Excavation of Ring-Ditches and Other Sites at Stanton Harcourt

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Notes on the Finds and on Ring-Ditches in the Oxford Region

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THE excavations were undertaken during the course of commercial graveldigging by Messrs. Amey's Aggregates to the west of the wartime aerodrome about $\frac{3}{4}$ mile south-west of Stanton Harcourt village, and $\frac{1}{4}$ mile east of the river Windrush, here flowing south to join the Thames at New Bridge, Standlake. The area was roughly midway between Linch Hill to the south and the Vicarage Field to the north, and west-north-west of the Devil's Quoit Circle (National Grid SP/406049). The subsoil was Summertown-Radley terracegravel, pitted superficially with occasional solution-hollows. The brown loamy topsoil varied in depth from 6 to 12 ins. The sites were some 12 ft. above the present-day water-table.

The area between Linch Hill and the Vicarage Field has vielded numerous ancient sites and finds and been the scene of much field-work and excavation.¹ The sites reported here appeared first as crop-marks on two pre-war Ordnance Survey air photographs, and were photographed by Major G. W. G. Allen in 1935.² An air photograph taken by Dr. J. K. St. Joseph in June 1949 showed them from the south.³ They comprised four ring-ditches and had been listed by Professor Grimes as Field XV, nos. 1-4.4 No. 1 was a single uninterrupted circular ditch. Nos. 2, 3, 4 were confluent in a straight alignment and no. 4A

4 Op cit., FIG. 58.

¹ Grimes, Excavations on Defence Sites 1939-45, 1 (1960), 140-69. Oxoniensia, passim, esp. Harden & Trewecks, x (1945), 16-41; Williams, xv1 (1951), 5-22; Thomas, xx (1955), 1-28. See Grimes, loc. cit., FIGS. 57 & 58 for plan of ancient sites at Stanton Harcourt and Case, Oxoniensia, xx1 (1956), FIG. 6, f. p. 20 for map showing most of the other localities mentioned in the following pages and their relationship to Summertown-Radley terrace-gravels.

² Ordnance Survey, Old collection nos. 3610, 3620; Ashmolean Museum, Allen 1150. 3 University of Cambridge, Collection of Committee for Aerial Photography, C.D. 041.

is here applied to the bulge at the southern extremity of 4. Mechanical stripping of topsoil before gravel-digging revealed many other features, which were planned and excavated by myself, Mr. D. Sturdy and Mr. D. M. E. Avery (FIG. 1): Neolithic pits; a beaker-culture burial surrounded by a small ringditch; two other beaker-culture burials and three other undated burials; and Early Iron Age settlements. The earlier sites are described here; the Early Iron Age settlements will be described in a later report. Only pre-Early Iron Age features are titled on FIG. 1.

Excavation by the Oxford University Archaeological Society began in October 1960 before commercial stripping of topsoil. The ring-ditches were located and surveyed by proton-magnetometer. The cuttings were laid out entirely according to readings provided by the machine (FIG. 2). The intention of excavation was to examine the profiles and fillings of the ring-ditches; to dig at the points of intersection in order to determine their sequence of construction; to examine the relationship of ditches 4 and 4A; and to investigate any areas in the interiors of the rings which gave anomalous magnetometer readings. After excavation, the ring-ditches were visited during topsoil stripping in the spring and summer of 1961. The inhumation-burials were then excavated or salvaged. The site was quarried throughout 1961 and completely destroyed. FIGS. 1 and 2 were plotted from aerial photographs, magnetometer surveys, and measurements made during archaeological excavation and stripping of topsoil before quarrying.

The finds from the 1960-61 excavations were deposited in the Ashmolean Museum.

NEOLITHIC PITS

Pit C (Plan, FIG. 1; Finds, p. 19, FIG. 7). Four flint flakes and a rubbing stone were found by the driver of the mechanical excavator in a pit about 24 ft. west of ring-ditch 4. No other details are available.

Pit E (Plan, FIG. 1; Finds, p. 19, FIG. 7) was in the Early Iron Age complex west of ring ditch 4; it was 3 ft. 5 ins. in diameter and 1 ft. 7 ins. deep. Its filling was red-brown loam with much gravel, containing a flake of Peterborough ware, flints, daub, and animal bone. Bones of ox and sheep or goat (including some juveniles) were well represented and pig was also present. The other excavated pits in the group contained Early Iron Age debris. But only 12 of some 32 pits were sampled, and it is possible that some of the smaller unexcavated pits also contained Neolithic material.

Peterborough ware (p. 31 ff.) and flints were also found during the excavation of the ring-ditches, and during the mechanical stripping. Neolithic





FIG. 2 Plan of ring-ditches at Stanton Harcourt.

material including a rim-sherd in the Fengate style of Peterborough ware (FIG. 7, no. 13) was also found in Pit D (FIG. 1), in part of the Early Iron Age settlements planned by Mr. D. M. Avery, and will be described in a later report.

BEAKER-CULTURE AND OTHER INHUMATION-BURIALS

(Inhumation-burials are shown on FIGS. 1 and 2 as I/1, etc.)

Three inhumation-burials were found with beaker-pottery (nos. 1-3). It was possible to excavate one. The others and three inhumation-burials without pottery had been seriously damaged by the mechanical excavator. Fragments of four other beakers (p. 26 ff.) were recovered by the driver of the mechanical excavator, three in the area of burial 1 and one in the area of burial 3.

Inhumation-burial I (Plan, FIG. 1; Plan of grave, FIG. 3; Finds, FIG. 8, p. 21 ff.) appeared after mechanical topsoil stripping as a large pit in the northern Early Iron Age settlement. The grave was rectangular with rounded corners, 6 ft. 5 ins. north-south by 4 ft. 9 ins. east-west, 12 ins. deep from the natural gravel surface, with slightly inward-sloping sides. It was filled with brown loam and gravel.

The upper part of the filling contained animal bones and four sherds of Early Iron Age pottery. The exact extent of Iron Age disturbance of the pit was not determined, but the burial itself, although disarticulated had not been disturbed.

The highest part of the burial was the skull, which lay upside down, 4 ins. from the top of the filling. The mandible was also high, but lay some 2 ft. westwards, beyond the axis of the vertebral column. Disarticulated ribs lay beneath the skull and the long bones of the arms were at the same level to the north-west and south-east. Although these were in approximately their right relationship to the torso, the position of the left humerus, radius and ulna showed that the arm-bones had been disarticulated when buried. The bones of one hand, but not of the wrist, were found articulated. The bones of the other hand were jumbled and at a lower level. The main axis of the torso lay diagonally downward, so that three ribs and the lower thoracic vertebrae lay on natural gravel.

The rest of the skeleton was in a very confused or partial condition. No lumbar or sacral vertebrae were found, and only the left half of the pelvis which lay separated from the vertebral axis in the region of the shoulders. The legbones were disarticulated. The femora lay separately at slightly different levels, but the tibiae and fibulae were close together, articulated with their patellae. The left leg retained its tarsal bones, but no other bones of the feet were found.





The general impression was that the body had been in an advanced state of decomposition when buried. Dismemberment alone would hardly explain the displacements and deficiencies. It was not possible to tell whether the deficiencies were the result of attacks by animals between death and burial. There had been no serious attempt to arrange the remains in a crouched position. The possibility, suggested by the position of the articulated vertebral column and the tibiae, that the remains represented a contracted burial subsequently disturbed was considered and rejected. Dr. D. F. B. Roberts, Dept. of Human Anatomy, Oxford, kindly commented: 'The skeletal remains, which were in a crushed and fragile condition, represent a young adult male, in late teens or early twenties, of small stature and not of robust health.'

The bell-beaker was discovered in the south-west quarter of the pit before any part of the burial was evident; a bone spatula was found some 6 ins. north of the skull and a flint flake was found near the more northerly of the two femora. The chest of the skeleton was covered by a toothless mandible of an ox. The absence of broken-off roots in the sockets suggests that the teeth fell out naturally. It was closely associated with the burial, but it may have been refuse, accidentally included in the grave fill. In view of the uncertainty about the extent of later disturbance, an Early Iron Age date for the jaw cannot be excluded.

Inhumation-burial 2 (Plan, FIG. 1; Find, FIG. 8, p. 25) was badly damaged by the mechanical excavator. Sherds of a bell-beaker and a few paper-thin bone fragments were recovered, but the area was too badly disturbed to discover what form the burial had taken. Dr. Roberts commented: 'The remains were of an infant of about two years.'

Inhumation-burial 3 and ring-ditch 5 (Plan, FIG. 1; Section, FIG. 4; Finds, FIG. 8, p. 25 ff.). Inhumation-burial 3 was revealed by mechanical stripping. The burial was surrounded by a circular ditch (ring-ditch 5), diameter about 45 ft., only a small segment of which was available for excavation. Parts of a skeleton, a bell-beaker and a wrist-guard were recovered by the driver of the mechanical excavator from a central deposit. The ditch was generally U-shaped in section (FIG. 4), but the sides flared widely near the top. Its depth from the natural gravel surface was 3 ft. 3 ins. and its surviving width 5 ft. 6 ins. Its filling, of gravel, loam, and gravelly loam had fallen evenly from both sides, and the section gave no evidence as to the original form of the monument.

Dr. Roberts commented: 'The skeletal remains represent a mature adult male, robust and about 5 ft. 9 ins. tall.'

Inhumation-burial 4 (Plan, FIG. I). A pit 4 ft. 4 ins. north-south by 4 ft. 6 ins. east-west, filled with red loam was revealed by mechanical topsoil-stripping west of ring-ditch I. The grave filling produced no finds. The burial was

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very badly crushed and dispersed, and it was impossible to determine the attitude of the skeleton, or to remove any of it for examination. When the pit was fully cleared eight small post-holes were found in the floor of the pit, arranged irregularly, ranging in diameter from 5 to 10 ins. and in depth from 1 to $8\frac{1}{2}$ ins.

Inhumation-burial 5 (Plan, FIG. 1) was found by the driver of the mechanical excavator some 200 ft. north of the ring-ditches. Only the lower part of the skeleton was recovered. Dr. Roberts commented: 'The bones were of a mature adult male of medium build.'

Inhumation-burial 6 (Plan, FIG. 2) was found inside ring-ditch 2 and is described below on p. 9.

THE RING-DITCHES (FIG. 2)

The filling of the ditches followed the familiar local pattern: First, clean gravel and sand; next mixed gravel and loam (layer 4); then a most distinctive layer of red loam with a few runs of pebbles (layer 3); finally red-brown loam with some gravel and pebbles (layer 2), merging into brown to red-brown loamy cultivated topsoil (layer 1). Within this characteristic framework the filling of each ditch showed minor variations, usually in the lowest layers, and these are indicated on the drawn sections.

RING-DITCH I (South section, Cutting I, FIG. 4. Finds, p. 27)

Cuttings I and II were dug, II having to be left unfinished. The following layers were discovered in the ditch in Cutting I: (1) Red-brown loam, (2) red-brown loam with pebbles and gravel, (3) red-brown loam, (4) brown loam with gravel, (5) brown-yellow sandy gravel, (6) gravel with brown loam, (7) yellow-brown sandy gravel, (8) gravel with sandy brown loam.

Silting occurred fairly evenly from both sides. The accumulation of layer 3 was particuarly thick. The occurrence of loam in the lowest layers of silt was peculiar to ring-ditch 1.

Cutting I was extended to the east to examine a crop mark, showing in aerial photographs north of the centre of the ring (shown as FIG. 2, Cutting I, area A). A shallow pit was found to have been dug into gravel. It had been filled with sticky dark material, perhaps decayed humic or organic matter. The pit did not appear ancient, and was possibly a former gravel-pit. No finds were made in it.

RING-DITCH 2 (North-West section, Cutting III, FIG. 5. Finds, FIG. 9; p. 27)

Cutting III was dug through the ditch. The following layers were discovered: (1) Red-brown loam, (2) red-brown loam, gravel and pebbles,



Sections of ring-ditches 1 and 5.

(3) red-brown loam with runs of pebbles, (4) gravel and brown loam, (5) sandy yellow gravel, (6) gravel with brown sandy loam, (7) clean fine gravel, (8) very dark brown humic loam, (9) coarse gravel, stained by layer above, (10) very sandy yellow-brown gravel, (11) coarse grey gravel, (12) weathered natural gravel.

Silting had been fairly even from both edges, although layer 5 was peculiar to the inner (north-east) edge. Layer 8 appeared to have fallen from this edge. It was not of even thickness throughout the cutting; 4 ft. to the south-east of the drawn section it could only be traced as a stain in layer 9.

Cutting IV was dug through the intersection of ditches 2 and 3 and is

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described below (p. 15 ff.). It was extended north-westwards to investigate area B, where a crop mark in aerial photographs was confirmed by anomalous magnetometer readings (FIG. 2, Cutting IV, area B). A shallow depression, some 10 ft. in diameter was found to have been filled with red-brown loam above grey-brown loam with gravel. Like similar loam-filled hollows revealed by mechanical scraping nearby it was taken to be a natural solution hollow. The filling, however, produced some finds: A fragment of clay pipe stem, 3 struck flints and tiny fragments of charcoal and daub from the red-brown loam, and 3 struck flints from the grey-brown loam with gravel.

Cutting V was also dug to investigate anomalous magnetometer readings. Rather more clayey topsoil than normal was found to lie directly on undisturbed gravel. The cutting produced 8 struck flints, 7 small sherds and an indeterminate fragment of bone.

Inhumation-burial 6 was found during topsoil stripping, and had been badly displaced by the machine. It was accompanied by a flint flake. Dr. Roberts commented: 'The remains represent a mature adult, probably female, robust, of medium build and in the early thirties.'

RING-DITCH 3 (North section, Cutting VI, FIG. 5. Finds, FIG. 9; p. 27.)

The following layers were discovered: (1) Red-brown loam and gravel, (2) red-brown loam and gravel with pebbles, (3) red-brown loam, (4) brown loam with gravel and pebbles, (5) yellow sandy gravel, (6) grey-brown sandy loam with gravel, (7) yellow-brown sand and gravel, (8) red-brown loam with gravel, (9) red-brown loam with less gravel, (10) dark brown humic loam, (11) yellow sand and gravel, (12) grey sandy gravel, (13) weathered natural gravel.

The small amount of layer 3 was markedly west of the original centre of the ditch. This was the result of a large amount of material (Layers 5, 6, 7 and 8) which had fallen from the inside and altered the shape of the ditch. Layer 10 can perhaps be compared with layer 8 in ring-ditch 2. The division between layers 8 and 11 towards the inside was unusually flat and sharply defined, and the larger amount of layer 11 on the outside was noticeable.

Cutting VII was unfinished. It was dug to test a point where magnetometer readings suggested a causeway, but the ditch was found to continue uninterrupted. Neither aerial photographs nor magnetometer readings suggested any feature at the centre of ring-ditch 3; in Cutting VIII about 9 ins. of topsoil lay directly on undisturbed gravel. A flint flake with serrated edge was found in the topsoil.

RING-DITCH 2 : CUTTING III



Sections of ring-ditches 2 and 3.

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RING-DITCH 4 (South-east section, Cutting XI, FIG. 6. Finds, FIGS. 9 & 10; p. 29 ff.).

The following layers were discovered: (1) Red-brown loam, (2) red-brown loam with gravel and pebbles, (3) red-brown loam, (4) area of cremation 1, (5) gravel with brown loam, (6) fine gravel with red-brown loam, (7) fine yellow gravel, (8) coarse gravel with loam, (9) sandy yellow-brown gravel, (10) coarse grey gravel.

Both lips were of hard gravel-conglomerate. Layers 6 and 7 had fallen from the outside edge.

Cutting X was dug to investigate an anomalous magnetometer reading. Topsoil rather more clayey than normal was found to lie directly on undisturbed gravel. No finds were made.

Cremation-burials 1-7. Seven cremation-burials were found in association with ring-ditch 4 (FIG. 2): Nos. 1-3 during excavation of the ditch; Nos. 4-7 during mechanical excavation. The areas of cremation-burials corresponded closely with areas of low readings on the magnetometer-plan.

Cremation-burial 1 (FIG. 6, Cutting XI, layer 4). Two lumps of gravelconglomerate, about 2 ft. 4 ins. deep from the modern surface, covered a mass of dark loam in which were charcoal, fire-cracked pebbles, and a small amount of burned bone. No sharp line of demarcation was observed between cremation-debris and the red loam of layer 3, to suggest that the burial had been made in a pit dug from a higher level. The dark loam was not confined to a definite area and merged into the red. Dr. Roberts commented: 'No duplications, probably a single individual. Possibly a child (1 oz.).'

Cremation-burial 2 (Cutting XII, layer 3). Like cremation-burial 1 it was covered by a slab of gravel-conglomerate, about 3 ins. thick and 2 ft. 3 ins. to 2 ft. 7 ins. below the modern surface. The slab was separated from the burned material (dark loam and a few fragments of burned bone) by about 2 ins. of clean red-brown loam. The area occupied by burned material was very compact and smaller than the stone, measuring only some 7 by 10 ins. It contained only a few minute fragments of burned bone. Dr. Roberts commented, 'Possibly a single individual. Not an infant but perhaps a child (less than $\frac{1}{2}$ oz.).'

Cremation-burial 3 (Cutting XII, layer 3, on surface of layer 5) was not covered by a stone. A scatter of dark loam, charcoal, much burned bone, sherds and cracked pebbles was concentrated in an area of 12 by 18 ins., extending northwards into the balk, with a less concentrated scatter of burned material to the south. The top of the burned material was 2 ft. 10 ins. deep from the modern surface. Dr. Roberts commented, 'At least 3 adults, probably more (2 lbs. 6 oz.).'





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Cremation-burial 4 was 30 ft. east of ring-ditch 4, in a shallow circular pit, 1 ft. 6 ins. in diameter, dug into undisturbed gravel. It appeared to have a clay lining. The deposit was disturbed by topsoil scraping. Cremated bones and four sherds were recovered. Dr. Roberts commented, 'No clear duplication, but the amount suggests more than one adult $(7\frac{1}{2} \text{ oz.})$.'

Cremation-burial 5. The positions of this burial and of nos. 6 and 7 on FIG. 2 are approximate. Burial 5 was in ditch filling; fragments of burned bone and two sherds were recovered. Dr. Roberts commented, 'A single adult $(5\frac{1}{2} \text{ oz.})$.'

Cremation-burial 6 was in ditch-filling. Sherds of a Middle Bronze Age accessory vessel (FIG. 10; p. 29) were recovered but no bones.

Cremation-burial 7 was in the interior of the ring-ditch near its edge. Fragments of burned bone and a sherd were recovered. Dr. Roberts commented, 'Possibly a single individual. All post-cranial fragments $(3\frac{1}{2} \text{ oz.})$.'

RING-DITCH 4A (West section, Cutting XIV, FIG. 6)

The following layers were discovered: (1) Red-brown loam, (2) redbrown loam with gravel and pebbles, (3) red-brown loam, (4) yellow-brown fine gravel and sand, (5) grey-brown loam and gravel, (6) fine yellow gravel and sand, (7) gravel and dark red-brown loam, (8) fine yellow gravel, (9) loam and sand, (10) sandy red-brown loam and fine gravel, (11) coarse gravel with calcareous staining, (12) yellow-brown sand and gravel, (13) grey loam with some gravel at base.

The filling and profile were markedly different from those of ring-ditch 4. As in ring-ditch 3 the deposit of layer 3 is not central, due to the considerable amount of earlier material derived from the inside, represented by layers 4, 5, 6, 7, 8, 9 and 11. A smaller ditch, filled with loam (layer 13) appeared to run diagonally from the south-east into the balk south of 4A; this was a natural feature, formed in the naturally-contorted surface of the gravel.

RING-DITCH 5 (Section, FIG. 4)

This ring-ditch has been described above (p. 6) in the section concerned with beaker-culture burials.

FINDS FROM THE RING-DITCHES

The finds are discussed in detail below (p. 27) together with their implications for dating. Struck flints came from ring-ditches 2, 3 and 4 and the two intersections; scraps of Peterborough ware from 2 and 4 and the intersection of

2 and 3; sherds of Middle Bronze Age pottery came from the cremationcemetery secondary to ring-ditch 4. Sherds of Early Iron Age pottery were found in the later layers of ditches 1, 2, 3 and 4 together with animal bones, fragments of daub, cinder, baked clay, many pebbles (particularly of quartzite), other stones (some burned) and charcoal. Romano-Belgic sherds were found in ditch 1, at the intersection of 2 and 3, and in 4. Romano-British sherds came from the last two localities. No finds came from ditch 4A.

Mr. J. Banks, Liverpool University, kindly reported on the animal bones in the upper layers, 'Bones of horse, ox, sheep/goat and pig were present. Ox and sheep/goat were better represented than horse and pig. Very many of the bones were weathered and fragmentary.'

PROFILES AND STRATIFICATION OF THE RING-DITCHES

All the ditches were observed to have been flat-bottomed, but the fillings and profiles are likely to have varied at different points on the circumference. The original profiles would, of course, have been more steeply sided than the surviving eroded profiles. No evidence was seen in the cuttings of gang work, recognized in Vicarage Field nearby, at Cassington, Langford Downs and elsewhere.⁵ But during mechanical topsoil-stripping the inner circumference of ring-ditch 3 appeared to be scalloped.

The lowest layers of clean sand and gravel represented the earliest collapse and erosion of the sides, occurring very quickly after the initial digging. The dark humic mass (layer 8) in ring-ditch 2 and the dark lens (layer 10) in 3 may have represented turf which fell from the lip, undermined by erosion. The more loamy layers with gravel above the primary silt must represent a slower weathering when the ditch edges had reached a more stable slope.

The very fine clean red-brown loam (layer 3) found in all the ditches represented a long accumulation of wind-sorted and -transported material. Charcoal flecks and occupation-material in this layer in ditches 1, 2, 3 and 4 were derived from the Early Iron Age settlement nearby. The depth at which they were found suggests that the ditches still formed considerable depressions in the Early Iron Age.

Layer 2, the topmost uncultivated layer in all the ditches, formed of loam with stones and gravel, seems to have levelled off remaining hollows, and from its finds to be associated with Early Iron Age and perhaps later farming.

The use to which the ditch-spoil was originally put can be postulated in two cases. The large amount of material from the eastern side of ring-ditch 3 seems

5 Leeds, Oxoniensia, 1 (1936), 14; Williams, XI/XII (1946/7), 59; Williams, XIII (1948), 3; Thomas loc. cit., 6.

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to represent spoil from an earthwork close to the ditch's edge, undermined as the inner side weathered. The higher level of natural gravel on the inner side is perhaps significant, or it may simply represent a slight natural slope from east to west. A further peculiarity of ring-ditch 3 is the sharp flat demarcation line between the primary and secondary silt on the east side, and the larger amount of primary silt on the west side. These features and the line of the profile suggest that the ditch was recut or cleaned, during which process the upper part of the primary silt on the east side was removed, whilst on the west side it remained untouched.

The section of ring-ditch 4A also suggests an earthwork close to the inner edge of the ditch, made of gravel, sand and loam; seven layers appear to represent the silting back into the ditch of this material. Layers 8 and 11 may indicate a gravel-capping, as found on a number of barrows in the region.⁶

THE INTERSECTIONS

INTERSECTION OF DITCHES 2 AND 3 (South-west section, Cutting IV, FIG. 5. Find, FIG. 9)

The following layers were found in Cutting IV which was dug to the north-east of the common side of ring-ditches 2 and 3. (1) Red-brown loam, (2) red-brown loam with gravel and pebbles, (3a), (3b), (3c) red-brown loam, (4a), (4b) red-brown loam and fine gravel, (5) gravel with brown loam, (6), (7) dark brown loam with gravel, (7a) red-brown loam, (8) fine yellow-brown gravel and sand, (9) red-brown gravel.

The cutting showed the greatest depth of ditch, 6 ft. 6 ins.; the ditch was 19 ft. wide. This great width was due to the very gentle slope of the northern lip. The red-brown loam noted in every section was present here as layers 3a, 3b and 3c, with intervening bands of gravel and loam (layers 4a and 4b). Layer 7a was a compact mass of very clean loam, largely red, with brown patches and flecked with charcoal. The small ridge in layer 8 in the centre of the ditch is unusual and due to some factor other than normal silting. The layers of the upper part of the filling are continuous, but this ridge formed at the surface of the primary gravel silt (layer 8), over which dark brown loam and gravel (layer 7) had spilled from the north-west, provides evidence to suggest that ring-ditch 3 was dug before ring-ditch 2.

The suggested sequence is as follows (FIG. 5, bottom): Ditch 3 was dug first. Its north side was the north side of the combined ditch in FIG. 5. Ditch 2 was

6 Harden & Treweeks, loc. cit., 31; Atkinson, x1/x11 (1946/7), 17; Williams, x111 (1948), 3, 8, 11, 13; Atkinson, xv11/xv111 (1952/3), 30.

dug when ditch 3 contained only primary silting or immediately after it had been cleaned to the top of the primary silting. Between the points of intersection of the two ditches, ditch 3 was modified; its southern lip was dug away but its northern lip provided the northern lip of the segment common to both monuments. During the digging of ditch 2 a small ridge of gravel was left in the southern slope of the primary silt of ditch 3, making the line of curvature of 2. When loam and gravel slipped into the ditch from the north-west, some came to rest against the ridge but some slipped over it, forming the tongue of layer 7 to the south.

The interval between the construction of ring-ditch 3 and ring-ditch 2 could have been very short; the primary silt may have been deposited very quickly, particularly if activated by heavy rain or severe frost. On the other hand, if ring-ditch 3 had been cleaned out previously a longer interval is implied. Ring-ditch 3 was in fact elsewhere found to have been cleaned out (FIG. 5, p. 15).

The filling of the common segment (FIG. 5) shows no marked similarities with the filling of either ring-ditch. The red loam (layer 3) is found in all the ditches. The loamy layer 7a can perhaps be compared with layer 8 in ringditch 2. But on the south-east side there is no sign of the distinctive slides of material derived from the inner edge, which was a feature in ring-ditch 3. There are several possible explanations of its absence. The earthwork associated with ring-ditch 3 may here have been further from the ditch edge; its composition may have been different; the construction of 2 may have involved the destruction of part of the earthwork; or it may already have largely collapsed into ditch 3 before the construction of 2. But it must be noted that the recutting or cleaning out of ring-ditch 3 appreciably preceded the fall of much material from the earthwork.

Observation during mechanical topsoil stripping supported the hypothesis that ring-ditch 2 had been dug through ring-ditch 3.

INTERSECTION OF DITCHES 3 AND 4 (North-east section, Cutting IX, FIG. 6. Finds, FIG. 9)

The following layers were found: (1) Red-brown loam, (2) red-brown loam with pebbles, (3) red-brown loam with gravel, (4) red-brown loam, (5) redbrown loam with gravel, (6) fine yellow sandy gravel, (7) brown sandy gravel, (8) gravel with grey-brown loam, (9) brown-red gravel with loam, (10) yellowbrown sand, (11) red loam, (12) coarse gravel and brown loam, (13) coarse gravel with calcareous staining, (14) concreted grey-brown gravel, (15) yellowbrown sand and gravel.

Cutting IX did not prove to be well sited, the section showing extreme

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elongation of the layers, particularly on the north-west side. A large amount of gravel and loam had fallen from the north-west. Layer 10 was a small compact mass of red loam, fallen from the north-west. The maximum depth of the ditch was 6 ft. The width here was of little significance because of the distortion.

An iron nail and a fragment of glazed ware were found in layer 2 at the south-east end of the cutting. No disturbance was distinguished during excavation, nor in the completed section.

The similarity with the filling of ring-ditch 3 is clear. Layer 5 in Cutting VI and 6 in Cutting IX were particularly distinctive in both sections. The gravel and silting lines from the north-west suggests material from an earth-work close to the inner edge of ring-ditch 3. On the south-east side there was more sand and gravel and less loam than in the section of ring-ditch 4; but the gravel lip here was not conglomerate, and would have weathered more quickly. No conclusions were reached during excavation or observation of topsoil stripping as to the priority of one ditch over the other. (But see below, p. 40).

INTERSECTION OF DITCHES 4 AND 4A

The drawn sections (FIG. 6) showed that the fillings of ring-ditches 4 and 4A were quite different. However there was no sign on the air photographs of a continuation of either ditch to form a full circle, and neither ditch was found in Cutting XIII, where topsoil lay directly on undisturbed gravel. These observations were confirmed during the final quarrying.

Cutting XII was sited over the point where it was estimated that ringditches 4 and 4A met, but it lay too far west. The section showed the same sequence of layers of ditch 4 as in Cutting XI. Two secondary cremations were found in Cutting XII (see above, p. 11). Observation during quarrying merely revealed a change of direction in the ditch immediately east of the cutting (FIG. 2) and gave no indication that either ditch had been cut into the other.

DISCUSSION

There are at least 57 ring-ditches at Stanton Harcourt.⁷ The nearby Quoit Circle was doubtless important in attracting them; they cluster thickly near the Eynsham henge-monument and the Big Rings at Dorchester, as do barrows near similar religious sites elsewhere. Most seem to be more or less

7 Grimes, op. cit., FIGS. 57 & 58; Riley, Oxoniensia, VIII/IX (1943/4), FIG. 26; Royal Commission on Historical Monuments (England), A Matter of Time (1960), 16-23.

true circles, like ring-ditch 1, reported here, but the pear- or kidney-shaped 4/4A is paralleled elsewhere in Stanton Harcourt, at Eynsham and at Radley.8

The frequently found external bank associated with ring-ditches suggests the disc or saucer type of barrow. The fillings of two of the ring-ditches reported here, nos. 3 and 4A, suggested that the ditches originally enclosed loam and gravel earthworks close to their edges. It did not appear from the fillings of ring-ditches 1, 2 and 4 to what use the ditch spoil had been put.

Some local ring-ditches, using that term in a wide sense, as suggested by Professor Grimes,9 have proved on excavation to be ploughed-down barrows. In other cases burials have been found but all trace of a mound has disappeared. Ring-ditch 2 surrounded a burial. Although their funerary purpose was not proved, ring-ditches 3 and 4A may have surrounded burial-mounds of bowl form. The topsoil is shallow, and centuries of cultivation may well have damaged or destroyed burials, particularly if deposited on the surface or in shallow pits. The linear alignment is characteristic of barrow-groups, 10 and the presence of secondary cremation deposits does perhaps indicate that the site possessed some funerary significance.11

Many local ring-ditches have not produced primary burials. The present numbers 1, 2 and 4 would seem to belong to this group, for which Professor Atkinson suggested the term ring-ditch, should be reserved.¹² Ackerman and Stone hoped in 1857 that subsequent excavation would solve the problem of these enigmatic empty circles, but in spite of further work their function is by no means certain. The association here of two possible barrows and two featureless circles in a single alignment does recall Professor Atkinson's suggestion of a ritual significance for ring-ditches, perhaps as mortuary enclosures, connected with rites before burial in a nearby barrow.¹³ However, they may all have originally surrounded burials.

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8 Grimes, op. cit., FIG. 58, Fields, XXII, no. 1, XI, no. 4; Crawford, Ant., VII (1933), 296 ff., PLS. IV

 ⁶ Grimes, op. cit., FIG. 50, FICUS, XXII, no. 1, XI, no. 4; Grawford, Ann., VII (1933), 290 II., FIS. IV
 ⁸ V; Williams, Oxoniensia, XIII (1948), 1-9.
 ⁹ Grimes, op. cit., 144, note 1; Grimes, Oxoniensia, VIII/IX (1943/4), 21.
 ¹⁰ Grimes, op. cit., FIG. 58, Field, X, nos. 2-8; Leeds, Oxoniensia, III (1938), FIG. 7 and FL. VIA.
 ¹¹ As suggested by Williams, Oxoniensia, XI/XII (1946/7), 63-4. Secondary cremations were found in no. 6 of the classic Standlake group of ring-ditches, characteristically in the southern sector of the classic Standlake group of ring-ditches, or No. 7. circle, as here. Riley, Oxoniensia, XI/XII (1946/7), 29, FIG. 7.

12 Atkinson, Oxoniensia, VII (1942), 34.

13 Ibid., 35-

support and equipment; Mr. H. J. Case and Mr. D. Sturdy for much help and advice; Dr. D. F. Roberts for kindly commenting on the human remains; Mr. J. Banks for reporting on the animal bones and for details and the plan of burial 1; Mr. G. Dawson for details of burial 4; Mr. D. M. E. Avery for the recording of ring-ditch 5 and of cremations 5, 6 and 7; Mr. M. Tite and Mr. G. Weaver for the magnetometer survey. FIG. I was prepared by Mr. Sturdy from my survey, his and Mr. Avery's. Many thanks are due to members of the O.U.A.S. for their help in excavating, often given in most discouraging weather.

NOTES ON THE FINDS

The finds are in the Ashmolean Museum and have been registered under nos. 1964. 442-3, apart from a few objects the numbers of which are noted individually below.

PIT C (P. 2)

Polishing stone (FIG. 7, no. 1), 3 lbs. 11 oz., quartzite. Bunter boulder with naturally smooth surface, central hollow of upper surface showing higher degree of polish, indicating that it was produced artificially. Central part of lower surface abraded, possibly by rocking in action of polishing. Lower end (in FIG. 7) flaked away and left with roughly smoothed surface, possibly intended for coarse polishing. The implement thus appears to have had coarse and smooth polishing surfaces, and may also have been used as a hammer judging by sundry grouped scars.

Struck fints (FIG. 7, nos. 2-5), 4, $10\frac{1}{2}$ oz. Nos. 3 and 4 have unabraded cortex and were undoubtedly fresh from the chalk. No. 5, with its prepared platform is a typical flint-mine product, occurring for example at Grimes graves, Norfolk. These three may therefore be assumed to have been of mined flint, and the same may be true of No. 2, although it is of poorly-flaking material with a quartz inclusion. The edges of Nos. 3 and 5 show slight marks of use.

PIT E (P. 2)

Pottery flake, L. 2.5 cms., purplish-red smoothed exterior reddish-black core with numerous friable grits—2 mm. (? limestone). Although small and undecorated, this is typical Peterborough ware with its laminated gritty fabric.

Daub, 11 fragments, $1\frac{1}{2}$ oz., brownish-red, well-levigated, occasional quartz grits -2 mm., including 2 fragmentary flats (one L. $3 \cdot 2$ cms. with parallel striations, the other L. $1 \cdot 8$ cms.), but no angles. The quite even flats and good levigation suggest a small portable object (? an oven) rather than a major structure.

Struck flints, 23, 4 oz., 5 fire-altered. Assemblage includes one multi-platform core (FIG. 7, no. 6) as at Abindgon causewayed camp and in pits locally with Rinyo-Clacton pottery, one well-retouched end-scraper (FIG. 7, no. 8), one irregular side-scraper from a polished implement (no. 9, the curvature suggests an axe), one core-trimming flake (no. 7), 5 flakes with marks of use (e.g. no. 10), no long flakes but



FIG. 7

1-5, Polishing stone and stock flints from Pit C; 6-12, struck-flints from Pit E; 13 & 14, sherd of Peterborough ware and struck flints from Pit D.

occasional parallel facets (nos. 11 and 12).¹⁴ End-scraper with fresh cortex, remainder abraded. Patination white or cloudy grey on cloudy grey to grey flint. (This patination also applies to all specimens described below pp. 21-30 except where noted otherwise.)

INHUMATION-BURIAL I (P. 4 ff)

1. Bell-beaker (B-beaker): FIG. 8, Oxon. 54, no. 1. Ashmolean Museum: 1961. 496. Complete except for about a third of the rim.¹⁵ Well-made, fine paste, comparatively hard, no grits > 1 mm., undoubtedly grog-gritted, marks of grass or small stems. Polished exterior reddish-brown with dark patches, brown interior, blackish core. Base in excellent preservation, perhaps a funerary offering. Decorated with notched impressions, some of which contain traces of white filling, in zonal patterns with slight interruptions at shoulder and neck. Horizontal lines relieved with continuous ladder-patterns, and pendant triangles at base. On base an irregular pattern of 5 rays (? crude representation of human form) fitted symmetrically to pendant triangles of lower zone.

In shape and size but not decoration it resembles a bell-beaker from nearby at Linch Hill, Stanton Harcourt (Oxon. 29), half a mile south-east. The basal radial pattern however, is unmatched in the region; Riley has noted some, all on necked beakers, and no doubt others will become known in Britain when a full corpus of beaker-pottery is available.16

The basal zone of pendant triangles also sets the vessel apart from the great majority of bell-beakers in the region which lack any crooked or zig-zag decorative element; the well-known bell-beaker from Dorchester (Oxon. 50) is similar in having pendant triangles. A fragment from Cassington (Oxon. 1) has zig-zags and a bell-beaker (Oxon. 43) in a grave between three-quarters and half a mile to north-west at Vicarage Field, Stanton Harcourt has upright and pendant triangles. The beaker in the well-known grave-group from Roundway 8, Wilts, is a good match; its decoration is also white-filled, but this may have been the result of natural deposition of calcium carbonate.17

These bell-beakers with pendant triangles, from Dorchester, Stanton Harcourt and Roundway, probably have a Middle Rhenish rather than Dutch derivation.¹⁸ Both the Roundway and Dorchester beakers were contemporary with the importation of copper into southern England,¹⁹ and are unlikely to be earlier than the Early Bronze Age Unétičian culture of Central Europe.

2. Flint flake (FIG. 8, Oxon. 54, no. 2. Ashmolean Museum: 1964.452), fresh cortex, marks of use.

3. Bone tool (FIG. 8, Oxon. 54, no. 3. Ashmolean Museum: 1964.453), made from

14 Discussion of local Neolithic flint industries in Case, Oxoniensia, xvII/xvIII (1952/3), 10 ff.

15 The numbering of beakers and of sherds of beaker-pottery follows on from that used in previous publications, to which reference may be made for comparable vessels: Leeds, Oxoniensia, III (1938), 7-30: Berks. 1-11; Oxon. 1-33. Case, XXI (1956), 1-21: Berks. 12-16; Oxon. 34-53). ¹⁶ PPS, XXIII (1957), 50 and references.

¹⁷ Roundway grave-group, Piggott in *Culture & Environment* (ed. Foster & Alcock, 1963), 67
 ¹⁶ FiG. 14. The white filling on Oxon. 54 may also be a fortuitous deposit of calcium carbonate.
 ¹⁸ Piggott, *loc. cit.*, 66; Case, *PPS*, xxv (1959), 42-3.

19 Coghlan & Case, PPS, xxIII (1957), 100-2.



Beaker-pottery and associated finds.

rib of animal, probably ox, judging by its curvature. Complete, well made, ground square at sides and butt, all faces of tip polished by use.

Dr. I. F. Smith has most kindly contributed the following notes on similar tools (so-called *spatulae*) compiled from personal knowledge of specimens in Devizes Museum and from published sources. Dr. Smith is of the opinion that these tools may have been for leather-dressing.²⁰

WILTSHIRE

1. Amesbury G. 51. Unpublished, but see Ashbee, Bronze Age Round Barrow in Britain (1960), PL. XIA, and interim report in WAM, LVIII (1961), 31. Antler spatula, with rounded and worn end(s), 5-6 ins. long. With crouched male skeleton lying on left side; Long-necked beaker behind shoulders. Other objects grouped in front of mouth: Double-pointed awl with traces of handle; time of roe deer antler with a cover; flint scraper. Wooden knife-like object before face of skeleton and tapering board partly overlying body. Skeleton with bell-beaker in grave cut into ditch silt.

2. West Overton G. 6b. Excavated 1962, D.D.A. Simpson & I. F. Smith. Antler spatula, c. 6 ins. long, $\frac{3}{4}$ in. broad; one end somewhat decayed, but other rounded and showing much wear. With crouched male skeleton lying on left side. Long-necked beaker behind shoulders. Other objects grouped in front of mouth (as in Amesbury G. 51): Double-pointed awl (differences in corrosion probably indicate that one end was in a handle); two long narrow slate objects; one with both ends rounded, the other with one rounded and one squared end, the rounded ends showing wear on both faces; small pointed flake; simple form of plano-convex knife and strike-a-light of flint; worn ball of marcasite. Cremation deposit in fill of grave a few inches above skeleton. Five inhumation burials of children and three more cremations, two in early collared urns, must be nearly contemporary. One child had shale bead of Wessex culture type; a shale pestle pendant found as stray on old land surface or in lowest mound material. Whole group seems to belong to overlap with Wessex I. Ant., XXXVIII (1964), 57-61.

3. Mere G. 6a. Fragment thinner than those from Stanton Harcourt, Amesbury and West Overton, but apparently to be classed with them. Made from rib of an animal, size corresponding to sheep or pig. It has been ground all over with edges squared; the surviving end is facetted on both faces probably through use. With bellbeaker, tanged dagger, gold discs, wrist-guard. Colt Hoare, Ancient Wilts., I (1812), 44; PL. II. Cunnington, Catalogue of ... Museum ... at Devizes, Pt. I (1896), 81a.

4. Wilsford G. 60. Possibly not comparable. $2\frac{7}{8}$ ins. long cut from a rib. It has been ground all over; the two ends have been cut straight across and ground smooth; the edges are not quite square. It shows no sign of use. Cat. Devizes I, 181a. Hoare (1812), 209; PL. XXVIII, no. 4.

5. Roundway G. 6. Three objects, two virtually identical with that from Wilsford except that one surviving part is only $\frac{1}{8}$ in. thick, but the end has facets apparently caused by wear on both faces. It has been ground smooth all over. The third is a fragment made from antler. With cremation. Other objects: two grooved stone objects (shaft-smoothers?); 'whetstone'; barbed-&-tanged arrowhead; flint knife;

²⁰ Ant., XXXVIII (1964), 57-61; discussion of bone tools in Semenov, Prehistoric Technology (trs. M. W. Thompson, 1964), 175-9

11 flakes; handle and long pointed implement of antler; very small riveted bronze (?)

knife. Catalogue . . . Devizes II (1911), 24.
6. Unprovenanced. Bone, 6³/₄ ins. long, thickness and width comparable to specimen from Stanton Harcourt. Catalogue . . . Devizes I, 372.

HAMPSHIRE

Roundwood Round Barrow. Spatula 81 ins. long, apparently made from rib of large animal. Rounded end polished by use. From mound of barrow, which covered unaccompanied cremation. A few beaker shreds also in mound. Crawford, Proc. Hants. Field Club, IX (1922), 193; FIG. 1.

DERBYSHIRE

1. Green Low. Crouched inhumation-burial. Long-necked beaker; three bone spatulae; scrapers; barbed-and-tanged arrowheads; flint dagger; lump pyrites; bone pin or awl; Bateman, Vestiges ... (1848), 59. See also Abercomby, Bronze Age Pottery, I (1912), PL. LIX, 0.12. All in Sheffield Museum.

2. Haddon Field. Antler spatula, 61 ins. long, rounded ends. With crouched male skeleton, lying on left side. Behind back, Long-necked beaker, near which an arrowhead, metal awl with traces of handle, and the spatula. Bateman, Ten Years' Diggings, (1861), 106-7.

3. Kenslow Knoll. Apparently a small bone specimen, but associations doubtful. Ten Years, 21.

4. Mouse Low. Two; one of bone, one of antler. Crouched male skeleton. Long-necked beaker near head, the spatulae inside it, as were also two barbed-andtanged arrowheads and a 'spearhead'; two more arrowheads beside beaker. Ten Years, 116. All objects in Sheffield Museum.

5. Smerrill Moor. Spatula 12 ins. long, made from rib of large animal, neatly rounded off at each end and symmetrical. Crouched male skeleton. Long-necked beaker with other grave-goods in group before mouth, arrangement exactly comparable with Amesbury G.51 and W. Overton G.6b; flint dagger, 'spearhead', four other flints. Ten Years, 103. All objects in Sheffield Museum. 6. Ribden Low. Some bone spatulae? With a cremation. Amongst burnt

bones were three barbed-and-tanged arrowheads, a knife (?) and other flints, together with bone implements, some pointed and perforated through middle, others perhaps spatulae. All were calcined. *Ten Years*, 127. All in Sheffield. 7. *Top Low.* Parts of two spatulae? With a cremation in an urn, although not

themselves burnt; a burnt worked flint also in urn. Grave V in elongated mound covering 12 interments, at least one with a Beaker. Ten Years, 135. Bone objects in Sheffield.

YORKSHIRE

1. Barrow 249, Huggate/Warter Wold. Bone spatula, 51 ins. long, made from ' shank-bone of some animal '; one end rounded and worn, the other rounded and with small perforation. From Grave C, with young female, metal awl, bone pin. Mortimer, Forty Years' Researches (1905), 315 and FIG. 937. 2. Barrow 26, Hanging Grimston. Fragment of spatula? Made of ox rib,

Unassociated, in cairn. Forty Years, 109 and FIG. 260.

3. Barrow 4, Painsthorpe Wold. Spatula, probably from ox rib, $4\frac{1}{4}$ ins. long; perforation at one end. With crouched male skeleton, lying on left side. In the same grave other skeletons accompanied by Long-necked beakers. Forty Years' Researches, 115 and FIG. 268.

4. Folkton LXX. Fragment of bone? In fill of grave. Greenwell, British Barrows (1877), 274 and FIG. 36.

WALES

1. Sutton 268. Fragment of bone? With Cremation C, bones of young child and flint knife in collared urn. Fox, Archaeologia LXXXIX (1943), 113 and PL. XLII:a:3.

GERMANY

Stedten, Kr. Eisleben. Antler spatula; 18.9 cm. long. Also a fragment of another? With crouched male skeleton in cist. Other grave-goods included undecorated bowl (Bell-beaker type), tanged copper dagger, three triangular arrowheads, hone or polisher of sandstone. Matthias, Ausgrabungen und Funde, IX (1964), 19-22; Abb. 2.

Additional note by H.C.: The allusion to the 'spatula' from Mere 6a reinforces the general impression of lateness given by Dr. Smith's catalogue. This grave contained a two-hole wrist-guard of late type as with Veluwe-beakers in the Netherlands, and gold discs, probably of Irish make, but with patterns matched by those on the large disc-headed bronze pins of the mature Unétician culture of Central Europe.

INHUMATION-BURIAL 2 (P. 6)

Bell-beaker (B-Beaker): Oxon. 55, FIG. 8. Ashmolean Museum: 1962.71. Fragmentary, with many new breaks. Roughly made, typically grogged paste, no other grits apparent, rather soft. Smoothed but not obviously polished, light reddish-brown exterior, blackish core, greyish-brown interior. Slightly leached and eroded, base pitted and with a grain-impression. Zonal decoration of impressions formed by pinching with moderately long nails of probably feminine hand. It may be compared with other beakers in the region with jabbed or finger-nail impressions arranged in rough zones: Cassington grave 1 (Oxon. 3), Oxford (Oxon. 24), Standlake (Oxon. 48), Summertown (Oxon. 27), Eynsham (Oxon. 39), Linch Hill Corner, Stanton Harcourt (Oxon. 47), between three-quarters and half a mile to the east, still nearer at Linch Hill (Oxon. 30, same area as Oxon. 29, p. 21 above); and at Sutton Courtenay (Berks. 10).

INHUMATION-BURIAL 3 (P. 6)

1. Bell-beaker (B-Beaker): FIG. 8, Oxon. 56, no. 1. Ashmolean Museum: 1962.72. Almost complete, fairly well made, with occasional shell or limestone grits to 10 mm. Straw or grass impressions. Smoothed blotchy light reddish-brown exterior, blackish core, brown to light brown interior. Base pitted. Body slightly distorted by weathering. Continuous zonal impressions of twisted cord on exterior, executed rather carelessly. Compared with others from the region with similar ornament— Clifton Hampden (Oxon. 11), Cassington (Oxon. 37) and Vicarage Field, Stanton Harcourt (Oxon. 46)—it is crudely made. Although with a less pronounced waist, it is similar in proportion and size to a beaker from Summertown (Oxon. 26), decorated

with continuous notched impressions, found with a contracted inhumation-burial, barbed-and-tanged arrowhead, and a smaller beaker (Oxon. 27, see above p. 25). It looks the inner decoration of Oxon. 11 and 46.

2. Archer's wrist-guard of greyish-green slate: FIG. 8, Oxon. 56, no. 2. Ashmolean Museum: 1964.451. Well-polished flat exterior surface and bevelled edges. Under surface rough with flaking-scars. Borings of hour-glass shape, rather carelessly aligned in plan, and at lower end in FIG. 8 poorly mated to one another from either face, resulting probably in some of the flaking at this end.

Typological and petrological study of this type of implement is overdue. The flat form here with three holes at either end may be compared to the larger and better-made specimen from the well-known grave-group at Winterslow, Wilts., which appears to have been made of identical rock, but which differs slightly in that the holes are arranged in a triangle and bored from one face only (presumably the inner one). The beaker in the Winterslow grave-group is decorated with pendant triangles like the beakers from Roundway and Dorchester discussed above under Oxon. 54, but is probably slightly later. The Dorchester grave also contained a wrist-guard, which also has three holes at either end marked out in a triangle, of which only the outer four were bound (from the inner face); it also differs in its arched section.21

The association of a wrist-guard with an overall-corded beaker appears to be unprecedented, but others may come to light when a complete corpus has been made.

Three wrist-guards only are known from the region. The third, of flat form with single perforation at either end, another late type, was found recently at Purwell Farm, Cassington in a grave with a jet or shale button.22

AREA OF INHUMATION-BURIAL I (P. 4)

Sherds of three beakers, probably all bell-beakers were found. They are leached and eroded, therefore possibly not buried as ancient deposits, and show some ancient breaks but also numerous new ones. All have typical grogged paste with reddishbrown surfaces and black cores.

Oxon. 57. (FIG. 8). 13 oz. sherds of bell-beaker, including base with zones of horizontal incised lines, continuous towards waist, but formed of discontinuous or overlapping strokes higher up. No sign of interruption of zones. Cp. short-necked beaker (C-beaker) from nearby at Linch Hill (Oxon. 28) with incised decoration, bell-beaker from Sutton Courtenay (Berks. 9) for discontinuous lines in notched decoration.23

Oxon. 58 (FIG. 8). 2 oz. sherds of bell-beaker, including partial base and rim of horizontal notched impressions, apparently uninterrupted. Some overlapping of impressions as in Oxon. 57 above. Beakers with continuous unrelieved linear zonal impressions include those quoted above from Summertown (Oxon. 26, p. 25) and Sutton Courtenay (Berks. 9), together with Cassington (Oxon. 2), Drayton St. Leonard (Oxon. 13) and possibly a sherd from Culham (Oxon. 52).

Oxon. 59 (not illustrated). Sherd of another beaker, apparently similar to Oxon. 58.

21 Winterslow and Dorchester grave-groups in loc. cit., 95, FIG. 3.

 ²² Case & Sturdy, Oxoniensia, XXIV (1959), 98, button only illustrated.
 ²³ Cp. vaguely B5 and B6 at chambered tomb, West Kennett, Wilts. Piggott, The West Kennet Long Barrow (1962), FIG. 14.

AREA OF INHUMATION-BURIAL 3 (P. 4)

Oxon. 60 (FIG. 8). Sherd of beaker, similar preservation to those above, with zones of notched impressions relieved by ladder-patterns. Cp. Oxon. 54 from burial 1.

RING-DITCH I (P. 7)

Layers of ditch:

(2) 2 Romano-Belgic sherds $2\frac{1}{2}$ oz. One flint-gritted, probably wheel-turned, light brown, grey interior; other of soft sandy ware with circumferential groove.

(3) 4 oz. Early Iron Age sherds. Possibly all from same storage jar, leached, originally red exterior, dark grey core, fossil-shell grit—12 mm.

RING-DITCH 2 (Pp. 7-9)

Interior:

Inhumation-burial 6: Flint flake (FIG. 9, no. 1), unabraded cortex, almost certainly mined flint, marks of use.

Area B: 6 struck flints, $2\frac{1}{4}$ oz., including single-platform core ($\frac{3}{4}$ oz.; FIG. 9, no. 2) comparable to those from Abingdon, 2 unabraded cortex, 2 pebble-flint. (Fragments of clay pipe and of daub, not examined.)

Area C: 7 very small sherds, $\frac{1}{4}$ oz. Flakes of Peterborough ware, flint grits— 3 mm., black to light brown. One crumb, grog-gritted—1.5 mm., possibly beaker ware. 8 struck flints, $\frac{3}{4}$ oz., 2 unabraded, 3 abraded, 5 marks of use (e.g. FIG. 9, nos. 3-4).

Layers of ditch: (2) Early Iron Age sherds, ‡ oz., shell-gritted, leached.

(3) Similar sherds, $\frac{3}{4}$ oz., one hard black sandy ware, brown interior; another reddish surface, brown interior, flint-gritted.

RING-DITCH 3 (P. 9)

Interior, layer 1: Saw-edged flake (FIG. 9, no. 5).

Layers of ditch :

(1) Early Iron Age sherds, $\frac{1}{2}$ oz., shell-gritted. Flint flake (FIG. 9, no. 6), fortuitous graver, strong marks of use.

(2) Early Iron Age sherds, 1 oz., including rounded shoulder, hard black sandy ware; leached flake, soapy fabric probably Romano-Belgic; highly-leached rolled rim, probably same ware.

(3) Early Iron Age sherds, ³/₄ oz., including body-sherd with finger-nail impressions, and T-headed rim, brownish-black, of small jar or bowl.

2 flint flakes (long flakes, FIG. 9, nos. 7 & 8), marks of use at bulbar end and on both edges, including partial bevelling of edge (on no. 7), as typically at Abingdon causewayed camp.

(4) Transverse-derivative arrowhead (FIG. 9, no. 9), Clark's type D.²⁴ Other examples occurred at Sutton Courtenay, Berks., in pit P with Rinyo-Clacton pottery, and at Sites I, II and VI at Dorchester, Oxford.²⁵ This specimen shows marked abrasion of the edge, possibly by secondary use as a chisel, but possibly intentional so as to stun rather than cut.

24 Arch. J., XCI (1934), 44.

²⁵ Leeds, Ant. J., XIV (1934), 264-5; Atkinson, Piggott & Sandars, Excavations at Dorchester (1951) 111, 115, 118.



Stock flints: I-4 from ring-ditch 2; 5-9 from ring-ditch 3; 10 from 2/3 intersection; 11 & 14 from 3/4 intersection; 12 & 13 from ring-ditch 4; 15-18 from soil dumps.

RING-DITCHES 2/3, INTERSECTION (Pp. 15-16)

Layers of the Ditch:

(1) One small sherd orange-grey Romano-British ware. Flint flake (FIG. 9, no. 10), marks of use on both edges, creamy ochreous patina, fresh condition but probably derived Palaeolithic.

(3a) One eroded flake ($\frac{1}{4}$ oz.) of Romano-British mortarium; $2\frac{1}{4}$ oz. Romano-Belgic sherds, including some of large storage jar, grey ware, 14 mm. thick; $1\frac{1}{4}$ oz. Early Iron Age shell-gritted sherds and $1\frac{1}{4}$ oz. similar sherds of blackish-brown sandy ware including base of probably large jar; small eroded crumb, possibly Peterborough ware, reddish-brown surface, blackish-brown core, soapy texture, grits include quartz —2 mm.

(3b) Early Iron Age sherds, ³/₄ oz.: Shoulder-sherd, greyish-brown sandy ware, large jar 13 mm. thick; another, shell-gritted and sandy ware, grey exterior, reddish interior and core, two roughly parallel incised lines.

RING-DITCH 4 (P. 11)

Layers of the ditch :

(1) Leached flake Romano-Belgic and crumb Early Iron Age wares.

(2) 2 sherds ($\frac{3}{4}$ oz.) very eroded Romano-British grey ware; 2 sherds (1 oz.) Romano-Belgic, soapy, light brown exterior, grey interior; $3\frac{3}{4}$ oz., Early Iron Age sherds, including storage-jars 11 mm. thick, shell-gritted, but one sherd dark brown sandy ware. 4 struck flints, $\frac{3}{4}$ oz., 2 unabraded, 3 with marks of use (e.g. FIG. 9, nos. 12 & 13).

(3) One sherd soapy Romano-Belgic ware, similar to those in layers above; $3\frac{1}{4}$ oz. shell-gritted Early Iron Age sherds, including rounded shoulder of small jar 10 mm. thick; $\frac{1}{4}$ oz. sandy Early Iron Age sherds, including one 4 mm. thick with red surface, local imitation of haemetite slip, and another with finger-nail marks. Sherd ($\frac{1}{4}$ oz.) probably Peterborough ware, undecorated, slightly leached, blotchy blackish-brown throughout, leached grits (probably shell), soapy fabric.

3 Struck flints, $\frac{3}{4}$ oz., including one core-trimming flake from area of *Cremation* 3, one unabraded, one abraded, 2 marks of use.

(1-3), otherwise unstratified. One very eroded flake, Romano-British ware. One rim sherd, and crumbs, $\frac{3}{4}$ oz. Early Iron Age ware, small jar, red exterior, brown interior, fossil-shell 10 mm.

Finds with cremation-burials:

Cremation 3. 21 sherds, 6 oz., and numerous crumbs of large urn, 15 mm. thick in places, leached fabric, probably originally light brown surfaces, blackish core, shell-grit—7 mm. almost completely leached. Fabric not precisely matched in region; likely to be Bronze Age but not collared urn.

Cremation 4. 6 sherds, $\frac{1}{4}$ oz. of light-brown shell-gritted ware, unpolished. Rim and lie agree with small relief-decorated Middle Bronze Age accessory vessel (a bucket-urn) from an unfield at Long Wittenham, Berks.²⁶ Fabric similar to that of approximately similarly-dated small biconical urn with central burial from Radley barrow 11, Berks.²⁷

Cremation 5. One sherd, 8 mm. thick, of similar fabric to those with Cremation 3.

Cremation 6. $4\frac{1}{2}$ oz. of sherds, including base and wall-sherd with boss applied at the greatest diameter or just above (FIG. 10). Well-smoothed outer surface, blotchy brownish-grey, shell-gritted—4 mm. Small urn of relief-decorated type, to be compared with another accessory vessel (a bucket-urn) from urnfield at Long Wittenham, Berks.²⁸ Good match in fabric with biconical urn already mentioned from Radley, barrow 11.

Cremation 7. One sherd, 5 mm. thick, well-wiped, hard, brownish-black surface, light brown interior, comminuted grits, fossil-shell and other stone—2 mm. Out of character with remainder. 11th-12th century A.D., local version of St. Neot's ware, according to Mr. David Sturdy. Obviously intrusive.

26 Subsequent to Leeds, Ant. J., 1x (1929), 153-4.

27 Leeds, Oxoniensia, I (1936), PL. II, A.

28 Ibid., 154, left-hand example on fig.



RING-DITCHES 3/4, INTERSECTION (Pp. 16-17)

Layers of the ditch :

(1) Flint flake, marks of use.

(2) Iron nail, L. $7 \cdot 8$ cms., quadrangular section, possibly Romano-British. Sherd, light red sandy fabric, exterior orange glaze, probably tripod-pitcher, 12th-13th century according to Mr. David Sturdy. 2 sherds, $\frac{1}{2}$ oz., Romano-British grey ware, including base of *olla*. $6\frac{1}{4}$ oz. Early Iron Age ware, some sherds heavily leached; base of large jar in better preservation than rest, sand and comminuted fossil-shell grit—1 mm., reddish exterior, blotchy burnish-red interior. 5 struck flints, $\frac{1}{4}$ oz., 2 unabraded, 2 marks of use (e.g. FIG. 9, no. 11).

(3) Flint flake, marks of use (FIG. 9, no. 14).

AREA OF RING-DITCHES

Found in soil-dumps after topsoil-scraping. 12 struck flints (3 oz.), including multifacet core converted to core- scraper ($\frac{1}{4}$ oz.), side-scraper on cortex-fragment (FIG. 9, no. 16) and fragment of polished implement: 3 unabraded cortex, 1 abraded, 6 marks of use (e.g. FIG. 9, nos. 15, 17, 18), 3 fire-altered.

THE DATING OF THE RING-DITCHES

The cremation-cemetery associated with ditch 4 may legitimately be dated, by the accessory vessel with burial 6, to the Middle Bronze Age. The excavator's evidence suggests that 4 and 4A comprised a single structure. This compound ring-ditch is therefore pre-Middle Bronze Age. No finds were made

in 4A; the only candidate for a pre-Middle Bronze Age find in 4 was the probable sherd of Peterborough ware in layer 3.

To the north, ditch 3 was found to be earlier than ditch 2. Here there were no finds earlier than the Early Iron Age, except those of Peterborough culture affinities (in the interior of ditch 2 and in layers 3 and 4 of ditch 3), with a possible scrap of beaker-pottery in the interior of ditch 2. No pre-Early Iron Age finds were made in topsoil scraping, which were demonstrably not Neolithic.

No finds were made in the primary silt of any of the ditches. Ditch 1 can only be dated as pre-Early Iron Age, but there are some grounds for assigning the remainder to the late Neolithic Peterborough culture. Neolithic ring-ditches in the region are noted in the Table on pages 41-47.

THE NEOLITHIC FINDS

The most important of the Neolithic finds is the association of Peterborough ware with an assemblage of struck flints in Pit E—an association not previously recorded in the region.

The flint assemblage would be absolutely in place in the Neolithic industry from the causewayed camp at Abingdon, Berks., which is hardly surprising from a present-day viewpoint, which would regard the Peterborough culture as a development from what one may call the Windmill Hill culture (for want of a better name), as seen at such sites as Abingdon.

Fairly numerous struck flints were found by Miss Hamlin in the layers of the ditches and elsewhere and all would be typical of the same industry at Abingdon, with the exceptions of the finds from Pit C and the transversederived arrowhead, which is one of the type-fossils of the Peterborough culture.

Another interesting feature of the flint assemblage from Stanton Harcourt is the occurrence of undoubtedly mined flint in Pit C and the prevalence of specimens with unabraded cortex suggesting that the parent nodules had come freshly from the chalk. The gravels around Oxford contain extremely little pebble-flint; nearby sources of fresh flint would have been the escarpment of the Berkshire Downs near Uffington or the Chilterns near Wallingford. Pebble-flint from gravels was very little used at Abingdon, accounting for less than 1% of the specimens. Flakes with unabraded cortex were prevalent there; such material fresh from the chalk was in use from the start of the camp, occurring in layer 6 of the 1954 excavation.²⁹ Specimens with abraded cortex were more common, but this is not a reliable indication of the use of

29 Case, Ant. J., xxxvi (1956), 16.

pebble-flint, as the waste material from the flint-mines of Grimes Graves, Norfolk and Peppard, Oxfordshire includes numerous specimens with similarly altered cortex.

Boldly struck flakes approaching in size those in Pit C at Stanton Harcourt occurred sporadically at Abingdon, but none were found stratified in 1954. In the earlier excavations they were found in Pit D which should be late in the sequence with sherds which show affinities to the Fengate style (the late variety of Peterborough ware) and a sherd of beaker or proto-Food Vessel.³⁰ Similar flints to those in Pit D occurred in Pit P at Sutton Courtenay, Berks.,³¹ with Rinvo-Clacton ware, and were found at Astrop, Northants., where they appear to have been associated with the well-known pottery in the Fengate style.³² These occurrences tend to support the generally-accepted view of an increase of flint-mining and trading towards the end of the Neolithic, a view which is at least not contradicted by radiocarbon dates from the flint mines at Grimes Graves suggesting that they were in use in the 3rd millennium extending well into the 2nd.³³ We have seen however that the inhabitants of the causewayed camp at Abingdon, presumably earlier in the 3rd millennium, also probably had access to fresh flint; but their normal practice was to flake their material smaller, the mean weight of cores for example being slightly under 11 oz.

Flints associated regionally with beakers and with Bronze Age pottery are scrappy for the most part. But large flakes appear again in Early Iron Age associations. The excavation in the Early Iron Age of numerous ditches and pits in the chalk presumably gave a plentiful supply for barter; but the crude flaking has little resemblance to that typical of the flint mines.

Dating the finds from Pit C is therefore not difficult, and there can be little doubt that they should be associated with the adjacent Peterborough ware. The assemblage is highly interesting as showing the stock-in-trade from which were made knives with polished edges (many of them large and dependant on a supply of mined flint) which characterize the Peterborough and Beaker cultures. Such a knife came from the primary Peterborough culture burial at the well-known ring-ditch nearby at Linch Hill corner (see Table, p. 47: Stanton Harcourt XXI, 1).

We need not look as far as Norfolk or the Marlborough Downs for the mines which produced the fresh flint in Pit C. The Chilterns are a possible source as the flint mine at Peppard shows;³⁴ another is the downland east of Swindon,

³º Ibid., 23.

³¹ Leeds, loc. cit., in note 24.

³² Potts, Rep. Oxfordshire Arch. Soc. (1910), 37; Overy, id. (1911), 16; Leeds, id (1912), 114-8.

³³ Radiocarbon, III (1961), 41; v (1963), 106.

³⁴ Peake, Arch. J., LXX (1913), 33-68; Peake, PPSEA, 1 (1908/14), 404-20.

where surface finds of flint block-outs near Stocks Lane, Aldbourne, Wilts. indicate mining.35

All the struck flints found by Miss Hamlin may reasonably be assigned to the Peterborough culture. The Peterborough pottery found was undecorated and very scrappy, but is probably to be grouped with a collared sherd in the Fengate style (FIG. 7, no. 13 and associated flint, no. 14), found nearby in Mr. D. M. E. Avery's excavation of the Early Iron Age settlements. Scrappy sherds of Peterborough ware were recovered from Messrs. Amey's spoil-heaps between a half and a quarter of a mile north-west, with a long flake with unabraded cortex.³⁶ Well-known finds published by Leeds, also in the Fengate style, came from half a mile south-east of Miss Hamlin's excavations.37

This distribution shows a scatter of Peterborough culture finds along the Summertown-Radley terrace more or less parallel to the course of the Windrush. The occurrence in the recent excavations not only of Peterborough ware but of daub, flints with marks of use, fire-altered flints, cores and chips from normal knapping and evidence for specialized flint-working suggest that settlements were very near at hand. It is interesting to note that just half the flints were artifacts or showed marks of use; flints altered by fire, thus presumably closely connected with settlement, were found only in pit E and in topsoil stripping but were 11% of the total, more than twice the rate at the causewayed camp at Abingdon (4%).

THE BEAKER-CULTURE FINDS

The comparative material adduced above on pages 21-26 suggests that the beakers from the inhumation-burials and the stray sherds fall into place with those from graves or settlements nearby at Linch Hill and with the vessel from the secondary burial in the ring-ditch at Linch Hill corner (Table 1, p. 47 below; Stanton Harcourt XXI, 1). Also, they are most unlikely to be very early in the development of bell-beakers in the British Isles and should overlap with long-necked beakers, with part of the Unétičian culture in central Europe and approach the date of the Wessex culture here or overlap its start. The Swedish allusions which Childe drew to the bone ' pendant ' from the Linch Hill secondary burial are absolutely consistent with this dating.38 These beakers from Stanton Harcourt are best termed Early Bronze Age rather than Neolithic.

³⁵ Passmore Collection, Ashmolean Museum.

³⁶ The shords noted in Case & Kirk, *Oxoniensia*, xvII/xvIII (1952/3), 227. ³⁷ Leeds, *Oxoniensia*, v (1940), 6-10. The gravel-pit at Linch Hill was south of the village of Stanton Harcourt not south-east as stated.

³⁸ Id, vm/1x (1943/4), 43. In Clark's view a girdle-fastener, PPS, xx1x (1963), 77-8.

Miss Hamlin's finds strengthen the contrast between this group from Stanton Harcourt (all with one exception bell-beakers), and the group of burials with necked beakers comprising the cemetery at Eynsham and that with beakers which show all kinds of mixed features, comprising the cemetery at Cassington. All these should overlap in time. Inhumation-burials 5 and 6 at Stanton Harcourt may like 1, 2 and 3 also have belonged to the bell-beaker culture, and these burials (together possibly with 4) may have comprised the rather widely spread cemetery of one community.

At Linch Hill corner, the beaker-culture burial was secondary to a Peterborough culture burial at the centre of the primary monument. This primary burial with its flint knife with polished edge may be grouped with the Peterborough culture finds at Miss Hamlin's site and with those about half a mile south-east. Thus the site at Linch Hill corner would suggest that ring-ditches 2, 3, 4/4A were earlier than the beaker-culture graves nearby. This would be consistent with the distribution of finds, only a scrap possibly of beaker-pottery coming from one of the ring-ditches.

However the view taken here that all the beakers from the area south-west of Stanton Harcourt can be grouped into one series is open to dispute. The range of date of bell-beakers in southern England may be approximated as from 2000-1600 B.C. Oxon. 54 should lie towards the end of the scale, but there is a tendency to regard bell-beakers with continuous overall cord-impressions such as Oxon. 56 as lying towards the beginning. Thus with a range of perhaps 400 years involved, there could be no question that burials 1 and 3 formed part of one cemetery.

The evidence provided by burial 3 is not completely satisfactory as it was collected by workmen, but there is no reason to doubt its validity. This being so, a number of minor facts, far from conclusive alone, suggest in combination that Oxon. 56 may not have been excessively removed in date from Oxon. 54, and support the conclusions arrived at here. The two beakers can be related through the wrist-guard (FIG. 8, no. 2) via the Winterslow group. Oxon. 56 is difficult to separate typologically from Oxon. 58-9, and all these from Oxon. 26, associated in a grave at Summertown, with Oxon. 27, a beaker which can hardly be separated from Oxon. 47 from Linch Hill Corner. The sherds Oxon. 58-9 come from the area of burial 1; Oxon. 60, with ladder-patterns like Oxon. 54, from the area of burial 3. Finally, from a broader view-point than the Oxford region, by no means all British cord-zoned beakers, such as Oxon. 56, seem to have been early;³⁹ and Oxon. 56 lacks the distinctive inner decoration of early cord-zoned bell-beakers.

39 Piggott in Culture & Environment (1963), 66.

THE BRONZE AGE FINDS

The sherds with secondary burials in ring-ditch 4 probably all belonged to urns of bucket type. This type of urn is regarded by Calkin as derived from the biconical type,40 which appeared in southern England in the second phase of the Wessex culture and the prevalence of which may be taken to indicate the start of the Middle Bronze Age. These relief-decorated urns, which by and large appear to have been used to replace those of collared type, were probably introduced into the region from the south. Allusions have been made in the notes above (p. 29) to bucket-urns from Long Wittenham and a biconical urn from Radley. Another biconical urn was found in Vicarage Field, Stanton Harcourt, three-quarters to half a mile north-west of the sites reported here; bucket-urns from ring-ditch I Standlake, across the Windrush, are in some degree comparable. Good examples of biconical urns came from Iffley and from ring-ditch 6, Hanborough.41

THE LATER FINDS

The Early Iron Age pottery, although scrappy, can be seen as characteristic of the local Second Southern A. It was part of the rubbish tipped from the settlements nearby (FIG. 1), which will be the subject of a later report. The remaining finds, Romano-Belgic, Roman or Medieval probably came from the muck-cart-although the field-systems are not apparent here, in contrast to the situation at Vicarage Field to the north and Linch Hill to the south.

RING-DITCHES IN THE OXFORD REGION

Ring-ditches were the most common field-monuments in the Oxford region: Riley counted over 400 of one type only.⁴² They are now rapidly disappearing in the face of gravel-digging. Our purpose is to consider them archaeologically; but they deserve a moment of farewell, as long-enduring features of the 'shy Thames shore ', and merit a brief record of their charm for lovers of the countryside, as they showed themselves in variations of which the finest photograph is only a poor record: in spring, with intense and vivid green in the young crop; later, on a windy day in high summer, their tops waving above the grown corn; the great hollows in July where thunder-showers had beaten down the too-stalky growth; and the final faint and paler outlines in

⁴º Arch. J., CXIX (1962), 29-34. 4I Hanborough: Oxoniensia forthcoming. Iffley: Leeds in VCH Oxon., I (1939), PL. VII, d. Standlake: Atkinson, Oxoniensia, XI/XII (1946/7), 42. Stanton Harcourt: Case, XVI (1951), 84. 42 Oxoniensia, VIII/IX (1943/4), 66-70.

the broken stubble against the reddish-brown soil-seasonal impressions of immemorial settlement.

They are best defined as more or less circular or oval enclosure-ditches indicated by depressions in the ground or by marks in crops or soils; restrictive definitions as by Leeds⁴³ (who coined the phrase 'ring-ditch'), Atkinson⁴⁴ or Grimes⁴⁵ lead eventually to confusion. Some in the Oxford Region were very large, such as indicated the Late Neolithic or Early Bronze Age henge-monuments of Westwell, the Devil's Quoits, Deadman's burial and the Big Rings, and the Early Iron Age camp at Cassington Mill; but most are under 150 feet in greatest diameter, including those which Riley termed 'circles' (although very few may have approximated closely to that figure) and some among his 'small enclosures' and the 'small enclosures of a less constant shape ' of Grimes.

Here we are only concerned with those comparable to sites 1-5 excavated by Miss Hamlin (see above pp. 7-18) and thus with the smaller kind. Apart from the great henge-monuments mentioned above, they include the only traces surviving in the region of constructions of the Late Neolithic and Bronze Age.

Miss Hamlin has drawn attention to recent interpretations of them as sites of ritual activity (burial or ceremonial). FIG. I of her report (f.p. 2) shows five examples juxtaposed with detailed settlement-traces of the Early Iron Age, huts, ancillary structures, enclosures, storage-pits and boundaries—a typical situation regionally and one which cannot fail to suggest a puzzling implication to any exclusively ritual theory.

No traces of ancient settlements have been recorded in the region between those of the 3rd millennium (e.g. the Neolithic causewayed camp at Abingdon) and the second half of the first (e.g. Early Iron Age farms such as those illustrated above on FIG. 1). The gravels of the Middle Thames (especially those of the Summertown-Radley terrace) were very suitable for early settlement and formed the basis of excellent corn-growing country in historic times. Ritual acts (as suggested in interpretations of the ring-ditches quoted by Miss Hamlin) imply settlements nearby, and it seems remarkable that no traces of these settlements should have been found in the many acres of commercial gravelexcavations which have been carefully watched near Oxford for more than thirty years, except for a few scattered rubbish pits (like pits C, D, and E reported above).

The situation around Oxford is similar to that in the chalk areas of Wessex, where Early Iron Age farms are not far to seek but the habitations and stockyards of the Late Neolithic and Bronze Age are generally elusive. Yet they are

⁴³ Id, 1 (1936), 7 ff.
⁴⁴ Id, νπ (1942), 34-5.
⁴⁵ Id, νπ/1x (1943/4), 21.

not entirely unknown there or elsewhere, and it behoves one therefore to review the Oxford evidence-and that inevitably means reconsidering the smaller ring-ditches.

Ackerman and Stone, the first excavators of ring-ditches to record their findings,46 considered in 1857 that the purpose of the 'circular trenches' at Standlake was 'an archaeological enigma'. Mistaking their weathered sides for those originally dug, they discounted them as settlement-enclosures, but doubted whether they had been originally dug for burial. Leeds in 1936 was more definite in asking whether some may not 'originally have encircled a hut or huts and in some cases' have been used for burial after abandonment.⁴⁷ Childe stated the view that ' They may mark the emplacements for tents or even farmyards in which stood a tent or other equally perishable dwelling.^{'48}

Atkinson, attempting to distinguish between sites which were burial-places and those which were not, opined that those among the latter with a singleditch, a flat central area and an outer bank (to which he would have restricted the term 'ring-ditch') may have had 'a ritual or ceremonial rather than a domestic use '.49 The small henge-monuments at Dorchester (ring-ditches in Leeds's definition and mine) were regarded as intentional 'ritual monuments ' or 'cemeteries'.50 The view of the authors of A Matter of Time was that ' Generally . . . it seems safe to assume, until excavation has decisively disproved the assumption, that crop-mark circles ... with very few exceptions indicate the ditches of vanished burial mounds.⁵¹ And there seemed little doubt to Grimes that the ring-ditches at Stanton Harcourt were 'burial rings'.52

All the ring-ditches at Stanton Harcourt and the majority elsewhere occur in soils on Summertown-Radley terrace gravel, in almost all areas heavily and continuously cultivated since the early Middle Ages, generally so in Roman times and probably frequently in the Early Iron Age. Enterprising farmers may have carted away the barrow-mounds, and smaller earthworks will have been obliterated by ploughing alone. Positive earthworks associated with the ditches have survived here or on higher terrace-gravels very rarely and almost certainly only in a form degraded by cultivation; occasional field-names as at Eynsham or Radley show the persistance of a few barrows into an age of less intensive tillage as obvious relief in a flat landscape. A very few ring-banks or platforms, presumably more or less unaltered, remain in the uncultivated meadows of the

46 Archaeologia, XXXVII (1857), 370.

47 Oxoniensia, 1 (1936), 22.

48 Prehistoric Communities of the British Isles (3rd ed., 1949), 158.

49 Loc. cit. in note 44, 35. 50 Atkinson, Piggott & Sandars, Excavations at Dorchester (1951), 64-5.

51 Loc. cit. (1960), 17.

⁵² Grimes, Excavations on Defence Sites, 1939-45 (1960), 144.

flood-plains.⁵³ Otherwise, excavation alone provides a body of comparable evidence about the associated earthworks, through study of the cross-section of the silting of the ditches and of the soils inside and outside the rings.

Much of this evidence is unfortunately negative but some deductions are possible. Most of the ditches, like nos. 1 and 2 reported by Miss Hamlin, are shallow in relation to their circumference. Thus unless the gravel and soil excavated from the ditches were augmented with soil scraped-up from elsewhere, no very massive earthworks or substantial mounds would have resulted, no matter where the spoil was placed. Thus a steep and substantial mound by its very nature would have been of composite construction and likely to have had a core of soil and a casing of gravel.

Primitive agriculturalists are unlikely to have ploughed a vexatiously steep mound. None of the barrows listed in a Table here has escaped cultivation, therefore it is probable that they were either quite low originally or had been previously quarried or carted and spread.⁵⁴ It is useless to speculate which. The view is taken here, however, that while prolonged cultivation (whether or not preceded by quarrying) will have spread and flattened a barrow, it will not have removed obvious traces of the gravel casing, provided that the edge of the original mound had stood far enough in so as not to have collapsed previously into the ditch by natural silting. Thus, provided they had not collapsed into the ditch, the lower courses of the casing, augmented by natural silting from the slope of the mound will have remained more or less untouched in quarrying and prolonged cultivation of the mound, and appear as a concentration of stones obvious to the observant excavator.

That these suppositions are correct may be seen not only in excavation reports listed in the Table,55 but in the soil-marks of ploughed barrows, occasionally on gravel⁵⁶ but more obviously on chalk where the contrast in soil-colour is better.⁵⁷ It is highly likely that some traces would have remained even if the mound has been very largely carted away.58

If however, excavation indicates that the gravel was placed so near the inner lip of the ditch as to have largely silted back into it, the original form of the monument may have been either a barrow with virtually no space between

18-20.

⁵⁶ Bradford & Morris, Id, v1 (1941), 88; Bradford, Ant. J., XXII (1942), PL. XXVIII, f. p. 204. But cp. Eynsham D, Bradford & Morris, loc. cit., 85. ⁵⁷ Ashbee, Bronze Age Round Barrow in Britain (1960), PL. Vb.

58 See note 53.

⁵³ e.g. Riley, *loc. cit.* in note 41, 92; Harden, *Oxoniensia*, X1/X11 (1946/7), 175. 54 An excavated example with documentary evidence of deliberate destruction was the Great Barrow, Stanton Harcourt (Stanton Harcourt, xvi, 1 in the Table p. 42 below). Harden & Treweeks, Id, x (1945), 21. The assymetrical section of Radley 11 (not in Table 1 below) may have been due to deliberate destruction. Leeds, *Id*, III (1938), 39-40. 55 An example not in the Table was the barrow in Saxton Road, Abingdon. Leeds, *Id*, I (1936),

mound and ditch (a type not recognized positively in the region), or a ringbank lying inside its quarry-ditch (a type claimed several times). Once again the distinction demands a degree of observation on the excavator's part; but, in this instance, the absence in excavation-reports of any evidence of internal structure is taken here to indicate the absence of a mound and to show that the original monument had merely an inner bank or an inner platform, depending on the circumstances. On the other hand, if the silting of the ditch shows clearly that the greater mass of gravel has returned from the outer edge, there can be no doubt that the monument took the form of a ditch with outer ringbank.

Two main types of monument can be deduced with reasonable certainty, bearing in mind that any classification involves a degree of interpretation at the desk of excavator's findings in the field:

(1) Barrows with substantial mounds. The sections of the area enclosed by such ring-ditches show clear structures which can be interpreted as those of barrow-mounds. Such barrows were Stanton Harcourt XVI, I, Cassington 6 and several at Radley. The ditches, in fact, by themselves gave little or no indication of the form of the positive earthwork.

(2) Barrows or other earthworks without substantial mounds. The sections of the areas enclosed by the great majority of ring-ditches give no indications of structure, nor do those of the immediately exterior area. The positive structures can in some cases be deduced by interpreting the ditch-silting. Thus we have:

(2a) With bank near the outer edge of the ditch. A common type, as Cassington 1, Stanton Harcourt II, 10 and Standlake 1, with several examples on Port-Meadow more or less unaltered. Burial-sites of this form with a small mound would be one of a variety of *disc-barrows* as classified by Grinsell; without an internal mound, they would show resemblances to *saucer-barrows*.⁵⁹

(2b) With bank near the inner edge of the ditch. A rare type, as at Dorchester II and Stanton Harcourt II, 4, but surviving nowhere virtually unaltered, except as buried under barrow 6, Cassington.

(2c) With banks near the outer and inner edges of the ditch. Also a rare type, as at Church Hanborough 2 and more or less unaltered in a meadow at Long Hanborough. Burial sites of types 2b and 2c with small mounds would also be varieties of *disc-barrow*.

(2d) With no earthworks near the edges of the ditch, the spoil not having returned to the ditch as silting. A more common type as at Stanton Harcourt XXI, 1, and Langford Downs. Some may have had banks distant from the ditches or small

⁵⁹ Ancient Burial Mounds of England (2nd edn. 1953), 21-3; Dorset Barrows (1959), 18-19.

central mounds, or internal platforms as surviving at Port Meadow. The extent to which any of these possible variations may be distinguished depends partly on fortuitous circumstances but partly also on the excavator's skill.

The above classification at any rate shows the surprising variety of monuments of which the simple ring-ditches may be the only prominent vestige. The Table on pages 41-47, indicates their range of date and variety of finds.⁶⁰

Before considering a few of the implications of the Table, it is interesting to see how the data obtained by Miss Hamlin at Stanton Harcourt can be interpreted in the light of the discussion above; this is worth while since these sites appear to have escaped the moving of topsoil needed to construct the wartime aerodrome. Ring-ditch 1 is an example of type 2d; no evidence suggests where the spoil may have been placed. Nor is the section of ringditch 2 very informative, but the slight displacement of the centre outwards by the later silting and the slightly greater proportion of gravel from the inside in the early silting suggest that the interior may have been made up as a very low platform, or possibly have had a ring-bank at some distance from the ditch.

Ring-ditch 3 seems to have had an inner ring-bank; the absence of any trace of internal construction precludes interpretation as a barrow. Similarly a ring-bank stood inside 4A; but 4 and 4A were a single construction and, to the west, a bank appears to have stood outside 4. No signs of this outer bank appeared at the south in the ditch of 4A, but a symmetrical segment may have stood to the east of 4. These segments may not have been part of a continuous bank encircling the north of 4, since ring-ditch 3 may have been the earlier monument. Despite the unsatisfactory siting of cutting IX and the excavator's cautious conclusions, the section (FIG. 6) provides some evidence that ring-ditch 3 was cut through in digging ring-ditch 4. To the north-west, the surface of layer 8 was anomalous, being sharply defined and silted with loam (layer 9), and may have been a recut surface corresponding to that between layers 8 and 11 of ditch 3 in cutting VI. Similarly layer 11 may have been a truncated lens of silting corresponding to layer 10 in cutting VI. Above, and to the south, the section appeared normal. Thus the compound ring-ditch 4/4A may have consisted of a small ring-bank inside 4A, flanked by banks to the east and west of 4.

Finally, the section of ring-ditch 5 was truncated, and not very clear, but the monument may have been of type 2c, with inner and outer banks—by no means unlikely in view of ring-bank monuments associated with beaker-culture burials at Cassington 4, North Stoke and Lambourn 17.⁶¹

⁶⁰ It includes evidence from unpublished excavations, the number of which clearly shows how the speed of destruction, mentioned on page 35, has outrun the resources of publication.

⁶¹ Lambourn 17 in Case, Berks. AJ., LV (1956/7), 23-5. Remainder in Table pp. 43-44.

	N: M LN: J	eolithic EBA, MBA, LBA: Early, M Late Neolithic EIA: Early Iron Age	Middle, Late Br	onze Age
SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
TYPE 1: With sub	stantial mounds (12 example	es)		
Cassington 6	хт/хп (1946/7), 5 ff.	On old ground surface in central area: Neolithic flints; cremation-burial. Large pit in central area: Adult inhumation-burial at base with flint scraper, infant's inhumation-burial in filling. Filling surmounted by mortuary hut. Smaller adjacent pits: Collared urn and cremation-burials. All these sealed by mound, which contained a sherd of beaker- pottery.	EBA	See Type 2b in Table below.
Dorchester VII	Atkinson, Piggott & Sandars, Excavations at Dorchester (1951), 60	Three pits, one with cremation, another with collared urn. Secondary Anglo-Saxon cemetery.	EBA	
Eynsham D	vi (1941), 85	Sealed by mound: Pit with cremation-burial, another with animal bones, also straight length of ditch.		
Radley 2	хvп/хvш (1952/3), 14 ff.	Sealed by mound: Pit with cremation-burial with bead-covers of gold-foil and bronze awl.	EBA	
Radley 3	<i>Ibid.</i> , 23 ff.	Sealed by mound: Pit with flexed inhumation- burial with bronze knife.	EBA	See Radley 4a/4 below.
Radley 4a/4	хш (1948), 1 ff.	Roughly circular ring-ditch with central pit with crouched adult's inhumation-burial with bell-beaker, gold ear-rings and flint arrow- heads. Child's inhumation-burial on ditch filling. The whole buried under barrow (= 4a) conjoined with larger adjacent barrow (= 4), both surrounded by irregular oval ditch. Cremation-burial with bronze knife on ground-surface under large adjacent barrow $(= 4)$.	Adult's inhuma- tion- burial: LN Crema- tion- burial: EBA	Circular ring-ditch and adult's inhumation burial likely to have belonged to earlier phase than other features. Gravel casings of both 44 and 4 likely to have come from irregular ova ditch. This ditch had cut through that o barrow 3 (see above). xvi/xvii (1952/3), 25

EXCAVATED RING-DITCHES SHOWING EVIDENCE OF ASSOCIATED EARTHWORKS

(64 examples)

SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
Radley 5	<i>Ibid.</i> , 9 ff.	Sealed by mound: Two pits with flints and cremated bones.	BA	
Radley 6	Ibid., 11 ff.	Sealed by mound: Flint scraper on old surface.		
Radley 7	хvп/хvш (1952/3), 26 ff.	Sealed by mound: Cremation-burial in topsoil of old surface. Transverse-derived arrow- head and flint flakes on old surface. Probably secondary cremation-burial in mound.		
Standlake 18	vi (1941), 88			Numbering of sites at Standlake as in x1/x11 (1946/7), 28.
Standlake 20	Forthcoming	Traces of central inhumation-burial on old surface.		
Stanton Harcourt xvī, ī	x (1945), 21 ff.	Central pit with charcoal. On old surface nearby: Cremation-burial with objects including pygmy-cup, bronze dagger and sharpener, whetstone, flint fabricator, bone pin, and beads of amber, jet and fossil- sponge. Secondary Anglo-Saxon cemetery.	EBA	Ditch-section (FIG. 8) indicates that mound was not close to ditch, therefore a bell-barrow not a bowl-barrow. Gravel-casing possibly spread over barrow by silting and levelling. Another section of ditch was exposed at destruc- tion of site in 1961 and reported in xxv1/xxv1 (1961/2), 338. Ditch was found to be deeper than shown in FIG. 8, flat-bottomed and with more primary silt; otherwise layers similar. The section indicated a continuously silted ditch and did not show recutting or deliberate infilling as mentioned in 1945 report (<i>loc. cit.</i> , 32). Extended inhumation-burials, probably Anglo- Saxon, immediately under 'Topsoil' of 1945 report. Contracted inhumation burials in worse state of preservation (? Romano-British or Anglo-Saxon) in upper part of 'Ditch fill with less gravel'. Numbering of sites at Stanton Harcourt as in Grimes, Excavations on Defence Sites, 1939-45 (1960), 143, FIG. 58.

SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
TYPE 2a: With ou	iter bank (20 examples + 3	variants + 1 doubtful)		
Cassington 1	vп (1942), 104 ff.	Peterborough and beaker wares in primary silt.	LN	' Ring-ditch A.'
Cassington 2	Loc. cit.			' Ring-ditch B.'
Cassington 3	1 (1936), 13 ff.	Struck flints and sherd possibly of Peter- borough ware in primary silt. Peterborough ware and Romano-British pottery in second- ary silt.	Possibly LN	⁶ Double ring-ditch '. Variant with single bank between two ditches; inner ditch with entrance- causeway, outer ditch apparently segmented.
Cassington 4	xvi (1951), i ff.	<i>Central pit:</i> Basal inhumation-burial with bell-beaker. Upper inhumation-burial with long-necked beaker.	LN/ EBA	
Cassington 5	xv (1950), 104	Pit in interior : Stone axe. Secondary silt : Sherd of collared-urn ware, plano-convex flint knife.		
Dorchester IV	Excavations at Dorchester, 35 ff.	Transverse-derived arrowhead with second- ary cremation-burial.	N	Segmented ditch with entrance-causeway. Cremation-burials secondary in ditch and in bank where established.
Dorchester V	<i>Ibid.</i> , 43 ff.	Primary silt: Possibly Peterborough ware.	Probably N	Segmented ditch with entrance causeway. Cremation-burials secondary where established.
Dorchester VI	<i>Ibid.</i> , 51 ff.	Probably Peterborough ware in secondary silt. Transverse-derived arrowhead and flint fabricator with cremation-burial.	N	As above.
Hanborough 3	Forthcoming	Cremation-cemetery with collared urns in interior. Cremation-burials primary and secondary in ditch-silt. Anglo-Saxon cemetery tertiary.	E-MBA	
Hanborough 4	Forthcoming	Necked-beaker pottery (probably derived) and sherd of pygmy cup in ditch-filling.	E-MBA	Two-period site: Type 2a site, oval ditch with entrance-causeway and outer bank. Ditch revetted and filled-in soon afterwards. Possibly contemporary with Hanborough 3 (see above) which it adjoined. This type 2a site was constructed inside earlier type 2b site (see Table below).

SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
Hanborough 5	Forthcoming	Two central pits: One with cremation-burial, bronze awl and bone handle, and fragments of miniature vessel of collared-urn ware; the other with fragments from cremation-burial.	EBA	Central platform with outer ring-bank, a saucer-barrow.
North Stoke	xxiv (1959), 1 ff.	Inserted in central platform: Crouched inhumation-burial with long-necked beaker.	EBA	Similar type of monument to Hanborough 5 (see above).
Port Meadow 5	vп (1942), 30 ff.	Primary silt: Early Iron Age pottery and bird bones. Secondary silt: Early Iron Age pottery, cow and sheep bones.	EIA	This site was secondary to a ring-ditch (Site 6) containing sherds considered to be Late Bronze Age.
Radley 14	1 (1936), 1 ff.	Central pit with cremation-burial with small biconical urn and bronze razor.	MBA	So-called 'Disk-barrow' although no evidence adduced for central mound. Variant with double concentric ditches and banks. Stake-holes apparently associated with outer ditch. Several more near sterile pit to NE of monument.
Standlake 1	хи/хи (1946/7), 30 ff.	Cremation-cemetery with bucket-urns. Bronze ring and barbed-and-tanged arrow- head.	MBA or LBA	Cemetery appears to have been secondary.
Standlake 17	Forthcoming	Storage-pits with Early Iron Age pottery in interior. Secondary Anglo-Saxon cemetery.		
Stanton Harcourt II, 10	xx (1955), 4 ff.			Not plotted on Defence Sites, 143, FIG. 58.
Stanton Harcourt VI, 2	vIII/IX (1943/4), 201	Interior pit containing struck flints, bone point and animal bones including jaw of pig. Fragment of decorated daub nearby.		
Stanton Harcourt VI, 4	x (1945), 94 ff.	Three central pits, one with cremation- burial.		Doubtful example. Sections suggest greater gravel-silt from outer edge, but text suggests upcast was on inner edge. Not plotted on <i>Defence Sites</i> , FIGS. 57 and 58.
Stanton Harcourt XXI, 4	viii/ix (1943/4) 45 ff.	Secondary silt: Sherds appropriate to relief- decorated rather than collared urns.		Site 7, 1940.

SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES: REMARKS
Stanton Harcourt XXII, 2	x (1945), 19 ff.			Site 5, 1940.
Stanton Harcourt XXIX, 3	Forthcoming	Secondary silt: Early Iron Age pottery.		
Stanton Harcourt XXIX, 4	Forthcoming	As above.		Charcoal flecks in primary silt.
Wallingford	Forthcoming	3 central pits: One with crouched inhuma- tion-burial with sherd of Abingdon ware and struck flints; others sterile.	N	Variant with single bank between two ditches. Outer ditch recut.
TYPE 2b: With inn	er bank (6 examples + 3	variants)	1	
Cassington 3				Variant type 2a/b with two ditches already noted above under 2a.
Cassington 6	See type 1 in Table above.			Ring-ditch with inner bank was original feature on site. Connected with Neolithic flints in interior?
Dorchester I	Excavations at Dorchester, 5 ff.	First phase: Abingdon style Neolithic pottery; sherd of Rinyo-Clacton ware; transverse derived arrowhead. Second phase: Peter- borough ware.	N	Variant with anomalous features. First phase: Ring-ditch with inner bank enclosing annular setting of pits and possibly some internal structure, the whole surrounded by a square ditch with outer bank. Second phase: Ring-ditch recut in segments. Cremation-burials and inhumation-burial, both in interior of ring-ditch, in uncertain relation- ship to these phrases.
Dorchester II	<i>Ibid.</i> , 19 ff.	Peterborough ware in latest filling of ditch of final phase. Stone macehead, flint plano- convex knife and fabricator, bone pins with cremations. Struck flints from ditch fillings and interior. Animal bones from ditch filling and pits.	N	Three constructional phases indicated by segmented concentric ditches and inner banks. Cremation-burials in interior in pits, and in bank of third phase. Pits held all to belong to this third phase.

SITE	PUBLICATION Oxoniansia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
Dorchester XIV	xx (1955), 6 ff.			Central post structure.
Hanborough 4	See type 2a in Table above	Necked-beaker pottery in ditch filling.	EBA	
Stanton Harcourt II, 4	xvII/xvIII (1952/3), 227	Central pit with cremation-burial with pygmy cup.	E- MBA	
Stanton Harcourt XV, 3	See above pp. 9-10	See above p. 27	LN	' Ring-ditch 3.'
Stanton Harcourt XV, 4	See above pp. 11-13	See above p. 29	Possibly LN	'Ring-ditch 4/4a.' Variant compound ring- ditch. Bank inside smaller ring. Possible segments of banks to E and W of larger ring.
Wallingford				Variant type 2a/b with two ditches. Already noted under type 2a in Table above.
TYPE 2c: With inner	and outer banks (2 exam	uples $+ 1$ probable $+ 1$ possible example)		
Hanborough 2	Forthcoming			
Hanborough 6	Forthcoming	Central pit with cremation-burial with sherds of biconical urn.	MBA	Central mound. Thus a disc-barrow.
Standlake 16	Forthcoming	Secondary cremation-cemetery.		Probably of this type.
Stanton Harcourt XV, 5	See above pp. 6, 13	See above pp. 25-26	EBA	Possibly of this type. 'Ring-ditch 5.' Not plotted on Defence Sites, loc. cit.
TYPE 2d: Earthwork	s distant from ditch: or c	entral platform without ring-banks (15 examples)		
Langford Downs 1-5	xı/xıı (1946/7), 59 ff.	Secondary EIA burial in silting of no. 2. Four internal pits in no. 1, one in no. 2, two in no. 4, all filled with blackish soil.		

SITE	PUBLICATION Oxoniensia, unless indicated otherwise	FINDS	DATE	OTHER FEATURES; REMARKS
Port Meadow 6				See under Port Meadow 5: Type 2a in Table above.
Port Meadow 7	vп (1942), 28; xi/xп (1946/7), 163	4 internal pits, patches of cobble-stones, entrance with paved way.	' Iron Age habita- tion- site '	Small gravel mound surrounded by 4 successive concentric ditches. Much Romano-British pottery.
Radley 4a				See under Radley 4a/4: Type 1 in Table above.
Stanton Harcourt XV, 1	See above p. 7	See above p. 27		' Ring-ditch 1.'
Stanton Harcourt XV, 2	See above p. 7-9	See above p. 27	Possibly LN	' Ring-ditch 2.'
Stanton Harcourt XXI, 1	vm/1x (1943/4), 34 ff.	Primary site: Central crouched inhumation- burial with flint knife with polished-edge and jet slider. Secondary site: Central crouched inhumation- burial with bell-beaker, flint arrowheads, and bone ring. Pit nearby with animal bones nearby.	LN EBA	Site 2, 1940: Double ring-ditch at Linch Hill corner. Primary site: 2 concentric ditches; inner with entrance-causeways. Secondary site: Roughly circular ditch.
Stanton Harcourt XXI, 3	Ibid., 45 ff.	Central pit with cremation-burial.		Site 6, 1940.
Stanton Harcourt XXIX, 1	Forthcoming	Secondary cremation-burial. Secondary silt: EIA pottery		Flecks of charcoal in primary silt.
Stanton Harcourt XXIX, 2	x (1945), 19 ff.	Primary crouched inhumation-burial in ditch. Secondary silt: EIA pottery. Hole for monolith in interior.		Site 3, 1940.

Turning once more to the hypotheses of Leeds and Childe, it is obvious that settlement-theories could only be supported by evidence from sites at which burials were secondary or which lacked burials.

This means that rather less than half of those excavated (25 out of 64) have to be put aside. They include not only burial-mounds (type 1), and a ringditch of type 2a (Hanborough 3) which was laid out as a burial-monument, but others (such as Miss Hamlin's no. 2), where the relationship of burials to ditches is uncertain; not unexpectedly 10 out of 12 of type 1 have to be put aside, but generally only between one-third and one-sixth of the variants of type 2. Before leaving these sites which have been put aside and which are likely to include a large proportion of burial-monuments by original intention, two important features may be noted: Firstly, the persistence of ring-bank monuments, related to disc-and-saucer-barrows, extending from the Late Neolithic (Stanton Harcourt XXI, 1; Wallingford) to the Middle Bronze Age (Radley 14) and possibly the Late (Standlake 1); secondly that the building of large burial-mounds appears confined to the Early Bronze Age, with cultural ties to the Wessex culture where traceable, the Saxton road barrow, Abingdon being a possible exception.⁶²

One is now left with sites without burials, or with burials which are all demonstrably secondary, as candidates for interpretation as ceremonial or settlement sites. First, one must give attention to the claim that superficial burials may have disappeared from the interiors. This argument *ex silentio* is difficult to assess exactly, and therefore no specific allowance is made for it here. This approach is not without some justification. Burials have certainly not disappeared through chemical reaction in such basic soils as those of the Oxford gravels. They might have been disarranged by cultivation or even robbed, but some traces should have remained for the observant excavator; and were noted at Standlake 20. Finally, out of 10 of type 1 with burials, 6 mounds sealed burials which were *not* superficial, having been in pits dug into gravel.

Next, in attempting to interpret ceremonial activity, care must be taken not to fall into the trap shown us by Mr. Grinsell.⁶³ When used as a last resort, the term ceremonial seems best confined to evidence of activity which appears to be manifestly purposeful and manifestly impractical. Thus Hanborough 4, with an excessively deep, narrow and revetted ditch, disproportionate to the area it enclosed and quickly filled-in, and Miss Hamlin's site 4/4A with its odd lay-out seem to merit the term, as does Dorchester I. But sites II, IV, V and VI at

⁶² Leeds, loc. cit. in note 54.

^{63 &#}x27;' RITUAL PIT''. Any pit found by archaeologists, the purpose of which is not evident to them.' The Archaeology of Wesser (1958), xv. But Mr. E. T. Leeds, inclining to a view of man's material requirements, needed no warning. Any pit found by him stood every chance of being reported as a ' hut-pit', a ' cooking-hole ', or a ' fire-hole'.

Dorchester are open to an alternative interpretation. Cremation-burials where stratified at these sites were found to have been secondary. The very clear ditch-sections suggest that the ditches were at least as likely to have silted naturally as to have been filled deliberately; anomalies in Ditch III of Site II may have been due to partial revetment.⁶⁴ A period of primary use is therefore a possibility at each site before it became a cemetery; at Site II, at any rate, such a period included two phases of reconstruction. The primary use is at least as likely to have been connected with settlement as with ceremonial.⁶⁵

Of the sites which remain for consideration as potential settlementenclosures, however, the greater proportion cannot be used to further an argument since excavation revealed no satisfactory evidence of settlementrubbish. Charcoal in the primary silt, as at Stanton Harcourt XXIX 1, and 4, is not enough.66 We are then left with Dorchester II and VI (Neolithic), Cassington 3 (possibly Neolithic), Port Meadow 5 (Early Iron Age), and Stanton Harcourt VI, 2 (uncertain date). This is hardly a list to create strong confidence in the settlement-theory, all the more so in view of the possibility that settlement-rubbish may have been used in some ceremonials. Such confidence as one has is diminished if one compares undoubted Bronze Age farm-yards or settlement-enclosures, which have survived in areas more favourable to preservation-such as the Pounds on Dartmoor;67 Shearplace Hill, Dorset;68 Thorny Down, Wiltshire;69 Itford Hill, Sussex.70 Quite apart from differing from ring-ditches in dimension, they show a tendency to irregular straight sections and entrance-causeways-features they share in common with the Early Iron Age farm-yard at Little Woodbury, Wilts.71 In contrast, ringditches show the roughly circular plan typical of barrows. Comparison with the Irish raths,72 which are sometimes roughly circular but show numerous

64 Loc. cit. in note 49, 22-3, FIGS. 10 & 11.

⁶⁵ An argument (not used by the excavator) that the so-called black filling or dark layers of the ditches and pits represented occupation-material deliberately (therefore ritually) buried does not seem valid. Not all this filling appears to have been coloured by charcoal (*loc. cit.*, 120) or by organic matter; water-logging of the loamy filling *in situ* in the pits and ditches may have been a cause of its dark colour, and probably caused similarly dark siltings at other low-lying sites such as at North Stoke, Port Meadow and Wallingford (see Table).

⁶⁶ Considerable quantities of charcoal and occasional animal bones, and a fragment of unburnt human skull were found in early layers of the Large Circle ditch, Mount Farm, Dorchester, Oxford. Myres, Oxoniensia, II (1937), 16.

67 Radford, PPS, xvIII (1952), 61-4; Worth, Trans. Devon Assoc., LXXV (1943), 273-97.

68 Rahtz, PPS, xxvIII (1962), 289-328.

69 Stone, PPS, vii (1941), 114-133.

7º Burstow & Holleyman, PPS, xxIII (1957), 167-212.

⁷¹ Bersu, *PPS*, vI (1940), 31, FIG. 1. And with the Late Neolithic cattle-kraal at Anlo, Drenthe: Waterbolk, *Palaeohistoria* vIII (1960), 77-83.

72 Proudfoot, Medieval Archaeology, v (1961), 94-122; ORíordáin, Antiquities of the Irish countryside (3rd edn., 1953), 1-12.

differences from ring-ditches, would be far-fetched unless one could show them to have had precursors in the 2nd or 3rd millennia.73

It would thus be rash to leave the purpose of ring-ditches other than as generally enigmatical, as Ackerman and Stone left it more than a hundred years ago. However, where negative evidence abounds, it would be equally rash to reject altogether the settlement-theories raised by Leeds and Childe. One may legitimately ask what kind of settlements may have been represented by the 5 sites listed on page 49 above, and by some of the others which have been put on one side here, where the relationship of burials to the monument was uncertain, but which could be fitted to the theory of Childe and Leeds, even if they cannot be used to advance it.

Their dimensions seem appropriate to folds or small farm-yards which might have contained one or a few huts. The position of the bank relative to the ditch might have been conditioned in such cases as to whether internal drainage or security were the chief considerations. Few ring-ditches have entrance-causeways but a bridge of planks would have been effective and more secure and have obviated the need for a gateway.74

The absence of internal traces of huts led Childe to suggest tents. But stronger and less draughty structures would be even less likely to leave traces. Once areas of grassland had been formed by clearances on the gravels of the upper Thames system, sods would have been a natural material with which to build.⁷⁵ Turf-houses have been occupied into recent times in Iceland, Ireland and Scotland. Rafters may be secured to the tops of sod-walls without the need for uprights standing in post-sockets, drainage gullies need not be dug to bed-rock, and the trodden soil provides a good floor.⁷⁶ Such houses need frequent renovation; after abandonment and collapse leave only very slight earthworks, and very little plough cultivation would be needed to obliterate the traces of walls and floors-not merely scatter them like burials.

Another suitable material would have been wattle-and-daub. Here again no disturbance of the subsoil would have been necessary, at any rate in the case of a small hut. Provided the dwelling was not destroyed by fire, no traces would have been left after collapse and cultivation, beyond possibly a greater

73 The so-called ring barrows discussed with references in Case, PPS, xxvII (1961), 207-8.
74 Remains of planks were found in the ditch-filling of Dorchester site IV, which however had an entrance-causeway. Loc. cit. in note 49, 39-40. 75 The bank inside the outer ditch of the Neolithic causewayed camp at Abingdon, Berks. was

⁷⁵ The bank inside the outer after of the iveolutic causewayed camp at Abingdon, Berks, was revetted with sods. Case, Ant. J., XXVI (1956), 13-14. ⁷⁶ At least two types of round hut were built on the local gravels in the Early Iron Age: Those with timber-frames marked by post-sockets as on FIG. 1 above, and those marked by drip gullies only. This second type may have had walls built entirely of sods. An example of this type was found in 1963 less than a quarter of a mile south of those shown on FIG. 1; many of the 'smaller enclosures' and 'small enclosures' and 'small enclosures of less constant shape' mentioned on page 36 above may have been similar.

concentration of clay in the topsoil. Here the anomalous patches of clay discovered by magnetometer-survey in the interiors of Stanton Harcourt XV, 4, and especially XV, 2, associated with settlement-rubbish (see above p. 9) may be significant.

However, the rarity of rubbish (sherds, flints, and animal bones) or organically stained or ashy silt from the fillings of the ring-ditches themselves (even those fully excavated) is a fundamentally serious objection to considering them as connected with all-the-year-round settlement. But the objection would be lessened if a seasonal occupation was envisaged.

The tendency of the middle Thames to inundate its flood plain during the winter months implies that sites 5, 6 and 7 at Port Meadow and other sites there possibly of the same kind, could have been used only during the summer and part of the spring and autumn. And the same would have been true of the few ring-ditches on the Northmoor Terrace as at Pinkhill Farm, Eynsham, and those on Summertown-Radley gravel at the same level at Dorchester, if they were indeed settlement-sites. The situation of site 5 at Port Meadow suggests its connection with summer-grazing, and thus that same degree of semi-nomadic pastoralism, or transhumance, was practised in the Early Iron Age. Transhumance is a greater possibility for the Late Neolithic and Bronze Age when pastoralism was probably relatively more important. In ancient times before the Thames was dredged and locked and the extensive series of drainagechannels dug, its behaviour and that of its tributaries was almost certainly more extreme, with a tendency to flood suddenly in winter and to sink very low, or dry up. in the summer.⁷⁷ Transhumance may have been a necessity under such conditions. One of several possible ways in which primitive farmers could have exploited the region is thus: Winter-folds and huts, corn-plots and burial-places, on the Summertown-Radley terrace, well above floods; in summer some members of the community ranging with cattle over the meadows of the floodplain from other folds and huts, others possibly making for springs near the limestone uplands with sheep, and others moving ubiquitously on the fringes of woodland with swine.78

Mr. Sturdy in a note elsewhere in this volume (pp. 95-98) has shown that such a system appears to have been fossilized in the distribution of the early lands of St. Frideswide's Abbey. The importance of meadows to primitive farmers near subsistence level is well-known, and even to those a little more

⁷⁷ That the water-table was low at times is suggested by Dorchester site VII, an Early Bronze Age barrow at flood-plain level (see Table on p. 41); by 1st- and 4th-century A.D. water-holes at the same level nearby at Wally Corner, Dorchester (*Oxoniensia*, xxv1/xxvn (1961/2), 13; and by a Romano-British settlement at Standlake, Oxon. (around SP 387023), all but the very shallow ditches of which are below the present-day water-table even in the summer.

⁷⁸ Similar views on Middle Trent Valley in Posnansky, DAJ (1956), 17-19.

comfortably situated was illustrated only a hundred and fifty years ago by the bitter tenacity of the Otmoor townsmen.⁷⁹

Miss Hamlin's site 2 yielded an unusual density of occupation material for such a partially excavated site. Like material from the ditches 3 and 4 and 4A and from adjoining pits, it is assignable to the Peterborough culture, and probably all of it to a late stage characterized by pottery in the Fengate style.

Might it be therefore that we have here a settlement-complex of Late Neolithic semi-nomadic pastoralists—ring-ditch 3 a fold possibly, being the first feature and re-dug later; then ring-ditch 2, a settlement enclosure, constructed adjoining it, with 4/4A, a shrine or meeting-place, laid-out to the south; and finally ring-ditch 2 used for burial on abandonment?

79 Hammond & Hammond, The Village Labourer (1936), 64-72. Hobson & Price, Otmoor and its Seven Towns (1961).