ARCHAEOLOGICAL INVESTIGATIONS IN 1992 ON THE GWENT APPROACHES TO THE SECOND SEVERN CROSSING

by Iain Ferris and Lucie Dingwall

This paper summarises the results of a field project carried out by Birmingham University Field Archaeology Unit at three locations along the Gwent Approaches to the Second Severn Crossing in 1992, following on from the evaluation of the route by the Glamorgan-Gwent Archaeological Trust (Parkhouse 1991b). The work, sponsored by the Welsh Office, was directed by Iain Ferris and Lucie Dingwall with the accompanying environmental fieldwork and study being undertaken by specialists from the University of Wales, Lampeter and the University of Birmingham under the co-ordination of Dr. Martin Bell and with consultancy by Professor John Allen of Reading University.

The three sites (Figure 22) will now be discussed individually.

Nine Meads (ST 460 872)

The parcel of land known as Nine Meads lies on the Caldicot Level, in reclaimed coastal wetland where the solid geology (consisting for the most part of Mercia Mudstone) is deeply buried by estuarine deposits. The relatively rapid localised change in the landscape in this area could be observed in an adjacent field, to the west of the West Pill Reen, where a long, deep ditch had been recently excavated as part of the roadworks. The beginning of the fen-peat was clearly visible in the exposed section, appearing initially as a thin layer, thickening rapidly towards the west. Aerial photography and documentary evidence indicate that in the past Nine Meads was a narrow peninsula of land, or possibly an island, bounded to the east by Nine Meads Reen and to the west by West Pill Reen, first referred to in 1599 as the 'New Dicked Ditch', representing an example of very early land reclamation. Two trial pits excavated in the Nine Meads area in 1990 showed there to be more prominent humified clay silts in this area than elsewhere on Rogiet Moor, indicating a tendency towards relatively drier conditions. Potentially, this could significantly have affected the archaeology of the area, although the 1990 assessment produced no direct evidence for prehistoric human activity.

After the general act of 1850, the final phase of enclosure of this area led to extensive alteration and straightening of the drainage pattern of the Levels in the 1850s. However, both the early meandering reens were extant until after enclosure and their dry courses are still clearly visible on the surface of the field in the form of differential vegetation growth and occasional slight banks. The present farmer was responsible for the last backfilling episode of West Pill Reen. These two reens were deemed the most suitable in the threatened area for examination, since they were the only two of the major drainage channels that do not still carry large quantities of water.

In order to satisfy the archaeological requirement, a two-fold approach was adopted, combining excavation and augering. Each drainage channel was examined by means of a machine-excavated trench, exposing deep sections across the full width.

A programme of palaeoenvironmental sampling was provided for, but during on-site consultation with the appropriate specialists, it was decided that no useful additional information would be gained from such work.

The second approach consisted of

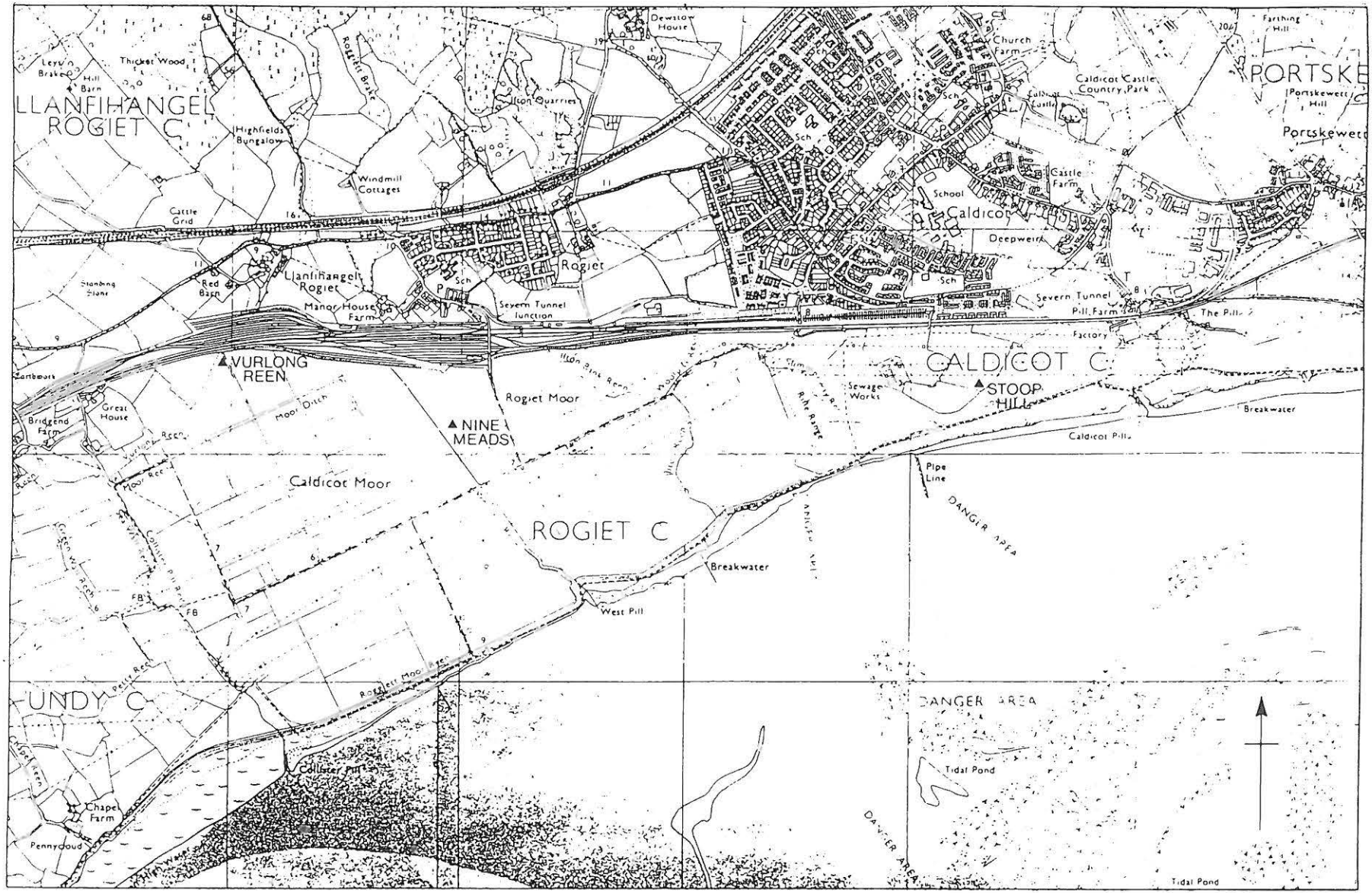

Figure 22. Second Severn Crossing, Gwent Approaches, map showing the areas of archaeological investigation in 1992: Vurlong Reen, Nine Meads and Stoop Hill.

an auger transect conducted across the 'island' or peninsula, in order to examine differential sedimental accretion over time.

In addition to the recommended work, a hachure and vegetational survey of the two former drainage channels was carried out, since the courses of the reens had never been accurately plotted.

The sections through the reens show that the original drainage channels were features of considerable size. The exact dimensions are impossible to calculate due to truncation by later features, but the original cut of Nine Meads Reen is approximately 6 m across and that of the West Pill Reen roughly 9.5 m. None of the sections showed evidence of build-up banks, although remnants of banks could be seen elsewhere in the field.

After the original channels had become infilled and soil had formed over the top, smaller ditches were cut into the earlier features. This must have been a relatively recent event, since in both trenches only a thin layer of topsoil had formed over the top of the ditch cuts. The build-up of soil occurring in both trenches before the later ditches were cut indicates that there must have been a period when there were not extant drainage channels.

In one trench a thin band of humified, organic clay was truncated by the cut of the reen. This may represent a buried soil horizon, indicating a period of relatively drier conditions. The results of the auger survey suggest that the tendency towards periods of relatively drier conditions in the past was due to the occurrence of a thicker deposit of upper estuarine clays of the Wentlooge formation in this area. No dateable finds were recovered from either trench.

Vurlong Reen (ST 452 873)

Limited field investigation was carried out in the Vurlong Reen area of Caldicot Moor, on the seaward side of the Cardiff to London railway line, in advance of the proposed road construction work. The area under consideration consisted of two fields: the field across which the former water course known as Vurlong Reen used to run, and the adjacent field to the east.

The aim of the excavation was to try and exploit the high potential for recovery of palaeoenvironmental information in close proximity to previous evidence for prehistoric human activity.

This area was considered to be of particular significance as it lies in the zone of contact between former coastal wetland and dryland, a type of habitat thought to be conducive to early human settlement, since it would have had a diverse resource potential.

The recommended palaeoenvironmental sampling programme required the machine excavation of a deep trench through the peat deposits in the eastern field.

A pollen monolith and an insect column were taken from adjacent sites in the south-facing section of this trench (Figure 23). The peat collected during the pollen sampling process may also be used for radiocarbon dating. Wood samples were taken from 23 different locations in both sections of the trench, for identification purposes and possibly also for dendrochronological studies.

Further investigation across the interface, in the western field, was undertaken by means of excavating a trench down to just below the base of the peat. The excavation was carried out entirely by hand, with random sample sieving of topsoil and peat, in order to recover any flint artefacts present and to locate any anthropogenic features cutting the peat layers or the underlying deposits.

A pollen monolith was taken from the north-facing section, at the eastern end of the trench, where the deepest peat occurred. An insect column was taken from the south-facing section, opposite the site of the pollen monolith.

Figure 23. The trench in the eastern field at Vurlong Reen, the peat sequence is here being sampled by Dr. M.J.C. Walker for pollen analysis.

Wood was sampled from five different points, also at the eastern end of the trench, again for identification and possibly dendrochronological studies. Samples from deposits underlying the peat were taken from three different locations for sediment characterisation.

The excavations at Vurlong Reen lacked any significant archaeological deposits. The eastern trench showed simple stratigraphy, with a possible buried soil horizon underlying deep peat deposits. In both trenches, silty clay deposits lay beneath the topsoil, probably representing an episode of flooding after the peat had dried out. Irregular patches of this material probably resulted from the deposition of the silty clay down the desiccation cracks in the peat.

The western trench, which was excavated in the area identified as a potential 'site' of prehistoric human activity, revealed no features of anthropogenic origin. The uneven hummocks on the trench floor were characteristic of the results of tree-throws, with crescent-shaped hollows and adjacent mounds. All the flints recovered, three flakes and one implement, were from the peat

immediately overlying the estuarine deposits, apart from one unworked piece which was found in the underlying silt.

Stoop Hill (ST 483 873)

The largest-scale archaeological intervention was at the scheduled site of Stoop Hill, a small promontory projecting out into the Severn Estuary. The main excavated area lay on the fringes of an extensive Romano-British site identified from the air in the 1950s, and lay towards the base of the hillslope, archaeological features being sealed beneath colluvial deposits that had effectively masked their previous detection either by aerial photography or by geophysical survey. These Romano-British features were, however, slight and consisted of a badly-truncated cobble surface, perhaps a track or road, partially sealing a curving ditch or gully which extended beyond the area of excavation. The few pottery sherds recovered need not be later than the second century A.D.

A single small sherd of possible Bronze Age pottery was recovered from the fill of a gully sealed by the lowest, pre-Roman colluvial deposit here. Twenty flints were recovered from mainly residual contexts: these included two cores, a curved and extensively retouched knife-scraper, a backed blade shaft and a biface, but none of the pieces was chronologically diagnostic.

A long machine trench along the road corridor, upslope of the area of excavation, revealed no evidence for extension of the site in this direction. A second machine trench was dug to examine the interface between the land and the marine deposits.

The various interventions at Stoop Hill provided the opportunity for sampling the colluvial deposits and examining their micromorphology, and viewing the land/sea interface. Sections of a high-energy beach deposit were also exposed, as was, in plan, a possible solifluction deposit overlying the beach and sealed by colluvial material.

A post-excavation assessment programme of the Second Severn Crossing fieldwork is now underway at Birmingham and Lampeter.

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