

Report on a Buried Soil at Avebury, Wiltshire.

By Helen C.M. Keeley, Ancient Monuments Laboratory.

In early 1982 two small cuttings were excavated into the floor of the Great Barn, Avebury, exposing a buried soil beneath remains of the Neolithic bank. The excavation and results of molluscan analysis carried out on samples from the soil profile are described by Evans et al (1984).

The buried soil was examined by the author in both Trenches 1 and 2 and samples collected from the profile in Trench 2. The section is shown in Plate 1. The remains of the bank consisted of chalk rubble, becoming finer in pockets towards the base, overlying the buried topsoil, which was dark greyish brown (10YR4/2) stone free silty clay (Sample 1) and appeared to have been leached in places. The topsoil was separated by an iron/manganese oxides pan from an underlying greyish brown (10YR5/2) silty clay containing many mollusc shells (Sample 2). Below this was a mixed layer containing pea grit and snail shells (Sample 3), overlying the weathered chalk (Sample 4). Particle size analysis and loss on ignition determinations were carried out on the samples and the results are shown in Table 1.

Table 1.

Sample No.	Sand%	Silt%	Clay%	Loss on ignition %
1	14.1	44.5	41.4	7.89
2	14.8	42.8	42.4	7.30
3	20.8	30.0	49.2	3.31
4	18.5	30.5	51.0	1.42

The buried soil was very similar to that described by Evans in 1972 and appeared to be a Brown Rendzina, similar to the Andover series, a full description of which may be found in Jarvis et al (1979) and other publications of the Soil Survey of England and Wales. As noted by Evans et al (1984) there was some evidence of decalcification and the soil profile is consistent with that which would be expected to develop under grassland on this parent material. There appeared to have been considerable compaction of the soil beneath the bank, as evidenced by heavy mottling throughout the profile. Micromorphological examination of a soil thin-section was carried out by R. Macphail but, unfortunately, the sample provided by the excavator was not from the location described in this report and appeared to have been taken at a point where the buried soil had been truncated.

Summary:

The soil buried beneath the bank in the Great Barn, Avebury, was a brown rendzina, similar to the Andover series, which supported grassland vegetation at the time of burial.

References: 1) Evans J.G. (1972) Land Snails in Archaeology. Seminar Press, London. 2) Evans, J.G., Pitts, M.W. and Williams, D. (1984) An Excavation at Avebury, Wiltshire, 1982. Unpublished draft report. 3) Jarvis, M.G., Hazelden, J. and Mackney, D. (1979) Soils of Berkshire. Soil Survey Bulletin No. 8, Harpenden.

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Plate 1



Plate

