

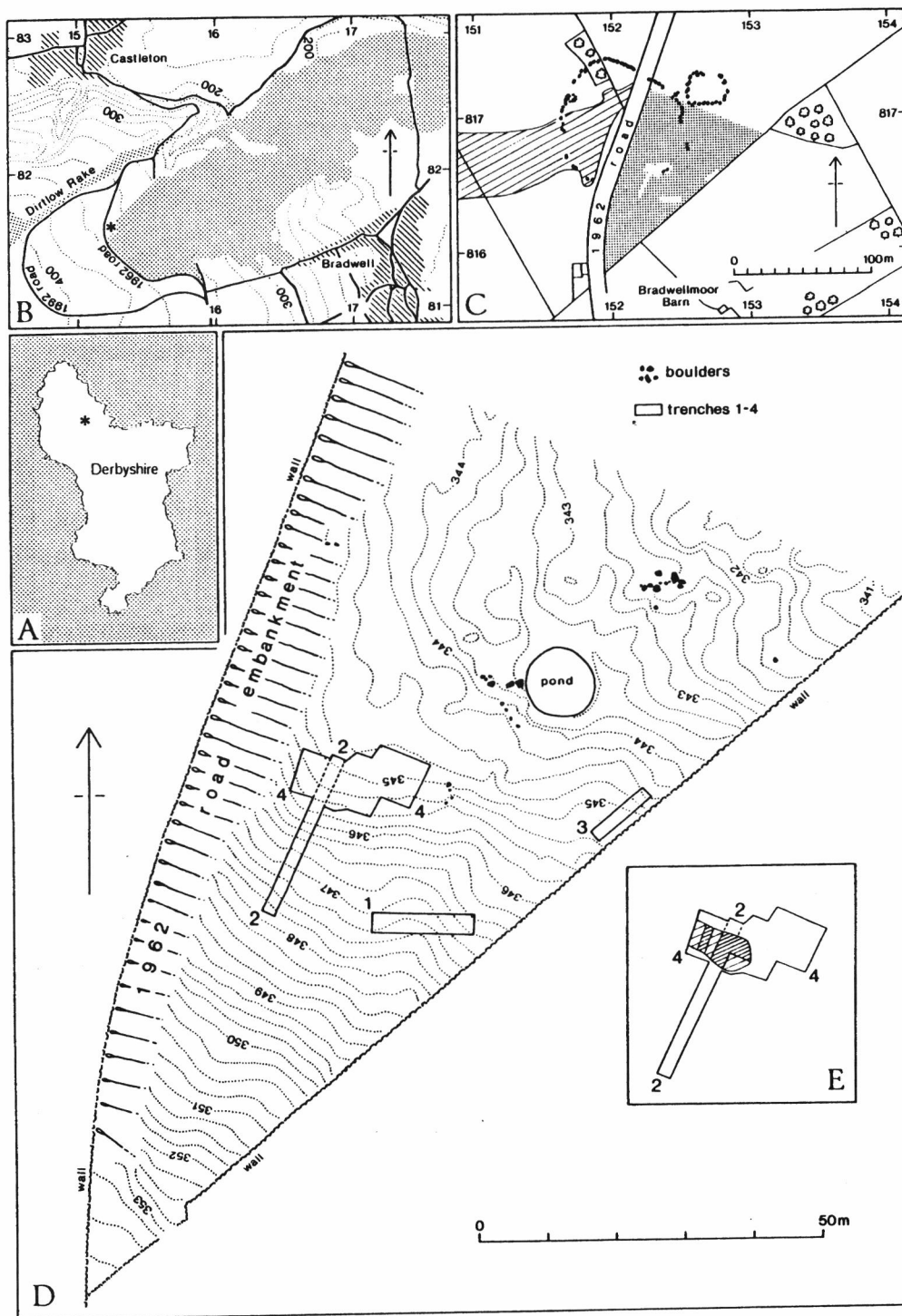
EXCAVATIONS OF EARTHWORKS ON THE WHITE PEAK, NEAR BRADWELLMOOR BARN, 1990 AND 1994

By GRAEME GUILBERT, CHRISTOPHER TAYLOR, STEVE MALONE and DARYL GARTON
(Trent & Peak Archaeological Trust, University Park, Nottingham NG7 2RD)

Extensive quarrying of limestone between Pindale and Smalldale, on the southern flank of the Hope Valley, has progressively encroached upon the north-eastern edge of Bradwell Moor, part of the White Peak plateau (Fig 1.B). When, in 1989, a westward extension of the quarry was agreed between the quarry-operators, Blue Circle Industries, and the planning-authority, Peak Park Joint Planning Board (PPJPB), it was recognised that this would pose a threat of total destruction to a triangular area of rough pasture-land alongside the existing quarry, centred at SK15248166, 100m or so north-west of where Bradwellmoor Barn formerly stood. This triangle measures approximately 140m by up to 70m, covering roughly 0.5 hectare (stippled in Fig 1.C). Unlike the greater part of the area due to be quarried here during the next few decades (which includes much of the land within the arc of the 1992 road in Fig 1.B), this patch of ground is, in part, unimproved agriculturally, and close inspection revealed certain undulations suggestive of man-made earthworks. The Trent & Peak Archaeological Trust (T&PAT) was invited to conduct an archaeological field-evaluation, involving both spot-height/contour survey of the threatened triangle and trial-trenching of the apparent earthworks within it, to a specification agreed with PPJPB. This was undertaken in the summer of 1990.

The results of the 1990 survey are expressed as contour-lines in Fig 1.D, which also shows the positions of the three trenches excavated in 1990 (1-3), as well as a fourth opened in 1994 to investigate a ditch located by trench 2 though undetectable on the surface. At the outset it may be stated that the earthworks proved not to be all they had at first seemed; that they remain ill-understood and undated; and that they should probably be viewed in relation to other ill-recorded remains on more extensive tracts of enclosed but unimproved pasture close by to the north-west and north-east, areas as yet largely unaffected by quarrying or related ground-disturbance. Recording of this wider landscape lay beyond the scope of T&PAT's evaluation, and unfortunately it has not proved possible to pursue the investigation of a scatter of Mesolithic/Neolithic artefacts of chert and flint, the initial discovery of which in 1990 had been unanticipated. Nevertheless, on both these counts, the results achieved by the fieldwork of 1990 and 1994 are

Fig 1 Bradwellmoor Barn. A: an asterisk marks the site. B: location of the 1990-4 fieldwork (asterisk), in relation to roads (unbroken lines), built-up areas of Castleton and Bradwell (hatched), extent of main areas despoiled by quarrying and mining (stippled), and contours at 20m vertical interval, numbered in metres O.D. (dotted); scale 1:50000. C: extent of the 1990 survey (stippled, with trenches 1-4 cut out), in relation to the 1962 road, field-walls (unbroken) that existed before quarrying, a lead/spar-rake (hatched), and the boulder-enclosures as planned by L. H. Butcher in 1962 (superimposed approximately); scale 1:5000. D: the 1990 survey, showing trenches 1-4 (outlined), groups of boulders (solid), and contours at 0.25m vertical interval, numbered in metres O.D. (dotted); scale 1:1000. E: trench 2/4, with the ditch hatched, more heavily where excavated; scale 1:1000. B and C show the National Grid around their borders.



of some interest in the context of the White Peak.

The following account has been written by GG, drawing upon the archive compiled during and after the fieldwork by CT (1990 excavations) and SM (1990 survey and 1994 excavation), and incorporating comments upon the artefacts, as well as observations made in the field, by DG. Those who require more detail should consult the archive (which includes a fuller descriptive report and more detailed contour-plotting, in addition to the basic written, drawn and photographic records), copies of which have been lodged in the Sites & Monuments Records maintained by Derbyshire County Council and PPJPB, as well as with Sheffield City Museum, where the artefacts have also been deposited.

The earthworks which attracted attention to the site are piecemeal survivals from something formerly more extensive, sandwiched between the quarry to the south-east and a road to the north-west. The latter was built in 1962 to circumvent the quarry, replacing an earlier road, Castleton Lane, that once passed further east, and in its turn was replaced by another in 1992, carrying traffic well to the west (Fig 1.B). The earthworks appear to include part of a slight, curving, embanked enclosure, projecting into the surveyed area by 13m or so from the south-east; if so, the remainder of the enclosure has already been quarried away. In the contours of Fig 1.D, this is represented in part by a distinct wiggle (which in places even seems to indicate an external, i.e. here western, ditch as well as a bank, seen at its strongest where crossed by trench 1), and in part by a bunching of the lines (strongest where crossed by trench 3). However, neither of these trenches uncovered a ditch; and trench 1 (15m x 3m) revealed that even the superficial appearance of a bank, up to 0.45m high and about 10m wide at this point, was caused by nothing more than a ridge of undisturbed subsoil/bedrock reflected in the thin turf and topsoil. Thus the impression of an earthwork-enclosure may be illusory, though the bank did prove to be an artificial structure in trench 3 (10m x 2m). Here it was up to 0.45m high, consisting of mixed silty, sandy and stony loams and clays, such as might be accumulated by scraping the surface off the bedrock on parts of this site. This bank make-up was similar to, though more mixed than, the undisturbed subsoil exposed directly beneath it, with no intervening buried topsoil. Although excavated by hand, trench 3 provided no reliable evidence for the bank's date of construction (see below).

This putative earthwork-enclosure lies on ground of north-easterly aspect with a gradient of about 1 in 13. Immediately to the west, the slope increases generally to about 1 in 8, and nearer to 1 in 6 around contour-line 346m (Fig 1.D). This localized steepening resembles a lynchet, which, it was supposed before excavation, might yield evidence for a past environment and/or economy, perhaps even contemporary with the 'enclosure'. Accordingly, in 1990, trench 2 (25m x 2m) was opened by machine across this slope. However, this revealed no build-up of soil consistent with a positive lynchet, nor any scouring of the subsoil appropriate to a negative lynchet. Rather, it demonstrated that the cover of topsoil on this slope is only 0.05-0.10m thick, and that a ditch lies hidden, because filled, at the foot of its steepest part. In 1994, trench 4 (up to 18m x 11m, and spanning the northern part of trench 2) was also stripped by machine, with the objectives of uncovering more of the course of this buried ditch and of seeking more satisfactory evidence for its date. Manual excavation of the 2m wide ditch-cutting in trench 2 had produced no artefacts other than two pieces of flintwork, which could easily have been residual items incorporated in its upper fill quite by chance (see below). In trench 4, two separate cuttings were dug by hand into the ditch, one to either side of trench 2: that to the west was 1m wide and approximately perpendicular to the alignment of the ditch, while that to the east was longitudinal, since the ditch was found to terminate within the area stripped of topsoil (Fig 1.E).

The recorded stretch of the ditch increased in size eastwards, i.e. towards the terminal, though the real extent of this remains rather unclear, because the better-marked and steeper northern scarp maintained a steady line whereas the southern side was somewhat difficult to define, in places merging into the natural slope above. Thus the ditch appeared to vary 3.0 to 5.5m in width by 0.4 to 0.7m in depth (Figs 1.E, 2). It was cut into the mantle of clayey subsoil, itself variably laden with spar and chert, and at no point penetrated to the solid limestone bedrock. It had a well-defined and rounded butt (Figs 1.E, 2.B), and the bottom was generally more or less flat. A distinct bump in its base in trench 2 (Fig 2.A) was suggestive of recutting, but there was nothing in the soil-sections to confirm this, and neither was it evident in either part of trench 4. The ditch was filled with silty clays, generally more stony (mostly chert) towards the base, but with an intermittent horizon of angular blocks of chert and smaller chert fragments near the top, especially towards the terminal. This upper chert rubble may have been dumped in a deliberate attempt to level off the ditch, but it left a hollow in which a puddle of fine silty loam accumulated.

Apart from three pieces of slag from the silt in the top of the ditch, only flintwork was found in trench 4, some or all of early-Neolithic appearance (see page 31). Fifteen pieces came from the ditch-fill, all from the upper 0.10-0.15m but stratigraphically below the puddle of silt. Samples of the fill, taken from three different levels within the ditch in trench 4 (0.10m and 0.45m above the base in the eastern cutting, 0.25m above it in the western), and each of approximately 12 litres, were passed through a 6mm mesh in search of smaller items of worked stone. This resulted in no further discoveries and provided some reassurance that artefacts had not been missed in significant numbers during spit-digging with mattock and trowel.

On the available evidence, the date and purpose of the ditch remain uncertain. One option is to accept that ditch and flintwork belonged together, implying that the ditch was Neolithic at latest. With so few artefacts, however, this must be regarded as dubious; and the suspicion that these objects were found in a secondary context can only be strengthened by the observation that more than half of the flints from the ditch have edge-damage apparently caused after they were discarded. At the opposite extreme, the footings of a limestone wall, originating with the seventeenth-century enclosure of this former waste, overrode the ditch, giving a *terminus ante quem*, perhaps many centuries after it had become filled and forgotten.

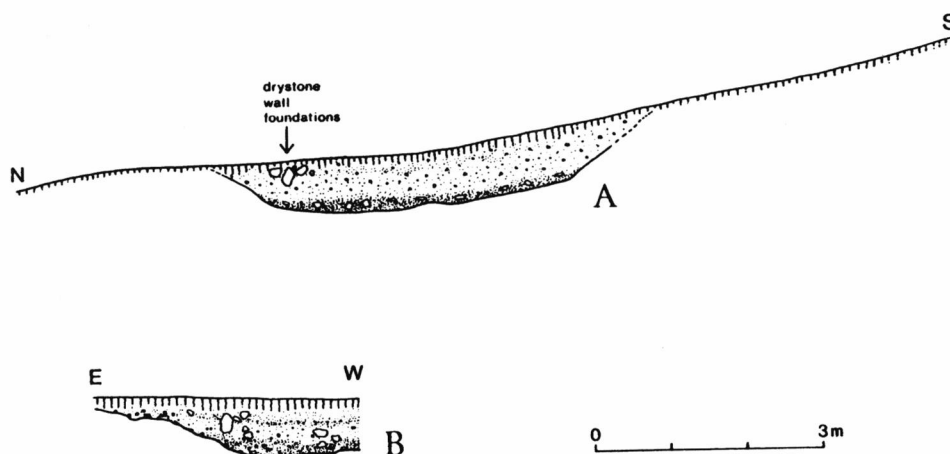


Fig 2 Bradwellmoor Barn: sections of the ditch. A: eastern face of trench 2. B: southern face of the eastern cutting within trench 4. Scale 1:100.

If the terminal forms one side of a causeway rather than the actual end of its course, the ditch could swing north-eastwards beyond the excavated area, maintaining its relation to the foot of the steeper natural slope and running into an area which has suffered considerable disturbance around a dew-pond (Fig 1.D). If, on the other hand, it resumes on a roughly straight course, slightly south of east, it could have evaded notice by passing between trenches 1 and 3. To the west of the excavated area, the projected line of the ditch passes under the embankment for the 1962 road, into an area of localized disturbance caused by a west-east rake for the extraction of lead and, more recently, spar (Fig 1.C).

Within the area of the 1990 survey and north of the area sampled by trenches 1-4, the ground slopes more gently but is more uneven, as reflected in the erratic contour-lines (Fig 1.D). In part, this is caused by the pond and related disturbances, while undated, desultory prospection for lead has created various pits and bumps in a band to north and east of the pond, continuing the line of the rake noted above. Similar pitting and smaller rakes were equally obvious a short distance north of the surveyed area until trees were planted there in 1993.

Three clusters of boulders are also recorded in Fig 1.D: the southernmost and smallest lies a short distance east of trench 4 and has no obvious meaning when viewed on the ground today; the central lies alongside the pond and, at first sight, appears connected with it in some manner; the northernmost lies among the lead-pits and may be associated with, or disturbed by, them. However, there may be a greater significance to these boulders than is immediately apparent, for much of the unimproved land to the north-west and north-east of our area is more thickly strewn with similar residual boulders of hard chert and quartz-rock, themselves of some interest geologically (cf. Ford, 1967), and all the more interesting archaeologically because traces of clearance and/or settlement-patterns of some antiquity are discernible in their distribution. Intuitively, one might surmise a prehistoric context for these features, and clearly there is a need for careful survey of this relatively well-preserved corner of a much-mutilated part of the White Peak. This is an extraordinary survival in the northern zone of the limestone plateau, much of which has been largely cleared of surface stones and smoothed by ploughing in comparatively recent times.

A start was made on recording this landscape at the time of the 1962 road construction, with the selective planning of some polygonal enclosures outlined by boulders, including a pair on our site near Bradwellmoor Barn. This was undertaken by L. H. Butcher, whose plan is now held in Sheffield City Museum (Beswick and Merrills, 1983: 33; Hart, 1981: 77, fig. 7:4; in both of which, following Butcher, our site is called 'Dirtlow', even though that eminence stands fully 700m to the north-east). For reasons that are not clear, Hart categorized these as 'palisaded enclosures', assuming them to be pre-Roman, though he reports that a sherd of Romano-British black-burnished pottery was found when this site was reputedly 'destroyed by quarrying' (*ibid.*). In fact, the best match to be achieved via the pond, the line of the 1962 road, and surviving field-walls (as Butcher mapped them), indicates that some part of the area covered by the two 'Dirtlow' boulder-enclosures has still escaped destruction in 1994; and it is possible that some of the boulders recorded in 1990 to the east of the 1962 road belong to the larger enclosure. An attempt has been made to sketch the enclosures, as planned by Butcher, on to Fig 1.C, and comparison with Fig 1.D suggests that the southern and central groups of boulders planned in 1990 may also figure in the 1962 plan. If so, the differing position of the southern group relative to trench 4 illustrates something of the problem of juggling the two plans to fit.

Where they do survive, these enclosure-walls appear on the ground as loosely-structured lines of irregular boulders, but much that was recorded in 1962 has now gone. A swathe was cut through the larger enclosure from south-south-west to north-north-east by the 1962 road, and the

lead-extraction mentioned above had already traversed it by then, causing the breaks in its recorded circuit central to the eastern side and just south of centre of the western side. Moreover, the south-west sector of the larger enclosure has been wholly destroyed by spar-extraction since 1962; a stretch of its north-east sector, together with the eastern part of the smaller enclosure (which falls just outside the 1990 survey-area), has also somehow disappeared in that time; and the northern part of the smaller enclosure was largely obliterated in 1993 during the construction of a new wall to bound the area planted with trees (along the intended northern limit of quarrying). In short, this pair of enclosures has suffered greatly of late, and the neighbouring areas to the north deserve better treatment.

The southern end of trench 2 crossed the presumed line of the wall of the larger enclosure in its south-east sector, already deficient by 1962 (Fig 1.C), but provided no new information. Furthermore, it remains unclear whether the excavated ditch was in any way associated with this enclosure, though comparison of Figs 1.C and 1.D/E is perhaps again instructive, for the ditch terminates close to the supposed eastern arc of the enclosure-wall. It is understood from M. J. Dearne (*pers. comm.*) that trenches excavated in the 1980s within both of these boulder-enclosures also failed to produce clues as to their date or function, leaving that excavator to conjecture that they might have served as 'stock enclosures' (Dearne, 1993: 161, again naming the site 'Dirtlow').

A further dimension is added to the interest of this site by the flint and chert artefacts, 51 in all (none requiring illustration here), distributed unevenly among the trenches excavated in 1990-4. With the exception of a possible transverse arrowhead of flint from trench 3, which might date from late in the Neolithic (say, around 2000 BC), all could be attributable to late in the Mesolithic (around 7000-4000 BC) or early in the Neolithic (around 4000-3000 BC). Trench 1 produced only two chert flakes, both from topsoil. Trench 2/4 yielded fourteen flakes and nine blades (at least one utilized), plus a chunk or two, a core, a core-rejuvenation flake, and a knife with edge-gloss, all made from translucent flint. The proportion of blades and blade-like flakes among this group, together with the technology of some of the blades (including one with a faceted and abraded butt indicative of careful platform-preparation), and the form of the core-rejuvenation flake (struck along a core-edge, as is common where blades are the intended product) are each suggestive of the Mesolithic or early Neolithic. The large size of the blades would seem most appropriate to a Neolithic context (though this could to some extent result from the small size of the excavated sample or the limited amount of sieving - see above), as would the scalar retouch on the knife, which must be regarded as the sole diagnostic item. Seventeen of these 28 pieces from trench 2/4 (including all those singled out for special mention above) came from the ditch-fill (see above); the others were found in two groups at the surface of subsoil to the north-east of the ditch-terminal and within 6m of it. Trench 3 produced twelve flakes and four blades (including some from bi-polar cores and some showing signs of use), as well as a core (with small blade removals), a core-rejuvenation flake (actually a crested blade), and two chunks. Most were found immediately below the topsoil, but two blades and one flake were incorporated in the make-up of the bank. In contrast to trench 2/4, black chert was used for all bar the crested blade and one other flake of flint from trench 3; together with the presence of narrow blades, this choice of raw material is reminiscent of late-Mesolithic assemblages in the Peak District, though the typology of most of these pieces means that they too would be equally at home in the early Neolithic. The only other artefacts recovered in 1990 and 1994 are a horseshoe and two post-medieval potsherds from trenches 1 and 2 respectively, plus the slag from trench 4 (see above).

Until recently, such evidence for late-Mesolithic/early-Neolithic activity was rare from the White Peak, but it is increasingly recognised as part of the general pattern. Even though the contexts in which these artefacts were found at Bradwellmoor Barn could well have post-dated their manufacture, the potential of this patch of partly unimproved pasture for the recovery of prehistoric material from undisturbed contemporary deposits is evident. It is therefore regrettable that the developers of the site and their consultant, Dr C. G. Down, have felt unable to respond favourably to requests for the additional funding that would be needed for further excavations designed specifically to explore more fully this perceived prehistoric potentiality. Test-pits opened in sufficient numbers and arranged in an appropriate fashion could be expected to produce evidence representative of the general distribution of artefacts across the site, especially if sieving were to be used systematically, as was not the case in either 1990 or 1994, when other aspects dictated the strategy for the fieldwork. In particular, such test-pitting might indicate whether there really are concentrations of worked chert and flint, as is intimated by the differential distributions of these materials in trenches 3 and 2/4 respectively, and such as might be taken to indicate foci of occupation or other activities, which in turn might merit wider excavation.

At the time of writing, in June 1994, the area depicted in Fig 1.D remains more or less intact, having suffered further localized disturbance only from the passage of tracked vehicles. However, the quarrying of limestone proceeds apace, and much of the area encompassed by the 1992 road (Fig 1.B) is either due to be destroyed or appears depressingly vulnerable to damage through ancillary activities, such as the construction of access-roads, extraction of spar, planting of trees, and dumping of spoil. The surviving portions of the boulder-strewn landscape and the scatter of prehistoric artefacts are alike at risk.

ACKNOWLEDGEMENTS

We are indebted to Blue Circle Industries for the provision of earth-moving machinery and a driver in 1990 and 1994, and for funding the 1990 fieldwork; to the Peak Park Joint Planning Board for funding that in 1994; to Ken Smith and John Barnatt of PPJPB for information and assistance at various stages of the project; to Pauline Beswick for supplying copies of the Butcher plan; to Martin Dearne for telling us information concerning his excavations nearby; to Ron Firman for geological advice; to those T&PAT employees who worked under the supervision of CT and SM in the field, namely Emma Ayling, Paul Caldwell, Paul Greenhough and Philip Wilson; and to Kate Fearn for assistance in producing Figs 1 and 2.

REFERENCES

- Beswick, P. and Merrills, D. (1983) L. H. Butcher's survey of early settlements and fields in the Southern Pennines. *Transactions of the Hunter Archaeological Society* 12: 16-50.
- Dearne, M. J. (1993) Navio: synthesis and discussion. In M. J. Dearne (ed.), *Navio: the Fort and Vicus at Brough-on-Noe, Derbyshire* (British Archaeological Reports, British Series 234): 135-64. Oxford.
- Ford, T. D. (1967) A quartz-rock-filled sink-hole on the Carboniferous limestone near Castleton, Derbyshire. *The Mercian Geologist* 2: 57-62.
- Hart, C. R. (1981) *The North Derbyshire Archaeological Survey to A.D. 1500*. Chesterfield.

The Society gratefully acknowledges the financial support of Blue Circle Industries and the Peak Park Joint Planning Board in the publication of this report.