

Report on soils at Madison Street, Southampton,

visited 6/10/80

By Helen C M Keeley

A section of a ? Saxon plough soil, underlying gravel of the motte, was examined. The site was flat, without vegetation and moderately drained.

AI 0 to 25 cms, was very dark greyish brown (10YR³/2), with about 30% dark yellowish brown (10YR⁴/4). moderately friable fine sandy (silt) loam with weak medium angular blocky structure and occasional fine distinct rusty mottles. Stones were 5% gravel to medium (mainly flints - some rounded) and fragments of pot and charcoal were present.

AII Below 25 cms was dark yellowish brown (10YR⁴/6) containing much darker material from above. The horizon was moderately friable with fine sandy loam texture, weak medium angular blocky structure and having 5% medium diffuse rusty mottles. Stones were 5% gravel to medium and flecks of charcoal and fired clay occurred.

Earthworm action was noticeable and many fragments of pot and charcoal occurred in worm channels reaching into the underlying brick earth.

Samples from both horizons gave positive reactions to the phosphate spot test, in contrast to a trace from the brickearth, a confirming their association with human activity on the site.

The profile appeared to represent a disturbed /cultivated gleyed brown earth developed on brickearth.

A Prehistoric soil below the rampart was also examined. The site was flat and poorly drained. Beneath the rampart the soil appeared to have been protected and at some points a thin grey turf line could be seen overlying the A horizon. Away from the rampart the soil had been disturbed by worm action and the humus in the upper layers of the soil appeared to have been oxidised. An iron nail was found at the base of the topsoil, indicating disturbance outside the rampart.

Many fragments of charcoal and fired clay occurred in the buried soil. pH and phosphate determinations gave the following results:-

		<u>pH</u>	<u>phosphate</u>
BI	Rampart material	8.0	strong
	Buried turf line	7.5	Not determined
BII	Buried topsoil	7.5	Positive
BIII	Subsoil	7.2	Weak
BIV	Brickearth (parent material)	6.8	Trace

The rampart material was yellowish brown (10YR4/6) moderately friable medium sandy loam with moderate medium subangular blocky structure. Stones were 20% gravel to medium and occasional charcoal flecks were present.

The buried topsoil was dark brown (10YR3/3) moderately friable fine sandy silt loam with moderate medium angular blocky structure. Few distinct rusty mottles were present; stones 5% gravel to small and charcoal fragments occurred.

The subsoil was brown/dark brown (10YR4/4) firm fine sandy silt loam with moderate medium subangular blocky structure. Stones were few and charcoal fragments present.

The underlying brickearth was dark yellowish brown (10YR4/6) firm fine sandy silt loam with moderate medium subangular blocky structure. Stones were few; charcoal fragments occurred in earthworm channels and occasional manganese oxide concretions were present at depth.

The buried soil appeared to be a gleyed brown earth developed on brickearth which had been disturbed/cultivated but later had a permanent vegetation cover. Further work is necessary to elucidate the history of this soil in relation to human activity on the site. Unfortunately the pH of the deposits is just above neutral, so pollen survival will be poor, but it may be possible to find out more about the environment at the time by studying the soil itself, carbonised plant, remains, etc.