

GLEBE LOW, GREAT LONGSTONE

By J. RADLEY

Introduction

GLEBE LOW was discovered by C. E. Exley in 1957 and recorded as a round barrow of 50 ft. diameter, with a trench cut into its northern side. It was partially destroyed by bulldozing in 1962 and finally obliterated in February 1966. The writer for convenience named the barrow after Glebe Mines Ltd. who agreed with G. D. Lewis, Sheffield City Museum, to preserve the damaged barrow until a rescue excavation could be arranged. The barrow was excavated from August 1965 to February 1966.

Glebe Low and its setting

The limestone escarpment of Longstone Edge rises 500 ft. above the broad shale lowland of the Wye valley which extends from Great Longstone to the Bakewell area. The east-west edge is divided into two humps; the western hump around Watersaw Rake and the eastern hump followed by High Rake. The gap in the middle is the focus of tracks and roads dating from the lead-mining period and before, and at this natural route focus, on a slight knoll, Glebe Low was erected at 1100 ft. O.D. (SK 204732). It was clearly visible on the skyline for several miles from the S.E. to S.W.

The barrow was surrounded by heaps of lead spoil (fig. 12), and this probably explains why it was missed by Bateman. Aerial photographs taken in 1948 (CPE. UK. 2598, 3100-1), however, confirm that a trench was cut into the northern face, the position favoured by some 19th-century excavators, but this does not appear to have reached the centre. These same spoil heaps have hidden the barrow from the Ordnance Survey and other recorders.

The initial bulldozing destroyed the western half and part of the northern perimeter of the barrow (fig. 13), and so this report is divided into an examination of the destroyed portion and the rescue work on the surviving mound.

The destroyed sector

The barrow was 45-50 ft. in diameter before it was bulldozed and stood 8 ft. above the summit of a natural knob of clay and rock which gave an impression of greater height. Some of the material was taken from the barrow to be used as ballast on a nearby track. Some of the mound was pushed southwards (tip 1) and a lesser amount eastwards (tip 2). The bulldozer also pared away the turf from much of the mound and dumped it on the E. and S.E. side of the barrow.

Mr. C. E. Exley traced the driver responsible for this work and found that the driver had stopped at one point when he saw a square of limestones set on end, which he thought was the top of a mine shaft. This was subsequently bulldozed on to tip 1. It is assumed that this "square" was a cist, and so tip 1 was excavated in search of its contents.

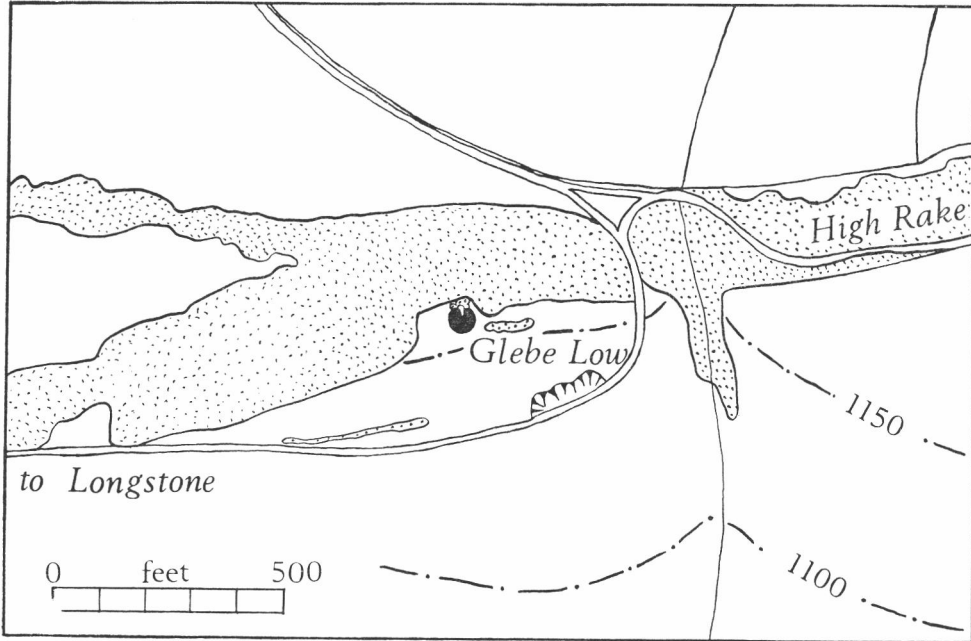


FIG. 12. The position of Glebe Low on Longstone Edge and nearby leadmining dumps.
Map based on unrectified aerial photographs.
North is approximately at the top of the map.

A stiff reddish clay held all the remains which were recovered. Hundreds of fragments of bones, the remains of at least two adult females and a juvenile, were found mixed with animal bones, including young pig, and one flint (see inventory, appendix I). Numerous fragments of beaker were recovered, some decorated with cord-impressed lines, and others with weathered lines in triangular patterns, but most were soft crushed fragments. From tip 2 parts of a child of 6-10 years and an adult were recovered, together with three flints.

It is presumed that those in tip 1 represent the remains of at least three people, one of whom was buried with a beaker, and all of whom were probably interred in a cist of unknown proportions. The remains in tip 2 probably derive from a secondary burial on the north side of the barrow. In 1963 and 1964, human bones could be picked from a nearby track from material removed by the bulldozer, and so no attempt can be made to assess the maximum number of burials involved.

The excavation of the eastern sector

The site was cleared of loose debris and a N.-S. section prepared along the western edge of the intact portion of the barrow (see section A). This revealed a broad band of angular limestone chips interspersed with larger weathered blocks. There was no soil or clay within the interstices of this layer, even though the surface of this band was covered with 6-15 in. of dark, humus-rich soil. At the southern end, the intact periphery of the barrow had a group of large weathered limestone blocks, some of which extended along the surface of the limestone band. Below the limestone, the core of the barrow, up to 5 ft. high, was made of sticky clay, frequent chert fragments, and the occasional limestone block. Visible at intervals were short bands of charcoal and iron pan (see below). No continuous buried turf-line was found.

The damaged northern portion was then removed to expose an E.-W. section which comprised a thin limestone band resting on a clay core which occupied about 90% of the section. It was clear in this section that the buried turf-line was not near the bedrock, as was expected, but was almost 3 ft. above bed rock, resting on a natural clay scarcely distinguishable from that in the core of the barrow.

At the northern end of the barrow in a rather disturbed area a group of large boulders similar to those on the S. side were found. These were subsequently traced as an intermittent retaining wall bounding the surviving portion of the barrow. The surface of the limestone band near the summit of the barrow was also covered in large flat slabs of weathered limestone, and it is probable that the whole of the mound was originally covered with large blocks.

Up to this point, excavation had revealed four interments. In the N.-S. section a pit was revealed on the S. side of the section; it was 4 ft. wide, 8-16 in. deep, and extended 3 ft. to the E. Part of the pit had been bulldozed away. The pit, which was flat bottomed and lined with thin limestone flags, was filled with dark soil, chert fragments and non-cremated broken bones of at least one adult human, and a sheep or goat's tooth.

Part of a round-bottomed pit, even less perfectly preserved than the previous one, occurred on the N. side of the barrow. It was at least 18 in. deep, and filled with dark soil, chert fragments, and non-cremated broken bones of at least one adult. Amongst the bones was a flat quartzite pebble with two worn or polished facets at either end of one face; two fragments of flint; and a bone pin which occurred near the top of the pit.

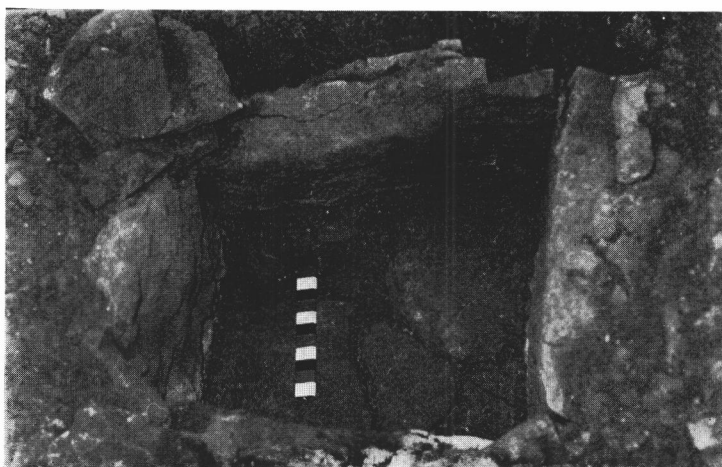
East of the summit a shallow grave was discovered so close to the surface that grass roots had penetrated many of the bones of a flexed adult skeleton with the feet to the S.W. and facing S.E. Although the skull and pelvis were missing (probably removed by bulldozing), heavily worn teeth and much of one severely decayed skeleton and fragments of a second skeleton were isolated. The oval grave was 5 ft. 6 in. x 2 ft. 6 in. and only 10 in. deep at its deepest point. The grave was a mere scrape into the upper part of the limestone band and appeared to have been covered only by soil and stones scraped from the surface. There were no grave goods, but only inches away from the grave was



a. South face of cist, closed.

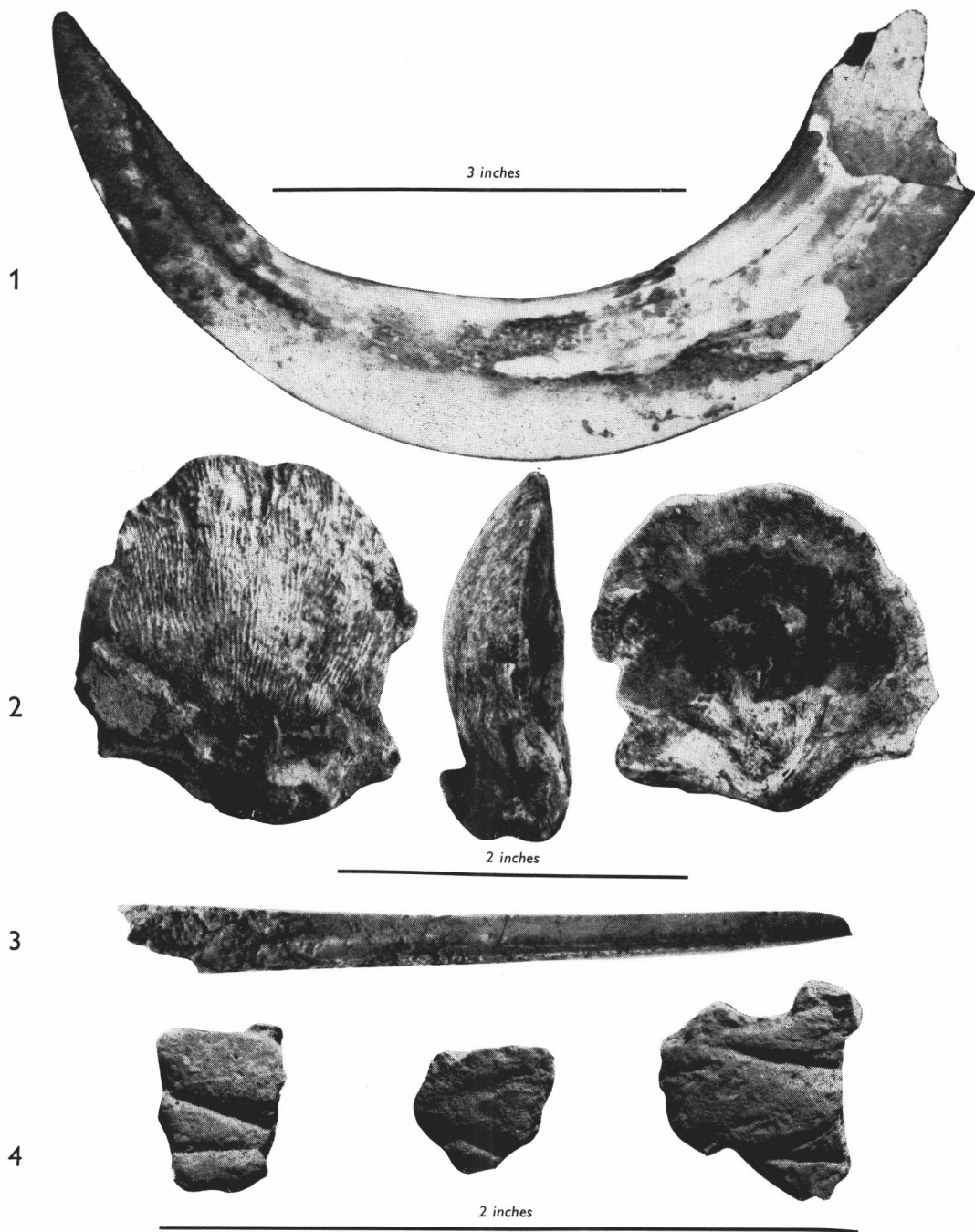


b. South face, open.



c. Interior of cist after cleaning.

GLEBE LOW.



GLEBE LOW.

- 1. Boar's tusk from the cist.
- 2. Fossil from the cist.
- 3. Bone pin from the northern secondary burial.
- 4. Beaker fragments.

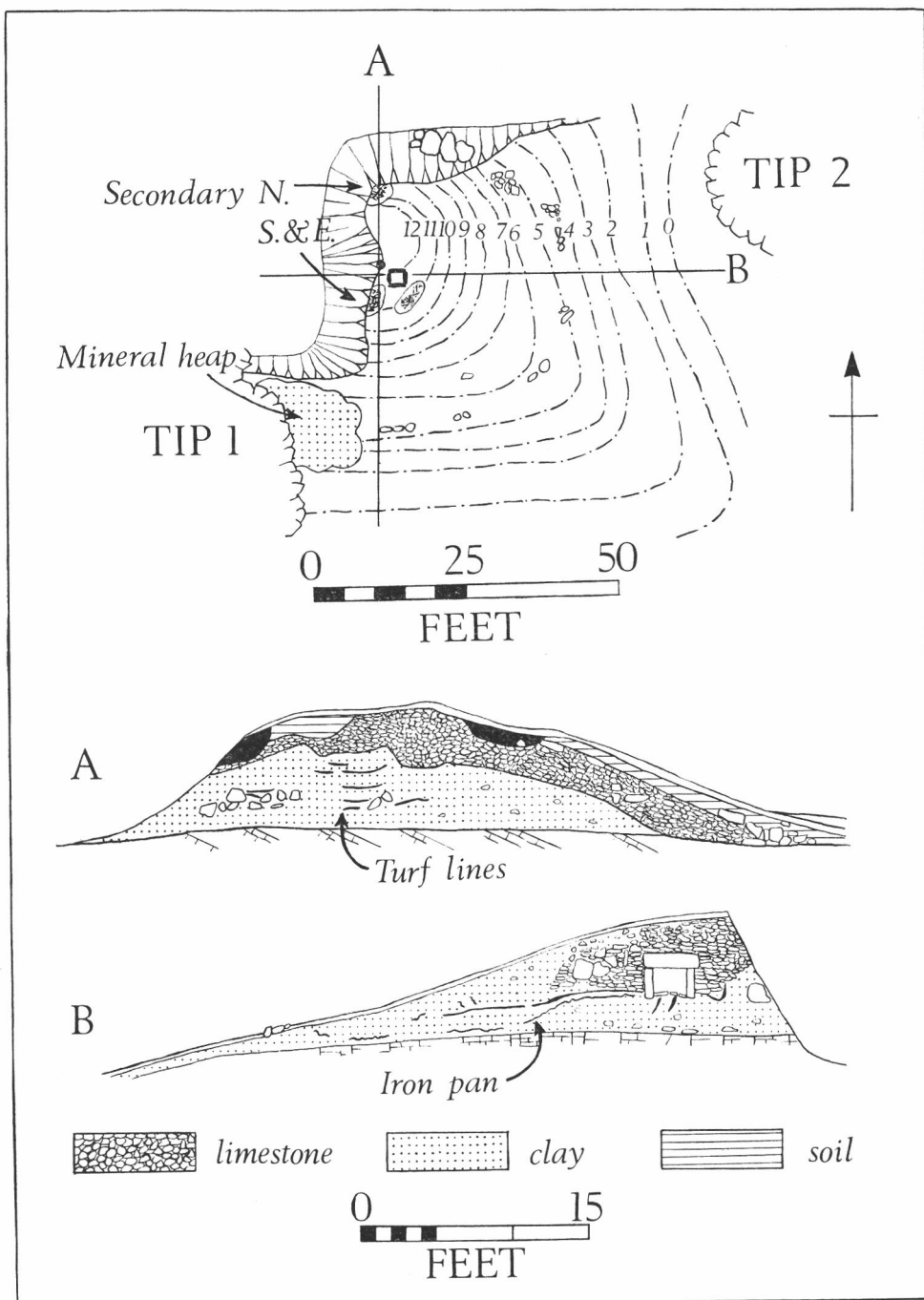


FIG. 13. Plan and sections of Glebe Low.

The dot by the cist on the plan is the datum for measurements in the list of finds.

the one sherd of Roman pottery found on the site. At the N.E. end of the shallow grave was a 6 in. wide and 2 ft. deep hole in the limestone cover. It contained dark soil, chert fragments, and, in the bottom half of the hole, bones of a child of approximately 3½ years were found with a few unidentified bones of a large animal. No other secondary burials were found.

Two feet from the E.-W. and N.-S. faces of the remaining quadrant and 2 ft. below the top of the limestone band a primary cist was discovered (fig. 14).

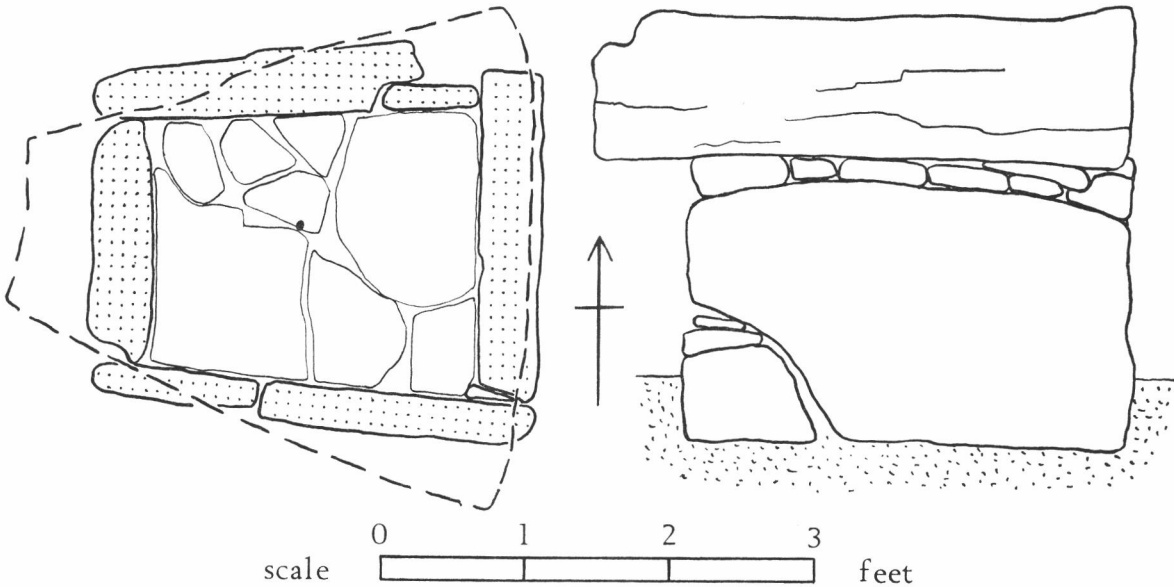


FIG. 14. Plan and elevation of cist from south.
Dashed line on the plan is the outline of the capstone.

The section through the cist was so unlike the simple E.-W. section described above that it is illustrated in section B. The sides of the cist were set 6 to 9 in. below the buried turf-line which extended up to the cist on its E. side. The cist was surrounded by neatly stacked angular limestone slabs which merged upwards into the haphazardly stacked limestone band covering the barrow. On the E. and S. the limestone core terminated in roughly stacked limestone blocks, which were overlaid by a zone of chert and gravel giving way to clay on the E., but giving way abruptly to clay on the N., which is why the original section exposed only clay.

The cist was oriented to face the cardinal points, measuring internally 1 ft. 9 in. at the W. end, 2 ft. at the E. and 2 ft. 3 in. long (plate I). The cist was made of four principal weathered limestone slabs, 5 in. thick, and several minor pieces inserted into gaps in the corners, and used as drystone walling to level the top of the cist to a height of 2 ft. The bottom of the cist was paved with thin limestone flags, which were raised 3 in. in the centre as a result of

pressure from the sides. The capstone was a one-foot thick weathered limestone slab, triangular in shape, two sides measuring 3 ft. 5 in. and one 3 ft. 8 in. The cist was empty save for a thin layer $\frac{1}{2}$ -3 in. thick of fine clay and cremated bones, riddled with worm holes. There were bones behind all the cist's walls and thick charcoal deposits in what must have been vertical cracks in the clay beneath the floor of the cist. It appears that the contents of the cist originally occupied a greater part of the cist than when discovered. It is probable that worms were responsible for moving cremated bones laterally through cracks between the stones, and that leaching gradually washed the lighter elements such as charcoal out of the cist into the clay below. In the resulting space, stalagmitic growths 9 mm. high formed on stones remaining amongst the bones, and a form of cave snow formed on the S. wall of the cist.

The cremated remains in the cist were also accompanied by a boar's tusk, a fossil, and a few non-cremated animal bones (plate II).

When the cist was removed and no further interments were apparent, the rest of the mound was pared away by a bulldozer removing 1 ft. wide vertical sections at a time, down to bed rock. No pits or burials were observed, although six people were employed watching the demolition. A few animal bones were recovered. The bulge in the contours (fig. 13) to the SE. of the barrow proved to be natural. It is estimated that a total of at least 200 tons was removed from this barrow in the different phases of destruction.

DISCUSSION

(1) *The barrow*

The composition of the barrow is quite conventional. The cist was surrounded by a carefully built limestone cairn which was then covered with clay and given a limestone cap, which was missing on the N. and E. sides, probably owing to the bulldozing in part, but it may never have been completed on the upper part of the N. side where the large covering stones rested on the clay without an intervening limestone gravel layer. Because the beaker and bones rescued from tip 1 were embedded in a uniform red-brown clay, it seems probable that it was surrounded by clay. If this is so, then the question remains: were there two primary cists, or was the primary one in a clay mound or a grave, and the excavated cist a satellite insertion? The irregularities observed in section A in the limestone fill, which appeared at first to be an attempted robbery hole, may in fact be an indication of the insertion of the excavated cist into an already existing barrow. This would explain the abrupt edge to the stones around the cist on the N. and W. sides. The off-centre position of the cist in relation to the measured contours (see plan, fig. 13) may substantiate this.

The component parts of the mound were examined for evidence of pollen and soil history. The pollen analysis proved negative, as is quite common on limestone soils, but the soils presented several problems. The surface soil has apparently formed over the original limestone slab cover, but the soil contains a high proportion of chert fragments, which suggest a rapid leaching of limestone fragments leaving the chemically inert chert in the soil as a

residual deposit. The limestone band appears to have been derived from two sources. The large weathered slabs must have been prised from the surface where they were exposed, which is not anywhere near the barrow, and the angular limestone fragments making up the bulk of the layer were probably brought from the steep face of Longstone Edge. The clay layer was probably local surface scrapings, which explains its high chert content. Between this and the thick natural clay was the buried turf-line, which in fact was represented by a thick band of charcoal free from organic remains, varying from $\frac{1}{2}$ to 2 in. thick over a pale grey band. These clays were carefully examined, and it was found that the lower clay has a buried podsol profile, showing the typical mottling and a well developed iron pan, together with several short intermittent zones of iron pan extending into the clay above the turf-line. No explanation can be found for the thick clay cover on this limestone knob unless it is part of an earlier barrow, but the high rainfall and the dense clay combine to provide anaerobic and acid conditions which explain the iron pan forming, and may explain why few bones were found in the lower clay levels.

In the clay layer there were some animal remains, of which 20 types of bones are listed in the appendix. They fall into two groups: the large food-animals and the natural wild animals. The food-animals identified are: cow, young pig, and sheep or goat. These were found randomly scattered throughout the clay sector of the mound, none having survived in the limestone band. Whether they were on the ground and were scraped up with the clay, or whether they comprise food for the builders or part of a burial feast as Bateman often proposed, cannot be decided. A large scapula may have been used as a shovel but was too decayed to be examined. Several stray human bones mainly near the surface have not been accounted for, but in part their distribution may be due to rodent activity. Finally, a tooth of a sheep or goat and a few large animal bones were found at the old ground level suggesting that they were definitely contemporary with, or earlier than, the funeral day.

The remains of wild life found on the site are of considerable interest. A scapula of an otter and a fragment of the lower mandible of a young otter were near the top of the mound; an otter jaw was found at Rolley Low (*Vestiges*, 55).¹ The other remains of wild life encountered in abundance are those of snails and rodents, each of which will be discussed in a separate appendix. No signs of living snails or rodents were found.

(2) *The affinities of Glebe Low*

Glebe Low covered a cist holding a cremation with a boar's tusk and a fossil which was possibly designed to remain empty except for the grave goods, and almost certainly a second cist holding at least three inhumations and a beaker. Several large round barrows have single cists or pairs of probably primary cists, and occasionally both cremation and inhumation rites occur together. Comparisons are restricted here to two barrows in the vicinity of Glebe Low and to three barrows near the Arbor Low henge monument.

¹ The following abbreviations are used for references to the works of Thomas Bateman: *Vestiges — Vestiges of the antiquities of Derbyshire*, 1848; *Diggings — Ten years' diggings . . .* 1861.

Blake Low, on the eastern portion of Longstone Edge, was a large mutilated round barrow (*Diggings*, 40-1). It had a primary rock-cut grave with the skeletons of a woman and child, a beaker, and an antler tine. Nearby was a "rude cist" holding six skeletons in disorder, together with a curiously decorated urn and four flints.

Rolley Low is a large round mound 5 ft. high and 45 ft. across (*Vestiges*, 55-6). The primary cist was paved and sealed with clay to preserve a room devoid of infilling and holding a contracted skeleton, a food vessel, two neat arrow-heads, and a boar's tusk 7 in. long. There was a fragment of beaker in the mound, and above the cist's capstone lay a large walled circle, partitioned into five sections, skeletons lying in four of them and a cremation with an urn in the fifth.

To the south, the barrow on the banks of the Arbor Low henge monument stands 12 ft. high (*Vestiges*, 65). The primary cist, which had six sides, was paved and had no infilling, held a cremation, pyrites and a flint, and a bone pin together with a food vessel, a crude jar, and a rim sherd of maggot decorated ware.

Nearby Gib Hill is a round barrow, which stands 15 ft. high and is 80 ft. across, probably on a Neolithic oval barrow. The cist measuring 2 ft. 6 in. x 2 ft. internally, probably with no infilling, held a cremation with a food vessel (*Diggings*, 18-19). On Smerrill Moor, Bateman excavated a smaller disturbed barrow, 33 ft. across and 3 ft. high, which had a double cist (*Diggings*, 102). There were twelve inhumations in one cist, ranging from a child to old people, and a crouched skeleton in the other, accompanied by a flint flake and sherds of two sorts.

Glebe Low is related to these five barrows in several ways. The Glebe Low cremation in a cist is unusual, but it occurs also at Arbor Low and Gib Hill with food vessels and cruder pottery. Glebe Low's main grave furniture is the tusk, paralleled at Rolley Low and perhaps by the antler tine at Blake Low. Where two cists occur, the second one usually has multiple inhumations in the Neolithic fashion — two or three at Glebe Low, six at Blake Low, and twelve at Smerrill Moor. Beakers are present at Glebe Low, Blake Low and in the mound of Rolley Low; and the Blake Low beaker is an early C beaker, rare in Derbyshire, but common in East Yorkshire (e.g. Kelleythorpe, see J. R. Mortimer, *Forty years' digging . . .*, 272-4). It is interesting to note that bronze and the better grave goods are absent from these six barrows, suggesting that they either precede the richer burials or belong to a poorer group.

Finally, it is worth noting that some of the cists, including that at Glebe Low, are masterpieces of construction. The clay-sealed cist at Rolley Low suggests that these neatly squared cists, paved, and with levelled up drystone walling, topped with a capstone, were deliberately designed to be virtually water-tight and to remain free from infilling, and is not the accidental product of leaching. This is very different from the Derbyshire Neolithic cists which were packed with clay and stones. The empty cists at Glebe Low, Rolley Low, Arbor Low and probably Gib Hill are paralleled in the East Riding

of Yorkshire by the Kelleythorpe primary burial. Another parallel is Rudston LXII (*British barrows*, 240), unique in East Yorkshire, which has primary double cists at the bottom of a shaft, each holding a beaker but one accompanying an inhumation and the other a cremation.

Conclusion

It is obvious that Glebe Low is of the same approximate period as some of the other cist burials in Derbyshire, which held single or plural inhumations or cremations and were accompanied occasionally by beakers or food vessels, and boar's tusks and other lesser grave goods. They can be attributed to the hybrid culture covering the later Neolithic and early Bronze Age, at an unknown date but probably prior to 1500 B.C. It is hoped that a Carbon 14 date for the cist from Glebe Low will give the first proper dating evidence for a Peak District cist burial. Perhaps the most revealing feature of the excavation of Glebe Low is the complexity of the problems encountered in a barrow which Bateman would have excavated in an afternoon.

APPENDIX I INVENTORY OF FINDS

(Note: Directions are from the centre peg, see plan, fig. 13)

A. *The mound*

Numerous indeterminate fragments of bones were not recorded. These occurred in the upper levels of the mound, and were probably the result of rodent activity in these levels. Crushed bones on and around the mound were produced by the bulldozing.

1. *Bones*

1. 3 unidentified animal bones and a fragment of human skull; 6 ft. E., 6 in. above buried turf-line.
2. 1 small scapula, probably otter, and 1 unidentified bone; 3 ft. S., 2 ft. E.; 1 ft. 3 in. deep.
3. 1 tooth, sheep or goat, from old turf-line, 16 ft. E.
4. 1 large unidentified scapula; 2 ft. S., 15 ft. E., 2 ft. deep.
5. 1 " " " ; 24 ft. E., below turf-line.
6. Group of small bones, 2 oz., mainly animal, including two pieces showing splitting; 12 ft. S., 3 ft. E., 2 ft. deep.
7. Fragmented and broken animal bones, stony layer in N.E. quadrant.
8. 1 horn core of domestic *Bos*; 7 ft. 9 in. N., 1 ft. 10 in. deep.
9. 1 " " " and unidentified small mammal bones; 14 ft. 8 in. N., 5 ft. 8 in. deep.
10. 3 phalanges and fragments of bone, probably human; surface, on N.E. perimeter.
11. Unidentified fragments; 7 ft. 9 in. N., 4 ft. 4 in. E., surface layers.
12. 1 large rib; ? human; 11 ft. 6 in. N., 2 ft. 8 in. E., 1 ft. 1 in. deep under laminated stones.
13. Corroded group of bones, 4 oz., including human; at least five metatarsals and one worn tooth. In a small pocket 3 ft. x 2 ft.; 3 ft. N., 9 ft. E. This may be the remains of a separate burial.

14. Animal bones; 2 ft. S., 2 ft. deep.
15. " " ; 25 ft. S., 4 ft. E., 3 in. deep.
16. Scatter of animal bones at 4 ft. N., 4 ft. E., 1-2 ft. deep.
17. Fragments of animal bones; 4 ft. S., 6 ft. deep.
18. Part of large animal rib; 4 ft. 4 in. N., 6 ft. 4 in. deep.
19. Large unidentified animal bone; 5 ft. 6 in. N., 8 ft. 6 in. E., 1 ft. deep, under stones.
20. Small group of rotted animal bones; 9 ft. N., 13 ft. E., surface.

2. *Stones*

1. Fragments of red sandstone in the mound.
2. Small quartzite pebble; 15 ft. N., 6 ft. E., below turf-line.
3. " " ; slightly battered on one edge; 13 ft. N., 4 ft. 9 in. deep.
4. Small flint pebble, disturbed by bulldozer; surface of N.E. quadrant.

3. *Flint*

1. Patinated microlithic blade; N.E. quadrant, surface, after bulldozing.
2. Patinated short end scraper, steeply worked, with cortex on dorsal surface; 10 ft. N., 50 ft. E., surface.
3. Patinated flint flake; 10 ft. S., 3 ft. deep.
4. Patinated short end scraper with flakes taken from ventral side; N. edge of mound, surface.
5. Patinated round scraper; 12 ft. N., 4 ft. E., disturbed area.
6. Patinated serrated flake; S.E. quadrant, surface.
7. Patinated tiny flake; S.E. quadrant, surface.
8. Patinated small flake; surface above second S. burial.
9. Fragment of scraper, possibly chert; E. end of mound, surface.
10. Patinated tiny flake; 3 ft. N., 4 ft. E., 2 ft. 6 in. deep.
11. " " ; 5 ft. E. on old turf-line.
12. Patinated microlithic blade, steeply trimmed; W. side, surface.
13. Patinated tiny flake, trimmed; 6 ft. E. from buried turf-line.
14. Burnt small flake; 5 ft. 4 in. E. from buried turf-line.

4. *Pottery*

1. A sherd of Roman pottery, 2 ft. S., 4 ft. 6 in. E. This occurred on the surface adjacent to the second E. burial; the fabric is rough and sand-gritted, with a buff-coloured surface and a grey core.

5. *Rodent bones*

Several hundred bones were recovered, including 10 left and 9 right lower mandibles, all of *Arvicola*. One lower mandible was recovered of *Microtus* (cf. *agrestis*), and one lower mandible of *Clethrionomys*. These represent a small random sample of the thousands of bones occurring in the surface zone of the summit of the mound, i.e. top 1 ft. for a radius of about 10 ft. The lower slopes yielded virtually no remains.

B. *Tip 1*

1. *Bones*

1. 8½ lb. of human bones, dry, are fairly well preserved, although some are leached and fragile, but many were crushed by bulldozing. Two adults are represented

by metatarsals, atlas, and scapulae, together with numerous shafts of long bones, ribs, and a sternum. A metatarsal, an atlas, and a sternum of a juvenile of 17-22 years are also present.

A skull is represented by large pieces of thick crania probably belonging to an adult between 30-40 years, probably female. A second skull is represented by large pieces of thin skull of a person of 20-30 years, probably female. Fifteen fairly decalcified teeth, some very worn and some fairly worn, support this.

2. Several animal bones are present, and part of a lower mandible of a very young pig (identification: Miss J. E. King, Osteology Section, British Museum, Natural History).

2. *Flint*

1. Patinated serrated blade, possibly a small knife; 3.2 cm. long.

3. *Pottery*

Numerous fragments of a very decayed beaker were recovered. Some of these are 8 mm. thick, of a typical fine, red fabric containing a few quartz fragments. These appeared to be restricted to the same type of clay as the bones. Ten fragments retain some trace of cord-impressed decoration, chiefly a triangle motif (see plate II).

The fabric is tempered with crushed calcined flint up to 7 mm. across, which differs from H. Hodge's statement (in *Ceramics and man*, ed. F. R. Matson, 1966, 121) that grog (crushed pottery) was invariably used in beaker pottery. (Analysis: Dr. D. P. S. Peacock, Dept. of Geology, University of Birmingham).

4. *Rodents*

Numerous bones, 8 right and 3 left lower mandibles, and many detached incisors of *Arvicola*. *Apodemus* or *Mus* sp. also represented.

C. *Tip 2*

1. *Bones*

1½ lb. of human bones, dry, include the left ilium of the pelvis of a child of 6-10 years. Shafts of long bones of an adult are also present. Part of an upper mandible with four fairly worn teeth suggest a young adult, and four other teeth. Some or all of these bones probably come from the secondary north pit.

2. *Flint*

1. Patinated small flake.
2. " " "
3. " " broken flake.

3. *Pottery*

3 pieces of a salt-glazed jar; green interior and brown exterior, probably 19th century.

4. *Rodents*

Numerous bones, including 3 crania, 6 right and 5 lower mandibles of *Arvicola*.

D. *Secondary North*1. *Bones*

Group of bones, 12 oz., in a shallow pit, broken in antiquity, and mixed with chert fragments. No evidence of cremation. Bones include ribs, shafts of long bones, one fragment of crania, and phalanges. One or two animal bones probably present. There are 4 teeth of a young adult, and one deciduous molar and one incisor. These latter probably relate to the child's bones found in tip 2.

2. *Stones*

A flat quartzite pebble with facets rubbed on each end of one face; found amongst the bones.

3. *Flint*

1. Burnt fragment, amongst bones.
2. Flake of white chert or flint.

4. *Other finds*

1 bone pin, 5.3 cm. long, polished with use, found at the top of the pit (plate II).

5. *Rodents*

Numerous bones, even very tiny ribs and vertebrae, including parts of 9 right and 4 left lower mandibles, and 2 crania of *Arvicola*. Also present are 2 right and 2 left lower jaws of *Microtus* sp.

E. *Secondary East*1. *Bones*

1. A much decayed skeleton, with only the lower portion articulated, slightly flexed and facing S.E., has many of the heavier bones and the skull missing. Surviving bones represent one adult — 2 tibia, a patella, a fibula, numerous vertebrae, and ribs can be identified. Weight dry is $2\frac{1}{2}$ lb. Only one fragment of skull was recovered, but fragments of at least 10 phalanges and 12 heavily worn teeth are present. The bones and teeth are very decalcified as a result of their shallow burial.
2. 7 oz. of bones, slightly detached from the main skeleton, N.E. of the feet, represent another adult. A phalange, a hip socket, and parts of long bones, and a second upper left molar can be recognized.
3. Beneath the feet of (1) a rough hole formed by 4 small rocks, so narrow that it was at first believed to be a natural crevice, yielded 6 oz. of small bones. Very thin skull fragments, the crown of a right central incisor, a deciduous canine, fragments of ribs and innominates, and shafts of long bones indicate the remains of one child, and possibly 2, aged $3\frac{1}{2}$ years \pm 6 months. Several animal bones present, but unidentifiable. (Identification: Miss R. Parsons, British Museum, Natural History.)
4. 2 unicuspid cheek teeth in part of lower mandible of *Lutra*.

2. *Rodents*

Hundreds of bones including 15 crania, 39 right and 30 left lower mandibles of *Arvicola*. Also present are 2 crania of *Microtus* (cf. *arvalis*); 2 mandibles of *Apodemus*.

F. *Secondary South*1. *Bones*

1. A small group of bones, broken in antiquity and recently. A fragment of skull, ribs, phalanges and 8 fairly worn teeth represent one adult.
2. Fragments of animal bones mixed with (1).
3. 1 cheek tooth of sheep or goat mixed with (1).

G. *Primary cist*1. *Bones*

Several pounds of partly mineralized fragments of cremated human bones are so finely comminuted that nothing can be determined of the person or persons cremated, save that it was adult. The bones were the most prominent feature on the floor of the cist, the stones and chert fragments being quantitatively less.

Several unidentified and unburnt bones of an animal, perhaps of sheep size, were scattered amongst the cremation (cf. fragments of ox with the cremation in the cist at Rudston, barrow LXII).

2. *Other finds*

1. A limestone fossil shell, *Productus* sp., has probably been ground down to form a small amulet, 2 in. in diameter (plate II). It was the only fossil present, and is probably an intentional deposit.
2. A boar's tusk (plate II), 9 in. round the outside curve, was found encrusted in stalagmite on the surface of the cremation. It is very large, an average tusk being c. 5 in., and is paralleled by the tusk in the Rolley Low cist.

APPENDIX II

REPORT ON THE MOLLUSCA

By NORA F. McMILLAN, LIVERPOOL MUSEUMS

Eight groups of shells and four soil samples were examined from Glebe Low. The samples were taken throughout the barrow, but the main concentration of shells was in an area of c. 10 ft. radius around the summit of the barrow, and to a depth of c. 2 ft. Pockets of shells were found beneath large stones at a greater depth. No live snails were recorded.

(a) Sample from the Bronze Age turf-line. No shells in the soil sample, but hand collecting yielded: *Cepaea nemoralis* (L), 6; *Discus rotundatus*, 3. Both are common.

(b) Samples from secondary burials, hand collecting yielded the following:

| | 2nd N. | 2nd S. | 2nd E. |
|--------------------------------------|--------|--------|--------|
| <i>Cepaea nemoralis</i> (L) | 82 | 28 | 31 |
| <i>Discus rotundatus</i> (Müller) | 3 | 2 | 12 |
| <i>Oxychilus cellarius</i> (Müller) | 3 | 12 | 12 |
| <i>Clausilia bidentata</i> (Ström) | 1 | — | 3 |
| <i>Vitrea contracta</i> (Westerlund) | 2 | — | — |

(c) Soil sample from the undated 2nd N. was clayey and full of limestone fragments. Shells were moderately frequent and there were many minute bones (see appendix III). Mollusca obtained:

| | |
|---------------------------------------|--|
| <i>Cochlicopa minima</i> (Siemaschko) | 1 |
| <i>Pupilla muscorum</i> (L.) | 1 |
| <i>Clausilia bidentata</i> (Ström) | 10 adults and 6 young. |
| <i>Cepaea nemoralis</i> (L.) | A few fragments and 2 very young. |
| <i>Hygromia hispida</i> (L.) | 16 |
| <i>Discus rotundatus</i> (Müller) | 153 |
| <i>Vitrea contracta</i> (Westerlund) | 89 (formerly regarded as a variety of <i>V. crystallina</i> (Müller)). |
| <i>Oxychilus cellarius</i> (Müller) | 10 |
| <i>O. alliarius</i> (Müller) | 21 |
| <i>Retinella pura</i> (Alder) | 2 |
| <i>R. nitidula</i> (Drap.) | 2 |

This washing and sieving of a soil sample is a good demonstration of how unreliable hand collecting can be. Cf. (b), where the large *Cepaea nemoralis* dominates the hand collection and overlooks the two overwhelmingly abundant but tiny species (*D. rotundatus* and *V. contracta*).

(d) Hand sample from tip 1:

| | |
|-------------------------------|----|
| <i>C. nemoralis</i> (L.) | 27 |
| <i>C. hortensis</i> (Müller)? | 3 |

(e) Hand sample from tip 2:

| | |
|---------------------------------|---------|
| <i>Helicigona lapicida</i> (L.) | 2 |
| <i>C. nemoralis</i> (L.) | 73 |
| <i>D. rotundatus</i> (Müller) | 1 |
| <i>O. cellarius</i> (Müller) | 1 young |

Comment

The molluscar fauna is singularly uninformative, as it is an assemblage of common species with no pronounced climatic indications, but suggesting open, rather dry country as their habitat. The absence of slug-granules corroborates this.

APPENDIX III

RODENT REMAINS IN GLEBE LOW AND OTHER BARROWS

Bateman became almost a standing joke for the number of "rat" bones which he encountered in his excavations. They remain one of the most singular and interesting phenomena in British barrows, for large numbers of rodent bones do not occur regularly in barrows in any other area in Britain. Rats, mice and voles are recorded from Neolithic long barrows to Iron Age farmsteads and later sites, but the frequency of rodents in Derbyshire is unmatched.

Glebe Low yielded thousands of rodent bones, which were almost wholly confined to the upper 2 ft. and to an area of 10 ft. radius around the summit. No rat bones have been identified. The majority are *Arvicola* spp. (vole). Also represented are:

- Apodemus* (Long-tailed field mouse) or *Mus*
- Microtus* cf. *arvalis*
- Microtus* cf. *agrestis* (Short-tailed vole)
- Clethrionomys* (Bank vole)

No live rodents, nests, tunnels or runs were observed.

Bateman records their presence thus: large quantities; rats *ad infinitum*; myriads; in profusion; masses; an immense number; etc. They occur in the mound, often in unspecified positions, but sometimes definite relationships are noted.

At Brier Low various bones of the inhumation were gnawed and had been dragged away (*Vestiges*, 61). One skeleton was half eaten away (*Vestiges*, 64) and bones were drawn beneath the cist by rats at Ringham Low. Whether these attributions are correct cannot be known, but other references are more interesting.

Numerous graves have rodent bones associated with a skeleton, such as at Borthor Low (*Diggings*, 45), Cronkston Low (*Diggings*, 56). At Eldon Hill there was an "immense number" of rodent bones with the skeleton (*Diggings*, 97). At Musden Hill first barrow the skeleton was "completely embedded in rat bones" (*Diggings*, 118). At Bitchin Hill, a skeleton and food vessel were "embedded" in rodent bones (*Diggings*, 185). The Parsley Hay burial of a woman and child with a jet necklace (*Diggings*, 24-5) was surrounded and covered with rodent bones.

Bateman also noted that not all barrows yielded rodent bones and was often surprised at their absence (*Diggings*, 145). At Musden fourth barrow, rodent bones accompanied 2 burials, one with a 3-rivet bronze dagger, but none of the other 10 burials. At Top Low (*Diggings*, 133-8) only 1 of 14 burials had rats. The rat bones at Musden first barrow were blackened by smoke from a nearby cremation fire and some of the rodent bones were charred (*Diggings*, 118). At Ballidon, rodent bones were found with cremated bones in a cinerary urn (*Diggings*, 60), all being calcined; and burnt sand around the burial suggested cremation on the spot.

From the dozens of references noted by Bateman and lacking modern analogies, it appears that, accepting the Musden and Ballidon examples, it is reasonably conclusive that masses of rodent bones were available on these two sites on the funeral day. In numerous cases rodent bones occur with other bones of large animals, and it is possible that they were part of the natives' diet.

The rodent bones filling some graves could, from the record, either be placed there or could have crawled there. The Musden example suggests that they were placed there in that particular case. The distribution in and throughout some barrows suggests that they are partly or wholly natural.

The limestone soil often preserves small bones very well; it is not necessary to envisage swarms of rodents in Derbyshire to account for the number of bones recorded, and it appears that the mounds were favoured by voles. Bateman suggested that they hibernated there (*Diggings*, 138), but most voles do not hibernate in the strictest sense. It is equally possible that barrows provided places on which owls and other predatory birds disgorged or dismembered their prey.

Bateman rarely found rodent bones with Neolithic burials, or with Roman or Anglo-Saxon remains. It may be that, in the early part of the Bronze Age, there was a real abundance of rodents in Derbyshire, which lasted long enough beyond that time to form deposits of thousands of bones, in the soil for example which has formed on the summit of Glebe Low. At Glebe Low, the rodent bones were on the surface to be scraped up with the undated secondary N. and S. burials. No articulated rodent skeletons were found. No doubt this will not be the last word on the problem.

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