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ARCHAEOLOGICAL EVALUATION AT A30 WOODLEIGH JUNCTION CHERITON BISHOP, NOVEMBER 1999

by

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Exeter Archaeology

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1. INTRODUCTION

An evaluation excavation was undertaken by Exeter Archaeology (EA) in November 1999 in advance of the A30 Woodleigh Junction Improvement scheme. The work was commissioned by Devon County Council (DCC) on behalf of the Highways Agency, and carried out in accordance with the guidelines set out in DMRB Volume 11, Section 3 Part 2 (Cultural Heritage), as described for the Stage 3 Archaeological Assessment, and a method statement prepared by EA in September 1999 (with additions by the Highways Agency).

The two areas investigated lie within farmland to the south (Area 1) and north (Area 2) of the A30, to the east of Woodleigh Junction within the parish of Cheriton Bishop (Fig. 1). Area 1 is centred at SS782933 between Woodleigh and Coombe Farm, and Area 2 at Crediton Lane End at SS78499348. A watching brief was also carried out in Area 2 during excavation for a SWW pipeline (centre at SS784934). The underlying geology of this area comprises mainly shales of the Crackington Formation, deriving from the Upper Carboniferous Culm Measures, which split along bedding planes (BGS).

The evaluation within Area 1 was designed to investigate features which had been revealed by geophysical survey (Johnson 1997 & 1999; see also Fig. 2). These consisted principally of two parallel discontinuous ditches aligned approximately east-west across the field. A number of other anomalies representing pits were also detected during the geophysical survey. A section through the southern ditch (Ditch B) had already been observed during the excavation of geotechnical trial pits in 1998 (trial pit 9702 in Gent 1998, 2). However, it should be noted that this section had not been excavated or examined under archaeological conditions, and could only be observed from the surface.

The evaluation within Area 2 was carried out in order to determine the presence or absence of archaeological features or deposits. No specific areas of interest had previously been recorded in this area, but the topography of the site (a south-facing slope just below a ridge) and the proximity of the A30 (at least in part of Roman origin) made former settlement or other activities a possibility.

2. METHOD

Features and deposits were recorded on standard EA context record sheets, and site plans and sections were drawn at scales of 1:20 and 1:50 as appropriate. A photographic record was also compiled consisting mainly of colour slides and black-and-white prints.

2.1 Area 1

The trench plan was designed to allow the investigation of a representative sample of the ditch sections and adjacent ground that lay within the area of the proposed works (Figs 2-3). The entire southern ditch (Ditch B) lay within the area under investigation, but only the eastern part of the northern ditch (Ditch A). Five trenches were positioned at right angles across these features. Trench 1 exposed the eastern terminal of Ditch A; trenches 2-5 exposed sections of Ditch B, including the eastern terminal (in trench 3).

The trenches (c. 1.5m wide) were stripped of topsoil using a JCB excavator fitted with a grading bucket. The stripped areas were cleaned and the exposed features in trenches 1-3 and 5 were then excavated by hand and recorded. Trench 1 was extended eastward in order to

examine the terminal of Ditch A. The area between trenches 2 and 3 was also later stripped of topsoil along the line of Ditch B, where partial excavation took place in order to increase the chance of recovering datable material.

The section of Ditch B exposed in trench 4 had been partly cut through by a recent geotechnical trial pit (see above). The fills of the ditch and trial pit were removed by machine and the section of the ditch was recorded to a depth of 2m. The remaining c. 0.80m of the ditch was excavated by machine and the depth recorded. However, this could not be closely examined due to the fact that the shoring had been removed.

Soil samples were taken from a number of contexts, which may have the potential for radiocarbon dating. Bulk samples were also taken for future analysis, if required.

The high level of the water table in the area made excavation difficult and necessitated the frequent use of a pump to enable the lower levels of the ditches to be excavated. The southern part of the field was particularly boggy, possibly due to the introduction of clay levelling material, although it was reported by a local resident that the level of the water table is naturally very high.

2.2 Area 2

At the northern edge of the field, an area measuring 40m long by 1.5m wide was stripped of topsoil using a JCB fitted with a grading bucket. The exposed features (all modern) were recorded.

Archaeological monitoring (a watching brief) was also undertaken during topsoil-stripping and excavation of a SWW pipe-trench to the south and west of the evaluation trench.

3. SUMMARY

3.1 Area 1

The features found during the excavation consisted of the two ditches (A and B) located by the geophysical survey (Figs 2-3). The ditches were aligned along an east/west ridge in the field, the land to the south falling gently away to a ditch at the southern hedgebank. However, this ridge would have originally been far more prominent. Before the south side of the field was artificially levelled in the 1970s, during construction of the new section of the A30, the southward slope had been very steep and a stream ran along the southern boundary. Evidence for this levelling material was found at the southern end of trench 2 as a deposit of mixed clay.

Ditches A and B were both cut into the shale bedrock, which in most areas lay immediately beneath the level of the topsoil. On their southern sides the ditch cuts followed the steep bedding plane of the rock (aligned south-east/north-west), giving a relatively firm surface. However, the northern sides of the ditches were cut at an angle across the bedding plane, presumably to avoid undercutting, resulting in a fragile surface that collapsed easily. Indeed, the top edge of the northern side of both ditches was splayed out, probably representing such collapse or weathering. It appears that the ditches were excavated along the line of a geological boundary. In trenches 2 and 3 in particular, it could be seen that the bedding plane appeared to change from vertical to horizontal at the bottom of the ditch, suggesting that the change in the strata had dictated the depth of the ditch.

All sections through the ditches showed their profiles to consist of steep sides, narrowing towards flat bases. The eastern termini of both ditches were also steeply cut. The profiles and dimensions of Ditch A (section 1) and Ditch B in trench 3 (section 4) were very similar, suggesting that the features may date from the same period.

The sections of the ditches observed ranged in depth from 1.40m-2.80m, and in width (top) from 1.40m-4m. The dimensions of the ditch sections in trenches 1 (Ditch A) 2, 3 and 5 (Ditch B) were comparable, although in trench 4 Ditch B was seen to be considerably wider and deeper. The section of ditch in trench 5 was not fully excavated, but its width would suggest that it was probably of a similar depth to those in trenches 1-3.

The similarity of some of the fills in the various ditch sections indicated that the ditches had undergone at least some of the same episodes of infilling. The upper loam fills of Ditch A (trench 1, contexts 501-2) and Ditch B (trench 2, 525-6 and trench 3, 540 and possibly 541) consisted of the same material. These loamy upper fills were not found in trenches 4 or 5.

The ditch fills in general consisted mainly of clays containing varying amounts of shale and occasional pockets or layers of loam. Although some of the pockets of loam may be related to animal disturbance, there was also a genuine mixing of clay and loam in the deposition of some of the layers. A number of the fills contained charcoal, which was sampled for possible future analysis. The fills in general did not have a very weathered appearance, suggesting that the ditches may not have been open for a long period of time. Those within trench 4 had a clear distinction between the various layers, perhaps indicating that they were deposited in fairly quick succession.

There was some evidence for banks associated with the ditches. The steep angle of the lower deposits close to the eastern terminals of both ditches (trench 1 and trench 3) indicate the collapse of material from the south side, and this appears also to be the case (although less distinct) in trench 2. However, there was no evidence of this in trench 4 where the ditch fills appeared to have been deposited more or less equally from both sides of the ditch.

3.2 Area 2

No features of archaeological significance were found within the evaluation trench, or observed during the watching brief on the SWW pipe-trench (see 4.2).

4. RESULTS

4.1 Area 1

Trench 1; Ditch A (section 1, Figs 3-4)

Trench 1 contained the eastern terminus of Ditch A. The ditch was 1.50m deep, 1.80m wide at the top, and 0.50m wide at the base. The upper fills of the ditch (501 and 502) consisted of loams, overlying silty clays (503-5, 508, 536-7) and loam(507, 506), which in turn overlay clay and shale (509). The angle of the layers indicated that the ditch had been infilled mainly from the south side, possibly representing the collapse of an associated bank on that side. The widening of the base on the north side appeared to be due to a collapse of the ditch face.

Trench 2; Ditch B (section 3, not illustrated)

The section of Ditch B in trench 2 was 1.40m deep, 1.75m wide at the top, and 0.85m wide at the base. The top fill of the ditch (525) consisted of a greyish-brown silty loam, partly overlying a layer of mixed clay/loam containing large stones (527), which may represent the collapse of a stony bank on the south side of the ditch. In the north side of the ditch, layers of clay and loam (528-9, 526) overlay layers of shale/clay and shale (530, 531).

Trench 3; Ditch B (section 4, Fig 3-4)

Trench 3 contained the eastern terminus of Ditch B. The ditch had been cut through by a modern drain, which ran north-west/south-east, 0.20m from the terminal. The drain was removed and the remainder of the ditch fills beneath it were excavated. The section through the ditch in this area was c. 1.60m deep, 1.40m wide at the top, and 0.75m wide at the base. The top fill of the ditch (540) consisted of a mid brown silty loam, partly overlying a mixed layer of interleaved loam and clay (541) on the north side of the ditch, and a layer of clay and large stones (542) on the south side. The stony layer (542) was the same as that seen in trench 2 (527) and may represent the collapse of a southern bank. Beneath layers 541 and 542, a layer of dense shale and clay (543) appeared to represent a collapse of the north side of the ditch. This overlay a layer of silty clay loam containing patches of clay (544), beneath which lay grey shale and clay (545), which had clearly come from the south side of the ditch.

Trench 4; Ditch B (section 5; Figs 3-4)

The section of Ditch B in trench 4 was c. 2.80m deep, 4m wide at the top and c. 1.10m wide at the base. The south side of the ditch was steeply cut, again following the bedding plane of the rock. However, the northern side was at a more oblique angle, perhaps partly due to weathering and/or collapse. The fills of this section of the ditch did not obviously correspond with those in trenches 2 and 3. They comprised distinct interleaved layers of clay (573), clay and shale (562-3, 565, 567, 569, 571) and shale (566, 568, 572, 574), some of which contained patches of loam (564, 570). The fairly equal infilling of the ditch from each side gave no indication of the existence of an associated bank.

Trench 5; Ditch B

The section of Ditch B in trench 5 was 1.40m wide (at the top) and was excavated to a depth of c. 0.60m, allowing the top of the profile to be ascertained. The south side of the ditch was steeply cut along the bedding plane of the rock, and the north side was cut vertically. The ditch fill encountered at this depth consisted of greyish-brown silty clay.

4.2 Area 2

The evaluation trench within Area 2 contained the infilled ditch of the adjacent hedgebank and a modern service trench. No significant archaeological features or deposits were found.

A watching brief undertaken during pipe-trenching to the south and west of the evaluation trench revealed 0.15m of mid brown clay loam topsoil overlying yellow/orange plastic clay. In some areas the shale bedrock was visible on the surface where it was seen to be vertically bedded.

The geophysical survey plot indicated an anomaly and a linear feature at the western end of this field. These were found to represent a dump of material used to level the natural slope of the west end of the field (probably introduced during works on the A30 in the 1970s), and a

probable former fence-line associated with this operation. The dumped material was observed in the pipe-trench, extending some 40m cast of the western hedgebank

5. CONCLUSION

The features found during the excavation in Area 1 consist of two substantial parallel linear features which had been cut into the bedrock. These appeared to be aligned with a geological boundary, either by design or accident, but the implications of this (if any) are uncertain. The ditches had unusually steep-sided profiles, aligned on their south sides with the steep bedding plane, but cut against it on the north sides. This made the north sides of the ditches readily liable to collapse.

The unusual profile of the ditches, together with the existence of ditch fills that do not appear to have undergone much weathering, indicates that the features were not left open for any great length of time. However, there was some evidence for the existence of former banks on their south sides near the eastern termini of both ditches (trench 1 and trench 3), and perhaps also within trench 2. In view of the character of the profiles it is not considered likely that these are prehistoric enclosure ditches (e.g. of Neolithic date).

Unfortunately, no dating evidence in the form of pottery or other artefacts was recovered during the evaluation, and there was no clear indication of the original purpose of the ditches. The discontinuous nature of the features, suggested from the results of the geophysical survey, was not investigated (these areas were not located within the trenches). It was thought that the features might have resulted from quarrying or mining activities, but there was no obvious evidence of this within the ditch fills.

The similarity of the profiles and dimensions of Ditch A in trench 1 and Ditch B in trench 3 suggest that they both date from the same period, but the significance of the larger scale of Ditch B in trench 4 is not known. The appearance of the ditch fills, and the fact that there were no visible surface indications for the existence of the features (e.g. in the form of depressions), suggest that the features are not modern. Moreover, the complete absence of any pottery sherds, clay pipe or other artefacts implies that they do not date from the post-medieval period.

No features or deposits of archaeological significance were found to the north of the A30 in Area 2.

5.1 Importance of the finds

Due to the uncertainties that still exist about these features, despite meticulous excavation within the evaluation trenches, it has not been possible to determine the importance of these remains in archaeological terms. Given the conclusion that these features are not likely to be prehistoric enclosure ditches, it is the view of the archaeological contractor that the finds are not of national importance. Whether the features are considered to be of local or regional importance depends upon their date and interpretation.

6. MITIGATION: PROPOSALS FOR FURTHER INVESTIGATION

In view of the above conclusions a limited amount of further work is proposed in mitigation.

- 1. Assuming that the levels are to be reduced in this area, the ditches should be recorded in plan after topsoil stripping. The latter operation would need to be carried out under archaeological supervision in the relevant areas, using appropriate plant and machinery. This operation will need to demonstrate whether or not the ditches are discontinuous in places. It is anticipated that only very limited hand excavation to define edges etc. would be required.
- 2. Again, assuming that the final levels of the road necessitate it, it is suggested that further sample sections of the ditches are mechanically excavated in a controlled manner in the presence of an archaeologist, primarily to recover any finds.
- 3. If no finds are recovered at stage 2, it is recommended that charcoal or other datable material should be extracted from the existing samples for possible radiocarbon dating. If any datable artefacts are recovered in stage 2, this will not be required.

ACKNOWLEDGEMENTS

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SOURCES CONSULTED

BGS British Geological Survey 1969 Okehampton, Sheet 324. Solid and Drift Edition.

DMRB Highways Agency June 1993 Design Manual for Roads and Bridges.

Exeter Archaeology September 1999 A30 Woodleigh Junction Improvement: proposals for further archaeological evaluation.

Gent, T.H. 1998 Archaeological observations of DCC trial pits at A30 Woodleigh Junction Cheriton Bishop, Exeter Archaeology Report No. 98.38.

Johnson, A.E. 1997 A30 Woodleigh Junction, Devon. Topsoil magnetic susceptibility and gradiometer survey (Ref: 1331197/WOD/WSP).

Johnson, A.E. 1999 A30 Woodleigh Junction, Devon. Topsoil magnetic susceptibility and gradiometer survey (Ref: 1950999/WOD/DCC).



Fig. 1 The location of the site. Based upon the 1991 OS 1:25000 Outdoor Leisure Map of Dartmoor, with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright AL 52533A 0001.

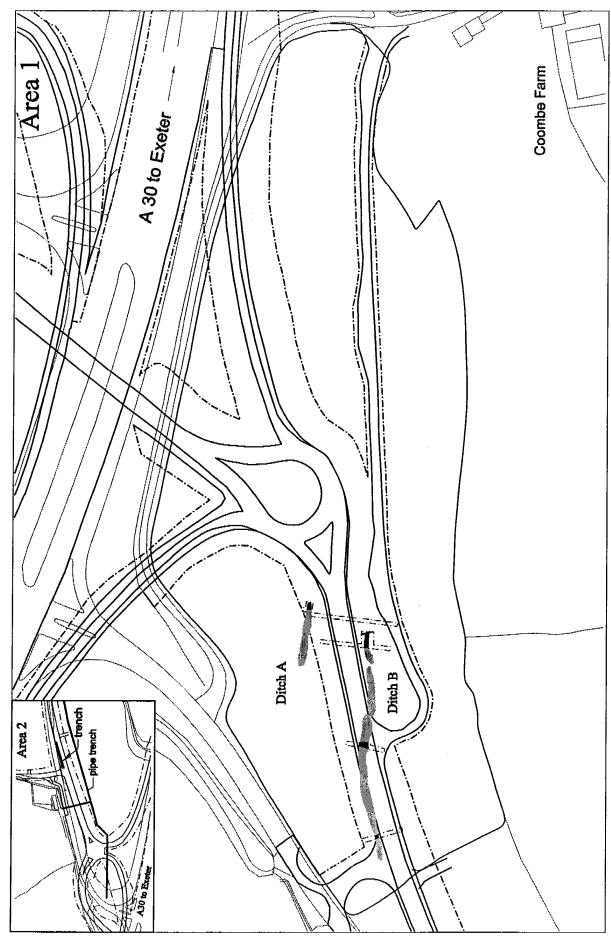


Fig. 2 Location of trenches and ditches in Area 1 (scale 1:1500), and location of trenches in Area 2 (insert).

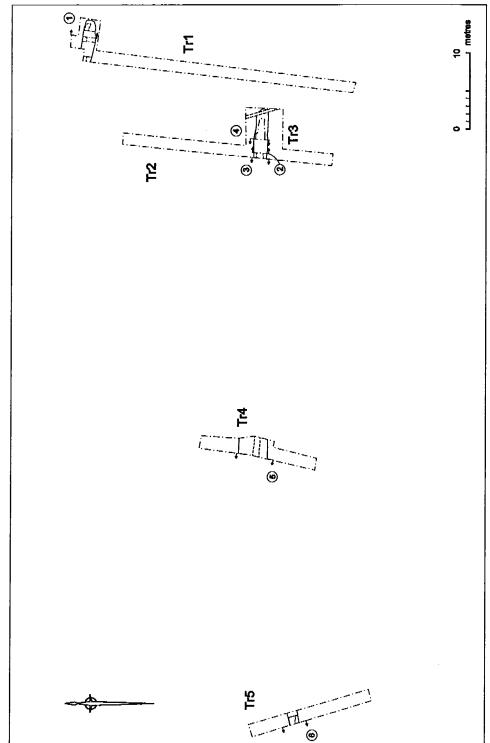


Fig. 3 Plan of trenches in Area 1. Scale 1:500.

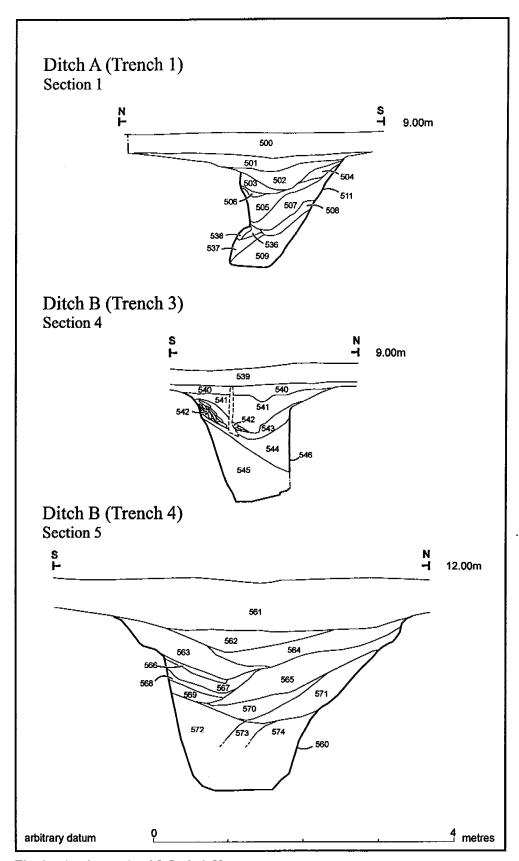


Fig. 4 Sections 1, 4 and 5. Scale 1:50.

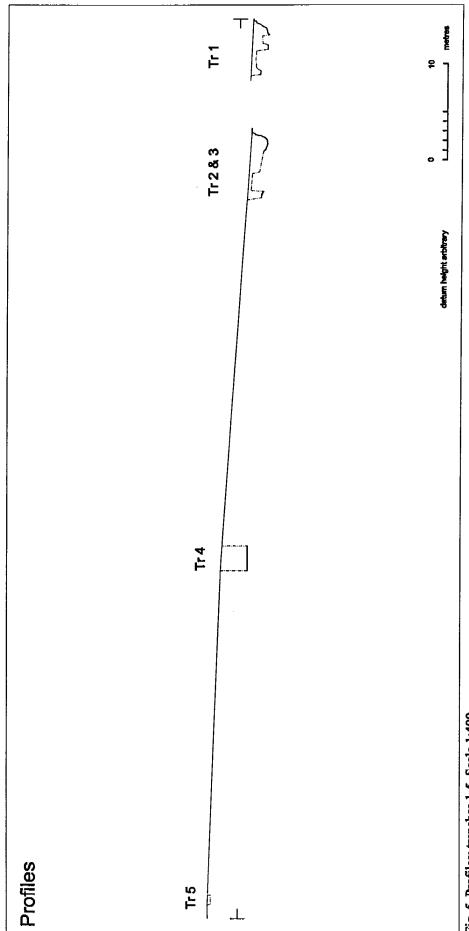


Fig. 5 Profiles: trenches 1-5. Scale 1:400.