

# ANCIENT MONUMENTS LABORATORY

## REPORT

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CONTRACTOR

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**TITLE**

Soil report on turf stack and buried soil  
at Gallows Hill, Thetford, Norfolk

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(864844)

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During the winter of 1978/79, excavations were carried out by the Norfolk Archaeology Unit, in conjunction with the environmental archaeology officer for East Anglia (Mr Peter Murphy) of a Bronze Age barrow at Gallows Hill (5744 THD). The feature comprises a low mound of narrow turves over an immature soil formed in blown sand, which is influenced by a perched water table. The soil was briefly described, and with an example of the mound, was sampled for alkali carbon and ignition analyses, so as to corroborate the horizon notation and to judge the level of soil development. The base-rich nature of the soil was also tested, while additionally samples independently collected by Peter Murphy were investigated to ascertain the full gleyed character of the soil.

Soil Report:

The mound consists of narrow sandy turves with dark reddish brown (5YR3/3) A horizons and strong brown (7.5YR5/8) B horizons. Underlying, is a narrow (5 cms) dark reddish brown (5YR3/3) sandy A1(g) horizon overlying generally reddish brown (5YR4/3) B(g) horizons which exhibit common pale mottles. Overall, the profile becomes increasingly wet with depth, most probably because of the impervious sandy clay loam B4(g) horizon at 1 metre down. The local Soil Surveyor (Mr W M Corbett) suggests the soil is an example of the Row Series, a ground-water gley, developed on high level gravels.

A white precipitate in the turf mound indicated that the soil was base-rich and thus of little use for soil pollen analysis. The pH values of the soil confirmed this supposition. The analytical tests also showed the A horizon in the turf stack to be markedly more rich in alkali carbon than its B horizon, thus supporting the contention that the mound does comprise of turves. In contrast, the A1(g) horizon of the buried soil shows little organic carbon in comparison with the A horizon of the turf, but this can be explained by the rise and fall of the water table dispersing the organic carbon. Dark material at 15 cm depth could be the result of such movement, which has concentrated very much organic carbon in this position. The soil ignitions show little movement of iron in the upper profile, whereas the B3(g) horizon looks to have lost much iron to the B4(g) horizon due to gleying.

#### Data

Horizon	Depth	Alkali Sol. Carbon (ppm)	pH
Turf A		192	
Turf B		58	
A1(g)	5 cm	71	6.5
B1(g)	15 cm	361	6.5
B1(g)	25 cm	92	7.1
B2(g)	50 cm		6.9
B3(g)	80 cm		7.0
B4(g)	100 cm		7.5

Immature Sandy Gley Soil at Gallows Hill, Norfolk.

Ignited Profile

Alkali Sol. Carbon

