almost all adjacent activities; separately, areas of metalling occurred pre-burnt mounds, pre-peat and pre-fieldsystem. As features made principally through, or by concerted movement over, areas of increasingly soft ground the patches of metalling were not easy things to fix in time and there is every possibility given the necessary conditions, that surfaces like these were 'made' throughout prehistory. So for instance, compacted gravel surfaces have been found at Fengate overlying infilled fieldsystem ditches (Evans et al. 2009), but also at Northey in association with animal hoofprints and soft marginal ground close to 1m OD (Britchfield 2010).

At Bradley Fen, the metalling was also integral to many of the large waterholes which encompassed the Bradley Fen/Must Farm Embayment. Cow, pig and deer tracks 'stitched' the edges of the holes and surfaces together and collectively presented a footfall pattern of large ungulates moving across and along the embayment. New metalled surfaces, including narrow sinuous pathways and large irregular 'yard' surfaces, have since been found both across and around the southern fringes of the same embayment at Must Farm and in particular where the embayment narrowed and 'debouched' into the nearby river system and down the edges of the river valley (Gibson & Knight 2009; Tabor 2008a; 2010; Knight & Murrell 2011b). Similarly, and as a direct result of the Bradley Fen discoveries, large areas of animal hoofprints have been found punctuating the pre-peat land surface at Must Farm around -0.2m OD (Murrell 2011). All the evidence suggests that the activities or movements that gave rise to, the metalled surfaces had also been happening much further down the edge.

The Bradley Fen investigations show that unambiguous and undisturbed evidence for Early Bronze Age occupation activity increases in intensity below 1m OD. The very intactness of these early features reflects their stratigraphic relationship to the increasingly deep peat cover and at the same time indicates that former notions of an all-encompassing defined landscape edge are no longer appropriate.

Previously, the deepest Beaker features were thought to also delineate the wet-dry divide of the Flag Fen Basin. Excavations '*Towards the Northey Landfall*' or eastern shoreline of the Flag Fen Basin revealed a small cluster of Beaker pits, some features containing burnt stones and a series of stake-alignments or fence-lines (Britchfield 2010). In 1989, the Power Station investigations on the opposing eastern shoreline located a small cluster of pits, including a feature replete with burnt

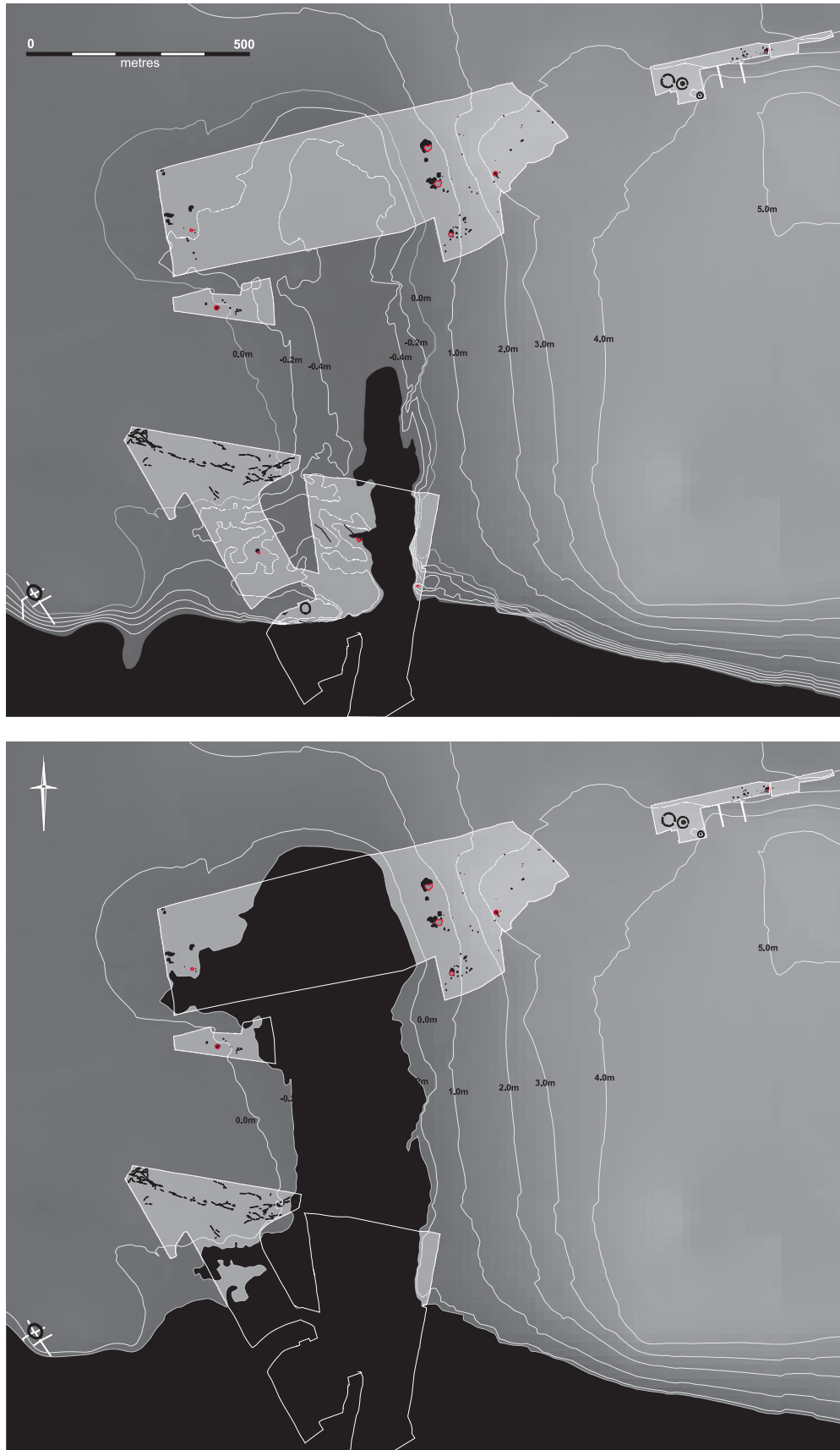


Figure 3.50.
*The Bradley
Fen Embayment
(incorporating
the Must Farm
landscape); Top,
c. 2000 cal BC;
bottom, c. 1800 cal BC.
(Burnt mounds and
settlement structures
in red).*

stone, which also produced Beaker or Beaker-like pottery (Pryor 2001, 71). Both the Northey and the Power Station features pre-dated the peat and were located just below the 1m OD contour and as such were seen as being exceptionally low-lying examples of Beaker activity. Both Pryor and Britchfield assigned these features a boundary or liminal role, contemporary with, or equivalent to, the fen-edge ditch and bank boundaries of the fieldsystems.

The Bradley Fen Beaker house (Structure 1) was located nearly 1m *below* the Northey landfall and Power Station features. The structure pre-dated the formation of the peat and its large central hearth with surviving charred logs visibly illustrated its terrestrial location. Our understanding of the contemporary landscape suggests that it was built within an area that was predominantly dry except for some localized ponding in lowest-lying areas. Further insights into the structure of this deeply buried landscape are now emerging from the adjacent excavations at Must Farm, which serve to flesh-out the texture of these lowland river terraces. The discovery of preserved stake-line boundaries, similar to those identified at the Northey Landfall, is particularly notable (Tabor 2010; Knight & Murrell 2011b). These seem to delineate small paddocks of cleared ground, dry enough to parcel up, but far too wet to inhabit. As well as providing an unprecedented perspective on pre-fieldsystem forms of land allotment in the Flag Fen Basin, the very preservation of these

stake lines demonstrates that this patch of landscape was in hydrological transition by the start of the second millennium BC. In other words, the paddocks and ground below -0.50m OD were becoming saturated, if not permanently waterlogged, at this stage (Fig. 3.50).

Increasing saturation along the Bradley Fen embayment may be one reason for the 'jump' up-slope of house architectures during the Early Bronze Age; the Collared Urn-related structures being erected above the 2m OD contour. However, the time-transgressive upward trend of settlement was in part counteracted by a continued and deliberate engagement with the ensuing saturation of the lower contours. The relatively narrow focus of the King's Dyke/Bradley Fen aperture appears to capture movement between what we might call the *convex* and *concave* spaces of a river valley. At the same time as the elevated, or convex, terrain of King's Dyke and parts of Bradley Fen witnessed ongoing monument sequences as well as increasingly tangible evidence of settlement, Bradley Fen's low-lying or concave embayment saw the incremental displacement of enduring practices that, amongst other things, involved heating stones and watering livestock. This particular landscape-transect was flanked by monuments at one end and burnt mounds at the other.

In articulation, these were the social *situations* and *configurations* of the Early Bronze Age as realized along the lower reaches of the Nene Valley. The appearance of this landscape is at variance with the

Spatial-temporal configuration 1 – the pre-fieldsystem landscape

The spatial-temporal diagrams are designed principally to reintroduce a vertical or temporal dimension to the features excavated at Bradley Fen and King's Dyke. As such, the diagrams present a different perspective from the more orthodox plan view, which places all of the emphasis on the horizontal or spatial relationship between things. In the context of this project, a re-emphasizing of the vertical corresponds to the site's subtle, but intricate, topographic and sedimentary history. The diagrams work by replicating the age/altitude or time/depth dynamic intrinsic to this particular landscape by situating key features both horizontally (the X axis) and vertically (the Y axis). Essentially, the diagram replicates the landscape-edge by showing the relative topographic situation (X) and base altitude (Y) of each feature, or activity. So for the henge, the X axis shows its

contour location whilst the Y axis shows the altitude of its deepest component (i.e. the height at the base of its ditch). Viewed individually, X/Y coordinates mean very little, but when seen in relationship to other feature-coordinates, it becomes possible to identify authentic spatial-temporal configurations.

In the beginning, the patterns are more spatial than temporal, or more geographical than historical. In the first diagram, for example, it is the spatial rather than the temporal relationships that stand out. The diagram shows a clear split between Beaker and Collared Urn settlement as well as between the location of monuments and the burnt mounds and watering hollows. By introducing different features with each new chapter, the age/altitude dynamic will become apparent as features are articulated temporally as well as spatially. As the lower contours are buried beneath escalating sediments and the 'surface available for settlement' decreases in extent, features will move.

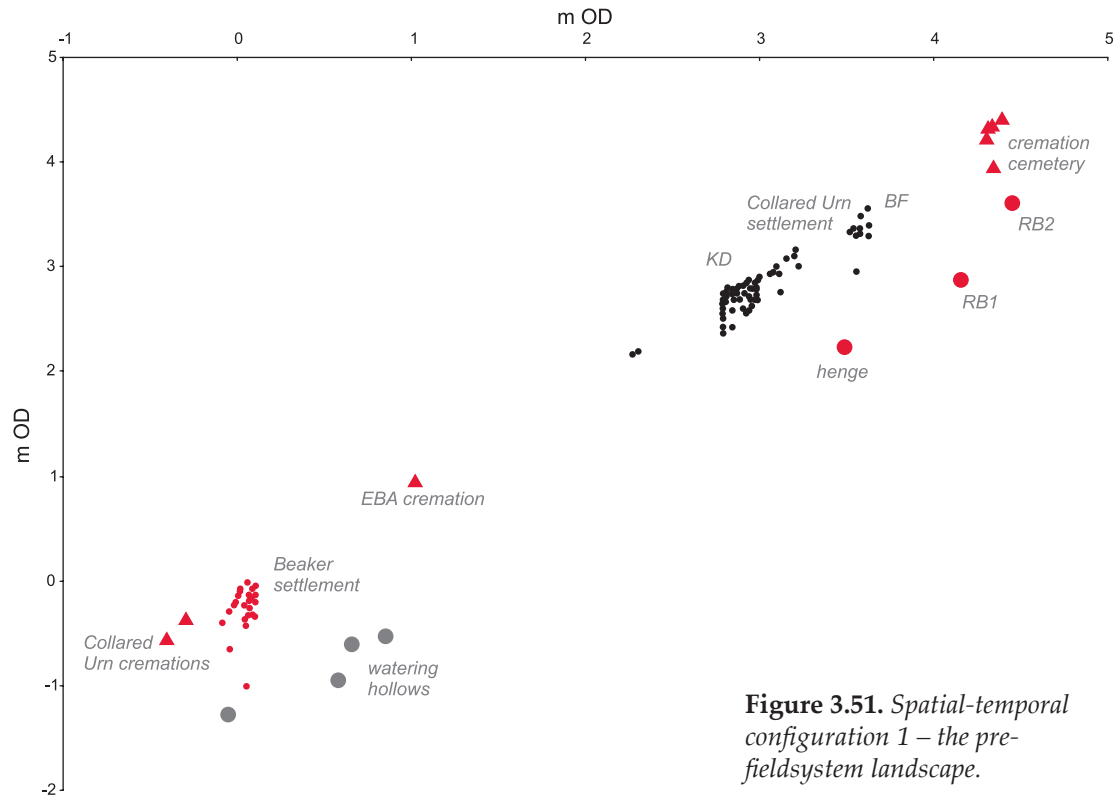


Figure 3.51. *Spatial-temporal configuration 1 – the pre-fieldsystem landscape.*

Movement occurs vertically and horizontally and shows itself as a series of spatial-temporal shifts. Just like the earlier flood maps, it is only by presenting things in succession that we can begin to distinguish movement. Since movement is conditional on time, as much as it is on space, its recognition should help to substantiate the spatial-temporal potential of these diagrams as well. Ultimately, the idea is to extend the *temporal-mapping* up and down the contour, as a means of further demonstrating how this particular 'landscape-edge' comes complete with its very own heightened historical-geographical scale. At the same time, it should also illustrate just how difficult it is to divide such a fluid and mutable space into separate, constitutive elements.

In the first of our diagrams, settlement, in the form of the Beaker structure, starts at the low end of the gradient and shares the same ground as the watering hollows and burnt mounds. Meanwhile, the henge and barrow group sit at the high end with Collared Urn settlement located near-by. The

extreme ends of this range are bracketed by an assortment of cremations all of which had Collared Urn affinities. There is a marked spatial division between Beaker settlement and the inchoation of the monument complex, especially when compared to the auxiliary situation of the Collared Urn settlement features to the same complex. In this pattern, settlement moves but the mounds and monuments stay put. Sharing similarly extended temporal currencies, the monuments and burnt mounds persisted long enough to absorb successive and distinctive episodes of settlement. In these diagrams, 'staying-put' is symptomatic of an enduring existence. The spatial-temporal detachment of one settlement episode from another reflects a deliberate upward trajectory perhaps encouraged by the escalating saturation of the lower contours. Alternatively, its movement might actually represent a simple correspondence between increasing occupation and amplified activity at or about the monuments. For example, the henge's final flourish coincided precisely with this shift in settlement position.

'Fengate version' of Early Bronze Age society in that the infrastructure of formalized land division is absent from this account. In its stead, alternative situations and configurations have materialized, including activities (such as burnt mounds) more commonplace to the east, on the other side of Fenland (Silvester 1991), or to the north, on the floodplains of the Trent, Soar, Wreake and Witham (Ripper & Beamish 2011). Interestingly, these are landscapes renowned for being just beyond the recognized catchment of Bronze Age fieldsystems (Yates 2007, 98–100, 108; Knight & Howard 2004, chap. 4). In the circumstances of the Nene Valley, the elimination of the grid has enabled a different arrangement of connections to be constructed; quintessentially, its removal has made the landscape *articulable* again, a set of disconnected activities dotted between different fields are now securely interrelated.

Conclusion

In this river valley, at this time, the settlement imprint was subtle and the interval between dwellings was wide. In total, the King's Dyke/Bradley Fen Early Bronze Age window revealed three dwellings, three monuments and four burnt mounds. The rough correspondence in numbers between dwellings, monuments and mounds should not be read as a straightforward index of lived scale, but there would appear to be a crude correlation between places to live, places to die and perhaps even places to cook or bathe (Barfield & Hodder 1987). It might be that the scale of our investigation window, its aperture, was just big enough to capture some of the key facets of Early

Bronze Age inhabitation within a single frame. If this was the case, then the impression of this inhabitation was light and, it would seem, indicative of episodes of relatively short-term coalescence rather than the concerted occupation of a set place or a place-bound way of living. Thus, although the spatial configuration of the evidence is so compelling that it is tempting to overlook its temporality altogether and just call it 'an Early Bronze Age landscape', in all likelihood, the communities who frequented these dwellings, built these monuments and added to these mounds also attended to equivalent features away from the confines of our landscape window. Without extensive movement *into* and *out of* our frame this particular spatial-temporal situation has way too much time for its space. By necessity, extended movement or mobility would have entailed prolonged fallow periods and, as a consequence, involved expansive and comparatively flexible systems of tenure (Barrett 1994, 143–145). In these times, in these spaces, it seems that the 'tenurial expectation' of the community (ibid., 144) was far greater than the south-eastern margins of the Flag Fen Basin and instead encompassed a major river valley in all of its aspects (see Harding & Healy 2007, 277).

The next chapter describes a new kind of tenurial expectation which happened to coincide, or overlap, with the relatively rapid loss of large tracts of land to the encroaching fen. As phenomena, the two occurrences were not intrinsically linked but all the same had a significant impact upon each other. Paradoxically, at the point when land was formally being divided up it was also fast disappearing.

Pattern and Process

The King's Dyke and Bradley Fen excavations occurred within the brick pits of the Fenland town of Whittlesey, Cambridgeshire. The investigations straddled the south-eastern contours of the Flag Fen Basin, a small peat-filled embayment located between the East-Midland city of Peterborough and the western limits of Whittlesey 'island'. Renowned principally for its Bronze Age discoveries at sites such as Fengate and Flag Fen, the Flag Fen Basin also marked the point where the prehistoric River Nene debouched into the greater Fenland Basin.

A henge, two round barrows, an early fieldsystem, metalwork deposition and patterns of sustained settlement along with metalworking evidence helped produce a plan similar in its configuration to that revealed at Fengate. In addition, unambiguous evidence of earlier second millennium BC settlement was identified together with large watering holes and the first burnt stone mounds to be found along Fenland's western edge.

Genuine settlement structures included three of Early Bronze Age date, one Late Bronze Age, ten Early Iron Age and three Middle Iron Age. Later Bronze Age metalwork, including single spears and a weapon hoard, was deposited in indirect association with the earlier land divisions and consistently within ground that was becoming increasingly wet.

The large-scale exposure of the base of the Flag Fen Basin at Bradley Fen revealed a sub-peat or pre-basin landscape related to the buried floodplain of an early River Nene. Above all, the revelation of sub-fen occupation helped position the Flag Fen Basin in time as well as space.

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