

HILL FARM, GOLDCLIFF: A FIELD EVALUATION ON THE PROPOSED GWENT LEVELS NATURE RESERVE, 1996

by Martin Locock

Introduction

As part of the mitigatory works to compensate for the impact of the construction of the Cardiff Bay Barrage, a proposal has been prepared to create a series of lagoons on the Gwent coast in order to provide bird feeding grounds at Hill Farm, Goldcliff. An archaeological field evaluation of the area was undertaken by the Glamorgan-Gwent Archaeological Trust in summer 1996. A two-stage programme of evaluation was undertaken, comprising an initial core-sampling phase, examining two transects across the site, and subsequent evaluation trenching.

The site covers an area centred on ST 368 825, lying between Hill Farm, on Goldcliff Point, and Goldcliff Pill, to the north of the previous Goldcliff excavations (see below). To the southwest of the site is the sea wall, beyond which lies the extensive foreshore. The east of the site is marked by Mireland Pill Reen and an old droveway from Level Common to Hill Farm. The area is divided into nine fields (identified for this project by the letters A-I) by a system of reens. The ground is very flat, at approximately 6 m OD, although well-marked field grips (ridging in the surface of the fields) survive in parts of the site (notably in fields D, E and F). The bedrock promontory on which Hill Farm is located slopes down to the north, reaching the extensive alluvial silts of the Caldicot Level proper at the south edge of fields E and I. The present sea wall was substantially enhanced in the 1930s (M. Bell, pers. comm.), when material from the seaward part of the study area was excavated. This created a back-ditch, which was subsequently infilled. Part of the Hill Farm group of buildings is thought to retain elements of the medieval monastery of Goldcliff Priory (PRN 284g; Williams 1971).

Previous work

The Goldcliff stone (PRN 277g)

The first evidence for Roman involvement in managing the Levels was the discovery in 1878 of an inscribed stone found on the foreshore west of the present site (Morgan 1882; Wright 1956; Knight 1962). Boon (1980) suggests that the stone marks the boundary of the *territorium* of the legion based at nearby Caerleon.

Excavation and survey, 1990-5

Following the discovery of prehistoric features on the foreshore south of Goldcliff Point in 1990 (Parkhouse 1991), Martin Bell of University of Wales: Lampeter has undertaken an extensive programme of excavation and survey, mainly on the foreshore, where features are eroding out of the peat (Bell 1992a; 1992b; 1993; 1995; 1996).

More limited fieldwork has been carried out on the solid geology, including a trench in 1992 northwest of Hill Farm, an auger transect running north into field E, and a watching brief on Hill Farm Pond in 1994 (Bell 1995). A substantial quantity of Roman pottery was recovered from the pond area (more than 500 sherds), associated with a possible buried soil (Unit 6/7). Two ditch-cuts were recorded in the sections, in the southwest and southeast faces; these were large flat-bottomed features, 1 m deep and 2 m+ wide (Bell 1995, fig. 63). This evidence of activity implies that a settlement site lies in the very near vicinity.

Landscape analysis

The evidence for the development of the historic landscape of the Gwent Levels has been the subject of a major research project (Rippon 1996). The most significant feature identified

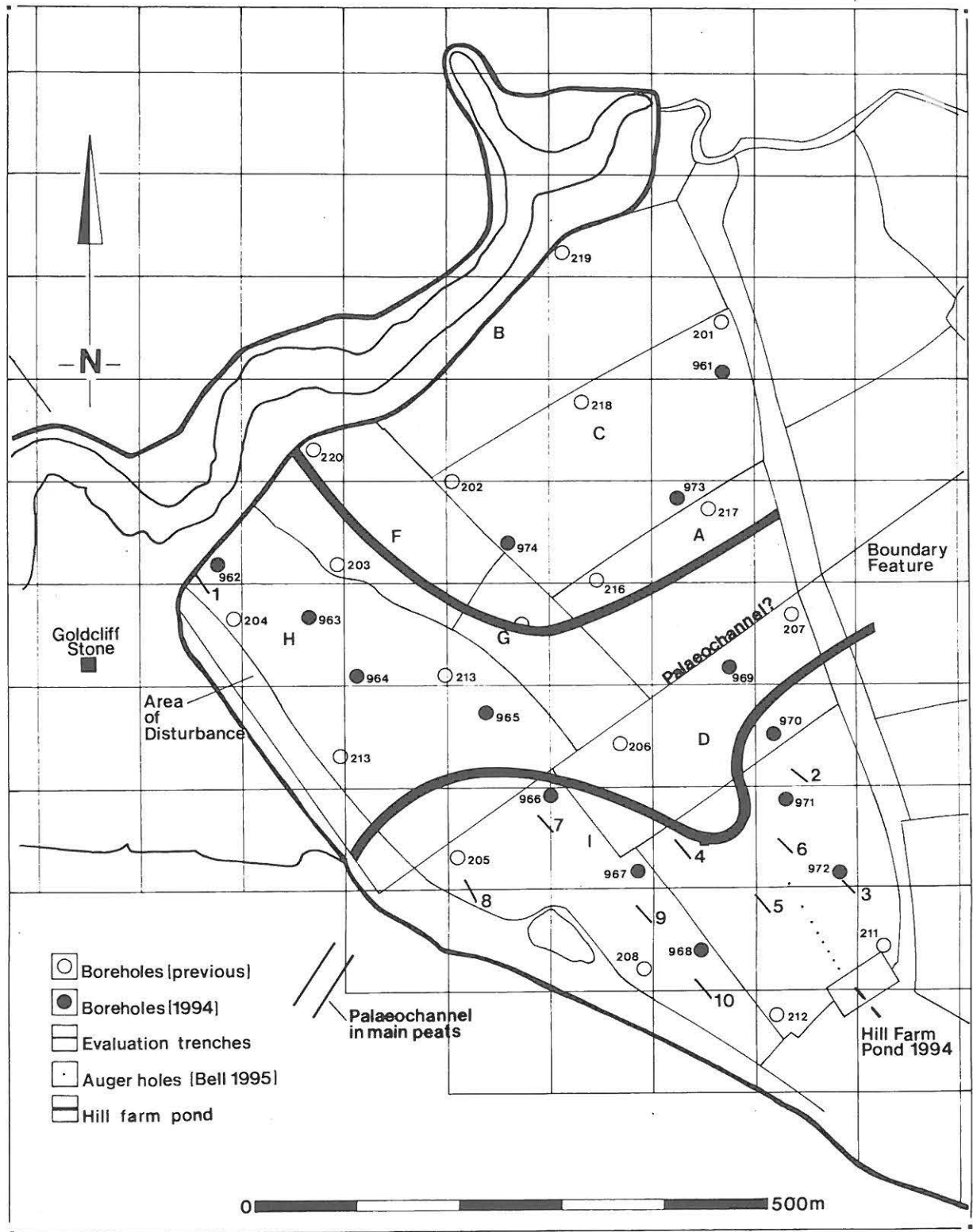


Figure 1: Hill Farm, Goldcliff, 1996, showing location of boreholes and presumed palaeochannel.

in the Goldcliff area is an early boundary across Goldcliff Pill, which is 'undated [but] appears to pre-date the droveway north of Goldcliff Point' (Rippon 1996, 34).

Borehole survey

Two borehole transects were carried out, along the east and west sides of the site, using a drive-in window sampler, to a depth of 4 m below ground level (to *c.* 2 m OD). The 1996 boreholes are identified by a number sequence beginning 961, to distinguish them from previous surveys.

The deposits on the site are estuarine clays of the Wentlooge Formation, which were laid down as a result of post-glacial sedimentation on the shores of the Severn Estuary. Variations in topography and climate as the deposits accumulated led to peat growth, interrupted by periodic marine transgressions. The peat deposits are exposed on the foreshore and continue inland, buried by later silting. The main peat deposit has been plotted by Bell (1995, 137, fig. 61); the top of the peat rises from 0.5 m OD in borehole 209 to 4 m OD in Bell's auger transect immediately north of Hill Farm Pond. This peat was only encountered in 974, in field C (at 2.1 m OD), and 972, in field E (at 2.03 m OD).

| | |
|--------|---|
| 6 m OD | Topsoil Grey clay without Mn and Fe Black lens |
| 5 m OD | Grey clay with Mn and Fe flecks Blue/grey clay with intermittent peat bands |
| 2 m OD | Main peat |

Table 1: Principal stratigraphic units of the upper sedimentary sequence

Overlying the main peat is a sequence of clay deposits, the Upper Wentlooge Formation, which contain intermittent shallow peat bands between 3 m-4 m OD. The clay becomes greyer towards the surface, and a well-marked division between clays with heavy Mn and Fe flecking and overlying clays without flecking was observed across the site at 5 m OD, often with a thin distinct layer of black material (recorded from visual inspection as Mn) at the boundary. No identifiable charcoal was found.

The principal aim of the borehole survey

was to allow the selection of the best locations for the evaluation trenches. Bell (1995; 1996) had suggested that a distinct Roman ground surface, characterised in Hill Farm Pond by weathered clay and charcoal, and perhaps continuing as occasional charcoal noted in his auger transect, may extend across the southern part of the site. The borehole data showed no indication of a stabilised Roman horizon at the predicted 0.8 m depth.

The pattern of presence/absence of peat bands within the blue/grey clay can be taken as an indication of changing topography. It is clear that the narrow peat bands are the result of localised stabilisation and plant growth. The absence of peat bands in field H presumably indicates that this part of the site did not enjoy localised stabilisation, probably because it was subject to a greater degree of inundation, as might be expected closer to the coast.

The absence of peat bands in boreholes 969 and 209 may show the course of a palaeochannel meander belt separating Goldcliff Point from the land to the north. Bell (1995, fig. 43) shows two palaeochannels running through the main peats on the foreshore, the northern of which may be the predecessor to the field E channel.

Evaluation trenches

The evaluation comprised 10 trenches, each 20 m x 1.5m, excavated to a depth of 1.2 m. The stratigraphy revealed broadly conformed to that recorded by the borehole survey. However, it was found that the grey clay with Fe and Mn was covered by a shallow band (0.05 m) of clean stiff blue clay (5GY 5/1) on top of which was a very thin layer recorded on site as an Mn stain (within the scope of the evaluation, only limited specialist analysis was possible; a single sample this layer (from Trench 8) was later identified under the microscope as charred reeds: A. Caseldine and M. Bell, pers. comm.). This corresponds to the black layer identified in the boreholes, and was found throughout the site except where banks were located (in trenches 9 and 6); in trench 3 the black staining was intermittent. The layer, which occurs between 5.0m and 5.2 m OD, was not truly horizontal, and was locally distorted (particularly over gullies). In some places multiple laminae of clay

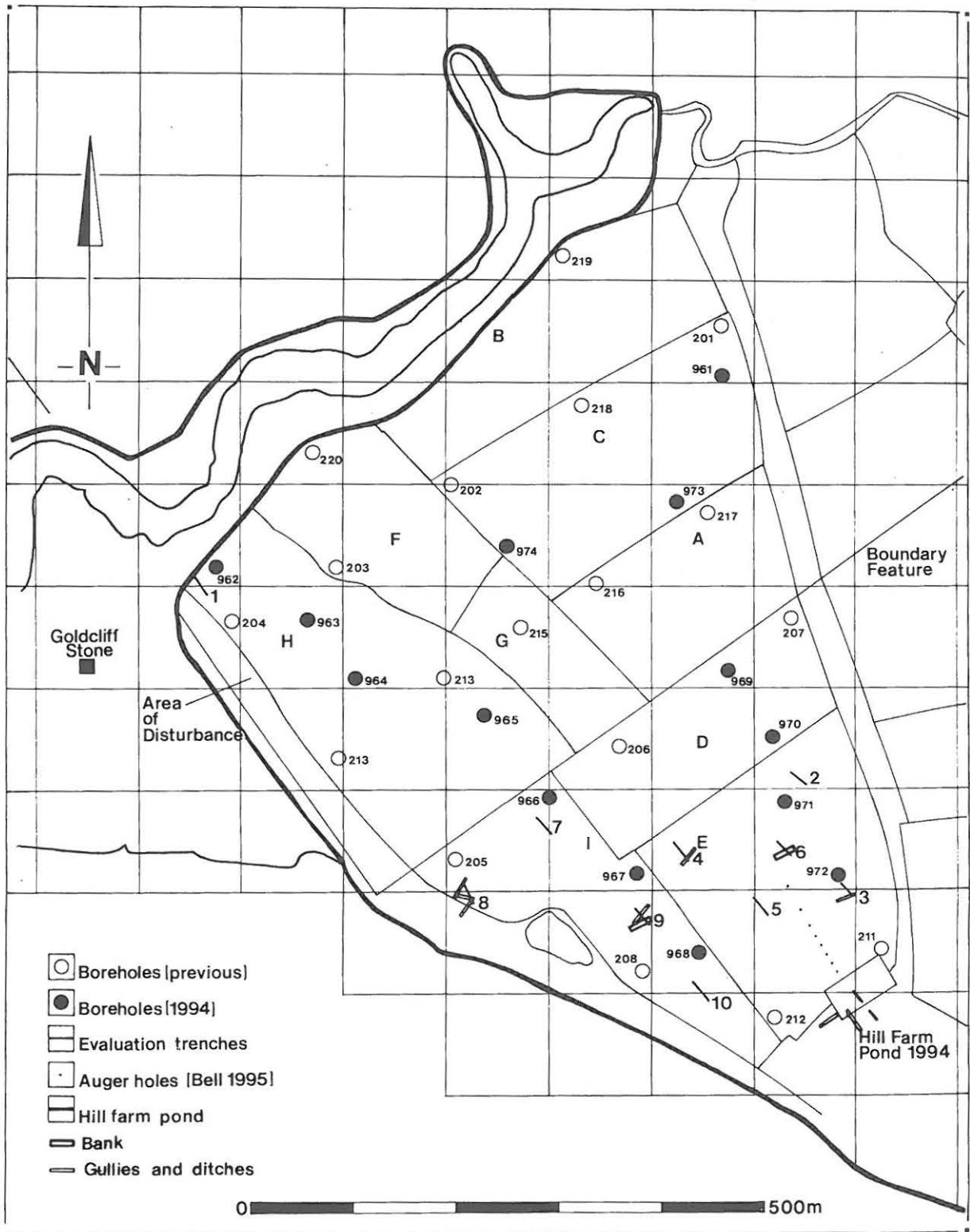


Figure 2: Hill Farm, Goldcliff, 1996, showing location of evaluation trenches and excavated features.

and charcoal could be seen. Above this was the grey clay and topsoil as expected. Trenches 1, 2, 5, 7 and 10 contained no features.

Trench 3

This trench lay in the southeast corner of field C, closest to Hill Farm Pond, running southeast from borehole 972. Grey clay with Fe and Mn (042) was cut by a gully, 0.5 m deep and about 0.3 m wide (044), filled by blue clay (043). The fill displayed some Fe staining. The gully runs east, and is probably cut from about 5.1 m OD, although the upper part of the cut could not be defined because the fill was weathered. The black layer was intermittent, although the blue clay layer (041) was well-defined at 5.20 m OD, sealing the gully.

Trench 4

The grey clay with Fe and Mn (032) was cut by a gully running southwest (034) filled by clean blue clay (033). The gully was approximately 0.7 m wide and 0.4 m deep. The gully was sealed by the blue clay and black layer (031) and the upper clay (030).

Trench 6

The grey clay with Fe and Mn (048) was overlain by the blue clay and black layer (047), which was seen to rise towards the south by 0.2 m before vanishing entirely; it reappeared after 4 m. The blue clay was overlain by grey clay 046. The section is interpreted as reflecting the existence of a bank of clay (053) (the same material as 048) which extended above the inundation blue clay silts. Although the feature was only recorded in the sections, comparison between the two sides of the trench allowed the alignment to be estimated as east-south-east. The width of the bank would therefore be of the order of 3 m; it extended 0.6 m above the black layer.

Trench 8

Three cut features were noted in the lower clay (018); two parallel cuts (020, 024) running south at a spacing of 5 m, and a cut at right-angles between them (022). These were filled

with blue clay and sealed by the blue clay and black layer (017). Each cut was 0.3 m wide and 0.4 m deep.

Trench 9

During machine excavation, it was noted that the black layer dipped at one point, reappeared and then vanished altogether. Following completion of machine trenching elsewhere, it was possible to interpret the stratigraphy in this trench by comparison with that elsewhere. The dip in the black layer in all other cases was associated with an underlying cut feature. In this particular case, excavation did not reach the fill itself, but the presence of a gully similar to that in trench 4 can be inferred with confidence. The absence of the black layer in the south part of the trench is the result of the presence of a bank (as in Trench 6). The blue clay layer (008) reappears after 2.5 m. The overlying grey clay (007) contained two sherds of late medieval coarseware.

Trench 10

The stratigraphy was as noted elsewhere (lower clay with Mn, blue clay and black layer, upper grey clay, topsoil). No features were found. However, a sherd of Romano-British pottery (black burnished ware, 2nd-3rd century AD) and a piece of Roman tile were found in the lower clay (014); and a post-medieval sherd was found in the upper clay (012).

Finds

The single Roman sherd from the evaluation is surprising given the quantity found at Hill Farm Pond (Bell 1995) and the scatter on the sea wall to the west of field I (presumed to have originated from the cutting of the back ditch). This would suggest that the intensity of Roman activity on the site drops off as the bedrock is left (although here and elsewhere activity extends onto the alluvial clays). The evidence for late medieval and 16th-century material within the upper clay may imply that the deposit was still accreting until quite late in the sequence. The residual medieval pottery found in the topsoil is all of late date (13th-15th centuries): the early part of the occupation of

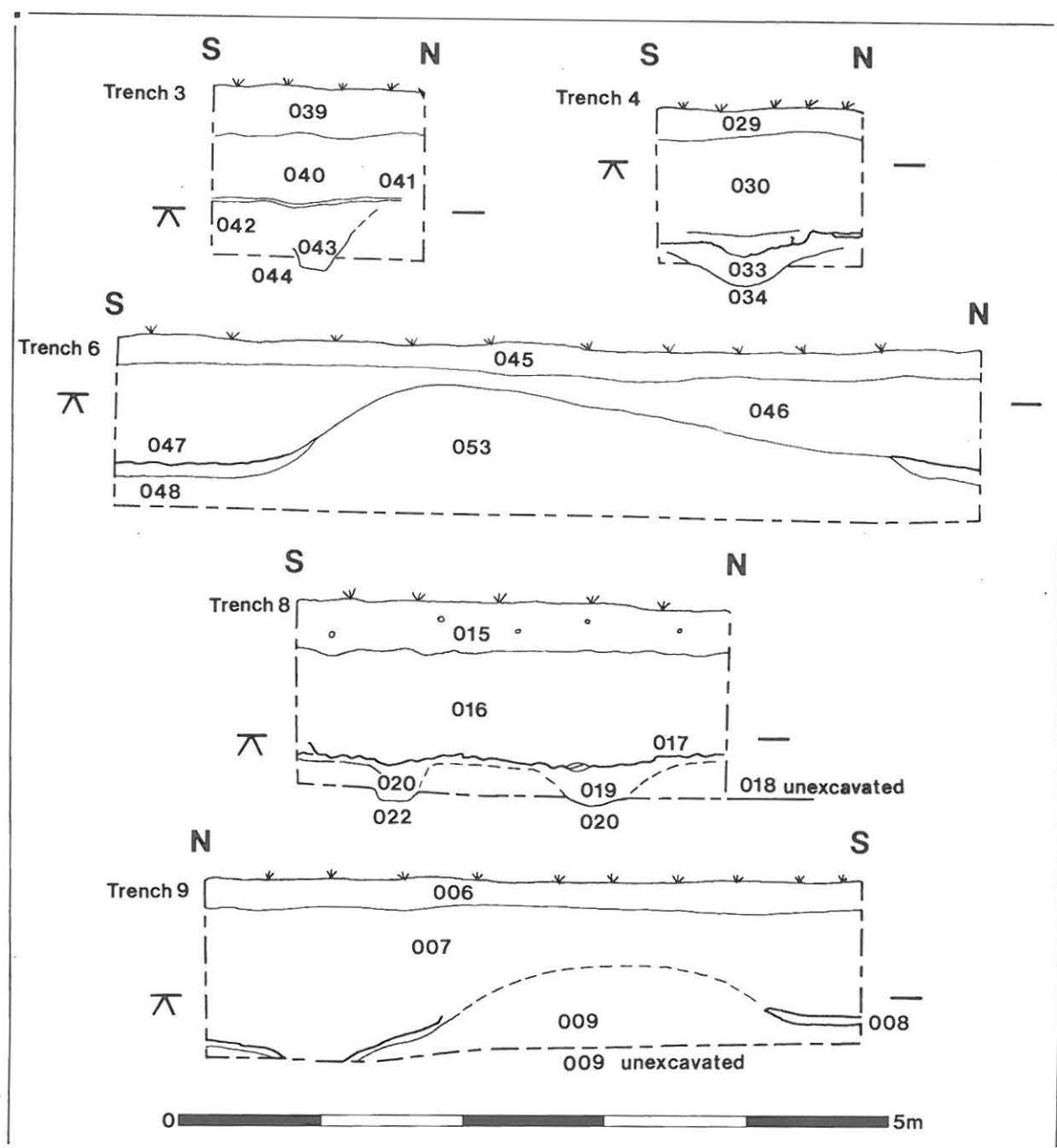


Figure 3: Hill Farm, Goldcliff, 1996, sections across bank and ditch features.

Goldcliff Priory seems to have generated little ceramic material (confirming Bell's (1995, 141) comment on the Hill Farm Pond 1994 assemblage).

Phasing

The general chronological sequence can be established with some confidence, even though direct dating evidence is scarce. The lower grey clay can be assigned to the upper Wentlooge Formation, the result of regular flooding in the first millennium BC.

The cutting of the gullies and the creation of the banks are presumed to be of Roman date (based on the sequence of activity at Hill Farm Pond and the few stratified finds). The flooding of the area, the growth of reed-beds, and their clearance by burning, reflected in the blue clay and black layer are also assumed to be Roman; they show that the earlier features must be broadly contemporary. The Hill Farm Pond sequence included a thin band of organic matter at 5.3 m OD which contained Roman pottery (Bell 1995, fig. 63: unit 11511); if the black layer

corresponds to this then it can therefore be dated with some confidence (thus implying that a transgression occurred within the Roman period).

The growth of the upper grey clay is presumed to be the result of a post-Roman marine transgression; silting continued until the present ground surface became stabilised (Bell 1996, 10).

Discussion

The evaluation produced no evidence of occupation equivalent to the concentration of pottery found to the south, at Hill Farm Pond. No major ditches were found. The charcoal from Bell's auger holes can now be seen to be part of a general semi-natural horizon, rather than directly indicating human activity. As such, the evaluation would appear to show that Roman activity was concentrated on and close to the bedrock of Goldcliff Point.

Drainage features

The evaluation identified elements of a network of straight gullies across the south part of the site; in Trench 8, a rectilinear grid arrangement was found. The banks found in Trenches 6 and 9 can be tentatively linked, as can the gully in Trench 4 and that in Trench 9. This drainage network can be characterised as the lowest-level units of a systematic attempt to improve the drainage and prevent the inundation of a low-lying area previously subject to regular flooding; the gullies might be seen as the equivalent of modern field grips. This type of drainage could result from localised attempts to improve pasture, although the large scale of the work, and the nearby Goldcliff Stone, could imply a military involvement.

Flooding and clearance

The drainage system was filled by a clean blue clay, which extended across the whole site. This presumably reflects renewed flooding; it was followed by the development of reed marsh. The reed marsh was then burnt, again across the entire site. This clearance may have been deliberate.

Post-Roman transgression

The upper grey clay, deposited to a depth of 0.8 m, presumably reflects the continuing flooding of the area in the post-Roman period; it is likely to have continued until the area was protected by a sea wall. This substantial deposit separates the Roman and present ground surface, and makes any precise correlation between the layout of the two landscapes unlikely. The only feature which is known to have protruded above the black layer, the bank in Trenches 6 and 9, does not seem to have imposed an alignment on the overlying landscape.

The sea wall

The critical question of the date of the present ground surface is linked directly with the date at which the area was protected from the sea, thus ending the post-Roman flooding.

Rippon argues that the Caldicot Level must have been protected by a sea wall (now lost) by the 12th century (1996, 67 and fig. 23: 1), although significant flooding certainly occurred in the late medieval and early post-medieval periods. In the 1113 foundation charter for Goldcliff Priory, the land north of the Priory is described as uncultivated marshland (Williams 1971, 48), which might imply that it was then unprotected.

At a later date a new sea wall was created on the present line; Rippon cites references to a sea wall between Goldcliff Pill and Goldcliff Point in the 1650s; it was substantially enhanced around 1800 (Morgan 1882; Coxe 1801, 43). The evidence from the evaluation for the continuing deposition of the upper grey clay into the 16th century may therefore accurately reflect the extent of flooding well after the postulated initial walling of the Level.

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Abbreviations

PRN: Primary Record Number in Regional Sites and Monuments Record

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