Chapter 6: Early Neolithic evidence from other sites

Introduction

Activity at other sites in the earlier Neolithic (Fig. 6.1) was evidenced most commonly by finds from small pits and tree-throw holes. The pits usually occurred as isolated, single features, and contained assemblages consisting of pottery, worked flint, burnt flint, animal bone, charred plant remains and charcoal. Where it can be determined, the ceramics consist most commonly of Plain and Decorated Bowl or Ebbsfleet Ware rather than Carinated Bowl, although in many cases the pottery was too fragmentary to be clearly attributed to a particular style. Such pits were found in Areas 16, RC2, Ex1 and 11, and at Lot's Hole and Marsh Lane East Site 2. Similar assemblages of finds were recovered from tree-throw holes at most of these sites and from Marsh Lane East Site 1, Marsh Lane West, Taplow Mill Site 2 and Roundmoor Ditch. One of the tree-throw holes at Marsh Lane West contained a very small deposit of cremated human remains.

More extensive evidence for earlier Neolithic activity was found on and around Gravel Island X. Numerous earlier Neolithic flint scatters were found on the floodplain to the north of Gravel Island X (in Areas Ex1-3), preserved in and on an early Neolithic soil horizon. These flint scatters have been classified as knapping scatters (characterised by much debitage, many refits and little usewear), deposits of utilised material (characterised by much usewear, little evidence of knapping and few refits), and activity areas (which include elements of both the knapping scatters and deposits of utilised material). Some of the scatters included evidence for arrowhead production. Knapping scatters of late Mesolithic or early Neolithic date were also found on the floodplain to the south-east of Gravel Island X in Area 11. The gravel island itself was cut by numerous tree-throw holes and pits, and was marked by burnt areas and deposits of burnt flint. Few of the features on the gravel island could be clearly dated, and just 6 tree-throw holes and 2 pits have been attributed to the early Neolithic. Activity on the gravel island was associated with both Carinated and Plain Bowl pottery and Ebbsfleet Ware.

Early Neolithic flint, pottery, and animal bone, including a cattle skeleton, was also recovered from deposits in the former Thames channel to the north of Gravel Island X. Further earlier Neolithic pot and animal bone, as well as a human skull were recovered from palaeochannel deposits in Areas 3 and 5.

Extensive evidence for early Neolithic activity was also found in Areas 20 and 24, including Carinated Bowl pottery and Ebbsfleet Ware. Most of the early Neolithic finds in these Areas were, however, residual.

The final possible indication of earlier Neolithic activity is provided by the remains of an oval barrow at Marsh Lane East Site 2. This barrow appears to have been recut in the late Neolithic/early Bronze Age, and no artefacts were associated with the first cut of its ditch. The date of the first cut is, therefore, very uncertain, but it is possible that it was related to an earlier Neolithic monument.

Areas Ex1-3, 11 and 1: early Neolithic activity *by Tim Allen, Anne Marie Cromarty and Nick Mitchell*

The former Thames channel: early Neolithic finds

The first early Neolithic channel

The former Thames channel running west-east through the site was probably active throughout the Holocene up to at least the Romano-British period (Plate 6.1). One of the cuts (10031=10249) forming the southern side of this channel was dated by the finds from the earliest sediments revealed within it in Ex1 to the early Neolithic (Fig. 6.2). The finds included a group of fairly large timbers, generally around 1.6m long and 0.24m across, but included also a single unbroken timber 4.1m long with diameter 0.18m, lying roughly parallel to the edge of the channel intermixed with apparently randomly aligned thin lengths of branch. Whilst these timbers showed no evidence of working by humans, at least four of them were found to have marks consistent with those left by beavers, leading to the interpretation of this group (718) as a beaver lodge (Figs 6.2-3). Such an interpretation is further supported by the presence of an almost complete beaver skull and various other beaver bones. One of the timbers was radiocarbon dated to 3640-3360 cal BC (BM-3185: 4700±50 BP).

Deposits of friable, dark grey brown silt (712; Fig. 6.3) with frequent wood and other preserved organic material up and tenacious, mid-grey, sandy silt (692) with occasional iron staining and frequent fine mollusc shell fragments were found to have accumulated around these timbers to depths of 0.08m and 0.35m respectively. The upper of these

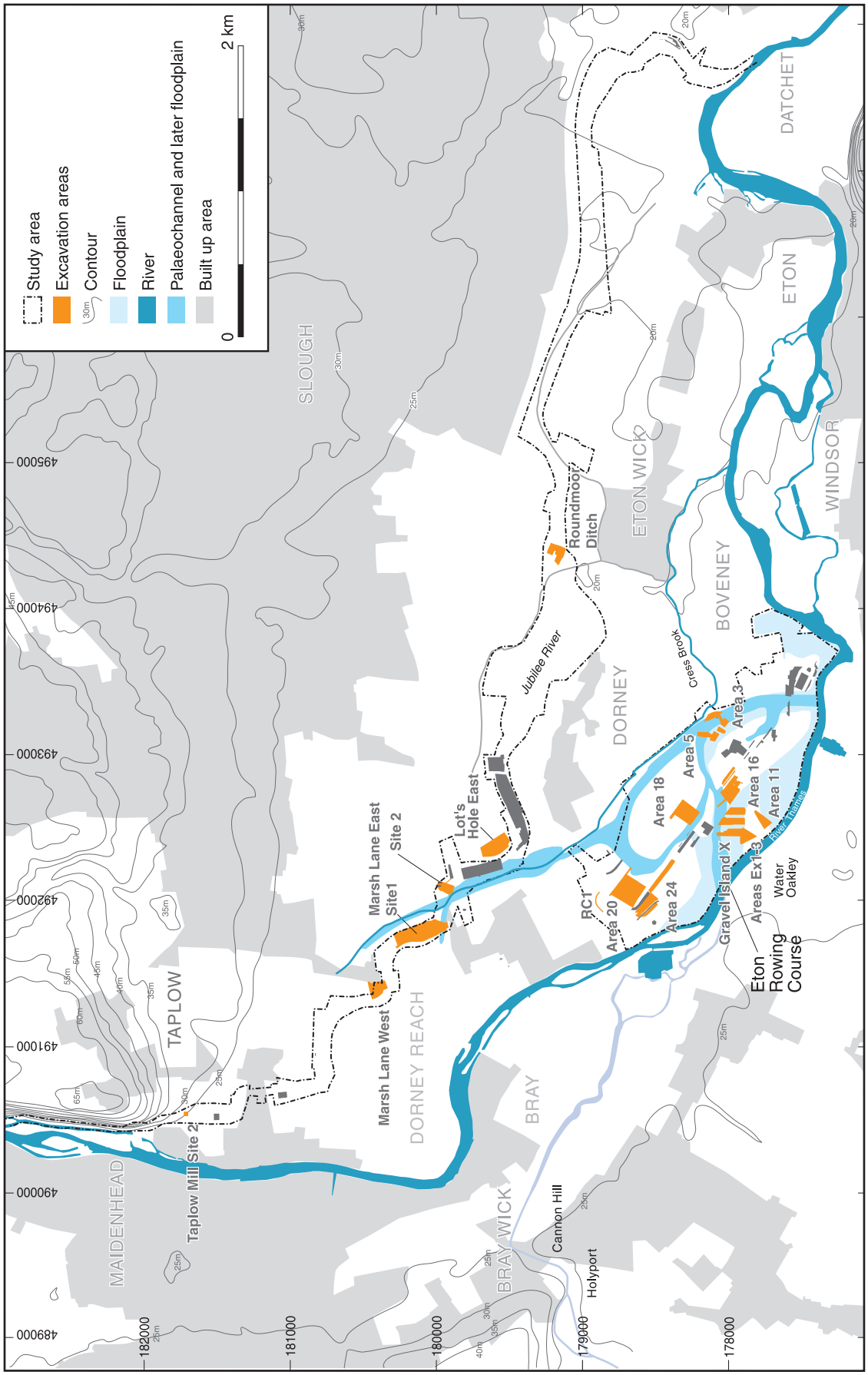


Fig. 6.1 Location of sites discussed in Chapter 6 (Crown copyright 2013 Ordnance Survey 100005569)

Plate 6.1 Excavation of channel in Area Ex1 with floodplain and main early Neolithic activity area in background

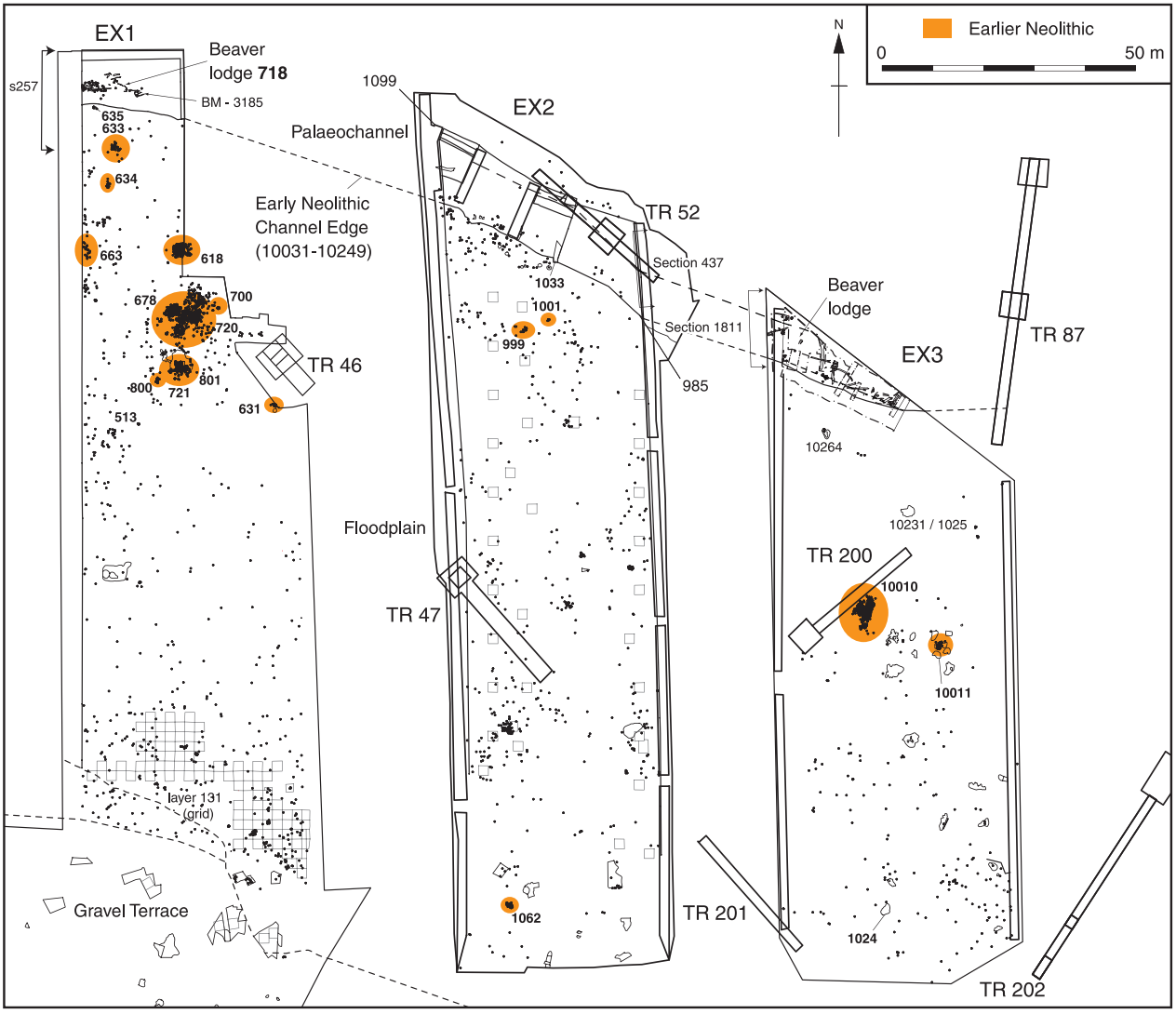


Fig. 6.2 Plan of Areas Ex1-3 showing the location of earlier Neolithic flint scatters and palaeochannel deposits

two deposits (692) contained a rich assemblage of finds. These included 16 struck flints, 53 pot sherds, 56 animal bones and 100 pieces of burnt unworked flint, as well as some further pieces of wood. The struck flint assemblage mainly consisted of flakes and blades or blade-like flakes, but the pottery was all of early Neolithic date. The bone included dog, pig, sheep/goat, red deer, roe deer, cattle, other undiagnostic pieces of large and medium mammals, a fragment of fish and a human clavicle in addition to the beaver already mentioned.

The second early Neolithic channel

These deposits described above were cut by another phase of the channel in all four excavation areas and surrounding evaluation trenches. This new channel has again be dated to the early Neolithic on the basis of finds from the lowest fill (10190; Fig. 6.2) in cut 10039=10189 in Ex3. This deposit of tenacious, brown-grey clay silt up to 0.28m deep with lenses of broken shell, yielded finds of worked flint, pot, animal bone and unworked burnt flint together with a large piece of driftwood. A largely complete but somewhat jumbled cattle skeleton dominated the assemblage of animal bone though a sheep/goat tibia, a fragment of fish bone and another unidentifiable fragment of large mammal were also retrieved. A single elm log, over 0.85m long and up to 0.2m in diameter, aligned roughly parallel to the bank, was found overlying the skeleton. This log did not display any evidence of tooling and is unlikely to have been deliberately placed upon the skeleton. It is more likely to be a piece of driftwood that became lodged on the skeleton by chance. The other artefacts all seemed to have accumulated around this obstacle.

The skeleton was radiocarbon dated to 3650-3370 cal BC (BM-3177: 4750±50 BP). This date is supported by much of the pottery. Of the ten sherds recovered from around the skeleton eight were of early Neolithic date, including a single sherd weighing 49g, and another small, worn sherd was of probable early Neolithic date. The other sherd, weighing only 6g, was of later prehistoric date but need not suggest that the cut was of later prehistoric date given the evidence from Area 1 for this phase of the channel having been active for a considerable time.

The floodplain to the north of Site X (Areas Ex1-3; Basin R south): earlier Neolithic finds

On the floodplain to the north of Gravel Island X, an early Neolithic soil horizon was found which lay upon an overbank alluvial deposit (Plate 6.2). This deposit (672=583=904=933=935=10003=10104; Fig. 6.3) consisted of light yellow- or grey-brown clay silt, which varied in

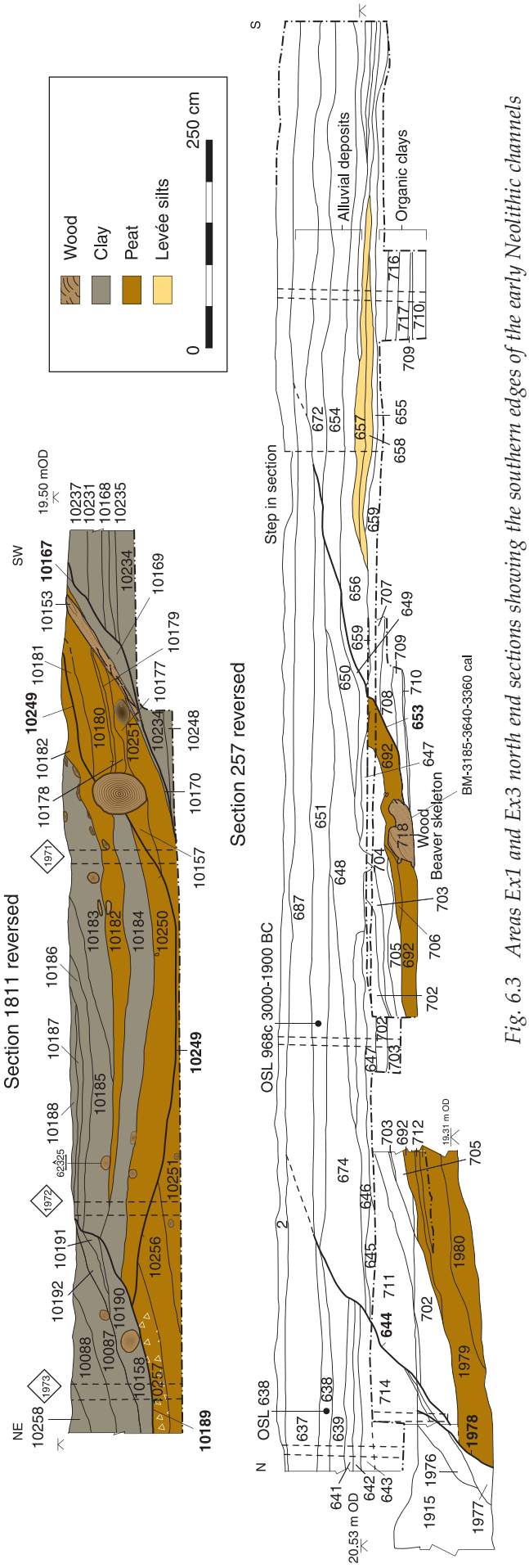


Fig. 6.3 Areas Ex1 and Ex3 north end sections showing the southern edges of the early Neolithic channels

depth from around 0.1m to 0.4m, and spread southwards from the edge of palaeochannel for around 70m.

This horizon can be dated to the early-middle Neolithic on the basis of the artefacts found scattered across it and within the few features cut into it (Fig. 6.2). Most of the artefacts were found in fairly dense discrete concentrations relating to specific activity areas (Plate 6.3). These scatters made up the bulk of the archaeological evidence for activity in this period. Only very limited numbers of cut features datable to the period were located on the flood plain. The majority of the artefacts from these scatters that could be dated are either of early Neolithic date or are at least of generally Neolithic character. The only exceptions were a few probably residual worked flints of possible Mesolithic date from Area Ex1, three very small potsherds that could only be categorised as prehistoric in date, one small sherd of late Bronze Age/early Iron Age date, two Iron Age sherds and two of late Iron Age/early Roman date. These last five later sherds are almost

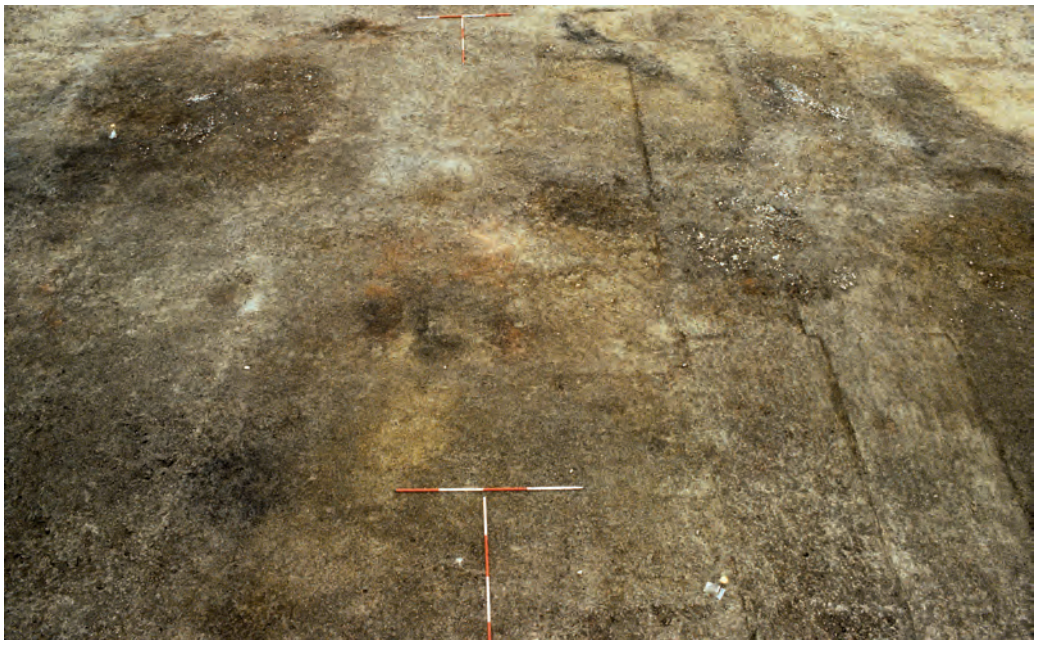


Plate 6.2 View of occupation area in Area Ex1 looking north

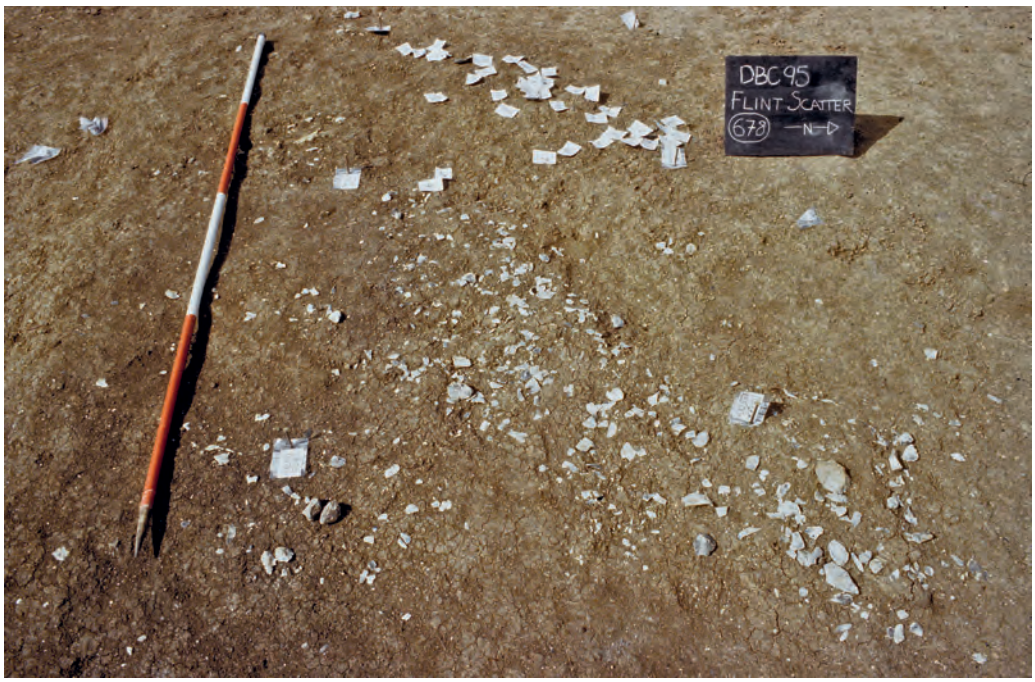


Plate 6.3 Detail of flint cluster in Area Ex1

certainly intrusive given that the overwhelming majority of the finds recovered from this horizon are early Neolithic.

Artefact scatters

A number of individual flint scatters from the flood plain area have been dated to the early Neolithic, all but one of which (1062) occurs on this soil horizon and within around 60m of the edge of the phase I palaeochannel (Fig. 6.2 and 6.4-7: 631, 633, 634, 618=661=652, 677, 678, 700, 721-2, 724, 800, 999, 1001, 1062, 10010 and 10011). A few other flint scatters such as 663 (Fig. 6.2) which also lay on this horizon can only be dated broadly to the Neolithic

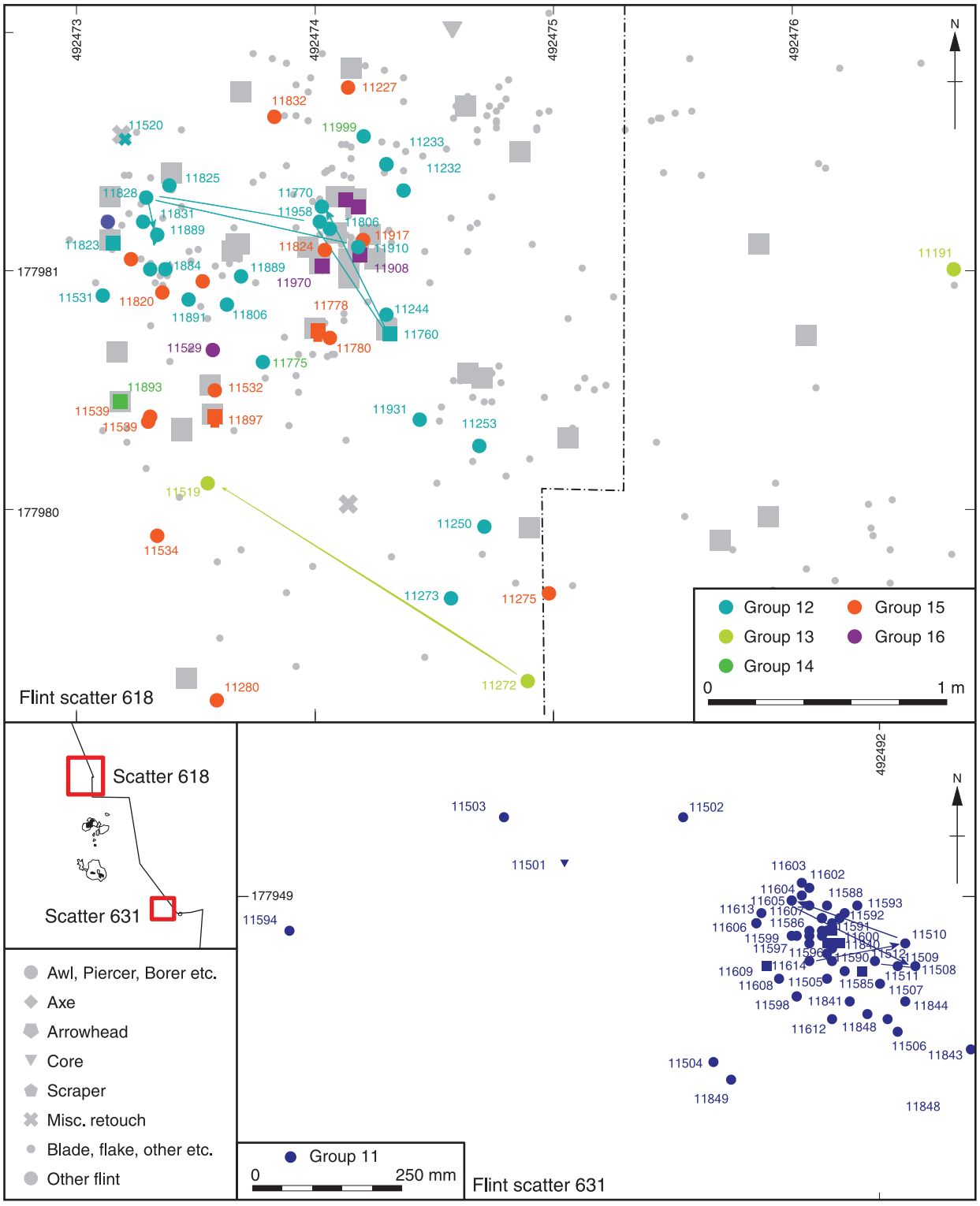


Fig. 6.4 Flint refits in Area Ex1

period, but nonetheless probably formed parts of the same group. The flint scatter from Evaluation Trench 201/7 (Fig. 6.2) also contained a blade component, and so was probably also Neolithic. This was associated with a scatter of bone fragments including part of a human femur (SF 2999).

Though generally referred to as flint scatters, being largely composed of worked flints, the composition of the scatters varied considerably. Anderson-Whymark differentiates between the flint scatters on the basis of the types of worked flints included and is able to identify three different types of scatter on the flood plain: knapping scatters, dumps/spreads of utilised material and activity areas (see below). Examples of each of these types were identified upon this horizon.

The scatters of the first type – knapping scatters – are solely the result of the production of flint tools, and are characterised by knapping debitage and refitting pieces, but no utilised pieces or other types of artefact. Scatters 631 (Fig. 6.4) and 10011 displayed these characteristics.

Scatters of the second type – dumps or spreads of utilised material – contain a significant proportion of utilised pieces, and represent their use and disposal, with or without other domestic waste. Scatters 634, 663, 800, 999 and 1001 appear to be of this type. Single fragments of animal bone were found within 634 and 663, and a small potsherd amongst the flint in 999.

The rest of the scatters in this area belong to the third group – activity areas – which comprises elements of both the other types. There was some variation in these scatters, probably reflecting differences in the types of activity that were carried out, but what exactly the activities were is harder to ascertain. These scatters often contained other types of artefact including burnt worked flint (633, 678/720, 721, 724, 1062, 10010; Figs 6.6-7), burnt unworked flint or other stone (633, 678/720, 721, 800, 1062, 10010), potsherds (10010) and animal bone (633, 724, 10010), as well as areas of *in situ* burning in the cases of 661=618=652, 678 and 10010. Scatter 633 was spread over an area 2m across, and shows a distinct concentration of burnt flint, with the struck flint concentration more than half a metre away, and lines of flints that may indicate where individuals sat (Fig. 6.5). Concentration 10010 was much larger, nearly 7m by 3m, and notable for a scatter of Mesolithic microliths amongst the mainly early Neolithic assemblage (Fig. 6.6). Here too, there were definite foci within the group, and some indication of clustering both of cores in the south and of scrapers on the east, though the number of these is very small. A number of the larger scatters in the activity area group (677-8 and 720-4) were found

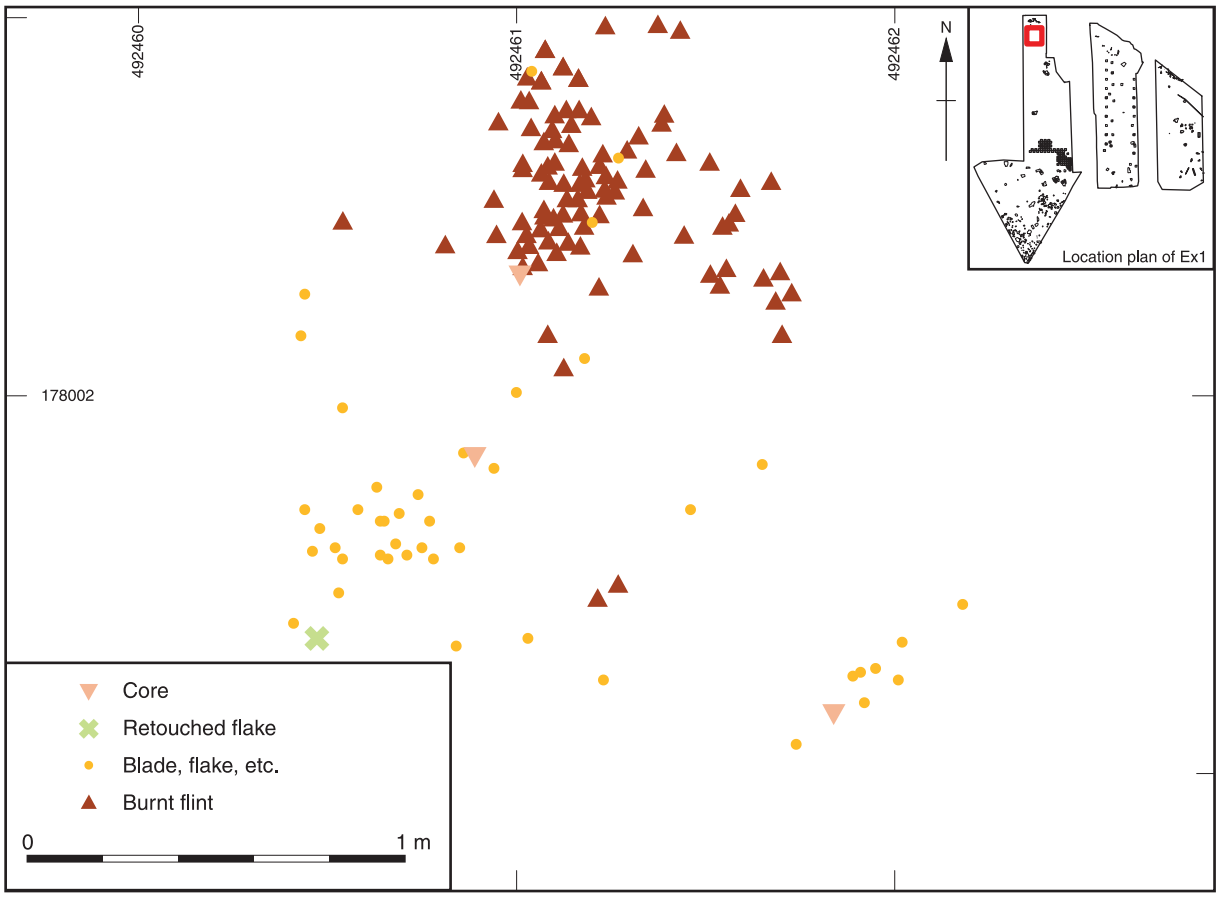


Fig. 6.5 Plot of flint scatter 633

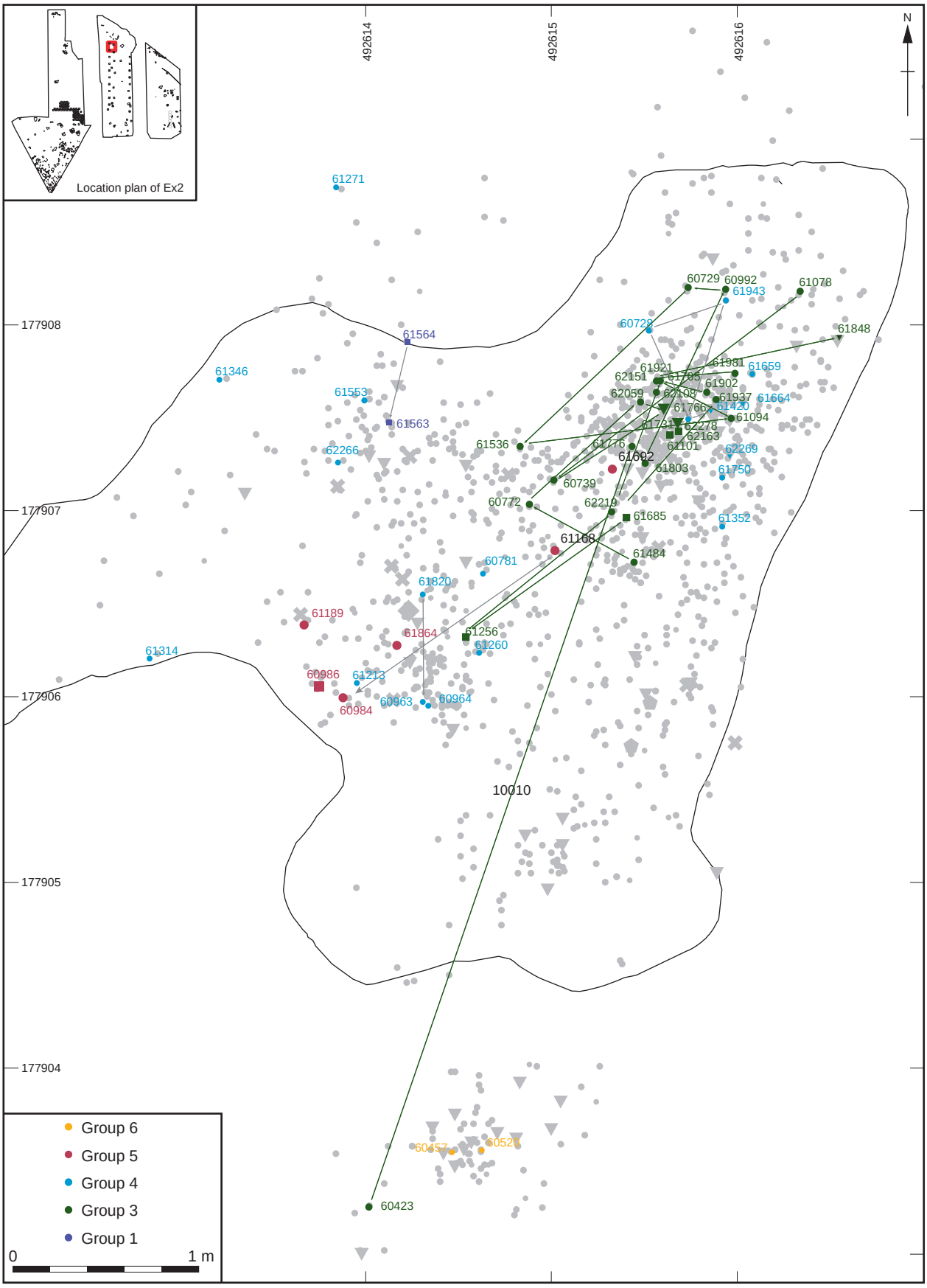


Fig. 6.6 Plot of flint scatter 10010

within an area of around 50m^2 (Fig. 6.7). Around 10m to the north lay another of the larger examples on this horizon (661 incorporating 618 and 652; Fig. 6.4). Together these areas may have formed parts of one large activity area, perhaps even a habitation area, though no structures and few cut features of any sort were identified in the area.

The major focus of early Neolithic activity identified on the floodplain was in Area Ex1, where a horizon around 20m in diameter was identified on the surface of layer 672 some 35m from the edge of the contemporaneous Thames palaeochannel. The whole area was characterised by patchy burning (locally layer 672 was numbered 677). An ill-defined area of burning some 7-8m across occupied the centre of the area, and was bounded on the north by a dense spread of struck flint that formed two clusters (678 and 720; Fig. 6.7). South of the burnt area was a further flint scatter (721), at the east end of which was a small oval shallow pit filled with burnt flint (801; Fig. 6.2). To the south-east, east and north of these features further smaller clusters of struck flint were found, with a further sparse scatter of struck flint covering the areas in between.

The dense clusters of struck flint include many refits which were often spread over several metres. This probably indicates that the material was discarded where it was manufactured or used (ie that it was *in situ*) rather than being the result of dumping of material that had been worked elsewhere and dumped subsequently.

This area was not completely excavated, as the existence of further scatters of struck flint in the central area, some of it burnt, was not discovered until the very end of the excavation season. The burnt struck flints, many overlain by struck flints that were unburnt, suggest that knapping was being carried out around a fire, and that some of the debitage was either thrown deliberately into the fire, or more likely, that the fire subsequently encroached onto the edges of the knapping area, burning already discarded debitage. Unburnt struck flint overlying some of the burnt flints probably indicates that further knapping took place afterwards, either on a subsequent visit, or that the fire was moved.

A further scatter of utilised flints (1062) dated to the early Neolithic was found at the southern end of Area Ex2 (Fig. 6.8). This scatter was in many ways similar in form and date to those scatters at the edge of the palaeochannel, and consisted of 65 worked flints including used, broken and/or burnt pieces scattered over an area of around 3.8m^2 and interspersed with small areas of red-grey burnt soil (1064). Several small patches of dark black-brown silty clay with burnt flint and charcoal (1063) lay on the outskirts of this scatter and appeared to have been parts of it (together with the patches of burnt soil). This scatter can therefore be compared to the other early Neolithic activity areas nearer to the edge of the channel, though this one was clearly much smaller than either 678 or 10010.

Possible cremation 1025

Towards the northern edge of the floodplain in Area Ex2 a small deposit (1025; Fig. 6.2) tentatively identified as a cremation deposit lay upon the interface between this early-middle Neolithic horizon and the overlying, much later horizon (907). This deposit consisted of friable mid-dark brown silty clay with 35% small fragments of burnt bone and 15 % charcoal flecks in an almost circular patch approximately 0.1m in diameter. No cut or pottery or other artefacts were observed in association with this cremation deposit making its dating uncertain. Its location within the zone of flint scatters may however indicate a similar Neolithic date.

Cut features

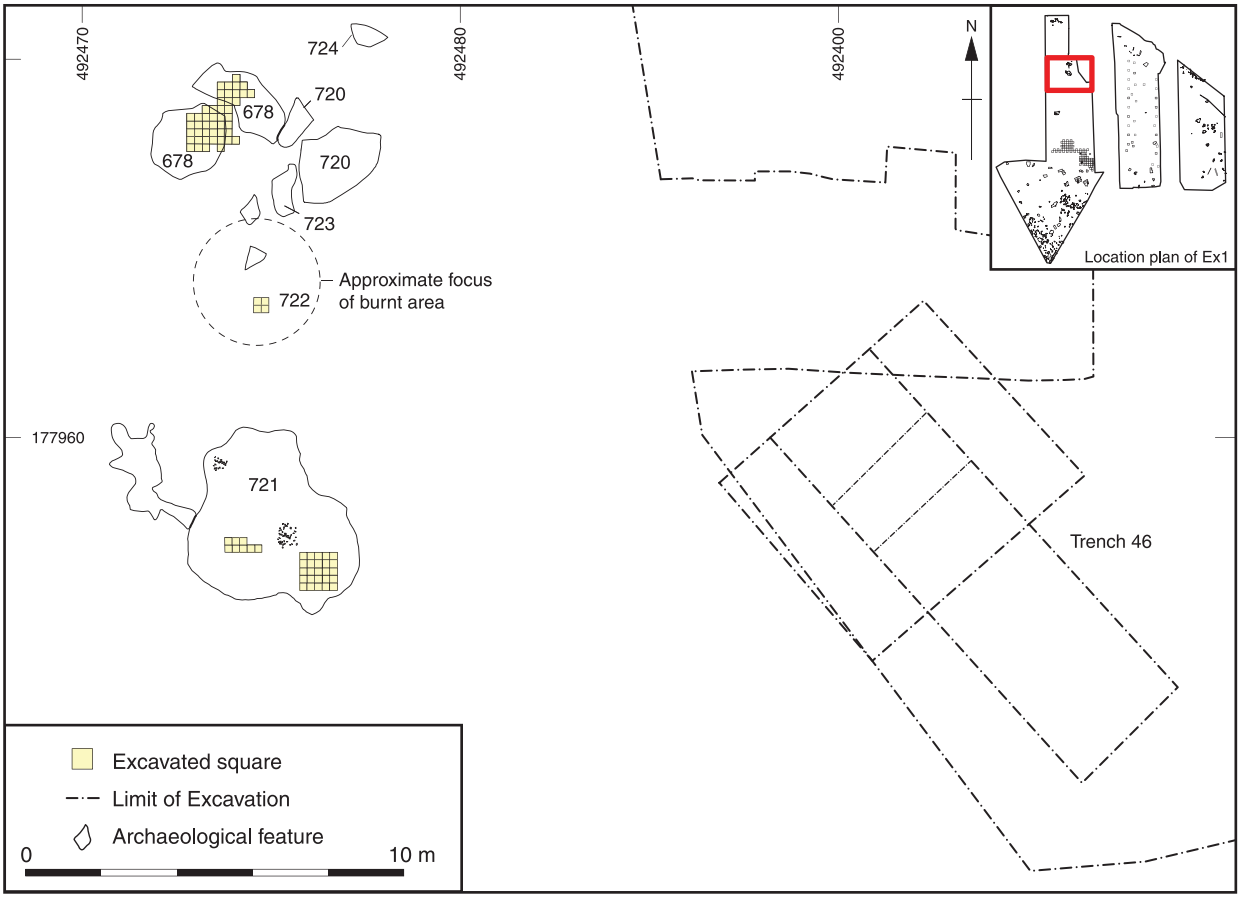
The majority of the features cutting the early Neolithic soil horizon were tree-throw holes (1024, 1033, 10053 and 10194), though a single pit (635) near to the edge of the palaeochannel and two, probably modern wheel ruts were also found. Tree-throw hole 10194 yielded a single animal bone from fill 10195, whilst tree-throw hole 1033 contained the preserved remains of a fallen oak (1034), and tree-throw holes 1024 and 1033 both contained worked flints. However, pit 635 was the only one of these cut features which can be certainly dated to the early Neolithic.

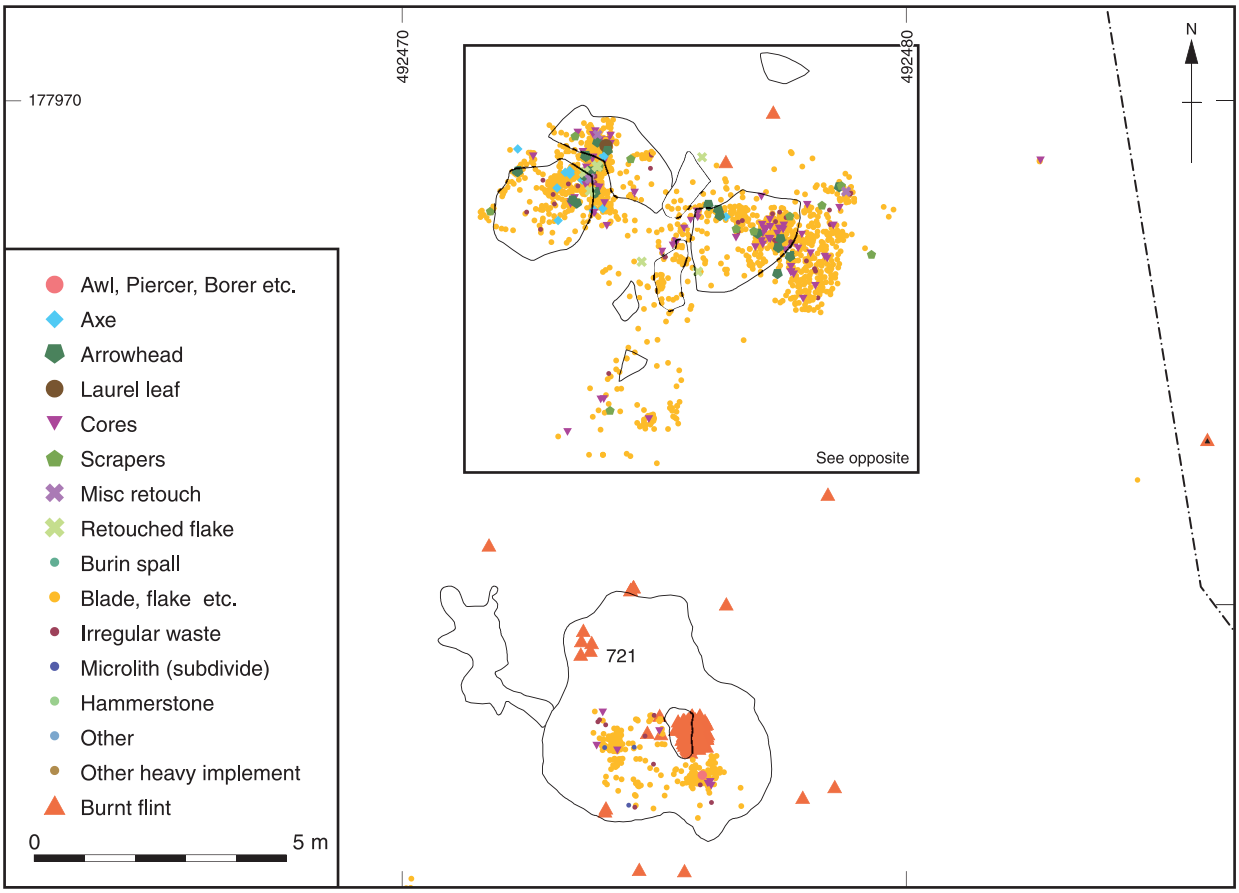
This shallow pit (635) was oval in plan, measuring 0.65m by 0.5m. It was 0.05m deep and had a saucer-shaped profile. It lay at the edge of the palaeochannel and was filled with a deposit of loose grey-brown sandy clay (636) overlain by a flint scatter (632). This scatter consisted of 11 worked flints most of which had been used, six of which were burnt, and several of which were broken. The scatter also included a quantity of unworked burnt flint. No other artefacts were recovered from this deposit. This scatter is comparable to the other dumps of utilised flints spread across the surface of this horizon.

The floodplain to the south-east of Gravel Island X (Area 11; Basin W): early Neolithic or later Mesolithic activity

The sedimentary sequence overlying the gravel

The fluvial and alluvial sequence in Basin R continued around the eastern side of Gravel Island X (where it was separated by some 110m from the Area 16 gravel island) and into another early basin, Basin W, on the south-east side. The earliest deposits observed within this basin were a series of gleyed blue-grey or grey clays. These clays were overlain by sequences consisting of layers of peat and alluvial deposits. East of the gravel island, in Trench 204 (see Fig. 1.3), a buried soil horizon only 0.2m above the top of the peat was marked by manganese concentrations, animal bone, including antler (204/8=/24), and by flint scatters (204/22 and /23) on top of a


492470
492480
492400
N
724
720
678
678
720
723
722
Approximate focus of burnt area
Location plan of Ex1
177960
721
Trench 46
Excavated square
Limit of Excavation
Archaeological feature
0
10 m


177970
492470
492480
N
See opposite
721
Awl, Piercer, Borer etc.
Axe
Arrowhead
Laurel leaf
Cores
Scrapers
Misc retouch
Retouched flake
Burin spall
Blade, flake etc.
Irregular waste
Microlith (subdivide)
Hammerstone
Other
Other heavy implement
Burnt flint
0
5 m

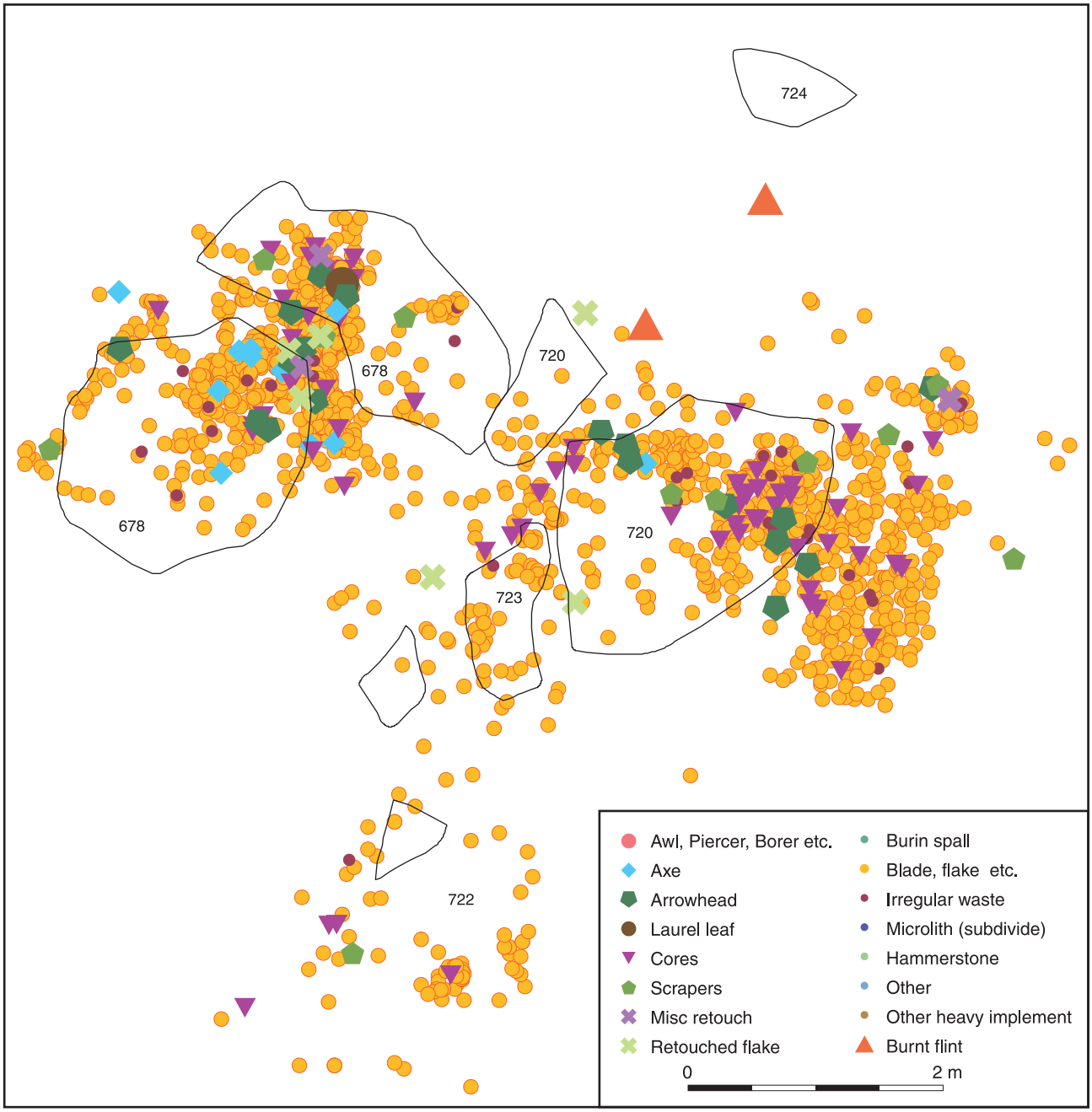


Fig. 6.7 (left and above) Plan showing location of early Neolithic activity area 672/720 and 721, and a plot of the material

charcoal-rich layer (204/9). The flints were dated on typological grounds to the late Mesolithic or early Neolithic. Sieving showed that microdebitage was present, indicating *in situ* knapping.

Gravel Island X (Area Ex1 and 11): early Neolithic and undated activity

Introduction

Numerous discrete features were cut into the surface of the gravel island beneath the cultivation soils in both Areas Ex1 and 11 (Figs 6.9-11). A large sample of the features were investigated by excavation. They consisted of 33 pits, 4 postholes, 2 shallow linear features tentatively identified as ditches, and 167 tree-throw holes or other cuts resulting from root action. Only a few of the features could be closely dated on the basis of artefacts. Fewer still were stratigraphically related to anything other than the cultivation soils, leading to difficulties in phasing. As a result, the chronological approach to description adopted in other parts of this report has been abandoned in favour of description by feature type.

Artefacts were on the whole sparse, but charcoal, burnt flint and other evidence of burning was a frequent indicator of human activity on the gravel

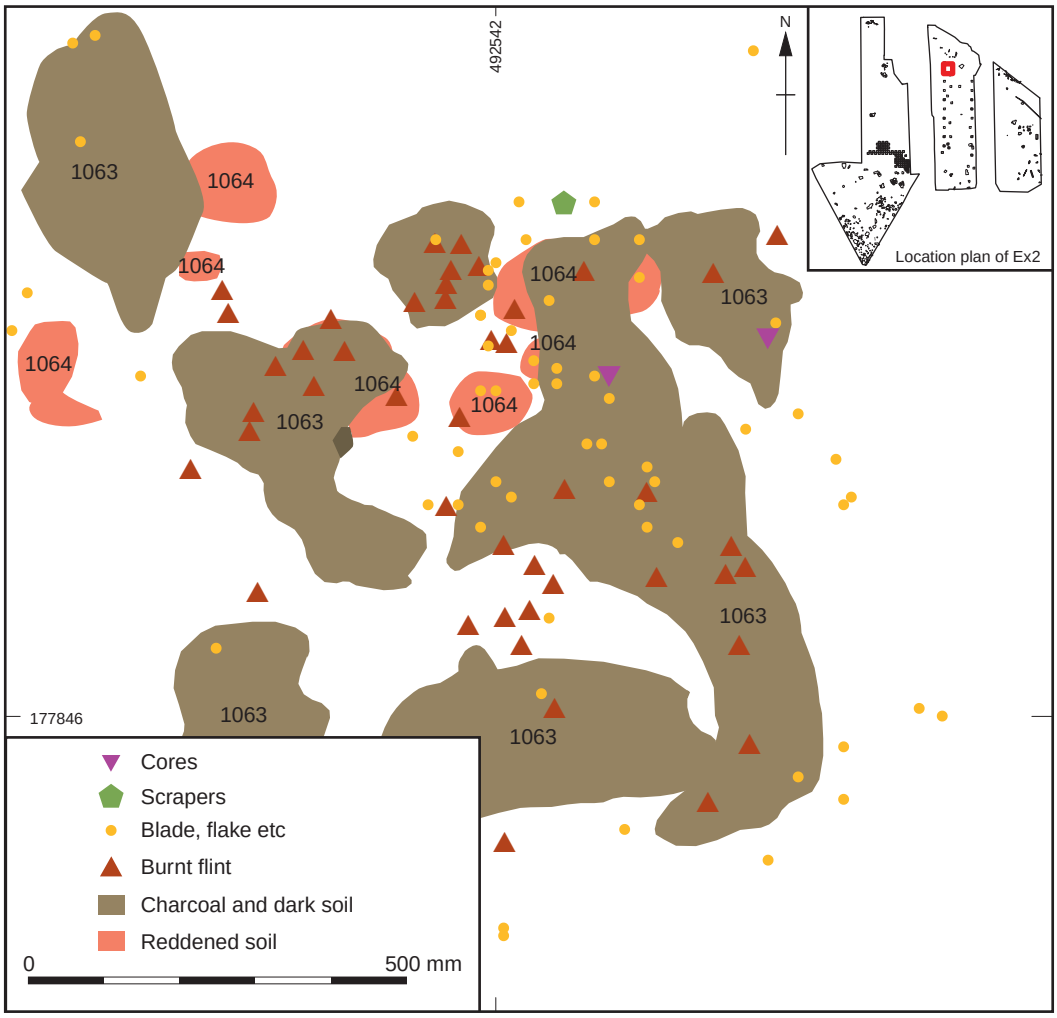


Fig. 6.8 Plot of scatter 1062 and the burnt soils it overlay

island. Burning or burnt flint was not restricted to any particular area or feature type on the gravel island, but was widespread in both excavated areas (Fig. 6.9).

Tree-throw and root holes

Tree-throw and root holes were the most frequent type of feature encountered in this area of the site (Figs 6.10-11; Table 6.1). Both feature types are of similar origin, and are only distinguished by the root holes generally being narrower and deeper than the tree-throw holes. They are treated as a single feature type here.

The 167 examples investigated on this gravel island varied greatly in size and shape. In plan they ranged from approximately circular, through elongated oval and kidney-shaped, to very irregular. In profile they varied from bowl-shaped to asymmetrical and irregular, the latter being the most common. The shape in plan and profile did not appear to be linked in any consistent way, nor did either appear to be linked to the size of the feature. The largest measured a maximum of 8m across while the smallest was only 0.13m across. Depths ranged from 0.05m to 0.85m. Only in the case of the largest of these features did the depth exceed 0.48m, and in these cases the ratio of depth to length was well within the range of the smaller features. Most were fairly shallow in relation to their size in plan, generally with depths only a third or less of their maximum dimensions in plan, except for a few of the smallest features. The depth to width ratio probably in part reflects the natural shape of the roots of the trees, and did not appear to have been influenced by human use.

Some of these features contained only a single fill while others contained several deposits varying widely in colour and composition, reflecting the varied nature of the underlying deposits. Every possible combination of clay, silt, sand and loam was represented among the hundreds of separate contexts recorded as fills of these features, though sand was very frequent. Gravel was also a frequent but variable component, forming from 0%-95% of the whole deposit. The colour of the deposits ranged from light to mid yellow- or grey-brown to more orange, red or greenish hues. There were also a number of darker black-brown deposits, reflecting the presence of charcoal or humic material.

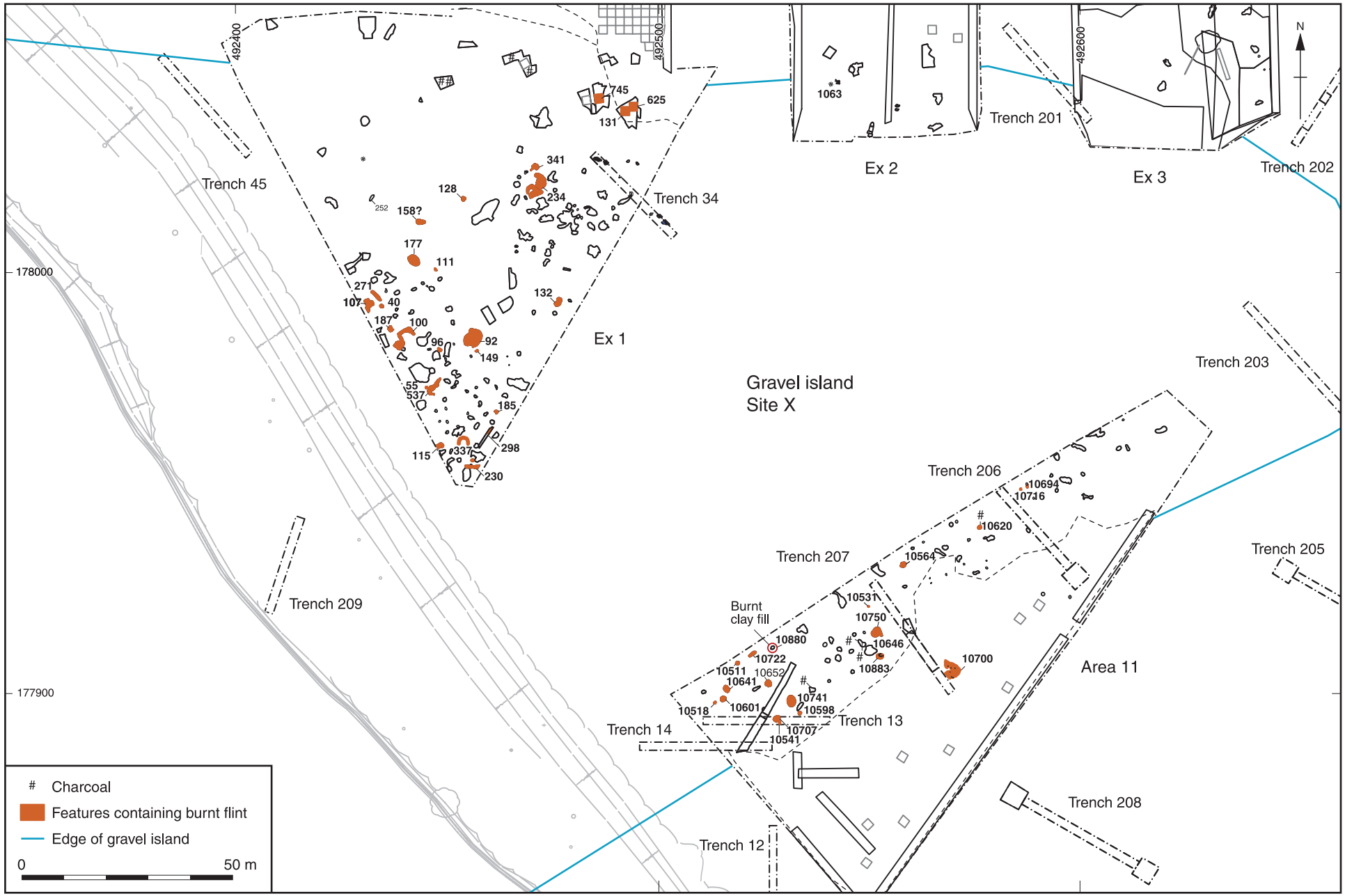
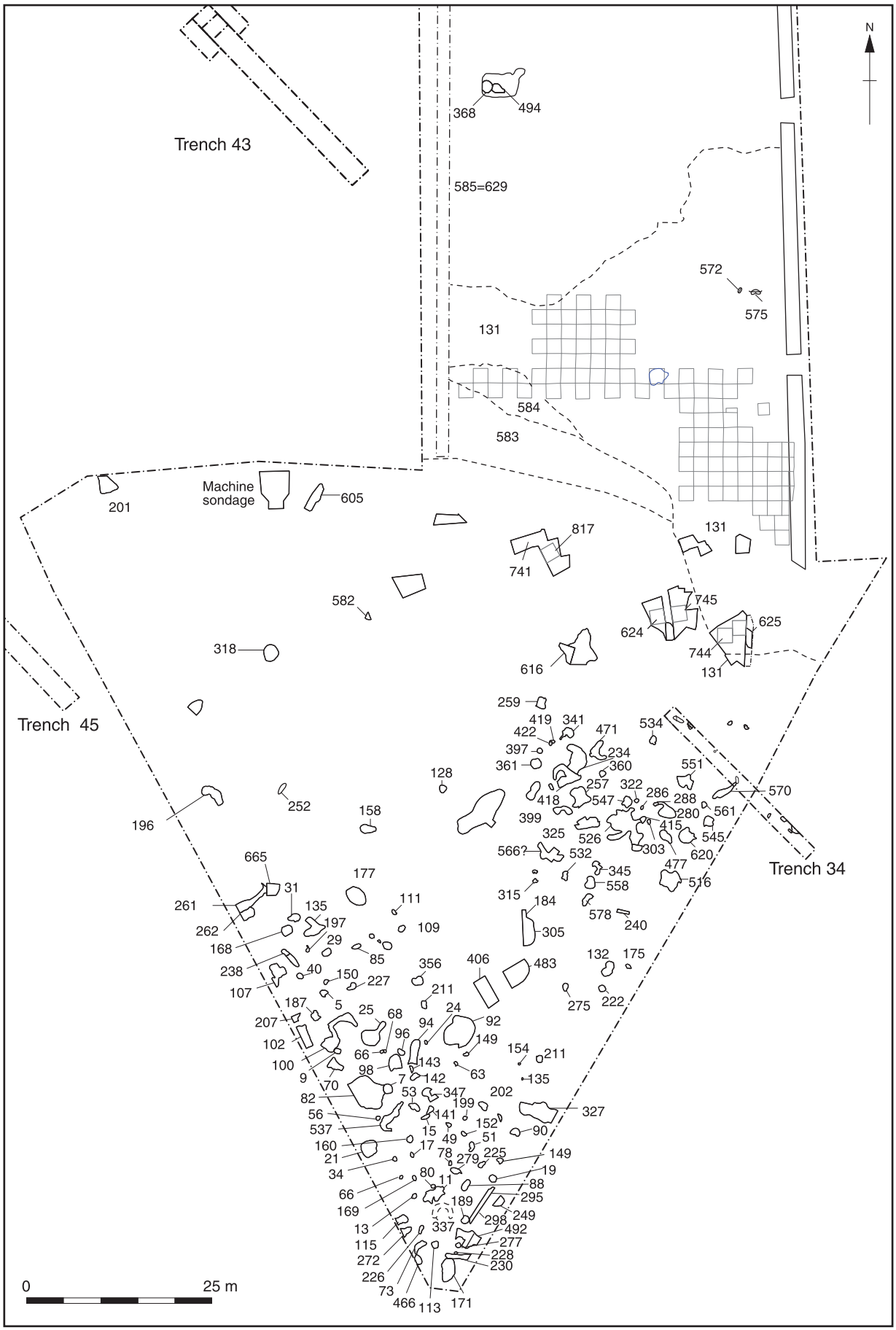


Fig. 6.9 Plan of Ex1 and Area 11 gravel terrace area, showing features with burnt flint


N
Trench 43
Trench 45
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583
584
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25 m

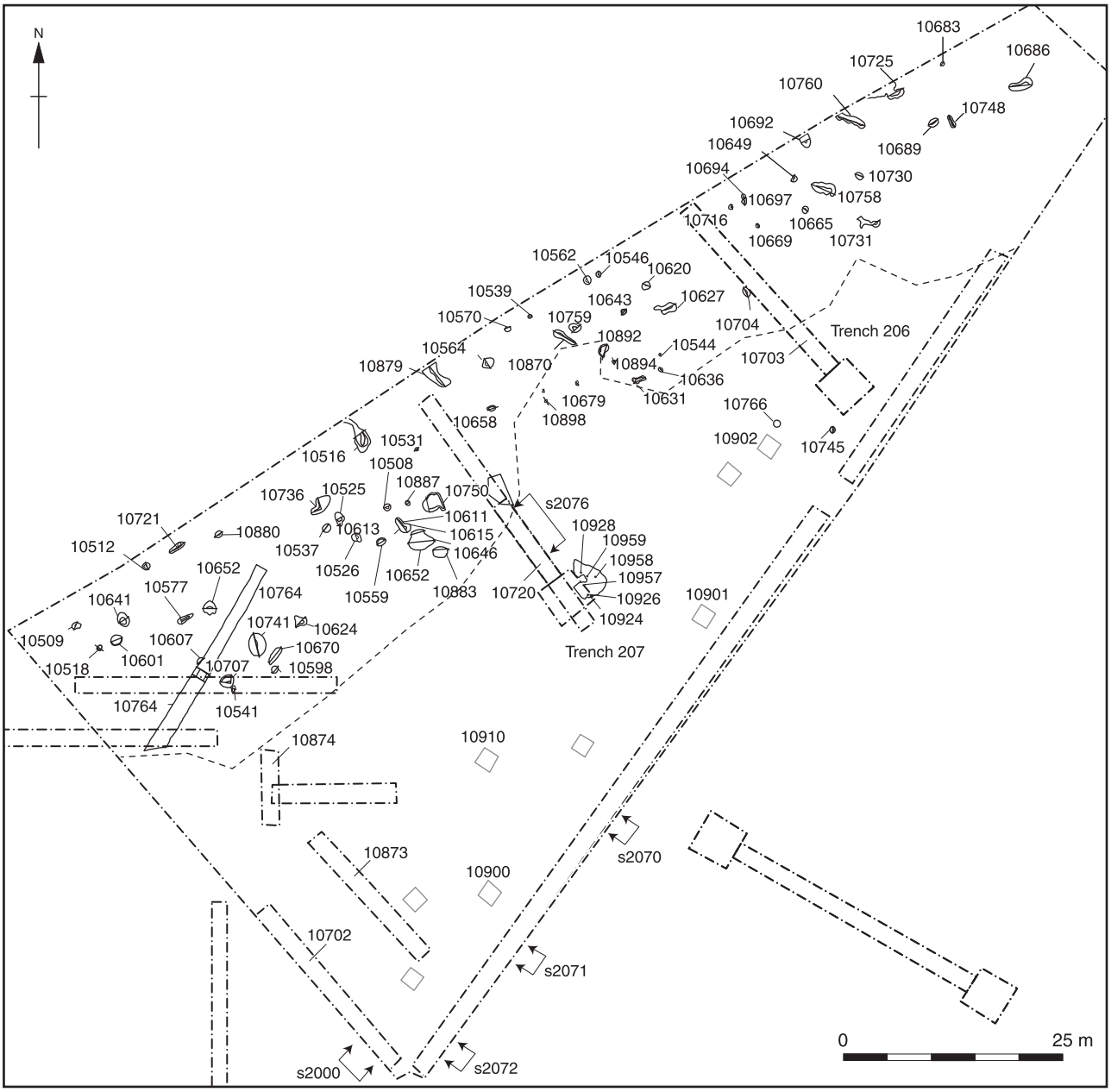


Fig. 6.11 Detailed and numbered plan of Area 11

In a few cases, where no evidence of human activity was found (for example, in features 11, 473, 516=542 and 10750), this charcoal could have been the result of natural processes or of deliberate tree clearance by fire. These were, however, exceptions. In some cases the charcoal may have been redeposited. Feature 10615, for example, contained significant quantities of charcoal (and no other anthropogenic material), which could have been derived from the charcoal-rich fill of pit 10609 into which this tree-throw hole cut. Charcoal was, however, generally accompanied by artefacts or burnt flint.

Burnt flint was a frequent component of the fills of this group of features, having been recorded from 28 of the 165 tree-throw and root holes. The features containing burnt flint were scattered over the whole area and did not display any marked concentrations. In most cases the burnt flint was contained within one fill, often the latest, representing a single dump of material into the hole. However, features 92, 100 and 302 had burnt flint in two of their fills, perhaps representing repeated dumping. The highest concentration of burnt flint within any one of these deposits was 50% (in fill 108, the top fill of 107), but in most cases burnt flint made up significantly less (only 1-10%) and was accompanied by other anthropogenic material including pottery, worked flint and animal bone.

Fig. 6.10 (facing page) Detailed and numbered plan of Ex1

Table 6.1 Catalogue of tree-throw and root holes on the gravel terrace (Areas Ex1 and 11)

Cut	*Shape in plan*	*Length (m)*	*Breadth (m)*	*Depth (m)*	*Profile*	*Fills*	*Description*	*Pot (NoSh)*	*Flint (no.)*	*Bone (no.)*	*Date*
7=82	Subcircular	3.70	3.00	0.64	Irregular	8, 83-4, 117-20, 213-20	Mainly reworked sand & gravel with occasional occupation material		13	2	
15	Subrectangular	1.00	0.64	0.22	Bowl-shaped	16	Occupation deposit		5		
21	Circular	2.35	2.30	0.20	Bowl-shaped	22, 47-8	Reworked sand & gravel		1		?Meso
25	Irregular	2.40	0.95	0.28	Irregular	26, 43-4	Occupation deposit		4		
31	Oval	0.9	0.9	0.29	Irregular	32, 36-9	Possible burning *in situ* with unburnt worked flints		5		
49	Circular	0.75	0.75	0.40	Bowl-shaped	50, 69	Occupation deposit			2	
51	Linear	1.29	0.33	0.17	Irregular	52, 76	Reworked sand & gravel		1		
70	Circular	1.40	1.40	0.15	Irregular	71-2	Occupation deposit		7	1	
73	Oval	2.20	0.85	0.20	Bowl-shaped	74-5	Occupation deposit		2		
88	Oval	1.70	0.30	Bowl-shaped	Bowl-shaped	89, 125	Occupation deposit		2		
92	Irregular	3.38	2.90	0.50	Irregular	93, 156-7, 256, 320-1, 425, 564-5	Occupation deposit with burnt flint and charcoal	3	21	8	LN/EBA
94	Oval	1.90	1.20	0.23	Sloping U-shaped	95, 192	Occupation deposit		2		
96	Subcircular	1.30	1.30	0.40	Irregular	97, 164	Occupation deposit with burnt flint and charcoal	3			
100	Curvilinear	1.99	1.92	0.39	Irregular	101, 162-3	Occupation deposit with burnt flint		8		
102 =405	Subrectangular	3.25	1.00+	0.25	Irregular	103-6, 403	Occupation deposit; cuts tree hole 302		29		
107	Irregular	1.95	1.95	0.45	Irregular	108, 121-2	Occupation deposit with burnt flint				
111	Irregular	0.80	0.50	0.15	Bowl	112	Occupation deposit with burnt flint		7		
115	Irregular	1.50	1.01	0.13	Irregular	116, 123-4	Occupation deposit with burnt flint				
132	Oval	2.30	0.67	0.27	Irregular	133, 182, 251, 285	Occupation deposit with burnt flint		2		
135	Circular	3.00	3.00	0.3	Irregular	136-9	Occupation deposit		4		
149	Circular	0.70	0.52	0.14	Bowl-shaped	148	Occupation deposit with burnt flint		2		
150	Subcircular	0.55	0.55	0.15	Bowl-shaped	151	Occupation deposit		1		
160	Elongated oval	1.10	0.50	0.10	U-shaped	161	Occupation deposit		1		
168	Short linear	1.10	0.65	0.37	Asymmetrical U-shaped	165-7	Occupation deposit		2		
171	Irregular	3.02	1.46	-	Not fully excavated	172-4	Occupation deposit		3		
177	Oval	3.40	2.90	0.19	U-shaped	178-81	Occupation deposit with burnt flint		3		
187	Subrectangular	1.70	1.14	0.14	Irregular	188	Occupation deposit with burnt flint		9		
189	Elongated oval	1.68	0.88	0.16	Bowl-shaped	190	Occupation deposit		1		
196	Kidney-shaped	3.20	1.30	0.22	Irregular	193-5	Occupation deposit		20	1	
197	Oval	0.64	0.64	0.20	Bowl-shaped	198	Occupation deposit with burnt flint				
199	Oval	0.50	0.50	0.16	U-shaped	200-1	Occupation deposit	1			M/LBA
234= 257= 418	Irregular	6.00	4.25	0.60	Bowl-shaped	235, 258, 335-6417, 474-5	Occupation deposit with some burnt flint in top fill		10	1	
238= 271	Linear	3.60	0.79	0.22	U-shaped	239, 270	Occupation deposit with burnt flint	1	1		

Table 6.1 (continued)

Cut	Shape in plan	Length (m)	Breadth (m)	Depth (m)	Profile	Fills	Description	Pot (NoSh)	Flint (no.)	Bone (no.)	Date
240	Curvilinear	6.00	1.60	0.54	Irregular	241-4	Reworked sand & gravel		2		
249	Oval	1.60	0.95	0.32	Bowl-shaped	247-8, 250	Occupation deposit		2		
252	Irregular	2.70	0.35	0.23	U-shaped	253-5	Occupation deposit with burnt flint		1	2	
259	Irregular	1.80	1.70	0.35	Bowl-shaped	260, 350-1	Occupation deposit			2	
261= 665	Irregular	8.00	5.50	0.85	Asymmetrical U-shaped	262=667, 263-9, 668-70	Occupation deposit	1	81	4	EN
277	Subcircular	0.71	0.69	0.27	Irregular	276	Occupation deposit with burnt flint				
280	Not recorded	1.10	0.94	0.19	Bowl-shaped	281-2	Top fill consists of an occupation deposit with burnt flint perhaps representing a separate pit cut into this feature				
290	Oval	0.63	0.61	0.25	Irregular	291-2	Occupation deposit with burnt flint		1		
302	Subcircular	0.7	0.70	0.40	Irregular	301, 324	Occupation deposit with burnt flint; cut by tree hole 102=405		3		
305	Subcircular	4.60	4.40	0.40	U-shaped	314	Occupation deposit; cut by pit 184		4		LN/ EBA or earlier
322	Rectangular	0.75	0.40	0.15	Bowl-shaped	323	Occupation deposit with burnt flint				
327	Irregular	3.50	2.50	0.20	Irregular	328-9	Occupation deposit		1		
333	Roughly circular	2.40	1.50	0.18	Irregular	334	Occupation deposit with burnt flint		3		
337	Horseshoe	2.75	1.65	0.50	Bowl-shaped	338-40, 556-7	Occupation deposit		22		EN
341	Irregular	2.10	0.50	0.30	Bowl-shaped	352-4	Occupation deposit with burnt flint				
347	Subrectangular	3.00	1.30	0.20	U-shaped	348-9	Occupation deposit		11		
356	Irregular	1.6	1.30	0.48	Irregular	357	Occupation deposit		3		
360	Oval	1.17	0.80	0.28	Asymmetrical V-shaped	358-9	Occupation deposit with burnt flint				
361	Irregular	1.60	1.50	0.28	U-shaped	362, 396	Occupation deposit		3		
399	Linear	2.56	1.10	0.20	Irregular	400-2	Occupation deposit with some charcoal in all fills		26		
406	Irregular	8.00	5.00	0.10	Bowl-shaped	407-10	Occupation deposit		19	3	EN
415= 526= 529	Irregular	6.40	6.00	0.25	U-shaped	416, 527-8, 530-1	Occupation deposit		3	1	
419	Subcircular	0.40	0.40	0.11	Bowl-shaped	420-1	Occupation deposit with burnt flint; may be cut by tree hole 422				
429+ 473	Oval	3.52	0.30+	0.33	Irregular	426, 427-8, 461	Reworked sand & gravel with charcoal in fill 426 of root hole 473				
463	Tear drop	2.20	1.40	0.24	Bowl-shaped	464-5	Occupation deposit		3		
466	Oval	1.30	0.82	0.22	U-shaped	467, 476	Occupation deposit		4		
471	Irregular	2.24	1.45	0.34	Bowl-shaped	472	Occupation deposit		5		
477	Oval	2.10	1.15	0.39	Irregular	478-80	Occupation deposit		7		
481	Oval	0.80	0.74	0.12	Bowl	482	Reworked sand & gravel		1		
492	Irregular	3.00	2.50	0.75	Bowl-shaped	485-491	Occupation deposit	1	3	6	LN/ EBA
516=	Sub-circular	2.50	0.70	0.30	Irregular	517-9,	Reworked sand & gravel				

Table 6.1 (continued)

Cut	Shape in plan	Length (m)	Breadth (m)	Depth (m)	Profile	Fills	Description	Pot (NoSh)	Flint (no.)	Bone (no.)	Date
542						543-4	with some charcoal				
532	Irregular	1.29	1.29	0.55	Irregular	533	Occupation deposit		5		
537	Irregular	4.50	1.25	0.64	Irregular	538-41	Occupation deposit with some burnt flint		9		
545	Irregular	1.70	1.30	0.50	Bowl-shaped	546, 550	Reworked sand & gravel		1		?Meso
551	Irregular	2.30	1.40	0.42	Irregular	552-4	Occupation deposit		3		
558	Irregular	1.70	1.25	0.20	Irregular	559-60	Occupation deposit		1		
566	Irregular	3.60	?	0.40	Irregular	567-9	Occupation deposit		136		
570	Oval	2.80	1.10	0.51	Bowl-shaped	571	Occupation deposit		17		EN
605	Crescent	3.30	-	0.40	Irregular	606-7, 614	Occupation deposit		16		
608	Oval	8.50	3.30	0.46	Irregular	609, 611-3	Occupation deposit		6		
616	Irregular	5.00	5.00	0.45	Irregular	586, 590, 617	Occupation deposit	12	2		E/MN
625	Irregular	7.90		0.42	Bowl-shaped	626-8, 589	Occupation deposit	1	3	2	LBA?
10508	Sub-circular	0.63	0.60	0.27	Bowl-shaped	10507	Occupation deposit with burnt flint				
10537	Sub-circular	1.00	0.88	0.36	V-shaped	10533-6	Occupation deposit		6		
10601	Sub-circular	1.40	1.40	0.40	Bowl-shaped	10603-4	Occupation deposit with burnt flint				
10613	Circular	0.26	0.26	0.11	Bowl-shaped	10614	Reworked sand & gravel; cuts pit 10609				
10615	Circular	1.32	1.32	0.30	Saucer-shaped	10616-8	Occupation deposit with high charcoal content; cuts pit 10609				
10624	Irregular	1.50	1.50	0.33	Irregular	10625-6	Reworked sand & gravel			1	
10679 =10898 10748	Sub-circular	-	0.55	0.46	Irregular	10680-1	Occupation deposit with burnt flint and charcoal				
10750	Sub-circular	1.60	2.10	0.30	Bowl-shaped	10751-2	Occupation deposit high in burnt flint and charcoal				
10887	Irregular	0.49	0.49	0.34	Irregular	10888-91	Reworked sand & gravel with some burnt stone				

Artefacts were recovered from 58 of these tree-throw holes, though few of them could be dated with any certainty on the basis of this material (Table 6.1). The most frequent artefact type recovered was worked flint, but a limited number of potsherds and pieces of animal bone were also recovered. Only in sixteen cases did datable artefacts or stratigraphic relationships to other dated features allow dates to be tentatively ascribed to these features (Fig. 6.12). One is dated to the early Neolithic (261=665) on the basis of both flint and pottery, and others (337, 406 and 570) on the basis of flint alone. Another tree-throw hole (616), has been dated to the early/middle Neolithic on the basis of the pottery it contained. Features dating from other phases are discussed in the relevant chapters above and below. Some of these dates are very tentative, however, often being on only one or two dated artefacts. Feature 261=665 contained a sizeable flint assemblage of early Neolithic character, and the accompanying sherd of pottery (Fig. 6.12) has also been tentatively dated to this period, but may possibly be early Iron Age. The struck flints from feature 92 were characterised as early Neolithic, but the pottery is Beaker, and some of the other flint assemblages may also be residual.

The use made of the tree-throw holes shows several distinct patterns. In some cases, such as 566 and 337, the cultural material is in the uppermost fills of the features (Fig. 6.13), and could have resulted from the use of a convenient small hollow after the tree had rotted, rather than the deliberate exploitation of a recent tree fall. In others such as 305, burnt flint was incorporated into the very gravelly fills resulting from the tree fall, and is likely to be residual from earlier activity. In the case of 261 and 492 (Fig. 6.13), however, the use of the tree-throw holes is clearly more deliberate. In 261, the hollow left behind the fallen tree was filled with burnt and struck flint (layer 267), and there was then a spill of gravel followed by a further episode of activity resulting in the deposition of burnt and struck flint. This suggests repeated use of the tree-throw hole as a suitable repository for cultural material from occupation nearby. Tree-throw hole 492 (Fig. 6.13) had burnt flint throughout the fills, though there are distinct concentrations at two horizons in the filling. Following the deposition it

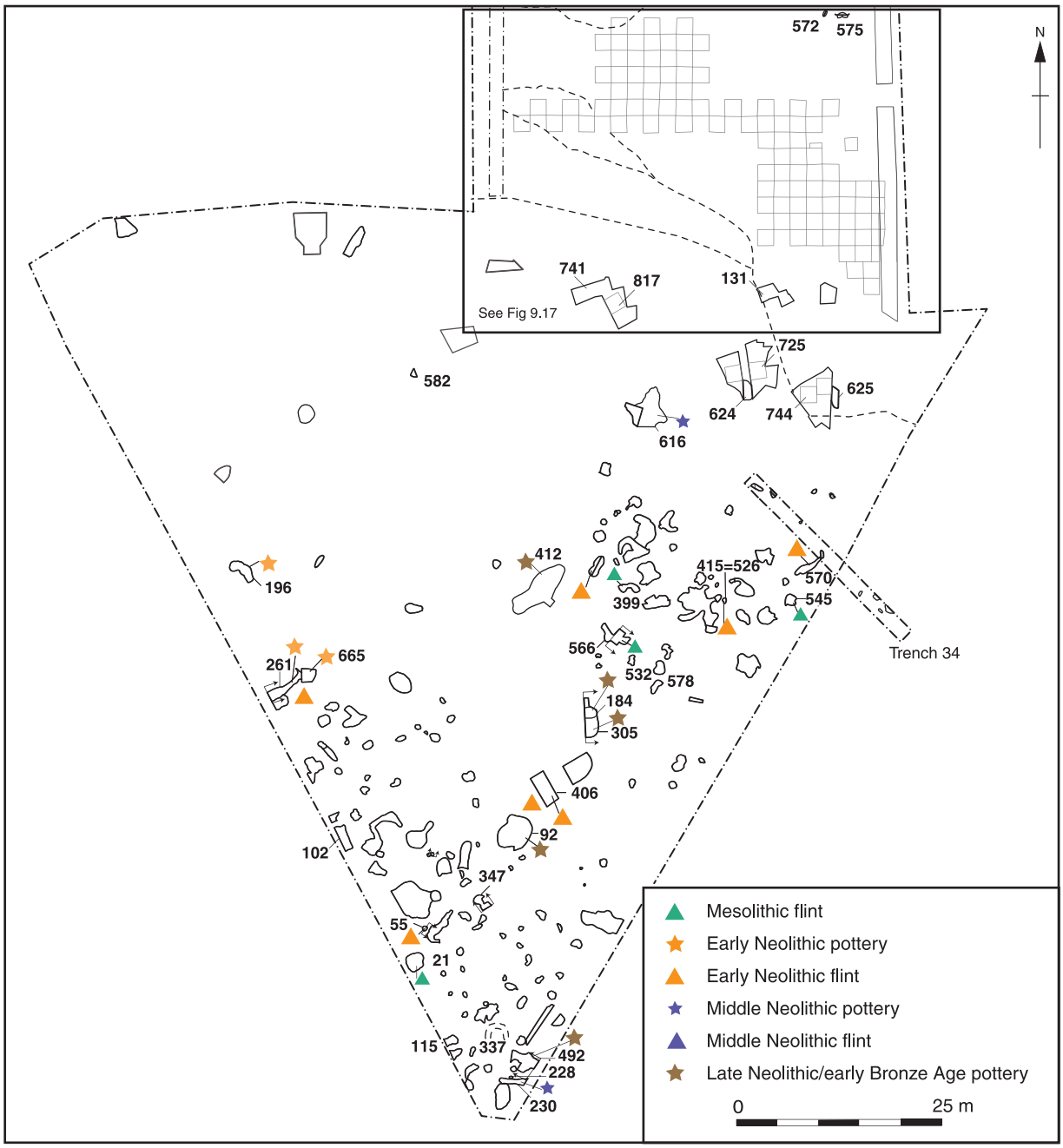


Fig. 6.12 Plan of Ex1 showing features phased by pottery or struck flint

appears from the very gravelly fills that the top of this tree-throw hole was deliberately backfilled, as was also the case with pit 55 (see below).

Seven other tree-throw holes (1013, 1033, 1065, 1066, 1084, 1070 and 1076) from Area Ex2 also belong in this group, as they lay along the northern edge of the gravel terrace at the southern end of the flood-plain. These all fell within the range described for the two main parts of the gravel island described above. Tree-throw holes 1013 and 1033 contained flint which suggested an early Neolithic date. The only other finds recovered from the features in this group were flint from tree-throw hole 1066 which suggests a late Neolithic/early Bronze Age date (see Fig. 9.15).

Pits

Pits were the second most frequently occurring type of feature. They shared many characteristics of the tree-throw and root holes but their regular shape suggested that they were man-made. The 33 examples of this type investigated in the gravel island areas of Areas Ex1 and 11 are catalogued in Table 6.2 (together with the postholes). The pits varied from circular to oval in plan with only one irregular example. In size they varied from 0.26m to 3.90m across and 0.08m to 0.73m deep with generally saucer- or bowl-shaped profiles, though occasional V-shaped, bell-shaped and irregular

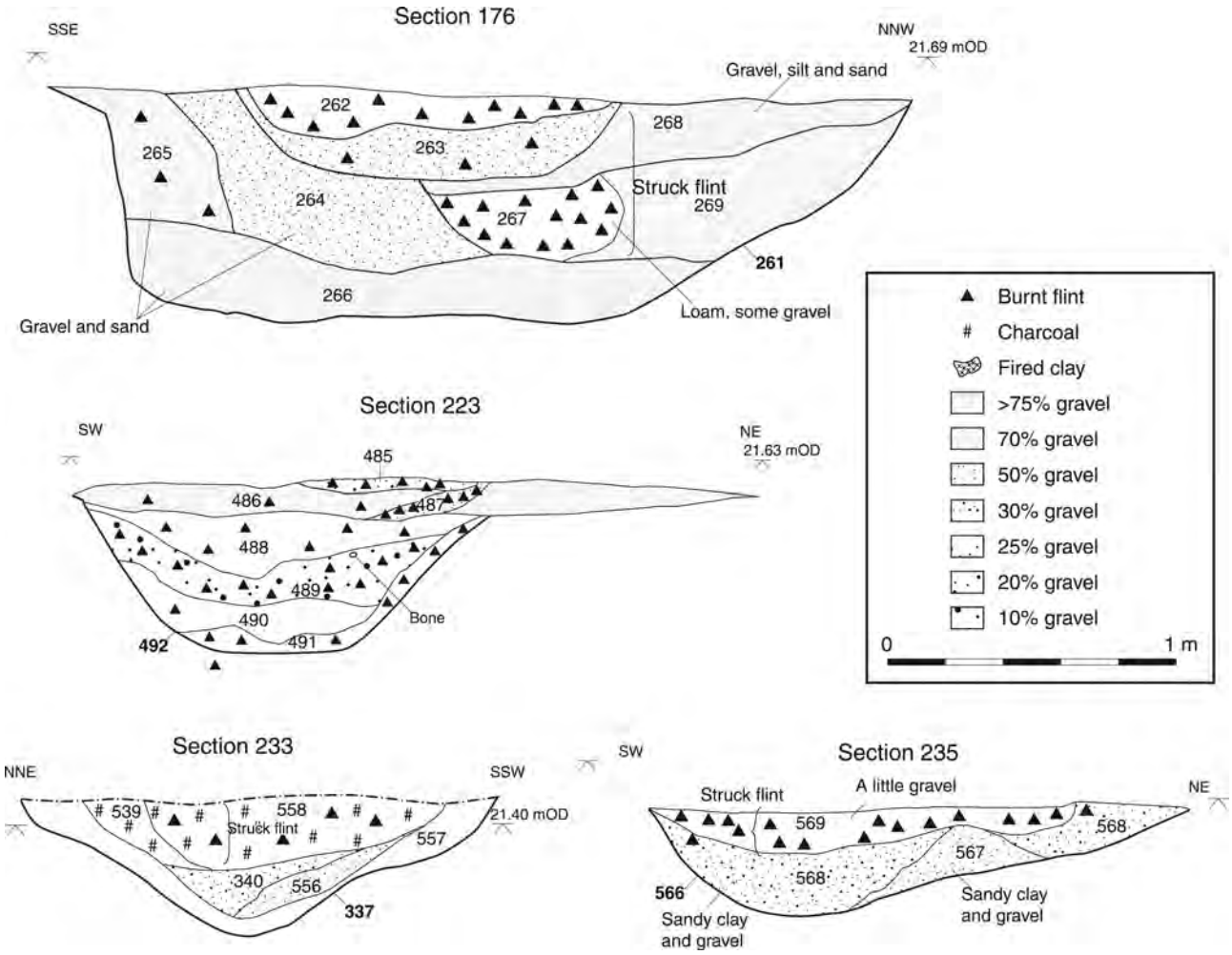


Fig. 6.13 Sections of tree-throw holes in Area Ex1

examples also occurred. The depth to width ratio of these features varied between around a fifth to a half, making them on average slightly deeper relative to their size than the tree-holes but not by much, perhaps reflecting the properties of the sediments into which the features were cut.

The fills of this group of features also generally consisted of either clay silt or silty sand with variable proportions of gravel inclusions, but were generally darker than the bulk of the tree-throw hole fills. Variable proportions of burnt flint were present in 15 of these pits and high levels of charcoal occurred in six cases (10509, 10609, 10697, 10707, 10716 and 10721, all in Area 11; Fig. 6.14). Though these features were widely scattered across both excavation areas, those with burnt flint were more frequent towards the western end of Area 11 than in the eastern end of that area (Fig. 6.9). Three of the pits with charcoal (10509, 10609 and 10716) did not contain appreciable quantities of burnt flint. Three of the pits with burnt flint (55, 154 and 578; Figs 6.11 and 6.14) and one of those with charcoal but no burnt flint (10509) contained artefacts including potsherds, worked flint and animal bone. Four other pits (13, 141, 184 and 10531; Fig. 6.14) contained limited quantities of artefacts but no recorded burnt flint or charcoal. One pit (184) is tentatively dated to the late Neolithic/early Bronze Age on the basis of a sherd of Beaker pottery (Fig. 6.14), and pits 55 and 635 to the early Neolithic on the basis of their small flint assemblages (14 and 11 flints respectively; Fig. 6.14). It should be noted, however, that a similar-sized flint assemblage from tree-throw hole 92 (21 flints) attributed to the early Neolithic, was associated with a sherd of Beaker pottery, suggesting that the flint assemblages were residual. One other pit (228) was tentatively dated by stratigraphy to the early-middle Neolithic, as it was cut by linear feature 230 (see below; Fig. 6.14).

The remaining 10 pits contained no artefacts, burnt flint or charcoal, though in the case of 10880 the primary clay loam fill (10881) was burnt. This pit lay in the vicinity of several others containing burnt flint and charcoal and is likely to have been related.

Similar deposits were seen in a larger pit (10707) around 18m to the south (Fig. 6.14). The evidence for *in situ* burning was clearer in this pit. The

Table 6.2 Catalogue of pits and postholes on the gravel island (Areas Ex1 and 11)

Cut	*Shape in plan*	*Length (m)*	*Breadth (m)*	*Depth (m)*	*Profile*	*Fills*	*Description*	*Pot (NoSh)*	*Flint (no.)*	*Bone (no.)*	*Date*
5	Oval	0.73	0.65	0.18	Irregular	6	Reworked sand & gravel				
9	Oval	0.62	0.62	0.36	Irregular	10, 33	Reworked sand & gravel				
13	Circular	0.26	0.26	0.12	Bowl-shaped	14	Occupation deposit		1	1	
19	Circular	1.20	1.20	0.28	Bowl-shaped	20, 42	Reworked sand & gravel				
40	Circular	0.76	0.76	0.20	Sloping U-shaped	41	Occupation deposit with burnt flint				
55	Subcircular	0.70	0.70	0.38	U-shaped	56-9	Occupation deposit high in burnt flint		14		EN
85	Oval	1.00	0.8	0.30	Bell-shaped	86-7	Reworked sand & gravel				
128	Circular	0.62	0.62	0.28	V-shaped	129	Occupation deposit with burnt flint				
141	Circular	1.20	1.20	0.26	Bowl-shaped	140	Occupation deposit		5		
154	Circular	0.55	0.42	0.10	Bowl-shaped	155	Occupation deposit with a little burnt flint		2		
184	Subcircular	3.90	3.60	0.73	Irregular	183, 307-12	Mix of reworked sand & gravel and occupation deposits in this very irregular feature.	3	33	6	LNEBA
185	Subcircular	0.78	0.78	0.32	Bowl-shaped	186	Occupation deposit with a little burnt flint				
222	Subcircular	1.05	0.63	0.35	Bowl-shaped	223, 283	Reworked sand & gravel				
228	Subcircular	0.35	0.35	0.08	Bowl-shaped	229	Occupation deposit with a little burnt flint; cut by linear 230				EMN or earlier
280	Subcircular	1.10	0.94	0.19	Bowl-shaped	281	Possible pit cut into tree hole of the same cut number. Occupation deposit high in burnt flint.				
578	Oval	1.64	0.20	0.20	Saucer-shaped	579	Occupation deposit with burnt flint		1		
635	Oval	0.50		0.05	Saucer-shaped	632, 636	Occupation deposit with burnt flint				EN
10509	Sub-circular	0.85	0.45	0.17	Bowl-shaped	10511	Occupation deposit high in charcoal	5			
10512	Subcircular	0.85	0.77	0.23	Bowl-shaped	10513-5	Occupation deposit with burnt flint				
10518	Circular	1.00	10.53	0.22	Bowl-shaped	10519-20	Occupation deposit with burnt flint				
10531	Subcircular	0.59	0.60	1.65	Bowl-shaped	10532	Occupation deposit		1	1	
10541	Oval	0.44	0.39	0.41	U-shaped	10543, 10549	Reworked sand & gravel				
10598	Circular	0.89	0.89	0.27	Bowl-shaped	10600	Occupation deposit with burnt flint				
10609	Suboval	1.02	1.02	0.19	Saucer-shaped	10610-2	Occupation deposit high in charcoal; cut by tree holes 10615 and 10613				
10620	Oval	1.00	0.50	0.30	Bowl-shaped	10621-3	Reworked sand & gravel				
10641	Oval		0.65	0.07	Saucer-shaped	10639	Occupation deposit high in burnt flint				
10694	Oval	0.79	0.70	0.18	Bowl-shaped	10695-6	Reworked sand & gravel; cut by pit 10697				
10697	Subcircular	0.70	0.70	0.20	Bowl shaped	10698-9	Occupation deposit with burnt flint and charcoal; cuts pit 10694				
10707	Oval	1.94	1.63	0.44	Sloping U-shaped	10708-15	Possible evidence of episodes of *in situ* burning; some fills with charcoal, burnt flint and fired clay				

Table 6.2 (continued)

Cut	Shape in plan	Length (m)	Breadth (m)	Depth (m)	Profile	Fills	Description	Pot (NoSh)	Flint (no.)	Bone (no.)	Date
10716	Circular	0.38	0.38	0.18	Irregular	10718-9	Occupation deposit high in charcoal				
10721	Irregular	1.54	0.96	0.30	V-shaped	10722, 10724	Occupation deposit with burnt flint and charcoal				
10731	Suboval	1.00	0.80	0.35	Saucer-shaped	10732-5	Reworked sand & gravel				
10880	Circular	0.92	0.92	0.19	Bowl-shaped	10881-2	Clay loam with possible evidence of burning				
10900	Subcircular	1.02	1.02	0.31	Bowl-shaped	10739	Reworked sand & gravel; cuts tree hole 10736				
Postholes											
60	Subcircular	0.20	0.20	0.30	V-shaped	61	Clay silt filled post pipe within posthole 68				
66	Circular	0.27	0.27	0.08	Bowl-shaped	67	Reworked sand & gravel				
68	Oval	0.85	0.73	0.33	Bowl-shaped	62	Reworked sand & gravel; contains post pipe 60				
10544	Circular	0.21	0.21	0.10	U-shaped	10545	Reworked sand & gravel				
10562	Suboval	0.50	0.46	0.09	Irregular	10563	Reworked sand & gravel				

bottom of the pit was covered by a relatively clean layer (10711) of mid-yellow brown coarse sand and gravel up to 0.26m deep. Filling a depression in the surface of this layer were firstly mid yellow- and black-brown sandy deposits with some burnt flint (10710 and 10715), and then a subsequent deposit (10709=10713) of mid-reddish brown silty clay, comparable to 10881 in pit 10880 though with the addition of up to 35% burnt flint, charcoal and some fired clay, strongly suggestive of burning. This deposit was flanked on the south-western edge by a mid brownish black clay silt deposit (10714) probably associated with this burning. The whole feature was then sealed by another layer of mid-yellowish brown clay silt (10708). Other mid-reddish brown clay deposits perhaps indicative of burning occur in several other features, including possible tree-throw holes 10679=10898, 10748 and 10892. Pit 10707 may be characteristic of a widespread activity producing the burnt flint observed in the other cut features across this area, though it cannot be dated and need not necessarily be restricted to a single phase.

Postholes

Four features interpreted as possible postholes were recorded (Table 6.2). They ranged from 0.2m to 0.85m across and from 0.09m to 0.33m deep. All were filled with reworked sand and gravel, and no finds were recovered from any of them. Posthole 68 is distinct from the others in being the largest and containing a recognisable subcircular post-pipe (60) with a V-shaped profile (Fig. 6.14). The interpretation of the others is much less certain, and no coherent spatial pattern is evident among these scattered features.

Ditches and gullies

The only other features found on this gravel island were ditches, one in Area Ex1 and one in Area 11. The first (230), at the south end of Area Ex1 (Figs 6.10 and 14), is the more substantial, and ran for at least 2.7m in an east-west direction. The ditch measured 0.6m wide and 0.2m deep with a slightly irregular bowl-shaped profile, and had two fills. The primary fill, 232, consisted of compact mid-brown silty clay with gravel and occasional burnt flint and charcoal inclusions. This layer was overlain by the main ditch fill, 231, which consisted of a similar but slightly darker deposit of silty clay with less frequent gravel and charcoal, though a similar proportion of burnt flint. Two worked flints and a single, worn potsherd weighing 23g and dated to the early-middle Neolithic was recovered from this fill, possibly indicating a later Neolithic date for the feature. This feature cut pit 228 to the north, which also contained a small percentage of burnt flint, and tree-throw hole 171 to the south (Fig. 6.14).

The second linear feature (10764) lay in the western end of Area 11 (Fig. 6.11) but did not appear to be related to 230. It was of a similar width at 0.65m wide, but much shallower, measuring only 0.07m deep, with a very shallow U-shaped profile. It ran north-east to south-west for at least 25m before becoming lost in an area of dirty gravel on the edge of the flood plain at the western edge of the area. This feature contained only a single fill of loose mid-grey-brown sandy silt high in gravel inclusions. No artefacts, burnt flint or charcoal were recorded from the excavated section of the feature. It was sealed by the subsoil 10501 immediately below the topsoil.

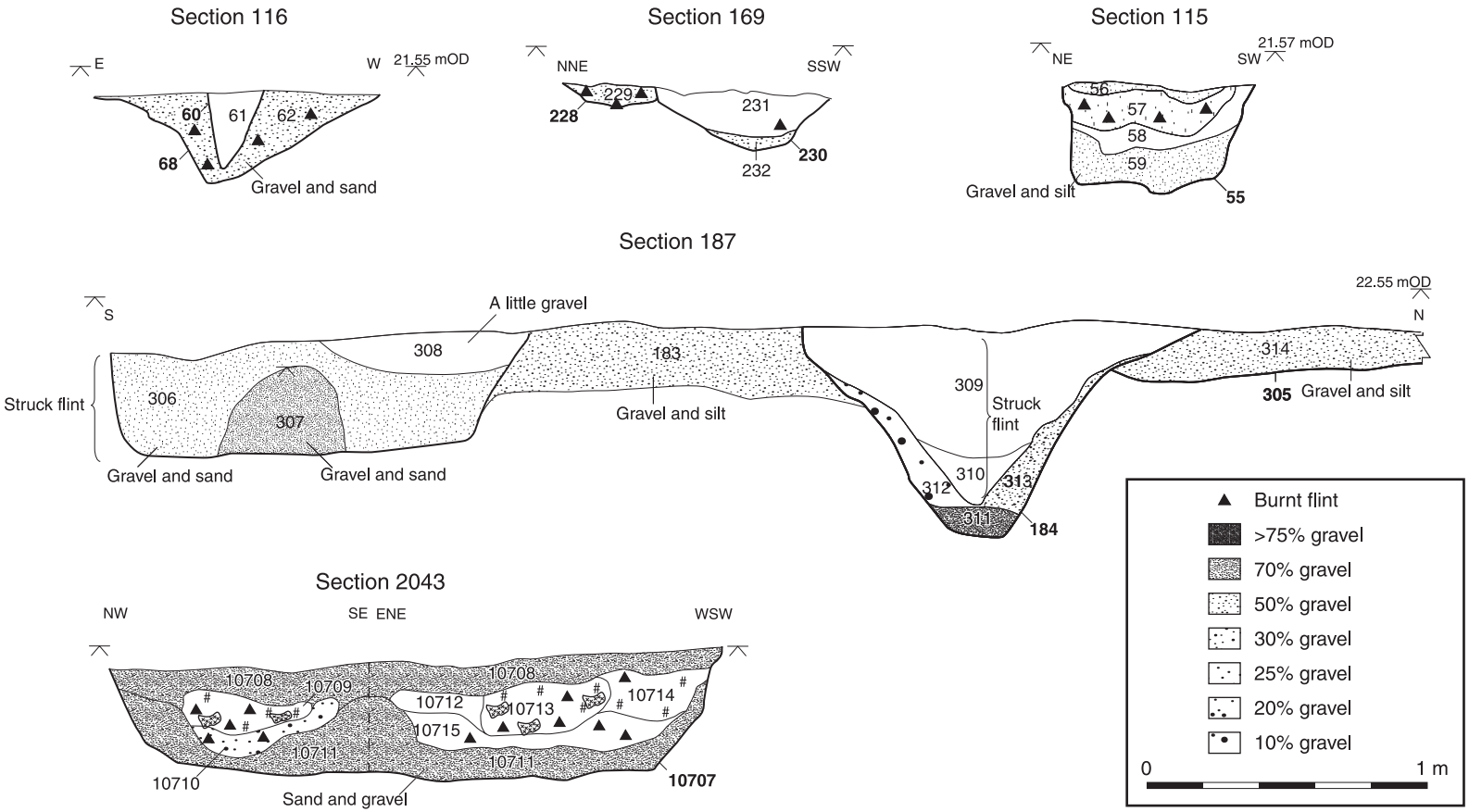


Fig. 6.14 Sections of pits, postholes and other features in Area Ex1

Burnt areas

In addition to the deposits of burnt flint and the other burnt deposits found incorporated in the fills of the cut features, some burnt areas were observed spread across the gravel island, but most notably along the northern edge (eg 741/817; Fig. 6.10) in Area Ex1, close to where flint scatters (577 and 563) associated with late Neolithic/early Bronze Age activity areas were found on the southern fringes of the flood plain area (see Chapter 9). These burnt areas generally did not yield any securely datable finds and in the case of 741/817 only a few flint flakes, which could have been of any earlier prehistoric date, were recovered.

Early and early/middle Neolithic pottery (Bowl and early Ebbsfleet Ware) from Areas Ex1-3 *by Alistair Barclay*

Sherds belonging to possible Carinated Bowls, Plain Bowls, Ebbsfleet Ware and material of indistinguishable character were recovered from 45 contexts in Areas Ex1-3. In addition, a number of further sherds of Peterborough Ware that could not be assigned to the Ebbsfleet substyle were recovered from five contexts. Material of early and early to middle Neolithic date tends to be manufactured from a similar range of fabrics (tempered with flint, quartzite and/or quartz sand) and, therefore, in the absence of featured sherds is virtually impossible to tell apart. For this reason and because much of the material occurred in open contexts (mostly layers) it was decided to group the material together.

A total of 20 fabrics were distinguished (A1/EN, AF1/EN, AF2/EN, AF3/EN/MN, F1/EN, F2/EN, F3/EN, FA2/EN/EMN, FA3/EMN, FQ2/EMN, FQ3/EN, FQA2/EMN, FQA3/EN, Q1/MN, Q2/MN, Q3/EN, QAF3, QF2/EN/MN, QF3/EN/MN, QAF2/MN, QAF3/MN).

Early Neolithic pottery was found on all three sites (Table 6.3). Most of the pottery was represented by plain body sherds. Featured sherds (mostly from Area Ex1 but also from Area Ex2) include a rim from a cup (Fig. 6.15, 3), two neck sherds and three shoulder sherds (Fig. 6.15, 1-2). The shoulder fragment represented by Figure 6.15, 1 is of uncertain early Neolithic date. It could belong either to a Carinated Bowl or a plain Ebbsfleet style bowl. Alternatively, it could be from an early Iron Age carinated bowl of tripartite form. The shoulder sherds represented by Figure 6.15, 2 are almost certainly from a shouldered or Carinated Bowl. The cup rim (Fig. 6.15, 3) can be paralleled elsewhere at Eton (see Area 6 and 10 reports). Other sherds were recorded as Ebbsfleet Ware but are generally in the same range of fabrics, although the use of quartzite as temper increases slightly. With the exception of a single sherd from Area Ex2, all of the Ebbsfleet ware came from Area Ex1. Featured sherds include a small number of rims and shoulder sherds from Area Ex1. Most of the pottery appeared to come from discrete dumps of material in Area Ex1 (context 798, SF 10952: 20 sherds, 75 g; context 131: 56 sherds, 335 g; context 586: 10 sherds, 60 g; context 812, SF 10732: 90 sherds, 271g; see Fig. 9.17). A further nine sherds of Peterborough Ware were recovered from Area Ex1 (contexts 131, 157, 728, 742, 809-10 and 814). With the exception of a shoulder fragment, all of the sherds are from the body. Three sherds are decorated with whipped cord impressions. The sherds were manufactured from either predominantly sand or quartzite tempered fabrics. In the absence of more diagnostic sherds, it is not possible to assign these sherds to a substyle. One possibility, given the range of quartzite tempered fabrics, is that the sherds are contemporaneous with the Ebbsfleet style pottery described above.

Ebbsfleet Ware occurs at other sites at Eton, in particular Area 6 and RC1. It is possible that Ebbsfleet Ware was used alongside other forms of Plain Bowl as the two styles are sometimes found on the same sites (eg Yarnton: Hey in prep.). Its precise date range is uncertain, although its recovery from the secondary fills of some causewayed enclosures (eg Staines: Robertson-MacKay 1987), from secondary contexts in some long cairns, and from the primary fill of the Drayton cursus (Barclay *et al.* 2003) indicates that its main period of use could fall within the period 3550-3350 cal BC.

Illustrated catalogue (Fig. 6.15)

Area Ex1 early Neolithic

1 Context 262. SF 5784. Early Neolithic, Carinated Bowl? Neck and shoulder sherds from an unusually sand-tempered bowl. Fabric A1/EN. Firing: ext.

Table 6.3 A breakdown of the total pottery assemblage in Areas Ex1-3 by site and date

Date	*EN*		*EMN*		*MN*		*LNL*		*NEBA*		*EBA*		*Total*	
	Count	*WT g*	*Count*	*WT g*	*Count*	*WT g*	*Count*	*WT g*	*Count*	*WT g*	*Count*	*WT g*	*Count*	*WT g*
EX1	347	1062 g	217	949 g	9	76 g	4	22 g	40	178 g	54	340 g	671	2627 g
EX2	32	136 g	1	10 g			2	5 g	3	12 g	201	718 g	239	881 g
EX3	37	200 g							7	34 g			44	234 g
Total	416	1398 g	218	959 g	9	76 g	6	27 g	50	224 g	255	1058 g	954	3742 g

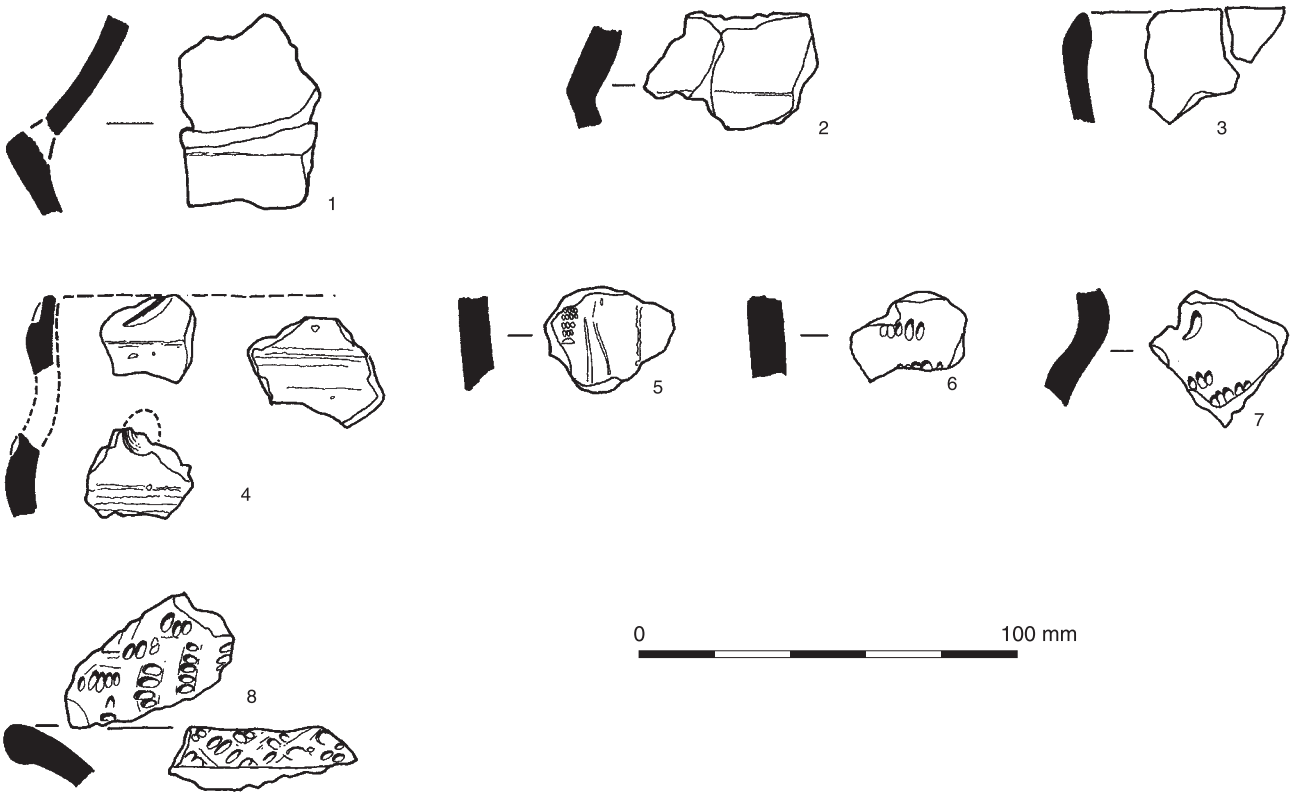


Fig. 6.15 Earlier Neolithic pottery from Areas Ex1-3

patchy brown and black; core and int. black. Burnished surfaces. Condition average. Charred residue.

2 Context 796. SF 5176. Shoulder from a Carinated or Shouldered Bowl (13g). Fabric F3/EN. Firing: ext. reddish-brown; core black; int. brown. Condition average.

3 Context 131. Rim (15g). Fabric FA3/EN. Fabric FA3/EN. Firing: ext. brown; core black; int. brown. Condition average.

Early/middle Neolithic

4 Context 131. (138E/138N) Peterborough Ware, Ebbsfleet Ware. Decorated rim and neck sherds with thumb groove (355g). Fabric FQ3/EMN. Firing: ext. reddish-brown; core black; int. brown. Condition average.

5 Context 732. SF 5180. Peterborough Ware, decorated body sherd (6g). Fabric QAF3/EMN. Firing: ext. brown; core black; int. brown. Condition worn.

6 Context 812 (was 131). SF 10732. Peterborough Ware. Decorated body sherd (5g). Fabric QFA3/EMN. Firing: ext. brown; core and int. black. Condition average.

7 Context 814 S5094 Peterborough Ware, Ebbsfleet Ware. Neck sherd (8g). Fabric FQA3/EMN. Firing: ext. and core black; int. brown. Condition worn.

8 Context 814. SF 5093. Peterborough Ware, Ebbsfleet Ware rim (13g). Fabric QF3. Firing: ext. reddish-brown; core grey; int. reddish-brown. Condition worn.

Earlier Neolithic struck flint from Areas Ex1-3
by Hugo Anderson-Whymark

The earlier Neolithic

Earlier Neolithic flint assemblages were recovered from nine tree-throw holes, two possible pits and 15 *in situ* scatters on the floodplain (Tables 6.4-7). Earlier Neolithic flintwork was also recovered from several layers and spreads associated with lithic scatters.

Flint scatters on the floodplain

The scatters dating from the early to middle Neolithic range in size from the smallest clusters of nine flints to the largest scatter containing 2341 flints. In total 6159 flints were recovered from *in situ* early to middle Neolithic scatters.

The analysis of the lithic scatters was approached from several angles. The assemblages were first catalogued using the standard typology outlined above (see Area 6 flint report). Refitting was attempted on all scatters, whilst detailed technological analysis and low-power use-wear techniques were applied to complete assemblages from a number of the small scatters and samples of *c* 200 flints from some of the larger scatters.

The lithic scatters will be discussed in three groups, which have been divided on the basis of the results of the above analyses. Particular weight has been placed on the presence of knapping refits and

Table 6.4 The earlier Neolithic tree-throw hole and pit assemblages in Areas Ex1-3

CATEGORY TYPE	*Pit 55*	*Tree-hole 92*	*Tree-hole 196*	*Tree-hole 261*	*Tree-hole 337*	*Tree-hole 347*	*Tree-hole 406*	*Tree-hole 570*	*Pit 635*	*Tree-hole 1013*	*Tree-hole 1033*	*Grand total*
Flake	12	19	15	55	21	3	14	16	9	16	47	227
Blade			3	5		4				1	1	14
Bladelet	1											1
Blade-like		1	2	6		3				5	3	20
Irregular waste				2			1				1	4
Chip											1	1
Sieved chips 10-4 mm	1											1
Rejuvenation flake core face/edge				1						1	1	3
Rejuvenation flake tablet				3						1	1	5
Rejuvenation flake other				1						1		2
Tested nodule/bashed lump							1					1
Single platform flake core							1	1			1	3
Multiplatform flake core				1	1					1		3
Unclassifiable/fragmentary core										1		1
End scraper				1							1	2
Piercer				2								2
Laurel leaf		1										1
Serrated flake				1					2	1		4
Backed knife											1	1
Retouched flake				1			1			2		4
Grand total	14	21	20	80	22	10	18	17	11	30	58	301
Burnt unworked flint (g)	286	611	2810	2150	80	10	40	5	145	2005	745	-
Burnt no. (%) (exc. chips)	1	2 (9.5)	2 (10)	1 (1.3)	3 (14)	1 (10)	-	2 (12)	6 (55)	1 (3.3)	2 (3.5)	-
Broken no. (%) (exc. chips)	6	7 (33)	8 (40)	24 (30)	4 (18)	7 (70)	2 (11)	4 (24)	6 (55)	10 (83)	10 (18)	-
Retouched no. (%) (exc. chips)	-	1 (4.8)	-	7 (8.8)	-	-	1 (5.6)	-	2 (18)	3 (10)	2 (3.5)	-
No. of flints forming knapping refits & (con-joins)	0	0	0	2	0	2	0	2	0	0	4	10

associated knapping debitage, such as cores, hammerstones, chips and irregular waste and the presence or absence of use-wear. The groups represent aids to the interpretation of the activities performed on site rather than a rigid distinction between different activities.

The first group – knapping scatters – is identified by the presence of a substantial number of refits and general debitage associated with knapping. These scatters contain no use-wear or signs of other activities beyond knapping. A second group of scatters have been termed 'deposits of utilised material'. These scatters are characterised by a high proportion of use-wear and scant evidence for knapping debitage and refitting flakes. As such, a single pair of refitting flakes may be present due to the possibility of importing refitting flakes within a carried toolkit. Within all 'dumps of utilised material' only a single pair of refits was made (in Scatter 800). The third group has been defined as 'activity areas'. These scatters contain a significant number of refits and evidence of knapping, but also contain utilised pieces, identified through use-wear, frequently as isolated occurrences, but occasionally on flints within refitting sequences.

Knapping scatters

Knapping, as the sole activity, accounted for three of the scatters on the floodplain: Scatters 631, 700 and 10011, which contained 34, 73 and 198 flints respectively (Table 6.5). In Scatters 631 and 10011 the refitting sequences confirmed that a large number of the non-cortical trimming flakes were absent, presumably removed for use or adaptation elsewhere. Furthermore, no retouch or retouch chips were identified in the scatters. In addition, this pattern of absence was noted in both the burnt worked and unworked flint. It appears that both these scatters represent a single, quick event, probably involving the replenishment of toolkits.

Deposits of utilised material

A total of five scatters were characterised as deposits of utilised material (Scatters 634, 663, 800, 999 and 1001). These scatters, consisting of between 9 and 29 flints, were the smallest scatters identified (Table 6.6). A single retouched flint – a serrated flake – was present in Scatter 999.

Low power use-wear analysis was performed on Scatters 634, 999 and 1001. Due to time constrains

Table 6.5 The assemblage of the early to middle Neolithic knapping scatters in Areas Ex1-3

CATEGORY TYPE	Scatter 631	700	10011	Grand total
Flake	63	17	86	166
Blade	5	3	4	12
Bladelet	2	1	8	11
Blade-like	1	12	8	21
Irregular waste	3		4	7
Chip	2		87	89
Rejuvenation flake core face/edge		1		1
Rejuvenation flake other	1			1
Tested nodule/bashed lump			1	1
Multiplatform flake core	1			1
Grand total	78	34	198	310
Burnt unworked flint (g)	-	-	-	-
Burnt no. (%) (exc. chips)	-	-	-	
Broken no. (%) (exc. chips)	23 (30.3)	21 (65.6)	29 (26.1)	73 (33)
Retouched no. (%) (exc. chips)	-	-	-	-
No. of flints forming knapping refits & (con-joins)	8 (1)	0	4	12 (1)

Scatters 663 and 800 were not examined for use-wear in detail, but use damage was identified on flints at a macroscopic level. A total of 32 flints were examined for use-wear, thus representing a 100% sample of the three scatters (excluding chips and pieces too burnt and broken to assess). Use-damage was present on 18 of the 32 flints examined (56% of the assemblage). It is noteworthy that the use actions identified were limited to cutting and whittling with the exception of Scatter 999 in which three of the six actions identified were scraping. It is plausible that these scatters represent the remnants of specific activities or tasks; the limited size of the scatters and numbers of utilised flints precludes statistical confirmation. A question remains as to whether these small 'deposits of utilised material' are dumps of material brought from another location or represent *in situ* deposits where the activity/activities were performed.

Burnt worked and unworked flint was present in small quantities in Scatters 634, 800 and 999, though no evidence of burning on the ground was associated with scatters, and it is therefore assumed that these pieces were burnt elsewhere. This supports the suggestion that these scatters were dumps of material brought from another location.

Activity areas

Use-wear and knapping were both present within seven scatters, which have, therefore, been interpreted as activity areas. Scatters 633 and 1062 contained 48 and 65 flints respectively; the remaining five scatters, 661=618=652, 678, 720, 721 and 10010, ranged between 495 and 2342 flints (Table 6.7; Figs 6.5-8 and 6.16). Due to the substantial difference in size, the two smaller scatters will be considered separately. In addition to the flintwork, it is noteworthy that several sherds of early Neolithic pottery and some pieces of burnt and unburnt animal bone were recovered from Scatters 678, 720 and 10010.

The two small scatters are distinguished from the small 'deposits of utilised material' by the presence of a small knapping element. Scatters 633 and 1062 each contained a single retouched flint: 633 an edge retouched flake, and 1062 a side scraper. A small quantity of burnt worked and unworked flint was present within Scatter 1062, whereas Scatter 633

Table 6.6 The assemblage of the early to middle Neolithic deposits of utilised material

CATEGORY TYPE	634	663	Scatter 800	999	1001	Grand total
Flake	18	10	18	14	6	66
Blade			1	1		2
Blade-like			3	4	2	9
Irregular waste			4			4
Chip			1	2	1	4
Rejuvenation flake tablet		1				1
Rejuvenation flake core face/edge			1			1
Tested nodule/bashed lump			1			1
Serrated flake				1		1
Grand total	18	11	29	22	9	89
Burnt unworked flint (g)	215	-	11	12	-	238
Burnt no. (%) (exc. chips)	7 (38.8)	-	3 (10.7)	2 (10)	-	12 (14.1)
Broken no. (%) (exc. chips)	11 (61.1)	1 (9.1)	15 (53.6)	14 (70)	5 (62.5)	46 (54.1)
Retouched no. (%) (exc. chips)	-	-	-	1 (5)	-	1 (1.2)
No. of flints forming knapping refits & (con-joins)	0	0	2	0	0	2

Table 6.7 The assemblage of the early to middle Neolithic activity areas in Areas Ex1-3

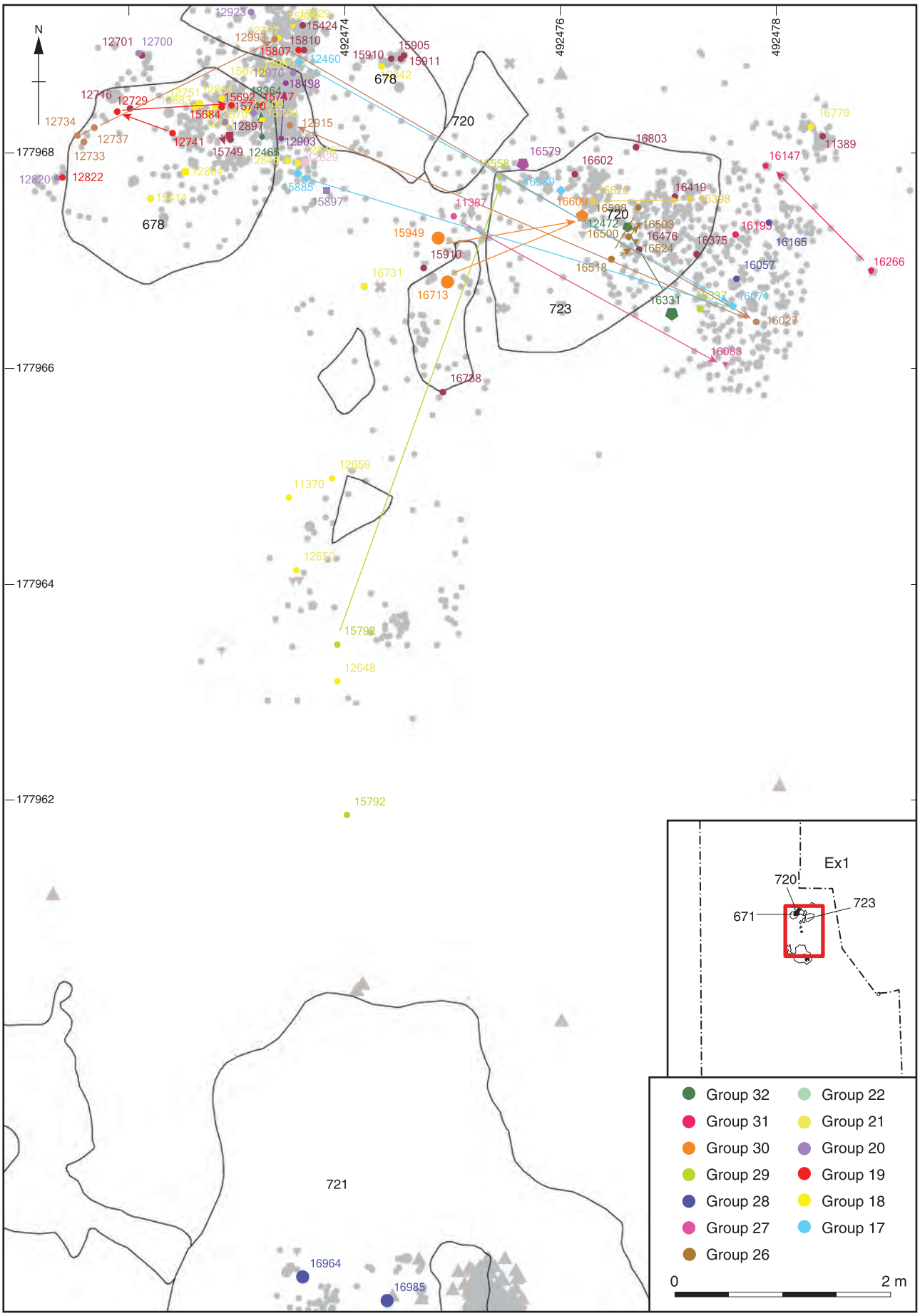
	Scatter							Spreads	
CATEGORY TYPE	*633*	*1062*	*618*	*10010*	*678*	*720*	*721*	*677, 722,724*	*Grand total*
Flake	40	38	340	775	1060	556	256	463	3528
Blade		4	18	59	75	39	25	37	257
Bladelet			15	63	15	1	3	1	98
Blade-like	2	14	21	89	77	39	15	42	299
Irregular waste			22	53	30	19	11	10	145
Chip	2	6	17	237	40	3	1	16	322
Sieved chips 10-4mm			29	7	969		388		1393
Rejuvenation flake core face/edge				2	6	4	2	1	15
Rejuvenation flake tablet				2		1	2		5
Rejuvenation flake other			13		17	11	1	6	48
Levallois flake								1	1
Janus flake (= thinning)					1				1
Thinning flake					5				5
Flake from ground implement					4	2			6
Core single platform blade core			1		1	1		1	4
Tested nodule/bashed lump	1		4	12	2	9	1	4	33
Single platform flake core	1	1	3	14	6	10		4	39
Multiplatform flake core				11	1	2		6	20
Keeled non-discoidal flake core								1	1
Levallois/other discoidal flake core					1			1	2
Core on a flake				3		2			5
Unclassifiable/fragmentary core	1	1	4	9	8	11	5	7	46
Microlith			5	12			3		20
Unfinished arrowhead/blank					17	13		6	36
End scraper		1		1	3	5		2	12
Side scraper				1					1
End and side scraper								2	2
Other scraper					1	1			2
Piercer						1	1	1	3
Denticulate								1	1
Notch				1					1
Retouched flake	1		3	13	2	3		3	25
Grand Total	48	65	495	1364	2341	733	714	616	6376
Burnt unworked flint (g)	3690	50	1558	5481	109	216	455	125	11684
Burnt no. (%) (exc. chips)	2 (4.4)	7 (11.8)	71 (15.9)	141 (12.6	146 (10.9)	128 (17.5)	136 (41.8)	107 (17.8)	674 (14.5)
Broken no. (%) (exc. chips)	14 (30.4)	31 (52.5)	157 (35.2)	270 (24.1)	659 (49.4)	328 (44.9)	176 (54.2)	300 (50)	1935 (41.5)
Retouched no. (%) (exc. chips)	3 (2.2)	1 (1.7)	8 (1.8)	28 (2.5)	24 (1.8)	22 (3.0)	4 (1.2)	15 (2.7)	105 (2.3)
No. of flints forming knapping refits & (con-joins)	3	2	12 (9)	50 (2)	21 (4)	20 (4)	2 (9)	3 (3)	13 (31)

contained three pieces of burnt worked flint and 3.69kg of burnt unworked flint. The quantity of burnt unworked flint in Scatter 633 cannot be explained through accidental burning, and must be associated with the activity associated within this scatter. The extreme variability in the proportions of burnt material between scatters probably reflects the different activities associated with the scatters.

Use-wear was identified within Scatter 633 only at a macroscopic level, but was not analysed or recorded in detail. In Scatter 1062, 10 of 42 flints analysed were utilised, representing 24% of the assemblage. Eight soft and medium cutting and whittling actions and two hard scraping actions were identified.

Before discussing the large activity areas (618, 721, 720, 10010 and 678), their spatial relationship and possible associations should be considered. The scatters were all spatially distinct, with the exception of Scatters 678 and 720, that were situated alongside each other and had quite similar compositions; in addition, a few refits between the two have been made. Lower density spreads of flint, 722, 724 and

Fig. 6.16 (facing page) Flint refits in Area Ex1


N
492474
492476
492478
177968
177966
177964
177962
678
720
723
721
671
Ex1
Group 32
Group 31
Group 30
Group 29
Group 28
Group 27
Group 26
Group 22
Group 21
Group 20
Group 19
Group 18
Group 17
0
2 m

677, surround scatters 678 and 720; this band is approximately 3-5m wide and extends mainly around the northern, eastern and southern edges of the scatter. A total of 616 flints were present in this area of approximately 90 m², representing approximately 7 flints per m². At a slightly broader scale, the general area incorporating scatters 700, 721, 800, 801 and 618 may have been associated with the same event or series of events. However, for the purpose of discussion visually discrete scatters will be considered separately; whilst this applies also to scatters 678 and 720, some joint references and comments on the surrounding area will have to be made.

Retouched pieces form 1% to 3% of each of the scatters in question (excluding chips). In Scatters 678 and 720, 36 of the retouched pieces were leaf arrowheads in various stages of production (see below). In Scatters 678 and 720 the other retouched artefacts were limited to scrapers, edge retouched flakes and a piercer; two end scrapers, 1.5m apart, on the western edge of 720 refitted and, therefore, were probably produced and used in the scatter. Eight fragments of unfinished arrowheads refitted to form four leaf arrowheads.

In addition, other knapping sequences were identified. For example, the reduction of the butt of a broken polished axe head was undertaken, pieces of which were present in both Scatters 678 and 720. Five fragments of the axe were refitted, comprising a single platform blade core and four flakes and blades; it was apparent that several flakes were missing and were presumably removed from the scatter. Three other flakes from polished implements were present, all of which were of a different raw material to the refitted sequence. In addition, five possible axe-trimming flakes were identified in the assemblage from 678. However, all were of different raw materials, and it is, therefore, unlikely that axes were produced in the scatter.

In Scatter 10010, unfinished arrowheads were absent, and the retouched component was dominated by edge retouched flakes as opposed to scrapers, although two scrapers were recovered. A notched flake and 12 microliths were also present (see Chapter 4). The exclusion of microliths from the retouched component leaves 16 retouched pieces or 1.4% of the assemblage.

Use-wear analysis was performed on a random sample of 176 and 191 flints from Scatters 678 and 720 respectively and 217 flints from 10010, representing 13.2%, 26.2% and 19.4% of the compete assemblages respectively (excluding chips). The overall proportion of the assemblage bearing evidence of use was 20% in the aforementioned scatters. In Scatters 678 and 720 the use-wear present was very similar, but all three boring actions were confined to Scatter 678. In general, within Scatters 678 and 720 a broad range of use-actions was performed and materials of varying hardness were worked. Scatter 10010 exhibited similar proportions in the hardness of materials worked. However, the actions identified differ slightly: cutting and whittling actions dominate the assemblage with only a small proportion of scraping; boring is absent.

A significant proportion of the flintwork from the large activity areas was burnt. In Scatters 678, 720, 721 and 10010, a total of 207, 129, 213 and 151 worked flints, respectively, were burnt. Burnt unworked flint was also present in small quantities within Scatters 678, 720 and 721 (109g, 206g and 417g respectively) whereas Scatters 618 and 10010 contained 1.394kg and 5.524kg respectively. In Scatter 678, the burning was over a clearly defined area towards the edge of the scatter. Similarly, in Scatter 10010 the burnt worked and unworked flint was located within three distinct clusters, the most northerly of which had two distinct clusters of knapping debris on each side of it. It is likely that all three areas represent the location of fires, although the temperatures reached failed to redden the ground. In addition, within Scatters 678 and 10010 unburnt flint was present amongst the burnt material, perhaps indicating that further knapping was performed on site after the fires had died down. Other areas of burning were present as reddened areas on the ground; these were located immediately to the east of 720 and to the west of 721. A small hollow, possibly a shallow pit (801), filled with burnt flint was located alongside the eastern edge of Scatter 721. Within Scatter 618 no pattern could be discerned in the distribution of the burnt unworked flint or the 75 burnt worked flints.

The exceptional variation in the quantities of burnt unworked flint in the activity areas undoubtedly relates to some of the activities being performed in and around them. It is possible that the burnt unworked flint relates to domestic activities since large quantities were also recovered from the early Neolithic midden deposits in Areas 6 and 10 (15kg and 62kg respectively).

Arrowhead manufacture in Area Ex1

A total of 36 flints from Scatters 678, 720 and the surrounding area, 677, were identified as misshaped arrowheads. The discovery of a large assemblage of arrowheads in various stages of production provides a rare opportunity to examine the production sequence of leaf-shaped arrowheads in detail (Plate 6.4).

Raw material

The raw material for the arrowheads was locally available gravel flint. The flint was variable in colour and generally of good flaking quality, although a number of the attempted arrowheads were thwarted by the presence of thermal fractures and faults in the flint.

Methods of production

All stages of arrowhead production were represented in these scatters, from the production of blanks to the final retouching of the finishing artefact. A description of the artefacts and modes of production will be presented, but it has to borne in

Plate 6.4 Arrowheads from Area Ex1

mind that the arrowheads represent a mixture of rejects and pieces that broke during manufacture. Two distinct types of blank were present, one exploiting general flakes in the assemblage and the other using specially struck blanks. Each exhibits slightly differing stages of manufacture. The two processes are therefore discussed individually below.

The most common blanks consisted of relatively thick and occasionally irregular flakes, exhibiting no evidence of removal with the intention of producing a blank for an arrowhead. All of the misshapes had some degree of retouch. It is, therefore, only possibly to approximate the original size of the blanks. The largest was 53mm long, 36mm wide and 11mm thick, but on average the length

was between 40mm to 50mm; the width was rarely over 40mm, and on average they were approximately 6mm thick.

The first stage was to rough out the arrowhead form. This was probably undertaken using direct percussion. The majority of the working was present on the dorsal surface, although removals were made on the ventral surface (depending on the flakes irregularities). The bulb was also removed at this stage (see SF 16340). Misshaped arrowheads abandoned at this stage of production were most common in the assemblage.

The second stage represents a refinement of the shape and additional thinning on both sides of the flake. The thinning was performed on each side in turn through the establishment of a slight platform on the reverse surface (defined as 'turning of the edge' by Knowles (1944, 14-16); see SF 12465 and SF 18364). The flaking is finer than the initial flaking although it probably still results from direct percussion by a small pebble.

The final stage was pressure flaking of the artefact into its final form, and removing protruding ridges. The 'turning of the edge' to produce a small platform was undertaken on a very fine scale, producing a platform 1-2mm wide and of limited extent (see SF 12463).

The three arrowheads used to illustrate this sequence were all abandoned due to faults and irregularities, but adequately display the sequence of events.

The second type of blank was probably struck solely for the production of arrowheads. The blanks exhibited narrow or punctiform butts, diffuse bulbs, probably struck using soft hammer percussion, and were straight removals absent of prominent ripples. The dorsal surfaces general had several removals with no distinct ridges, probably indicating the preparation of the core for the removal of an arrowhead blank. Two blanks were abandoned at an early stage and provide an indication of the blanks' dimensions. The first flake, SF 16161, was 24mm wide, 37 long and 3mm thick, but it is likely that this flint was abandoned due to its limited size and thickness. The second blank, SF 12461, abandoned due to step fractures when flaking, is 24mm wide, 40mm long and 5mm thick. Measurement of arrowheads further along the production sequence indicates original flake thickness between 4.5 and 5.5mm and the lengths of two complete misshapes were 49mm and 51mm, although fragments of smaller arrowheads were also present. A simple production sequence follows, which is similar to the late stages of the manufacture of the non-specialist blanks.

The first stage was to establish a very slight platform around the circumference of the ventral surface of the flake (SF 16161). Invasive removals were then made into the dorsal surface (SF 12461); this procedure may well have been performed using a small pebble hammer.

During the second stage a platform was established on the dorsal surface and invasive removals made into the ventral surface, creating a biface. This process was continued until the arrowhead form was refined. The latter stages of this process appear to have been performed with a pressure flaking tool, such as the tine of an antler (SF 12469-16579, 16331-12472, 11169).

The final stage represents the finishing of the artefact through delicate pressure flaking to remove the ridges from earlier removals and form a clean edge.

Spatial distribution

The distribution of arrowheads formed a distinct pattern. Eighteen of the misshaped arrowhead fragments, including two refits (SF 18364-12465 and SF 18498-12903, 0.31m and 0.51m apart respectively) were present in an area 1 m^2 within the densest area of Scatter 678. To the east of 678, in Scatter 720, 15 arrowhead fragments, including two refits forming complete arrowheads (SF 12469-16579, SF 16331-12472, 0.40m and 0.90m apart respectively), were present in an area 3m by 2m. The density within 720 is far lower than it was in 678, and it is possible that in 720 three areas of arrowhead production were present. The arrowheads manufactured on specialist blanks were mainly found in the central area of 720; a single specialist blank, 12461, was present in 678. Many of the arrowheads in 678 are crude rough-outs on irregular flakes. In addition, two misshaped arrowhead fragments were present west of 678 by 1m and 2m respectively. A very crude thick rough-out was present 5m to the south of Scatter 720 amongst a small cluster of chips and flakes; these flakes possibly represent the debitage from manufacturing this rough-out, although no refits could be made or retouch chips identified. Several other small clusters of chips were present in the area surrounding 678 and 720, and it is plausible that these represent the debitage from the successful manufacture of arrowheads.

Two arrowhead fragments were burnt, indicating that the burning was either contemporaneous or later than the knapping of the arrowheads. Both of the burnt flints were present within areas of burning over 678 and at the eastern edge of 720.

Conclusions

It is apparent that arrowhead manufacture represents possibly the primary activity within these scatters, and certainly the most visible. Examination of the production sequence revealed an interesting pattern which, although it follows the stages described by Andrefsky (1998, 180-183) and Whittaker (1994) in general, differs in several aspects. The use of a specific type of flake blank, probably manufactured for arrowhead production, removes several of the early stages of 'roughing out' of thicker flakes, although production from thick irregular flake blanks is also present in the scatters.

Table 6.8 Lithic assemblages of broadly Neolithic date

CATEGORY TYPE	Tree-hole 102	Tree-hole 605	Tree-hole 621	Tree-hole 1054	Grand total
Flake	13	9	18	8	48
Blade	2	1			3
Blade-like	4	1		1	6
Sieved material 10-4 mm				4	4
Irregular waste	1				1
Rejuvenation flake other		1			1
Core single platform blade core				1	1
Tested nodule/bashed lump		2	1		3
Microlith	1	1			2
Retouched flake			1		1
Grand total	21	15	20	14	70
Burnt unworked flint (g)	199	10	147	103	-
Burnt no. (%) (exc. chips)	3 (14.2)	0	0	0	-
Broken no. (%) (exc. chips)	12 (57.1)	20	2 (10)	0	-
Retouched no. (%) (exc. chips)	1 (4.76)	1	1 (5)	0	-
No. of flints forming knapping refits & (con-joins)	0	0	0	0	0

The establishment of a small platform, 2-3mm wide, on the reverse of the flake edge from which invasive removals are to be made, defined as 'turning of the edge' by Knowles (1944, 15-16), is poorly described in both the above sequences, although it is critical in facilitating invasive removals. Knowles based this process on ethnographic descriptions of arrowhead production by North American Indians, and on replication experiments producing arrowheads by direct percussion with a quartzite hammerstone.

The arrowheads were most prone to being abandoned at an early stage when it became apparent that the blank was not appropriate or when a fault developed, either due to the quality of the flint or a knapping error. Thinning the arrowhead by pressure flaking resulted in the largest number of broken pieces, and is undoubtedly the most delicate part of the operation. Great care has been taken over the form and finishing of the artefact, and it is apparent on the refitting misshapes SF 12469-16579 and SF 12472-16331 that attempts to remove a small raised area with step fractures resulted in the breakage of both arrowheads. The finishing of the artefact was clearly very important, possibly for functional reasons (eg a protrusion may have hindered hafting), although style was also clearly an important consideration.

The location of arrowhead production is of interest. Very few misshaped arrowheads have been found on the Rowing Course as isolated finds. In fact, they have only been located within some of the most sizeable deposits, such as the large activity area around Scatters 678 and 720 on the floodplain, and within the midden deposits in Areas 6 and 10. It is perhaps reasonable to conclude that as a time consuming task, arrowheads were produced at locations (such as a campsite) where a considerable period of time was spent.

Other Neolithic lithic assemblages

A small number of features contained small flint assemblages, lacking diagnostic artefacts or distinctive technological dates which would allow accurate dating. However, it is likely that a number of these features are Neolithic (Table 6.8). This material can be summarised as four tree-throw holes (102, 605, 621 and 1054), containing a total of 70 flints. Retouched pieces included two microliths and a simple edge retouched flake; the microliths are residual and are not contemporary with the other flintwork in the features.

Discussion

Compared to the late Mesolithic, it appears that more activities were performed on the floodplain (although in general within 40m of the channel edge) during the early Neolithic. Some of the larger clusters of flintwork were associated with 'hearths' and small quantities of pottery and animal bone (some of which is burnt). These appear to have represented the sites of temporary camps. In the case of the larger scatters, 678/720 and 10010, three areas of burning were present, indicating that the site may have been occupied over several nights, or revisited on several occasions. In Scatters 678 and 720, the production of leaf arrowheads suggests a strong association with hunting. However, other resources were also exploited. Flint from the river bed was easily available, and in several scatters only knapping occurred, with desirable flakes being removed from the assemblage. Plant resources were also plentiful, and it seem likely some of the small clusters of utilised flints (deposits of utilised material) may have resulted from the harvesting and processing of these materials. In addition to the activity on the floodplain, a number of deposits

were found in tree-throw holes and a possible pit on the gravel terrace.

Catalogue of illustrated flint from Areas Ex1-3 (Fig. 6.17-21)

Scatter 678 and 720 (and 677)

7 Flint scatter 678. Refit group 23. Three flakes and a blade.
8 Flint scatter 720. SF 16193. Flake.
9 Flint scatter 720. SF 16278. Flake.
10 Flint scatter 678. SF 12877. Thinning flake.

Flints illustrating the sequence arrowhead production from flakes

11 Flint scatter 720. SF 16340. Unfinished arrowhead.
12 Flint scatter 677 (SF 12465) and 678 (SF 18364). Refit group 108. Unfinished arrowhead, broken during manufacture, fragments found 0.31m apart.
13 Flint scatter 678. SF 12463. Unfinished arrowhead.

Flint illustrating the sequence of arrowhead production from ?specialist blanks

14 Flint scatter 720. SF 16161. Unfinished arrowhead/blank. Slight edge retouch is present on this blade-like flake,
15 Flint scatter 678. SF 12461. Unfinished arrowhead.
16 Flint scatter 678 (SF 12469) and 720 (SF 16579). Refit group 32. Unfinished arrowhead, broken during manufacture, fragments found 0.40m apart.
17 Flint scatter 720, SF 16331 and 12472. Refit group 33. Unfinished arrowhead, broken during manufacture, fragments found 0.90m apart.

18 Flint scatter 678. SF 12903 and 18498. Refit group 109. Unfinished arrowhead, broken during manufacture, fragments found 0.51m apart.

19 Flint scatter 678. SF 15811. Unfinished arrowhead.
20 Flint scatter 720. SF 12471. Unfinished arrowhead.
21 Flint scatter 720. SF 11169. Unfinished arrowhead, broken tip.
22 Flint scatter 720. SF 12470. Tip of an unfinished arrowhead. This blank was probably too thin for further flaking.
23 Flint scatter 678. SF 18798. Tip of an unfinished arrowhead.
24 Flint scatter 678. SF 18794. Unfinished arrowhead.
25 Flint scatter 678. SF 18792. Unfinished arrowhead.
26 Flint scatter 678. SF 15832. Unfinished arrowhead.
27 Flint scatter 678. SF 15822. Unfinished arrowhead.
28 Flint scatter 678. SF 15818. Unfinished arrowhead.
29 Flint scatter 678. SF 15422. Unfinished arrowhead, abandoned due to hinge fracture.
30 Flint scatter 678. SF 12464. Unfinished arrowhead, thin, broken.
31 Flint scatter 678. SF 12466. Tip of an unfinished arrowhead.
32 Flint scatter 677. SF 11317. Denticulate.
33 Flint scatter 678. SF 12462. End scraper.
34 Flint scatter 678. SF 12820. End scraper.
35 Flint scatter 720. Refit group 30. SF 16713, 16609 and flake 15948. End scraper snapped in two fragments (16713 and 16609), a single flake was removed after the snap (SF 15948), this flake is burnt. These flints were found 1.40m apart.
36 Flint scatter 720. Refit group 31. Two end scrapers (SF 16226 and SF 16147), manufactured on separate flakes conjoin on a knapping refit. These flints were found 1.38m apart.
37 Flint scatters 678 and 720. Refit group 17. The butt of a polished axe, exhibiting a hafting break, was refitted from a single platform blade core and four flakes, several flakes are missing from the sequence. These flints were found 4.6m apart.

10010

38 Flint scatter 10010. Refit group 1. Single platform flake core (SF 61435) exhibits five refitted flakes

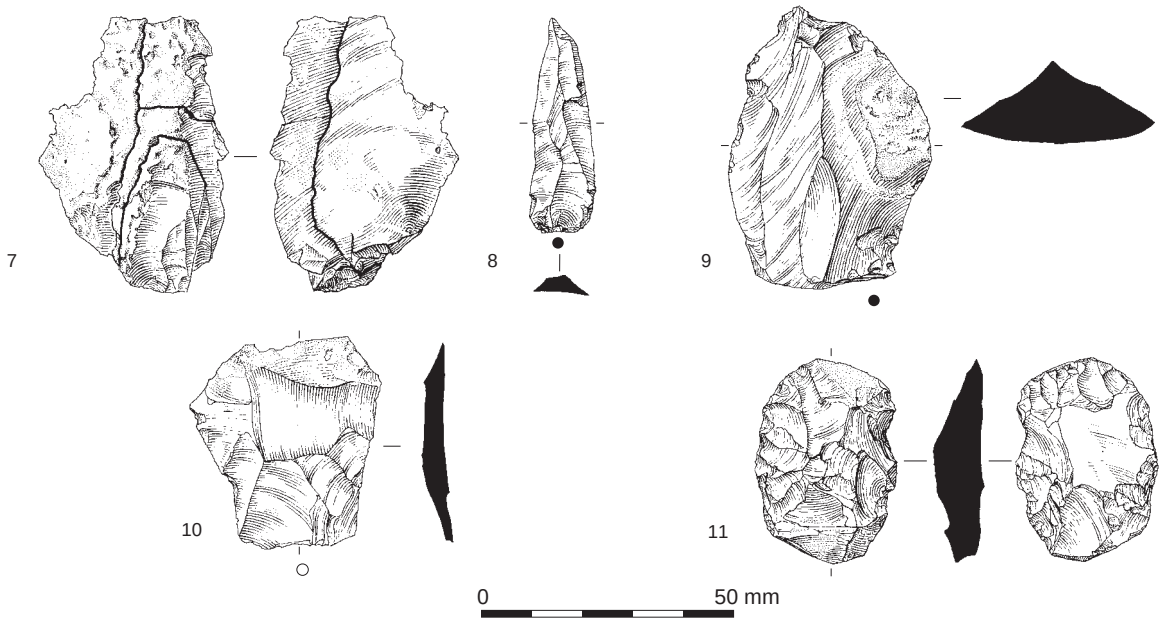


Fig. 6.17 Ex1-3 struck flint

and blades. A cortical flake is refitted to the platform. NB the view of the platform is illustrated with the cortical flake removed.

39 Flint scatter 10010. Refit group 1. Single platform flake core (SF 61848). Two removals have been refitted to the platform.

40 Flint scatter 10010. Refit group 1. Single platform flake core (SF 61766) with two flakes refitted. The core has a simple platform (which refits with Fig. 6.20, 41) and exhibits platform-edge abrasion. The flakes appear to have been removed using hard hammer percussion.

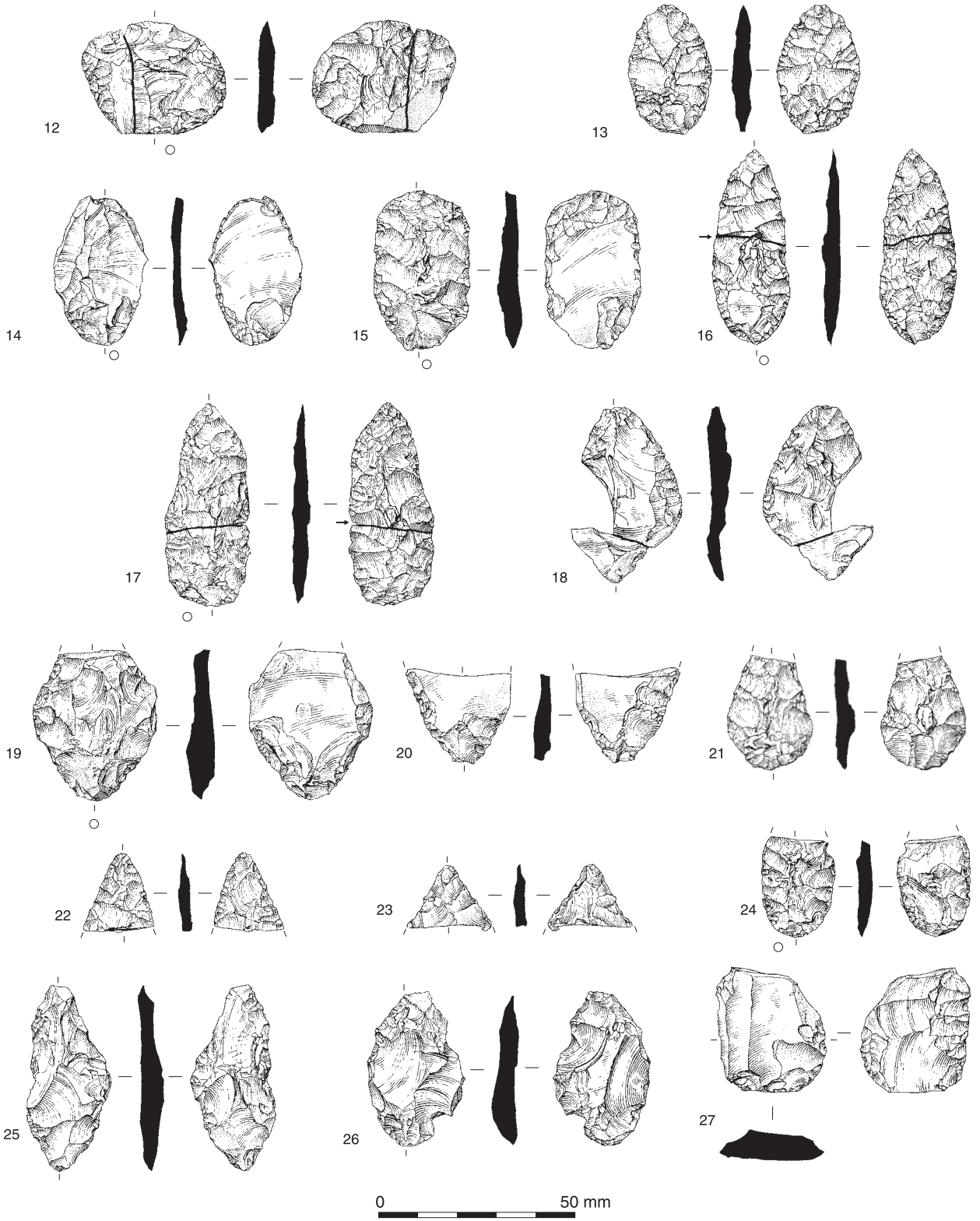


Fig. 6.18 Ex1-3 struck flint

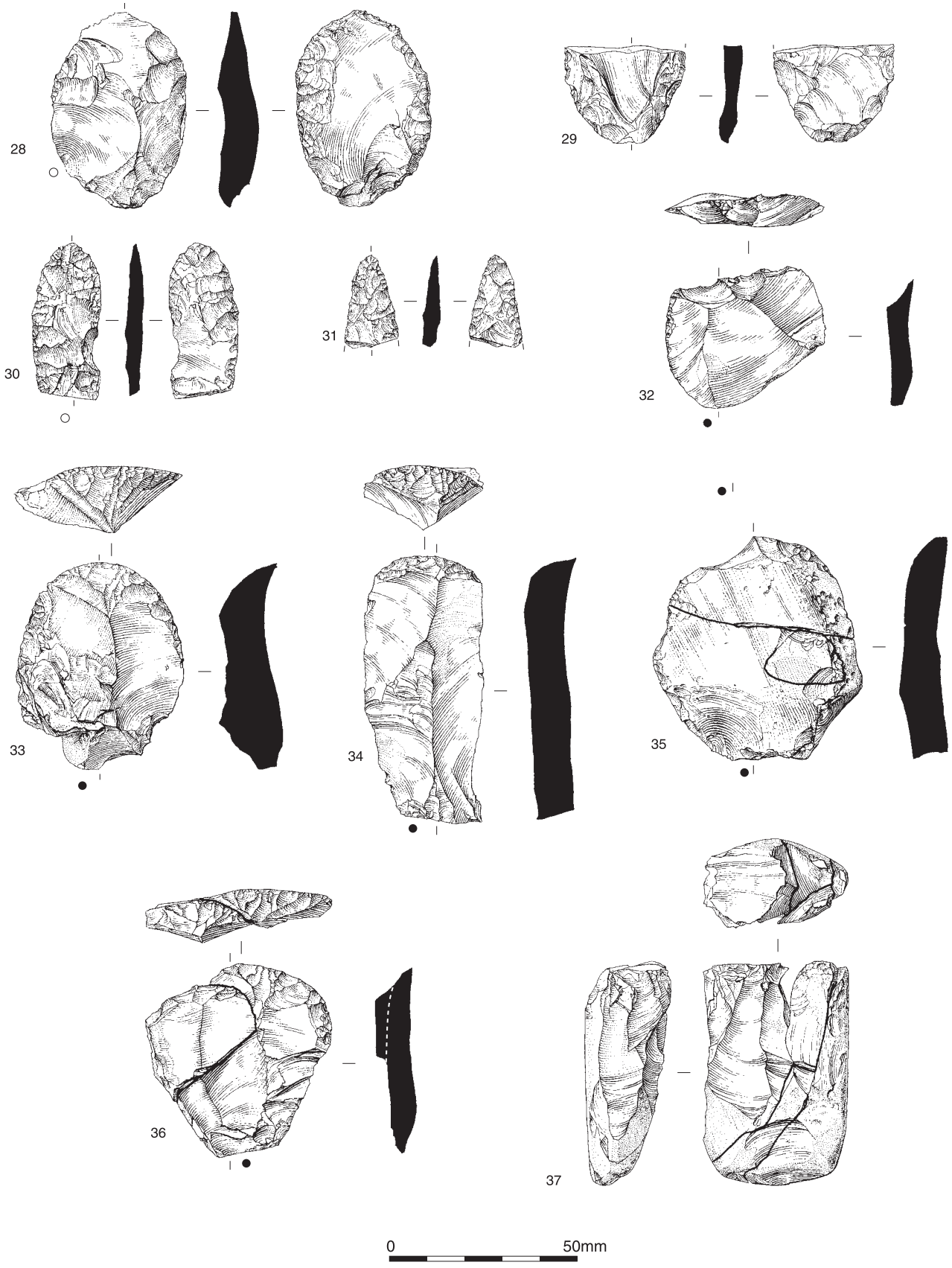


Fig. 6.19 Ex1-3 struck flint

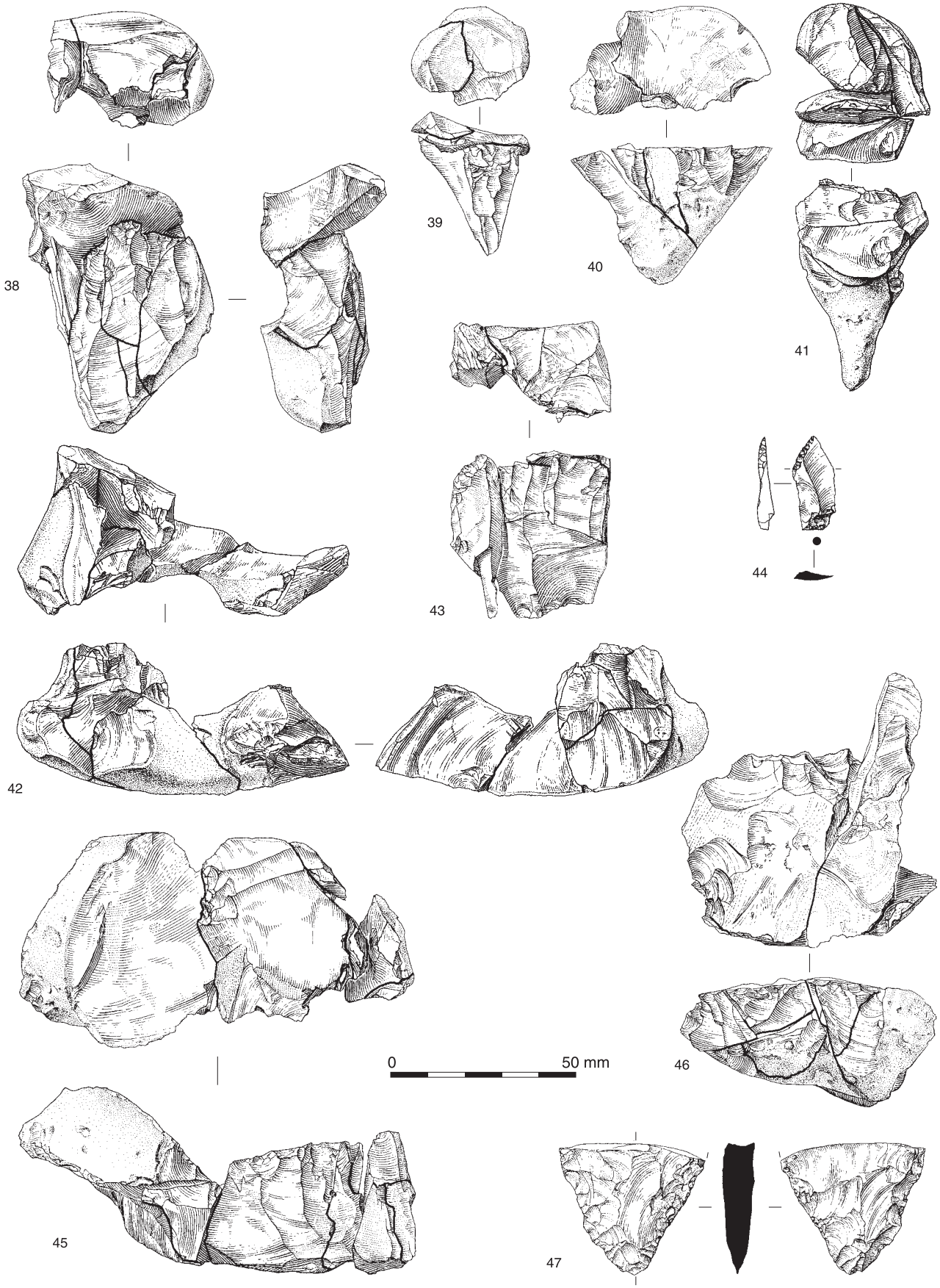


Fig. 6.20 Ex1-3 Scatter 10010

41 Flint scatter 10010. Refit group 1. This small sequence of a flake core (SF 61094) with five refitting flakes displays four changes in flaking angle. The regular change in flaking direction is aimed at producing the maximum flake length on this small irregular core.
42 Flint scatter 10010. Refit group 1. This sequence consists of a single platform flake core (SF 62108) with three refitting flake removals. A broken cortical trimming flake from another sequence has also been refitted
43 Flint scatter 10010. Refit group 3. Three flakes and a piece of irregular waste refitted to a multi-platform flake core.
44 Flint scatter 10010. SF 61465. Truncated flake.

Other
45 Flint scatter 631. Refit group 11. Core and flakes.
46 Flint scatter 998. Refit group 71. Cores and flakes.
47 Tree-throw hole 92, fill 157. SF 5680. Laurel leaf, fragment of tip.
48 Tree-throw hole 616, fill 586. SF 10506. Leaf arrowhead manufactured from dark grey/black chert.
49 Layer 131, square 798. SF 10856. Unfinished leaf arrowhead.
50 Layer 672. SF 10612. Flake from polished implement.
51 Layer 131. SF 10346. End and side scraper manufactured on a long flake.
52 Layer 672. SF 5860. Thumbnail scraper.
53 Flint scatter 1062. SF 21545. End scraper, manufactured on a broad, hinged flake.

Neolithic animal bone from Areas Ex1-3 and 11
by Gillian Jones

The Neolithic animal bones from Areas Ex1-3 and 11 were from the channel, floodplain, floodplain edge and gravel terrace (Table 6.9), and almost all dated

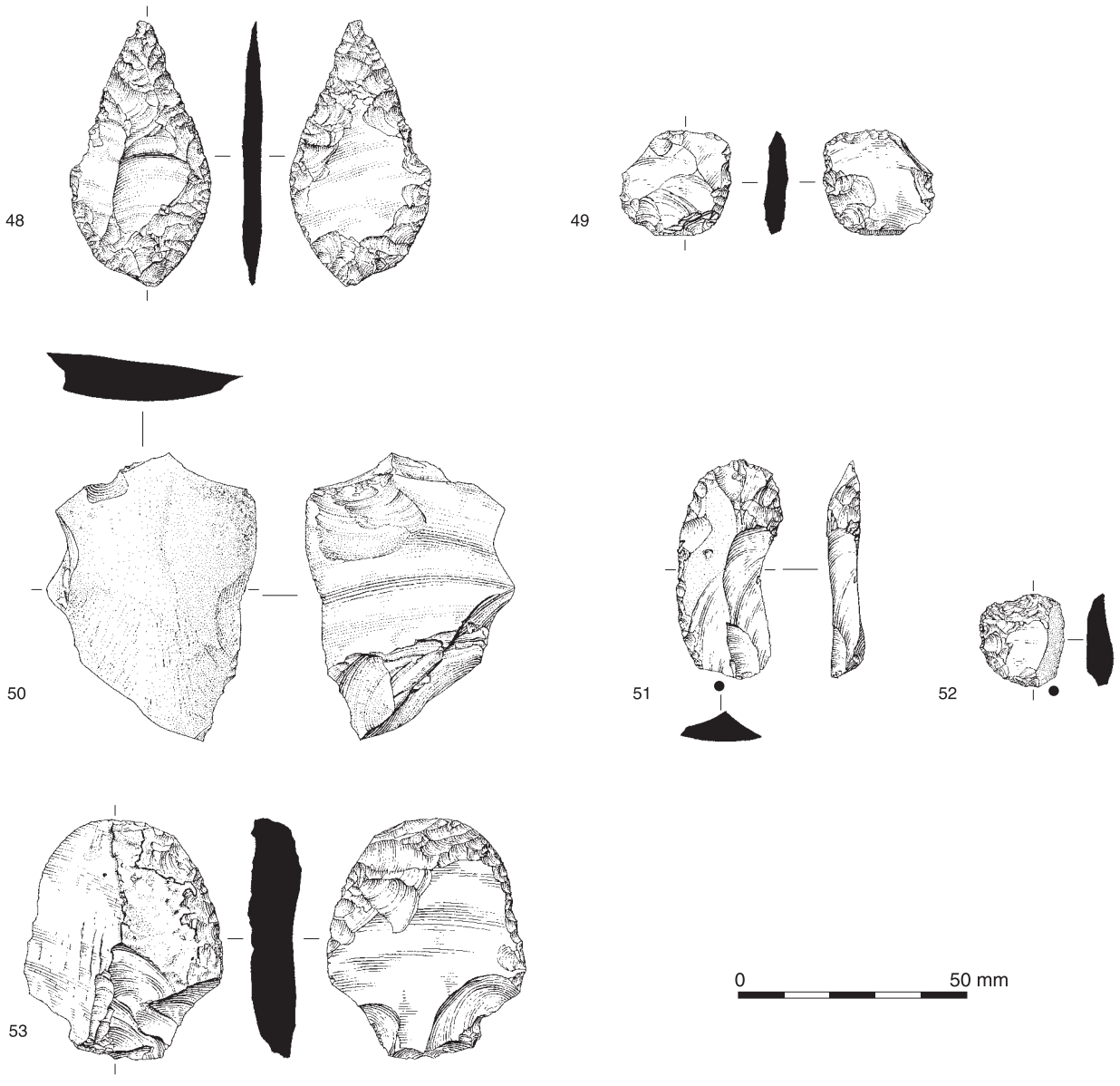


Fig. 6.21 Ex1-3 struck flint

Table 6.9 Animal bones from Neolithic contexts in Areas Ex1-3 and 11

Area	*Description*	*Phase*	*Cattle*	*Sheep/goat*	*Pig*	*Dog*	*Deer*	*Other*	*Ident*	*Unid. Large*	*Med*	*Indet.*	*Total*
EX1	Channel, 692	E Neo	6	1	6	1	3 red, 1+1a roe	beaver 9, fox 1, pike[2]	29	11	3	11	54
EX1	Terrace	E Neo	1						1				1
EX3	Channel	E Neo								1			1
EX3	Channel	E Neo	30[1]	1				pike[2]	2	1			3
EX3	Layer	E Neo	3				2 red		5	2			7
Subtotal		E Neo	10+1skel	2	6	1	5+2	10	37	15	3	11	6
EX1	Floodpl.	E-MNeo	4		1		4 red		9	9	5	2	25
EX1	Fl.[3]	E-MNeo	11	2			1 red		14	23	13	9	59
EX1	Terrace	E-MNeo								4	2	7	13
EX2	Fl. edge	E-MNeo	5	1	3		2+2a red	1 bear[4]	14	11	6	4	35
EX2	Levee	E-MNeo								1	1		2
EX3	Floodpl.	E-MNeo								8	1	1	10
Subtotal		E-MNeo	20	3	4		9	1	37	56	28	23	144
Area 11	Fl. Edge	Neo	1				3 red		4	2		2	8
EX1	Floodpl.	Neo								1		1	2
Total		Neo	31+1skel	5	10	1	17+2	11	78	74	31	37	220
Percent.			41	6	13	1.3	22,2.6	14	100				

a – antler.

[1] – 30 bones (+16 ribs) from the cattle skeleton, Context 10190, counted as one bone in totals. Fl.- floodplain.

[2] – Two bones of pike are not included in totals.

[3] – Contexts associated with flint scatters near a hearth.

[4] – For dating of the bear bone, see text. Totals include 22 bones from sieving, 1 sheep/goat ([3]), the rest unidentified.

to the early or early/middle Neolithic. Most were from cattle, (41%) and red deer (22%), with pig and sheep/goat present in smaller numbers (13% and 6%). These four species were found in most contexts (11, 6, 3 and 5 contexts, respectively). Species found in only one context were dog, roe deer, beaver, fox (all from 692) and brown bear (935). Two of the cattle bones were identified as aurochs, one as wild or domestic, and the rest as domestic. Pike was present in two contexts. The important groups from the early Neolithic are those from the channel in Area Ex1 associated with pottery and struck flints, and a disarticulated partial domestic cattle skeleton from the channel in Area Ex3. The floodplain adjacent to the channel in Area Ex1 had a large early Neolithic activity area upon it, where arrowheads were manufactured. Of note from the early to middle Neolithic contexts was a bone from a brown bear (*Ursus arctos*) of unusually large size.

The preservation of the bones in the channel was excellent, whereas those from the floodplain were, as with other areas, much eroded and fragmented. Burnt bones were found associated with the early/middle Neolithic flint scatters and hearth in Area Ex1 (14 bones, black, calcined and mixed), with few others burnt (one in Area Ex1, context 692, three from Area Ex3, context 10010). Butchery marks were rare (three bones from Area Ex1, context 692, from cattle, fox and roe antler; and one cattle tibia from Area Ex2, context 935).

From the channel deposit in Area Ex1 (692), all of the bones were exceptionally well preserved. There were six bones of cattle of domestic-size (two measurable), and also six from pig. Both included some immature bones. Butchery marks were observed on a cattle femur (two heavy chops and 26 light marks) and the fox (see below) but not on other bones. One bone from a red deer (the upper femur shaft) was burnt and filled with ash. The cattle femur was dog-gnawed. The species presumed to indicate food remains are cattle, pig, red deer, roe deer, sheep/goat, and pike. The unidentified bones included ribs and vertebrae, and were judged from their size to be probably from both red deer and cattle. The pike bone was a dentary from a very large pike, of estimated length *c* 1m (identified by A K G Jones). The identifications of dog and fox are discussed later. The beaver bones were probably from one individual, and are described below. A human bone was also found in this context (Plate 6.5). The presence of nine species in a sample of just 29 identified bones is unusual. It may reflect a particular availability of meat to those present at the site, or, given the human bone, may indicate that the bones deposited here were specifically selected, rather than the chance product of activities nearby.

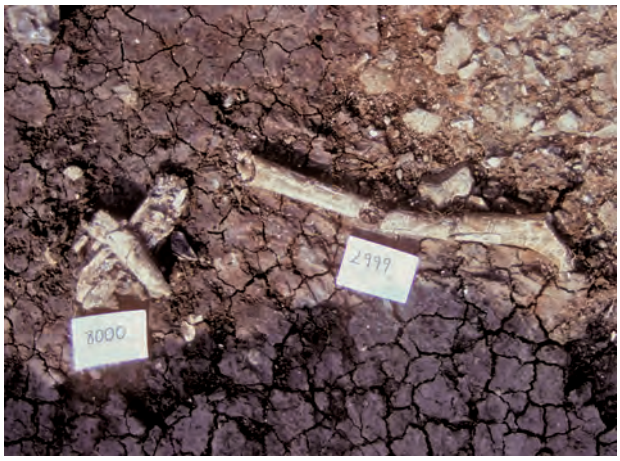


Plate 6.5 Human bone and flint scatter on floodplain in Trench 202

A partial cattle skeleton was found in a small trench (10190) within the palaeochannel in Area Ex3. It was disarticulated when found, but the bones are almost certainly from one individual. The radiocarbon date, taken from the right mandible, is 3650-3370 cal BC (BM-3177: 4750±50 BP). The bones lay within the second phase of the channel, although the radiocarbon date range is the same as that for the beaver-gnawed wood in the first phase in Area Ex1.

The bones found, with maturity and size information, are summarised on Table 6.10. They were very well preserved, mostly complete, and no butchery marks were observed. Much of the skeleton was present, although there were few skull bones, more bones from the left than the right side, and no astragali or calcanea. The teeth indicate a young adult, aged about 30 to 36 months at death and the shape of the pelvis indicates a female. It appears, from the lack of damage to the bones, that the meat was not used, but the disarticulation and absence of some bones suggests some movement and loss of bones before the deposit was covered in silt. There is little evidence to suggest deliberate deposition as with the Bronze Age skeletons in Area 10, but the possibility cannot be excluded.

Four bones bore signs of pathology or anomalous form. One rib was broken ante mortem, quite near the articulation. There is formation of new bone around the break and the two parts may have been partly rejoined (only one part, 343mm long, survives). Since healing was occurring, it is not likely to be the cause of death. It does, however, indicate an injury, and probably suggests difficulties in handling the cattle. The other anomalies present are quite common, and may be considered non-pathological. On the left metacarpal, there was an area, 6 x 7mm, of granular irregularity, on the proximal medial facet. The right one was similar. The second phalanx bore an irregularity 7 x 2mm on the distal, achsial articulation (Baker and Brothwell 1980, 110, Type 1).

The shoulder height of this early Neolithic cow can be estimated at 1.16m. This compares with 1.07 and 1.05m for the two Bronze Age cow skeletons

Table 6.10 The cow skeleton from the channel in Area Ex3, context 10190

			Cf. Ull.	*Ht est.*
Skull	Hyoid			
Mandibles	L and R; L. I1 to I3 missing, I4 E; P2 a, P3 c, P4 b, molars h g d. Stage JS Ecd	L. Tooth Row 137, (15a) 71mm, (11) 99mm, (15c) 33		
Axial	1 cervical (6th), 3 thoracic, 2 caudal vertebrae 16 ribs, 11 of them with the articulation	fusion incomplete one with pathology		
Fore limb	L humerus, proximal py (fusion line not fully filled with bone) df	GL 273, GLC 242, SD 31.5, Bd 76.5, BT 68, HTC 29.3, HT 41.6	78.9%	1.154m
	R + L radius/ulna, rad pf df (line visible), ulna pu du;	L. radius GL 272, Bp 74.4, BFp 68.7, SD 35.3	80.7%	1.170m
	L + R metacarpal, df; pathology	L. GL 199, Bp 51.7, SD 29, Bd 54.7, BFd 54.7, Dem 24.1, Dvm 29, Dim 26.3	81.2%	1.232m
Hind limb	R + L pelvis, acetabulum f, female	L. SH 37.7, LFO 82, LA 66.4		
	R femur	GLC 316, SD 31.3	75.6%	1.021m
	R + L tibia, py, df	L. GL 334, Bp 86.4, SD 34.1, Bd 56.4, Dd 42.8, SDmin 26	79.8%	1.152m
	L metatarsal, df	GL 227, Bp 43.9, SD 25.6, Bd 50.7, BFd 50.7, Dem 23, Dvm 29.2, Dim 25.9	81.3%	1.237m
Hock	1 carpal, 1 tarsal (no calcaneum or astragalus)			
Phalanges	4 Ph1, pf ; Bp/Glpe	27.1/56.9; L fore periph		
	1 ph.2, pf, path.	27.5/57.5; L fore achsial		
		25.5/60.2; L hind periph		
		26.4/60; L hind achsial		

p - proximal, d - distal, u - unfused, y- partially fused, f fused. Mandible measurements as von den Driesch 1976, 56. The final columns show the difference in bone length cf. the Ullerslev wild cow (Steppan 2001) and height estimates (Fock's factors, in von den Driesch and Boessneck 1974).

from Area 10, and 1.19m for the one of unknown sex. When the height estimate is calculated (which uses data from modern cattle) a different value is obtained depending on which bone is selected (Table 6.10, final column). A higher value is found when using the radius compared with the humerus, and an even higher value is found when using the metacarpal. The same pattern is found for the hind limb. It indicates a difference in proportions, for the early Neolithic cow, compared with the modern. The lower limbs are relatively longer.

Compared with the Ullerslev wild cow, there is a similar pattern. The result is unexpected, and no immediate explanation is suggested. The average result, using long bone lengths, is 80%. Compared with later cattle (Iron Age cattle in ABMAP), the Area Ex3 cow is (for nearly all measurements) within the ranges but always above the average.

The cattle bones from Areas Ex1-3 and 11 include two which are, from their large size, almost certainly from aurochs: a radius (Area Ex1, context 672, proximal shaft, not measurable) and a centrotarsal (Area Ex1, context 416), and one, a second phalanx (Area Ex2, context 935), which is as large as the Ullerslev wild cow and is identified as wild or domestic. Other bones were probably all domestic cattle, that is, 28 bones and the skeleton. (For measurements, see Area 6 cattle measurements in Table 5.29 and Table 6.11). Evidence for age at death is fairly limited; two cattle bones were very immature (both early Neolithic from context 692); other bones, and mandibles from Area Ex1, context 720 (Table 6.11) are from both immature and adult animals.

Some of the bones from other species have been mentioned above. Sheep/goat and pig were present in small numbers. Identifications were checked carefully against roe deer, especially, for example, a pelvis (692), one of only two sheep/goat bones from the early Neolithic layers, the other being a tibia from a very young lamb (from the same context as the cow skeleton, 10190). Three sheep/goat bones were from early/middle Neolithic layers. Pig bones were more numerous than sheep/goat but occurred in only three contexts. Six were from early Neolithic context 692 (none measurable, three of them immature). Four were from the early/middle Neolithic layers, and included one very large humerus (Table 6.11). This is presumed to be from a wild pig. Other bones were of normal size, and are probably domestic pigs. The fairly high number of 'medium mammal unidentified' bones confirms the presence of sheep/goat/pig, especially in the early/middle Neolithic layers.

The dog and fox bones, both from early Neolithic Area Ex1 context 692, were studied using the reference collections of the author and the EAU, York, and both identifications were confirmed by K Clark. For the dog, 'the GL measurement exceeds the largest modern fox by 7mm, but falls within the ranges for Neolithic and Bronze Age dogs. The robustness of the Eton specimen supports confident identification as dog.' For the fox, ''at GL 114.7 this specimen falls at the lower end of modern foxes, and with Bp 13.5 and SD 9 it is larger than the Neolithic fox from Staines Road Farm. It is below the range for Neolithic and Bronze Age dogs, and can, with some confidence, be assigned to fox.' Under magnification, a cut mark is visible on the proximal articular surface, suggesting skinning or disarticulation, and confirming that the find is cultural, rather than a natural occurrence.

Red deer remains formed 22% of the identified bones, and occurred in six contexts. Two were antler and the rest were bones and are presumed to indicate animals hunted for meat. As noted above, some of the unidentified large mammal bones are probably from red deer. The possibility that red deer herds were managed, for example at the time of year when antlers are shed, is discussed elsewhere. Measurements indicate that the deer were large, with most measurements (Table 6.11) larger than any from Saxon/Norman Faccombe (Sadler 1990). Yalden comments (on the basis of antlers) that red deer were clearly much larger in prehistory, and

Table 6.11 Age and size data not shown elsewhere

Cattle	Ex1 416 centrotarsal (with meas. of a normal normal size ref. specimen in brackets, NW72)	Ht. at medio-anterior corner 17.4 (10.1)
		Max L of facet for T.2+3 46 (28)
	Ex1 720 E-MNeo mandible	molars: k k –; Stage Hest., *c.* 6-9 years.
	" mandible	molars: – – j; Stage H/J, *c.* 7-10 years.
	" set of lower teeth	molars: g b Un; Stage Db, *c.* 15-19 months.
Sheep/goat	Ex2 935 E-MNeo Lower tooth	M3 at 7A/7G; Stage E3+/F58, *c.* 22mo-4 yrs
	Ex3 10190 ENeo tibia	very immature, length of shaft 84mm
Pig	Ex1 692 ENeo humerus	SD 23.9, Bd 51.3, BT 41, HTC 25.4 (very large)
Dog	Ex1 692 ENeo tibia	GL 161, SD 11.1, Bd 21.1
Fox	Ex1 692 ENeo radius	GL 114.5, Bp 13.5, SD 8.7, Bd 17.6
Red deer	Ex1 692 ENeo scapula	GLP 56.3, SLC 33
	A11 10910 scapula	GLP 53.7, SLC 32.4
	" R astragalus	GLl 55, Bd 34.6, DL 30
	" L calcaneum	GL 123

Age estimates from Jones and Sadler (2012) and Jones (2006).

Table 6.12 Beaver bones from the channel in Area Ex1 692

Skull	Premaxillae, maxillae, nasals, frontals, parietals, inter-parietal, squamous temporals, malars, mastoid processes; other fragments; no occipital bone	Sutures unfused or partially fused, counted on excavation as 45 fragments, nasal length 52mm
	incisors in wear, width at occlusal surface	7.6
	upper cheek tooth row	34.6
	Left cheek teeth: length/width[1] 1st to 4th	8.8/7.9, 8.1/7.1, 7.0/7.0, 6.1/5.8
Mandibles	Left: Driesch 1976, 64, as for hare	(1) 110; (2) 35.2; (3) 61; (4) 26
	Driesch 1976, 63, as cat	(8) 55.6
	incisor, width at occlusal surface	7.0
	cheek teeth: length/width[1] 1st to 4th	8.7/6.9, 7.2/7.3, 7.9/6.9, 7.7/6.2.
Axial	1 cervical vertebra	p u, d u
	5 ribs (counted with 'Indeter. unidentified')	
Long bones	L scapula, fused, SLC 14.1, HS 86.6	R femur, p u, d u
	L humerus, p u, d f, Bd 31.3, BFd 20.2	L tibia prox unfused epiphysis
	L ulna, p u, d u	

p - proximal, d - distal, u - unfused, f - fused. [1] length/max width at occlusal surface.

that the size of red deer nowadays is due to their poor habitat, as those taken to New Zealand have resulted in bigger deer.

The unidentified bones were quite numerous (at least 142), and are worth considering, as they indicate greater cultural activity than if the identified alone are noted. For the floodplain material, most were much broken, the total excavation count number being 806 (the bone-count recorded on site, see Appendix 3). Those classed as 'indeterminate' were too eroded to be diagnosed as 'large' or 'medium'-sized (cattle/red deer-size or sheep/pig-size).

Beaver

The beaver bones are probably from one individual. When found, they were at least partially articulated and lying within what is believed to be the remains of a beaver lodge. All bones were very well-preserved, hard and dark in colour, and the surfaces had suffered little damage or erosion. Most of the skull was present though much broken, with one vertebra, a few ribs, and five long bones (Table 6.12). The animal was immature. Measurements indicate similarity with recent European beavers (Environmental Archaeology Unit, York, EAU 297, 235 and 237). No butchery marks were observed.

Six other beaver bones were found at the site in Areas 6, 10, 1, 5 and an evaluation trench, of Mesolithic to Bronze Age date. Although no butchery marks were observed, beavers were probably hunted for fur; there are numerous cut marks on beaver bones, for example, from Neolithic Swifterbant and Hazendonk culture contexts in the Netherlands (Zeiler 1987). Beavers are discussed in Chapter 3 above, and the Eton beaver data is discussed by Coles (2006).

A brown bear scapula from Area Ex2

A fragment of scapula from brown bear was found in layer 935 in Area Ex2 (SF 21322), from the floodplain edge next to the palaeochannel (Plate 3.17). The bone was found some 15m from the channel edge. Other bones from this context were from cattle (one very large), pig (one very large), red deer and sheep/goat (Table 6.9). There were no specific concentrations of bone, but a cluster of early Neolithic struck flint (1001) was found only 3m to the north-west, and another larger cluster some 10m to the west. The specimen was initially identified at the Environmental Archaeology Unit, York, and was later studied by R Sabin, at the Natural History Museum, London (NHM ID.2000/34, letter of 20/07/2000).

The bone was of similar preservation, or rather less eroded, compared with other bones from the layer, so there is no indication that it is a residual earlier find. No butchery marks were observed, but given the finds of other hunted species, it was probably hunted. Cut marks on bear bones have been found on other Neolithic sites (eg at Hazendonk, the Netherlands: Zeiler 1987).

The fragment of scapula was examined by R Sabin, who reported that, 'it was compared with specimens held in the Natural History Museum osteological

Table 6.13 Measurements of the Eton bear scapula, compared with others in the Natural History Museum

	*M-l diam**	*GLP*	*LG*	*BG*
Eton Ex2, 935, SF21322	32.5			
BM(HM) ZE 1963.11.7.1 Kodiak Island race	33.5	98.7	78.5	52.2
BM(NH) 1878.1.16.1 Eastern Europe, female	26.7	58.7	50.1	33.2

*medio-lateral diameter between the glenoid cavity and base of the scapula

reference collections. It is the distal portion of the scapula of a large carnivore, and compares most favourably with examples of brown bear, *Ursus arctos*, held in the collections. The specimen comprises much of the glenoid cavity, the neck of the scapula and the partial base of the scapular spine. The specimen exceeds in size all the NMH scapulae except for one, from a brown bear originally from the Kodiak Island (Alaska) race, *Ursus arctos middendorffi*. This specimen (BM(NH) Reg. No. ZE.1963.11.7.1) is recorded as the largest brown bear to have been held in captivity in the UK (from Whipsnade Wild Animal Park). *Ursus arctos middendorffi* is considered to be the largest subspecies of brown bear'.

Because of the incomplete nature of the Eton specimen the standard measurements could not be taken. The only measurement possible was the medio-lateral diameter between the glenoid cavity and the base of the scapula. This is shown on Table 6.13, with the same measurement from the Kodiak Island specimen and a female from Eastern Europe in the collection, with the standard measurements (von den Driesch 1976).

The occurrence of brown bears on archaeological sites in the UK has been surveyed by Yalden (1999), and more recently by Hammon (2010). Bears become increasingly rare from Neolithic times on, although Caledonian bears are quoted as having fought in the Coliseum in Rome. The latest evidence of bears still living wild in Britain is from Kinsey Cave, North Yorkshire, where a bone has been radiocarbon dated to the early fifth to early sixth century AD (Hammon 2010).

Areas 20 and 24 and their surroundings: early and early/middle Neolithic evidence
by Tim Allen

Early Neolithic pottery was recovered from later features in both Areas 24 and 20 (Fig. 6.22). Four sherds from three separate contexts came from Area 24a, two others (4g) from different ditches in Area 24, and a further eleven residual sherds (26g) are dated as probably early Neolithic. The pottery was widely spread, although it was concentrated towards the south. Three sherds of early to middle Neolithic pottery also came from a shallow pit or tree-throw hole (4252) within Area RC2 adjacent (Fig. 6.22), and probably date the feature. This feature was 1.20m in diameter but only survived 0.11m deep. Its single fill (4231) was a mid-brown silty sand with some 30% charcoal. Area 20 contained three sherds (11g) of early Neolithic pottery from three separate ditches in the eastern corner of the site. A few sherds of probably middle Neolithic pottery were also found in each of Areas 24a, 24 and Area 24b (1-3g, 1-4g and 3-14g respectively).

On the east side of Area 20, a fragmentary calcaneum probably from an aurochs was found in layer 15728 (Fig. 6.22) together with a flint blade and a tested nodule. This layer was cut by the Iron Age boundary ditches crossing the site, but whether this was the fill of a tree-throw hole, or an early Holocene soil filling a slight hollow, is unclear. As aurochsen are known to have survived in the Thames Valley into the early Bronze Age, this deposit could conceivably have been contemporary with the middle Bronze Age enclosures, but is more likely to belong with either the Mesolithic or early Neolithic activity in this area.

A cluster of tree-throw holes containing struck flints was found at the east end of Area RC1 (Fig. 6.22). Tree-throw hole 4047 had two fills (4046 and 4024), which included 14 and 20 struck flints respectively. The tree-throw hole was cut by a gully (4030), whose fill at this point also contained 14 struck flints, almost certainly residual from the tree-throw hole. Another tree-throw hole to the south-east (4015) also contained 13 worked flint flakes and 3 fragment of Ebbsfleet Ware pottery (fill 4016). Another 7 worked flints including a backed knife were found in a further tree-throw hole (4048) south-east of 4015. East of this again another tree-throw hole, 4006, was partially excavated, and contained 19 struck flints including an end-and-side scraper and 6 sherds of Neolithic pottery, three of them decorated, and all probably Ebbsfleet Ware. This suggests that there was a focus of early to middle Neolithic occupation in the vicinity.

In Area 18 to the south-east early Neolithic sherds were recovered in evaluation, and during the Watching Brief in Area 14, a burnt area 2m by 1.5m across with a substantial part of a Carinated Bowl upon it was found on the floodplain west of the former Thames channel (Fig. 7.41, SF68019).

Earlier Neolithic pottery from Areas 20, 24, 24a and RC1-2, the watching brief in Area 14 and from evaluation west of the former Thames channel
by Alistair Barclay

Early Neolithic

A total of 66 sherds probably of early Neolithic date were recovered from these areas (Fig. 6.22). Some 41 sherds (130g) came from the RC1 and RC2, Area 20 and 24 excavations, a further 5 sherds from the evaluations on Site F West, a crushed vessel (450g) from Area 14 and another 19 sherds (72g) from evaluation on Site F East. Most of this pottery is in an abraded condition and was from secondary contexts, and may simply reflect the redeposition of surface material. A single crushed Carinated Bowl was however recovered from a burnt area in Area 14. The only other form represented was a slack shoulder (from Trench I/10/1), although the range of fabrics, most predominantly flint-tempered (F1-2/EN, FA1-2/EN as well as sandy fabric AF1) is consistent with pottery of this date. In the absence of featured sherds it is only possible to assign this material to the round-based Bowl tradition of the early Neolithic. The Carinated Bowl can be assigned a date within the range 4000-3650 cal BC.

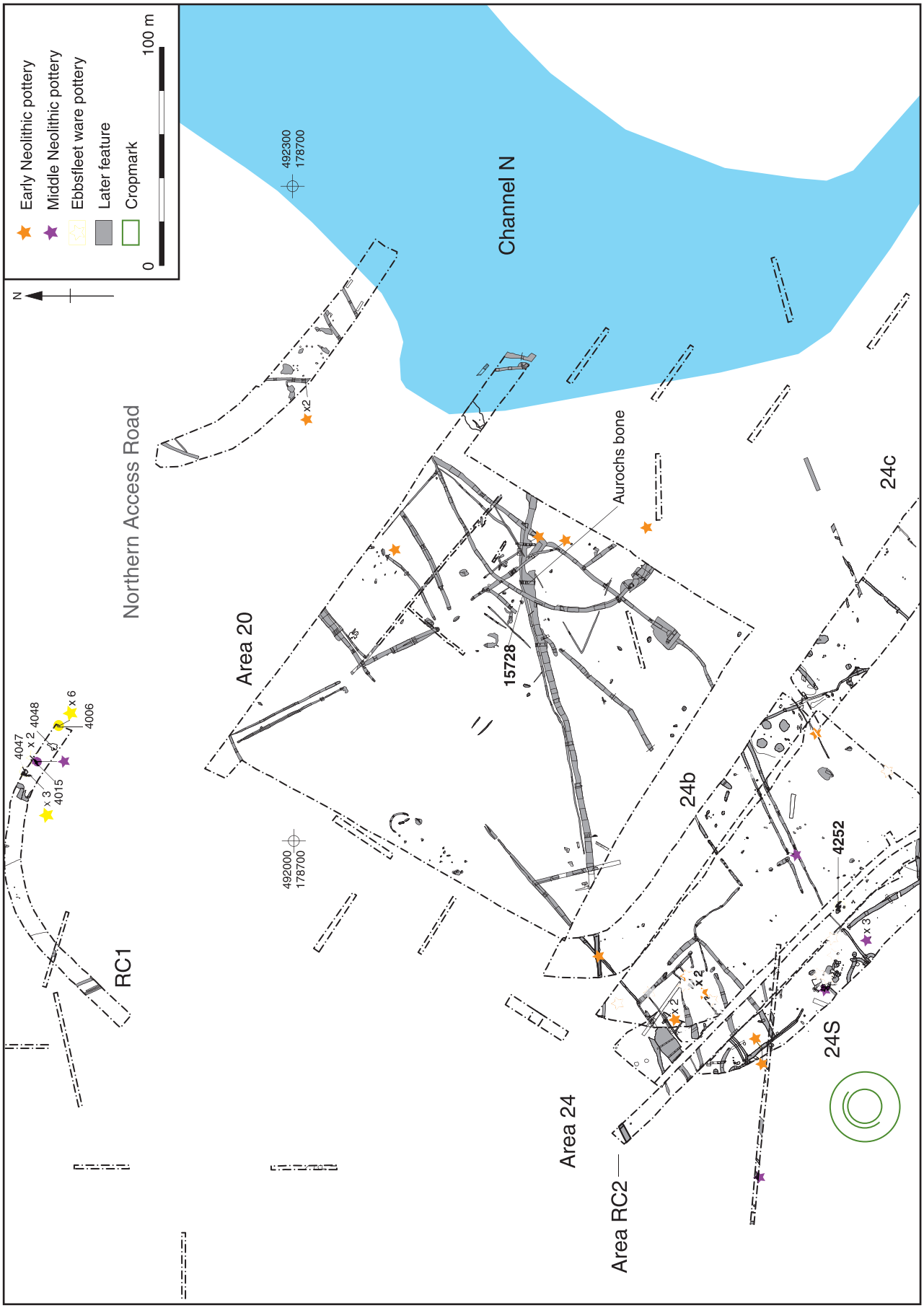


Fig. 6.22 Plan of Areas 20, 24, RC1 and 2 and NAR

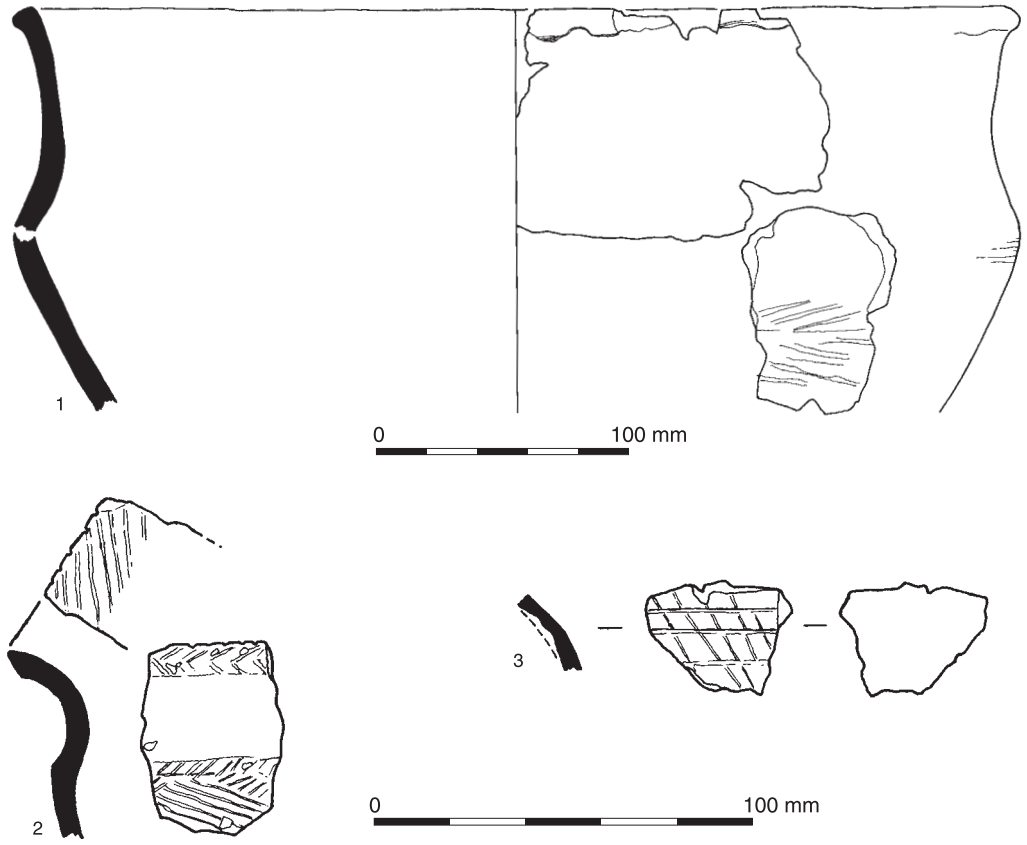


Fig. 6.23 Early and early/middle Neolithic pottery from the Area 14 watching brief (1) and from RC1 and 2 (2-3)

Illustrated catalogue (Fig. 6.23)

P1 Watching brief. SF 68019. Early Neolithic. Carinated Bowl. Rim and shoulder fragment from a plain shouldered bowl. Fabric F3/EN. Firing: ext. reddish-brown; int. and core greyish-brown. Condition average.

Early/middle Neolithic

Sixteen sherds (90g) of early/middle Neolithic pottery total were recovered from these areas of the site. There were made using flint-tempered fabrics (F1-3/EMN; FA3/EMN; FQ3/EMN). Four contexts on RC1 (4006, 4011-2 and 4016) produced a total of 11 sherds (62g) of Ebbsfleet Ware pottery. A single body sherd was recovered from Area 24, three sherds from the adjacent RC2, and one from Area 24a south of that. The sherd from Area 24 was in fabric FQ3/MN and was recovered from Bronze Age ditch 14012. The use of both flint and quartzite to temper the same fabric in Peterborough Ware vessels has been noted at other sites within the Eton Rowing Course (eg Area Ex1).

The small assemblage includes featured sherds from at least three vessels. The most complete is the vessel (P2) represented by the refitting rim and shoulder sherds. This thin-walled shouldered vessel, which has a concave neck and out-turned pointed rim, is a typical Ebbsfleet form. The neck sherd, P3, is almost certainly from a similar type of vessel. The use of linear decoration and motifs is consistent with this substyle. However, the complex nature of the body decoration on P2 is unusual. A neck sherd from a third vessel comes from context 4006 (SF 14250). The only other featured sherd is the small body sherd with twisted cord impressions.

Illustrated catalogue (Fig. 6.23)

2 4006. SF 14246-7. Ebbsfleet Ware. Refitting rim and shoulder sherds. Shouldered bowl with everted rim. Rim is decorated with a finger-nail impressed herring bone motif. Rim interior is decorated with incised parallel lines. The shoulder is marked with a horizontal row of oblique finger-nail impressions. Below the shoulder the vessel is decorated with an interlocking geometric pattern infilled with closely spaced parallel incised lines. Fabric F2/EMN. Colour: ext. reddish-brown; core and int. black. Condition worn.

3 4006. SF 14251. Ebbsfleet ware. Neck sherd with incised lattice on the interior surface. Fabric F3/EMN. Colour: reddish-brown throughout. Condition worn.

Discussion

The presence of early Neolithic pottery throughout the area, albeit in small quantities, reinforces the impression of widespread activity provided by the larger assemblages found in Areas 6, 10 and 16, and

on the floodplain south of the former Thames channel. No large focus has been identified north of the channel, although there is a putative causewayed enclosure just to the north-west at Dorney Reach. The Carinated Bowl was found lying upon a burnt area close to the edge of the palaeochannel in apparent isolation. This is a different context to that of other similar vessels (also semicomplete) within the Area 6 and 10 middens. The remaining early Neolithic pottery consists only of plain body sherds and, therefore, can only be assigned a broad early Neolithic date.

The Ebbsfleet Ware from RC1 is of interest as it was deposited within tree-throw holes, and in association with struck flint. Ebbsfleet Ware has not been found in any great quantity but does occur on other sites at the Rowing Lake, most notably Area Ex1 and the Area 6 midden, where it also occurs in a tree-throw hole. The slight concentration at the very north-west end of the site may relate to the supposed causewayed enclosure immediately to the north-west.

Early/middle Neolithic flint from Areas 20, 24 and RC1 *by Hugo Anderson-Whymark*

A low density of Neolithic material, much of it residual in Bronze Age and later features, was spread across Areas 20 and 24, RC1, RC2 and the Northern Access Road. The largest groups of flint in these areas were recovered from three late Neolithic pits in Area 24, and the flint as a whole is thus discussed in Chapter 8. Several small assemblages of flint which may date from the early/middle Neolithic, were, however, recovered from tree-throw holes in RC1.

Overall, an assemblage of 95 pieces of struck flint was recovered from RC1. The flint included 19 flints from tree-throw hole 4006, 13 from tree-throw hole 4015, 7 from tree-throw hole 4048, and 34 from tree-throw hole 4047 (and 14 from a gully (4030) which was cut into 4047; Fig. 6.22). Tree-throw holes 4006 and 4015 contained Ebbsfleet Ware and Peterborough Ware sherds respectively, and it is likely that the struck flint is also largely of this date. These small groups contain no cores and few cortical flakes, and only three retouched tools between them.

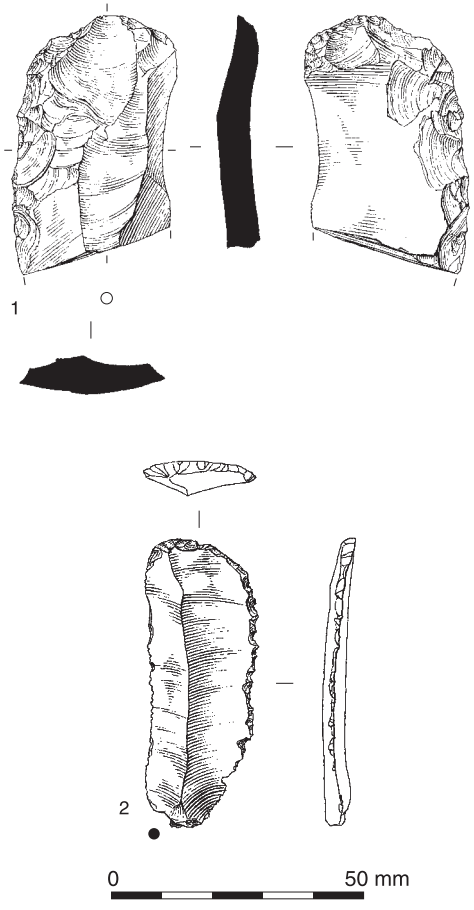


Fig. 6.24 RC1 struck flint

Catalogue of illustrated flint from RC1 (Fig. 6.24)

1 Context 4048. SF 14295. Backed knife, slightly invasive bifacial retouch on right hand side and proximal end, distal snap.

2 Feature 4030, fill 4017. SF 14217. Serrated blade, serrated and heavily used on left and right hand sides, distal scraping edge with semi-abrupt retouch.

Animal bones from Areas 20 and 24 *by Gillian Jones*

Mesolithic or Neolithic

A cattle bone from a silt layer was an immature, but very large calcaneum, almost certainly from an aurochs. The bone came from a deposit (context 15728) cut by two parallel Iron Age ditches, in an area partly obscured by alluvium, and was associated with two struck flints, one a broken blade, the other a tested nodule of poor quality. The calcaneum was too broken for the standard measurements, but has an estimated length (GL) of 169mm, which is larger than the Ullerslev aurochs cow (165.76mm; Steppan 2001). The minimum and maximum diameters of the shaft of the tuber calcis were 20.2 and 44.5mm.

Neolithic

From the north-west area of the site, a single animal bone of early to middle Neolithic date was found. It was a cattle molar tooth, from RC1, with typically poor preservation, the tooth surviving as 11 broken pieces and the dentine eroded.

Areas 3 and 5: a human skull and other earlier Neolithic finds from the palaeochannel
by Anne Marie Cromarty and Tim Allen

Although no early Neolithic features were identified in Areas 3 and 5 of the Eton Rowing Course, radiocarbon dates suggest that some of the oldest

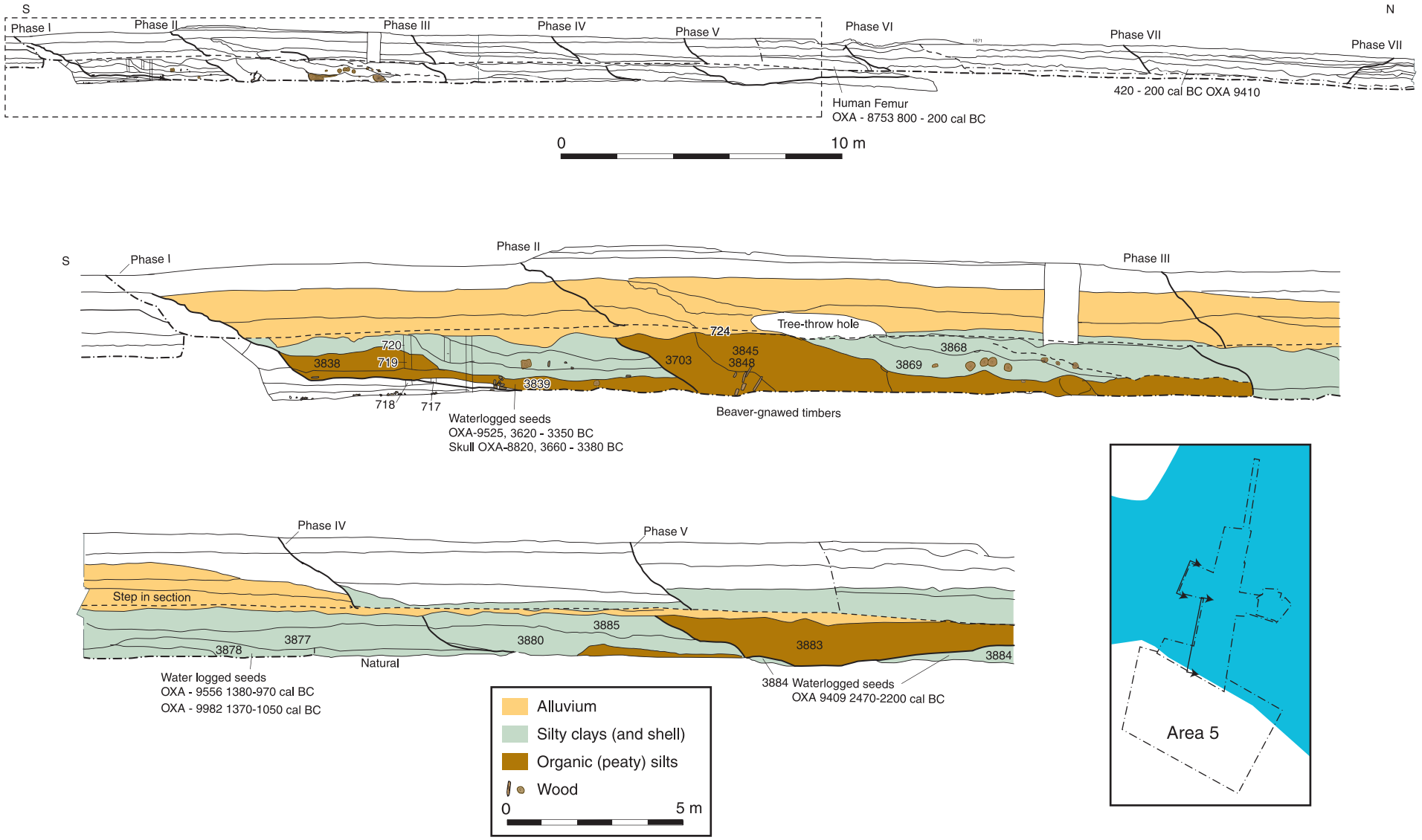


Fig. 6.25 Section of the palaeochannel in Area 5

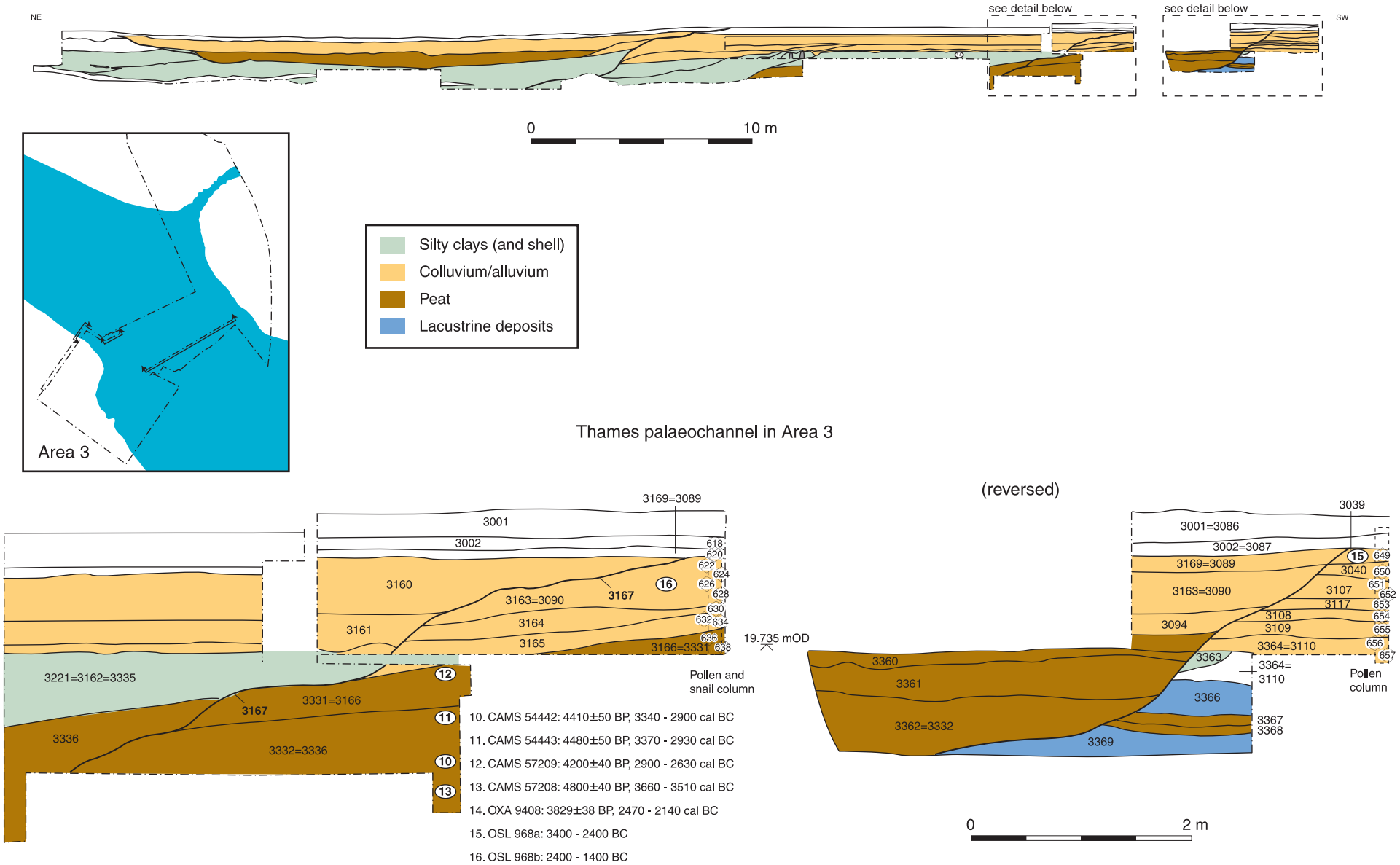


Fig. 6.26 Section of the palaeochannel in Area 3

Plate 6.6 Early Neolithic skulls from the Area 5 and Area 1 channels

fills of the palaeochannel which cut through these areas date from the earlier Neolithic (Figs 6.25-6). A human skull and a small assemblage of animal bone were recovered from these early Neolithic deposits (Plate 6.6).

At least eight major phases of the former Thames channel could be identified within excavation Areas 5 and 3. The earliest surviving 'cut' of this channel was dated to the early Neolithic by radiocarbon determinations carried out on waterlogged seeds recovered from some of the earliest sediments accumulated within the channel. The dates yielded on these seeds covered the period from 3620-3350 cal BC (OxA-9525: 4641±38 BP). A human skull (SF 46603) recovered from these deposits (fill 3839; Fig. 6.25) was also radiocarbon dated to within this period 3660-3380 cal BC (OxA-8820: 4795±50 BP). The skull was complete and belonged to an adult male aged upwards of 45 years. A 262g sherd of early Neolithic pottery (SF 46584) recovered from the overlying deposit (3838) further confirmed this date. A number of animal bones were also recovered from the early Neolithic channel deposits (3839 – the deposit containing the human skull in Area 5, and deposit 3362 in Area 3)

Skull 46603

A5 Context 3839, SF 46603
Preservation and completeness: skull only, condition good
Age: 45+ y
Sex: M
Cephalic index: dolicephalic
Dentition:

A
X X 6 5 X X X X X X X / X X X X
- – – – – – – - - – – – – – – –

Early Neolithic animal bone from Areas 3 and 5
by Gillian Jones

A total of 33 bones were identified from the early Neolithic fills 3839 (Area 5) and 3362 (Area 3) in the former Thames channel (Table 6.14; Figs 6.25-26). The quality of preservation was in great contrast with the much larger early Neolithic bone sample from Area 6. None were loose teeth, compared with 37% in Area 6. For all the bones, at least one zone was more-than-half complete, compared to 64% in Area 6, and the main long bones for cattle, sheep/goat and pig were on average 57% complete, which compares with 24% in Area 6. Butchery marks were observed on one cattle and two pig bones from layer 3839. Dog gnawing marks were seen on two bones, and none were burnt. The lack of small bones may be the result of bone-loss soon after deposition when the channel was relatively active. Once the deposit was formed, the bones were then preserved in waterlogged conditions and with a depth of soil above, isolating them from temperature and humidity changes near the ground surface, conditions which resulted in such poor bone preservation in the floodplain deposits. The number of bones found is too few to be very reliable, but cattle were again the commonest. Pig bones were more frequent than sheep/goat, and, like the Area 6 bones, bones from the main body were commoner than bones from the head.

The measurements of the cattle bones are shown with the Area 6 material on Table 5.29. All were identified as domestic cattle, none of them approaching the size of the Ullerslev wild cow. Of the measurements which are included in ABMAP (ABMAP n.d.), one is above the Iron Age ranges, and four are within the Iron Age ranges but all of them are above the average. Most bones were from

Table 6.14 Late Mesolithic to early Bronze Age animal bone from the former Thames channel in Areas 3 and 5

Area	*Features/ Contexts*	*Phase*	*Cattle*	*Goat*	*Sheep/ goat*	*Pig*	*Dog*	*Deer*	*Other*	*Identi -fied*	*Total*	*Burnt*
A5	3616, 3673	Late Mesolithic – E. Neolithic								0	7+2s	1+1s
A5	3839*, assoc. RC dates	E. Neolithic	14	1	3	7	3	roe 1	beaver 1	30	30	0
A3	3362	E. Neolithic						red 3a		3	3	0
A5	3602, 3835	Neolithic	3					red 1a		4	4	0
A5	pits/ tree holes	Prob. Neolithic	2					deer 1a		3	26	3
A3	pit, layer*	Prob. Neolithic	1							1	30	0
		Total Neolithic	20	1	3	7	3	6	1	41	93	3
		Percentages	48.8		9.8	17.1	7.3	14.6	2.4	100		
A3	3074*, 3094*	Late Neo – E. Bronze Age	1							1	8	

E. – Early; * - recorded by S. Crump; s - sieved. Minimum numbers of individuals for cattle, sheep/goat and pig were 4, 1 and 1.

the main body – 12 of the 14 cattle bones and all of the sheep/goat and pig – which probably indicates that occupation was nearby. Unexpectedly, four of the cattle bones were fairly complete left scapulae. In all of them the lower half of the bone was present (zones 1 to 5, Dobney and Rielly 1988) and one was complete. The probability of finding by chance four left scapulae in a sample of 14 bones is small (significant at the 1% level, p=0.0061), and suggests that these bones were preferentially selected. No use-wear or butchery marks were observed on them, but it is possible that they were stored or broken scapula shovels. Whole antlers were also found in the deposit, and there is an association of cattle scapulae with antlers as bone tools in the Neolithic (Serjeantson 1995).

Measurements of sheep/goat bones indicates a slender type of animal (radius Bp 24.2, SD 13; ulna DPA 22.2, SDO 18.6, Ld: 37.9). Pig measurements were within the range of measurements from late Neolithic Durrington Walls (Albarella and Payne 2005), which are considered to be all or almost all, domestic pigs (scapula GLP 35.9, SLC: 22.4; humerus SD 18.6, Bd: 42.8, BT: 34.2; radius Bp 34.2).

The presence of seven species in such a small sample is of note. A complete pelvis was identified as goat (by Sarah Crump, at Sheffield University). The three dog bones could be from one individual (a left and right pelvis; and left femur: GL 185, Bp 39.6, Bd 34.4). The femur is larger than the Neolithic dogs quoted by Harcourt (1974). Other species from 3839 were roe deer (a radius; GL 185.5, Bp 26.6, SD 14.8, Bd 24.9) and beaver (a tibia, Bd 21.6). The beaver was one of fifteen beaver bones from the site, from six contexts of Mesolithic to early Iron Age date. It is not a surprising find given the presence of the beaver-gnawed timbers. It could be a natural occurrence, although the association with cultural material means it is likely to be from a caught animal whose pelt was used.

The red deer antler from context 3362 was probably complete when in the ground. It was a shed right antler, with the bass, beam, bey and trey tine, and the crown with four points. That is, presuming the left one was similar, it was a stag of fourteen points. The overall length was 790mm. There was erosion on one crown tine, and wear on the points, which is probably natural (ie it occurred during life), and there was smoothing of the antler surface on the bey, lower beam and one side of the burr. The association with domestic animal remains means that the find is probably cultural, and it may have been stored intentionally, as antler is easier to work after soaking in water (Macgregor 1984). Results for the three measurable antlers are shown in Table App 3.7, with measurements of antlers from other areas of the site of Mesolithic to early Bronze Age date.

Marsh Lane East Site 2: an early Neolithic oval ring ditch and pits *by Anne Marie Cromarty, David Petts and Alistair Barclay*

Introduction

Early Neolithic activity at Marsh Lane East was represented by two pits and, perhaps, by the first phase of an oval ring ditch (which appears to have been subsequently recut in the early Bronze Age; Fig. 6.27). Whilst one of the pits contained a small assemblage of early Neolithic Plain Bowl pottery and worked flint, the second pit contained only a few flint flakes and the ring ditch no artefacts at all. The date of the latter two features is, therefore, uncertain, but the form of the ring ditch suggests that it may have cut in the earlier Neolithic rather than the Bronze Age.

Pits

The first of the pits (70056) lay in the centre of the excavation area, just outside the south-western edge

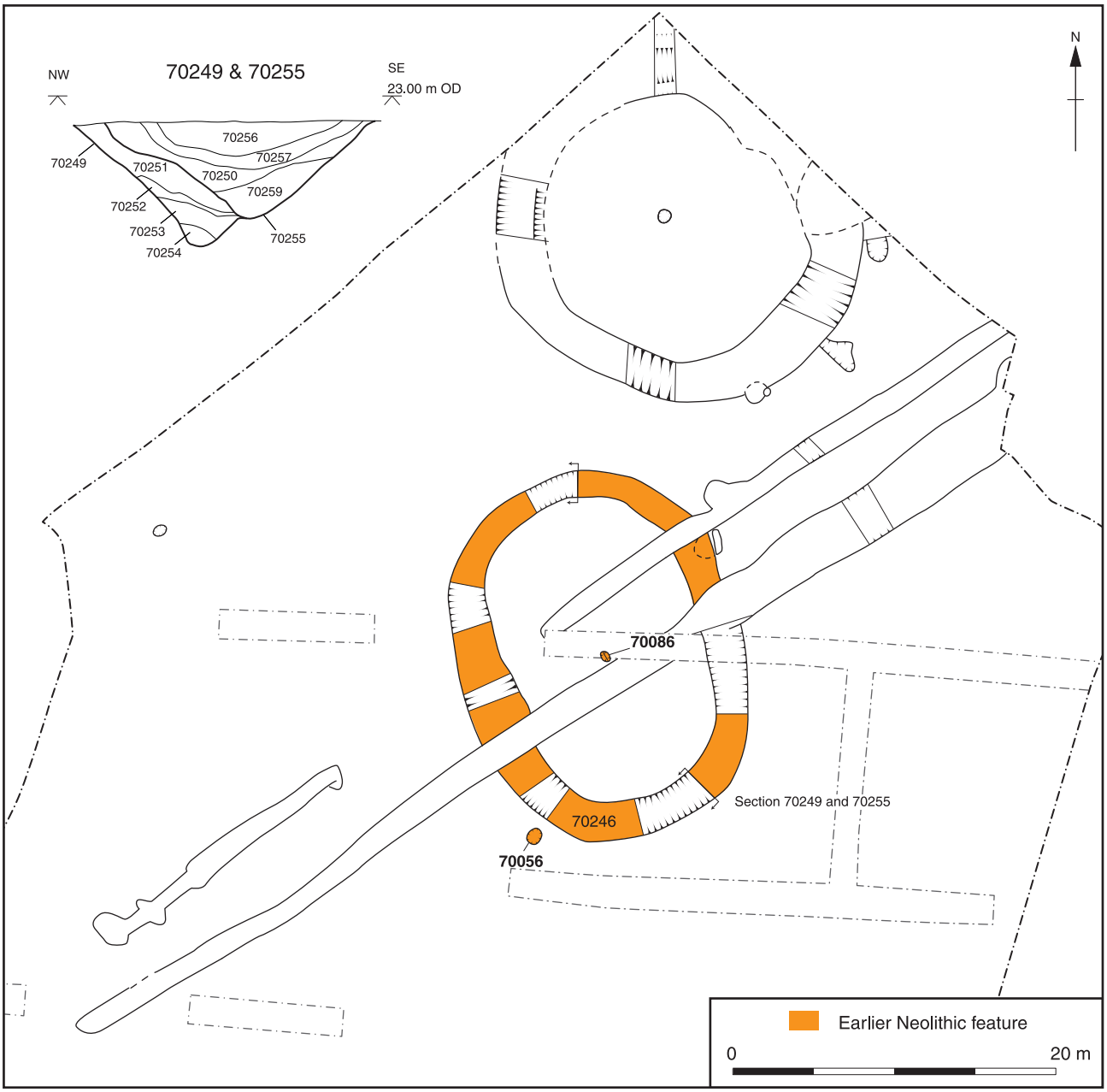


Fig. 6.27 (above) Oval barrow: plan and section, Marsh Lane East Site 2

of the oval ring ditch (70246), and appeared to have been heavily truncated by later ploughing (Plate 6.7). It survived as a circular cut measuring around 1m in diameter and 0.08m deep with a saucer-shaped profile. The pit had a single fill (70057) of friable, dark brown silt and contained eight pieces of worked flint including some simple retouched pieces together with 28 small fragments of early Neolithic Plain Bowl pottery.

Another heavily truncated pit (70086) containing flint was located around 11m north-north-east of this pit, in the centre of the oval ring ditch (70246;

Plate 6.7 (right) Pit 70056, Marsh Lane East Site 2

Plate 6.8 Pit 70086, Marsh Lane East Site 2

Plate 6.8). This pit had been truncated by Evaluation Trench D208, which clipped the edge of the feature (though the ring ditch had not been recognised within that trench) as well as by the later ploughing. This pit was oval in plan, measuring 1.1m by 0.8m in diameter and 0.19m deep. It had a sloping U-shaped profile. A single fill (70087) consisting of light brown clay silt with occasional small flint gravel contained a handful of broad flint flakes. Analysis of the soil showed it contained some seeds and very small amounts of charcoal but no traces of a burial. Again, the flint assemblage was too small to date, and no other datable artefacts were recovered from this feature, though its location strongly suggests that it may have been a primary feature of the ring ditch. The lack of burial evidence is not incompatible with this interpretation as will be discussed further below.

The oval ring ditch phase 1 (70246; Fig. 6.27; Plate 9.4)

The southern of the two ring ditches revealed during the excavation was oval in plan, measuring 21m by 15m (from ditch centre to ditch centre in each case) and lay on a NNW – SSE alignment. The southern of the six sections excavated through this feature revealed evidence of two phases of ditch (70249 and 70255; Fig. 6.27) on almost identical alignments. The later phase ditch (70146) was slightly offset and shallower than the first (70246). This was not seen with any certainty in any of the other excavated sections, suggesting that the excavation of the second phase ditch had removed all other trace of the first phase ditch elsewhere.

Where part of the original cut remained, it appeared to have had a V-shaped profile and to have been up to 0.96m deep by perhaps 2.08m wide (the uncertainty is due to truncation of the south-eastern side of the cut by the later recut). It was filled with deposits (70213-4, 70224 and 70251-4) of friable-tenacious mid brown-grey, or red-brown, silty clay with variable sand and gravel inclusions and iron staining similar to the underlying Pleistocene deposits and tree-throw hole fills into which it had been cut. These fills had all clearly been derived from the sides of the ditch and, perhaps, a barrow mound created using the upcast from the ditch, through natural processes with no anthropogenic inclusions. In fact, one of the tree-throw hole fills may have slumped directly down into the ditch cut from the tree-throw hole on the inner lip of the ditch.

The lack of artefacts relating to this first phase of the ditch make it impossible to date the feature with any certainty, but the elongated form of the monument suggests an earlier prehistoric date in the Neolithic, rather than the Bronze Age. The second phase of the monument is described in Chapter 9.

Discussion

The two ring ditches were almost certainly related to barrows, although no evidence for earthworks survived. The association of a Collared Urn with the central cremation pit within the other barrow confirms the date as early Bronze Age. The date of the oval ring ditch, however, is more ambiguous. The ditch had been recut and it is possible, but not certain, that the original ditch circuit was not complete. It could, for instance, have been U-shaped in plan, and it is notable that it is of similar size to other U-shaped enclosures of early and middle Neolithic date such as the early Neolithic U-shaped enclosure at Manor Farm, Horton, that lies only 10km to the south-west (Preston 2003, fig 2.6). As at Marsh Lane East Site 2, an early Neolithic pit was located just outside the ditch. The multiphased oval barrow at Radley provides another similar example (Bradley 1992; Barclay and Halpin 1999, fig 3.2). At Radley, the monument was rebuilt on a number of occasions and was transformed from a rectilinear enclosure to a U-shaped enclosure and then to an oval barrow. At Marsh Lane East Site 2 the monument could have had a similar sequence of development from a possible U-shaped enclosure to an oval barrow. A central pit with a few worked flints and charred plant remains could have been a deliberate feature within the monument belonging with either the Phase 1 or 2 ditch. Alternatively the monument could have been of a later date and

broadly contemporaneous with the round barrow to the immediate north. So-called twin barrows of early Bronze Age date are known from the Thames gravels and beyond. In the Upper Thames twin barrows occur at Radley (Barrow 16: Barclay and Halpin 1999, 163 and fig 5.11) and possibly at Foxley Farm, Eynsham.

In the Middle Thames Valley ring ditches of Neolithic date are known from a small number of sites most of which occur on the north side of the present river Thames. The cropmark of a similar oval ring ditch occurs 500m to the south-west (Gates 1975, map 28 and 47) and both sites are within 1.5km of the site of a possible causewayed enclosure at Dorney Reach (Oswald *et al.* 2001, 110 and fig. 6.1). It has been suggested that a double-ditched enclosure outside the Eton Wick causewayed enclosure to the south-east could be of a related date and form (Ford 1991-3).

Early Neolithic pottery from Marsh Lane East Site 2
by Tessa Machling and Alistair Barclay

In total 76 sherds (400g) of earlier Neolithic pottery were found scattered across Marsh Lane East Site 2, including 28 sherds from pit 70056 and residual material from the fills of the phase 2 cut of the oval ring ditch and the fills of the circular ring ditch (70014, 70116 and 70234). The pottery was all in a soft to hard, irregularly fired fabric with sparse amounts of poorly sorted fine to coarse grade, flint temper and moderate amounts of quartz sand (FAGM3). This fabric can be paralleled by fabric F9 at Weir Bank Stud Farm, Bray (Cleal 1995) and appears to be associated with early Neolithic Plain Bowl pottery (although, as Cleal (*ibid.*) notes, given the fragmentary nature of the pottery, the absence of decoration cannot be taken to show that it was not also associated with Decorated Bowl.

Area 16: early Neolithic pits and residual finds
by Tim Allen, Anne Marie Cromarty, David Petts and Ken Welsh

The only features in Area 16 of the Eton Rowing Course which can be assigned to the early Neolithic were two pits and, perhaps, two tree-throw holes (Fig. 6.28). Residual early Neolithic pottery and flint was, however, recovered from a number of other features distributed widely across the site.

The first feature was a roughly circular pit (9930; Fig. 6.28; Table 7.15) which had a bowl-shaped profile (1.33m wide and 0.31m deep) which lay towards the south-west side of the excavation. Its single fill (9931) contained 33 early Neolithic sherds together with two other early prehistoric sherds, 39 pieces of worked flint and 37 fragments of animal bone. A single fragment of human skull was also recovered.

A further 6 early Neolithic sherds were recovered from the single fill (9079) of the second small pit (9078) which lay some 55m to the north-east. This pit was oval in plan and had an irregular profile measuring 0.41m by 0.39m across and 0.22m deep (Table 7.15).

Fifty nine other early Neolithic sherds were recovered together with later pottery in other features (Fig. 6.28). Twenty six of these sherds were found in tree-throw hole 9026 (Fig. 6.29) which lay some 20m south-east of pit 9930. This tree-throw hole measured 3.5m across and was 0.75m deep. It also contained 108 struck flints, 22% of which were blade-like, reinforcing the suggestion that its contents date from the early Neolithic. Although a few sherds of Roman pottery also came from the tree-throw hole, it is possible that these came from the top of the fills, and that this was a Neolithic tree-throw hole used for deposition of material like those in Areas 6 and 10. A second tree-throw hole (9024; Fig. 6.29) just north of 9026, contained no pottery, but did contain 13 struck flints including 5 blades, suggesting another early Neolithic assemblage.

Another 18 early Neolithic sherds came from the area of the later ring ditch to the north-west, and 9 from the machining of the channel edge north-west of this, suggesting that the activity was concentrated between pit 9930 and the channel edge. Five further residual sherds came from the floodplain immediately to the south-west of the enclosure, and eight other sherds of this date were unstratified.

Though none of the worked flint recovered from pit 9930 was diagnostically early Neolithic, much of the diagnostic worked flint from Area 16 was of early Neolithic date.

Early Neolithic pottery from Area 16 *by Alistair Barclay*

A total of 142 sherds from Area 16 were assigned a definite early Neolithic date, and another 10 sherds (32g) were catalogued as possibly early Neolithic. The assemblage includes the rims from at least eight vessels (Fig. 6.30). Thirty five contexts produced sherds of early Neolithic pottery. Pit 9930, which contained 33 of these sherds plus two unassignable early prehistoric scraps, appears to represent a coherent assemblage, and 6 sherds were the only finds from a small pit, 9078, which may therefore also have been of this date. The remainder of the pottery was recovered as redeposited material from late Neolithic, Iron Age and Roman features, although 31 sherds came from a single tree-throw hole, 9026, and may well represent a coherent assemblage which was slightly disturbed at a later date.

A total of 11 separate early Neolithic fabrics were identified in Area 16. All of the fabrics can be broadly matched on Areas 6 and 10 (Table 6.15).

Featured sherds are categorised according to the rim, shoulder and vessel form types described in the Area 6 report.

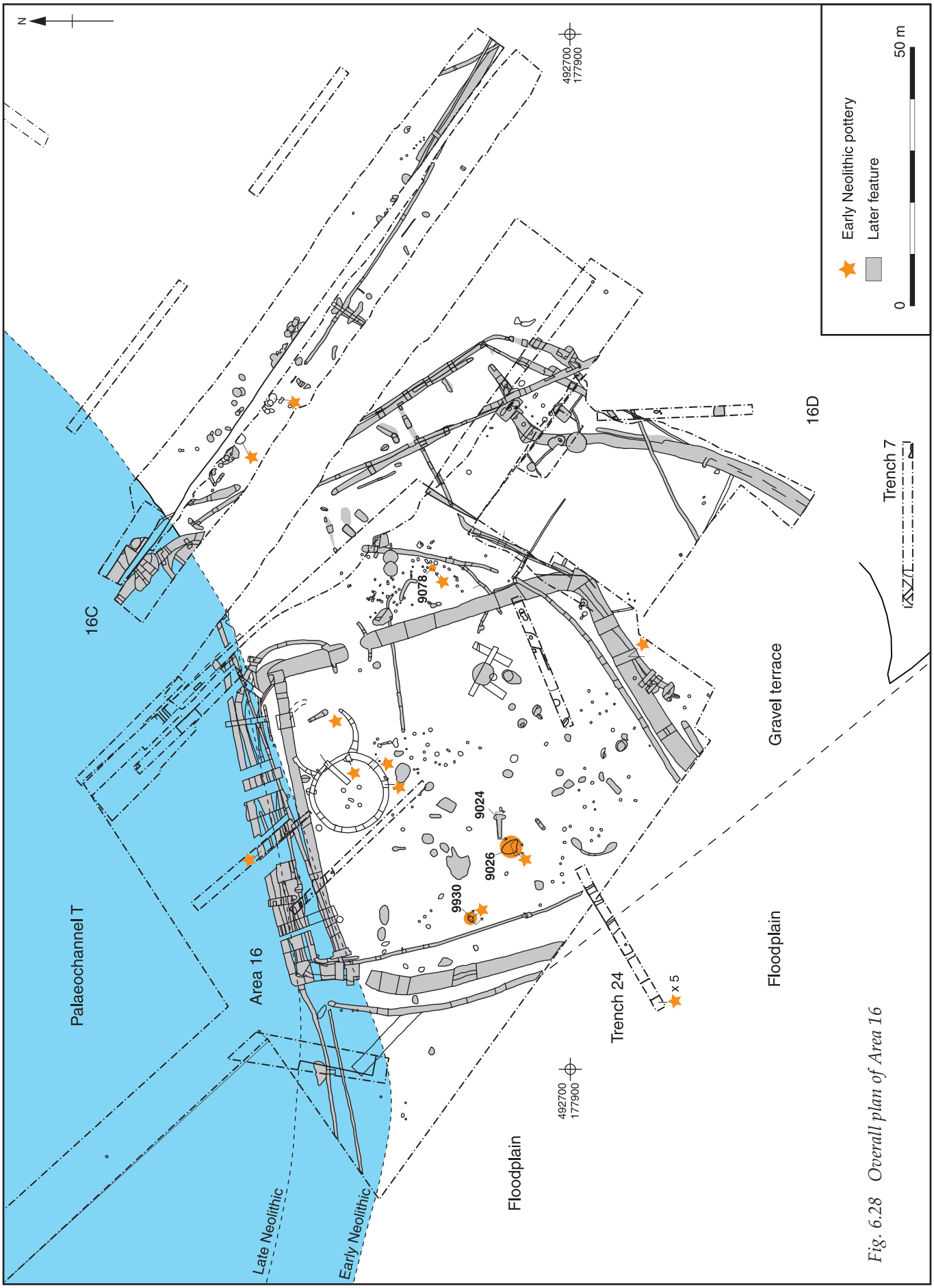


Fig. 6.28 Overall plan of Area 16

Although the assemblage is small (only 11 rims), it is dominated by heavy rims (forms 6-10). With the exception of two simple rims and a single everted rim (Fig. 6.30, 2), two rims can be described as rolled (Fig. 6.30, 1 and 8), two can be classed as out-turned (Fig. 6.30, 3 and 5) and the remainder are of expanded types (Fig. 6.30, 4 and 6-7). The presence of a high number of heavy rims may be taken as an indicator of a later date within the early Neolithic sequence (post-3650 cal BC). The rims appear to belong to bowls of neutral (P2-3, 8) or closed form (P1, 4-7).

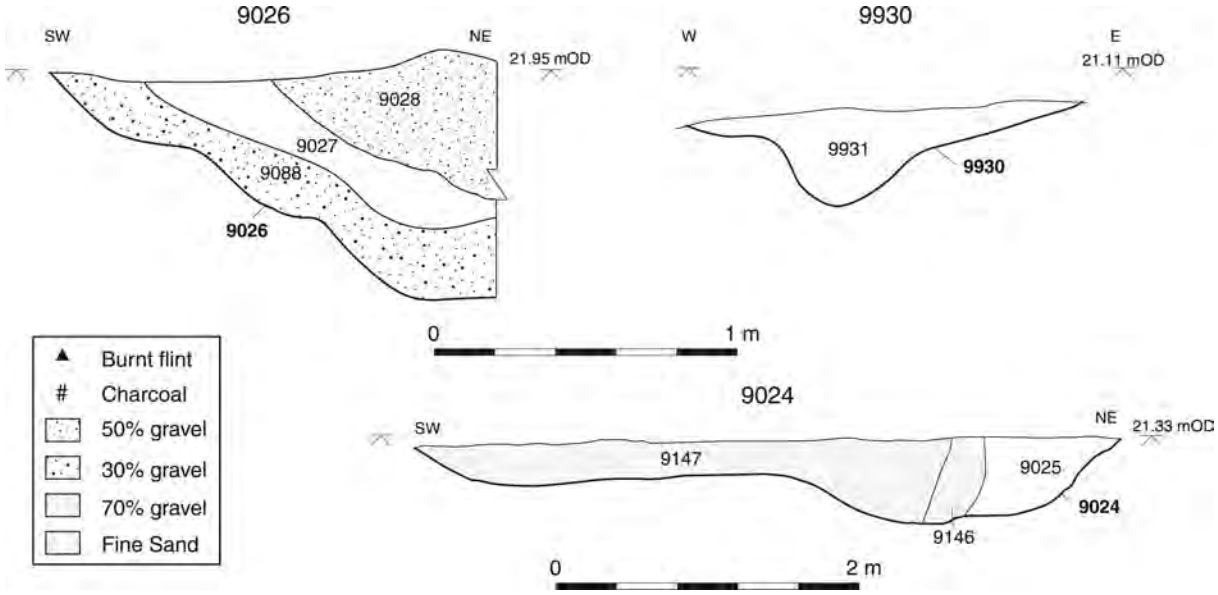


Fig. 6.29 Sections of early Neolithic features in Area 16

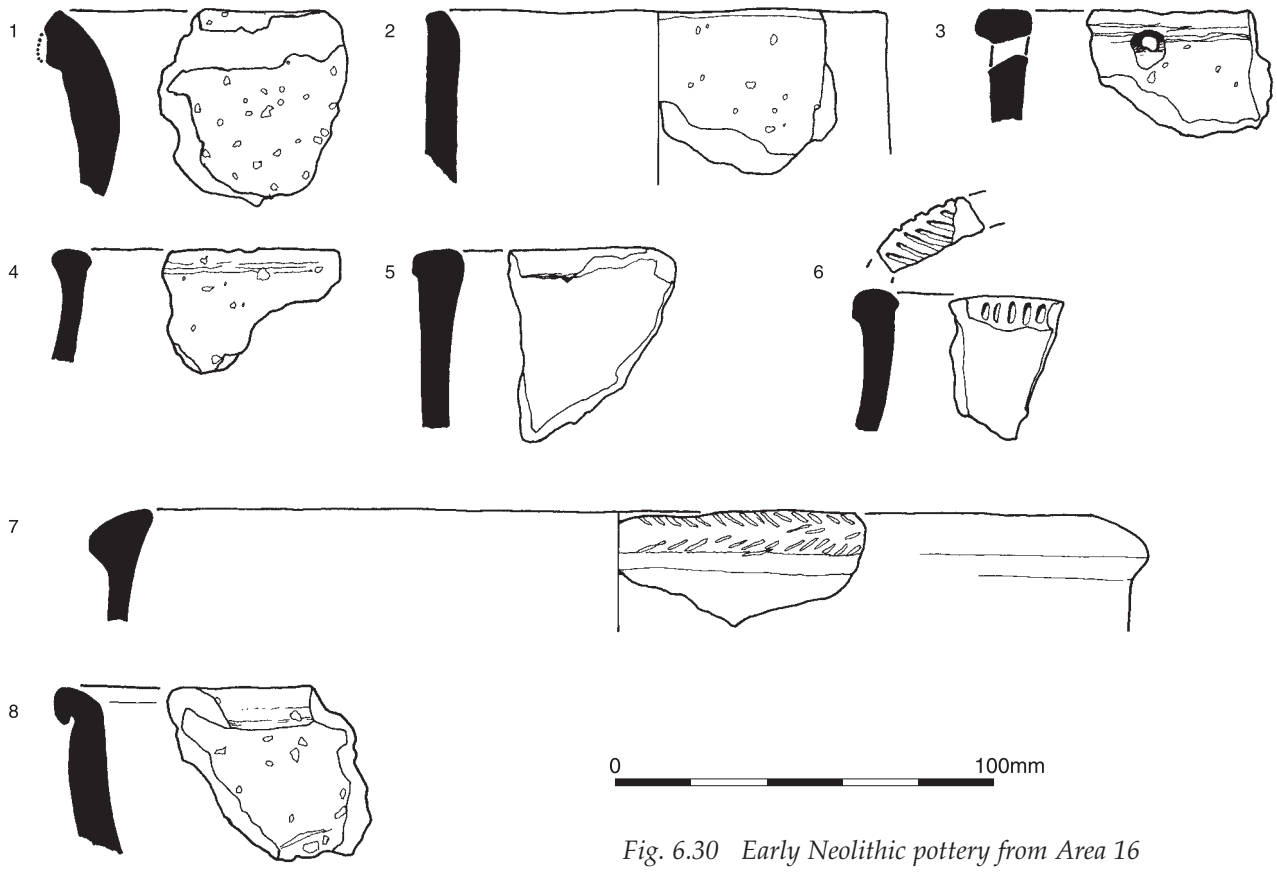


Fig. 6.30 Early Neolithic pottery from Area 16

Table 6.15 Area 16 - a breakdown of all fabrics by group (Number of sherds, weight (g))

Fabric group	*Fabrics*	*NoSh*	*Weight*	*Group % (NoSh,*	*Wt)*
Sand & flint	AF1-3,	13	78 g	9%,	9%
Flint	F1-3	70	284 g	49%,	31%
Flint & sand	FA1-3	53	490 g	38%,	55%
Quartzite	FQA3	1	25 g	1%,	3%
Shell	S3	5	17 g	3%,	2%
Total		142	894 g		

Three vessels were represented by shoulder fragments. One fragment was of indeterminate form and the other two can be classified as being of simple rounded form (type 1). As with the rims such shoulder forms are more likely to be of post-3650 cal BC date.

Two of the eleven identified rims carry decoration. One (Fig. 6.30, 6) has relatively deep grooves on the rim edge and top, and a second (Fig. 6.30, 7) has shallow finger-nail impressions. Surface treatment is rare and limited to only two examples of smoothing and one of wiping. One rim has a single post-firing perforation (Fig. 6.30, 3) that was probably made either to repair the vessel or to add a loop of twine for suspension.

Discussion

The relatively small assemblage of early Neolithic pottery from Area 16 has the greatest affinities with what are argued to be the later elements of the Area 6 and 10 assemblages. The range of rim forms, the presence of decoration and the absence of Carinated Bowl all point toward a date in the mid-4th millennium (*c* 3650-3350 cal BC). Within the Middle and Upper Thames Valley this type of pottery tends to be found at or near causewayed enclosures (Barclay 2002, 88). Similar pottery can be found at the enclosed sites of Eton Wick and Staines, and from the open site at Runnymede Bridge (Ford 1991-3; Robertson-MacKay 1987; Kinnes 1991; Longworth and Varndell 1996).

Illustrated catalogue: early Neolithic (Fig. 6.30)

1 Unstratified. Plain Bowl. Rolled rim (type 4) (35g). Fabric FA3/EN. Firing: black throughout. Condition average.
2 Unstratified. Plain Bowl. Everted rim (type 2) (24g). Fabric FA2/EN. Firing: ext. black; core grey; int. greyish-brown. Condition average.
3 9931. Plain Bowl. Out-turned rim (type 6) (21g) with perforated wall. Fabric F3/EN. Firing: ext. brown; core black; int. brown. Condition average.
4 9931. Plain Bowl. Expanded rim (type 8) (12g). Fabric AF3/EN. Firing: reddish-brown throughout. Condition average.
5 9027. Plain Bowl. Expanded rim (type 8) (25g). Fabric FQA3/EN. Firing: ext. greyish-brown; core and int. brown. Condition average.
6 10416. SF 55038. Decorated Bowl. Expanded out-turned rim with oblique and vertical deep incised lines (type 6) (10g). Fabric FA2/EN. Firing: ext. reddish-brown; core grey; int. reddish-brown. Condition average.
7 9348. Decorated Bowl. Expanded rim decorated with finger-nail impressions (type 10) (23g). Fabric AF2/EN. Firing: ext. reddish-brown; core and int. dark grey. Condition worn.
8 9200. Plain Bowl. Rolled rim (type 4) (31g). Fabric FA3/EN. Firing: ext. reddish-brown; core grey; int. yellowish-brown. Interior smoothed. Condition average.

Worked flint from Area 16 *by Hugo Anderson-Whymark*

Introduction

A total of 2555 flints and 194kg of burnt unworked flint was recovered from the excavations in Area 16 (Tables 6.16-17). The flintwork spans the Mesolithic to Bronze Age. It includes assemblages from a small number of features containing coherent but limited flint assemblages, but was mainly recovered as residual material from the fills of Iron Age and Roman features. The small assemblage of flintwork from later Bronze Age contexts (141 pieces) is dealt with in Volume 2; the residual material includes a significant proportion of Mesolithic and Neolithic material, and so is discussed here and in Chapter 4.

Condition and raw materials

The raw materials used in Area 16 were all flint, but originated from several sources. The majority of the flint was brown to black in colour with thin abraded cortices. Occasional thermal fractures were present, but the flint was generally of good flaking quality. This flint type originates from the river gravels upon which the site was situated. A small number of flints, including numerous flakes and several large tested nodules, bore a chalky cortex. It is possible this flint originates from on or near the chalk. However, large nodules with chalky cortices have also been observed in the local river gravels. Eight flints (seven flakes and a tested nodule) bore a distinctive olive green cortex with a bright underlying orange band. This flint originates from the Bullhead Bed at the base of the Reading Beds and is available within a few kilometres either upstream or downstream.

The majority of flint from the site was uncorticated, although some pieces bore a light to heavy white cortication. There was no distinctive pattern to the distribution of cortication, either across features or by diagnostic artefact. A small proportion of the flint from Area 16 appeared to have been abraded or rolled.

The early Neolithic flint

A total of three features dated to the early Neolithic contained flintwork. Small assemblages of flintwork

Table 6.16 The flint assemblage from Area 16

CATEGORY TYPE	*Total*
Flake	1370
Blade	178
Bladelet	19
Blade-like	172
Irregular waste	21
Chip	24
Sieved chips 10-4 mm	314
Sieved chips 4-2 mm	162
Rejuvenation flake core face/edge	9
Rejuvenation flake tablet	7
Thinning flake	2
Flake from ground implement	2
Core single platform blade core	8
Bipolar (opposed platform) blade core	2
Other blade core	2
Tested nodule/bashed lump	42
Single platform flake core	12
Multiplatform flake core	28
Levallois/ other discoidal flake core	3
Unclassifiable/fragmentary core	12
Core on a flake	16
Microliths	3
Leaf arrowhead	1
Chisel arrowhead	2
Oblique arrowhead	1
Unfinished arrowhead/blank	2
End scraper	12
Side scraper	6
End and side scraper	6
Disc scraper	1
Other scraper	1
Piercer	3
Spurred piece	1
Other borer	1
Serrated flake	9
Denticulate	1
Notch	16
Retouched flake	71
Axe	2
Trihedral pointed blade	1
Misc. retouch	1
Hammerstone	2
Grand total	2555
Burnt unworked flint (g)	193,495
Burnt no. (%) (exc. chips)	99 (4.8)
Broken no. (%) (exc. chips)	514 (25)
Retouched no. (%) (exc. chips)	141 (6.9)

were recovered from the early Neolithic pit (9930) and from two tree-throw holes (9026 and 9024) lying adjacent to one another, 15-20m from pit 9930.

Early Neolithic pit 9930

A total of 39 flints and 5g of burnt unworked flint was recovered from this feature including 18 chips from sieving. The flake material was relatively thin and narrow, often exhibiting platform edge abrasion. The flake core was burnt and weighed 31g. Four retouched flints were recovered including two serrated flakes, both with relatively slight, irregular serration, an abruptly retouched side scraper, and the proximal fragment of an unfinished arrowhead. The point of the arrowhead was well formed by invasive retouch, but the side bore little retouch (although the edges had been retouched to form a slight platform – 'turning the edge'; Knowles 1947, 16-18). The high proportion of retouched pieces in the flint perhaps reflects the selection of pieces for deposition. The flint assemblage from the pit is relatively small and the technology employed could belong anywhere in the Neolithic. However, the pottery associations assist in the dating of this material.

Tree-throw holes 9026 and 9024

Tree-throw hole 9026 produced 108 struck flints and another 22 burnt unworked fragments, and also contained 26 sherds of early Neolithic pottery (but also included four Roman sherds). The struck flint assemblage contained 22% blade-like pieces, several blade cores and a possible unfinished leaf-shaped arrowhead, and is consistent with an early Neolithic date. Although no low-power microscopic examination was undertaken, visual inspection suggested that 26 pieces (24%) were possibly utilised. Six retouched pieces were present in addition to the unfinished arrowhead, including two scrapers, a serrated flake and three retouched flakes.

The adjacent tree-throw hole, 9024, contained 13 struck flints, 5 of which were blade-like, and included an axe fragment reused as a flake core.

Other early Neolithic flint

A small numbers of diagnostically Neolithic flints were recovered across the site. It is likely that the majority of the other flintwork from the site also dates from the Neolithic, but given the mixed nature of the assemblage this is impossible to confirm, and little of the flint can be more precisely dated. The residual flint does, however, include a

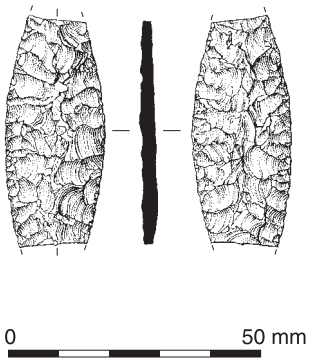


Fig. 6.31 Area 16 struck flint

medial fragment of a large and finely retouched leaf-shaped (or possibly kite shaped) arrowhead which was recovered from a Roman well (9098; SF 54260).

Catalogue of illustrated flint from Area 16 (Fig. 6.31)

Cut 9098, fill 9100. SF 54260. Leaf arrowhead, medial fragment.

Table 6.17 The flint assemblage from Area 16 by category and phase (excluding later Bronze Age)

CATEGORY TYPE	PHASE					
	Early Neolithic (Pit 9930)	*Early/middle Neolithic (3 features)*	*Late Neolithic (Pits 13650 and 16023)*	*Early Bronze Age*	*Post-Bronze Age*	*Grand total*
Flake	13	7	60	163	1064	1309
Blade		1	1	24	143	169
Bladelet		1		3	15	19
Blade-like	3		3	22	134	162
Irregular waste			1	1	23	20
Chip		3	1	1	17	22
Sieved chips 10-4 mm	18		51	13	193	275
Sieved chips 4-2 mm			160		2	162
Rejuvenation flake core face/edge				1	8	9
Rejuvenation flake tablet				1	6	7
Thinning flake				1	1	2
Flake from ground implement					2	2
Core single platform blade core				2	6	8
Bipolar (opposed platform) blade core				1	1	2
Other blade core		1			1	2
Tested nodule/bashed lump				6	32	38
Single platform flake core			2		9	9
Multi-platform flake core	1		1	5	15	22
Levallois/other discoidal flake core			1	1	1	3
Unclassifiable/fragmentary core				3	7	10
Core on a flake		1	1	2	12	16
Microliths				1	2	3
Leaf arrowhead					1	1
Chisel arrowhead					2	2
Oblique arrowhead					1	1
Unfinished arrowhead/blank	1				1	2
End scraper			3	2	7	12
Side scraper	1		1		3	5
End and side scraper					5	5
Disc scraper					1	1
Other scraper					1	1
Piercer					3	3
Spurred piece			1			1
Other borer			1			1
Serrated flake	2				7	9
Denticulate					1	1
Notch				1	15	16
Retouched flake		1	2	10	56	71
Axe					2	2
Trihedral pointed blade					1	1
Misc. retouch			1			1
Hammerstone					2	2
Grand total	39	15	291	264	1805	2414
Burnt unworked flint (g)	5	842	3,297	6,881	124,256	135,282
Burnt no. (%) (exc. chips)	1 (4.8)	-	17 (21.5)	17 (6.8)	55 (3.5)	90 (4.5)
Broken no. (%) (exc. chips)	4 (19.1)	3 (25)	19 (24.1)	69 (27.6)	390 (24.5)	485 (24.8)
Retouched no. (%) (exc. chips)	4 (19.1)	1 (8.3)	9 (11.4)	14 (5.6)	109 (6.8)	137 (7.0)

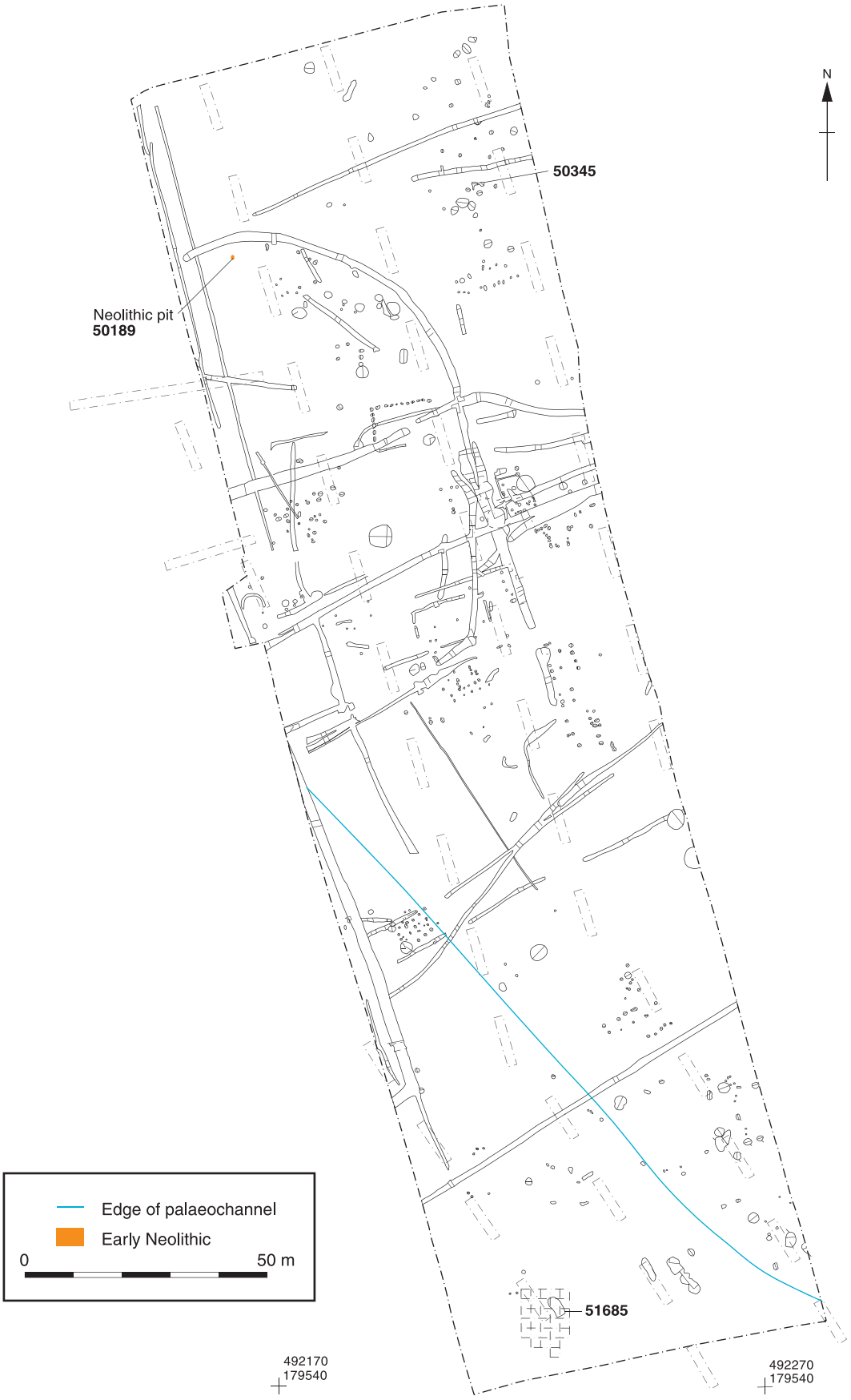


Fig. 6.32 Lot's Hole, site plan, showing location of Neolithic pit 50189

Animal bone from early Neolithic pit 9330 *by Gillian Jones*

Early Neolithic pit 9930 contained 37 fragments of animal bone, of which eight were identifiable, six being from cattle and two from sheep/goat. The cattle consisted of pieces of shaft from a metacarpal and a femur, and four phalanges, possibly from one individual (one 1st, two 2nd and one 3rd phalanx). The size of the latter are discussed with the Area 6 early Neolithic cattle, and are interpreted as being of domestic-cattle size. The sheep/goat bones were a fragmentary pelvis and tibia shaft. Two unidentified bones were burnt.

Lot's Hole: early Neolithic pit 50189 *by Elizabeth Anderson*

The only earlier prehistoric feature identified at Lot's Hole was a pit (50189; Figs 6.32 and 6.33). This pit was subcircular in plan, and had steep sides and a flat base. It was 0.82m in diameter and 0.17m deep. The fill was dark black/brown humic sandy silt with occasional rounded pebbles. The fill contained early Neolithic pottery, blade-like flakes and grain, weeds and hazel nutshells. A radiocarbon date of 3660-3370 cal BC (Gu-9483: 4780) was obtained from hazel nutshell.

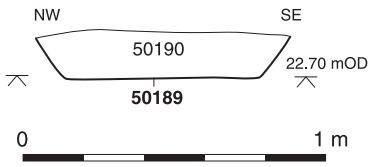


Fig. 6.33 Section of pit 50189

Early Neolithic pottery from Lot's Hole *by Tessa Machling and Alistair Barclay*

Pit 50189 contained 62 small sherds (249g) of pottery in fabric FAGM3: a soft to hard, irregularly fired fabric with sparse amounts of poorly sorted fine to coarse grade, flint temper and moderate amounts of quartz sand. This fabric occurs on a number of the Jubilee River sites, and can be paralleled by fabric F9 at Weir Bank Stud Farm, Bray (Cleal 1995). Fabric FAGM3, like fabric F9 at Bray, is associated with externally enlarged and expanded rimmed, undecorated sherds typical of the earlier Neolithic Plain Bowl tradition. However, it has been noted (Cleal 1995) that the paucity of decorated sherds does not necessarily exclude a Decorated Style assemblage. The total absence of decoration on any of the sherds might indicate a plain assemblage in this case. Like Bray, the nature of the earlier Neolithic pottery is very different to that of Cannon Hill (Bradley *et al*. 1975-76) where Carinated Bowls dominate the assemblage.

Small quantities of residual early Neolithic pottery were also recovered from tree-throw hole 50730 and pits 50345 and 51685.

Struck flint from pit 50189, Lot's Hole *by Theresa Durden and Hugo Anderson-Whymark*

Introduction

A total of 118 flints and one piece (4g) of burnt unworked flint was recovered from early Neolithic pit 50189. In addition to the Neolithic flint assemblage, a number of flints were recovered from middle and late Bronze Age features and as residual finds in Anglo-Saxon and medieval contexts; details of these flints are available in Volume 2. It is, however, worth noting that a small number of the residual flints considered in Volume 2 may be of Neolithic to early Bronze Age date.

Raw material

The flint appears to be mostly gravel flint which is available locally. It varies in colour and translucency and ranges from pale beige and grey to dark brown, with smaller amounts of dark grey flint. The cortex is generally thin and worn and pale brown or grey in colour. All lithic material was in fresh condition and few pieces bore any cortication.

The assemblage (Table 6.18)

The flakes from pit 50189 were generally of narrow proportions, exhibited narrow butts with platform edge abrasion, and often appeared to have been struck using soft-hammer percussion. The single platform flake core from the pit was regularly flaked; fragments of a further four flake cores were also recovered. The reduction techniques employed and narrow proportion of the flakes suggest an

Table 6.18 The flint assemblage from earlier Neolithic pit 50189

CATEGORY TYPE	*Earlier Neolithic pit 50189*
Flake	86
Blade	2
Blade-like	7
Irregular waste	1
Chip	11
Single platform flake core	1
Unclassifiable/fragmentary core	4
Serrated flake	1
Denticulate	1
Retouched flake	4
Grand total	118
Burnt unworked flint (g)	4
No. burnt (%) (exc. chips)	25 (23.4)
No. broken (%) (exc. chips)	43 (40.2)
No. retouched (%) (exc. chips)	6 (5.6)

earlier or middle, Neolithic date for the flintwork. The retouched tools contained in pit 50189 were dominated by simple edge retouched flakes and blades, although a serrated flake and a piece of irregular waste with crude denticulated teeth were also present. In addition, low-power use-wear analysis on the flint from pit 50189 revealed small areas of slight edge retouch on nine further flakes (see below). This increases the proportion of retouched flints in pit 50190 from 5.6% (6 flints) to 14% (15 flints). The edge retouch in pit 50189 was often slightly irregular, possibly reflecting the nature of the task the flints were intended for.

Low power use-wear analysis of pit 50189

The flint from pit 50189 (fill 50190) was analysed for use-wear . A total of 107 flints from pit 50189 were assessed for use-wear using low power magnification (10-20x), of which 95 were fully analysed. All flints bar chips were analysed. Chips were excluded as variable collection would distort figures for comparison between features.

The condition of the flint from pit 50189 was exceptionally good. Only two flints exhibited post-depositional edge damage, representing 1.9% of the analysed flints. However, a further three flints were excluded from the analysis as they were rolled and therefore residual, and nine flints were considered too burnt and broken or damaged during excavation to analyse.

A total of 20 of the flints analysed were broken, exhibiting a total of 26 broken edges. None of the broken edges examined bore evidence of use. However, use damage on one flint had rounded the corner of the broken edge, indicating the retouched flake was used after it was broken. Given the general lack of post-depositional edge damage it seems unlikely that the breakage is post-depositional. It is therefore possible that the breakage occurred as a result of use and may indicate the reason for disposal of some of the artefacts. The presence of a conjoin between two halves of a utilised flake further supports this suggestion.

The examination for use-wear suggests that 62.1% of the flints analysed from pit 50189 have been utilised (59 flints). A number of the utilised pieces displayed use on more than one side. A total of 81 utilised edges were identified, or on average 1.4 utilised edges per flint.

The use-wear in pit 50189 is characterised by the predominance of medium hardness cutting and whittling actions, with comparatively few actions on soft materials and a complete absence of actions against hard materials. Scraping is relatively common, accounting for just over 30% of actions. The presence of a significant number of actions against soft materials (12.3%), causing the rounding of the artefacts edge, is particularly significant and may indicate the processing of hides. Two boring actions were identified. Both actions were against soft materials, one of which exhibited edge rounding.

The proportion of utilised flints in the assemblage is high and compares well with the early Neolithic middens on the Eton Rowing Course. The excellent condition of the flint and presence of refitting and conjoining flakes which exhibit use-wear provide evidence that the assemblage forms a coherent group which was probably deposited soon after use. The limited number of chips, the majority of which are burnt or broken fragments of larger flakes, indicates that this deposit should not be perceived as knapping debris, but rather as a collection of mainly utilised pieces possibly relating to an activity or group of activities. The presence of a number of flints with slight edge retouch, and a relatively high proportion of scraping actions, many of which are against soft and medium hardness materials, implies hide scraping. However, it is more difficult to explain the dominant activity: cutting and whittling medium hardness materials. It is possible that these actions result from further processing of hide, but it is also possible that the edge damage was caused by contact with wood or a similar material. It is, however, also worthy of note that, on comparison with other deposits, comparatively few cutting and whittling actions against soft materials are present, reflecting limited working of flesh or soft plant materials.

Discussion

A total of 114 pieces of struck flint was recovered from pit 50189. The presence of some thinner, more regular flakes in the pit is consistent with the early Neolithic date suggested by the pottery. Two pairs of refitting flakes and two conjoining broken fragments of a utilised flake were found in the pit's single fill (Fig. 6.34). Of the refitting flakes, the former pair are trimming flakes struck from different platforms; the latter group comprises a utilised distal trimming flake and a serrated flake which exhibits silica gloss on the ventral surface and very slight teeth. Several other small groups of apparently related flakes are present in the assemblage, but do not refit. The flakes in the scatter originate from a minimum of seven cores judging by the

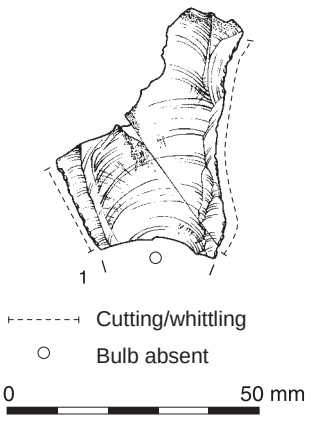


Fig. 6.34 Refitting flint, Lot's Hole

cortex. A number of chips were recovered from sieving. However these generally represent burnt fragments of larger flakes under 10mm² rather than genuine chips from knapping. It appears, therefore, that although a few knapping refits and related groups of flint are present, the material is not derived directly from a knapping event, but equally is unlikely to represent pieces collected from a midden for deposition. The presence of microscarring from use and retouch on numerous flints in the assemblage, including on refitting pieces, indicates the flint may have derived from one or more activities associated with the construction of the pit deposit. Indeed, the presence of numerous simple edge retouched flakes may indicate that many of the flints were used for a specific activity. The presence of silica gloss on the ventral surface of one refitting flake certainly indicates some silica-rich plant materials were processed (Juel-Jensen 1994; Unger-Hamilton 1988).

Catalogue of illustrated pieces (Fig. 6.34)

1 Pit 50189, fill 50190, SF 50120 and 50130. Refit between two flakes.

Neolithic plant macrofossils from pit 50190, Lot's Hole by Ruth Pelling

A soil sample, comprising 61 litres, was taken for the extraction of charred plant remains from fill 50190 in early Neolithic pit 50189 at Lot's Hole. The soil was processed using a bulk water separation machine and flots were collected onto a 500μm mesh. The sample was sorted for the retrieval of any quantifiable plant remains under a binocular microscope at x10 to x20 magnification. Identification of charred seeds and chaff was based on morphological characteristics and by comparison with modern reference material held at the Oxford University Museum. In the case of cereals the plant part identified is given (grain, rachis, glume base etc.). In all other cases the plant part given is the seed or nutlet, unless otherwise stated. Nomenclature follows Clapham, Tutin and Moore (1989).

The sample is dominated by large numbers of fragments of hazel (*Corylus avellana*) nutshell (Table 6.19). A total of 434 nutshell fragments were counted (the number of fragments retained in the 2mm sieve). Cereal remains were also present in smaller numbers, including free-threshing wheat (*Triticum* sp.) and barley (*Hordeum* sp.). The majority of the cereal remains were, however, too poorly preserved to enable identification, and have thus have been recorded as indeterminate. Small numbers of weed seeds were also recorded, including weedy species of *Vicia/Lathyrus* sp., *Rumex* sp. (docks) and *Galium* cf *aperine* (goosegrass/cleavers).

The assemblages is typical of Neolithic sites where low density cereal cultivation tends to be suggested, involving both wheat and barley, supplemented by wild resources collected from local woodland/scrub.

Table 6.19 Charred plant remains from Lot's Hole

	Sample	*5*
	Context	*50190*
	Feature	*50189*
	Volume	*61*
Triticum sp.	free-threshing Wheat grain	8
Hordeum sp.	Barley grain	1
Cerealia indet	indeterminate grain	51
Corylus avellana	hazel nutshell frags.	434
Vicia/Lathyrus sp.	vetch/tare	1
Rumex sp.	docks	1
Galium cf. *aperine*	Goosegrass/Cleavers	1
Weed indet		2

Marsh Lane West: early Neolithic tree-throw holes *by Elizabeth Anderson*

Introduction (Figs 6.35-36)

Activity in the early Neolithic at Marsh Lane West was evidenced by finds from two tree-throw holes. The finds consist of early Neolithic pottery, worked flint, charcoal, and in one case, a very small deposit of cremated human remains.

Tree-throw holes

The two tree-throw holes both lay in the southern part of the site, but were *c* 20m apart.

Tree-throw hole 61007 was kidney shaped in plan; it was filled by dark grey brown silty clay (61008) which contained early Neolithic pottery, burnt flint and flint flakes and blades as well as five small fragments of possible middle Bronze Age pottery (Fig. 6.36). A very small quantity (1g) of cremated human bone was recovered from the fill.

Tree-throw hole 61010 was 1.9m in length and 0.29m deep (Fig. 6.36). It was filled by deposits of light brown-yellow and brown-grey silty clay (61008 and 61009) from which early Neolithic pottery and burnt flint was recovered. Flint flakes, blades and chips were also present. The charcoal from a sample taken from this tree-throw hole (61008) contained a range of taxa: oak (*Quercus* sp.), hazel (*Corylus avellana*), hawthorn type (Maloideae) and blackthorn/sloe (*Prunus spinosa*).

Early Neolithic pottery from Marsh Lane West *by Alistair Barclay*

A total of 32 sherds (126g) of early Neolithic pottery was recovered from tree-throw holes 61007 and 61010. The pottery was predominantly in flint and sand tempered fabrics (FA3: 17 sherds/85 g; FA2: 9 sherds/21 g; see Appendix 1 for explanation of fabric codes). However, a small number of sandy sherds (fabric AF3: 5 sherds/17g) were found as well as a single sherd (3g) in the more unusual Quartzite fabric, QA2.

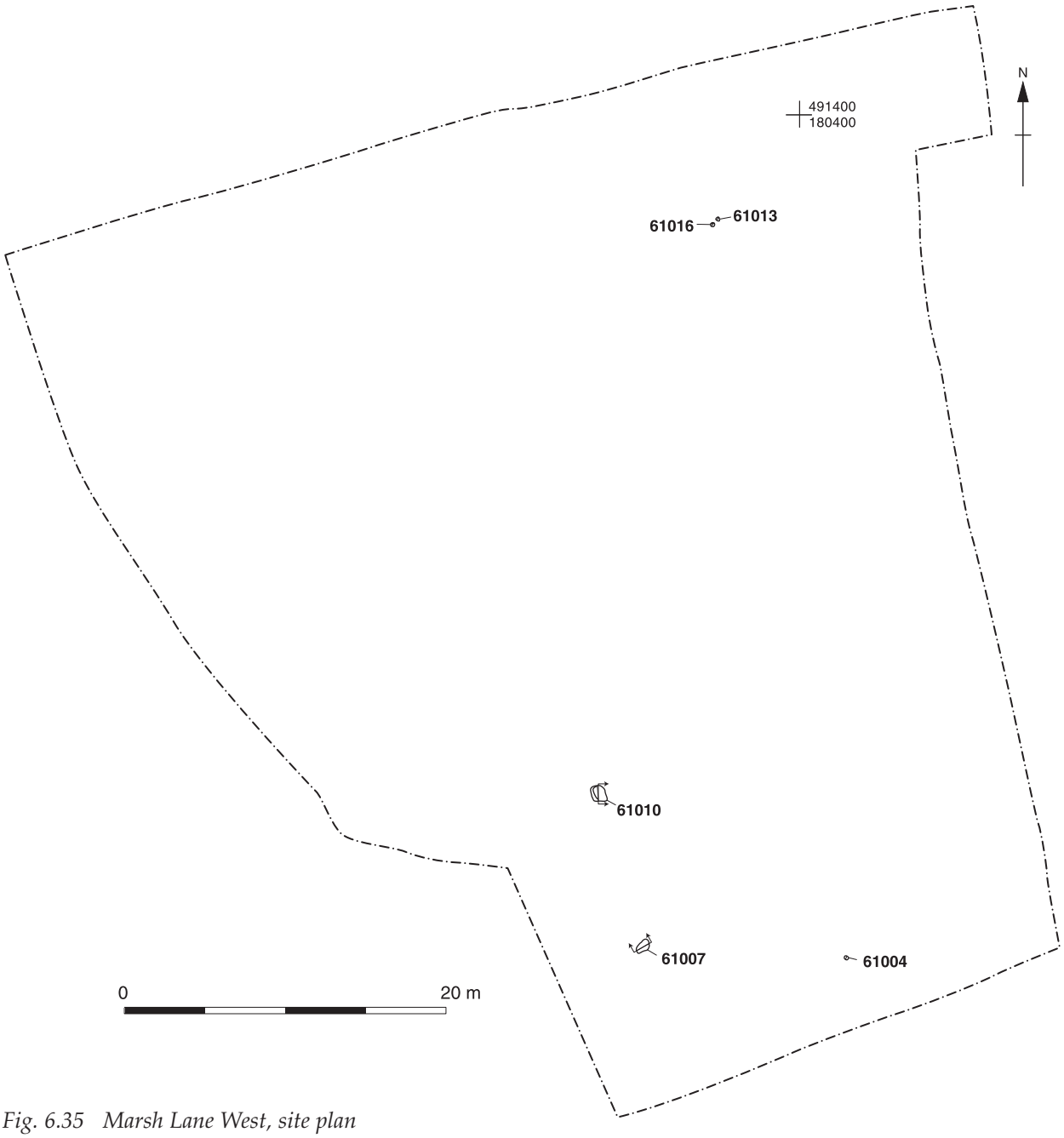


Fig. 6.35 Marsh Lane West, site plan

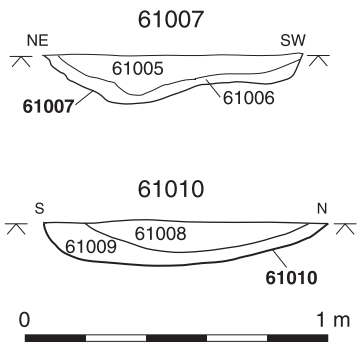


Fig. 6.36 Sections of early Neolithic tree-throw holes at Marsh Lane West

Struck flint from Lot's Hole *by Hugo Anderson-Whymark and Theresa Durden*

Introduction

A total of 77 flints and 11 pieces (87g) of burnt unworked flint were recovered from Lot's Hole. Flint, dated to the Neolithic on the basis of the presence of a leaf and a chisel arrowhead, was recovered from two tree-throw holes and a posthole. The site assemblage by feature and category is shown in Table 6.20.

Raw material and condition

The flint appears to be mostly gravel flint which is available locally. This flint varies in colour and

translucency and ranges from pale beige to dark brown. Some grey and grey/black flint is also present. The cortex is generally thin and worn and pale brown or grey in colour. A few pieces of chalk flint – recognisable by its dark grey colour and thicker, chalky white cortex – were present. A likely source for this is the Chiltern Hills. Three small flakes of Bullhead flint (not refitting) were found in tree-throw pit 61010. All lithic material was in fresh condition and most pieces were uncorticated.

The assemblage

The flake material is generally quite regular, with only small numbers of thick or irregular flakes. All of the blades and three of the blade-like flakes came from tree-throw hole 61010. Flakes were struck with a mixture of hard and soft hammers, although soft hammer percussion is dominant. Plain butts were usual, with a small number of cortical butts. One flake with a faceted butt was recovered from 61010. Platform edge abrasion was noted on a small number of flakes from tree-throw holes. A crested rejuvenation flake was recovered from 61006 (lower fill of 61007) and a core face rejuvenation flake from 61009 (lower fill of 61010). The technology employed in core reduction is suggestive of an early Neolithic date for the assemblage.

The site produced a single multi-platform flake core from 61008 (upper fill of 61010). The core was fairly crude and showed the scars of hinged removals.

The retouched pieces consisted of a possible broken and burnt serrated flake and a simple edge-retouched flake from 61006, and a leaf arrowhead, chisel arrowhead and possible truncated flake from 61008. Given the limited sizes of both assemblages, the relatively high proportion of retouch is worthy of note. The presence of a leaf arrowhead (Greens type 2a, 1980, 70) and a chisel arrowhead (similar to Clark's type C, *ibid*. 101) within fill 61008 is of considerable interest. The assemblage is coherent, and although it is possible that the leaf arrowhead is a curated object, there is no evidence of residual flintwork. The arrowheads may therefore represent contemporary later earlier Neolithic forms. This suggestion is supported by the presence of 66 sherds of early Neolithic pottery. Green (1980, 19) indicates that chisel arrowhead forms originated *c* 3500 BC.

A total of 31 flints, 62% of the assemblage, from tree-throw hole 61010 were broken. This figure is very high and requires some explanation. Examination of the broken pieces revealed several flakes that may have been deliberately snapped. The majority of the pieces were proximal or distal fragments although two medial fragments were present. It is plausible that these pieces represent the debitage, or blanks, from the manufacture of transverse arrowheads (see SF 61044).

Low power use-wear analysis of tree-throw hole 61010

The flint from tree-throw hole 61010 was analysed for use-wear using low power magnification (10-20x). This report concentrates on the specific results arising from the analysis of this deposit. It is necessary to compare results with other contexts to highlight variations in use and wear patterns.

Sampling strategy

All flints from the fills of tree-throw hole 61010 (61008 and 61009) were analysed for use-wear, with the exception of chips (flakes <10mm²). A single flint could not be assessed due to the degree of burning.

Table 6.20 The flint assemblage by feature and category

CATEGORY TYPE	*Posthole 61004 Fill 61003*	*Tree-throw hole 61007*			*Tree-throw hole 61010*			*Grand total*
		Lower fill 61006	*Upper fill 61005*	*61007 total*	*Lower fill 61009*	*Upper fill 61008*	*61010 total*	
Flake	1		4	4	14	26	40	45
Blade		1	1	2		2	2	4
Blade-like		1		1	1	2	3	4
Irregular waste		1		1				1
Chip			1	1	1	13	14	15
Rejuvenation flake other		1		1	1		1	2
Multiplatform flake core						1	1	1
Leaf arrowhead						1	1	1
Chisel arrowhead						1	1	1
Serrated flake		1		1				1
Retouched flake		1		1		1	1	2
Grand total	1	6	6	12	17	47	64	77
Burnt unworked flint (g)	4	-	-	4	1	51	52	87
Burnt no. (%) (exc. chips)	-	1 (16.6)	-	1 (9.1)	5 (31.3)	5 (14.7)	10 (20)	11 (17.8)
Broken no. (%) (exc. chips)	-	1 (16.6)	1 (20)	2 (18.2)	11 (68.8)	20 (58.8)	31 (62)	33 (53.2)
Retouched no. (%) (exc. chips)	-	2 (33.3)	-	2 (18.2)	-	3 (8.8)	3 (6)	5 (8.1)

Therefore, a total of 35 flints were examined for use-wear. Due to the limited number of flints in the tree-throw hole, the flints from both contexts have been combined in the same use-wear sample.

Condition

The condition of the flint from tree-throw hole 61010 was generally very good. A total of eight flints exhibited post depositional damage (23% of the assemblage). The post-depositional damage was generally limited to drop-nicks (Moss 1983) and crescents and did not significantly affect the examination of any piece for use-wear.

A high proportion of the material was broken. However, only one of the broken edges bore evidence of use damage. The breaks do not appear to be the result of post depositional damage, and are probably the result of deliberate breakage or breakage during use.

Extent of use

The examination for use-wear suggests that 68.6% of the flints analysed from tree-throw 61010 have been utilised (24 flints). A number of the utilised pieces displayed use on more than one side. A total of 33 utilised edges were identified, or on average 1.4 utilised edges per flint.

Nature of use

The use-wear in tree-throw hole 61010 is characterised by the predominance of soft and medium cutting and whittling, with the absence of hard cutting and whittling. The assemblage also contained a small number of medium and hard scraping actions, accounting for 12% of the actions identified. No boring actions were identified. The chisel and leaf arrowheads both appeared to have been utilised, but it was not possible to identify specific impact damage.

Conclusions

A large proportion of the flint in tree-throw hole 61010 has been utilised. Indeed, the levels of use-wear identified are comparable with the levels of use identified in the midden deposits in Area 6 of the Eton Rowing Course, (in tree-throw holes and surface deposits) and on the surrounding land surface. This represents a high level of use indicating that the finds in this tree-throw hole are well used artefacts, rather than knapping debris. The dominance of soft and medium cutting and whittling activities perhaps indicates that the majority of flints in this feature were used for the cutting of meat or fleshy plants. Tasks which may reasonably be associated with food preparation.

Discussion

The assemblages recovered appear to date from the early Neolithic, possibly the later early Neolithic on the basis of the arrowheads recovered and the technological traits of the associated material. The arrowheads in tree-throw hole 61010, and possible evidence of transverse arrowhead manufacture are of considerable interest. The association of leaf and chisel arrowheads has been recorded within other deposits, such as pit 94 at Duntistbourne Grove on the A419/A417 Swindon to Gloucester road scheme, the primary deposit of which was dated to 3654-3370 cal BC (Mudd *et al*. 1999, 19-20). Debitage possibly associated with the manufacture of transverse arrowheads was also present in pit 110018 on Taplow Mill Site 1.

Catalogue of illustrated flint (Fig. 6.37)

1 Tree-throw hole 61010, fill 61008. Leaf arrowhead.
2 Tree-throw hole 61010, fill 61008, SF 61035. Chisel arrowhead, Clark's type D, cutting edge broken.
3 Tree-throw hole 61010, fill 61009, SF 61044. Intentionally broken flake, possible debitage from the manufacture of transverse arrowheads.
4 Tree-throw hole 61010, fill 61008, SF 61027. Intentionally broken flake, possible debitage from the manufacture of transverse arrowheads.
5 Tree-throw hole 61010, fill 61009, SF 61040. Intentionally broken flake, possible debitage from the manufacture of transverse arrowheads.
6 Tree-throw hole 61010, fill 61008, SF 61024.

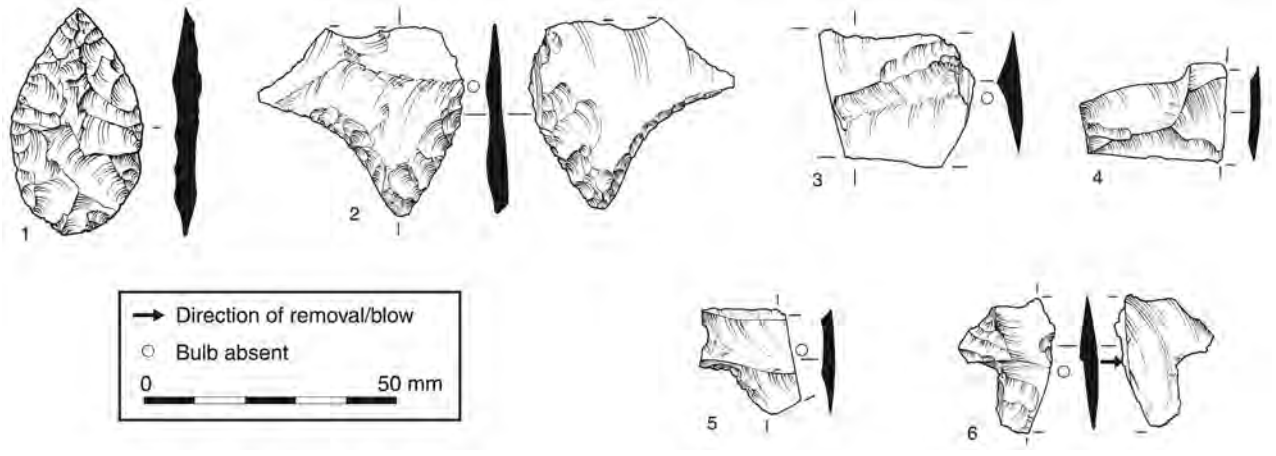


Fig. 6.37 Worked flint, Marsh Lane West

Intentionally broken flake, possible debitage from the manufacture of transverse arrowheads.

Charcoal from tree-throw hole 61010, Lot's Hole
by Dana Challinor

The charcoal from one sample from early Neolithic tree-throw hole 61010 (context 61008) was analysed. The quantity of charcoal was very low, with only 12 identifiable fragments. However, a range of taxa was identified, confirming that the deposit does not represent the burnt remains of the tree. The taxa – oak (*Quercus* sp.), hazel (*Corylus avellana*), hawthorn type (Maloideae) and blackthorn/sloe (*Prunus spinosa*) – could all have been collected from local woodland or scrub. Indeed, the fact that hazel nutshell was also recovered from this sample suggests that the fuelwood (both the hazel and indeed the blackthorn) was collected as part of the gathering of wild food resources.

Marsh Lane East Site 1: An early Neolithic tree-throw hole *by A Barclay, A Cromarty and D Petts*

Introduction

Early Neolithic activity at Marsh Lane East Site 1 was represented by finds, including a large group of flint and a few fragments of pottery, from one of a number of tree-throw holes which were identified along the southern edge of the channel (Fig. 6.38). Further worked flint of more uncertain, but probably late Neolithic/early Bronze Age date was recovered from a second tree-throw hole (80010) which is described in more detail in Chapter 9.

Tree-throw hole 60042

Tree-throw hole 60042 was identified in the field as a probable ditch terminal but is more typical of a tree-throw hole (Barclay *et al.* 2003, fig. 4.19). Its lower deposits consisted of yellow or grey clays, which are likely to represent channel deposits disturbed by the fallen tree. A relatively small hollow (60069) represents the gully-like depression frequently created by a fallen tree. This hollow was filled with a grey brown clay (60057), a dark brown grey clay-sand (60056) and a light grey silt (60055). Fill 60057 contained burnt flint, fragments of animal bone (60 specimens of which only one, a cattle bone, could be identified) and some charred root material; 60056 contained burnt and worked flint; and the upper fill, 60055, contained worked flint, pottery, burnt bone, charcoal and charred plant remains (indeterminate cereal and weed seeds).

In total some 362 flints were recovered from this feature including a quite large number of retouched pieces as well as a group of refitting blades. This flint was selected for use-wear analysis, and its examination indicated a high percentage of flint utilisation, dominated by soft cutting and whittling

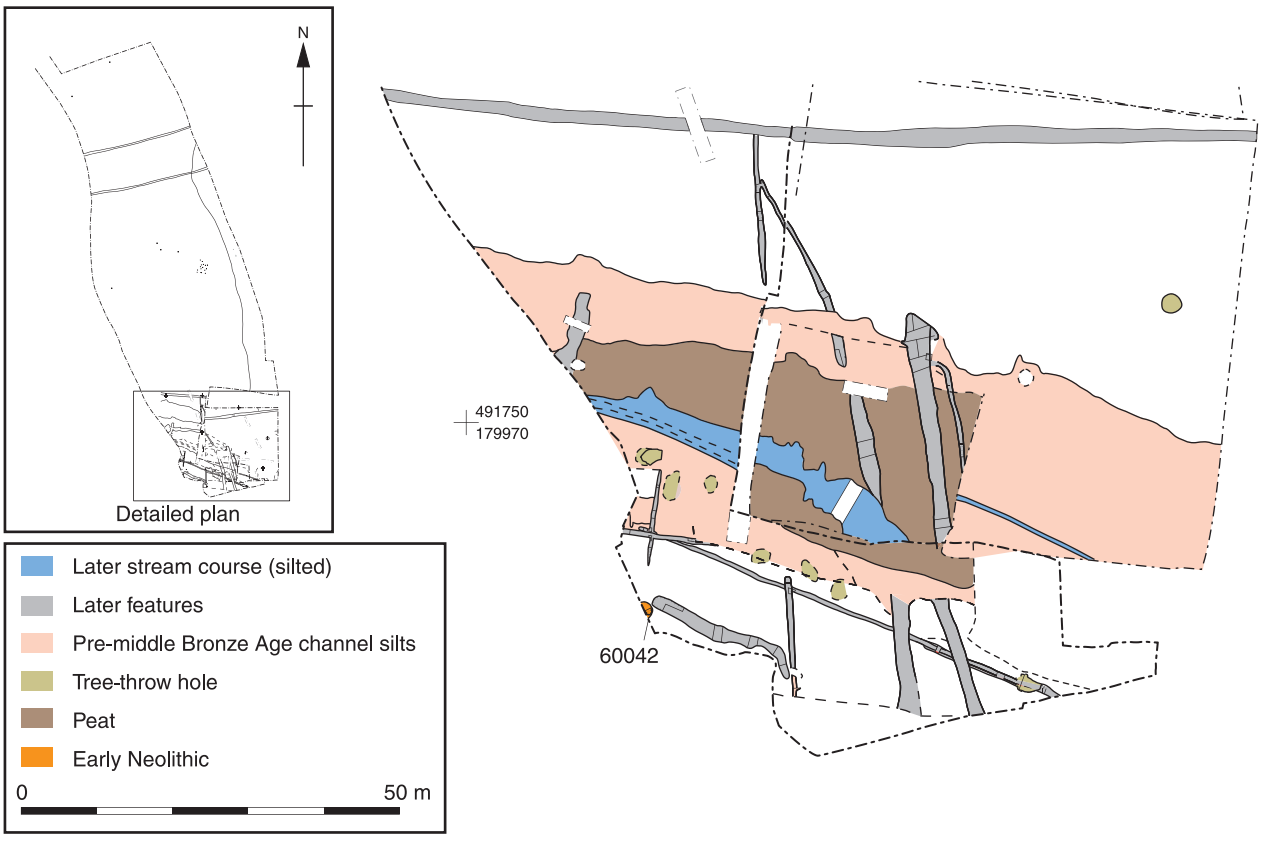


Fig. 6.38 Marsh Lane East Site 1, site plan

activity. This assemblage is similar in character to the one recovered from the Area 6 midden at the Eton Rowing Course. Small scraps of flint-tempered early Neolithic pottery (5 sherds, 6g) were recovered from environmental samples taken from fills 60055-7. The only featured sherd was a rolled rim (context 60057) from a thin-walled Plain or Carinated Bowl.

Struck flint from Marsh Lane East Site 1
by Theresa Durden and Hugo Anderson-Whymark

Introduction

This report discusses all of the worked flint from Marsh Lane East Site 1. A total of 1077 pieces of flint and 1049 pieces/13,991g of burnt unworked flint was recovered from the site, including several significant lithic assemblages. The upper fills of tree-throw hole 60042 contained a large quantity of early Neolithic flint. Similarly, in a second tree-throw hole/pit, 80010, the upper fill 80029 contained a deposit of flint, dating broadly from the Neolithic to early Bronze Age.

Raw material and condition

The flint used appears to be mostly gravel flint which is available locally. This flint varies in colour and translucency and ranges from pale beige to toffee-coloured and dark brown. Some grey and grey/black flint was also present. The cortex is generally thin, worn and pale brown or grey in colour. A small amount of chalk flint was present, recognisable by its dark grey colour and thicker, chalky white cortex. A likely source for this is the Chiltern Hills. Two flakes of Bullhead Bed flint were found in tree-throw hole 60042. Light calcium carbonate encrustation was also noted on some pieces from this feature. All lithic material was in fresh condition and most pieces were uncorticated or bore a speckled light blue/white cortication.

The assemblage (Table 6.21)

Blades and blade-like flakes were more common in pit 60042 than in other contexts, forming 28.2% of the flake material. Blades and flakes in this context were generally quite thin, with cortical, trimming and inner flakes represented. Hammer mode was a mixture of hard and soft and butts were mostly plain. Narrow and punctiform butts were present, especially on the blade material, and a small number of flakes with faceted butts were also noted. Platform abrasion was present on a small number of flakes, a feature typical of earlier industries and often associated with soft hammer flaking and narrow butts.

Tree-throw hole/pit 80010 contains a lower proportion of blade and blade-like flakes at 11.4% of the assemblage, but this figure is still significantly higher than the flintwork from middle and late Bronze Age contexts.

Table 6.21 The Mesolithic to early Bronze Age flint assemblage from Marsh Lane East Site 1

CATEGORY TYPE	Tree-throw hole 80010	Tree-throw hole 60042	Grand total
Flake	101	229	330
Blade	3	25	28
Bladelet	1		1
Blade-like	9	65	74
Irregular waste	1	1	2
Chip	10	10	20
Rejuvenation flake core face/edge	3	2	5
Rejuvenation flake tablet		2	2
Rejuvenation flake other		2	2
Thinning flake		1	1
Tested nodule/bashed lump		1	1
Single platform flake core	1		1
Multiplatform flake core	1		1
Unclassifiable/fragmentary core	3	3	6
End scraper		3	3
Awl		1	1
Serrated flake		3	3
Notch		1	1
Retouched flake	1	12	13
Misc. retouch		1	1
Grand total	134	362	496
Burnt unworked flint (g)	-	537	537
No. burnt (%) (exc. chips)	-	44 (12.5)	44 (9.2)
No. broken (%) (exc. chips)	22 (17.7)	150 (42.6)	172 (36.1)
No. retouched (% exc. chips)	1 (0.8)	20 (5.7)	21(4.4)

Nine rejuvenation flakes were collected, six of which were recovered from pit 60042, context 60056. These included two core face/edge flakes, two possible core tablets (fragmentary), a crested blade and a flake removing part of a core face and an old platform.

Three face/edge rejuvenations were also found in tree-throw hole/pit 80010.

One thinning flake was recovered from pit 60042, context 60057 and a second from ditch 80053.

Three fragmentary cores were found in both tree-throw hole/pit 80010 and tree-throw hole 60042 and a single tested nodule from the latter.

The single and multi-platform flake cores from pit 80010 are consistent with the general technology of the flake material, exhibiting more accurate removals than the Bronze Age cores. The blade core, SF 60403, was a surface find and represents a large example, weighing 115g. Indeed the core was far from exhausted and exhibited no faults to justify abandonment. The technological traits of the core are orientated to a blade industry, probably of Mesolithic date.

Twenty retouched flints were recovered from tree-throw hole 60042. The assemblage contained numerous simple edge retouched flakes, three

serrated flakes (one with silica gloss), three end scrapers, an awl, a notched flake and flake with distal bifacial retouch. A single edge retouched flake was found in tree-throw hole/pit 80010, accounting for less then 1% of the assemblage.

In addition, two curated artefacts, a late Neolithic/early Bronze Age partially polished chisel and a fine bifacially flaked Beaker knife, were recovered from a midden deposit in a middle-late Bronze Age ditch terminal (80053). The polish on the chisel was confined to the edge of the artefact, with many partially polished scars apparent along on the sides; it is possible that the sides were slightly reworked after the artefact was polished. These artefacts are very uncommon, though examples are known from the north of England (Manby 1974), a similar example was also found at Hemp Knoll, Wiltshire, in a barrow mound (Robertson-Mackay 1980, 151). An example was also found at Abingdon, Oxon. (Hood and Wallis 1986, 187), but was cruder and, although the chisel end had been polished, is barely comparable. The knife clearly exhibits finer flaking along the cutting edge; the opposing edge has been abraded as backing. Gloss is apparent on both sides over much of the cutting edge.

Other Mesolithic to early Bronze Age artefacts recovered from later phase contexts comprise a laurel leaf in the fill of posthole 60008 (SF 60009) and an obliquely blunted microlith in ditch fill 60014. The microlith dates to the early Mesolithic and is clearly residual in a Bronze Age ditch. The laurel leaf is typically earlier Neolithic in date, but no other flintwork was found in the same context.

Refitting

The flintwork from tree-throw hole/pit 80010, tree-throw hole 60042 was examined for refits. No refits or conjoins were found in tree-throw hole/pit 80010 and no related groups of raw material were identified. In tree-throw hole 60042 a pair of refitting blades and a cluster of seven blade and blade-like flakes were found (Fig. 6.39; all of which were utilised, see use-wear below). In the latter group several related but not refitting flints were also noted. Although no further refits from the pit were identified, a number of flakes may have been struck from the same nodules on the basis of identical cortex, colour and technological attributes. The two Bullhead flakes were both cortical and did not refit. In addition, eight broken flakes conjoined to form four complete flakes. It is intriguing than one of the conjoins was deliberately struck into two pieces from the ventral surface (SF's 60256-60235). The distal fragment exhibits slightly invasive retouch on the hinge fracture. Indeed, within the pit, relatively high proportions of breakage were recorded,

Fig. 6.39 Refitting flint, Marsh Lane East Site 1

several of which are on relatively thick flakes and are probably deliberate. The reason behind the breakage is unclear, but several hypotheses may be offered. Breakage resulting from use and the possibility of hafting have to be considered, but the fact that obvious points of percussion are clear on several flakes makes this unlikely unless the breaks were somehow caused during the removal of the piece from the haft. Alternatively, the breaks may relate to the production of segmented flake tools or transverse arrowheads.

Low power use-wear analysis of flints in tree-throw hole 60042

The flint from tree-throw hole 60042 was analysed for use-wear using low power magnification (10-20x). This report concentrates on the specific results arising from the analysis of this deposit. It is, however, necessary to compare results with other contexts analysed to highlight variations in use and wear patterns.

Sampling strategy

A sample of 261 flints from the fills of tree-throw hole 60042 (60055, 60056 and 60057) were analysed for use-wear. Flints recovered from sieving were not analysed, and chips (flakes <10mm²) were excluded. Chips were excluded as variable collection would distort figures for comparison between features. Excluding chips, 74.2% of the flints from the tree-throw hole were examined for use-wear.

Condition

The condition of the flint from tree-throw hole 60042 was generally very good. A total of 41 flints exhibited post-depositional damage (15.7% of the assemblage). The post-depositional damage was generally limited to drop-nicks (Moss 1983) and crescents and did not significantly affect the examination of any piece for use-wear.
A high proportion of the material was broken. A total of 124 edges on 100 flakes (38.3% of the assemblage) were broken. Only four of the broken edges bore evidence of use damage. The breaks do not appear to be the result of post depositional damage, and are probably the result of breakage during use.

Extent of use

The examination for use-wear suggests that 74.7% of the flints analysed from tree-throw 60042 have been utilised (195 flints). A number of the utilised pieces displayed use on more than one side. A total of 284 utilised edges were identified, or on average 1.5 utilised edges per flint.

Nature of use

The use-wear in tree-throw hole 60042 is characterised by the predominance of soft and medium cutting and whittling, although a small number of hard cutting and whittling actions are present. The assemblage also contained a small number of scraping actions against hard, medium and soft hardness materials; scraping actions account for 7.4% of the actions identified. Boring actions were identified on three flints (2.4% of the actions identified).

Conclusions

The proportion of utilised to unutilised flints present in the tree-throw hole is exceptionally high. The level of use is higher than in the middens, although late Neolithic pit deposits have contained higher levels of use. The actions are dominated by soft cutting and whittling actions, as were many of the midden deposits. However, the proportion of scraping actions is considerably lower.

Discussion

The lithic assemblage provides evidence for a little Mesolithic activity in the area, some of which is early Mesolithic given the presence of an obliquely blunted point. The early Neolithic is represented by tree-throw hole 60042 and the residual laurel-leaf point, although small quantities of residual material of this date are probably present across the site but are difficult to distinguish. For example, blades and artefacts such as serrated flakes, which are usually found in Mesolithic to early Bronze Age contexts, are present in late Bronze Age ditches. The distribution of the finds in the second tree-throw hole/pit (80010) is very similar to that in 60042, in that the lower fills were relatively sterile and the majority of the finds were recovered from a shallow indentation in the top of the feature. This perhaps implies that the tree-throws were open for a considerable time before material was deposited within them. The dating of 80010 is slightly problematic. A broad Neolithic to early Bronze Age date has been suggested on technological grounds, due to the absence of diagnostic artefacts. However, perhaps considering the proportion of blades and blade-like flakes (11.4%), a late Neolithic date is more probable (Ford 1987a, 79). The quantity of retouch present in tree-throw hole 60042 is perhaps indicative of domestic activity. Indeed, the deposit is comparable to deposits made in tree-throw holes at Eton Rowing Course, Area 6.

Catalogue of illustrated flint (Figs 6.40-41)

1 Ditch 60014. Microlith, Obliquely blunted point.
2 Palaeochannel 80082, fill 80083, SF 80233. Retouched flake, inverse retouch along the left hand side, and slight retouch with silica gloss along the concave edge.
3 Tree-throw hole 60042, fill 60056, SF 60247. Blade.
4 Tree-throw hole 60042, fill 60056, SF 60233. Misc. retouch. Slightly invasive bifacial retouch at distal end of a flake, possibly a form of knife, broken.
5 Tree-throw hole 60042, fill 60056, SF 60235 and 60256. Refit between two halves of an intentionally broken flake, possible blank for a chisel arrowhead.
6 Tree-throw hole 60042, fill 60057, SF 60157. Awl, with bifacial retouch at point.
7 Posthole 60088, fill 60016, SF 60005. End and side scraper.
8 Ditch 80053, fill 80059, SF 80376. Polished chisel. The polish is mostly confined to the blade edge of

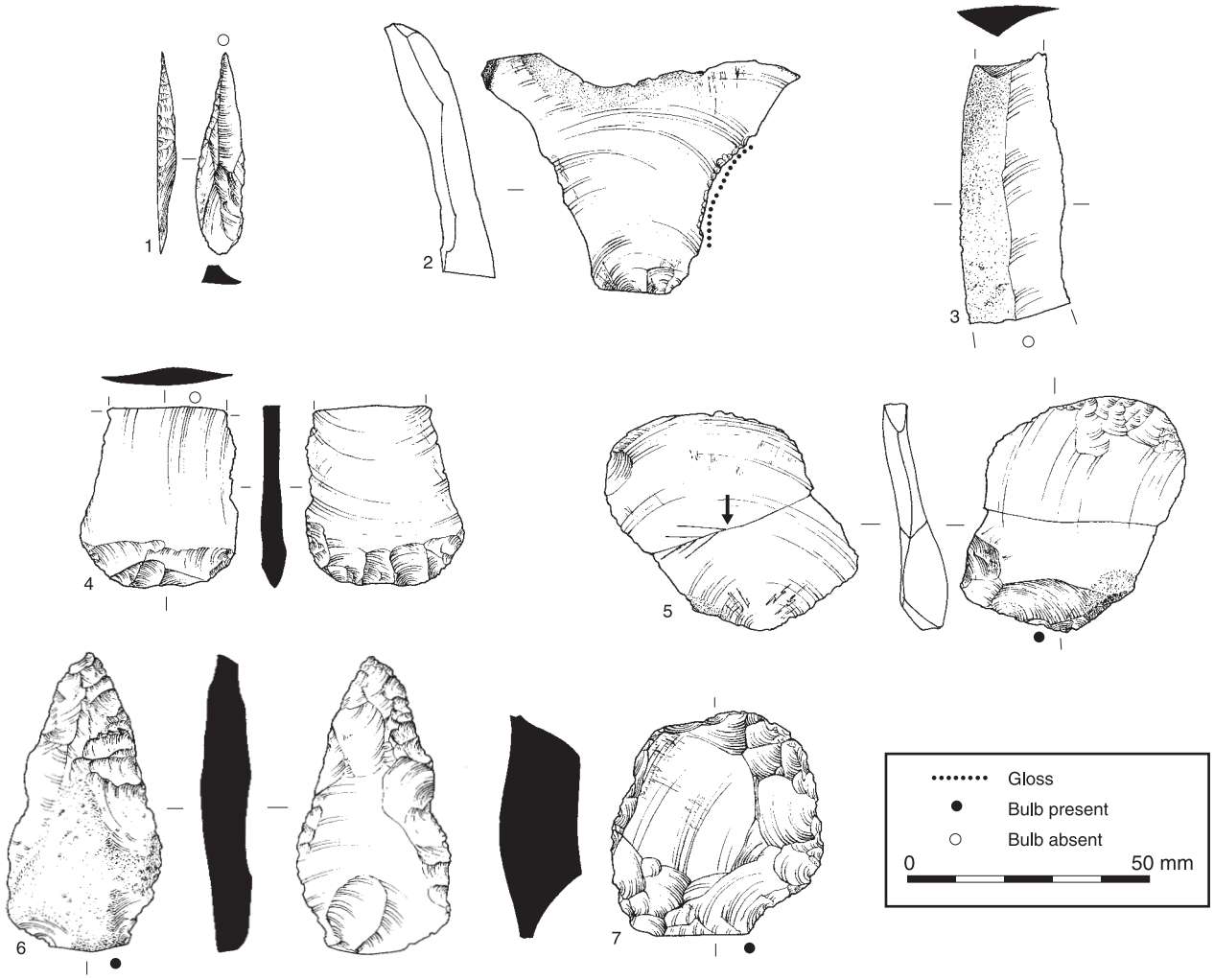


Fig. 6.40 Worked flint, Marsh Lane East Site 1

the artefact, although the sides of the artefact have also been partially ground.

9 Posthole 60008, fill 60007, SF 60009. Laurel leaf.

10 Ditch 80053, fill 80059, SF 80203. Knife. A finely retouched knife, note the finer flaking and surface gloss (not silica gloss) visible on along the blade edge (right hand side).

Taplow Mill Site 2: a possibly early Neolithic tree-throw hole *by Elizabeth Anderson and Alistair Barclay*

A number of small, circular, oval or often irregular features, most of which were probably tree-throw holes, were found at Taplow Mill Site 2 (Table 9.14; Fig. 9.25). The chronology of most of these features is uncertain. The lithic evidence, however, suggests that many of them may date from the late Neolithic or early Bronze Age, and the features and lithic evidence are, therefore, discussed in Chapter 9. One feature, tree-throw hole 100007, may, nonetheless, have dated from the early Neolithic (Fig. 9.26). The largest assemblage of worked flint, consisting of 315 pieces, was recovered from this feature. Although consisting large of flakes, this flint also included 28 blades and 39 blade-like flakes, as well as blade and flake cores and other pieces, and has been tentatively dated to the early Neolithic (see Chapter 9). The feature was irregular in plan and in profile, and measured 3.0m across and 0.4m deep. It contained a single fill (100035) of reddish brown silty clay.

A single, residual plain body sherd of principally flint-tempered (Fabric FA2/EMN) Neolithic pottery was recovered from a colluvial layer (100002) which lay stratigraphically above all of the features and other layers from which artefacts were recovered. This fabric group was used to make both early Neolithic Bowl and Peterborough Ware, and occurs on many of the excavated sites along the scheme. The sherd is likely to derive from either a Plain Bowl of early Neolithic date or from a plain Ebbsfleet-style vessel of early-middle Neolithic date.

Roundmoor Ditch: a flint scatter, tree-throw holes and other features *by Alistair Barclay*

Excavations at Roundmoor Ditch revealed two palaeochannels crossing the site (Fig. 6.42). A peat-

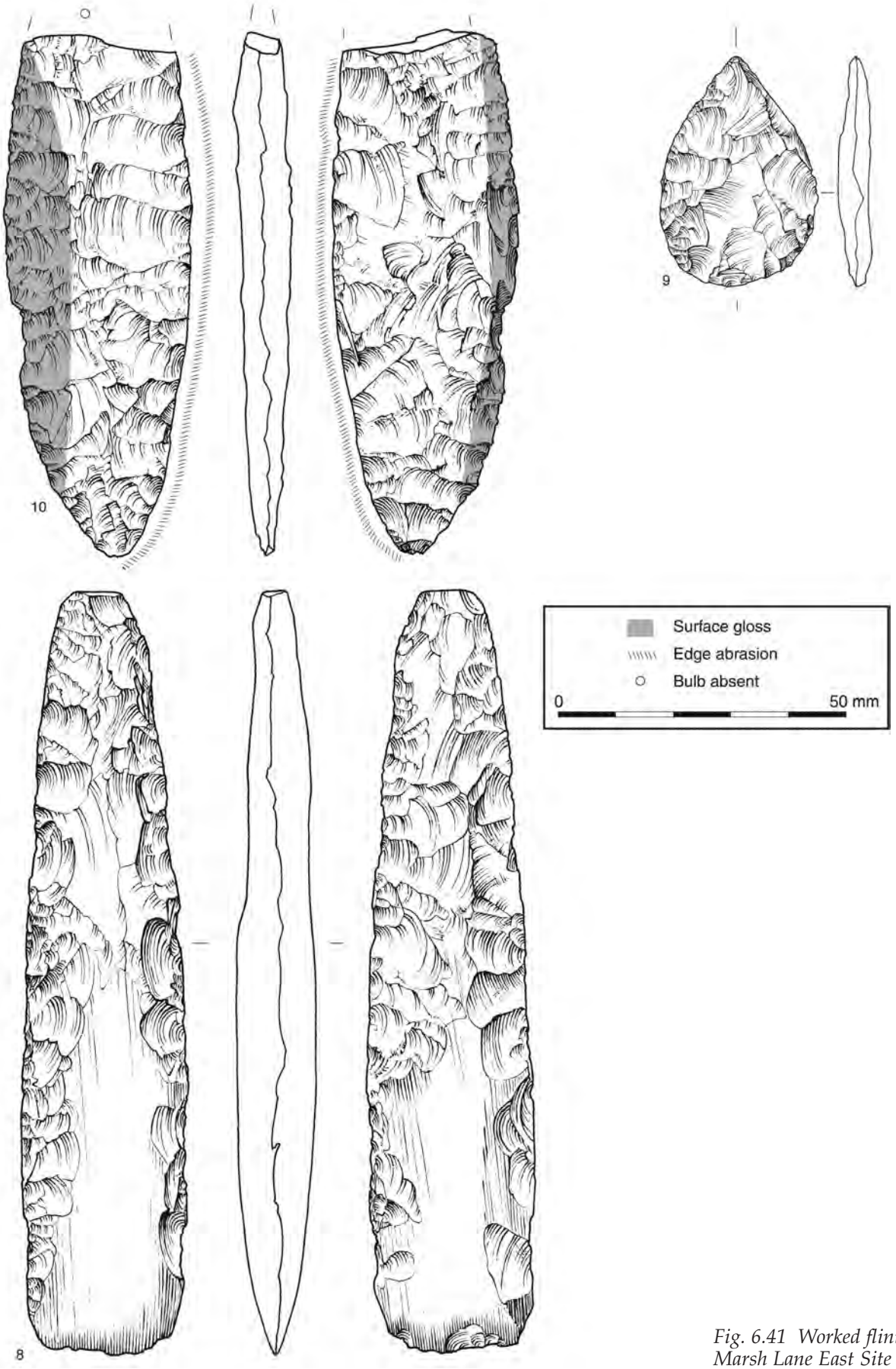


Fig. 6.41 Worked flint, Marsh Lane East Site 1

filled palaeochannel crossed the site from east to west and cut a channel in the south of the site, which was filled by a mix of peat, clay and gravelly silt. Environmental evidence from the peat-filled palaeochannel suggests that it filled during the late Devensian or early Flandrian, and that woodland succession occurred from the early to mid Flandrian. The peat-filled channel was heavily disturbed by the repeated throwing of trees rooted in the peat. To the north of the palaeochannel lay an area containing flint scatters. The scatters were of mixed date, containing Mesolithic to Bronze Age flintwork. To the south, prehistoric features, including a ditch, pits and tree-throw holes, were identified. Many of these features contained quantities of worked and burnt flint. A small quantity of probable Neolithic pottery was also recovered from the site.

Lithic scatter

An artefact scatter identified in the evaluation and during machine stripping of the topsoil was recorded within a grid of 5m x 5m squares. The scatter lay in a heavily disturbed layer (20002) into which nearly all of the features were cut. A total of 188 worked flints and 2 pieces of burnt flint were recovered from this gridded area (Figs 6.42-44). The lithic scatter extended over an area of at least 60m by 30m. Overall the density of flint was low with only five of the 5m squares containing more than four flints. Of the squares that produced flint nearly half (21 out of 45) only contained single

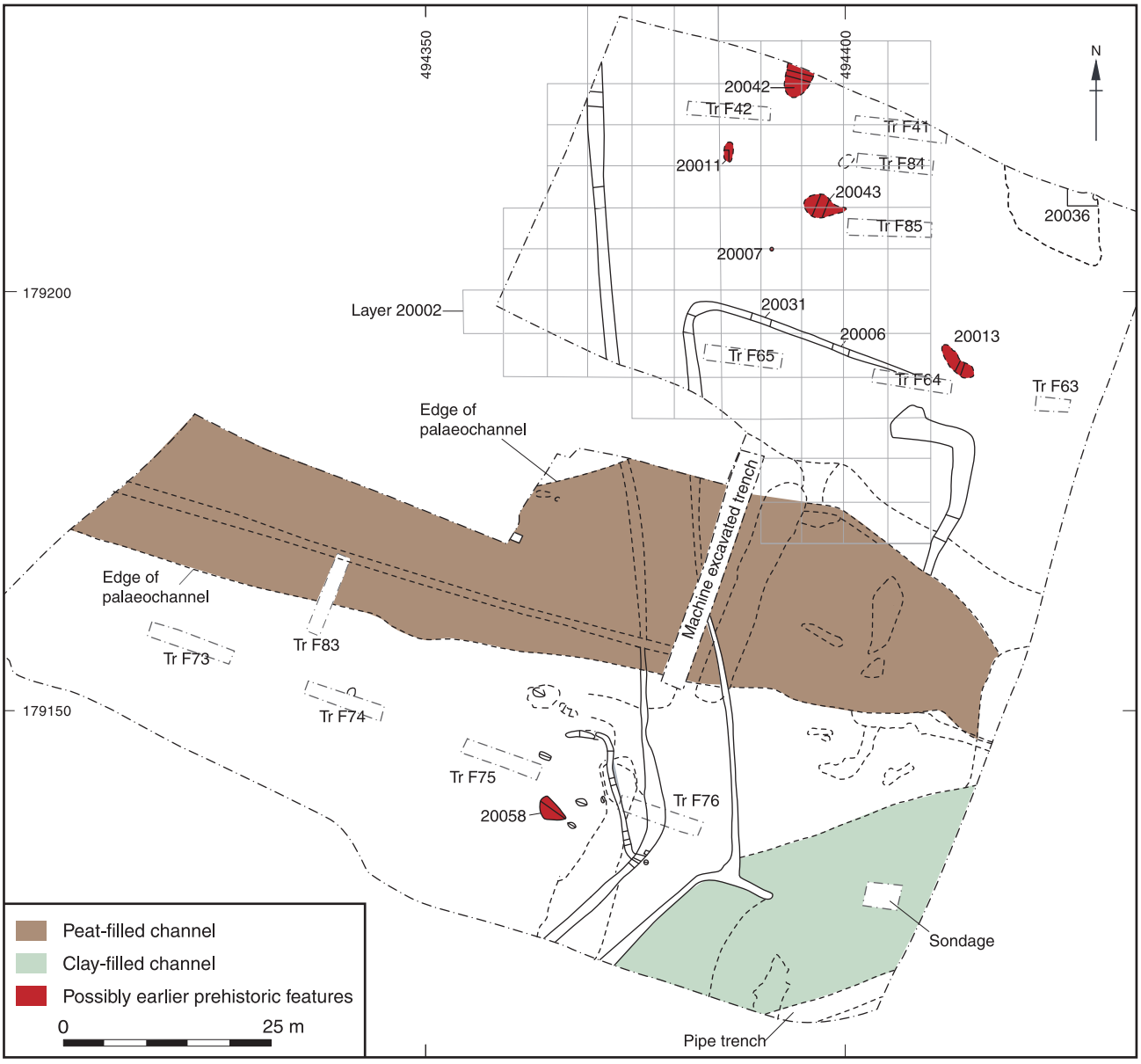


Fig. 6.42 Roundmoor Ditch, site plan

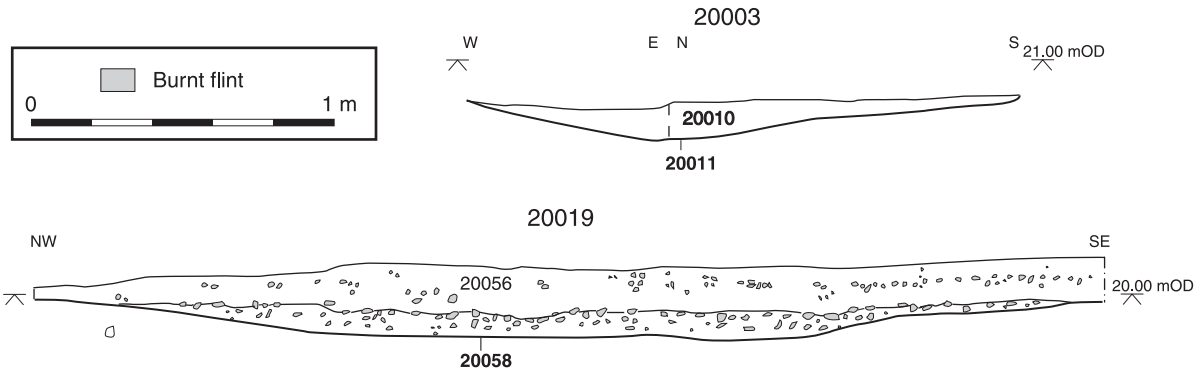


Fig. 6.43 Sections of tree-throw holes at Roundmoor Ditch

pieces. The highest number of flints per square was just eight. Most of the retouched items from the site were recovered from scatter 20002, which includes a wide variety of scrapers, serrated flakes, a notch, a flaked knife as well as other types.

Tree-throw holes, spreads and hollows (Figs 6.42)

A number of tree-throw holes, hollows, ditches, pits and postholes cut the first gravel terrace (to the north of the peat-filled channel) and a gravel bar (between two palaeochannels). Many of these features are of later prehistoric date and are described in detail in Volume 2, while others are post-medieval.

A small number of features may, however, have been prehistoric. These features include probable tree-throw holes (20011, 20013 and 20058; Fig. 6.43) and a number of shallow hollows that contained spreads of material (20042 and 20043) and a posthole (20007). Tree-throw hole 20011 contained a small quantity of early Neolithic flintwork including a roughout for a leaf-shaped arrowhead as well as a significant quantity of burnt flint (139 pieces, 1326g). Tree-throw hole 20013 also contained worked flint. Tree-throw hole 20058 contained nine scraps of pottery which may have been of earlier Neolithic date but which were too small to be dated any more closely.

The shallow hollows, 20042 and 20043, could represent undulations within the ground surface that became traps for archaeological material. Both contained worked flint.

A single posthole, 20007, containing burnt flint, could have been of early or late prehistoric date (Fig. 6.42).

Discussion

The flint recovered from this site suggests activity in the area from the late Mesolithic to the early Bronze Age. Unfortunately, because of the small quantities of finds, the disturbance to the site, and the resulting chronological uncertainties, it is difficult to say much about the nature of that activity, except that it seems to have been of limited intensity and perhaps, although overall spanning a long period, probably consisting of episodes of limited duration. The flint does, however, contain a quite high proportion of retouched pieces which may be indicative of domestic activity.

Earlier prehistoric pottery from Roundmoor Ditch *by Tessa Machling, Alistair Barclay and Kayt Brown*

Thirteen very small sherds were recovered from the Roundmoor Ditch site, only 10 of which could be identified. The only pottery which is likely to have been of earlier prehistoric date were 9 sherds (6g) from tree-throw hole 20058. These sherds were in a soft to hard, irregularly fired fabric with sparse amounts of poorly sorted fine to coarse grade, flint temper and moderate amounts of quartz sand, which can be paralleled by fabric F9 at at Weir Bank Stud Farm, Bray (Cleal 1995). Although no featured sherds were recovered at Roundmoor Ditch, at other sites this fabric is associated with externally enlarged and expanded rimmed, undecorated sherds typical of the earlier Neolithic Plain Bowl tradition. However, it has been noted elsewhere that the paucity of decorated sherds does not necessarily exclude a Decorated Style assemblage (Cleal 1995).

Worked flint from Roundmoor Ditch *by Theresa Durden and Hugo Anderson-Whymark*

Introduction (Tables 6.22-23)

A total of 324 pieces of flint and 2290 fragments (9,471g) of burnt unworked flint was recovered from the site. The bulk of the flint was recovered from the interface between the topsoil and the alluvium (layer 20002). Smaller collections of flint were recovered from tree-throw holes and other natural features.

Raw material

The flint used appears to be mostly gravel flint which is available locally. Much of the flint from this site was toffee- or honey-coloured along with the more usual pale and dark browns. It may be that

Table 6.22 The flint assemblage from Roundmoor Ditch by category and feature

CATEGORY TYPE	*Natural 20002*	*Natural hollow 20042*	*Natural hollow 20043*	*Treehole 20011*	*Spread 20036*	*The 23 other features*	*Grand total*
Flake	127	10	17	11	10	47	222
Blade	5	2	2			3	12
Blade-like	16	2	1		2	5	26
Irregular waste	1					2	3
Chip			2	4		1	7
Rejuvenation flake core face/edge	1						1
Rejuvenation flake tablet	1						1
Rejuvenation flake other	1						1
Thinning flake			2				2
Core single platform blade core	4						4
Bipolar (opposed platform) blade core	1						1
Tested nodule/bashed lump	3						3
Multiplatform flake core	4					1	5
Unclassifiable/fragmentary core	3		1	1		1	6
Leaf arrowhead				1			1
Barbed and tanged arrowhead	1						1
End scraper	3						3
Side scraper	2			1		1	4
End and side scraper	1						1
Disc scraper	1						1
Other scraper	2					1	3
Serrated flake	6	1				2	9
Notch	1						1
Backed Knife	1						1
Other knife	1						1
Retouched flake	2					2	4
Grand total	188	15	25	18	12	66	324
Burnt unworked flint (g)	30	-	5	1326	-	8110	9471
No. burnt (%) (exc. chips)	2 (1.1)	-	-	5 (35.7)	-	1 (15.4)	8 (2.5)
No. broken (%) (exc. chips)	41 (21.8)	7 (46.7)	8 (34.8)	11 (78.6)	4 (33.3)	15 (23.1)	86 (27.1)
No. retouched (% exc. chips)	21 (11.2)	1 (6.7)	-	2 (14.3)	-	6 (9.2)	30 (9.5)

this coloration represents a light iron staining; no other cortication was noted. Two flakes of Bullhead Bed flint were found, one from layer 20042 and the other from layer 20036. All lithic material was in fresh condition.

The assemblage

Broad flakes dominated the assemblage, although blades and blade-like flakes formed 16.8% of all flake material. Blade-like material was most common in layer 20002, though this layer did contain over half of the struck flint assemblage. A mixture of hard and soft hammer percussion was used, and butts were of the simple prepared type, although a flake with a faceted butt was found in layer 20002. Butts were mostly broad although narrow butts were often present on blade-like material struck with a soft hammer. Three rejuvenation flakes were noted from layer 20002: a core tablet (SF 20099), a core face rejuvenation and a crested flake. No rejuvenations were found in other contexts. A possible thinning flake was found in spread 20043.

A wide variety of blade and flake core types were present in layer 20002, whilst only flake cores and fragments of flake cores were recovered from layer 20004, spread 20043 and tree-throw holes 20011 and 20013. However, the flake core from 20004 possessed some blade-like removals.

The bulk of retouched items came from layer 20002. A wide variety of scrapers was present, consisting of horseshoe, disc (SF 20091), side, end and side, and end forms (nine in total). In addition to the scrapers, six serrated flakes (SF 20083), a notch, a unifacially flaked knife (SF 20192) and backed knife (SF 20112) and a barbed and tanged arrowhead of Sutton's type 'b' (Green 1980, 122) were also found in layer 20002. A roughed-out leaf arrowhead (SF 20053) was recovered from tree-throw hole 20011 along with a side scraper. A significant proportion of the flints recovered bore evidence of use. Of particular note is a large flake

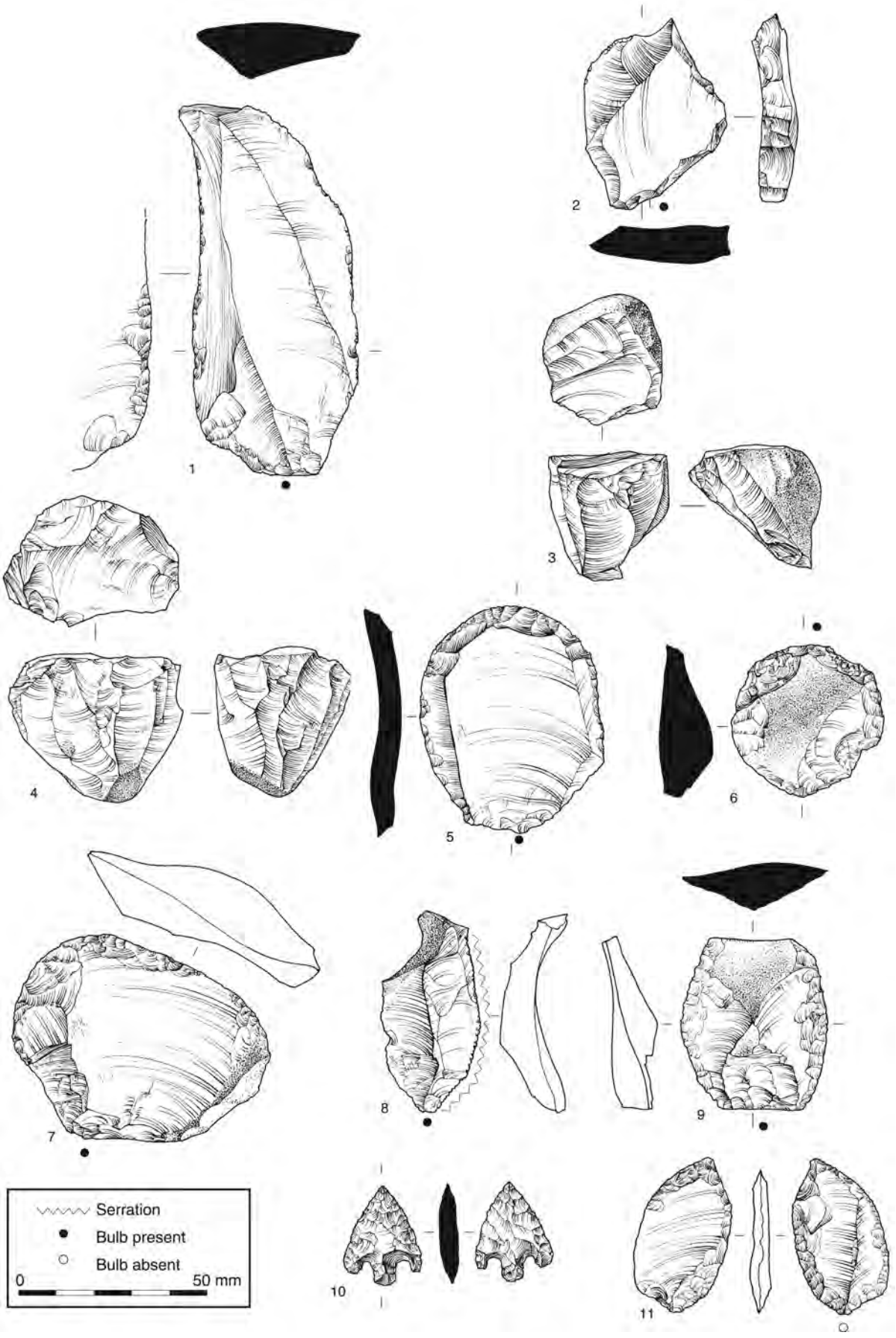


Fig. 6.44 Struck flint from Roundmoor Ditch

Table 6.23 Burnt unworked flint by feature

Feature no	*Interpretation*	*Total no*	*Weight (g)*	*Avg. wt (g)*
20002	Natural	2	30	15.0
20043	Natural hollow	2	5	2.5
20011	Tree-throw hole	139	1326	9.5
20006	Ditch	1	3	3.0
20016	Ditch	332	859	2.6
20017	Spread	328	854	2.6
20020	Pit	688	4166	6.1
20031	Ditch	672	1684	2.5
20032	Ditch	107	480	4.5
20034	Posthole	19	64	3.4
Total		2290	9471	4.1

from layer 20002, that exhibits rounding (from scraping soft materials), along the entire length of the left hand side.

The technological traits and typologically diagnostic artefacts indicate that layer 20002 contains an assemblage of mixed date. A component of Mesolithic material, possibly late Mesolithic, is certainly present, probably representing a significant proportion of the assemblage, and the barbed and tanged arrowhead indicates some late Neolithic to early Bronze Age flintwork. However, Neolithic flint also appears to be present. The unfinished leaf arrowhead in tree-throw hole 20011 is datable to the earlier Neolithic.

Discussion

It is difficult to comment on the nature of the site as so many of the lithics came from a disturbed context. The broad date range, however, does indicate the area had been a focus of activity from as early as the late Mesolithic/early Neolithic through to the early Bronze Age. The relatively high proportion of retouched items (9.3%) also suggests some domestic activity.

Catalogue of illustrated flint (Fig. 6.44)

1 Palaeochannel fill 20003, SF 20112. Retouched flake.
2 Layer/finds reference 20002, SF 20099. Rejuvenation tablet.
3 Layer/finds reference 20002, SF 20074. Single platform blade core, 34g.
4 Layer/finds reference 20002, SF 20105. Single platform blade core, 64g.
5 Layer/finds reference 20002, SF 20018. Other scraper, disc form.
6 Layer/finds reference 20002, SF 20091. Disc scraper, burnt.
7 Layer/finds reference 20002, SF 20072. End and side scraper.
8 Layer/finds reference 20002, SF 20083. Serrated flake, serrated along the left hand side.
9 Layer/finds reference 20002, SF 20192. knife. Invasive retouch along the left and right hand sides.
10 Layer/finds reference 20002, SF 20039. Barbed and tanged arrowhead, Sutton type 'B'.
11 Tree-throw hole 20011, fill 20012, SF 20053. Unfinished leaf arrowhead.