Bone from these pits were collected by hand and with care, many small fragments being recovered. The sheep bones were fragmentary and the large number of sheep sized ribs and unidentified pieces were also unusually small and jagged (130 pieces, mostly 20–50 mm in length). No signs of butchering or working were observed but it seems likely that the fragmentation was intentional, perhaps indicating use of the marrow.

One of the sheep bones and 5% of the unidentified bone were burnt, whereas none of the Neolithic bone was burnt.

A bone point and a sheep metatarsal which may be worked are described above (see Ch. III.A.4.a).

Other sites of Bronze Age date have indicated a decline in the importance of the pig, with cattle and to a lesser extent sheep being more numerous (Grigson in Tinsley & Grigson 1981). The present sample is unusual in that most of the bones were from sheep. Of the sites quoted, only at the Early Bronze Age phase of Mount Pleasant were sheep more numerous than cattle. At least some reduction in woodland probably took place, since sheep require open

ground, and the availability of wool points to an increased variety of clothing and coverings.

III.A.6 Mollusca and charcoal from pit 879

by Mark Robinson

The molluscan fauna from a sieved soil sample (c 1 kg in weight) from pit 879 suggests dry, open conditions around the pit. For details see Table 39. Wood charcoal from the pit included mature oak (Quercus) and alder or hazel (Alnus/Corylus).

III.A.7 Radiocarbon dates

Two samples for C14 dating were taken from features of possible Later Bronze Age date. The results are given in Table 12 below.

Context	text Lab. No. uncal. B		calibrated interval \pm 1 σ	calibrated interval $\pm 2 \sigma$		
1157	HAR-5503	2840±90	1160-940вс	1310-820вс		
1001	HAR-5504	3040±100	1410-1170вс	1520-1000вс		

Table 12 Radiocarbon dates obtained from bone from Bronze Age features. Calibrated using a local IML program with the data files ATM20.C14 provided by Washington University, USA (Stuiver & Reimer 1986) compiled by them from the recommended calibration data of Stuiver and Pearson (1986), Pearson and Stuiver (1986) and Pearson et al (1986).

III.A.8 Discussion

The pattern of scattered pits, occurring in several clusters but without traces of more permanent settlement, is in sharp contrast to the series of enclosures and the possible roundhouse at Corporation Farm, Abingdon (Barrett & Bradley 1980, 251 and 258). No evidence of arable agriculture of this date has been found at Roughground Farm, and the nature of the occupation evidence may reflect instead shifting settlement based upon pastoralism. Bradley (1986, 39-40) has suggested a mobile settlement pattern for the earlier Bronze Age whose domestic occupation and structures left little trace below ground. This may have persisted in parts of the Upper Thames Valley, for instance around Lechlade and Stanton Harcourt, contemporary with the establishment of organised field systems and trackways in the Abingdon-Dorchester area at Long Wittenham (Thomas 1980, 310-311), Mount Farm (Lambrick pers. comm.) and the Dorchester bypass (Chambers 1987, 64-5).

Recent work in Wessex (Bradley 1986, 42) has suggested that settlements may lie only a few hundred metres from their cemeteries, and the occupation at Roughground Farm

is similarly situated in relation to the ring-ditches to its south and south-west. However, only one of these burial monuments has been excavated, that at Butler's Field (Miles & Palmer 1986, 3–4) and it is not dated.

The unaccompanied inhumation 1157, radiocarbon dated to 1160-940 cal. BC, deserves comment. Burials of this date range are more usually cremations, but there is a growing body of evidence for flat crouched inhumation burials at this period. For instance, a flat grave at Todmarton in Gloucestershire was radiocarbon dated to 1297-1001 cal. BC (Rowlands 1976, 55, 192). Two unaccompanied flat inhumations at Radley, Barrows Hills, Oxon. were radiocarbon dated to 1258-1043 cal. BC and 987-842 cal. BC respectively (A. Barclay pers. comm.). These latter burials were inserted into an earlier prehistoric monument, and flat inhumations are normally found in association with barrows or other monuments. The discovery of an apparently isolated inhumation of this date is more unusual, but burials in stratigraphic isolation are rarely subjected to radiocarbon dating, and it is likely that many more of a similar date exist amongst the those ascribed either to the Beaker period or to the Iron Age.

and C—Organic. (For details see Ch. 5.11 on Fiche 2#62). These included one possible mould fragment and one

highly fired piece that may have come from a crucible, though there were no metal residues upon it.

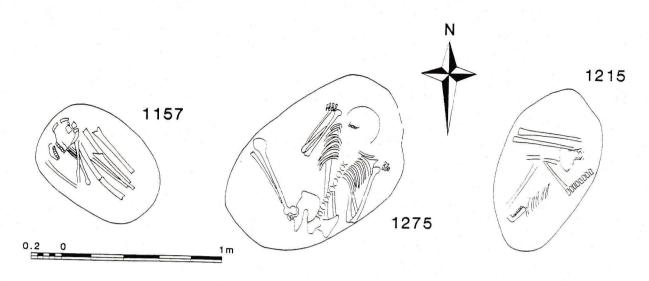


Figure 32 Later prehistoric burials: 1157 Bronze Age; 1275 & 1215 Iron Age

III.B.4 Contracted or crouched burials

Fig. 32

Three such burials were excavated at Roughground Farm. For details of the skeletal analysis see Table 64 and Table 65. 1157 (Fiche 4#19) was an isolated oval pit containing a contracted burial lying on its left side. The head lay to the south-east and was bent forwards with the arms and legs tightly folded up so that its knees rested against its forehead. The body was that of an adult male aged 30–35 years, and there were no grave goods. Bone from this burial has been radiocarbon dated to 1160–940 cal. BC (to one sigma).

1215 was a crouched burial at the bottom of the Early Iron Age ditch 1141 in an oval pit cut 0.15 m below the bottom of the ditch. Their relationship was not established as the ditch was emptied by machine along this length, but the pit is unlikely to have cut prior to the ditch 1.2 m into the gravel. The head was at the south and was bent forwards. The arms were bent up to the head, and the legs drawn up almost touching the elbows. The body was that of a young adult aged 18–23 years. There were no grave goods, but bone from the skeleton was radiocarbon dated to 350–40 cal. BC (to one sigma).

1275 was another crouched burial in an oval pit southeast of 1141. The body was prone with the head to the north-east turned to the left side. The arms were raised against the shoulders with the elbows at the sides, and the legs were bent up, the right one underneath the body, the left knee out to the left side. The body was that of an adult male aged 30–35 years. There was no dating evidence for

this burial, but it was probably associated with the adjacent Early Iron Age settlement.

Crouched burials are quite numerous from Iron Age sites, though few are known from the Upper Thames Valley. Moderate contraction, in other words in a grave about 1 m in length, is more common than extreme contraction (Wilson 1981), and at Roughground Farm burials 1215 and 1275 are of this order of size. With moderately contracted burials the hands and feet are often tied, but at this site neither burial was; unusually 1275 was prone rather than lying on one side. 1157 had a smaller grave-pit, but did not even occupy all of this, and the body was probably tightly bound, as is common in more extreme cases of contraction (Wilson 1981).

Burials within settlements become more common as the Iron Age progresses, Early Iron Age adults tending to occur in perimeter ditches or outside settlement boundaries (Wilson 1981). The three burials at Roughground Farm fit this suggested pattern, 1157 being isolated (and clearly Late Bronze Age), the other two lying in or close to a boundary ditch at some distance from the main focus of Iron Age settlement.

III.B.5 Animal bones

by Gillian Jones

Only c 170 animal bones were recovered, and the density of bones was low, 24 features producing only 42 identifiable pieces. The percentages of species identified are given in Table 15.

Number	Cattle	Sheep	Pig	Horse	Deer	Others
42	31 %	52 %	12 %	*	*	-

^{*} indicates a species represented by a single bone

Table 15 Animal Bones: Percentages of species in Early Iron Age contexts

Despite its small size, this sample contrasts with the

earlier groups in suggesting that by the early Iron Age, sheep and cattle were the two major species, with pig also of some importance. One sheep bone and 12% of the sheep-sized unidentified fragments were burnt. The one deer fragment had been worked and may be a gaming piece. The presence of horse (one bone) is of note, horse being absent from the earlier samples.

-	Context Lab. No.		uncal. BP	calibrated interval ± 1 σ	calibrated interval $\pm 2~\sigma$		
	1215	HAR-5502	2130±120	350-40вс	400BC-120AD		
	1280	HAR-5505	1760±100	160-380AD	20-530AD		

Table 16 Radiocarbon dates obtained from bone from Iron Age features. Calibrated using a local IML program with the data files ATM20.C14 provided by Washington University, USA (Stuiver & Reimer 1986) compiled by them from the recommended calibration data of Stuiver and Pearson (1986), Pearson and Stuiver (1986) and Pearson et al (1986).

III.B.6 Charcoal from Iron Age features

by Mark Robinson

Hand-picked samples of charcoal from 5 Iron Age features included both *Quercus* (oak) and cf. *Crataegus* (Hawthorn). For details see Table 40.

III.B.7 Radiocarbon dates

Two radiocarbon dates were determined by the Harwell Radiocarbon laboratory on samples of bone from the crouched burial 1215 and from pit 1280.

A radiocarbon date calibrated to cal. AD 160–380 (at one sigma) was obtained from bone in pit 1280. This pit contained a large assemblage of Early Iron Age pottery, which is unlikely to be residual, and the date must therefore be regarded with suspicion. The records suggest that possibly there was a later feature cutting into the Early Iron Age pit, from which the dated bone may have come.

A date of 350–40 cal. BC (to one sigma) was obtained from a crouched burial 1215 within ditch 1141. Sherds from the ditch are of Early Iron Age date and the burial therefore appears to be a later Middle Iron Age insertion.

III.B.8 Discussion

III.B.8.a The major land boundaries

Ditches 1141 and 484 are interpreted as contemporary linear boundaries dividing up the gravel terrace at right angles to the river Leach. 1141 is visible as a cropmark both north and south of the excavated area (Fig. 110), and a probable continuation of 484 was excavated some 600 m to the south in Butler's Field, Lechlade (Miles & Palmer 1986, 4). At right angles to this continuation were

smaller contemporary ditches, and this subdivision was also evident at Roughground Farm (Fig. 26) in ditch 1241 and cropmarks further north.

It is tentatively suggested that kinks in both 1141 and 484, which occurred roughly opposite one another, may originally have been gaps c 30 m wide for a trackway parallel to the river Leach and on the line of the later Romano-British droveway. Short lengths of Early Iron Age ditch lay alongside the Romano-British ditches of the droveway (see Ch. III.B.1.c above), and ditch 1241 also turned a corner into 1242 in line with this (Fig. 26). This trackway was apparently temporarily blocked and the gaps in 1141 and 484 dug through. Alternatively there may have been landmarks where the kinks occurred which were respected by the Early Iron Age boundaries, and which survived to be used again by the Romano-British boundary. However no trace was found of any such features, and the obvious importance of a route alongside the winding course of the river Leach makes it likely that there would have been gaps left for this in digging the major Early Iron Age ditches.

Evidence of land-division as early as this is uncommon on the Upper Thames gravels. Double-ditched trackways or boundaries probably of the Bronze Age have been found at Dorchester crossing the cursus (Atkinson *et al* 1951; Chambers 1987, 64–65) and at Mount Farm (Lambrick 1979, 113–4), and a Bronze Age field system has been proposed from cropmark evidence at Long Wittenham (Thomas 1980, 310–311). Ditched field boundaries of Middle and Late Iron Age date have been excavated at Gravelly Guy and Blackditch, Stanton Harcourt (Lambrick 1985, 108; Lambrick 1983, 144–5), and at Gravelly Guy the settlement layout suggests that the boundaries, though not the ditches, were present in the Early Iron Age. The gravels north of Lechlade however provide the only evidence so far for the large-scale division of the valley bottom at this date.

806 has the lower five cervical vertebrae missing, and most of the thoracic vertebrae, though the absence of some of these is probably due to deterioration of the bones, the vertebrae and ribs being rather poorly preserved. There are two probable cuts on the bones, one on the mandible and one on the axis. The gonion on the left side of the mandible is broken off, but this break appears to have originated with a cut into the lower edge of the horizontal ramus. The axis appears to have suffered an oblique cut which has removed part of the neural arch and the inferior articular facet, on the left side. Neither cut is clearly defined, mainly because of the poor condition of the bone, but the two together and the presence of both atlas and axis, presumably buried with the head, combined with the absence of the rest of the cervical vertebrae, suggest fairly convincingly that the head was removed by a cut in the upper part of the neck, probably from the left side.

V.16.d Conclusions

The infant burials, complete and disturbed, are unexceptional on a site of this type.

Decapitated burials are not uncommon in this part of the country in the late Romano-British period. Details of other examples in the south midlands and the south-west are given in a recent survey (Harman et al 1981, 159-188) and the burials from Lechlade are unremarkable within this group, except possibly for two aspects of 894; if the neck was really severed just above the first thoracic vertebra, it would be a remarkably low point, previously observed only at Meon Hill and Poundbury. However, the absence of all the cervical vertebrae is not conclusive evidence for the position of the cut. The position of the head is slightly unusual, as it tends to be between the knees or somewhere about the lower legs, as in the case of 806. It is between or beside the femora in only about 10% of the recorded cases. Unfortunately, the examples from Lechlade do not seem to throw any further light on the reasons for this form of burial.

V.17 Animal bones

by Gillian Jones and Bruce Levitan

V.17.a The nature of the assemblage recovered between 1957 and 1982

by Gillian Jones

The material of Romano-British date is summarised in Table 27; it was grouped as follows:

 The 1982 excavations from Building IV and from the courtyard between it and Building III

- 2. The 1957-59 excavations of villa buildings I, II and III. This sample had been studied during excavation by Mr Baxter, the Lechlade vet. With the exception of sample 2a, the bones were not kept.
- 2a. Two boxes of the bones were studied by Professor Higgs, and these were also recorded in the present study.
- 3. The 1961-65 excavations, of trackways, field ditches and enclosures to the east of the villa (see Figs. 73 and 74; Fig. 1).

All the bone fragments found in the 1982 excavations (carried out by hand digging) were collected. Bone was also collected with reasonable care from the 1961–65 sites. There were no sieved samples. The four main domesticates were present, in varying proportions, bones of other species being rare.

The collecting of bone during 1957-59 may have been less rigorous, which means that the percentages given in Table 27 for assemblage 2 must be viewed circumspectly. However, the sample was of moderate size and suggests that cattle were more numerous than sheep or goat and that both pig and horse were important. Mr Baxter noted that there was a considerable range in the size of cattle. The horse bones were generally of mature animals (he noted only one bone from a young horse). In a pair of red deer frontal bones the antlers had been sawn off. Probable disease was noted in an adult horse humerus, and the lower part of a cattle humerus indicated injury during life. Most of the larger bones were broken up and several shank bones 'had cross marks suggesting that they had been used to cut something on', possibly evidence of butchery. In sample 2a, the writer's identifications and Mr Baxter's were nearly unanimous; four cattle bones (three of them phalanges) were misidentified as pig, and the proportion of pig bones in sample 2 may thus be slightly overestimated.

V.17.b Overall results (bones recovered between 1957 and 1982)

The material from excavations in 1982 dated from the 1st to 4th centuries. Very few bones were found from the earliest phase, but the assemblages from phase 4 (mid-2nd to mid-3rd century AD) and 5 (late 3rd to 4th century AD) were larger and show an increase in cattle over sheep, the proportion of pig bones remaining constant. Oyster shells appeared in phase 5, and were quite common.

Sample 3 from the enclosures east of the villa contained lower proportions of sheep and pig bones than villa sample 1. It is possible that varying policies on collection of bones influences the figures. However, the proportion of mandibles, and of long bones with more than half of the proximal end, the shaft or the distal end present (ie excluding small pieces) shows the same difference. Most of the features east of the villa were later Roman, and, as both sample 1 and results from other sites (King 1978)

		N	N Percentages					12	Percentage
			Cattle	Sheep	Pig	Horse	Deer	Other	identified
1	Building IV	263	37	44	14	3		dog*, fox*, fowl**, oyster	52
2	Buildings I-III	396	48	26	12	13	1	· · · · · · · · · · · · · · · · · · ·	
2a		61	52	23	5	15	red 5		91
3	Enclosures east of villa	263	59	22	6	10	red 2, roe*	dog*, hare*, water vole**, oyster**	71
Tota	d 1 & 3	526	48	33	10	6	1	other species 2	60

N - number of identified bones

Table 27 Animal bones from the 1957–82 excavations: percentages of species from different groups (see Ch. V.17.a).

show, cattle tend to become more important in the later Roman period.

Sample 3 consisted of bones from two sets of enclosures to the north and south of an apparently open area east of the villa buildings, and from gravel pits in between. Bones from the southern enclosures and the gravel pits were too few for useful comparison with those from the northern enclosures, due to the small scale of excavation. Within the northern enclosures comparisons were made between the bone collections from the silt-filled hollows (559, 560 etc) and from the pits, and between those from pits and those from ditches, but no significant differences were found. Worked bones do not show any concentration of bone working.

V.17.c Cattle bones (recovered between 1957 and 1982)

Bones of all parts of the skeleton were present. Mandibles and cannon bones were proportionately more numerous in sample 3. The overall proportions of bones from the head, body and feet was very similar in samples 1 and 3; one might perhaps have expected a greater concentration of meat-bearing bones close to the villa. The bones were mostly fragmented but the finding of several nearly complete cannon bones showed that the bones were not always exploited for secondary products such as marrow, glue, grease or for bone working.

Most of the cattle represented had died when five years old or more. These would have been breeding, dairy and draught stock. The amount of meat available from young animals, and their age of slaughter, must have depended largely on breeding success and provisions of winter fodder. The small sample here suggests that more young animals were slaughtered in the first few months than between one and five years. These may have been natural deaths or animals culled due to poor health. Alternatively some surplus animals may have been slaughtered to minimise the number kept over winter.

The age at death of cattle was calculated from mandibles and loose teeth (Table 67 on Fiche 2#90). Jaws were

grouped into six stages (defined in Bourdillon & Coy 1980). The figures show the minimum number of individuals (mandibles) at each stage, with additional data from loose teeth shown in brackets (eg there were two left stage 1 mandibles and a deciduous third premolar showing enamel wear only, from three different areas of the site). In eight out of the 15 individuals, the third molar was in full wear. Evidence from long bone fusion was consistent with the above (46 epiphyses, 89% fused; and two bones from calves). No data on the sex of the bones was available.

The measurements suggest a good size of cattle, larger than those found on local Iron Age sites (Wilson 1978, Fig. 19) and of similar size to Romano-British cattle from Barton Court Farm, Abingdon (Wilson in Miles 1986, VI.2.3.5.). Their estimated shoulder height was 1.10 to 1.27 m (mean 1.177 m, N 12) (method of Fock in Driesch & Boessneck 1974). Greatest lengths: metacarpals: (1st to 4th century) 183, 187; (3rd to 4th century) 193, 200; metatarsals: (3rd to 4th century) range 203–233, mean 216.6, N 8. Greatest lateral length of astragalus: (2nd to 3rd century) 59; (3rd to 4th century) 62, 65, 69, 70.

V.17.d Sheep/goat bones (recovered between 1957 and 1982)

The caprine bones are mostly from sheep. One horn core fragment was definitely from a sheep and no other bones bore features characteristic of the goat, which has only rarely been found on Romano-British sites in the Upper Thames (Wilson, pers. comm.). One skull fragment was from a polled animal. Hornless sheep are found somewhat more commonly on Roman than earlier sites (eg Roman Tripontium and Frocester, Noddle 1973 and 1979), which gives some support to the hypothesis that some new stock was introduced into Britain.

Fig. 152 on Fiche 2#90 shows the stages of development of the mandibles, following the method of Grant (1975). A greater proportion of adult jaws were recovered, especially in sample 3, than is general on sites of the period (eg Wilson 1978, 132). The sample suggests that most lambs of both sexes were kept into adulthood, and therefore that wool production was important. However other factors may be

^{* —} species represented by a single bone (** — two bones).

Oyster and water vole are not included in the total number of bones.

involved, eg a recovery bias against younger, fragile jaws in the sites east of the villa or movement of surplus lambs away from the site.

The few measurable bones suggest that the sheep were of average size for the period.

V.17.e Pig bones (recovered between 1957 and 1982)

Pig bones formed about a tenth of the overall Romano-British sample. No difference in the proportion of pig was observed over time, but pig bones were commoner on the villa sites.

Upper and lower jaws of at least eight pigs were recovered, all from pigs which had overwintered at least once, and two of these were from adult pigs of about two years old (third molar partly in wear, Silver 1969). Occasional slaughter of younger pigs is shown by the presence of an immature pelvis. The age structure is similar to that discussed by Maltby (1981) for Roman sites, where although most porkmeat was from immature animals, rather little of it was from the lean carcass of a piglet. The need for lard and the use of pigs in clearing ground may have been significant factors in pig husbandry.

A bone pin made from the fibula of a pig is described in Ch. V.8.

V.17.f Horse bones (recovered between 1957 and 1982)

Horse bones occurred in small numbers in many deposits, including those near the villa. They were often associated with bones of other species, and are therefore probably also food waste. The bones were less fragmented than those of cattle. The only intentional marks seen were on a metacarpal, which is a naturally pointed bone sometimes worked into a bone tool.

Measurements of long bones give an estimated size range of 11.5 to 14.5 hands (N 7, range 1.12-1.46 m, mean 1.318 m, method of Kiesewalter in Driesch & Boessneck 1974) (greatest lateral lengths: radius 291 mm; metacarpal 185, 197, 219 mm: metatarsal 263, 274 mm). In the enclosures east of the villa two horse-skulls and one partial skeleton had been buried. Only one of the skulls survived for examination. Photographs and notes show that the skeleton from 573 consisted of the vertebral column from the axis to the sacrum plus the pelvis, one femur and a few ribs, found articulated. A few loose incisors were all that remained of the skull. Since the surviving bones were quite well preserved and the pit had not been recut, the absence of the rest of the skeleton was probably genuine. It was noted on excavation that a long bone split, among the fragments, suggests that the carcass was 'used for food'. Whether the horse had partially decayed before burial, or whether the long bones had been removed with the meat, is not known.

One skull was that of an adult, and was buried in a pit by itself; the other was of a horse that had died at about one year old (first molar in wear on the first cusp), and was associated with cattle and sheep bones. There were three other bones from immature horses. The presence of young horses is of note and suggests that they were being bred at the site. Remains of young horses have also been found in the Upper Thames valley at Roman sites at Barton Court Farm and Farmoor (Wilson 1979).

The sawn-off lower ends of a metacarpal and a tibia show that horse bone was used in bone working. No cattle bones were sawn.

V.17.g Bones of other species (recovered between 1957 and 1982)

Two dog-bones were found. Three bones of domestic fowl came from the 1982 excavation near the villa, and oyster shells (19 valves) from 3rd/4th century deposits in the same area. Two bones of water vole may be intrusive.

Remains of hunted species were few (Table 27), suggesting that hunting provided an insignificant part of the diet, but red deer were apparently important for their antlers, which were both collected from the ground and sawn from the skull. Three of the four antler specimens were sawn.

For details of the pathology see Microfiche report.

V.17.h Introduction to the bones recovered in 1990

by Bruce Levitan

This assemblage of 764 bones (found by hand digging) is from an adjacent area to those reported on above; the two reports are analyses of different portions of the same overall assemblage. Not surprisingly, therefore, the range and taxa represented in the present analysis is almost identical to that found by Gillian Jones.

The assemblage can be subdivided into:

pre/early villa 140 bones (48); late villa 623 bones (233).

Numbers in brackets are bones identified to taxon. The early phase is roughly equivalent to 2nd to mid 3rd century AD and the late phase is late 3rd and 4th centuries (with, perhaps, a small element of residuality).

The bones can also be divided between Buildings III and IV, though only about 35% of the bones relate directly to these two buildings, and some of these come from robber trenches (the majority of the bones in fact come from ditches):

Building III 116 bones (43) Building IV 150 bones (42)