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EXCAVATION AT GRIM'S BANK, ALDERMASTON, 1978

G. G. ASTILL,
with a contribution by
Kirstie Shedden

INTRODUCTION

In 1977 the Department of Energy proposed to cut a trench through Grim's Bank, Aldermaston, in the course of diverting a government oil pipeline. The bank at this point (SU 6143 6428) is a scheduled ancient monument and in March 1978 the then Berkshire Archaeological Unit excavated the trench in advance of the pipelaying for the Directorate of Ancient Monuments.

I would like to thank the British Pipeline Agency and the contractors, Pipework and Welding Services Limited, of Newbury, for their help and co-operation throughout the excavation; Kirstie Shedden for the processing and analysis of the pollen samples; and Dr. Keith-Lucas for advice.

The excavation records, stratigraphic details and finds have been deposited with Reading Museum.

THE EARTHWORK

In the immediate vicinity of the excavation Grim's Bank survives to a height of *c.* 1.0 m above the present ground level and is *c.* 9.40 m wide. The bank is turf-covered and has been colonised by silver birch. In several places grazing animals and rabbits have removed the vegetation and exposed and eroded the bank material.

It was proposed to cut through the bank where the earthwork altered course from NNE/SSW to NE/SW. From an archaeological point of view this choice was unfortunate. First, the bank here has been degraded considerably by its use as a trackway for farm machinery and, in addition, the sides of the ditch had been disturbed by cattle using the spot as a watering place. Secondly,it was not possible to cut a trench through the complete width of the degraded bank because its tail extended beyond the easement demarcated for pipelaying. More unfortunate than either of these, however, was that a stream occupied the ditch of the earthwork at this point.

METHOD OF EXCAVATION

A two-metre wide trench was hand dug through the bank itself and west of the ditch down to the natural gravel and clay. An attempt was made to drain the ditch to allow its excavation by diverting the stream and using a diaphragm pump, but this failed.

The chief purpose of the excavation was to determine the nature of the bank and to obtain environmental data from the buried ground surface. Samples for pollen analysis were taken from layers 16, 17 and 18.

The stratification had been badly disturbed by trees which had probably been grubbed out (or had been allowed to decay) when the bank began to be used as a track (2, 9, 11, ? 25, 28), and by rabbit burrowing (6, 8). Most of the levels encountered consisted of gravel and sand derived from the natural, presumably excavated for the ditch. In the following commentary the distinction between the original bank material and the eroded material is based on slight colour changes and the varying proportions of gravel, sand and humic organic content.

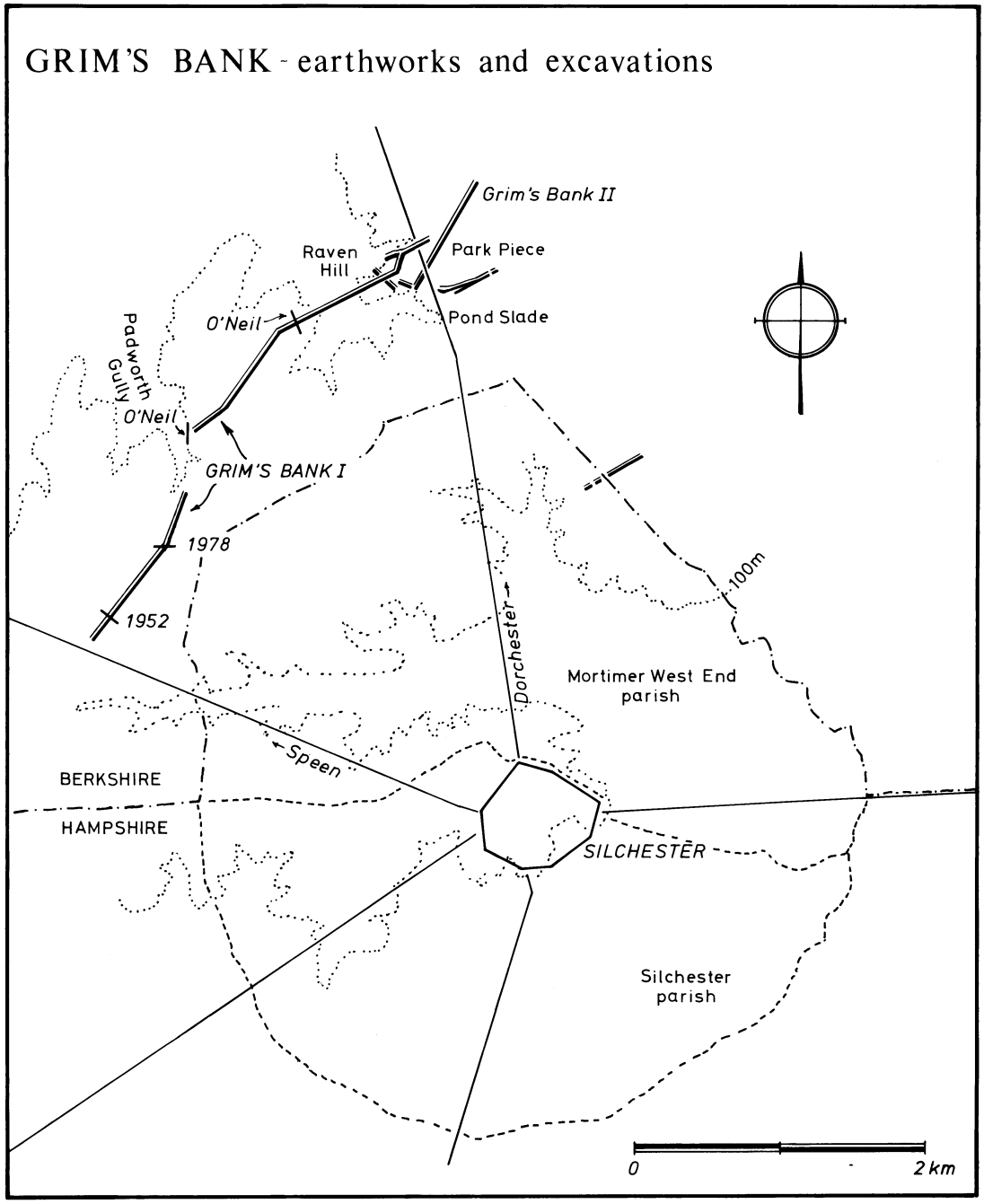

Fig. 1. Grim's Bank: earthworks and excavations

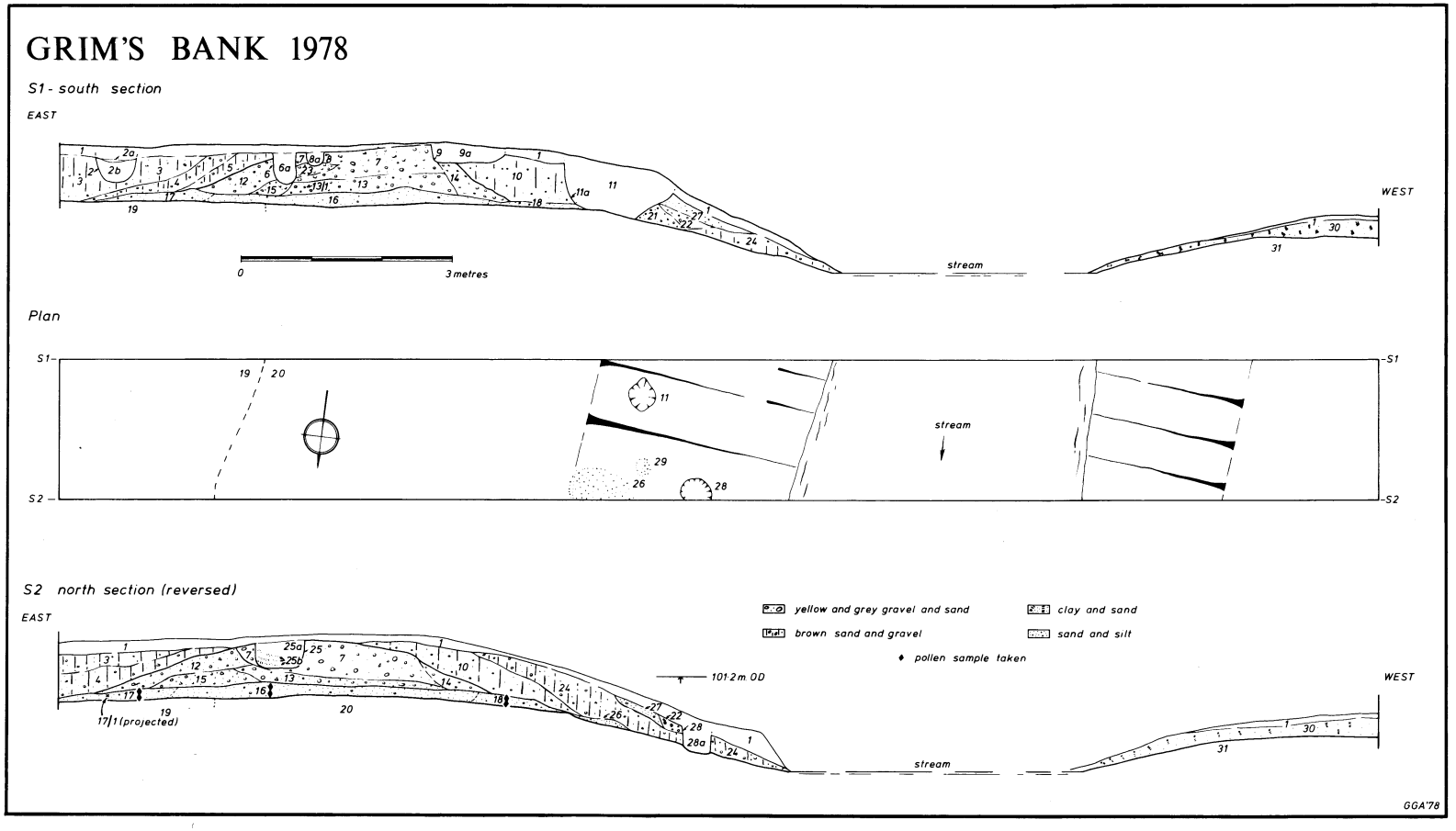

Fig. 2. Grim's Bank. Sections and Plan

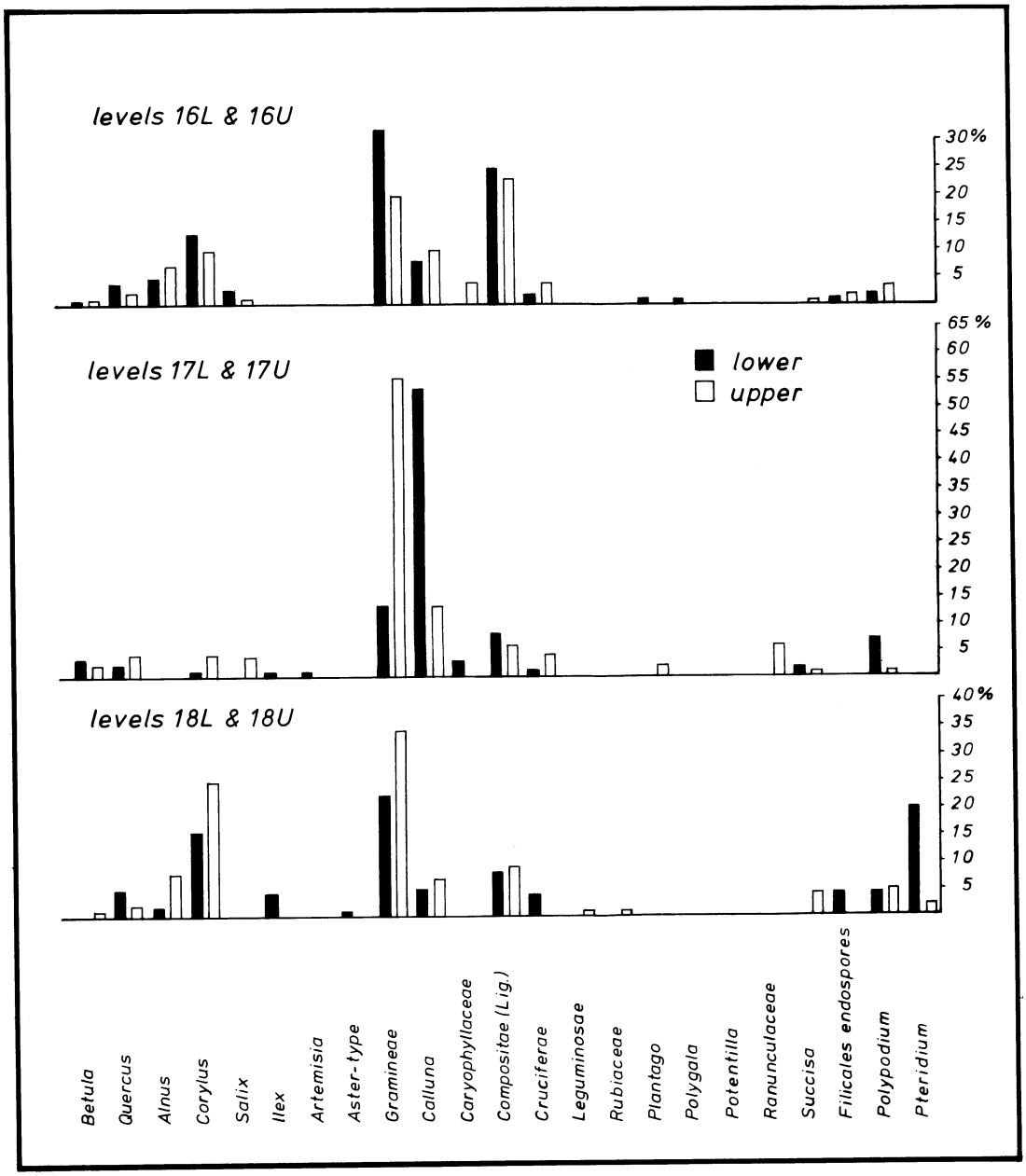

Fig. 3. Grim's Bank. Pollen Diagram

DESCRIPTION OF EXCAVATION

Three changes in natural were observed in the excavated area; west of the ditch the gravel was a fine grey (31) and on the east, over much of the trench, the natural gravel was yellow-brown (20).

As the bank, presumably the upcast from the ditch, consisted of both types of gravel (12, 13, 15, 23; 7, 14), this change occurred in the area dug out for the ditch. Areas of water-deposited sand and silt were also found in pockets in the surface of the gravel on the east side of the stream (26, 29). Towards the east end of the trench the yellow-brown gravel gave way to a yellowish-brown clay (19). No evidence for pre-bank occupation was found, although the lower parts of layers 16, 17 and 18 may represent the soil which existed prior to the construction of the bank.

THE BANK

Where sectioned, the bank was about 4.70 m wide and stood 0.80 m above the natural. A layer (16) of grey sand (with a band of iron staining) may represent the stacking of cut turves prior to the construction of the bank. In some places (seen most clearly in S1) the turves were stacked higher, perhaps to mark out the position and line of the bank. This layer merged to the east with 17 and to the west with 18, slightly within the tail and the front of the bank respectively. These two layers (17, 18) were interpreted as the soil which developed either side of the earthwork; the merging of 17 and 18 with layer 16 slightly inside the earthwork is probably the result of roots and worms penetrating the turf layer in search of higher concentrations of nutrients.

The bank was constructed with a core of grey gravel and sand in differing proportions (13, 15) which was surrounded by yellowish-brown gravel (7, 12, 14, 23); this formed the body of the bank. No structural features were found at the front or on top of the bank. The metre-wide level area between the front of the bank and the start of the slope towards the stream may represent a berm. Its original width, however, and indeed the whole profile of the ditch may have been altered considerably by the scouring of the ditch and cattle erosion. The nature of the bank, with its constituent layers unseparated by any recognisable turf lines or changes in activity, implies that, once constructed, the earthwork was neither altered nor refurbished.

The tail of the bank and layer 17 were masked by material eroded from the top and east side of the earthwork (3, 4, 5). At the immediate front of the bank, however, only one layer (10) of homogeneous material was encountered. This may imply that the deposition of 10 was comparatively fast, perhaps caused by the slighting of the bank or the collapse of a structure in front of the earthwork. However some collapse of the original bank material might be expected if the front of the bank were revetted (cf. O'Neil 1943:195). A similar homogeneous layer of derived bank material (24) which overlay this primary collapse extended down the ditch and may represent the degradation of the earthwork when the track across the earthwork was made. Interspersed with 10 and 24 were layers of water-deposited and water-sorted material, both probably the result of the stream flooding (21, 22, 27).

FINDS

Two abraded and undiagnostic sherds of sand-tempered pottery were found; one came from the core of the bank (in S1; 13/1), the other from the buried ground surface, 17 (17/1).

POLLEN ANALYSIS

Kirstie Shedden

Samples were taken from the top and bottom ten centimetres of the buried surface (layers 16, 17 and 18) denoted by U(Upper) and L(Lower). This number of samples appears to have been too few to locate precisely the original, pre-bank surface within these layers. The analysis was further

complicated by the poor state of preservation of the pollen grains and their differential survival, and the likelihood of contamination caused by disturbances and the washing down of comparatively recent pollen (Dimbleby 1961). 100 grains were counted from each sample. This may have been insufficient to give a representative picture for *Alnus*, Cyperaceae, Filicales endospores and *Pteridium* were noted in 17U but did not appear in the counted traverses.

It was not possible to correlate the results from all the samples. However, the similarity between 16U and 16L may indicate their contemporaneity and that layer 16 consisted of the original surface with turves from a similar surface placed on top. Grasses and daisy family flowers predominate with a relative abundance of hazel and a low percentage of oak and alder. It is difficult to suggest a sequence for layers 17 and 18. It is possible that 18L may have been earlier than 16, for the contemporary turves could have been removed to create the core of the bank. 18L indicates that the area had experienced acidic conditions and had been overgrown with bracken and holly; considering it is a low producer of pollen the 4% of holly recorded is substantial. Being under the bank, 17U and 17L could represent part of the surface prior to the construction of the earthwork and should be similar to 16. Both have a dominance of heather and grasses, indicating more acidic conditions. That this last might also be true of a more regional environment is suggested in 17L by a corresponding rise in the pollen of birch, a wind-pollinated species. The upper level of layer 18 (18U) is interpreted as having been formed during the lifetime of the earthwork, and the pollen spectrum is similar to those from layer 16.

Despite these difficulties, there is a clear correspondence among the samples. The percentage of tree to non-tree pollen was in all cases low. Hazel was in relative abundance and at a fairly constant level, and the recorded percentages of grasses and daisy family flowers were high. This may argue either for the environment remaining the same over a long period or that the pollen samples cover a short time span.

An impression of the environment at the time of the construction of Grim's Bank can be gained from 16 and 17L, the candidates for the original surface. The land was open, with a high proportion of non-cereal grasses (Gramineae) and weeds of pasture lands such as aster and plantain, which suggests the area was used for rough grazing (no cereals were recognised). There were also areas of hazel scrub, while the wind-borne pollen of trees suggests that the more regional environment was one in which sporadic stands of trees grew on valley slopes.

The only comparable local environmental material comes from a pollen analysis of a buried marshland soil and the upcast which sealed it during the construction of the rampart (in the late second century A.D.) near the south-east gate at Silchester (Keith-Lucas forthcoming). The analysis established the existence of a largely open landscape around Silchester comprising heathland, pasture and arable land. Considering the proximity of Grim's Bank to the Roman town, some evidence of cereal cultivation would be expected had the earthwork been constructed in the Roman period. The absence of cereals and the low percentage of weeds associated with arable cultivation under Grim's Bank might suggest that the earthwork at this point was constructed in the later prehistoric period. It may also be significant that no pine was identified in the Grim's Bank samples. Much of the area around Silchester is now covered by pine, and the presence of pine, characteristic of heathland, in the pollen spectra from the south-east gate might suggest that pine had started to colonise the heathland in the later Roman period. If this were the case, it would discount a late or post-Roman date for this stretch of Grim's Bank. These suggestions however, are extremely tentative and

underline the need for further environmental work in the area.

DISCUSSION

Grim's Bank was first studied by B. H. St. J. O'Neil together with other earthworks surviving to the north west of Silchester (1943). He identified an earthwork running between the west-north-western and the northern Roman roads coming from Silchester — Grim's Bank I. This earthwork was separated into two lengths by a steep-sided valley, Padworth Gully. O'Neil cut a trench *c.* 40 m west of the point where the northern upstanding stretch of Grim's Bank I ended, and showed that the bank did not exist at that point. He concluded that the topography of the valley and the thickness of the undergrowth made an artificial barrier unnecessary (O'Neil 1943: 191).

Prior to 1978 two cuts through Grim's Bank I had been published, one in the northern and the other in the southern length (O'Neil 1943:195; Gilyard-Beer 1954-55). The present excavation was sited 63 m north-west of Gilyard-Beer's trench of 1952, on the same stretch of earthwork, and the results bear comparison. Both cuts show the bank to have a core of grey gravel with yellow gravel making up the bulk of the bank. In addition both trenches showed that the earthwork sealed a turf line. In neither case were structural features found, and the 1952 cut showed that the inner face of the ditch at this point continued the slope of the front of the rampart without a berm. This was slightly different from the recent trench which showed a level area of about one metre wide between the front of the bank and the top of the ditch. It is perhaps worth noting that the cut through the ditch in 1952 failed to reveal any archaeological layers; as with the recent trench the ditch was occupied by a stream and Gilyard-Beer suggests this may have always been the case. If this is correct, the surviving profile of the ditch need not relate to that of the original. Occasional scouring and clearing could have altered drastically the profile and removed traces of a berm.

The greatest differences between the 1952 and 1978 sections are in the dimensions of the bank and ditch. The width of the bank at its base varied from 7.80 m (1952) to 4.70 m (1978), and the top of the ditch from 7.70 m. (1952) to 9.60 m (1978).

O'Neil's section through the northern stretch of Grim's Bank I shows a similar method of basic construction of grey and yellow gravel. (In the description of the location of this trench, the compass point should be half a mile south-south-east, rather than south-south-west, of Old Farm, Padworth.) The width of the bank at its base is similar to the dimensions recorded in 1978 (4.80 m), while the width of the ditch is more comparable with the 1952 section (7.50 m). Yet there are some significant constructional differences in this case. There is no record of a turf base to the bank here. In addition there is some evidence for revetting of the front of the bank. Unfortunately the width of the trench which produced this evidence, a single posthole, is not stated (nor is it in the case of the 1952 cut), so the absence of postholes in the two-metre wide 1978 trench is not conclusive. The posthole may not, of course, be related to the earthwork.

The most dramatic difference between O'Neil's trench and those of 1952 and 1978 is the presence of a berm some 2.50 m wide. Clearly a berm of such width could not have been removed in the southern stretch of Grim's Bank I simply by scouring of the stream; there would not have been sufficient space for a berm and a ditch between the front of the bank and the present western face of the ditch.

It is possible that the two lengths, on the basis of constructional techniques, may have been built at different times; both parts of the earthwork cross similar terrain and so a different topography demanding a different construction does not seem a likely explanation.

DATING AND PURPOSE

In his analysis of the earthworks O'Neil concluded that Grim's Bank I was Roman or post-Roman. At its north-western end the ditch of the bank cut through another earthwork which defended a promontory at Raven Hill: this "promontory fort" was interpreted as of Iron Age date. O'Neil also traced earthworks between Pond Slade and Park Piece which he regarded as lengths of the Roman road from Silchester to Dorchester. He noted that Grim's Bank I extended up to the road and possibly ran across it. In addition he recorded some offshoots of Grim's Bank I and of Grim's Bank II (an earlier earthwork cut by the road but later extended), which formed a complex barrier across the road. Arguing for a blocking or rearrangement of the road, O'Neil suggested that Grim's Bank I and later extensions of Grim's Bank II were post-Roman (1943: 188-195). He expanded this interpretation in 1944.

In 1957 (81-82) G. Boon noted the stratigraphic relationship between the Raven Hill promontory earthwork and Grim's Bank I, and endorsed O'Neil's post-Roman date for Grim's Bank. However in 1974 (78-80) Boon revised this interpretation in the light of Hawkes's reinterpretation of Bokerly Dyke, and suggested a late Roman date — perhaps of 367-8 or 410. Boon also drew on the results of aerial photography to show that the course of the Silchester-Dorchester road differed from that proposed by O'Neil. Nevertheless it was still apparent that Grim's Bank I blocked the Roman road and that Grim's Bank II was extended to complete the blocking of the road.

It is curious that in the second edition of his book on Silchester Boon does not mention the relationship between Raven Hill and Grim's Bank I. Neither does he mention or record all the offshoots of Grim's Bank I which O'Neil mapped in 1943; nor does he offer an explanation for those earthworks which O'Neil mistakenly identified as parts of the Roman road. It seems that there are many offshoots to Grim's Bank I which have not yet been recorded or received an explanation, and it is perhaps dangerous to assume that Grim's Bank I in its earliest phase blocked the Roman road, and the need for caution is stressed by the results of the pollen analysis which suggest a pre- or early Roman date. Apart from this, no dating is available from the cuts through the earthwork; the only relative dating evidence is that given where the ditch of Grim's Bank I cuts through the bank of another undated earthwork; at that point the Bank could be Iron Age or later.

The function of Grim's Bank earthworks has always been interpreted on the basis that they belong to the late Roman or post-Roman period. In 1943 (192) O'Neil was not entirely sure of their purpose, but regarded them as "not lines of defence but of demarcation", and this fitted in with the observed breaks in the earthworks. Despite this, however, he also wrote of "a deterrent to enemies" and concluded that the Banks were "a frontier line after the Roman evacuation of Britain" (O'Neil 1943: 191, 192-3). Yet O'Neil also noted that had Grim's Bank I "been intended for defence, a portion at least of the bank of the promontory fort [at Raven Hill which is cut by the ditch of Grim's Bank I], which lay in front of it, would have been levelled" (192). In 1944 he went on to suggest that the earthworks defined a Romano-British enclave.

In his adoption of a late Roman date for Grim's Bank, Boon interpreted the earthworks as delineating "the irreducible minimum of cultivated ground in that quarter" (1974:245). As Boon hints, the difficulty in interpreting these earthworks is that they only exist (or survive) to the north west of Silchester and not elsewhere. This difficulty has been further compounded by the identification of the *territorium* of Silchester with the line of parish and county boundaries encircling the Roman town; comparison with Winchester and the Chilcomb estate suggests that Silchester too sur-

vived as a Romano-British enclave which was also defined by the later parish boundaries (Biddle 1977:334-5). Recently however this interpretation, and the evidence on which it is based, have been questioned (Dickinson 1977). Even if one does accept Biddle's arguments, there is a further difficulty in that the county boundary does not follow the line of Grim's Bank, O'Neil's candidate for the enclave boundary. There is thus a need to reconsider the evidence for the *territorium* and its implications, along with other late and sub-Roman aspects of Silchester (e.g. Fulford and Sellwood 1980). New explanations of both the boundaries and the earthworks are necessary.

The pollen evidence from this excavation suggests that part of Grim's Bank I existed in the later prehistoric/early Roman period and may in fact be contemporary with other dykes which exist to the north of Silchester. This of course does not exclude the possibility that the earthworks were extended in the Roman or post-Roman period. However the absence of evidence for refurbishment of the earthwork in all three excavations implies that any modifications of Grim's Bank were local rather than general. Further work on these earthworks is clearly needed, especially the relationship with the Silchester-Dorchester road. Careful observation of surviving earthworks and selective excavation may well clarify these problems.

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