EXCAVATION OF THE TIMBER CAUSEWAYED ROMAN ROAD AT SCAFTWORTH,nr.BAWTRY,NOTTS. 1991

INTERIM REPORT

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Introduction

Although much of the course of the Roman road from Lincoln to Doncaster (Margary 1973 No.28a) has long been known the route which it took between the Barrow Hills and Bawtry remained uncertain until recently.However,some clue as to its course was given by the presence of the late Roman fortlet near Scaftworth (SK 6590 9276) whoes presence was suggested by antiquarian accounts (Nottinghamshire S.M.R.) and much of whoes plan was recovered by aerial photography between 1945 and 1953 by J.K.St.Joseph and D.N.Riley (J.R.S. 1945,84;St.Joseph 1953,87).The excavators of the fortlet suggested that the road ran to its south towards a crossing of the R.Idle at the modern Bawtry bridge (Bartlett and Riley 1958,35), though the presence of a linear crop mark to the north of the fort suggested an alternative alignment (St.Joseph 1953,87).Excavation north of the fortlet in 1979 (Fig.1) identified an area of 'armoured' ground,perhaps to be regarded as hard standing adjacent to the road (Gilbertson and Blackham 1985,119;Kennedy unpublished records).Dr.D.Gilbertson also pointed out that an alignment to the north of the fortlet would point at an area of naturally higher,harder ground on the west bank of the R.Idle at the north end of a meander now cut off by canalisation (Kennedy 1984,20).Support for this line was provided by intermittent crop marks recorded by D.N.Riley (Maxwell and Wilson 1987,42f),as well as by a crop mark recorded before the improvement of the land in the early 1980s (Hey 1980,106).[1]

Initial ploughing of newly created fields between the R.Idle and the fortlet (which lies on the edge of the river's flood plain) brought to light several large timbers and observation of a newly cut drainage channel suggested that they formed part of a timber raft carrying the Roman road across this marshy area.This suggestion was confirmed by small scale excavation in 1983 which recovered some constructional details and produced a radio carbon date of A.D. 260±40 (Kennedy 1984 and unpublished records).The work with which the present report deals was carried out in June 1991 by students of the Department of Archaeology and Prehistory

University of Sheffield and members of the Hunter Archaeological Society under the direction of the author.It was funded by the Environment Committee of Nottinghamshire Council,and carried out with the kind permission of the farmer, Mr.G.T.Wagstaff.The aims of the work were:i) to asses the state of preservation of the timber raft given that the land is now being extensively drained;ii) to record a full section across the timber raft to establish in detail its construction ;iii) to obtain samples for dendrochronological determination and environmental analysis.

The Excavations

The excavations took the form of a single 1m wide trench eventually 19m in length with one small area near its centre being partially excavated to a width of 2m.The trench was located approximately 15m east of the area investigated in 1983,some 8m east of the recently cut drainage channel which now divides the area into two north-south fields (Fig.1).The trench was excavated to natural over the majority of its length,though the nature of the stratigraphy and time limit for the work necessitated the narrowing of its width slightly at the lowest levels.

The topsoil was found to be a mid to dark grey brown loam containing very high densities of medieval and early modern pottery,tile,brick and glass and may represent a recent dump of material rather than part of the natural soil profile. The natural was found to be a very dark brown silty peat which included many small pieces of preserved wood.The deepest soundings undertaken indicated that this was underlain by a light grey clay,in localised patches replaced by a similarly coloured sand,also containing waterlogged wood.

The timber raft (see further below) was lain directly on to the natural peat and was c.7m wide,the timbers being lain in a thin layer of sand.Above this sand and the timbers was a layer of dark brown clayey silt up to 20cm deep,though often less than half this thickness (Fig.2).This silt was only found above the timber raft and for 2m to its south where its boundary was marked by a line of small stakes.Either side of the raft a mid brown iron-stained sand containing small pebbles and samian flecks provided the make up for the road.It was 30-50cm thick and also lay in a 10-25cm thick band above the silt in the area of the raft.It

lay directly on the natural peat either side of the raft and had also filled several root voids in the peat,suggesting that small trees/bushes had been removed prior to its dumping.In contrast a number of root stumps had been left protruding from the natural in the area of the timber raft.To the north of the raft two voids in the natural appeared to be the result of posts with chamfered ends being impressed into it.

Above the sand lay the road metalling,the boundary between the two being difficult to trace as the metalling consisted of the same matrix but with much larger and more frequent stones.Indeed,the gradual increase in the frequency and size of the pebbles in the sand/metalling suggested that the road had been constructed in a single,graduated process.The total depth of sand/metalling so formed was c.30cm above the timber raft and 40-60cm elsewhere,with the upper c.10cm generally being particularly compacted and pebbly.Either side of the timber raft rows of stakes were located.To the south a line of very slight stakes only surviving to c.30cm in length,c.5cm in diameter and cut diagonally on one face to form a point occured at the edge of the silt which lay mainly over the timber raft.Their insubstantiality and coincidence with the boundary of the silt suggested that they may have had some marking out not structural function.To the north of the raft however a line of stakes 3.4m from its northern edge proved far more substantial.One was fully removed and proved to be 66cm long,9.5cm in diameter and again cut diagonally on one face to form a point.This stake retained its bark and appeared to be birch or alder.In addition to this row of stakes,at 30cm intervals,a single and probably larger stake some 80cm further north was recorded in the trench section.

Only the northern edge of the road was found,represented by a 'kick out zone' of large cobbles 4.8m north of the northern edge of the raft,suggesting that the whole road had a width of about 16.5-17m.However,it was not possible to identify a clear end to the sand make up for the road on its northern side.Rather it graded into a similar but more homogeniously pebbly deposit 66cm deep.Samian or tile smears and fragments in its upper parts suggest that,be it a deliberate dump or a natural build up of material it was accruing during the Roman period.

Above the single phase of road metalling and at the north end of the trench above the pebbly sand lay a band of dried out peat thickening from c.15cm in the north to c.30cm in the south.However,in the north a band of peaty clay lay over this and it is clearly this deposit which forms a small ridge in the field giving a false indication of the possible line of the road.The only post-Roman feature encountered was a modern land drain which had partly removed the southern boundary timber of the raft.

The Timber Raft (Fig.2)

The timber raft consisted of two approximately equal halfs divided by a large timber lying along the axis of the road.This timber,some 43cm in diameter was clearly a tree trunk retaining its bark,however it was poorly preserved having dried out and cracked.The south side of the raft was bounded by a similar but smaller trunk 34cm in diameter with a flattened top as laid.The north side of the raft was bounded by far smaller and less regularly laid timbers along the axis of the road 11 to 25cm in diameter.Between these three boundaries two sets of timbers had been layed in a single layer at right angles to the axis of the road.These timbers,ranging from 4 to 27cm in diameter but mainly in the range 10-15cm in diameter were small trunks and large branches of silver birch or alder retaining their bark and showing only a few signs of working.Where they met the timbers running along the axis of the road they had been cut so as to abut,or in a few cases partly overlap them.The gaps between the timbers were packed with sand but in the southern half of the raft the only other stabilisation was provided by root stumps not removed from the old land surface,

In contrast the northern half of the raft at the point investigated was stabilised by eight large stakes.These did not represent any regular arrangement but rather appeared in pairs (one squared and one rounded) or as single stakes in a group somewhat more than halfway across this half of the raft.Four of these stakes were removed.All were worked around their full circumference to points from timbers retaining their bark,though all but the lowest parts of them had rotted badly.Their lengths were between 1m and 61cm and their diameters were between 11 and 16cm.The unremoved stakes appeared to be very similar though the most isolated of them was only 5cm in diameter.All the stakes appeared first at various depths

below the top of the metalling (as was the case with the line of stakes north of the raft) and none penetrated its surface.It seemed likely that they had been driven in before any of the deposits overlying the raft had built up or been dumped and that their function was to secure timbers across the axis of the road which were not long enough to run from the central dividing timber to the northern edge of the raft.Indeed,the timbers used in this northern half of the raft were generally less regular and shorter than those used in the southern half.Partial excavation of a 1m extension to the trench to the east in the area where the stakes clustered failed to reveal further examples and strengthens the case for their being an isolated group necessitated by the unsuitability of the timbers used at this point for the northern edge and much of the northern half of the raft.

Sampling

Only the timber along the axis of the road marking the southern edge of the raft was sufficiently well preserved to warrant sampling for dendrochronological purposes.However,a number of environmental samples were obtained from deposits below the road,immediately above the timber raft and from the post-Roman peat. Both the dendrochronological and environmental samples are being evaluated by members of the Department of Archaeology and Prehistory,University of Sheffield from whom specialist reports are expected in due course.

Discussion

All three aims of the excavation were achieved,though discussion of the results of the dendrochronological and environmental work must perforce await the specialist reports.The state of preservation of the timber causeway was variable but in general it seems that significant and continuing deterioration in the condition of the timber has taken place since 1983.None of the timbers running at right angles to the axis of the road survived in a less than rotted condition and at the northern edge preservation was so bad that the timber crumbled on contact.The drying out,cracking and rotting of the central large timber was,as far as could be ascertained advanced.Only the southernmost timber was better preserved and even its upper face was considerably rotted.Despite heavy rain during much of the excavation the water table remained at approximately the level

of the pre-road ground surface or lower,suggesting that the timbers with the exception of the lowest parts of the stakes are above the water table for much of the year.Whilst it is possible that parts of the causeway further from the drainage channel would be better preserved it is likely that the whole causeway is deteriorating fairly rapidly due to drainage of the land.

The construction of the timber raft recorded in the present excavation differs in some details to Kennedy's (1984) preliminary interpretation of the evidence from the 1983 excavation.The existance of a central 'rib' to the raft was unknown to him,as was the use of stakes actually within the raft.Conversely the present work found only a single layer of timbers across the axis of the road retained by a single timber at each side.Kennedy's,admittedly small,exposure suggested that both these elements were two layers thick and this suggests that there were variations in the raft along its length perhaps reflecting variations in the nature of the pre-road ground surface,or the activities of different construction gangs.A further variation between the two exposures is the lack of stakes holding the timber(s) along the edge(s) of the raft,many of which were found in 1983 but none of which appeared in the present work.However both excavations recorded evidence for a line of stakes north of the raft

One further result of the present excavations has been to establish the approximate line of the road in the general area (Fig.2).Whilst detailed study of Kennedy's unpublished records in conjunction with the present work indicates that the timber raft did not maintain an exactly regular alignment even over a relatively small distance the line of the road clearly ran c.50m north of the outer ditch of the fortlet.This tends to confirm the suggestion that the 'armoured' ground north of the fortlet acted as hard standing adjacent to the road.

NOTES

1 I am grateful to Paul Caldwell for drawing this to my attention.

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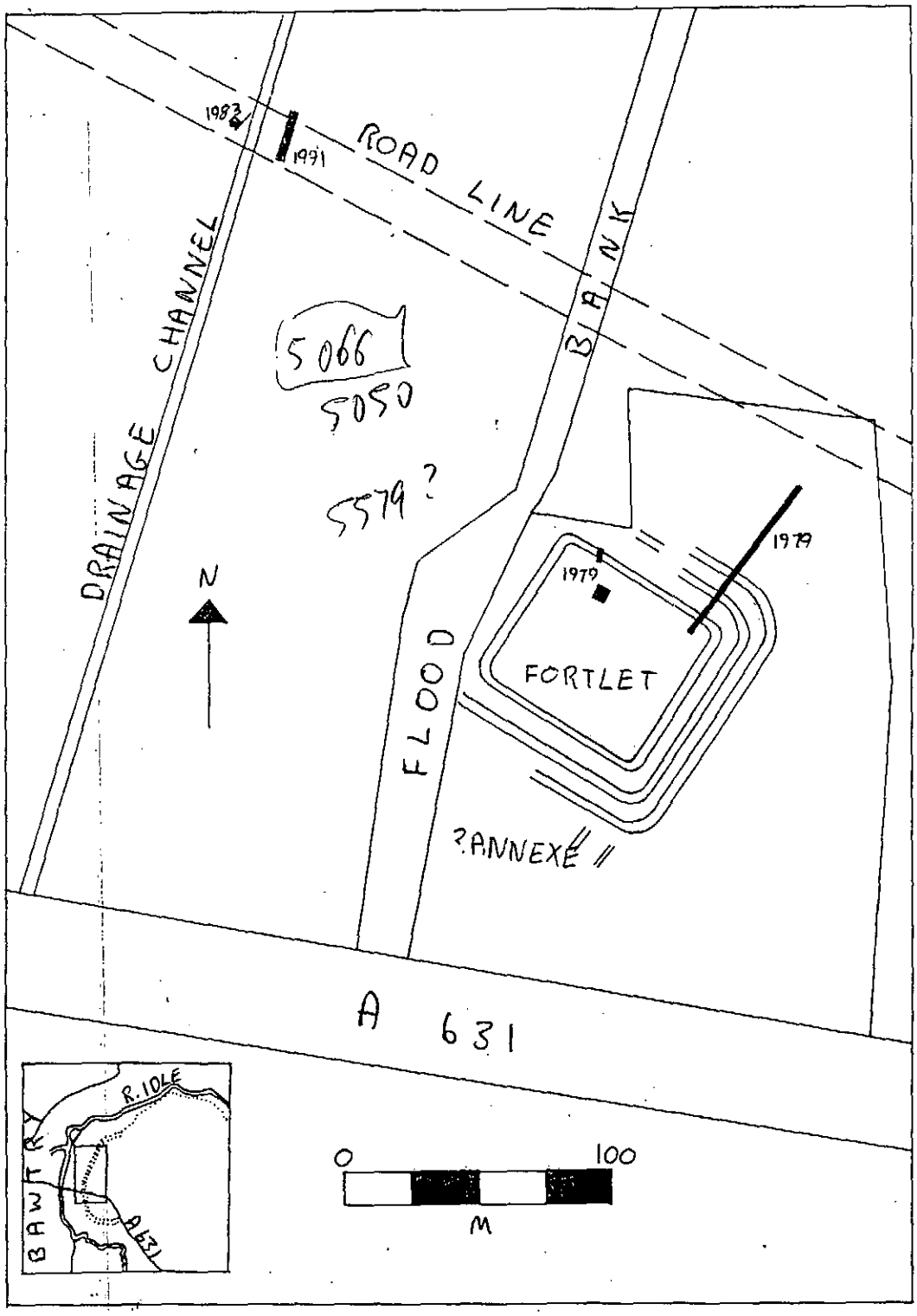


FIG. 1: SCAFTWORTH 1991: LOCATION OF PRESENT AND PREVIOUS EXCAVATIONS

N.B. THE ROAD LINE SHOULD ONLY BE REGARDED AS APPROXIMATE

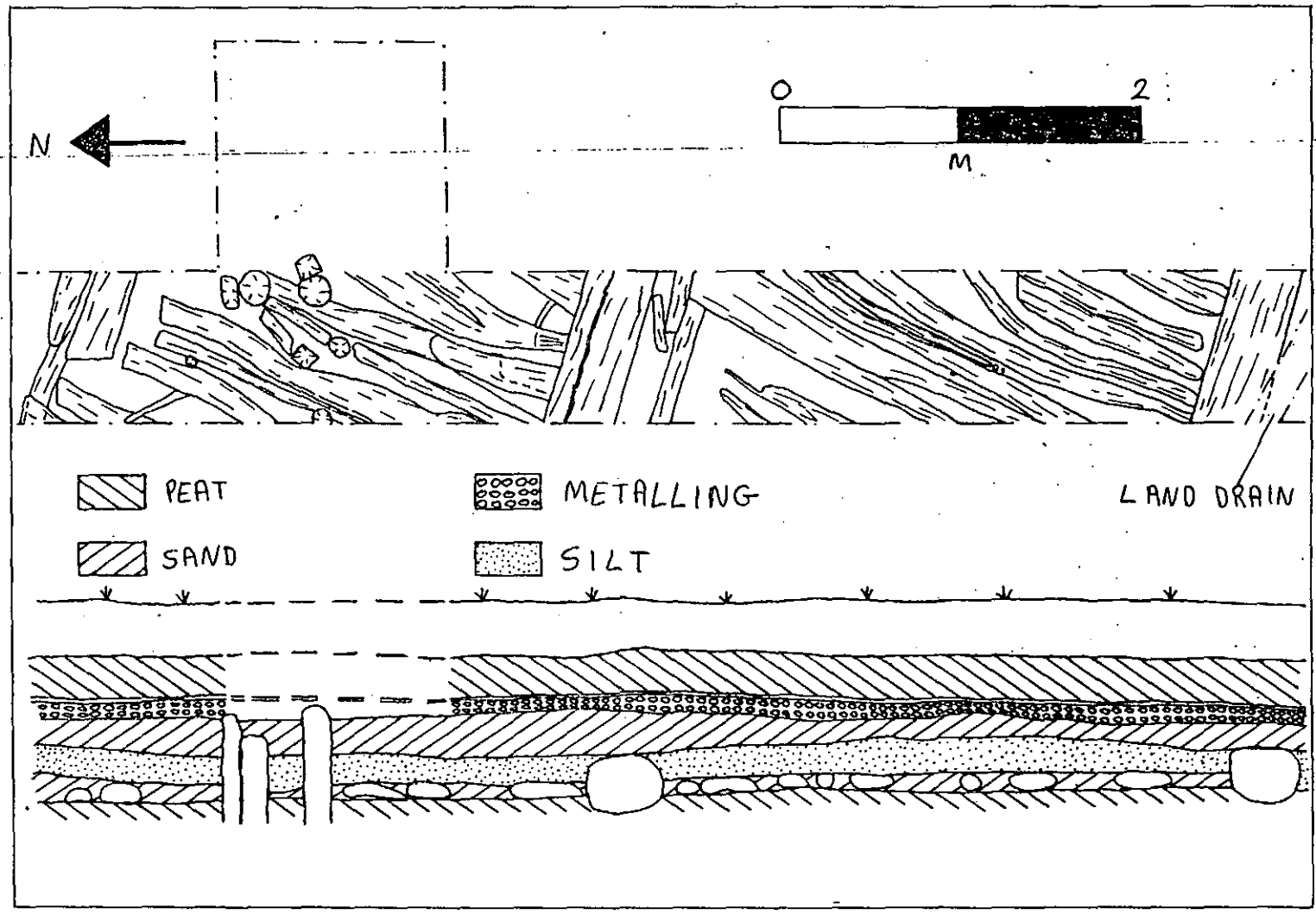


FIG. 2: SCAFTWORTH 1991: PLAN AND EAST SECTION OF TIMBER CAUSEWAY

PHOTOGRAPHS AND SLIDES

1 Large stakes and smaller roots in the northern half of the timber raft revealed just below the surface of the metalling. Looking north. 1m scale.

2 Stakes north of the timber raft after removal of the road metalling with preserved wood within the sand make up for the road in the foreground. Looking south. 1m scale.

3 Stakes north of the timber raft penetrating the natural peat. Looking north. 20cm scale.

4 South half of the timber raft looking south. 1m scale.

5 North half of the timber raft showing the large stakes (after removal of the south half of the raft). Looking south. 1m scale.

6 South section of the trench showing the post-Roman peat (with roots penetrating down from it) and the metalling/road make up. Scale in 25cm divisions.

7 West section in the middle of the south side of the timber raft (after its removal). 1m scale.

8 Voids in the natural north of the timber raft filled with sand road make up. Looking east. 20cm scale.

9 As 1.

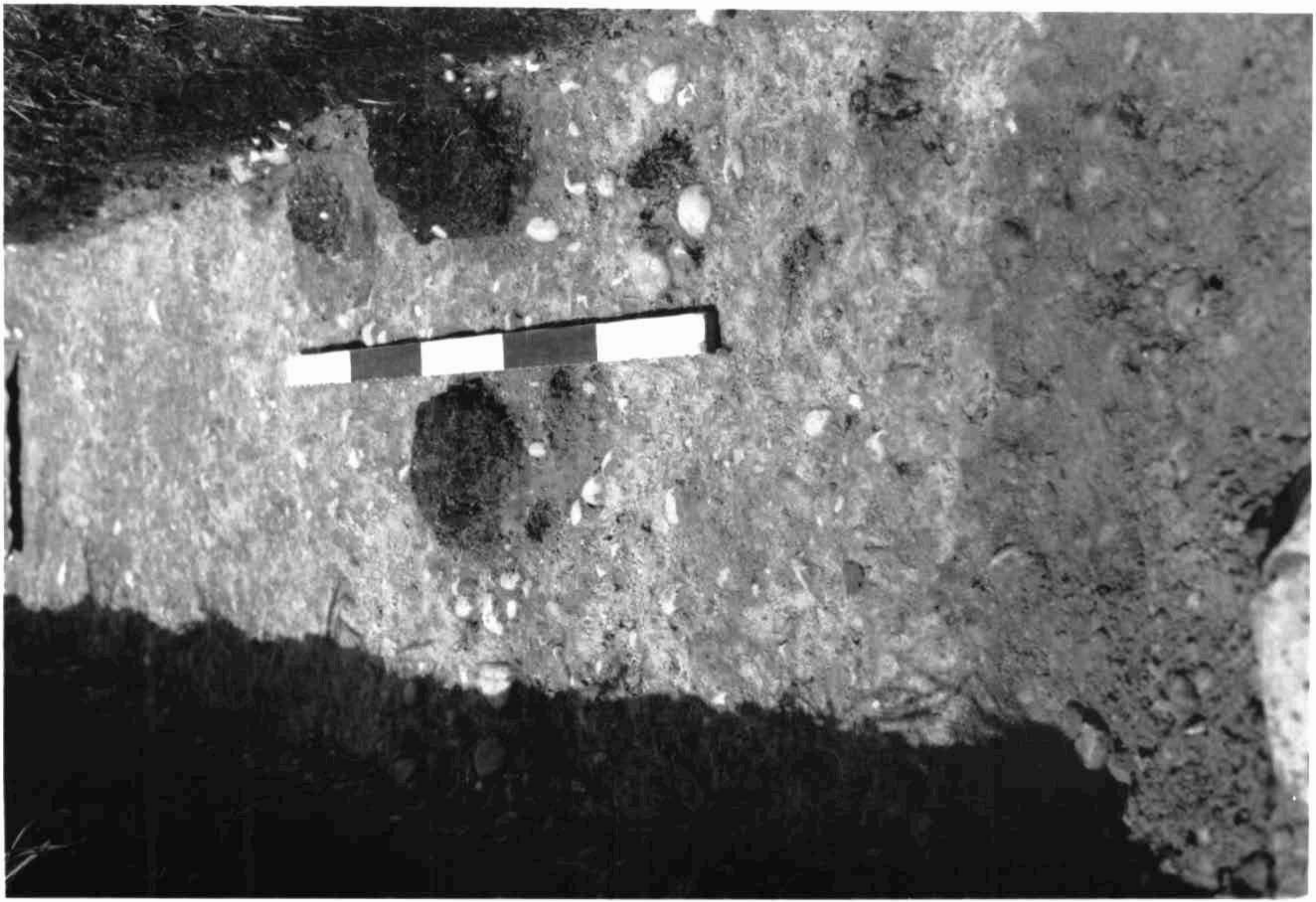
10 As 7.

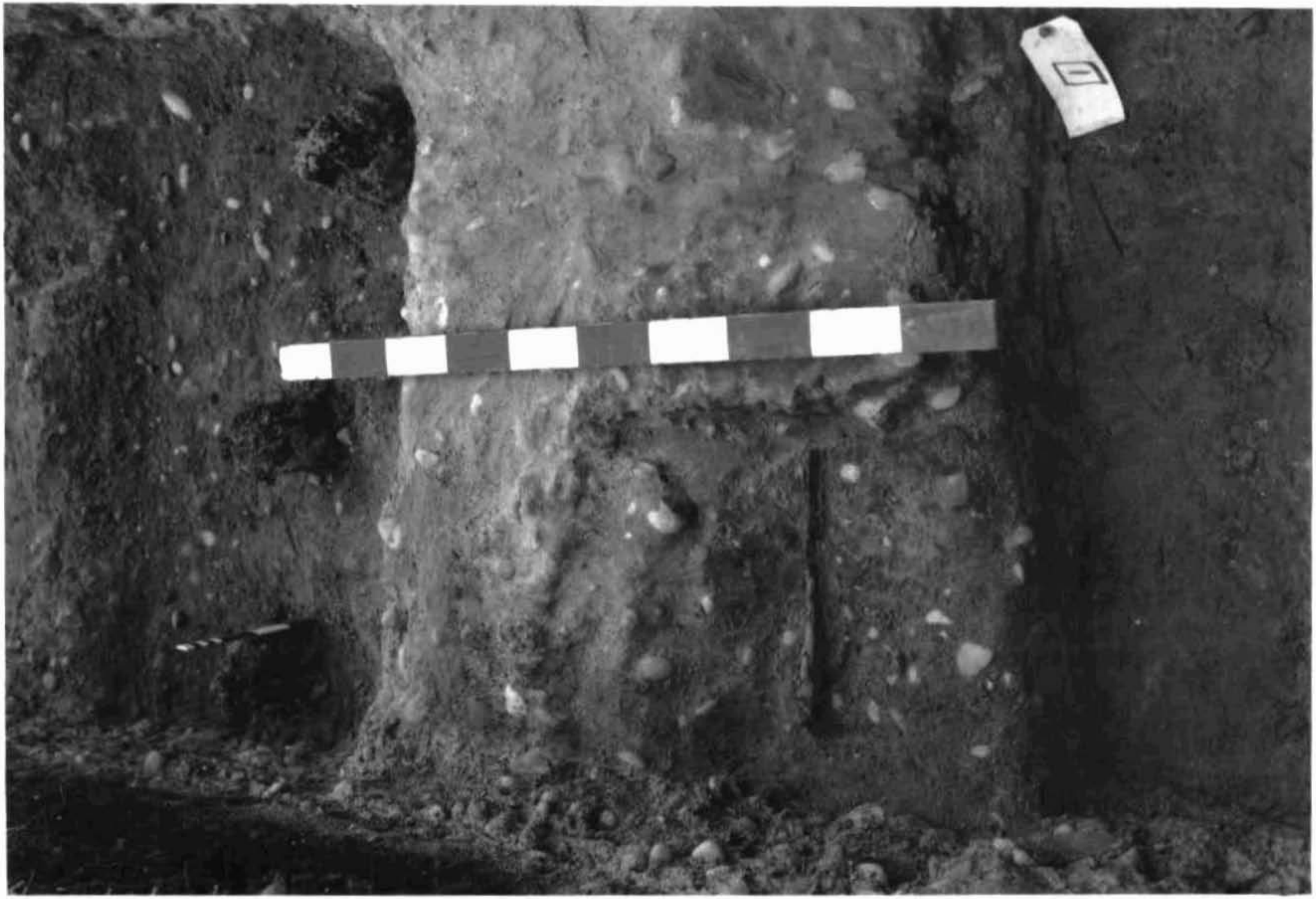
11 As 8.

12 South side of the timber raft looking north. 1m scale.

13 Section of the timber bounding the south side of the timber raft (removed for dendrochronological determination). 20cm scale.

14 Large stakes removed from the northern half of the timber raft. 20cm scale.





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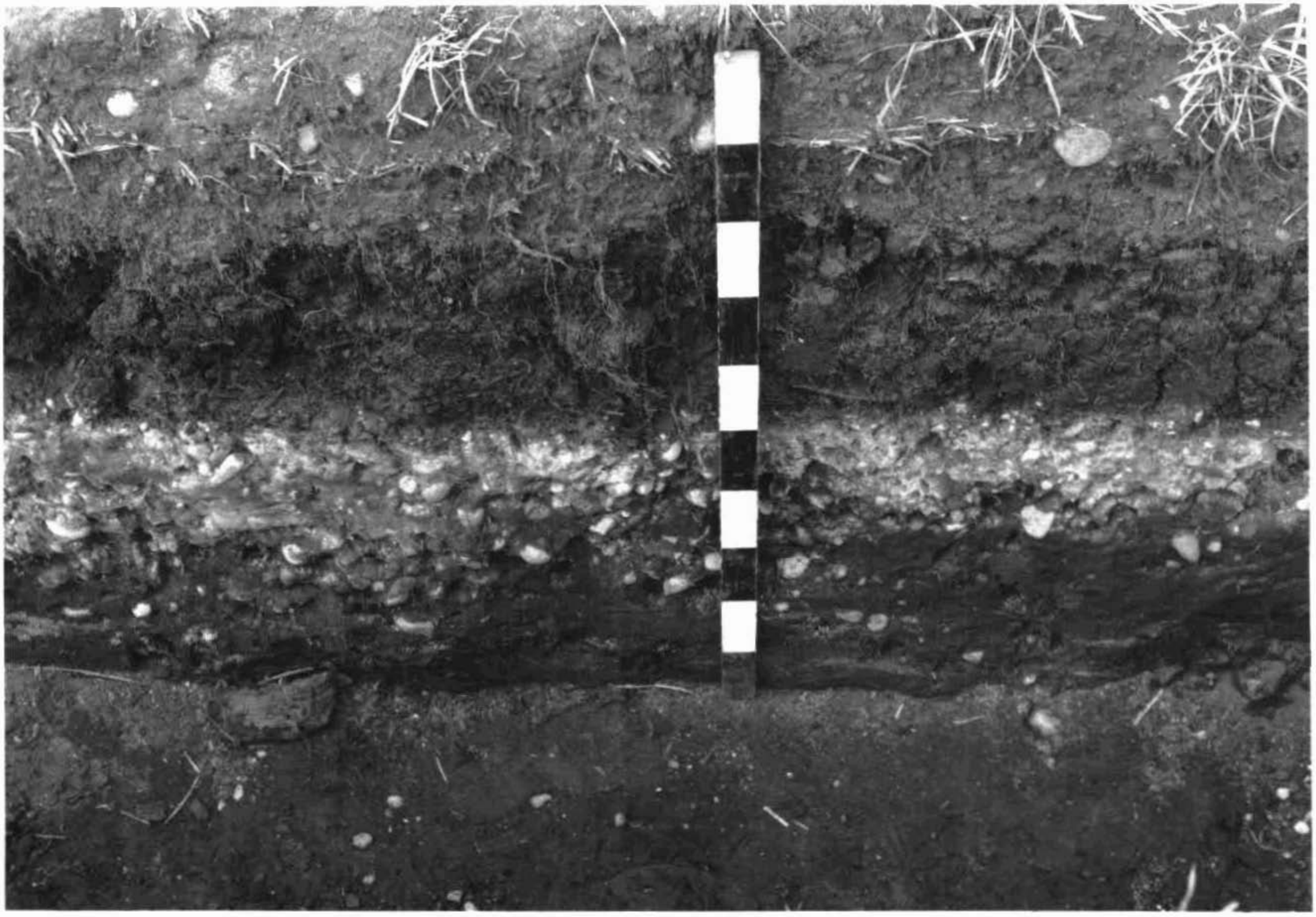

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