SURVEY AND EXCAVATION AT DIRTLOW, BRADWELL MOOR, 1987-1988

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The presence of archaeological remains immediately south-east of Dirtlow Rake on Bradwell Moor (around SK151817) was first recognised by L. H. Butcher (Beswick and Merrills 1983, 33). His plan of the most identifiable enclosures formed the basis of that published by Hart (1981, fig. 7:4), although plans of more fragmentary features remained unpublished (Sheffield City Museum, Butcher Archive). The present paper describes a survey and selective excavation undertaken by the author and students of the former Department of Ancient History and Classical Archaeology, University of Sheffield, over four weeks in 1987 and 1988.

THE SITE (Fig. 1a-b)

The Dirtlow site consists of three groups of features between the Dirtlow area and another similar site at Pindale Head (Hart 1981, fig. 7:4), on the north-western edge of the plateau of Bradwell Moor at 347m (1140ft) O.D. The area is unimproved limestone pasture strewn with boulders and crossed by derelict modern field boundaries and there are minor stands of trees. To the north is the large, long-mined Dirtlow lead ore rake and evidence of mining, in the form of pits and shafts along the subsidiary scrins (side veins), is plentiful in the area. To the south-east a considerable area of the moor has now been quarried away. The present quarry edge lies only a short distance from Complex 1, which has been partly destroyed by construction of an embanked quarry access road.

THE SURVEY

This was greatly assisted by use of a pair of high level, vertical air photographs supplied by Blue Circle Cement Ltd. In particular these photographs allowed identification of elements of Complex 2, not recognised previously. Recognition of other features was helped by access to a map prepared by Dr Nick Butcher, son of the late L. H. Butcher, based on his father's and his own observations.

Complex 1 (Fig. 2)
This was the main area recognised and surveyed by L. H. Butcher and consists of several elements. A large curvilinear enclosure (a), represented by a probable double line of limestone boulders of considerable size, can still be traced in part, although badly damaged by the quarry access road. West of this road its line is clear for some distance, running partly through a modern stand of trees. It is clear, however, that L. H. Butcher was able to identify more of its

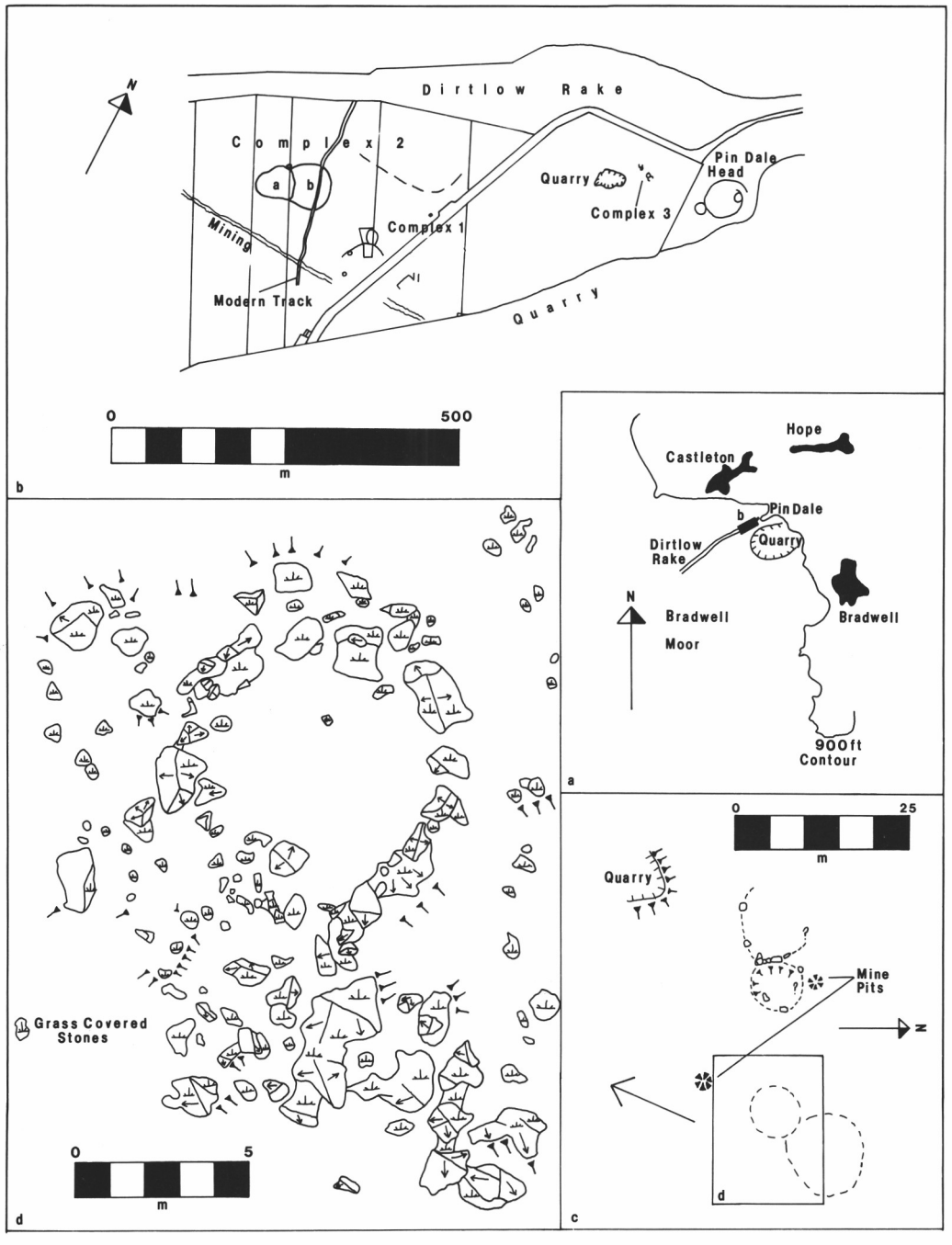

Fig. 1 Dirtlow, Bradwell Moor: site location (a); Complexes 1-3 (b); Complex 3 (c & d).

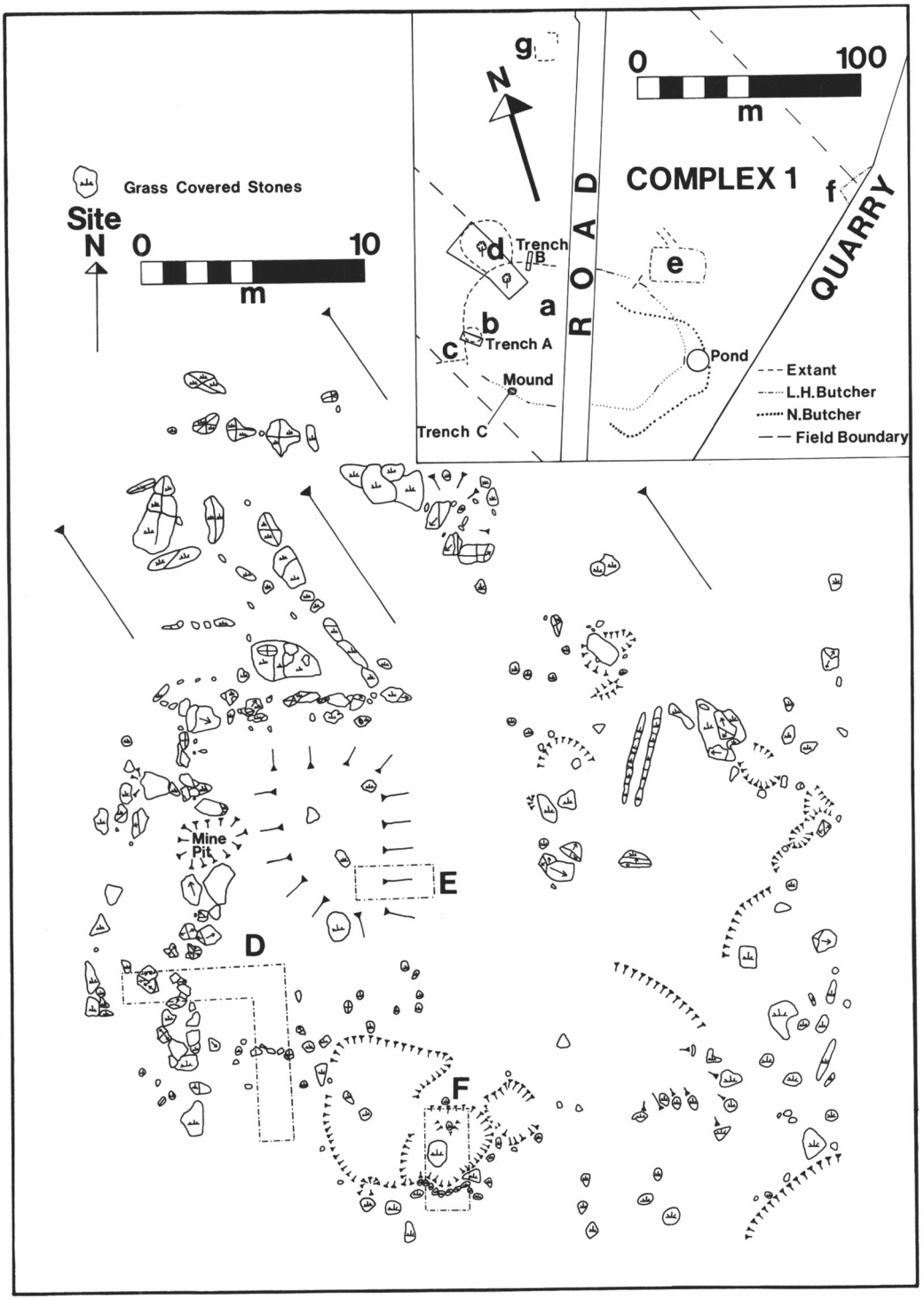

Fig. 2 Dirtlow, Bradwell Moor: Complex 1 (inset); plan of Enclosure 'e'.

circuit than is visible today and his plans show further fragments on the south-west, south-east and north. At right angles to the latter he recorded a short stretch of walling which perhaps indicates an entrance. Other fragments recorded by Butcher, near the modern pond and north of trench C and therefore less likely to have been disturbed by road construction, could not be relocated. In fact no reliable evidence was found for the enclosure's course east of the modern road, either on the line indicated by L. H. Butcher or on the alternative course suggested by N. Butcher. However, two boulder groups, also recorded by Guilbert *et al.* (1995, 30-1, fig. 1D) in a more detailed survey of part of the area and marked on Fig. 2 (inset) as short 'extant' stretches of Butcher's line, may be significant.

In view of the damage, this enclosure was not resurveyed in detail and the plan reproduced here is principally N. Butcher's interpretation of his father's records. The enclosure was probably oval, *c.* 100m by 60m, with two subsidiary features to the west recorded by Butcher and relocated. One (b), a small circular feature, *c.* 5.6m diameter, abuts the inner edge of the main enclosure. The other (c), a 13m length of massive limestone blocks, runs west from the main enclosure. A third feature (d) was identified by N. Butcher but bracken and nettles prevented detailed examination. It is a low earth bank defining an oval area, *c.* 22m by 22m, attached to the north side of the main enclosure and running partly through the tree stand, where it is just discernible.

To the north-east of the main enclosure, L. H. Butcher identified a small sub-rectangular enclosure, *c.* 15m by 25m (e), comprising single or double lines of stones with a gap on the north side. The western half is traceable as upstanding stone alignments, interrupted at one point by a mine pit, the probable upcast from which lies within the enclosure. However, as the detailed plan (Fig. 2) shows, no coherent wall line can be traced on the east side. The most probable course has a curved north-eastern corner marked by one or two large isolated blocks and an eastern side indicated by a scatter of stones and slight banks which continue around the southern side. Detailed survey in 1988 also revealed a probable causeway, defined by large blocks (previously recognised by N. Butcher), leading to the gap in the north side from slightly higher land to the north; a second line of blocks, 3-4m to the west, probably partly relating to disturbance by the mine pit; and a group of three depressions just south of the postulated enclosure wall line.

Also in Complex 1, L. H. Butcher recorded a rectilinear feature (f), *c.* 18m by 18m, north-east of (a) and (e), which was probably already damaged and was not relocated. A seventh possible element (g) was found in 1987-88 on the west side of the modern road. Two opposing corners of a rectangle, *c.* 10.5m by 11.5m, were represented by massive blocks in an area of dense vegetation, but, given the proximity of the modern road with which it seemed to be aligned, its antiquity was doubtful.

Complex 2 (Fig. 1b)

Fragments of these enclosures were indentified by L. H. Butcher but mapping was only possible from aerial photographs. Resources were not available for full ground survey and the density of ground cover, plus isolated tree groups, many large boulders and areas of mining debris, made their location on the ground very problematic. Enclosure (a) appears to be an irregular elipse, up to 57m by 42m. Enclosure (b), *c.* 65m in diameter, appears to abut the eastern side of (a). Their intersection is not obvious on the ground and is complicated by a modern field boundary. A small circular enclosure, 6-8m in diameter (c), was located near the north end of the intersection, and was composed of small, grass covered stones, with the centre

now occupied by a tree and one edge overlain by the modern field boundary. Where identifiable on the ground, enclosures (a) and (b) were represented by alignments of boulders, often over 1.5m high, and in the best preserved stretch (part of enclosure (b) near to the northern intersection) comprised a double line of boulders, with the northern line on a slight break of slope.

A fourth possible feature in Complex 2 (dashed on Fig. 1b), was an indistinct alignment noted on the aerial photographs but not confirmed at any point on the ground. In part it may be the result of linear mining activity and possible boulder clearance associated with road building, but a fuller ground survey is needed before it can be dismissed as archaeologically insignificant.

Complex 3 (Fig. 1c, 1d)
These features were first recognised by Nick Butcher and consist of two adjacent pairs of probably similar enclosures, 365m north-north-east of Complex 1. The best preserved easterly pair comprise a *c.* 7.5m diameter cleared, slightly sunken circle, defined by a ring of small boulders with one much larger, and a less regular clearing bounded by boulders to the north-east. The latter is sub-circular, *c.* 12m diameter, and best preserved to the east of its companion feature. A short distance to the west there were traces of a similar pair, surviving as a relatively stone-free circle, slightly sunken on the west and south, with a few boulders ringing it, and a less stoney area to the west, with a number of boulders appearing to form a short alignment. Resources allowed only limited ground survey. No survey of the nearby Pin Dale Head enclosure was attempted but it should be noted that the aerial photographs suggest that Hart's (1981, fig. 7:4) plan may need revision. The main enclosure appears to be more circular with a possible inturned entrance and there is a small circular enclosure near the entrance and another to the south-west of the main enclosure.

THE EXCAVATIONS (Fig. 2)

Excavation was undertaken with the kind permission of the landowners, Blue Circle Cement Ltd, and their tenant Mr J. Dalton Senior and was confined to the most damaged and potentially threatened area nearest the quarry. Trenches A to C examined the construction of the Complex 1 enclosures (a and b) and a mound on the approximate line of a destroyed part of the former. Trenches D to F examined two sides of enclosure (e), its interior and a depression along its southern edge. Where possible, the trenches were excavated to natural, a more or less iron-panned, decayed, limestone horizon. This was a grey to grey/pink, clayey material with iron-stained limestone fragments and shattered blocks in darker, sandy clay matrices. Except in Trench C, topsoil was no more than 10 to 15cm thick and generally removed entirely with the turf. It consisted of a dark, grey/brown, clayey silt with a relatively high organic content and varying quantities of small limestone chips. None of the rocks forming the enclosure walls was removed, the desire being to maintain the field monuments intact as far as possible.

Trench A (Fig. 3)
A trench, 10m by 4m, half-sectioned enclosure (b) and sectioned the wall of enclosure (a). The latter had clear inner and outer boulder edges (up to 0.86m x 1.0m x 1.16m, marked X and Y on Fig. 3), defining a narrower core of boulders and rubble than in trench B. At least one of the boulders forming the inner edge had tumbled into the wall core. Surface indications to the south suggested that the narrow core area, partly due to the more massive edging boulders

used, was typical of this stretch of wall. Tumble lay just beyond the outer wall edge but two flat blocks (up to 0.7m x 0.6m, marked Z on Fig. 3) appeared unlikely to be tumble. Mounded against them and the adjacent tumble was a narrow band of clay (A8) which seemed to be hill-wash, the wall at this point being on a slight slope.

Enclosure (b) had an internal diameter of *c.* 3.3m and its wall was at least 1.3m wide, although the presence of tumble, especially on the outer edge, made accurate estimates of width difficult. The wall appeared to be a simple 'dump' of unshaped limestone blocks, typically around 0.25m to 0.7m 'square'. Larger blocks were more often in positions suggesting they were tumble, but it seems unlikely that the wall was ever of any great height. No evidence was found for an entrance and, whilst some more regular large blocks had apparently been selected to form a definite inner edge, little care appeared to have been used in constructing the wall. It was clear that enclosure (b) utilised part of enclosure (a)'s wall but there was nothing to indicate how much later it was built. Excepting obvious tumble, the interior of enclosure (b) was notably free from stones in most areas and contained a relatively deep deposit of very light, pink/grey clay with a stonier lower horizon. The absence, at least in the upper parts, of rotting limestone, frequently encountered in comparable deposits elsewhere on the site, may imply deliberate clearance but no internal features were present.

Trench B (Fig. 3)

This trench, 8m by 12m, was cut at right angles across the westernmost surviving stretch of enclosure (a) and areas to the west and east of it were cleared of vegetation to aid interpretation. Iron-stained material was rapidly encountered either side of the enclosure wall, although to the south the topsoil contained numerous angular and rounded rocks, possibly from the wall core, and the boundary with the natural was less well-defined. A number of negative features were located, including B7, a circular void in the iron pan at the north-west trench corner. They appeared to be the result of differential water penetration in the vicinity of large stones, or of tree root activity. In the south-east trench corner a small circular post-hole (B4), *c.* 20cm in diameter with a fill identical to the topsoil, was found cut *c.* 20cm into the natural.

The enclosure wall had a clear inner edge of very large blocks (typically 1.25m x 0.6m x 0.6m, marked X on Fig. 3). Another large block to the south had probably continued the line to the west but had tumbled, like smaller blocks (?wall core) in the vicinity. Also south of the wall edge was an area of compacted small rubble, with a negative and probably artificial feature (B6), immediately to the south. This was up to 32cm deep with an irregular, stepped profile and straight sides on the north and west. It continued to the east as a shallow gully, following the edge of the rubble, and to the south as a pair of shallowing gullies, reminiscent of pick marks. The fill was a mid-pink/fawn clay with pockets of topsoil and the feature did not cut the compacted rubble, although it may have respected it.

The wall's northern edge was less obvious but was probably represented by a line of boulders, some 2m north of the southern edge (typically 0.7m x 0.6m x 0.2m, marked Y on Fig. 3). The wall's construction between these boulder lines seemed to be a simple 'dump' of boulders and smaller rubble, but little of this material was removed.

Trench C

This was laid out across a sub-circular mound, *c.* 6m in diameter, with a central, bowl-shaped depression, *c.* 2m diameter, containing limestone rubble and lead slag. The mound lay just north of a conspicuous alignment of mining debris marking a scrin. Excavation was halted after

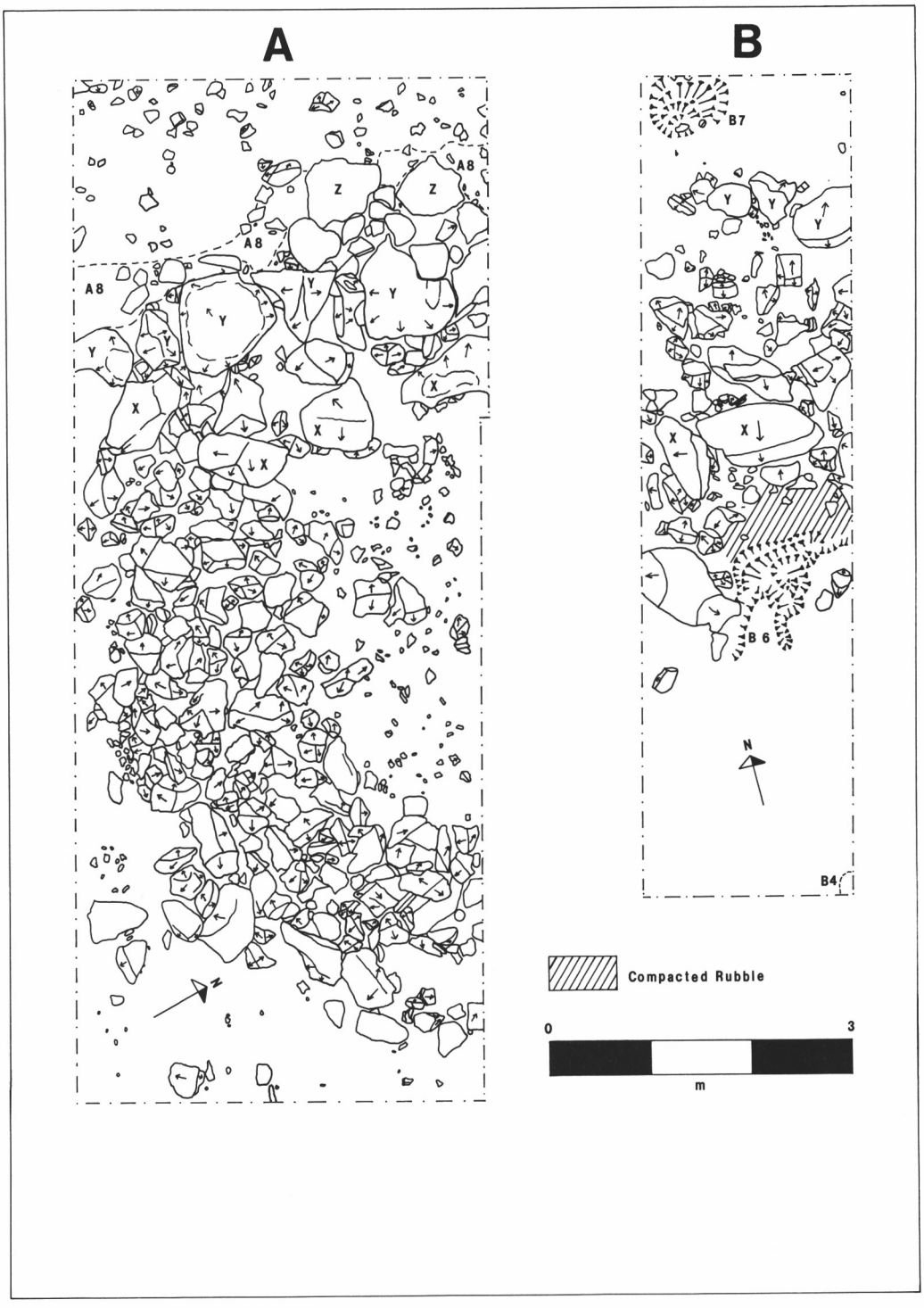

Fig. 3 Dirtlow, Bradwell Moor: plans of Trenches A and B.

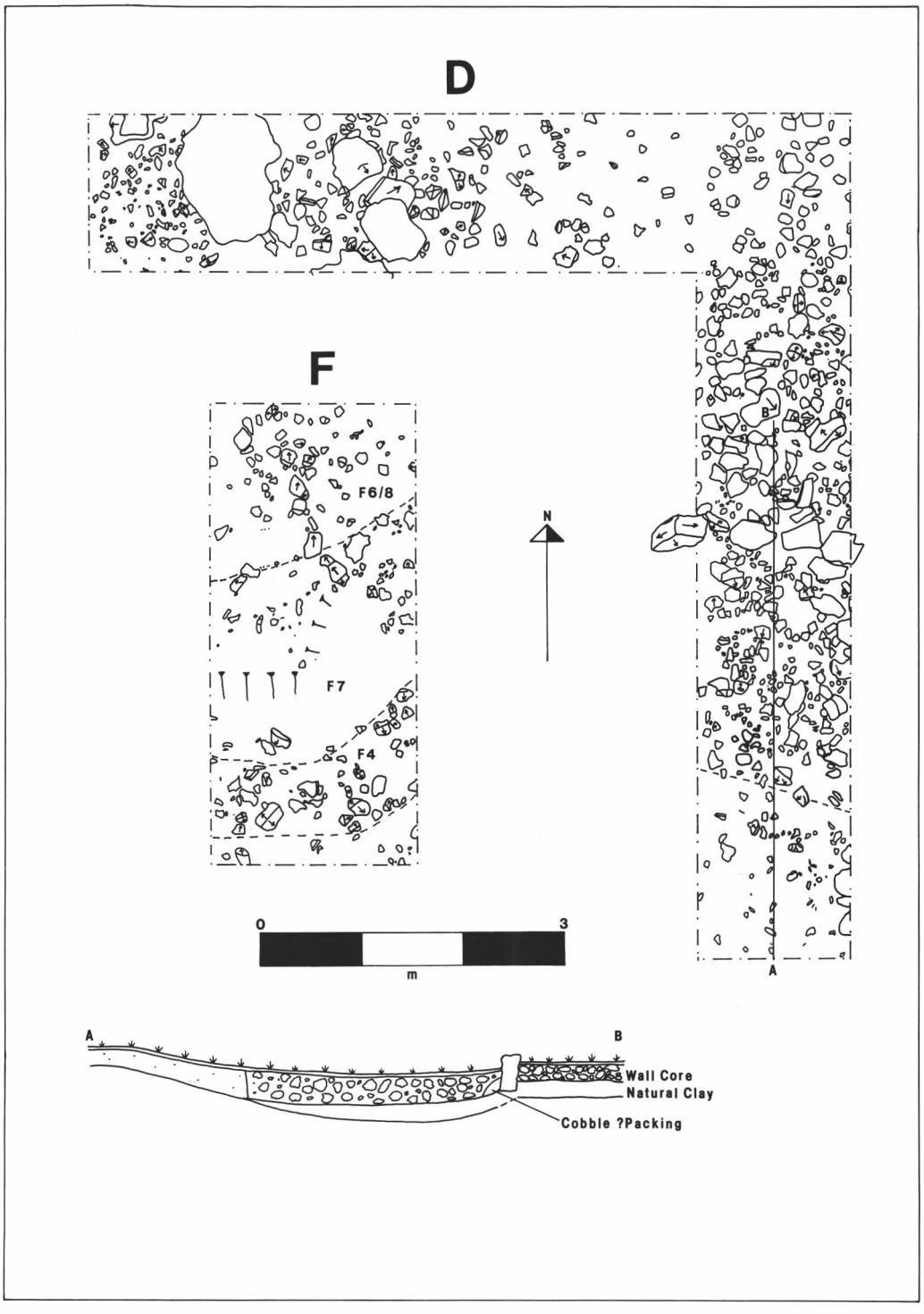

Fig. 4 Dirtlow, Bradwell Moor: plans of Trenches D and F; and simplified section from A-B in Trench D.

initial deturfing when it became apparent that the bowl was a secondary feature and the mound itself was upcast from a mine shaft at its centre. The mound was composed of pieces of limestone and a light, orange/brown, sandy clay with a light fawn to brown clay forming a cap in places around the central bowl.

Trench D (Figs 2 and 4)
An L-shaped trench investigated the west and south walls of enclosure (e). The west wall comprised a large boulder 1m away from an eastern line of smaller boulders (typically 0.6m x 0.6m x 0.5m). Only a few small stones were recorded between these wall edges and, whilst some tumble was visible on both sides of the wall, it appeared likely that the core, if of stone, had been robbed.

The southern line of the south wall was represented by a line of small blocks (typically 0.4m x 0.3m x 0.25m) with closely set angular rubble blocks (up to 0.3m x 0.15m x 0.1m) behind, for at least 2m. The only indication of a corresponding northern edge was formed by two larger blocks 1m to the north. The natural, an iron-stained clay with shattered limestone, dipped to the south of the wall (Fig. 4: section A-B) and the blocks forming the wall edge had been set at the base of an east-west gully. Limited excavation on the trench's east side suggested that they had been held by a packing of cobbles. The gully may have been natural and appeared to feed into a group of sub-circular depressions to the east (Fig. 2). The fill contained rubble which was less closely set than in the wall core to the north. South of the gully, the natural was covered by deposits similar to those in the gully but conspicuously lacking in rubble. No artificial features were found inside the enclosure in the area examined.

Trench E (Fig. 2)
A trench was cut across the edge of a visible mound within enclosure (e) and produced nothing to contradict the assumption that it was upcast from an adjacent mine pit. The mound was a simple thickening of topsoil and no artificial features were encountered.

Trench F (Figs 2 and 4)
This investigated the central of three sub-circular depressions on the line of the southern wall of enclosure (e) and into which the gully located in Trench D appeared to run. Prior to excavation the depression was *c.* 3.5m in diameter and defined to the north by a slight, irregular bank and to the south by a curved alignment of grass covered stones. On excavation the bank was found to be only a thickening of topsoil. The stone alignment (F4), a little less curved than it had appeared, was formed of angular stones (typically *c.* 0.25m square), bonded in a matrix of clay and smaller stones with a slight embanking of topsoil to the south. Within the depression, removal of the notably thin topsoil revealed two principal deposits. F7, in the south, was a mid-orange/brown silty and slightly gritty clay with relatively few inclusions but with a stonier core. F6/8, to the north, was a mid-grey/brown to dark brown, silty clay with more stones. Neither resembled any deposit encountered elsewhere on the site. Full excavation was impossible but it was clear that F7 dipped down and that F6/8 overlay it and, as far as could be ascertained, they filled a saucer-shaped depression, steeper at the south that the north, and probably up to 1m deep. The depression's northern edge lay just beyond the limit of excavation and the southern just below F4. Both the depression and the deposits appeared to be natural (?glacial) but F4 did appear to be artificial and charcoal flecks, noted in the top of F7 and F6/8, suggested some human utilisation of the area, possibly as a dew pond.

DISCUSSION

The enclosures recorded in the survey have been put into three spatial groupings for convenience, but these need have no functional or temporal significance. Indeed the function and date of all the recorded features is unclear, as is the nature of any relationship between Complex 1, enclosure (a), and the fragments of undated ditch located in its vicinity by Guilbert *et al.* (1985, 28-9). The only non-modern material recovered in 1987/8 was Mesolithic to late Neolithic/Bronze Age (below) and none was in any significant stratigraphic relationship to any of the features examined. The only other find known is a single Romano-British sherd from Complex 1, enclosure (a) (Hart, 1981, 77), which has very little value as dating evidence.

Constructional style and morphology are similarly unilluminating for most of the enclosures. There are no clear parallels for the enclosures in Complex 3 from the Peak District and only the adjacent Pin Dale Head site resembles Complex 1 (a) in form. The construction of Complex 2 (a) and (b) was probably similar to that of Complex 1 (a), but it is difficult to cite further examples of such a 'double boulder' style of enclosure walling. Some large curvilinear examples from West Yorkshire with rubble walls faced with larger stones, may be relevant (e.g. Mayes 1967/70 — Crosby Wood, late 3rd or early 4th century AD). In consideration of the Pin Dale Head site and Complex 1 (a), Hart (1981, 67, 77) suggested that they were Late Bronze Age/Early Iron Age fortified homesteads, although their proximity to each other and the absence of any detected internal features may argue against this. The approximate rectangularity of Complex 1 (e) may suggest a Romano-British date, but too often this is adduced as a criterion for such a date without further evidence. However, its walling might be compared at some points to Romano-British, double-orthostat styles known elsewhere in the Peak (e.g. Hodges 1991, 31-2 — Roystone Grange). The lack of construction trenches at Dirtlow may be due to thin soils, but any suggestion of a Romano-British date must remain as yet tentative.

Functional interpretation is equally difficult. The sunken, boulder-ringed circles in Complex 3 are difficult to assess without excavation but one possibility is that they are hut sites. Complexes 1(b) and 2(c) seem unlikely to have been structures and might be described more accurately as pens. In fact the absence of other traces of internal features in the large enclosures 1(a) and (e) and 2(a) and (b), together with size, makes it possible that they were also stock enclosures, especially as 1(e) has a causewayed entrance. Such speculation is based largely on negative evidence from unexcavated areas but, given the shallow soils, surface construction in stone must always have been a more attractive option than earth-fast building techniques. If some or all of the Dirtlow/Pin Dale Head enclosures were for stock, the absence of similar structures elsewhere on Bradwell Moor might be due to a long history of clearance. However, the proximity of three natural communication routes from the Hope Valley onto the moor could be significant. These are Pin Dale and Smalldale on the south-east, utilised in the Roman period by the road from Brough (*Navio)* to Buxton, and Cave Dale on the north-west. It is possible that some of the enclosures were 'holding areas' for stock grazed communally on the moor in the summer and then rounded up to be taken down into the valley for the winter.

CONCLUSION

Clearly questions concerning the date and function of all the enclosures in the Dirtlow/ Bradwell Moor Barn area remain to be answered and more detailed survey is desirable,

particularly of Complex 2 and Pin Dale Head. Further excavation in the interiors of the Complex 1 enclosures and in one of the Complex 3 enclosures are prerequisites for advancing our understanding of the sites, should the opportunity arise through further threats from quarrying or road construction. It is possible that these areas represent evidence for farming strategies not directly associated with settlement sites and so largely lacking in cultural material. This raises interpretational problems which will be best addressed intially by building on the work of Butcher (Beswick and Merrills 1983), Hart (1981) and Makepeace (1985) and by undertaking intensive surveys and selective excavations of a variety of relic landscapes in the Peak District and the Pennines in general.

THE FINDS

Non-lithic material

There were very few such finds and all were unstratified. Trenches A and B produced two pieces of galena (which occurs naturally throughout the site), a fragment of coal and a piece of ?chalk, together with two spent rifle shells. Trenches D, E and F produced a total of 241g (8.5oz) of slag in two forms. 78g (2.75 oz) was light, black, vesicular slag while 163g (5.75oz) was glassy, yellow to dark red/brown, smelting slag, generally attached to small pieces of shale.

Lithic material (DG)

1) Flint, blade struck from multi-directional core (Trench A, topsoil)
2) Flint, flake, cortical fragment (Trench A, topsoil)
3) Flint, flake from single-platform core, left side used (Trench B, topsoil, in wall core)
4) Flint, flake fragment with hinge fracture, from single-platform core (Trench B, topsoil)
5) Flint flake fragment (Trench D, topsoil)
6) Chert, thermal fracture, probably retouched/used to form a crude scraper (Fig. 5) (Trench D, topsoil)
7) Chert, spalls (3) (struck flakes less than 10mm) (Trench F, topsoil)

Comment: This collection contains both flint (5) and chert (3) struck flakes, but as the three spalls from Trench F could have been caused by tool-damage to chert lumps, the struck chert may not be prehistoric. One piece of thermally-flaked chert has been crudely retouched and used, forming a large scraper. Its form is reminiscent of casually used pieces usually dated to the Later Neolithic/Bronze Age. None of the five struck pieces of flint are themselves dateable, but no. 1 and the blade-like flake from Trench B (3) would be most likely from Mesolithic or Earlier Neolithic contexts. A scatter of Later Mesolithic/Early Neolithic material was located in the later trial trenches, *c.* 120m south-east of Complex 1 (Guilbert *et al.* 1995, 31), however, the predominance of black chert in that small assemblage marks it as a different activity set. In common with the later excavations, all of the pieces came from topsoil, subsoil or contexts where the lithics are likely to be in a derived position.

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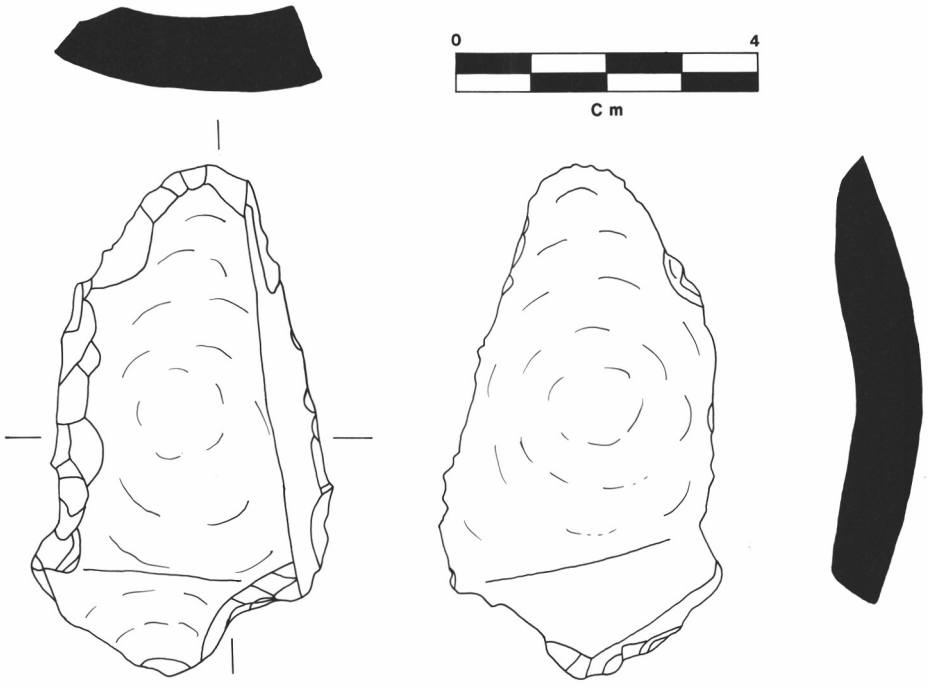

Fig. 5 Dirtlow, Bradwell Moor: scraper from Trench D.

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