

**Channel Tunnel Rail Link
London and Continental Railways
Oxford Wessex Archaeology Joint Venture**

**Geoarchaeological recording at Cobham Golf Course,
Cobham, Kent**

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CTRL Specialist Report Series

2006

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1 INTRODUCTION

The deposits infilling a segment (cut [224]) of the early Bronze Age ring ditch were examined in two monolith samples. Assessment of the monoliths provided an indication of the landscape processes through which the ditch fill (context [223]) had accumulated. The monoliths were described and illustrated according to the geoarchaeological methodology designed for the route-wide scheme. Although no further palaeoecological or sedimentological analysis has been undertaken on the monoliths, a summary of the assessment results is given here. The location (in plan and section) of the monolith samples within the ring ditch is shown on Figures 3 and 4 of the site report (Davis 2006).

2 RESULTS

Context [223] was shown on detailed inspection of the monoliths to become darker, softer and more clay-rich upwards. It comprised two distinct horizons, with a diffuse interface from the lower to the upper, over about 0.10m. The basal 0.10m was a hard and compact yellow (10YR7/6) sandy silt with occasional flint pebbles; the upper *c* 0.50m was a moderately soft compact yellowish brown (10YR5/6) clayey sandy silt with more frequent flint pebbles. Loose crumbly patches in the upper part of the context may relate to former root channels and it appeared to be more humic than the lower part of the profile, although no tests were undertaken (for example, loss on ignition) to verify this. Manganese speckles and iron concretions occurred throughout the profile. No sedimentary structures were observed

3 DISCUSSION

The ring ditch was located close to the head of a SW-NE trending dry valley, on a low east-facing promontory (also followed by the A2), between two headwater tributaries. The BGS 1:50,000 Solid and Drift Sheet 272 (Chatham) shows that the bedrock has been eroded down to Chalk on the valley sides and floor (where the Chalk is mantled by Head). But on the higher ground of the interfluvies Tertiary bedrock outcrops, and the ring ditch was located on the Thanet Beds close to its boundary with the Chalk. The Thanet Beds are predominantly fine glauconitic sands. However, the lowest metre or so (above the characteristic Bullhead Bed with green coated well rounded flints in a dark reddish black clayey matrix, lying at the interface of the Thanet Beds and the Chalk) is generally more clayey (Dines *et al.* 1954). The clayey sand and Bullhead Bed are likely to outcrop in the vicinity of Cobham Golf Course.

It is likely the lowest unit accumulated soon after the ditch had been constructed and it is probably derived from trampling during ditch cutting and weathering of the *in situ* Thanet Beds, together with erosion of the unstable central mound (if such a mound formerly existed) and/or ditch sides. Its colour and texture suggest that the soil from which the central mound

was constructed, or that otherwise lay adjacent to the ditch, was probably derived from the Thanet Beds and the redeposited silty sands are likely to have been quite easily erodible. The thicker, upper unit probably accumulated more gradually, after vegetation growth had stabilised the feature. Soil creep from the sides of the ditch, together with wind erosion and surface run-off, would have caused soil material to be blown and washed into the ditch from its surroundings and the development of an accretionary soil in the gradually accumulating sediment may account for its more clayey, humic characteristics upwards. Episodically wet conditions and vegetation growing in the ditch itself are suggested by the iron and manganese precipitations. However, these precipitations may be the result of translocation of mineral compounds down through the soil itself and downwards percolation of water may also have caused leaching of carbonate compounds from the darker upper part of context [224] into its paler and harder lower part.

In the absence of supporting observations afforded by supplementary techniques (such as soil micromorphology, loss on ignition, magnetic susceptibility and pollen) little more can be said about the formation processes of the ditch fills or the environment of the ring ditch and its surroundings in the earlier part of the Bronze Age, when the fills are thought to have accumulated.

4 REFERENCES

ADS, 2006 CTRL digital archive, Archaeology Data Service,
<http://ads.ahds.ac.uk/catalogue/projArch/ctrl>

Davis, S, 2006 The prehistoric landscape at Cobham Golf Course, Cobham, Kent, *CTRL integrated site report series*, in ADS 2006

Dines, H G, Holmes, S C A, and Robbie, J A, 1954 *Geology of the country around Chatham* BGS Memoir