# PROCEEDINGS

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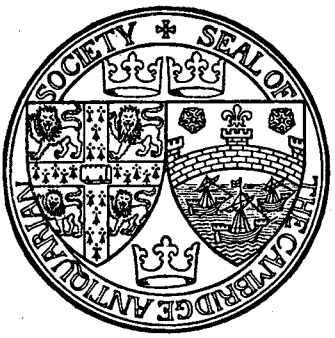


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JANUARY 1975 TO DECEMBER 1976

IMRAY LAURIE NORIE AND WILSON
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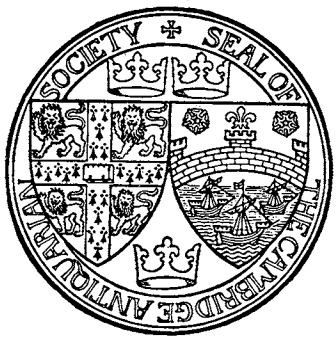


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# THE CAMBRIDGESHIRE DYKES

BRIAN HOPE-TAYLOR and DAVID HILL

## I. The Devil's Dyke Investigations, 1973

BRIAN HOPE-TAYLOR

WHEN it became clear that a motorway's width of the Devil's Dyke was to be destroyed in the making of the Newmarket By-Pass Road, the Department of Archaeology in the University of Cambridge proposed and prepared arrangements for prior investigation of the area.

The scheme proposed was essentially interdisciplinary. Any success in its execution owes immeasurably to the support (both moral and practical) of Professor G. W. Dimbleby and Dr A. H. Werner, invited at the outset to oversee their respectively various fields of scientific interest. The enterprise was most fortunate too in the interest of Harold Ridgeon, M.A., and Messrs William Sindall Limited, who ensured that the working-team in the field was effectively supplied – with huts, fencing, earth-shifting machinery and hand-labour. Even so the main burden fell, as the main gratitude must fall, on those dedicated Cambridge research students and undergraduates who were the hard core of the archaeological team in the field.

### *Strategy and Tactics*

Three interconnected groups of questions had to be put to the monument, under the headings (A) Dating, (B) Environmental context, (C) Engineering. Since the builders of the Devil's Dyke deliberately left the ditch a void, the ditch-filling was necessarily a secondary document testifying to later events. The primary document was the surviving stratification of the bank, wherein the original depositions of the builders could still be studied; and, beneath that, lay the old land surface suddenly 'fossilised' and sealed by the Dyke-builders.

Two cuttings 10 metres wide and 60 metres long were laid out across the bank and ditch, separated by a reserved strip 6 metres wide. It was anticipated, however, that the complexities of the bank would be such as to require longitudinal sectioning as much as lateral. Had it been possible to carry out the whole operation with hand-labour, the lateral and longitudinal aspects could have been observed simultaneously in a more elaborate process of dissection; but use of earth-shifting machinery was essential in all the circumstances. The work had therefore to proceed in two stages: (1) Machined cuts across the whole width of the bank, and (2) longitudinal cuts through the reserved material, after complete study had been made of the lateral sections. The initial, lateral cuts through the bank were accordingly kept to 6 metre widths, to allow a 'central reservation' of 14 metres width to be available in Stage 2.

In Stage 1 the use of earth-shifting machinery was stopped at such a point as would allow the old land surface and the Dyke's primary bank to be investigated wholly by hand-dissection, sieving and soil-washing. Professor Dimbleby

and his colleagues were thus able to take their samples in the context of an assured and visible three-dimensional stratigraphy. Stage 2 was more purely mechanical, and we are indebted to Messrs Wimpey Limited for their co-operation in allowing it to proceed as part of the earthwork's final destruction.

*Interim Summary of Results*

(A) *Dating*

There was unremitting search for material that would allow the problem to be attacked through radio-carbon, thermoluminescence and palaeomagnetism. Despite the vast bulks of soil sieved and washed, the only sample that offered the possibility of physical dating was provided by a human skeleton in a grave dug from a relatively high level in the filling of the ditch. Physical Anthropology reports that the deceased was a young man (probably nearer 20 than 30 years of age), height about 5ft 7½in, and confirms that the removal of the right hand before burial had been carried out with some knowledge of anatomy. Preliminary tests in the British Museum's Research Laboratory indicate that sufficient collogen is present in the bones to make possible a radio-carbon dating, now in process.

Clearly, that unfurnished inhumation must be counted as a 'secondary document'; and, since the grave-level was only narrowly below a stratum in which worm-activity had aggregated potsherds attributable to the period roughly *circa* AD 1000–1200, it may give no useful bearing on the date of the monument's construction. However that may be, the date of the burial is nevertheless of great importance, since the grave was cut at a crucial phase in the filling of the ditch, when only the chalky products of erosion had come into place. Above the grave, and sealing it securely, were massive deposits of loamy earth which appear possibly to mark deliberate destruction of an original counterscarp bank, the former existence of which was first suspected from calculations of the engineering kind. Thus, the grave might show when first it was that local farmers freely and laboriously destroyed part of the tremendous boundary-work. All hangs at present on the work now going on in the B.M. Research Laboratory.

One advance in the dating of the 'primary document' can be registered meanwhile. Fox, fifty years ago, from his narrow trenches cut further to the north, concluded that the Devil's Dyke was constructed 'after AD 200'. From a Roman coin found sealed in the Old Land Surface in 1973 we can now say that the main bank of the Dyke was piled up after AD 350.

(B) *Environmental Context*

At the outset the chalky chemistry discouraged prediction of significant pollen-survival. However, when part of the old land surface was found to have

been protected by a primary bank of turf and earth, hopes were raised and shared with Professor Dimbleby, who twice came to the site to take his own series of samples. Without prejudice to Professor Dimbleby's final report, it can be said that there is a possibility of negative results. On the other hand, the soil-samples taken for study of the land-molluscs were rich in material.

Sieving and washing of soil, in enormous bulk, produced no great crop of 'fossil' seeds. Recent nuts, burnt in scrub-clearance, had been accidentally introduced by the intrusive rabbits whose gassed or myxamatosed corpses provided practically the whole of the animal bones.

What emerged most interestingly were the related activities of earthworms and moles. Both had irrecoverably blurred the humus-rich upper filling of the ditch; and worm-activity had so altered the old land surface as to leave flints and Beaker fragments on a common basal horizon with Iron Age sherds. Obviously the making of the Dyke's bank had in the main stopped previous vegetative and bacterial processes; but on both sides of the man-made earthwork the junction between the bank and the old land surface had been blurred by burrowing mammals. Professor Atkinson at first sight saw the parallel with the recorded mole-history of the experimental earthwork on Overton Down, Wilts.

(C) *Engineering*

It was apparent at the outset, from the clean alignment of the monument, that its engineers were highly skilled. Their methods can now be followed from the moment when they caused the ditch to be dug for the raising of the bank. The ditch was dug, fortunately for archaeology, into a land-skin with several recognisable layers, from top to bottom:

(i) Topsoil.

(ii) A clayey loam that filled the cracks in a network of periglacial frostings.

(iii) A chalk sludge, amorphous through frosting.

(iv) A gravelly layer of broken and stained flints, redeposited.

(v) The upper surface of relatively unfrosted chalk that retained its original fracture-planes and had to be quarried in lumps and blocks.

From that still available sequence the primary testimony for the building of the Devil's Dyke bank proved easy to read, in its stages.

*First*, a small marker-bank of turf and topsoil was shovelled up from the immediate area of the proposed bank. The marks of the surveyor's ranging-sticks were sought but not found. We were able to distinguish not only the ancient spademarks but also turves left lazily aside.

*Secondly*, the main turf-and-topsoil originally overlying the ditch was not present in the bank. Hence we hypothesize a counterscarp bank as additional marker for the crew of ditch-diggers.

*Thirdly*, the ditch-diggers reproduced the geological spectrum, upside down,

several times over in the making of the bank of the Devil's Dyke bank. Accordingly it is clear that the digging of the ditch proceeded in an orderly fashion, strip by strip longitudinally.

*Fourthly*, Stage 1 of the investigation showed that the ditch-diggers were enabled by some mechanism to deliver their quarried material in great tips to the head of the growing bank. (Several of us at the same time agreed that there might be some analogy with the making of Victorian railway-cuttings.)

*Fifthly*, Stage 2 most elegantly proved that fixed earth-hauling ramps were indeed used by the engineers of the Devil's Dyke.

From the calculating, engineering, viewpoint the sudden return of 'missing' tons of topsoil into the ditch, thereafter, may solve a simple equation, although worm-activity had reduced that redeposited material to mincemeat long before it was veiwed by a soil-scientist. The dating of the human burial made precisely between the chalky and loamy zones of the ditch-filling will put the last engineering event, if not the first, into chronological perspective.

Work on the final report will be completed shortly, when all the contributory specialist reports will be available.

## II. Bran Ditch – the burials reconsidered

DAVID HILL

DURING the pre-war excavations in the Cambridgeshire Dykes a series of burials of the Anglo-Saxon period were found at Bran Ditch, Fowlmere. About sixty individuals were represented, mainly mature males, a few were juveniles from 12 years upwards, two were considered as probably female and there was the skeletal remains of a miscarriage or newborn child. Most showed signs of a violent death, mainly by decapitation, by poleaxing and by what was considered to be by having the throat cut, the latter suggested by the unnatural angle of the head. There were many skulls lying away from the corpses to which they belonged and many bodies had been buried in an advanced state of corruption. The group was dated by the very few finds to the Saxon period and the paucity of those finds made them appear as Christian Saxon. When Fox found the first two skeletons he suggested they were of sheep stealers (Fox and Palmer, 1924–5, 31). But the 50 skeletons found in 1927 led the excavators to believe that they had discovered the site of a massacre, the defenders of the Ditch being killed in cold blood and the corpses not buried for a considerable time (Lethbridge and Palmer, 1927–8, 78–96). Further finds in 1931 showed that there were multiple burials in the same grave and that some of the graves were not on any ritual alignment (Palmer, Leaf and Lethbridge, 1930–31, 54–6). The site is generally accepted as marking a battlefield or a massacre (Meaney, 1964, 61). An attempt

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