

TRIAL EXCAVATION OF CROP-MARKS AND ALLUVIUM ALONGSIDE AMBASTON LANE, SHARDLOW, 1989

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The gravel quarry operated by Tarmac Roadstone Ltd to the north of the A6 and Shardlow, in the Trent valley, was extended eastwards towards Ambaston Lane in 1989. This occasioned the archaeological excavation of a trench close to the west side of the Lane, where the projected lines of the crop-marks of two ditches converged at SK43223128 (Fig 1). The excavation was supervised by CT, who also compiled the archive, which, together with the basic written, drawn and photographic records, includes a fuller account than can be given here of the procedure followed on site and the results achieved. Copies of the archive have been deposited in the Sites & Monuments Record held by Derbyshire County Council and in Derby Museum, where the artefacts are also now held. The present summary has been prepared from the archive by GG, who visited the excavation several times, in November/December 1989. By that time, the machine-stripping of about 0.5m of overburden, undertaken by the quarry-operators, had already advanced to 15-20m from Ambaston Lane. Consequently, the crop-mark features sketched in Fig 1.C had already been erased, or become unidentifiable, when the excavation began.

The crop-marks to the west of Ambaston Lane appear on only one air-photograph (N.M.R. SK4331/6), taken by James Pickering on 1 January 1967. They include a complex of ditches, possibly incorporating some form of enclosure at the west end, around SK43143130, though the photograph is less than clear. For this reason, it is uncertain both whether these features extended further west and if the two longest linear ditches reached Ambaston Lane. The writer is unaware of any photographs showing a continuation of these ditches immediately east of the Lane; but several better air-photographs, also by James Pickering, do record other linear ditches, ditched

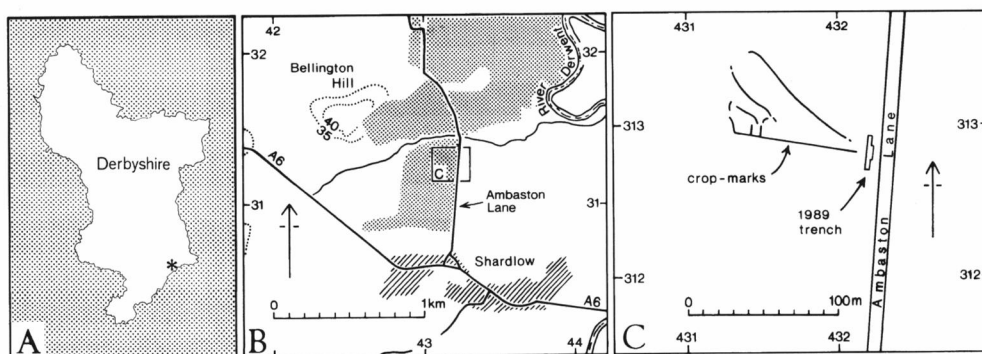


Fig 1 Ambaston Lane. In A, an asterisk marks the site. In B, roads and streams are unbroken lines, contours at 5m O.D. vertical interval are dotted, the approximate extent of quarrying up to 1993 is stippled, and the built-up area of Shardlow is hatched; scale 1:50000. In C, the crop-marks are sketched and the 1989 trench is outlined; scale 1:5000. The National Grid is shown around the borders of B and C.

enclosures and pit-alignments within *c.* 500m to the south-east. On these grounds alone, this area deserves to be investigated more thoroughly if, in due course, gravel-extraction extends east again (see also below).

All of these crop-marks lie on the floor of the valley, at about 33m O.D., where sand and gravel are covered intermittently by a blanket of alluvium which stretches eastwards to the Trent/Derwent confluence and beyond. In a similar topographical position, to the south of the A6, other crop-marks include the Aston-on-Trent cursus and related features (Riley, 1987: 89-93). To the west, low hills, formed by drift deposits and Mercian Mudstone, rise out of the flood-plain; the nearest to the site, 800m to the north-west, is Bellington Hill, an island of marl capped by boulder-clay, with a summit just 11m higher (Fig 1.B).

The 1989 trench had simple objectives. Measuring 24m x 3-4m, it was positioned to span the point where it appeared that the two long crop-mark ditches might meet, and where their sequence, and perhaps also their ages, together with that of the alluvium, might be established.

The alluvium, a heavy, orange, sandy clay, lay directly below the modern ploughsoil, except along the east side of the trench where they were separated by the fill of a broad furrow, browner, but otherwise comparable to the alluvium and cut into it by up to 0.18m. This was one of a series of furrows running north-south, distinguishable on the air-photograph where they appear to be as much as 14m apart. Such a width is at the upper end of the recorded range for medieval cultivation-strips, though these furrows are not necessarily that old (Hall, 1982: 5, 11; and see below). Like the adjacent quarry-face, the trench revealed the alluvium to be a constant deposit, 0.25-0.35m thick, which may be insufficient cover to prohibit ditches buried beneath it from creating crop-marks (cf French and Pryor, 1992: 63). It cannot, therefore, be argued that the ditches must have been cut into the alluvium in order for them to appear on the photograph. In any case, the alluvium was not actually seen to have existed, let alone conform to this thickness, in the area of the crop-marks; though the quarry-operators informed the writer that it did so, and the photograph shows nothing contradictory.

Sand and gravel deposits, incorporating patches of sandy clay similar to the alluvium, lay immediately beneath the alluvium. This might be taken to imply that there had been little soil-development, and consequently no cultivation of this area, until after the alluvium was laid down, unless such a soil had been completely eroded by some means before this episode of alluviation occurred.

The alluvium did seal, however, an apparently-artificial feature, cut into the gravel, indicating some form of human activity here before alluviation. This type of evidence is observed frequently in river-valleys, including the Trent, and at various dates (Buckland and Sadler, 1985: 248-9; Fulford and Nichols, 1992; Needham and Macklin, 1992). The feature lay only partly within the trench, extending under the western section, where it was seen at its greatest recorded depth of 0.6m and width of 2.0m, with an asymmetrical, stepped profile (Fig 2). It could equally well have been part of an elongated pit or the rounded terminal of a ditch. It is not impossible that the excavated feature was the butt of one or both of the crop-mark ditches, though it lay some 10m south of where they had been predicted from our plot of the, admittedly ill-defined, marks on the photograph. Unfortunately, the feature's clayey fill, which was not unlike the alluvium but greyer (especially in the lower half where it may have been saturated with water before the adjacent area was quarried), produced no finds.

With regard to the dating of the alluvium, on the strength of this excavation it can be said with confidence only that it was earlier than the pattern of furrows, and that soil in the excavated furrow included 22 sherds of medieval and post-medieval pottery, some of the latter lying right

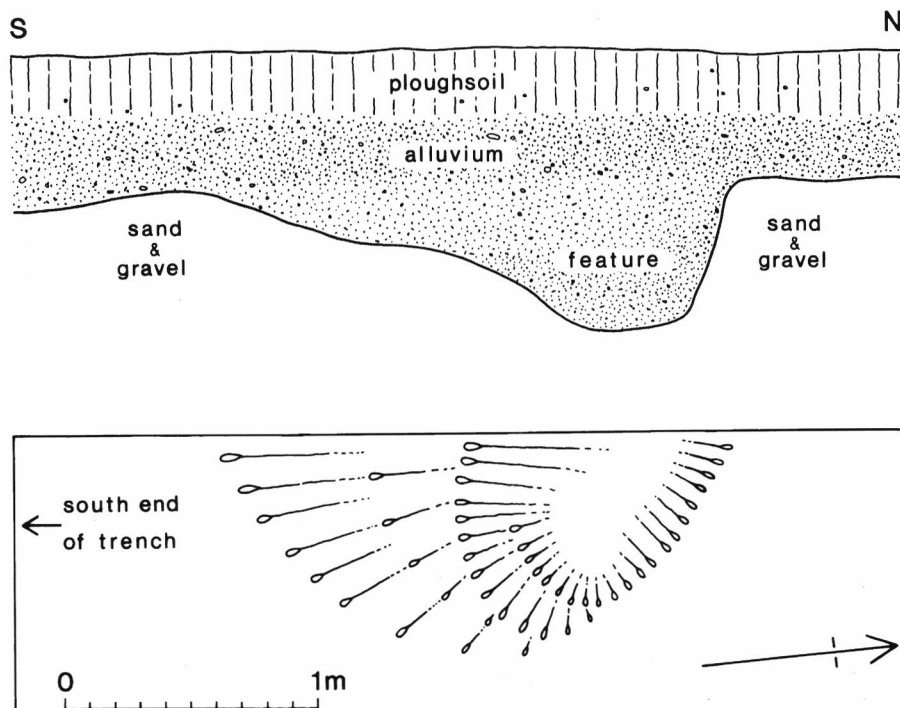


Fig 2 Ambaston Lane. Simplified plan and east-facing section of feature cut into sand/gravel and covered by alluvium, near south end of 1989 trench; scale 1:30.

at its base. Two other medieval sherds were found close together within the upper part of the alluvium, where they could easily have been intrusive. Otherwise, only four pieces of medieval pot (from the modern ploughsoil) and six fire-cracked pebbles (from the alluvium and the furrow-fill) were recovered.

The 1989 excavation has proved inconclusive in so far as its initial objectives are concerned. Nevertheless, the recording of even one feature under alluvium, albeit undated, is in itself noteworthy, since the potential for good preservation has lately led to increased recognition that the exploration of sites with such stratigraphy should be one of the prime goals of archaeology in the river-valleys of Britain, not least the Trent (Whimster, 1989: 86-7; Fulford and Nichols, 1992; Needham and Macklin, 1992). This makes it all the more important to ensure that there is adequate investigation of areas to the east of Ambaston Lane should the threat from quarrying eventually move in that direction. If the excavated feature did relate directly to the ditches recorded as crop-marks nearby, then a date considerably earlier than anything represented among our finds might seem appropriate to it, for the density of crop-marks along the length of the Trent valley has generally been supposed to suggest that much of it was heavily exploited during the later-prehistoric and Romano-British centuries (Smith, 1977; 1978; O'Brien, 1979; Whimster, 1989: 84-6). On the other hand, recent discoveries of medieval structures buried by alluvium at Hemington Fields (Clay, 1992), close to the Trent/Derwent confluence and less than 3km downstream of Ambaston Lane, can serve to remind us that alluviation continued into the more recent past in this stretch of the valley.

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