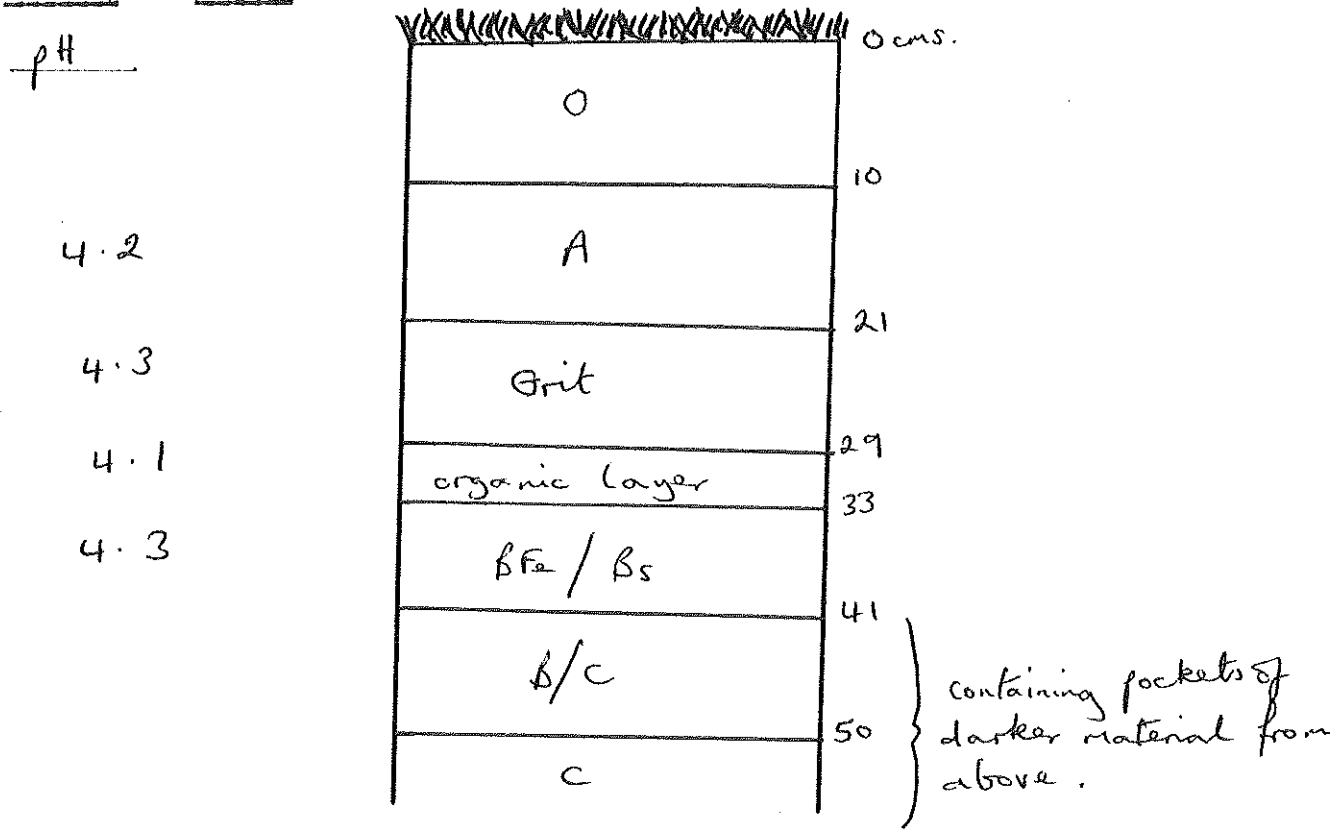
ANC Report 2545
ENVIRON .. 29/78

Central Excavation Unit excavations, Shaugh Moor, Devon - the Cairn Field site

Interim soil report by H C M Keeley

Cairn 4 Site I



The site was moderately drained; the profile well drained. Slope was 5° and roots were present throughout the profile. Pollen samples were collected from this section.

0-10 cms was black (10YR2/1) organic coarse sandy loam, moderately friable and with moderate medium angular blocky structure. Roots were abundant, coarse to fine fibrous and stones common, gravel to large (20%).

10-21 cms was black (10YR2/1) coarse sandy loam, friable and with medium angular blocky structure. Roots were abundant, medium to fine fibrous and stones common, gravel to small (15%).

21-29 cms was dark greyish brown (10YR4/2) coarse sandy loam, weakly friable and with moderate medium subangular blocky structure. Roots were few, fine, fibrous and stones many, gravel to medium (mainly gravel) 40%.

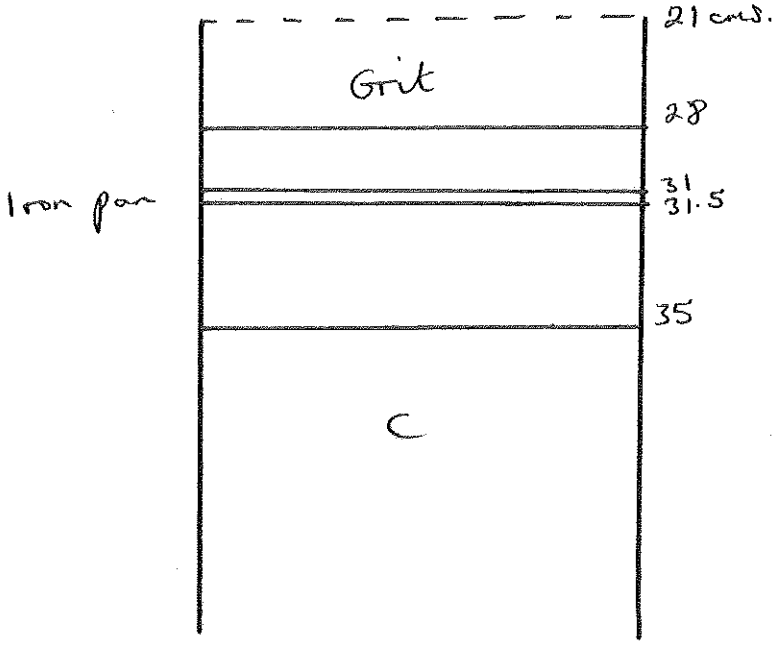
29-33 cms was black coarse sandy clay loam, containing about 5% distinct small strong brown mottles, moderately friable and with moderate medium angular blocky structure.

33-41 cms was very dark brown (10YR2/2) coarse sandy clay loam, containing about 40% coarse distinct strong brown mottles, friable and with weak medium angular blocky structure. Roots were few, fine fibrous and stones 10% (common) - gravel sized.

41-50 cms was dark yellowish brown (10YR3/4) coarse sandy clay, moderately friable and with moderate medium subangular blocky structure. Roots were few, fine fibrous and stones common (10%), gravel.

Below 50 cms was yellowish brown (10YR5/6) moderately friable coarse sandy clay with weak granular structure, containing abundant stones (50%) - gravel to medium (mainly gravel) and few, fine fibrous roots.

Cairn 4 Site II



The site was moderately drained; profile freely drained. Slope was 3° and the soil profile described was overlain by a granite boulder.

21-28 cms was very dark grey (10YR3/1) moderately friable coarse sandy loam with moderate medium angular blocky structure, containing many stones (40%) gravel to large (mainly gravel) and common medium to fine fibrous roots.

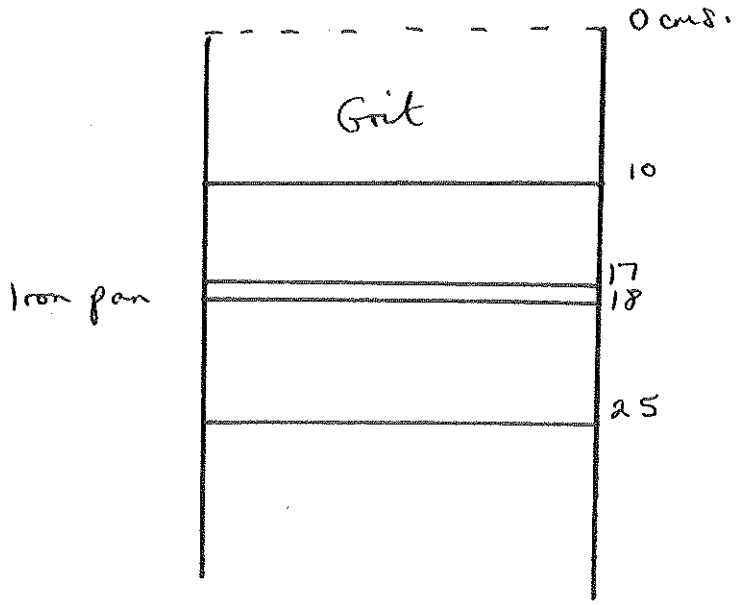
28-31 cms was very dark greyish brown (10YR3/2) friable coarse sandy clay loam with weak medium subangular blocky structure, containing few stones (gravel) and few fine fibrous roots.

31-31.5 cms was a thin iron pan.

31.5-35 cms was dark yellowish brown (10YR3/4) moderately friable coarse sandy clay loam with medium weak subangular blocky structure, containing common stones (20%) gravel to medium and few fine fibrous roots.

Below 35 cms was yellowish brown (10YR5/6) friable coarse sandy clay with weak medium granular structure, containing many stones (30%) gravel to medium (mainly gravel) and few fine fibrous roots.

Site III 3/10



The site was moderately drained; profile freely drained. Slope was 3° and the profile described was overlain by a granite boulder.

0-10 cms was very dark greyish brown (10YR3/2) moderately friable coarse sandy clay loam with moderate medium angular blocky structure, containing many stones (30%) gravel to medium and common medium to fine fibrous roots.

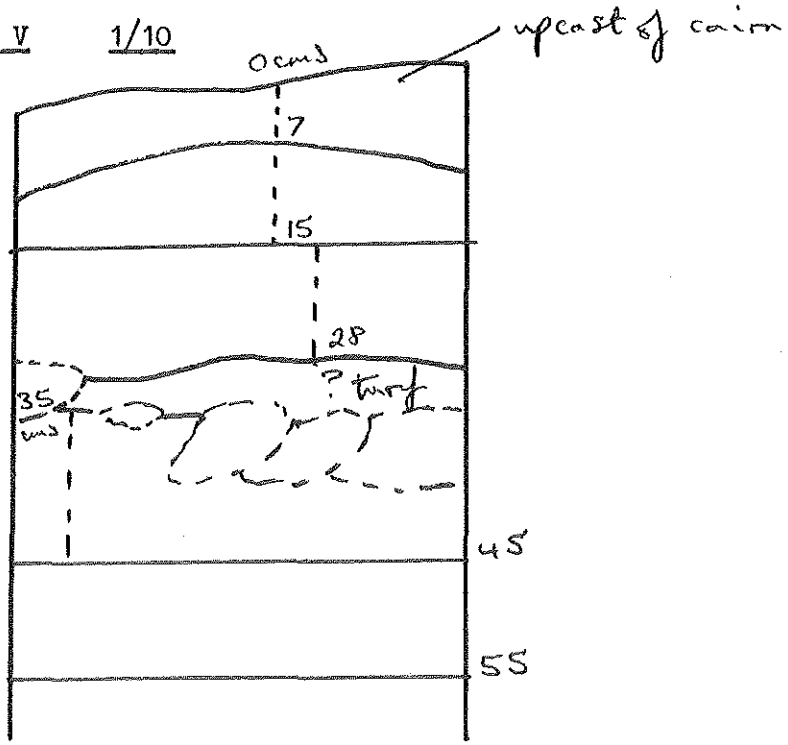
10-17 cms was very dark brown (10YR2/2) moderately friable coarse sandy clay with patches of strong brown mottling. Structure was moderate medium angular blocky; stones few (gravel to medium) and roots few, fine fibrous.

17-18 cms was a thin iron pan.

18-25 cms was brown (10YR4/3) friable coarse sandy clay with weak medium subangular blocky structure, containing common stones (20%), gravel to medium, and few fine fibrous roots.

Below 25 cms was yellowish brown (10YR5/6) friable coarse sandy clay with weak medium granular structure, containing many stones (40%), gravel to large, and few fine fibrous roots.

Sites IV and V 1/10



The site was moderately drained; profile freely drained; slope 2°.

0-7 cms was the root mat.

7-15 cms was black (10YR2/1) moderately friable coarse sandy loam with moderate medium subangular blocky structure, containing abundant coarse to fine woody and fibrous roots and common stones (15%), gravel to medium.

15-28 cms was very dark greyish brown (10YR3/2) friable coarse sandy loam with moderate medium granular structure, containing abundant coarse to fine fibrous and woody roots and abundant stones (gravel to large).

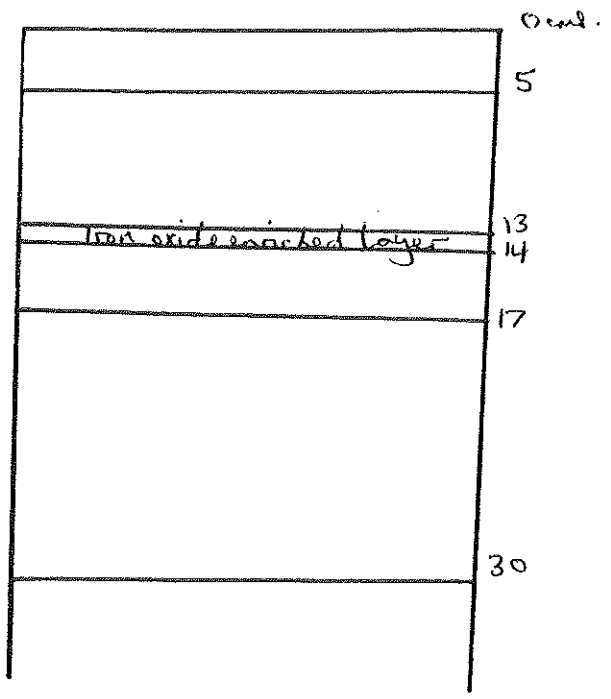
28-35 cms was very dark grey (10YR3/1) moderately friable coarse sandy clay loam with moderate medium angular blocky structure, containing few stones (gravel) and common fine fibrous roots.

35-45 cms was dark brown (10YR3/3) moderately friable coarse sandy clay loam containing 10% strong brown mottles (there was no discrete iron pan). Structure was weak medium angular blocky; roots were few, fine fibrous and stones few (gravel).

45-55 cms was dark yellowish brown (10YR4/4) friable coarse sandy clay with weak medium granular structure, containing some darker material in root channels, few fine fibrous roots and few stones (gravel to small).

Below 55 cms was yellowish brown (10YR5/4) moderately friable coarse sandy clay with weak medium angular blocky structure, containing few fine fibrous roots and many stones (30%) gravel to small.

Site VI 1/10



Freely drained profile below large stone; moderately drained site. Slope 3°.

0-5 cms was black (10YR2/1) organic coarse sandy loam, moderately friable and with moderate medium subangular blocky structure. Roots were common, medium to fine, fibrous and stones common (15%), mainly gravel but some to medium size.

5-13 cms was very dark greyish brown (10YR3/2) moderately friable coarse sandy clay loam with moderate medium subangular blocky structure. Roots were few, fine, fibrous and stones common (15%), gravel. This layer showed signs of being leached.

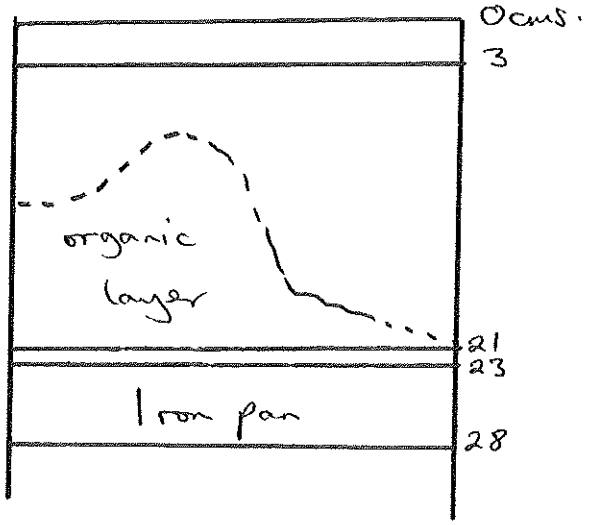
13-14 cms was an iron oxide enriched layer but not an actual pan.

14-17 cms was dark brown (10YR3/3) moderately friable coarse sandy clay loam with weak medium subangular blocky structure. Roots were few, fine, fibrous and stones common (10%), gravel.

17-30 cms was dark yellowish brown (10YR4/4) moderately friable coarse sandy clay loam with moderate medium subangular blocky structure. Roots were few, fine fibrous and stones few, gravel to medium. This layer contained some patches of dark brown material from above.

Below 30 cms was dark yellowish brown (10YR4/6) moderately friable coarse sandy clay loam with moderate medium angular blocky structure. Roots were few, fine, fibrous and stones many (30%), gravel to small. Manganese oxide staining and concretions were noted in root channels and some patches of dark brown material from upper horizons were noted.

Site VII 2/10



Freely drained profile beneath stone (itself buried by about 40 cms of mound material). Site drainage moderate; slope 3°.

0-3 cms was black (10YR2/1) friable coarse organic sandy loam containing a few fragments of oak charcoal. Structure was moderate medium subangular blocky. Roots were abundant, fine fibrous and stones common (5%) gravel to small.

3-12 cms was very dark grey (10YR3/1) friable coarse sandy loam with moderate medium angular blocky structure. Roots were common, fine fibrous and stones common (10%), gravel.

12-21 cms was black (10YR2/1) organic coarse sandy clay loam containing charcoal fragments (including Oak). Structure was moderate, medium subangular blocky; friable. Roots were few, fine fibrous and stones few (gravel).

21-23 cms was brown (10YR5/3) mixed with yellowish brown (10YR5/8) coarse sandy loam. Proportions of the latter varied from 10-60% across the profile. Thin bands of dark brown organic matter, in some cases resembling old roots, were noted. Roots were few fine, fibrous and stones common (5%) gravel to medium.

23-28 cms was a thick, hard iron pan.

Below 28 cms was yellowish brown (10YR5/4) moderately friable coarse sandy clay loam with weak medium granular structure. There was some manganese oxide staining in root channels. Roots were few fine fibrous and stones abundant (40%) gravel to large.

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Comments

At some places on the Cairn Field there was an organic layer at depth which could be a buried Ah horizon or a Bh horizon (eg 29-33 cms at Site I; 12-21 cms at Site VII). As this was obviously an important factor in relation to the archaeological interpretation of the site, samples were taken for micromorphological examination. Details of this work can be found in AM Lab Reports 2445 and 2492.

It was concluded that the organic layer represents a buried Ah horizon which, presumably, represents a pre-Bronze Age ground surface. This could in fact be a Mesolithic surface - a microlith was apparently found at this level on the site (G Wainwright, pers comm). Further work is being carried out to determine the extent of this horizon.

Otherwise, the soils of the Cairn Field were fairly typical of the stagnopodzols and variants found in the surrounding area.