AOAU Rpt 3054 SITE 700

REPORT ON SOIL COLOUR VARIATION OF RURAL ROMAN AND PERHAPS LATER OCCUPATION AREAS AT LETCHLADE (OXFORDSHIRE), AND THEIR RELATIONSHIP TO THE "DARK EARTH" OF COMPARABLE AGE AT URBAN SITES

In the Spring of 1979 the Oxfordshire Archaeological Unit (Field Officer, David Miles) proposed to extend their prehistoric and later field system survey at Clayden Pike to a field chequered by dark occupation areas which were associated with Roman dwellings. These dark soil areas (very dark grey, 10YR3/1) merged laterally with lighter coloured soil (dark yellowish brown, 10YR3/4) even though the field had been ploughed up regularly for a long time. Both the brown soil and the dark soil were sampled to see how these differ, even though they are both present day Ap horizons. In particular the soils were tested for loss on ignition and for alkali soluble humus.

Both soils have the same pH and Phosphate-test result, and are humose, as is expected of an agricultural soil. However, what is worthy of remark is the close similarity of both organic carbon and loss on ignition for both samples (see data). It may be that all but very finely comminuted charcoal which, it is believed, bestows this dark colour on the soil particles, has been oxidised off since its occupation, and the analytical data is thus more of a reflection of the present Ap horizon. Fine charcoal, as described above has been identified in thin sections of "dark earth" sensu stricto elsewhere and is believed to be responsible for the dark colour. The dark soil areas then may relate to occupation, and could indicate destruction debris, although modern disturbance has perhaps dispersed other material obvious in exposed urban "dark earth". Perhaps some further environmental evidence may come to light during the excavation.

Thus, even whilst it is a disturbed site, the effect of occupation on post-Roman areas appears to produce this dark soil colouration, here seemingly concentrated into specific small sites (generally less than 10 metres across). We may therefore comment that post-Roman occupation was not prolonged, in that the dark soil areas have not coalesced, and as the site was not enclosed as in an

urban environment, there is no vertical accretion of dark material as would be expected from usage of a confined site.

Data

Sample	pH	Phosphate	Alk. Sol. Humus	% loss on ignition	Colour Wet	Colour Dry
Brown Ap	7.5	Pos-W	108.0	10.3	10YR3/4	5YR3/4
Black Ap	7.5	Pos-W	109.0	9.9	10YR3/1	10YR3/2

N.B. a) Alk. sol. humus, mgms. per 100 gms. air dry soil.

b) Phosphate Pos-W, approximately 0.15-0.8% P_2O_5.

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30th January 1980