

**Figure 3-16: White Horse Stone – soil micromorphology, phosphate and magnetic susceptibility**

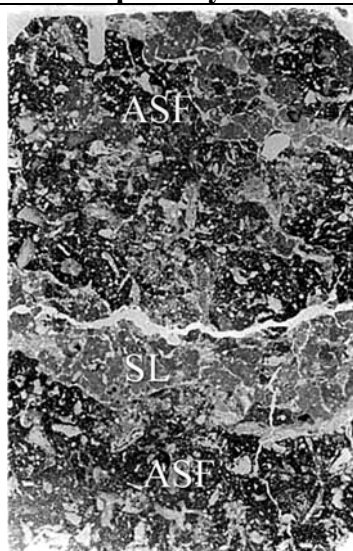


Figure 3: Scan of sample 300a, showing Younger Dryas deposits composed of layers of chaotic Allerød soil fragments (ASF) separated by a soliflual layer (SL) that was clearly visible in the field. Width is ~50 mm.

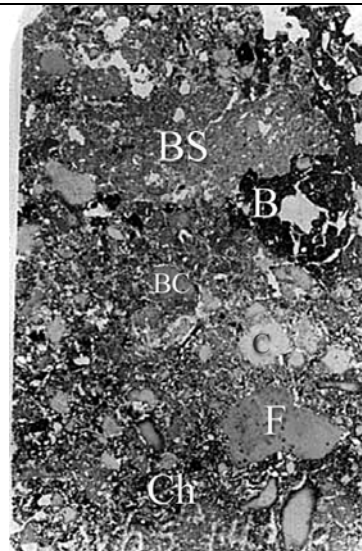


Figure 4: Scan of sample 143b, a Late Iron Age posthole fill, with burned soil (BS), burned chalk (BC), charcoal (Ch), chalk (C) and flint (F) and a later burrow (B); burning also indicated by  $\chi_{\text{conv}}$  (39.5%). Width is ~50 mm.

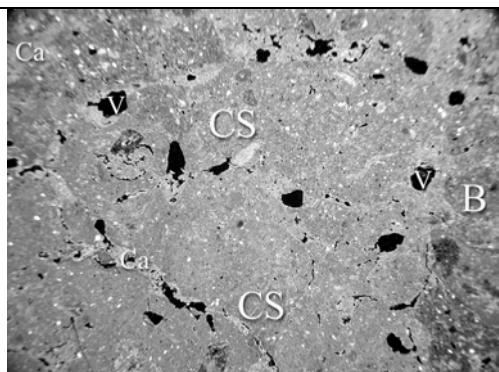


Figure 5: Microphotograph of sample 300a – calcium carbonate (Ca) cemented Older Dryas(?) deposits, with relict root channels (voids - V) and welded chalk soil (CS) clasts; some voids (V) are part infilled with secondary calcium carbonate (Ca); a later burrow (B) could date to the Allerød(?). Crossed polarised light (XPL), width is ~7mm.

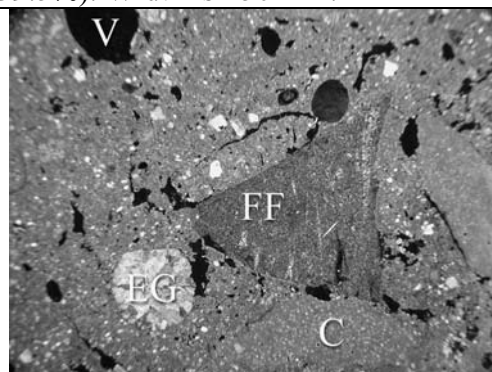


Figure 6: Microphotograph of sample 98b – a soil debris flow during the Younger Dryas(?) containing Allerød soil, a possible flint flake (FF), an earthworm granule (EG) of biogenic calcite and chalk (C); some voids (V) are closed vughs indicative of structural collapse. XPL, width is ~7mm.

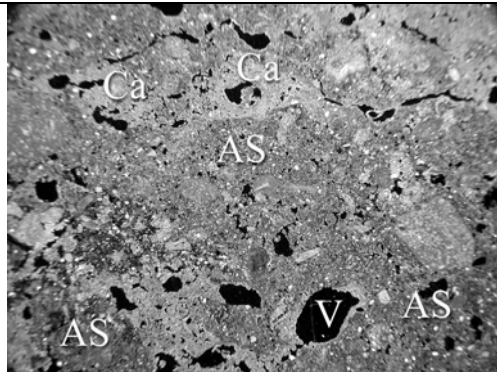


Figure 7: Microphotograph of sample 300a – Younger Dryas(?), showing chaotic mixture of dark humic Allerød soil (AS) fragments and void (V) inwash of pale chalky soil and infills by secondary calcium carbonate (Ca). XPL, width is ~7mm.

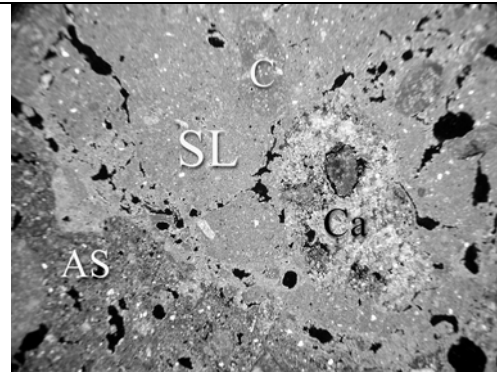


Figure 8: Microphotograph of sample 300a – Younger Dryas(?), showing detail of Fig 3, where a soliflual layer (SL) of chalk mud and chalk (C) clasts has washed over a darker more humic layer of chaotically deposited Allerød soil (AS) fragments (see Fig 7). XPL, width is ~7mm.

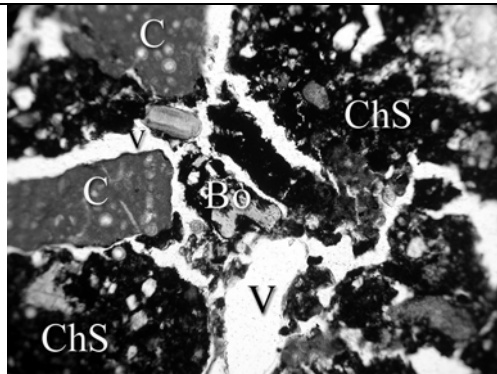


Figure 9: Microphotograph of sample 473 (4887) – an Early Neolithic longhouse posthole fill; showing infill by dark, charcoal rich beaten-floor(?) soil (ChS), chalk (C) and a fine fragment of bone (Bo); the soil is open with voids (V) because of biological activity; burned soil is also indicated by  $\chi_{\text{conv}}$  (24.2%). Plane polarised light (PPL), width is ~1.75mm.

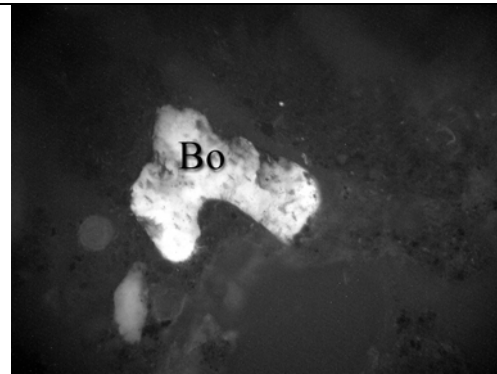


Figure 10: Microphotograph of sample 473; detail of bone fragment that is autofluorescent under blue light (BL) due to apatite mineralogy. BL, width is 0.9mm.

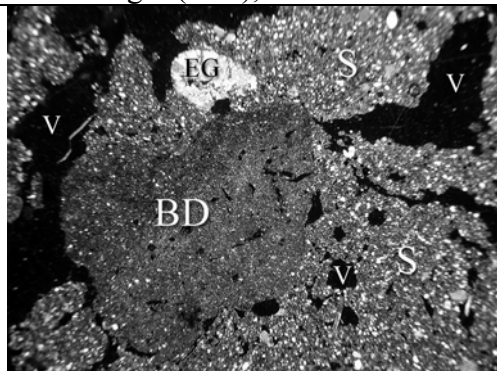


Figure 11: Microphotograph of sample 92a – the later prehistoric palaeosol; a part earthworm worked colluvial

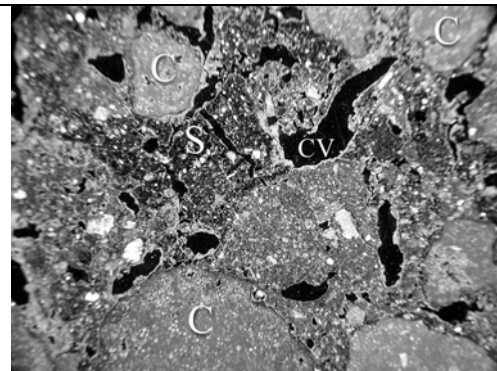


Figure 12: Microphotograph of sample 298a – the later prehistoric palaeosol, showing a high-energy slurry (colluvium)

ploughsoil showing some slaked soil, both open and closed voids (V), an earthworm granule of biogenic calcite and a large fragment of burned daub (BD) possibly indicating manuring. XPL, width is ~7mm.

of dark humic soil clasts (S), chalk stones (C), coated voids (CV), where chalky fine soil (intercalatory textural features) and secondary calcium carbonate line soil pores forming closed vughs. XPL, width is ~7mm.

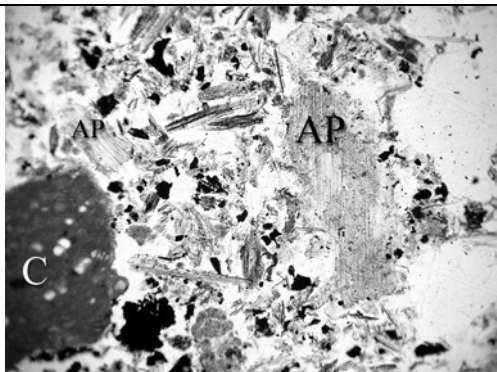


Figure 13: Microphotograph of sample 145 – Late Iron Age pit fill of ash, burned dung and cereal processing waste, showing chalk (C) and articulated phytoliths (AP). PPL, frame width is 4.4mm.

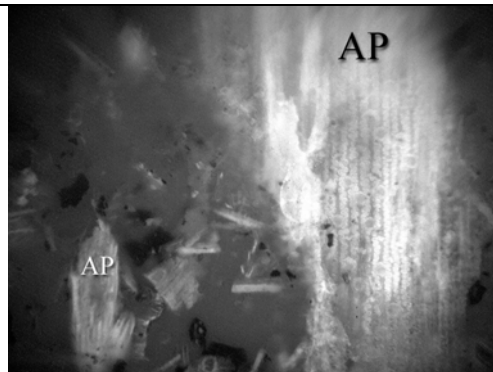


Figure 14: Microphotograph of sample 145; detail showing blue light autofluorescent articulated phytoliths (AP); some phytoliths are embedded in phosphate (stabling floor); extremely strong signs of burning ( $\chi_{\text{conv}}$ , 52.6%) and strong phosphate enrichment (phosphate-P, 6.02 mg/g). BL, frame width is 1.75mm.

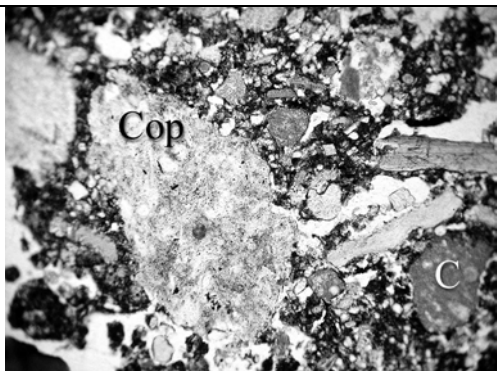


Figure 15: Microphotograph of sample 143a – Late Iron Age pit fill that includes chalk stones (C) and a grey-colourless coprolite (Cop), which contains likely cereal remains. PPL, width is 1.75mm.

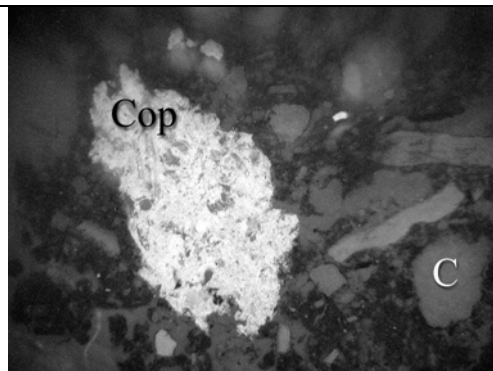


Figure 16: Microphotograph of sample 143a; detail showing non-autofluorescent chalk (C) and the likely apatite phosphate mineralogy of the autofluorescent coprolite (Cop); possible cereal remains can be observed. BL, width is 1.75mm.