

# Fieldwork and Excavation on the Berkshire Grims Ditch

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## SUMMARY

*This paper reports the results of work conducted on a major linear earthwork, the Berkshire Grims Ditch. This work has shown that the monument was constructed in the Late Bronze Age and that the local environment has remained open since that time. The monument's form, topographical setting, relationships to other monuments and soil types are considered as is the significance of its late date.*

## ACKNOWLEDGEMENTS

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## INTRODUCTION

The presence of a large number of linear earthworks or 'ranch boundaries' on the Wessex chalkland has long aroused the interest of prehistorians.<sup>1</sup> In some areas they occur in close relationships to barrows, field systems and hillforts and provide an opportunity for reconstructing important aspects of landscape history. Despite this interest, there has not been much recent work on their chronology and this is now essential if discussion is to make further progress. It was the purpose of the project described here to supply that information for one major monument of this type.

The Berkshire Grims Ditch is one of the longest of these earthworks and is the most north-easterly example of the Wessex linear ditch system.<sup>2</sup> Despite its length, it has not

<sup>1</sup> J.F. Stone, 'An Excavation on Boscombe Down East', *Wilt. Arch. and Nat. Hist. Mag.* xlvii (1936), 466-89; C.F.C. Hawkes, 'The Excavations at Quarley Hill 1938', *Proc. Hants. Field Club*, xiv (1939), 136-94; O.G.S. Crawford, *Archaeology in the Field*, (1953); H.C. Bowen, 'Celtic Fields and Ranch Boundaries in Wessex', *The Effect of Man of the Landscape: The Lowland zone* (1978) ed. S. Limbery and J.G. Evans, 115-132.

<sup>2</sup> Bowen, 'Celtic Fields and Ranch Boundaries'.

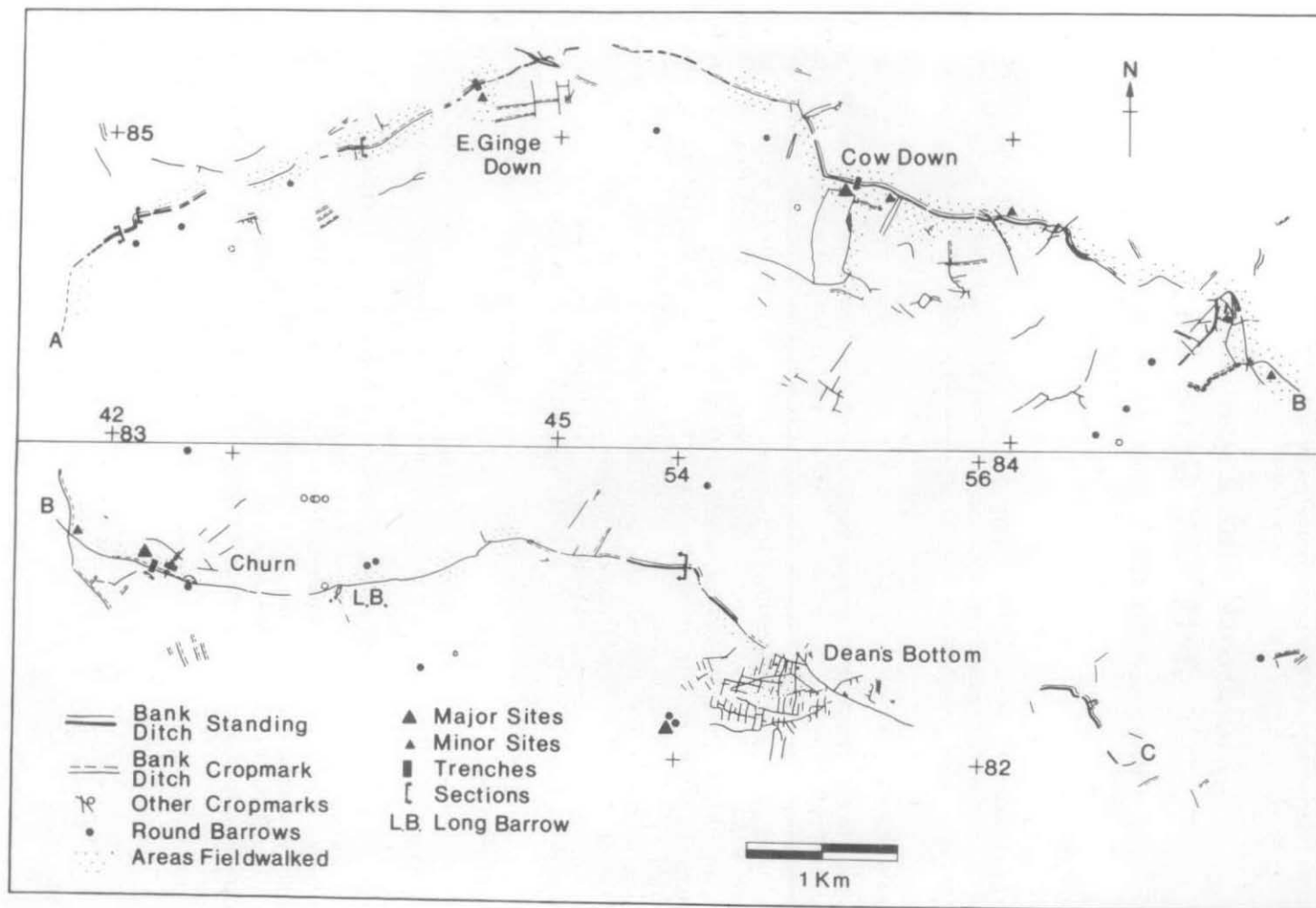


Fig. 1. Berkshire Grims Ditch. General Plan.

been considered in detail. Its course was described in general terms in 1937<sup>3</sup> and since then its relationship to other monuments has been examined further and its possible date and function have been discussed.<sup>4</sup> Very limited excavations in 1933<sup>5</sup> implied a Roman or even later date for the ditch, but later writers have not accepted this idea. As this work was not recorded in much detail, the main aims of the project described here were to date the monument and determine its environmental setting.

The Grims Ditch runs mainly along the escarpment of the Berkshire Downs overlooking the Vale of the White Horse. It lies on chalk, with only the western extreme on clay with flints and the section at Churn on alluvium capped with chalky drift. Owing to its position on the escarpment, the ditch is at a junction of different soil types. To the south are flinty rendzinas of the Icknield series, to the north-west are rendzinas of the Wantage series and to the north-east there are calcareous brown earths of the Charity and Coombe series. For the most part the ditch divides soils with few agricultural limitations (grade 2) from those soils with more severe limitations (grade 3). The few areas of grade 4 soils are on steeper ground. Simplified versions of the distributions of soil types and potential are shown in fig. 2.<sup>6</sup>

The monument usually consists of a V-shaped ditch, which was cut into the natural chalk to a depth of about 1.5m. The spoil was used to create a small bank on the downhill side of the ditch and occasionally on both sides. Even where it was unploughed, the bank is much denuded and its apparent size is often due to the enhancing effect of recent negative lynchets. The ditch makes several abrupt changes of direction, sometimes turning through a right angle. This could mean that it is respecting pre-existing field boundaries, as Crawford suggested for East Ditch.<sup>7</sup> At two points the ditch is aligned on a round barrow and long barrow.<sup>8</sup>

To the west of East Ginge Down, (SU 436849) two parts of the ditch do not quite join up and are on slightly different alignments. Similar patterns have been observed among the Bronze Age land boundaries on Dartmoor where Fleming<sup>9</sup> has termed them 'gang junctions'. He suggests that the work was divided among different groups, who constructed separate parts of the monument. A similar situation may occur to the east of Churn (SU 537834) where one length of the ditch overruns its junction with another section by some 30m. Finally some 75 per cent of the total length of the ditch follows the escarpment of the Downs, occasionally dropping on to the plain at the foot of the slope. The remaining 25 per cent ignores any marked topographical features.

The non-excavation fieldwork was divided into four parts: examination of relevant air photographs, examination of the monument in the field, fieldwalking and geophysical survey. Only the main results of this work are reproduced here, with the finer details presented as an archive. The air photographs examined are those in the collections listed by Richards.<sup>10</sup> The fieldwalking was specifically aimed at locating 'sites' adjacent to the ditch, as it was obvious from the outset that the chances of obtaining reliable dating

<sup>3</sup> E. Little, 'An Exploration of Grims Ditch', *Trans. Newbury Dist. Field Club*, viii (1939), 124-28; Crawford, *Archaeology in the Field*, 114.

<sup>4</sup> R. Bradley and A. Ellison, *Rams Hill*, B.A.R. 19 (1975); R. Bradley and J. Richards, 'Prehistoric fields and boundaries on the Berkshire Downs', *Early Land Allotment*, (1978) ed. H.C. Bowen and P.J. Fowler, B.A.R. 48, 53-60; J. Richards, *The Archaeology of the Berkshire Downs* (1978).

<sup>5</sup> H.J.E. Peake, H.H. Coghlan, C.F.B. Marshal and J.M. Birkbeck, 'Excavations on the Berkshire Downs', *Trans. Newbury Dist. Field Club*, vii (1935), 90-108.

<sup>6</sup> Agricultural Land Classification Map of England and Wales, sheet 158.

<sup>7</sup> Crawford, *Archaeology in the Field*, 113.

<sup>8</sup> L.V. Grinsell, 'An analysis and list of Berkshire Barrows', *Berks. Arch. J.* xl. 20-58; Richards, *Archaeology of the Berkshire Downs*, 31.

<sup>9</sup> A. Fleming, 'The Prehistoric Landscape of Dartmoor. Part 1 south Dartmoor', *Proc. Prehist. Soc.* xlv, (1978), 97-123.

<sup>10</sup> Richards, *Archaeology of Berks. Downs*, 7.

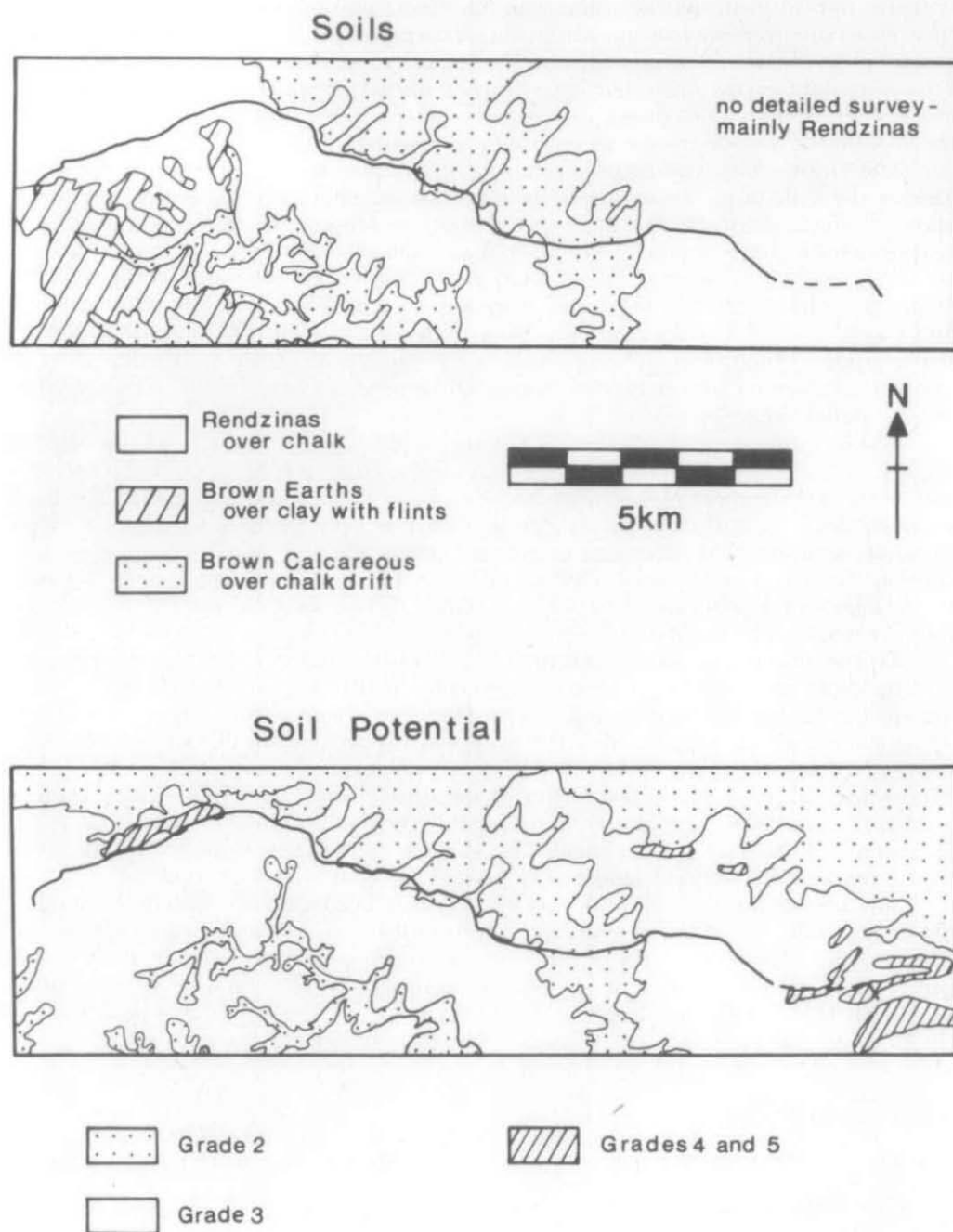


Fig. 2. Soils: types and agricultural potential.

evidence from random trenches across the ditch were remote. Trenches were located in those areas where artefacts might occur in a stratigraphic relationship to the monument. All suitable fields were walked, which accounted for some 60 per cent of the total length of the ditch. The geophysical surveying was undertaken to resolve specific problems posed by the other work.

Excavation took place in three stages. First, three trenches of about 2m.  $\times$  12m. were dug at locations where dating evidence might be recovered. Second, four narrow trenches were dug at locations where the monument had recently been disturbed and were intended to obtain environmental samples. Finally, one trench was dug across a possible offshoot ditch.

## DESCRIPTION OF EXCAVATIONS

### LARGE TRENCHES

#### *Churn 1* SU 50528314

The first site to be excavated consisted of a trench 2m.  $\times$  14m. which revealed a chalk cut ditch, a positive lynchet and two occupation layers, possibly occupying a negative lynchet (see Fig. 3). Because the bank had been totally ploughed away, there were no stratigraphic relationships between the occupation layers and the filling of the ditch, both of which contained a number of artefacts. As a result, there may be more than one explanation of the stratigraphy. One alternative is that the occupation represented by layers 9 and 10 took place only after the ditch and bank had been constructed and that this

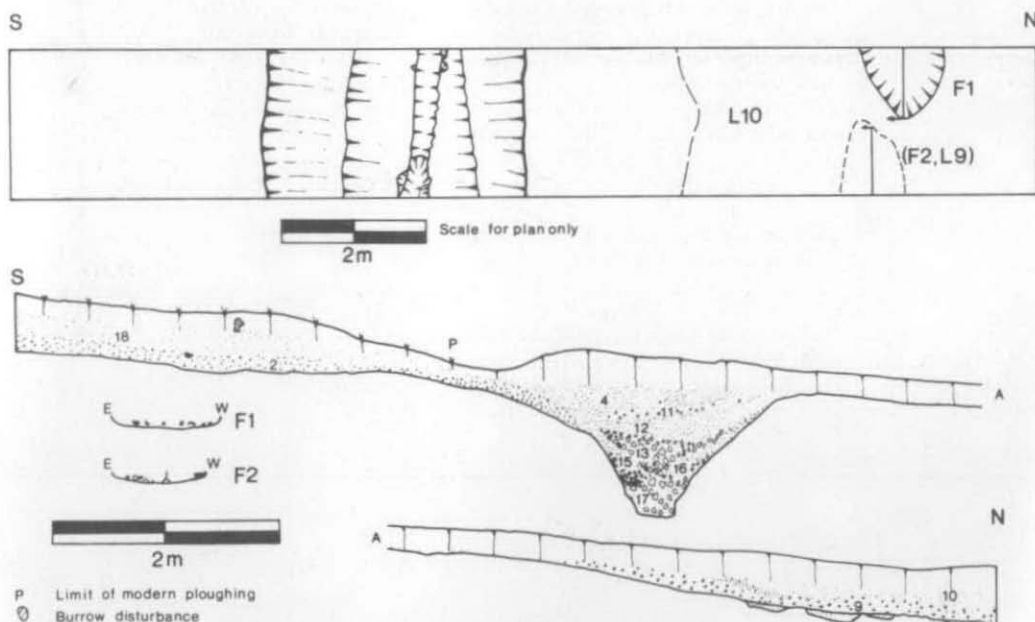


Fig. 3. Churn 1: Plan and section.

material butted up against the bank. If so, the finds in the primary ditch silts (L 17), would mean that the site post-dates the ditch by a very short interval. As the other alternative, the Grims Ditch could have been following an earlier boundary which did not necessarily occur as a lynchet. The occupation site was later cut by the ditch and residual finds were incorporated in its primary silts. Details of the excavation contexts are given in Table 1.

TABLE 1  
CHURN 1: STRATIGRAPHY

Layer	Description	Interpretation
17	Large loosely packed angular chalk lumps (7cm) including frost shattered flint nodules, grey silty loam and recalcification deposits	Primary ditch silts
16	Compact pale orange silty loam with some large chalk lumps (7cm)	Stabilised primary ditch silts and secondary silts
15	As for 16	
14	As for 15 and 16 but darker in colour	
13	Large loosely packed angular chalk lumps (5cm) including frost shattered flint, pale brown silty loam and recalcification deposits	Primary silts of first recut
12	Brown loam with a few small rounded chalk lumps (3cm) and flint nodules	Secondary silts of first recut (possibly secondary silts of original ditch on sides) plough-soil?
11	Brown loam with many small rounded chalk lumps (3cm) and flint nodules	Tertiary silts of first recut. Ploughsoil? truncated?
3/4	Firm orange-brown humic soil with few chalk and flint pieces	Tertiary silts of second recut (i.e. truncated Layer 11)
10	Firm brown humic soil with some small rounded chalk lumps (3cm) and flint pieces	Truncated occupation layer
9	Loose brown soil with many chalk lumps (5cm) and flint nodules	Occupation layer
18	Dark brown/black soil well mixed with much small rounded chalk lumps and flint pieces	Positive lynchet
2	Pea grit resting on bedrock	
F1	Orange-brown humic soil, some chalk and small flint nodules	Shallow feature
F2	Orange-brown humic soil with few chalk lumps and flint nodules. Very similar to L 10	Shallow feature

The following material was found in the excavation.

TABLE 2  
CHURN 1: CONTEXT OF FINDS

Layer	Prehistoric Pottery		Romano-British Pottery	Flint		Environmental Samples
	Diagnostic	Other		Flakes	Implements/ Cores	
1	6	75		5		
2		4				
3/4		20		5		-
9	8	156		9	2	
10	1	24		2		
11		22	1?	2		-
12/13		2				
12/16		5				
13	2	13				-
14						-
14/15		5		3		
16	1	14		2		-
17		13		1		-

The pottery from the site is considered in detail below. In summary it indicates a date early in Barrett's Decorated Ware phase of the later Bronze Age (8th-5th century BC).<sup>11</sup>

The few identifiable bone and tooth finds from the occupation layers and lower ditch silts are of sheep/goat, cattle and pig in roughly equal numbers. Finds from the site also include one horse tooth, a human tooth and bones of red deer. There was also a bone of black rat, presumably of medieval date. Sheep/goat accounts for about half and cattle, a third of the total finds. The age at death of the sheep/goat and cattle was up to five years and the pig up to two years.<sup>12</sup>

#### *East Ginge Down SU 44438536 (Fig. 4).*

The second excavation consisted of a 2m. × 9m. trench across an undamaged part of the earthwork. This revealed a bank, a ditch, a positive lynchet and a single posthole beneath the bank. The interpretation of the stratigraphy of this trench is more straightforward than for the previous site. There is no sign of an earlier lynchet but a later field headland stops short of the edge of the ditch. The stratigraphy is described in Table 3 and the contexts of the finds in Table 4.

There were only a small number of finds of pottery from the stratigraphically significant layers. The five sherds from the primary silts (L 14) suggest that the ditch was constructed no earlier than the Late Bronze Age. The only Roman pottery was in the secondary layers of the ditch (L 12 and above) and should provide a terminus ante quem. A few bones of sheep/goat, pig and hare were recovered from the higher ditch silts, in addition to a human skull fragment (L 12 and above).

<sup>11</sup> J.C. Barrett, 'The pottery of the later Bronze Age in Lowland England', *P.P.S.*, xlvii (1980), 297-320.

<sup>12</sup> Identifications by H.H. Carter.



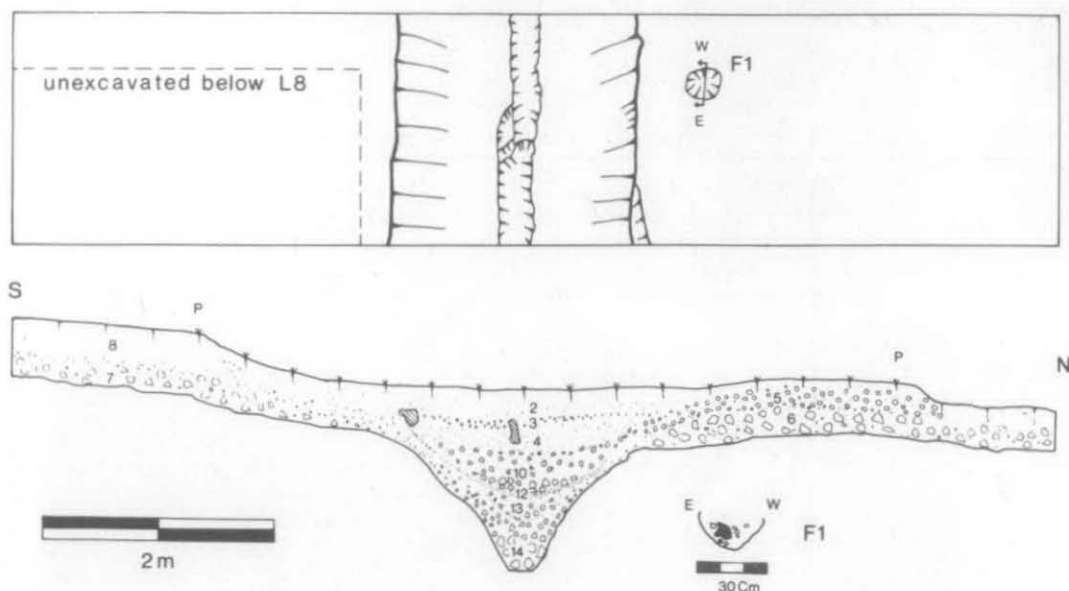


Fig. 4. East Ginge Down: Plan and section.

TABLE 3  
EAST GINGE DOWN: STRATIGRAPHY

LAYER	DESCRIPTION	INTERPRETATION
14	Large angular chalk lumps (5cm) with a little pale orange silty loam, recalcification deposits and siltstone	Primary ditch silts
13	Similar to 14 but smaller chalk lumps and orange silty loam	Secondary ditch silts
12	Thin grey silty clay, stone free except for chalk flecks	Stable secondary ditch silts/ buried turf line
10	Loose large angular chalk lumps (5cm) with brown silty clay loam	Slumped bank or demolition of bank prior to ploughing
4	Pale orange brown stone free clay loam	Tertiary silts
3	Brown silty loam with much small rounded chalk pieces	Truncated ploughsoil?
2	Orange brown clay loam	Tertiary ditch silts
5	Loose rounded chalk lumps (3cm) with a little black silty loam and many roots	Bank remnants.
6	Very large loose angular chalk lumps (10cm) with a little orange silty loam	Weathered bedrock. Truncated rendzina soil?
7	As for 6	As for 6
8	Orange-brown silty loam well mixed with much small rounded chalk lumps	Positive lynchet
F1	Orange-brown silty loam with some small round chalk lumps (2cm)	Base of posthole



TABLE 4  
EAST GINGE DOWN: CONTEXT OF FINDS

Layer	Prehistoric Pottery		Romano-British Pottery	Flakes	Flint Implements/ Cores	Environmental Samples
	Diagnostic	Other				
1		1		18	2	
2		4		12		-
3						-
4						-
5		3		5		-
6				1		
7						
8		4	1	9	1	
10	1	9	2	12		-
10/12	1	2		3		
12		3	1		2	-
13						-
14		5				-

*Cow Down* SU 47028468 (Fig. 5)

The third site consisted of a trench 2m.  $\times$  13m., again across the undamaged earthwork. The stratigraphy is unlike any of the other ditch sections. The basal layers (L 11-8) do not exhibit the characteristics of natural silting but consist merely of bands of fine silt alternating with bands of rounded chalk lumps. This may mean that the lower part of the ditch had been deliberately filled in. Very little natural erosion had taken place before

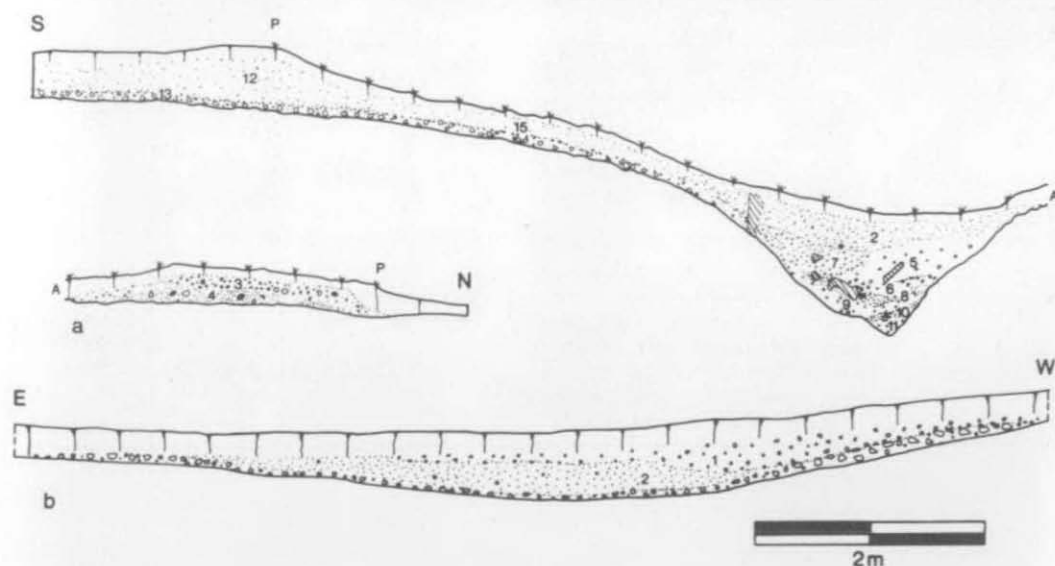


Fig. 5. (a) *Cow Down*: section (b) *Churn 2*: offshoot ditch section.

this happened, suggesting a short period of use. Again the earthwork is respected by a positive lynchet, apparently of recent origin. Descriptions of the stratigraphy and the context of the finds are given in Tables 5 and 6.

The dating evidence here is inconclusive because of the peculiar nature of the stratigraphy, although there is some evidence of a prehistoric date for the ditch. First, a single undiagnostic prehistoric sherd was recovered from the bottom of the ditch (L 11), yet Roman sherds were only recovered from the natural silts above Layer 6. Second, prehistoric sherds occurred on both sides of the ditch, whilst Roman sherds were confined to the uphill side: this could imply that the earthwork was in existence before local Romano-British activity. A few bones of sheep/goat, cattle and horse were recovered from various layers in the ditch.

TABLE 5  
COW DOWN: STRATIGRAPHY

Layer	Description	Interpretation
11	Very pale grey clayey silt with small angular chalk lumps (3cm). Not compact.	Deliberate infilling
10	Pale grey clayey silt, stone free except for occasional chalk flecks	Deliberate infilling
9	As for 11 but darker	Deliberate infilling
8	As for 10 but slightly darker	Deliberate infilling
6	Pale orange-grey clayey silt with many small angular chalk lumps (2cm)	Natural weathering of sides above infilling
5	Similar to 6 but fewer stones	Tertiary silts. Ploughsoil?
7	Orange clayey silt with less small rounded chalk lumps (2cm) than 6	Recut?
2	Dark brown stone free humic soil	Tertiary silts
12	Black clayey soil well mixed with many small rounded chalk lumps (2cm)	Positive lynchet
15	Dark brown humic soil with many roots and few chalk lumps	Modern subsoil
3	Loose rounded chalk lumps (2cm) occasionally larger with flint nodules and many roots	Remains of bank?
4	Orange-brown soil with much pea grit and occasional flint nodules. Much root disturbance	Disturbed buried ploughsoil?

TABLE 6  
COW DOWN: CONTEXT OF FINDS

Layer	Prehistoric Pottery		Romano-British Pottery	Flakes	Flint Implements/ Cores	Environmental Samples
	Diagnostic	Other				
1		4		14	3	
2			4	19	2	-
3	1	5		13	3	
4		3		2		-
5			1	7	4	-
6	1	1		2		-
7				3		-
8						
9				2	1	-
10						
11		1		1		-
12		2	3	7	3	-
13			3			-
14						
15						

#### ENVIRONMENTAL SECTIONS

##### *Middlehill Down 1* SU 42088477 (Fig. 6a)

As observed for previous sections, no pre-existing lynchet occurs. The lynchet build up is of recent origin as it can be seen to overlie the tertiary ditch silts (L 2). The bank (L 10) protects a buried ploughsoil which may show the beginning of a turfline. A few flint flakes and sherds of Roman grey ware were recovered from Layer 7 and above. The stratigraphy is described in Table 7.

##### *Middlehill Down 2* SU 41988433 (Fig. 6b)

It is clear from the section that the Grims Ditch is not following a pre-existing lynchet. Despite the interpretation of Layers 15 and 9 in the ditch as ploughing episodes, these were obviously not of sufficient duration for lynchet formation subsequent to the construction of the ditch. The small bank is unusual in that it contains little chalk. The only finds to be recovered were sherds of Roman pottery from the tertiary ditch silts (L 8). The description of the stratigraphy is in Table 8.

##### *Ardington Down* SU 43638496 (unillustrated)

This site, which consisted only of a section across the bank, was not completed because of excessive root disturbance.

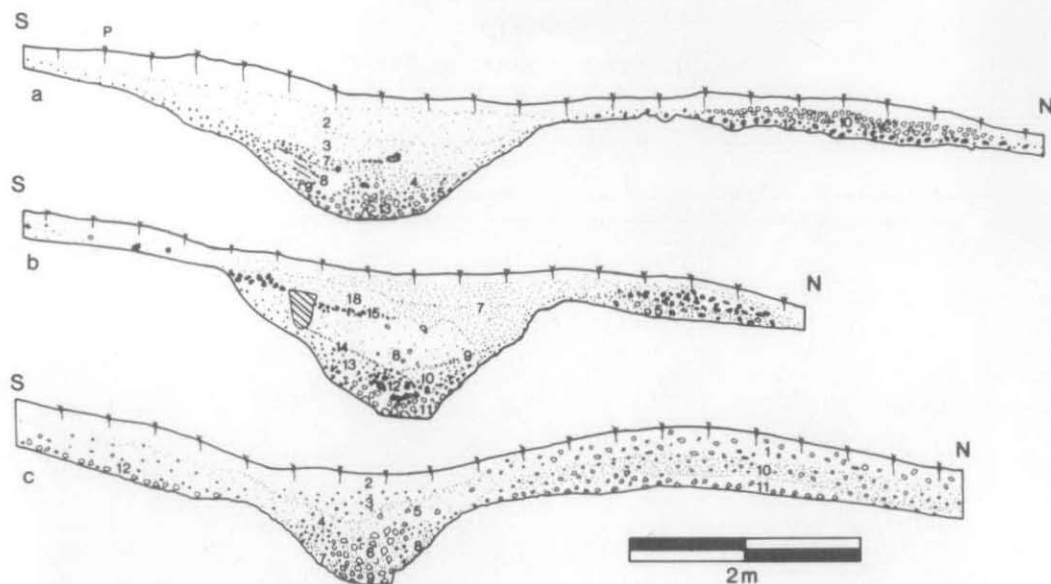


Fig. 6. Narrow trench sections: (a) Middlehill Down 1; (b) Middlehill Down 2; (c) Aston Upthorpe Down.

TABLE 7  
MIDDLEHILL DOWN 1: STRATIGRAPHY

Layer	Description	Interpretation
5/9	Orange clayey silt with much chalk and some larger angular lumps (5cm)	Primary ditch silts
13	Flint nodules (10cm) with very little grey silt	Top of primary silts/secondary silts, stone clearance?
8	Pale orange clayey silt with much small rounded chalk lumps (2cm) evenly mixed. Some larger pieces of chalk (5cm) and 'tip lines'	Ploughsoil?
4	Orange-brown clayey silt with an increasing quantity of small chalk lumps (2cm) with depth	Stable secondary silts
7	Orange-brown clayey silt with many small chalk lumps (2cm) and a few flint nodules (10cm)	Ploughsoil
3/2	Brown/black humic stone free soil	Tertiary ditch silts
12	Orange-brown clayey silt with many flint nodules (10cm)	Buried soil, probably a ploughsoil but possibly the beginnings of a turfline
10	Loose sub-angular chalk lumps (5cm)	Bank

TABLE 8  
MIDDLEHILL DOWN 2: STRATIGRAPHY

Layer	Description	Interpretation
11	Large angular chalk lumps (5cm) with voids, smaller lumps towards the top and a little orange clayey silt	Top of primary silts
12	Loose small flint nodules (8cm) with some voids and larger angular chalk lumps (5cm)	Primary silts of first recut
10/13	Pale orange clayey silt with much small chalk (2cm), increasing in size with depth (10 accumulated after 13)	Secondary silts of first recut
14	Dark brown humic stone free soil	Stabilised secondary silts of first recut
9	Orange clayey loam with much small rounded chalk lumps (3cm)	Ploughsoil?
8	Homogeneous pale orange clayey loam with few flints and chalk lumps	Tertiary ditch silts
15	Thin layer of small rounded chalk lumps (2cm) and small frost shattered pieces of flint	Ploughsoil, short episode?
18	As for 8, darker in colour	Tertiary ditch silts
7	Dark brown stone free humic soil	Second recut
4	Loose flint nodules (10cm), occasional chalk pieces and black humic soil	Bank? Disturbed buried soil, bank eroded away
5	Orange clayey soil with flint nodules (10cm) and large angular lumps of chalk (5cm)	Weathered natural, base of buried soil
2	Brown humic soil with few flint nodules and chalk lumps, many roots	Modern turf subsoil

*Aston Upthorpe Down SU 54118327 (Fig. 6c)*

The ditch at this location is not as deep as it is elsewhere and has a more straightforward stratigraphy than the other sections. The bank is also more pronounced but again failed to produce a well sealed buried land surface. No positive lynchet had formed on the uphill side of the ditch. Three flint flakes and four bones were recovered from above Layer 6. The description of the stratigraphy is in Table 9.

TRENCH ACROSS AN OFFSHOOT DITCH

*Churn 2 SU 50568317 (Fig. 5b)*

The 2m. × 20m. trench was excavated across a double banked offshoot ditch, which was

thought partly to enclose the spread of occupation material adjacent to Churn 1. Its wide shallow profile seems to indicate that this feature is not a ditch but a hollow way. Subsequent fieldwork and examination of air photographs shows that this hollow way crosses the line of the Grims Ditch for a short distance, but because of plough damage the exact relationship cannot be determined without further excavation. Finds from the hollow way are unhelpful and merely show that the hollow has filled up recently as a result of agricultural activity.

Excavation of this trench has proved useful in that one other offshoot ditch identified on air photographs (SU 495835) can also be re-interpreted as a possible hollow way.

TABLE 9  
ASTON UPTHORPE: STRATIGRAPHY

Layer	Description	Interpretation
9	Large loose angular chalk lumps (5cm) with a little pale yellow clayey silt	Primary ditch silts
8	Pale yellow clayey silt with many small chalk lumps (2cm) and occasional larger lumps. Merges into 6 and 9	Primary ditch silts
7	As for 8	Primary ditch silts
6	Large loose angular chalk lumps (5cm) with pale orange clayey silt, some recalcification deposits and finer and paler towards ditch sides	Top of primary silts/secondary silts
5	Many small chalk lumps (less than 2cm) and occasional larger lumps with an orange clayey silt. More smaller chalk at top	Secondary ditch silts
4	Similar to 5 but smaller chalk lumps and an orange-brown clayey silt	Secondary ditch silts
3	Dark brown clayey silt with small chalk lumps (2cm) and chalk flecks	Recut? Followed by a ploughing episode?
2	Dark brown/black humic stone free soil	Tertiary ditch silts
1	Dark brown humic clayey silt with large angular chalk lumps (5cm)	Bank
10	Orange-brown clayey silt with chalk lumps (3cm) and many lumps less than 1cm. Less chalk than Layer 1	Bank and/or disturbed buried soil
11	Weathered bedrock with recalcification	
12	Weathered bedrock	

## RESISTIVITY SURVEY

Limited resistivity survey was undertaken at two locations:

- (1) The Grims Ditch on Middlehill Down kinks as if following a pre-existing boundary, in the same manner as East Ditch (SU 340815). It has been suggested that this is due to following the edge of a Celtic field block.<sup>13</sup> Apart from one low bank running north, no evidence exists on the ground or from the air of a field system on the same alignment. The survey was undertaken to examine the validity of this evidence.
- (2) A large cropmark enclosure on Cow Down does not apparently join the Grims Ditch, although Crawford stated that it did so in 1930.<sup>14</sup> Rhodes, who<sup>15</sup> located the later Bronze Age site on Cow Down, claimed that the site was contained by a small enclosure located in the corner of the larger enclosure. If so, a link between the large enclosure and the Grims Ditch would provide relative dating evidence for the ditch. The survey was undertaken to determine if this link does occur.

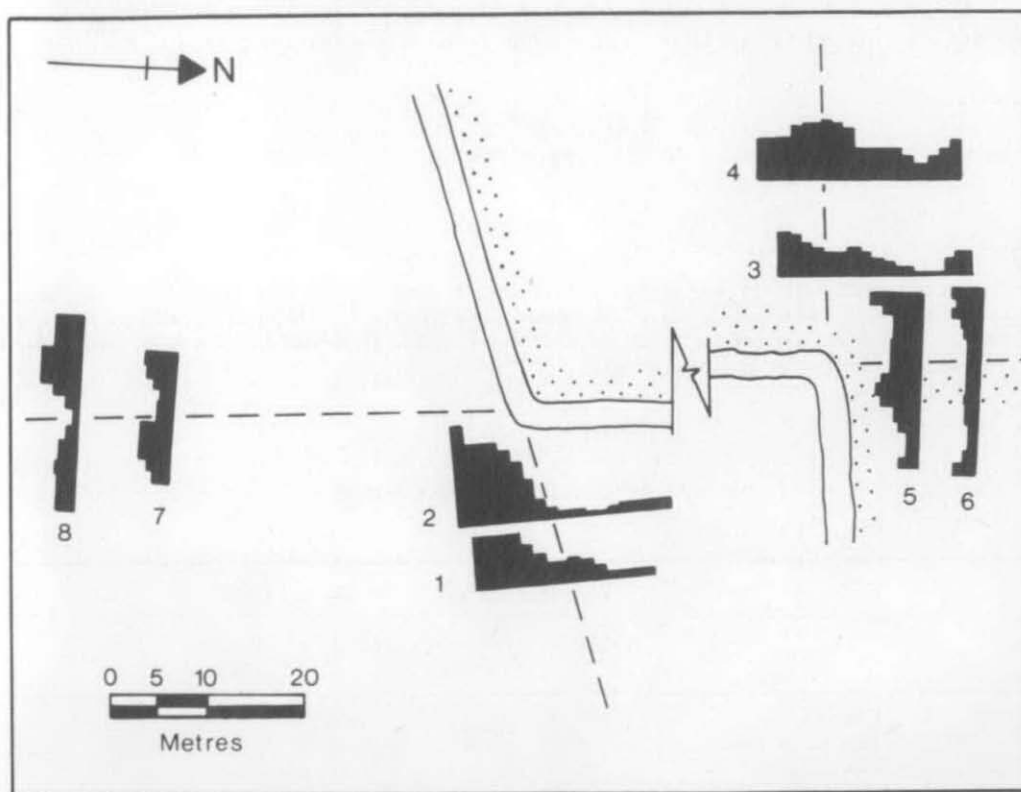


Fig. 7. Resistivity survey results: Middlehill Down.

<sup>13</sup> Crawford, *Archaeology in the Field*, 113.

<sup>14</sup> *Ibid.*

<sup>15</sup> P. Rhodes, 'The Celtic field systems on the Berkshire Downs'. *Oxoniensia*, xv (1950), 1-28.



*Results*

The locations of transects and results of the Middlehill Down survey are presented in Fig. 7.

Transects 1 and 2: The results are somewhat masked by the proximity of a modern negative lynchet, but no unambiguous anomalies were recorded.

Transects 3 and 4: These results give consistent anomalies which could suggest a ditch, but at some 10m. north of the predicted line of the offshoot.

Transects 5 and 6: Apart from a slight peak on transect 5, which coincides with the standing bank running north from the Grims Ditch, no anomalies were recorded.

Transects 7 and 8: Two consistent anomalies on the predicted line are the most convincing evidence for an offshoot ditch or perhaps a lynchet.

Cow Down: Four transects were initially performed across the predicted line of the ditch and several anomalies were recorded. These anomalies failed to produce a consistent pattern and could be explained as peri-glacial features, tree holes or as features associated with the later Bronze Age settlement.

An extra five transects were performed to examine vague soilmarks running down the hill towards the Grims Ditch. These again failed to confirm the presence of a ditch.

## THE FINDS

## POTTERY

A total of 472 sherds were recovered during the excavations. In addition, more than 500 sherds were recovered during fieldwalking. The locations, context and quantities of all pottery (excluding isolated finds) are shown in Table 10. The preliminary analysis of the excavated pottery followed a modified version of the Oxfordshire Archaeological Unit pottery recording system.

TABLE 10  
LOCATIONS OF POTTERY FINDS

Site	Excavated Finds		Surface Finds	
	Prehistoric	Romano-British	Prehistoric	Romano-British
Churn 1	393	1	301	7
East Ginge Down	29	4	18	8
Cow Down	18	11	54	20
Churn 2	9	-	12	-
Middlehill Down 1	-	1	-	-
Middlehill Down 2	-	6	-	-
Several Down	-	-	13	-
Chilton Down	-	-	18	1
Near Several Down	-	-	7	6

## FABRICS

It was possible to identify a large number of fabric types. As hand made prehistoric pottery shows a naturally wide range of variation, the number of significant fabrics could be reduced to seven:

- A Flint inclusions only, usually medium to high density of grit up to 3mm. diameter (occasionally 5mm.) and occasional inclusions of grog and/or vegetable matter. Thickness up to 12mm. with much colour variation (orange-red-brown-black). No surface treatment. 19%
- B Flint inclusions only, usually low density and/or grits up to 1mm. diameter. Occasional grog and/or vegetable matter inclusions. Thickness up to 7mm. with more uniform pale orange and black colours. Surfaces are smoothed, or occasionally grass wiped. 11%
- C Sand inclusions only. Often a high density of grit less than 1mm. diameter. Thickness up to 8mm. with much colour variation. Usually no surface treatment but occasional smoothing. 10%
- D Flint and sand inclusions in varying proportions. Flint grits usually up to 3mm. in diameter and sand less than 1mm. Occasional inclusions of grog, vegetable matter, ochre and shell. Thickness up to 10mm. with much colour variation. No surface treatment. 37%
- E As for D but tending to have a lower density of and/or smaller grit. Less colour variation with thicknesses up to 7mm. Surfaces are smoothed or slipped. 16%
- F Flint and shell inclusions up to 3mm. in diameter. Much variation in size and density of grit. Thickness up to 8mm. with much colour variation. No surface treatment. 4%
- G As F but tending to have a lower density of smaller grits. Also thinner with less colour variation and smoothed surfaces. 1%

The figures following each description are the percentage occurrence of each type at the site of Churn 1. This was the only site to produce an adequate quantity of sherds.

## FORMS

Due to the fragmentary nature of the material, no sherds can be assigned to a particular vessel form except the base of a large jar from the Cow Down site recovered in 1950, Fig. 9.7.<sup>16</sup> One lug (Fig. 9.6) and one sherd with a perforation, (Fig. 8.18) were recovered during fieldwalking from the site of Churn 1.

## SURFACE TREATMENT AND DECORATION

Additional treatment of the vessel surfaces after manufacture usually consisted of varying degrees of smoothing, but in rare instances slipping, polishing and grass wiping was observed. Decoration of the excavated sherds consists almost exclusively of finger impressions, and in only one case does it appear that a fingernail impression was the desired effect. Several sherds (e.g. Fig. 8.26) produced miscellaneous indentations for which a decorative purpose is doubtful.

The jar base from Cow Down shows evidence of vertical finger smearing which can be regarded as decoration, but the occurrence of this type of decoration on the other pottery cannot be demonstrated because of the fragmentary nature of these sherds.

Decorated sherds account for 2.5% of all excavated pottery but only 1.5% of all sherds recovered from Churn 1.

## CHRONOLOGY AND AFFINITIES

Despite the lack of absolute dates and complete vessel profiles, there is sufficient diagnostic material to indicate a general date in the Late Bronze Age or Early Iron Age. All the rim sherds probably belong to jar and bowl forms as defined by Barrett.<sup>17</sup> Parallels for most of the rims can easily be found at sites such as Rams Hill,<sup>18</sup>

<sup>16</sup> P. Rhodes, 'The Celtic field systems on the Berkshire Downs', *Oxoniensia*, xv (1950), 1-28.

<sup>17</sup> Barrett, *P.P.S.* xlvi, 297-320.

<sup>18</sup> Bradley and Ellison, *Rams Hill*.

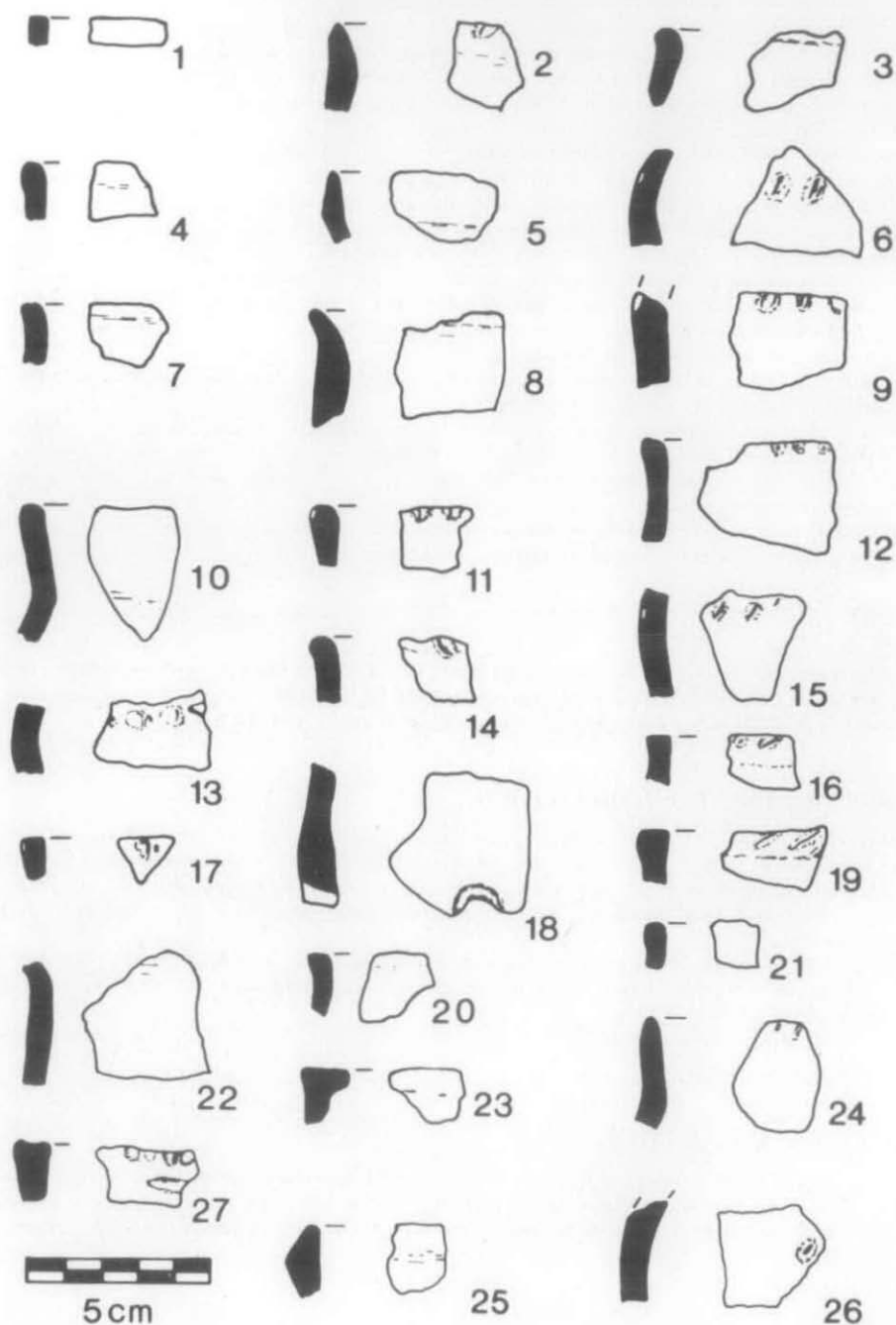


Fig. 8. Excavated Pottery: Churn 1 L16; 1. L9; 2, 5, 7, 8, 10, 11, 13, 14, L18; 3, 6. L13/16; 4. L13; 27. L1; 9, 12, 15, 16, 18, 19, 21. F1; 17. F5; 20. L10; 22. Cow Down L3; 23. L6; 25. East Ginge Down L10/12; 24. L14; 26.

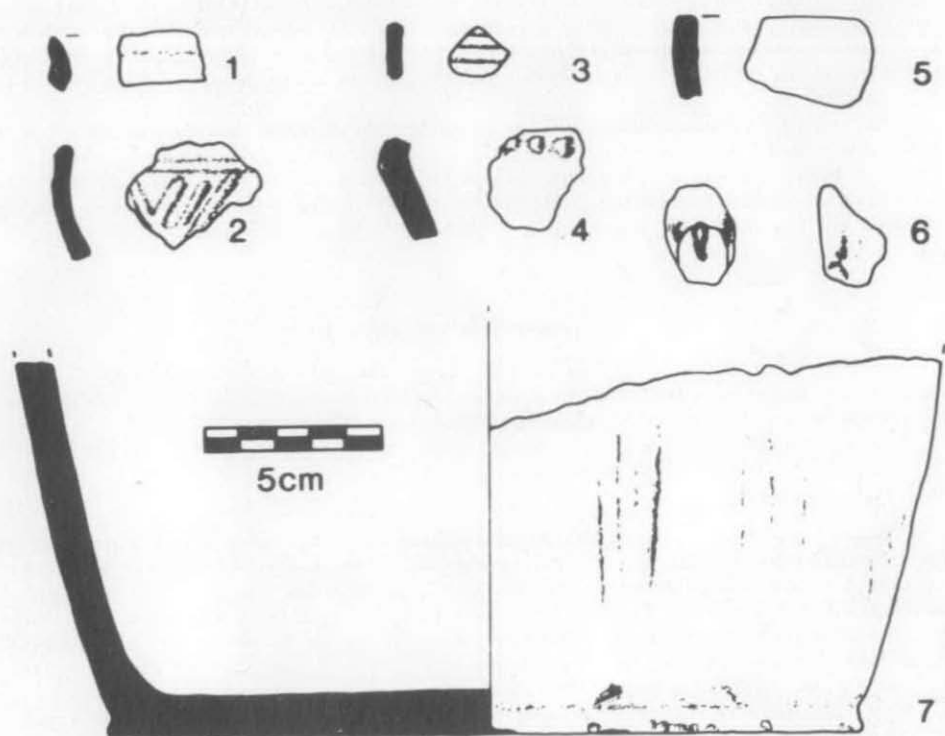


Fig. 9. Surface finds: Churn 1; 4, 5, 6. Cow Down; 7. Several Down SU 498835; 1, 2, 3.

Aldermaston and Knights Farm,<sup>19</sup> in both 'plain ware' and 'decorated ware' assemblages (see below). The more unusual 'T' rim from Cow Down (Fig. 8,23) occurs at Ashville, Abingdon in a decorated ware context with a C14 date of  $520 \pm 120$  bc.<sup>20</sup>

For more accurate dating it is necessary to examine the decorative traits. Barrett<sup>21</sup> has distinguished two chronologically significant groups of material. The earlier group consists of jars and bowls, where decoration is rare if not totally absent. This is his plain ware tradition and dates from the 11th–9th centuries BC. The later group consists of coarser vessels decorated with finger impressions and finer vessels with incised linear, curvilinear and geometric designs. This is his decorated assemblage and dates from the 8th–5th centuries BC. This sequence is well exemplified at Rams Hill 10 km. to the east of the ditch, where a plain ware assemblage is securely stratified below a decorated ware assemblage.

The number of sherds from fine ware vessels accounts for less than 1% of the total. Any meaningful discussion of the pottery has to consider the coarse ware vessels alone. As can be seen from Fig. 8, decoration on this pottery consists entirely of finger impressions on the rim or shoulder, a pattern which is best paralleled on

<sup>19</sup> R.J. Bradley, S. Lobb, J.C. Richards and M. Robinson, 'Two Late Bronze Age settlements on the Kennet gravels; excavations at Aldermaston Wharf and Knights Farm, Burghfield, Berkshire', *P.P.S.* xlvi (1980), 217–95.

<sup>20</sup> M. Parrington, *The Excavation of an Iron Age settlement, Bronze Age ring ditches and Roman features at Ashville Trading Estate, Abingdon (Oxford) 1974–76*, C.B.A. Research Report, xxviii (1978).

<sup>21</sup> Barrett, *P.P.S.* xlvi, 297–320.

coarse jars and bowls found with decorated vessels.<sup>22</sup> Finger impressions on shoulders do occur in basically plain ware assemblages, but decoration on the outer edges of rims is exceedingly rare. It is also apparent that the percentage of decorated rim sherds at Churn is higher than in the latter group. In fact, Barrett<sup>23</sup> has located several 8th century BC sites in his North Wessex style zone, where the only decoration occurs on the outer edges of coarse jar rims.

The pottery from Churn is best regarded as belonging to the decorated ware tradition with a date probably in the 8th century BC. The site at Cow Down, which is not in a stratigraphic relationship with the Grims Ditch, appears to belong to the earlier plain ware tradition. Despite numerous visits to the site, no decorated pottery has been recovered other than the base of the jar referred to above. The vertical finger smearing and form of this jar would best fit a plain ware context, and it is closely similar to a vessel from early in the sequence at Rams Hill.<sup>24</sup>

### FINDS FROM FIELDWALKING

The majority of finds consist of undiagnostic body sherds. The better examples are illustrated in Fig. 9 and include a cord impressed beaker sherd. A catalogue of the more diagnostic Roman pottery and the locations of all material recovered during fieldwalking is presented as an archive only.

### FLINT (unillustrated)

Little flintwork was recovered during excavation and there were few finds from the immediately adjacent areas. The assemblages from the three main trenches consist mostly of unretouched flakes with few implements. Pieces retaining cortex indicate that the source of the flint is the local chalk. The nature of these assemblages is entirely consistent with the Late Bronze Age date of these sites. First, the length, breadth, thickness, type of end fracture and amount of cortex on the unworked flakes compare with those in Bronze Age rather than Late Neolithic assemblages.<sup>25</sup> Second, the only implements commonly found on Bronze Age sites are scrapers, borers and notches. The few implements recovered during excavation are all scrapers.

Other flint recovered during fieldwalking consists of unworked flakes and rare implements and cores including a transverse arrowhead and knife from Several Down (SU 498835).

### MOLLUSCAN ANALYSIS by MARK BOWDEN

Soil samples from six sites on Grims Ditch were processed for molluscan analysis. The samples, weighing 1.25 Kg. except where otherwise specified, were washed over a 0.5mm. sieve and the residues analysed.<sup>26</sup> The results are remarkably consistent, demonstrating that this area of downland has had a predominantly open environment since the 8th century BC. Shade-loving species never totalled more than 16.1% of the fauna, while open country species never accounted for less than 45.3%.

Unfortunately the samples from all but two sites contained an extremely small number of shells.

*Churn 1* (Fig. 10,c): The total number of shells recovered from this site was very small, making any detailed statistical analysis almost meaningless. Six samples were taken and analysed, representing the primary fill (L 17), secondary fills (L 15 and 16), a late recut (L 13) and tertiary fills (L 11 and 4). Open country species ranged between 72% and 93% of the total, while shade-loving species were largely absent, appearing only in the primary fill and recut fill. Three species dominate the record. These are *Pupilla muscorum* (L.), *Vallonia excentrica* (Sterki) and *V. costata* (Mull.) all of which are characteristic of short turfed, calcareous grassland and similar habitats.

<sup>22</sup> Bradley, et. al. *P.P.S.* xlv, fig 34.

<sup>23</sup> J.C. Barrett, 'The evolution of later Bronze Age settlement', *The British later Bronze Age*, ed. J.C. Barrett and R.J. Bradley, B.A.R. 83 pt. 1, (1980) 77-100.

<sup>24</sup> Bradley and Ellison, *Rams Hill*, fig 3.5, 14.

<sup>25</sup> S. Ford in prep. 'The chronology of later Neolithic and Bronze Age flint assemblages'.

<sup>26</sup> Method followed as in J.G. Evans, *Land Snails and Archaeology*, (1972).

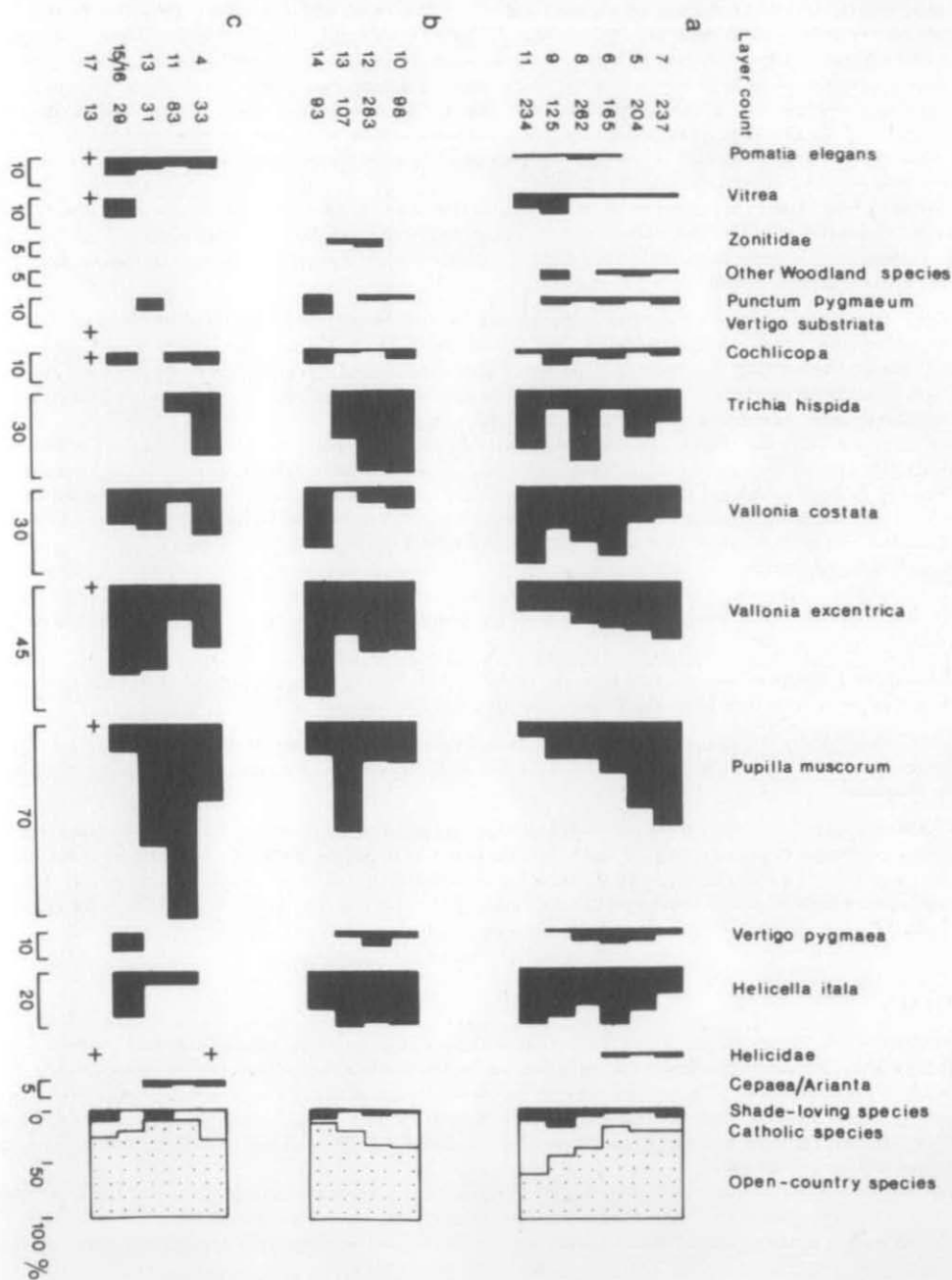


Fig. 10. Molluscan results: (a) Cow Down (b) East Ginge Down (c) Churn 1.

*Cow Down* (Fig. 10,a): Six samples were processed, two from the lower fills (L 9 and 11), three from the secondary fills (L 5,6 and 8) and one from a late recut (L 7). The lowest fills (L 11) were dominated by *Vallonia excentrica* and *V. costata*, *Pupilla muscorum*, *Helicella itala* (L.) and *Trichia hispida* (L.), though the sample from Layer 9 included a greater range of species, including some shade-loving snails in very small numbers. The secondary fills, were characterised by large numbers of the same dominant group. *Pupilla muscorum* increases strongly from the lower to the upper fills, attaining 37.5% of the total in the sample from Layer 7. This species, though characteristic of calcareous grassland, also occurs in open woodland on occasions, but in prehistoric times was often abundant in arable habitats. Therefore it is important to note the sympathetic increase in *V. excentrica*, another inhabitant of intensively farmed localities.

*Vertigo pygmaea* (Drap.) is present in all but the lowest fills. This species is also common in dry short-grassed conditions and has a preference for stable habitats. The presence of Zonitidae with other woodland species and *Vertigo pygmaea* may suggest fairly complete vegetation cover, though it should be noted that *Pupilla muscorum* likes earth bare of vegetation.

*East Ginge Down* (Fig. 10,b): Four samples from this site were processed. They came from the primary fills (L 14), secondary fills (L 13), a possible buried soil within the ditch (L 12) and the tertiary fills (L 10). The primary fills contained large numbers of *V. excentrica* with some *Helicella itala*, *V. costata*, *Pupilla muscorum* and other species in small numbers. *V. excentrica* is virtually unknown from woodland, though it cannot tolerate such dry conditions as *V. costata*, and is also common in arable land.

In the secondary fills, *Pupilla muscorum* takes over the dominant place and *Trichia hispida* is present in addition to the species mentioned above. *Pupilla muscorum* appears to follow a contrary pattern to the Valloniidae and possibly *T. hispida*, with major changes in the secondary fills, but these changes cannot be explained satisfactorily in terms of the environment as these species have similar environmental ranges. The apparent decrease in importance of *Pupilla muscorum* from Layer 13 to Layer 12 is a consequence of reduction to percentages: the actual numbers are similar.

The sample from Layer 12 yielded more than twice as many shells as any other sample from this site. The sample from the higher fills was similar to that from the possible buried soil, except that it contained a much reduced number of snails.

*Middlehill Down 1*: Only one sample, that from the buried soil (L 12) (Fig. 6) was analysed. This produced only twelve snails, seven of which were *Pupilla muscorum*, four *Vallonia excentrica* and one *V. costata*.

*Middlehill Down 2*: Only one sample from a possible buried soil (L 5) beneath the bank (L 4) was analysed. This yielded nine snails, seven of which were *Cecilioides acicula* (Müll.), a burrowing snail. The remaining two were *Pupilla muscorum*.

*Aston Upthorpe Down*: The snail population at this site appears to have been very small. 5.5 Kg. of primary fills (L 9) were processed to produce only 52 shells. Similar numbers were recovered from two samples of the later fills (L 5 and L 6). *Vallonia excentrica* was the most common species in all three samples. *V. costata* and *Pupilla muscorum* were present in some abundance. Open country species formed between 68% and 71% of the record, while shade-loving species fell from 14% in Layer 9 to 5% in Layer 5.

## SUMMARY

The environmental history of the part of the Berkshire Downs adjacent to the Grims Ditch is apparently very straightforward. This study has shown that in broad outline the local landscape has been an open one since the Grims Ditch began to silt up. There is no evidence for the existence of any extensive woodland: the few woodland snails found, *Punctum pygmaeum* (Drap.), *Discus rotundatus* (Müll.), Clausiliidae, Zonitidae and *Carychium tridentatum* (Risso), could be ascribed to the immediate vicinity of the ditch, as they are all capable of living in hedgerows and scrub habitats.<sup>27</sup>

Although there is no direct evidence to suggest ploughing or even intensive grazing, the snail fauna of these sites would not rule out such a hypothesis. On the contrary, the ubiquitous *Pupilla muscorum* flourished in ploughsoils and in heavily grazed habitats in the past, as did *Vallonia excentrica*. It is perhaps also worth noting

<sup>27</sup> Evans, *Land Snails*.



that *Carychium tridentatum*, which might be expected to appear in considerable numbers on such a series of downland sites, is extremely scarce. This species is intolerant of excessively dry and disturbed habitats.<sup>28</sup> An intensive agricultural or pastoral regime might well be reflected in a snail population formed largely of *Pupilla muscorum*, *Vallonia excentrica*, *V. costata*, *Helicella itala* and *Trichia hispida*, and an intensive agricultural origin for the fills of the ditch might in part explain the disappointingly small number of shells recovered.<sup>29</sup>

## DISCUSSION

Linear earthworks present particular difficulties in excavation and it may never be possible to obtain conclusive and unambiguous dating evidence for this type of monument.<sup>30</sup> Even so, the evidence from the Berkshire Grims Ditch is internally consistent and is probably as good as can be expected. At Churn the ditch is aligned on a long barrow and a large round barrow, which implies a date later than the earlier Bronze Age and at Dean's Bottom a Celtic field system incorporates the Grims Ditch, perhaps implying a pre-Roman date. The primary ditch silts in the three main trenches all produced prehistoric pottery, which, with varying degrees of accuracy, best fits an 8th–5th centuries BC date. At all locations excavated, Roman pottery was recovered, but never from primary contexts. The evidence best fits a later Bronze Age or earliest Iron Age date for the initial construction of the ditch.

A major defensive function can immediately be dismissed because of the slight stature and poor siting of the monument. The question of an economic function is not so easy to resolve and this requires rather more discussion.

Linear ditches are often assumed to have a pastoral role and this is implied by the frequently used term 'ranch boundary'. There is a limited body of evidence to support such a view. Numerous locations are known where linear ditches cut through Celtic fields and apparently put them out of use. At Quarley Hill, Hants<sup>31</sup> linear ditches appear to separate an area with Celtic fields from another area in which they are absent. The latter may have been used as pasture. A similar explanation has been offered for the cross ridge dykes on Butser Hill, Hants.<sup>32</sup> However, a single function for linear ditches cannot be accepted. In several instances linear ditches do respect Celtic fields which presumably continued in arable use. In other instances linear ditches are actually incorporated into field blocks, perhaps some time after the ditch had been dug. Both these relationships may be represented on the Grims Ditch. At Dean's Bottom the field system is certainly aligned on the Grims Ditch, and on Middlehill Down the ditch must be respecting a pre-existing boundary, although the evidence for a Celtic field block is inconclusive. Also, the irregular line of the ditch on Cow Down may mean that it was following a series of earlier field boundaries. Just the same pattern can be seen where the modern parish boundary follows Celtic field lynchets at Dean's Bottom. In these instances linear ditches are best regarded as having a territorial function.

The evidence for a pastoral function for the Grims Ditch is unconvincing. There are few offshoot ditches and no obvious tracts of land are defined by the earthwork. It remains possible that the Grims Ditch simply defined an area of commonly used upland pasture, as Fleming<sup>33</sup> has suggested for the Bronze Age land boundaries on Dartmoor.

<sup>28</sup> R.A.D. Cameron and M.P. Kerney, *Land snails of Britain and north west Europe*, (1979).

<sup>29</sup> I would like to thank Dr. H.H.M. Pike for allowing the use of a large part of the equipment needed to process these samples.

<sup>30</sup> P.A. Jewell and G.W. Dimpleby ed. 'The experimental earthwork on Overton Down, Wiltshire, England: The first four years', *P.P.S.*, xxxii (1966), 313–42.

<sup>31</sup> Hawkes, 'Quarley Hill', *Proc. Hants. Field Club*, xiv, 136–94.

<sup>32</sup> R.J. Bradley, 'Stock raising and the origins of the hill forts on the South Downs', *Antiq. Jnl.* li (1971), 8–29.

<sup>33</sup> Fleming, *P.P.S.* xlv, 97–123.

The Grims Ditch lies on the division between the grade 2 soils in the vale and the grade 3 soils on the downs (Fig. 2b). While cultivation of the upland soils is possible, the defining characteristic of the grade 3 soils in this case is the lack of moisture retention which limits their arable potential and the land is perhaps better used as seasonal pasture. The downland was important for sheep and cattle raising in the Mediaeval period.<sup>34</sup>

This interpretation cannot be accepted without question. Grims Ditch follows major topographical divisions only for its western two-thirds. The rest ignores these features and a simple upland-lowland division does not apply. Before the earthwork was built, the environment was usually open and probably grazed, but at two locations there may be signs of cultivation. There could also be signs of later arable farming, especially at Churn with its paucity of snails. Even if the ditch was not performing a major economic function, it still formed a territorial boundary. Direct evidence of a territorial function is obviously difficult to find. However, Hodder<sup>35</sup> has shown that in times of stress different groups may emphasise their social identity by means of distinctive artefacts and that clear differences may be found in the distribution of these objects. Barrett<sup>36</sup> has now shown that in the 8th century BC, the pottery styles of North Wessex extend no further than the edge of the Berkshire Downs. This is also the line followed in part by the Grims Ditch and divides his North Wessex style zone from a contrasting style zone in the Thames Valley. This may be one case where Hodder's idea applies.

Until recently, the dating of this ditch would not have aroused much interest. It is often stated that the Wessex linear ditch system originated in the Middle Bronze Age and continued to be constructed throughout the first millennium. This early dating is nearly always demonstrated by the association with Deverel-Rimbury pottery, as at Boscombe Down East.<sup>37</sup> However, recent research has shown that Deverel-Rimbury pottery was used for a longer period in Wessex than in the Thames Valley.<sup>38</sup> Therefore, until the internal developments of this pottery are defined, the close dating of linear ditches and associated monuments may not be possible.

The Grims Ditch is an outlier of the Wessex linear ditch system and falls within an area where the local pottery sequence is much better known. The significance of these excavations should now be apparent. Whilst examples further south cannot be dated precisely, the evidence from the Grims Ditch suggests a Late Bronze Age date, which could apply much more widely: it is worth mentioning that the linear ditch adjacent to the site at Beedon, Berks and a possible ditch beneath the field system at Streatley Warren, Berks<sup>39</sup> can also be dated to the Late Bronze Age. A comparatively late date for linear ditches would be consistent with the evidence from the Rams Hill area,<sup>40</sup> as well as accounting for other anomalies in the current state of knowledge. The fragmentation of earlier field systems by later ditches would be more plausible, given a longer chronology, and so would the integration of some of these ditches with the early hillforts.

It is hoped that similar work currently in progress in west Berkshire will clarify the tentative conclusions presented here.

The finds and archive have been deposited in Newbury Museum.

<sup>34</sup> Richards, *Archaeology of the Berkshire Downs*, 57.

<sup>35</sup> I. Hodder, 'Some new directions in the spatial analysis of archaeological data', *Spatial Archaeology*, ed. D.L. Clarke, 223-251.

<sup>36</sup> Barrett, 'The evolution of later Bronze Age settlement', *The British later Bronze Age*, 77-100.

<sup>37</sup> Stone, 'Boscombe Down', 466-89.

<sup>38</sup> J.C. Barrett and R.J. Bradley, 'Later Bronze Age settlement in south Wessex and Cranbourne Chase', *The British later Bronze Age*, ed. J.C. Barrett and R.J. Bradley, B.A.R. 83 (pt. 1), 181-208.

<sup>39</sup> J. Richards, forthcoming 'Excavations on the Streatley Warren field system'.

<sup>40</sup> Bradley and Ellison, *Rams Hill*.