

THE EVOLUTION OF A HISTORIC WETLAND LANDSCAPE : THE GWENT LEVELS HISTORIC LANDSCAPE STUDY

by Stephen Rippon

"The Monmouthshire Moors illustrate the successes of the past and the failures of the present. They demonstrate the vision and determination of generations long since buried in the vaults of history" (Morgan 1954, 17).

Introduction

In its narrowest sense, 'landscape' is often regarded as simply the visual appearance of the countryside. However, a landscape actually comprises a wide range of qualities and components, not least a strong historical dimension. This paper is an interim report on the detailed examination of one landscape of great importance; the Gwent Levels. These are a flat alluvial plain, up to 6 km wide, fringing the northern bank of the Severn Estuary in south east Wales. They cover c.24,500 acres (9,860 ha) of estuarine alluvium between the River Wye at Chepstow and River Ely in Cardiff. The two largest Levels are Wentlooge, between the Rivers Rhymney and Usk (Figures 4-10), and Caldicot between the Rivers Usk and the bedrock promontory at Sudbrook. Smaller areas of alluvium include Cardiff East Moors between the Rivers Rhymney and Taff; Cardiff West Moors between the Taff and Ely; and the St. Pierre and Mathern Levels between Sudbrook and the Wye.

The Levels are protected by a sea wall, and drained by a network of ditches, known as reens. These form the basis of the very distinctive landscape and rich wetland ecology. This landscape is entirely of man's making and results from the protection of saltmarshes from tidal inundation, and their subsequent enclosure, drainage and conversion to pasture and arable usage.

The Levels are important for four inter-linked reasons; landform, ecology, archaeology and landscape. They are

the largest reclaimed wetland in Wales, and the flat expanse of land is in stark contrast to the adjacent uplands, and rocky coasts elsewhere around Wales. The conversion of tidal saltmarshes into arable and meadow makes such an area one of the most extreme examples of a landscape totally crafted by man. The area's rich natural heritage results from man's creation of this freshwater wetland, and its ecological importance is reflected in designation as a Site of Special Scientific Interest. The archaeological value of the Gwent Levels is well known, and recent discoveries include Mesolithic footprints off Uskmouth, the Bronze Age settlements at Chapel Tump and riverside site at Caldicot Castle Lake, along with Iron Age trackways and houses at Goldcliff (p.115). Important Roman discoveries include a boat at Barlands Farm and landscape at Rumney Great Wharf. Medieval sites include fishing structures off Sudbrook and a recently discovered boat in the palaeochannel complex at Magor Pill (Allen and Rippon p.41).

This landscape, though of great archaeological, ecological and landscape importance is under considerable threat from a wide variety of developments, notably road construction, industry and changes in agricultural practice. Thus, Cadw: Welsh Historic Monuments and the Countryside Council for Wales came together to commission the Gwent Levels Historic Landscape Study, which aims to understand how the landscape has been created, and to raise awareness on the part of planners of the historical importance of the



Figure 4. Wentlooge Level: Field boundaries on the Commissioners of Sewers' map, 1830-1.

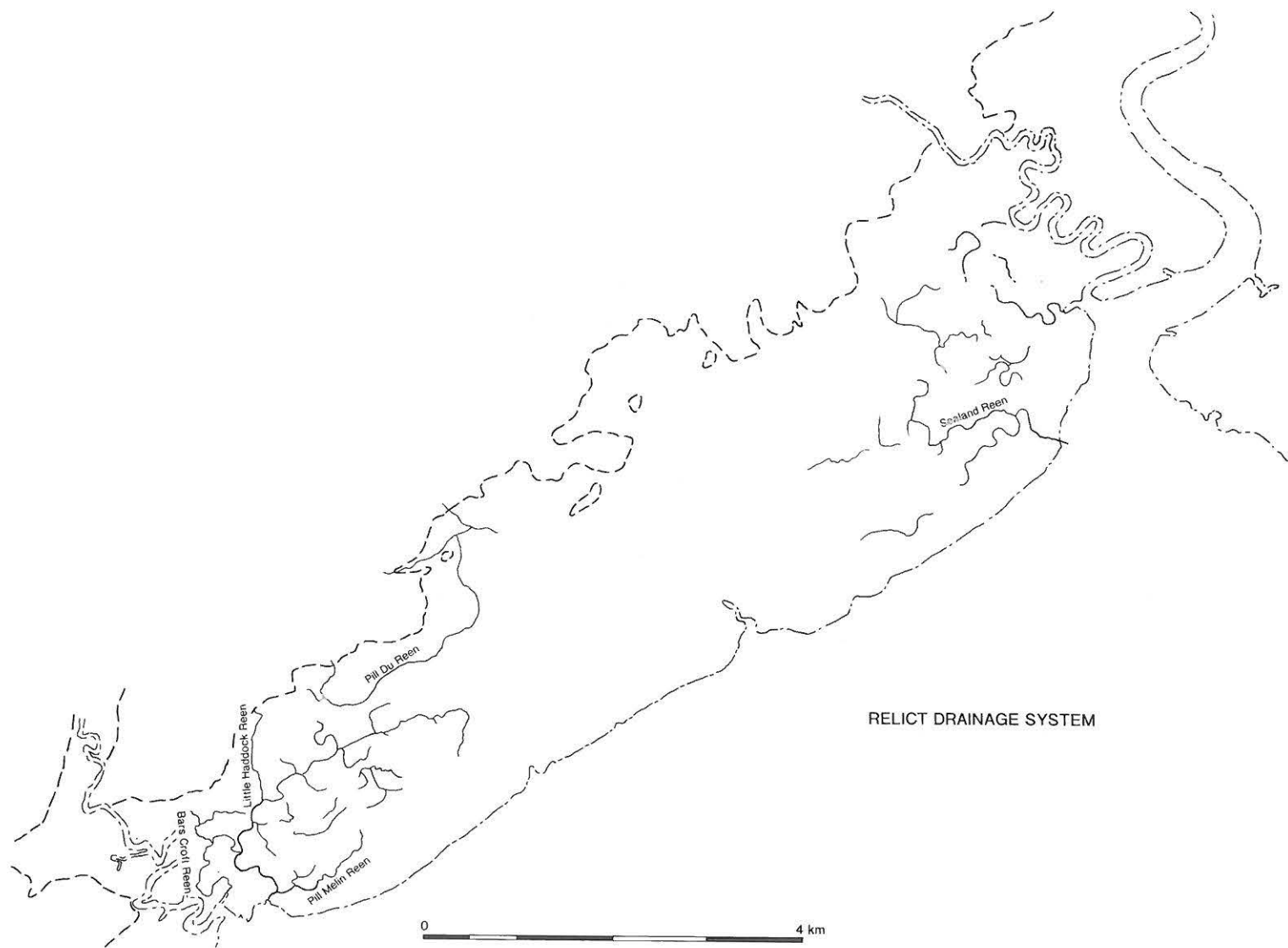


Figure 5. Wentlooge Level: Meandering natural drainage channels preserved in the post-reclamation field-boundary pattern.

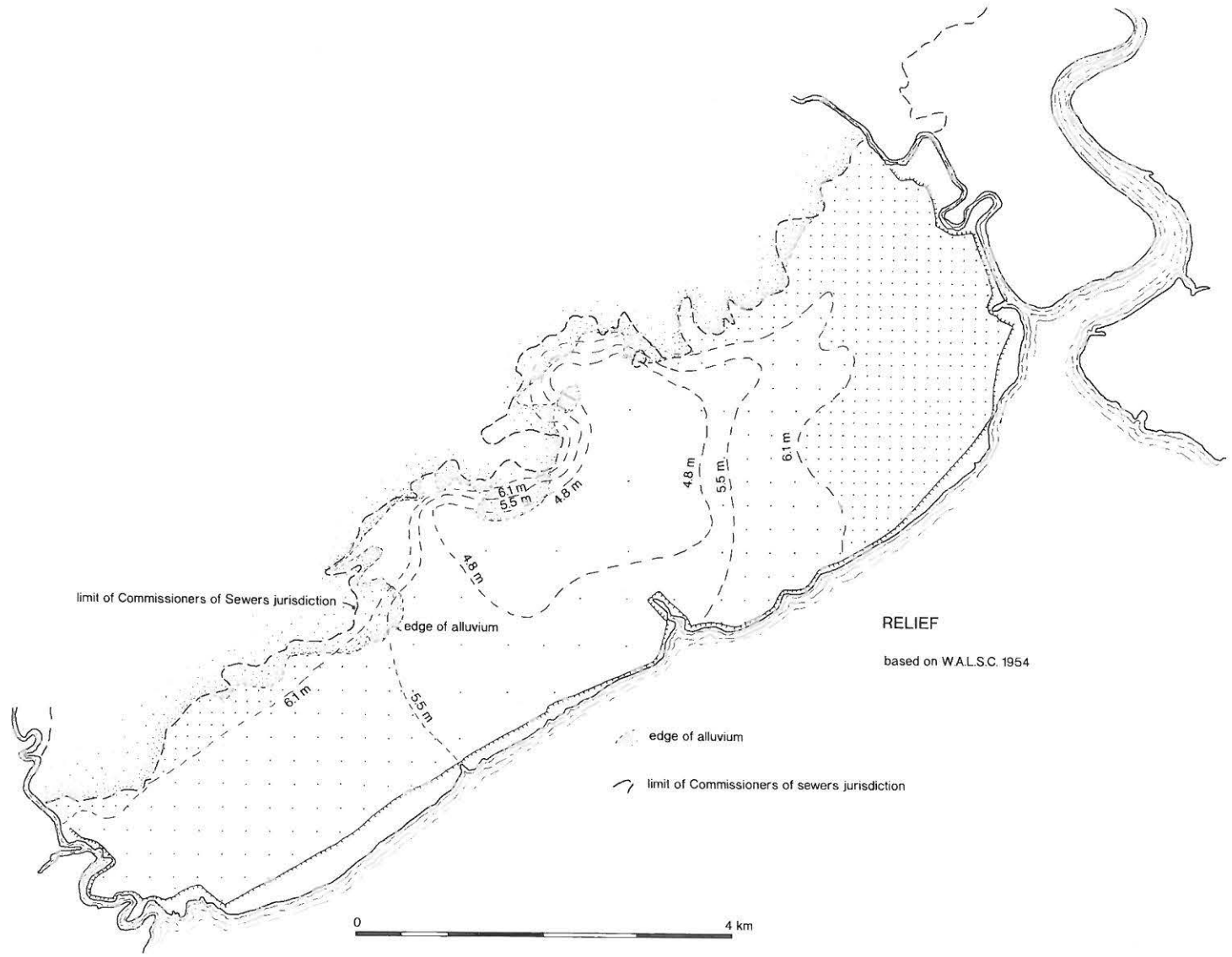


Figure 6. Wentlooge Level: Relief.



Figure 7. Wentlooge Level: Major landscape elements, including the pattern of roads and major field boundaries/reens.

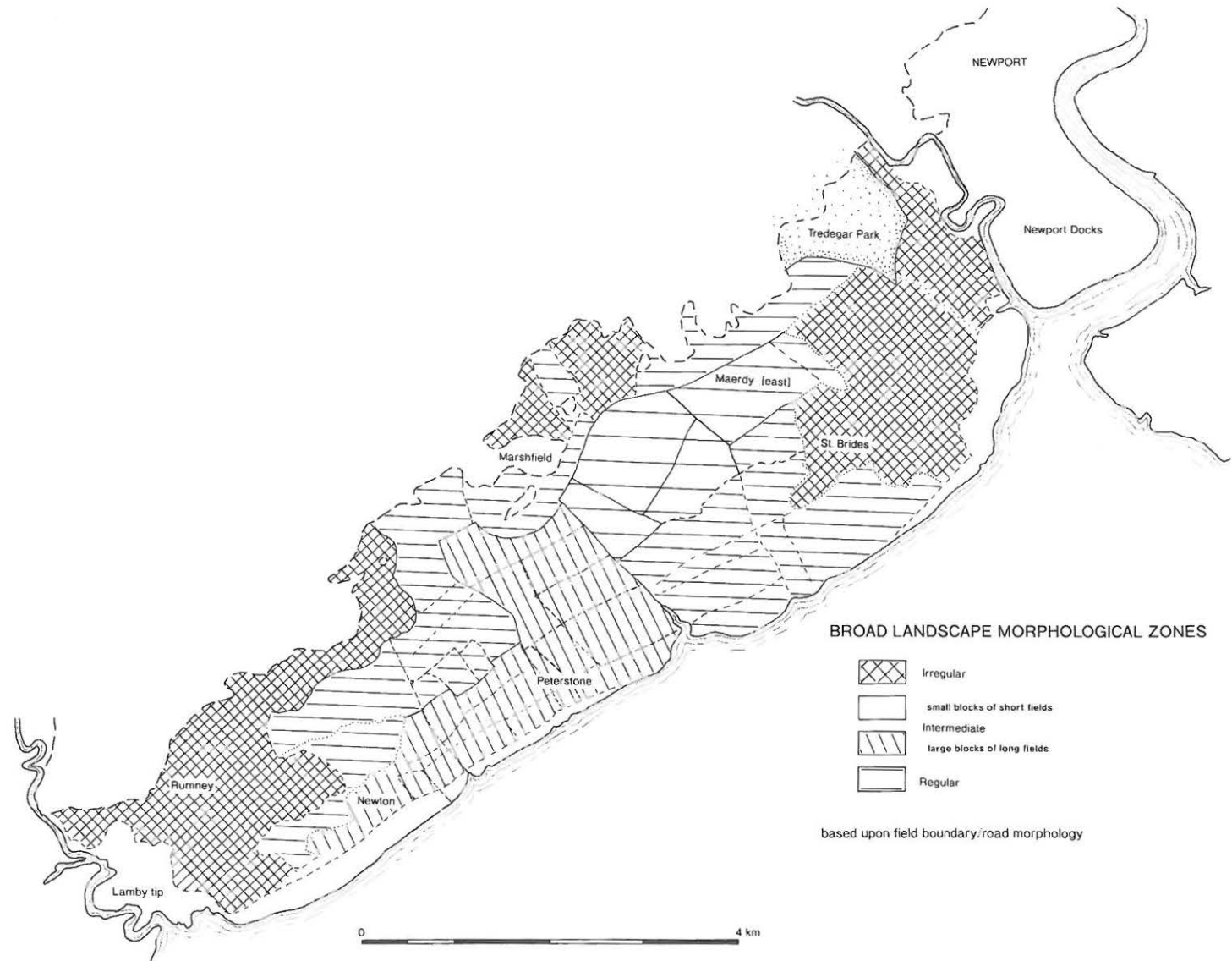


Figure 8. Wentlooge Level: Broad landscape morphological zones.

landscape.

The methodology is described elsewhere (Rippon and Turner 1993); what is presented here is a brief summary, using Wentlooge as an example, followed by a review of how the landscapes of Caldicot and Wentlooge evolved. The starting point for the dissection of this landscape is the earliest complete cartographic coverage; a collection of parish maps drawn for the Commissioners of Sewers in 1830-1 (Figure 4; Gwent Records Office D.1365/1-2). For example, in Wentlooge a broad division immediately emerges between the 'irregular' landscape of small fields and sinuous lanes to the north-east and south-west, and a much more regular pattern of rectilinear fields in the central area. In part this pattern results from the process of reclamation. In the irregular landscape, pre-existing meandering natural creeks were utilised as field boundaries in the newly enclosed landscapes (Figure 5); these occupy the higher, coastal parts of the Levels (Figure 6). In the central area, any existing boundaries were swept away in order to create a rigid pattern of long narrow fields.

Analysis can proceed by identifying the major landscape features (Figure 7). The pattern of roads is very informative. Those in the irregular landscape once had an abundance of roadside waste, which can still be identified in the pattern of post-enclosure fields. By contrast, roads in the more regular landscapes are straighter and lack adjacent waste ground. The exceptions are major street commons such as Broadstreet, and possibly Broadway, in Peterstone. Two distinct blocks of regular fields can be identified in the low lying back fen around Pennings Reen and Maerdy Farm; these probably represent individual enclosures of formerly open land. The park at Tredegar represents another very clearly discrete block of landscape. These various elements, along with the pattern of settlement,

allows the landscape to be broken down into a number of distinct 'broad landscape morphological zones' (Figure 8).

The Development of Caldicot's Landscape

Recent work at Goldcliff suggests that the Caldicot Level was flooded in the late/post-Roman period (Bell p.137). Though the Roman landscape is sealed by alluvium, it is possible that upstanding earthworks may have been sufficiently high to protrude through the post-Roman sediments. There are a number of features in the present landscape that pre-date the pattern of fields and so are *potentially* Roman; this is one area in which fieldwork is desperately needed.

The date of recolonization is unknown. No settlements located on the Levels are named in Domesday, but several may be represented amongst the numerous un-named vills recorded (including Goldcliff, Nash, and Traston). Settlements at Goldcliff and Nash certainly existed by 1113, when they were granted to Goldcliff Priory. There are a large number of '-ton' place-names on the higher coastal parts of the Levels, for which a late Saxon date cannot be ruled out, though it is most likely that they result from English colonisation (or re-naming of existing settlements?) in the late eleventh/early twelfth century. In eastern Caldicot the pattern of settlement is very 'English'; nucleated villages around small greens, surrounded by open-fields. By contrast, in western Caldicot, the pattern has a far more 'Welsh' feel, with dispersed settlement and few traces of open-fields.

All these early settlements are scattered across the irregular landscape, and it seems reasonable to argue that the whole of the Caldicot Level was protected by a sea-wall (though not the present one; see below) by the early twelfth century. Several early settlement sites can be identified

as oval-shaped areas defined in the pattern of fields. These 'infields' have also been found in the Somerset Levels (Rippon 1994), and clearly pre-date the pattern of the surrounding fields; they appear to have been the earliest enclosures of land in an otherwise featureless landscape. Examples on Caldicot include Nash, several around Redwick, and Chapel Tump in Undy.

The date when the planned village at Whitson was founded is unfortunately unclear. The earliest documented reference appears to be 1314. It has been called Witston, but early spellings also include Whitson, so it is not clear whether this a genuine early '-ton' place-name. It lies on the edge of the irregular landscape, in a position to suggest that it was carved out of open moor land in the north-eastern part of Goldcliff parish. It may have been created by Goldcliff, and detached at a later stage, or the land may have been carved out of Goldcliff parish and the village created after.

In 1314 Whitson is recorded as part of Langstone, which acquired it sometime after the late twelfth century. There is no reason why this has to be the planned village that exists today; the 'Whitson' of 1314 could have been a manor or more dispersed settlement that was replanned at a later date. However, the late medieval period was one of great upheaval in Wales, with plague, revolt and a deteriorating climate resulting, for example, in coastal erosion; not the time to invest scarce resources in reorganising the landscape.

There is in fact a possibly documented context for the creation of Whitson. As an alien priory (it was attached to Bec in France), it suffered royal harassment following France's invasion of Aquitaine in the late thirteenth century (Graham 1929, 111). At the same time, the Priory's relations with its patron, Gilbert de Clare Earl of Gloucester and Lord of Langstone, were declining and in 1289 he seized the liberties of the Priory for a year

(Williams 1970-1, 42), and Whitson was never returned to Goldcliff. But did Gilbert create the village on his newly acquired land, or had the Monks of Goldcliff already laid out the settlement?

Redwick was a nucleated village surrounded by extensive open-fields, including Broadmead to the west of the village that largely survived to be mapped in 1831 by the Commissioners of Sewers. Ynys Mead/Mere Reens appear to mark the initial limit of reclamation/enclosure and the earliest open fields. 'Fen Banks' once ran along these reens, in order to prevent freshwater from the open moors to the north, flooding the enclosed lands to the south. As further land was required, the fen-banks moved north, taking in areas of lower lying land (the same occurred in St. Brides Wentlooge; see Figure 10.4). The monks of Tintern Abbey were granted a large area of open ground to the north of Mere Reen, called Black Moores. They appear to have been instrumental in its reclamation, through their 'New Grange' at Grangefield.

Tintern had another farm on the Caldicot Level, at Lower Grange Farm in Magor, whose reclamation in the thirteenth century is documented. This makes it one of the few precisely dated field-systems we have on the Levels, though it is now one of the most intensively farmed areas resulting in the loss of many field-boundaries.

The Gwent Levels suffered from pestilence, social unrest and a climatic deterioration in the late medieval period. However, it was in these difficult times that the pastoral landscape of today started to emerge, as communities specialised in dairy and meat production for export to Bristol and Somerset. The present sea-wall also dates to the late medieval period. Evidence from Wentlooge suggests that the sea-wall there was set back sometime between the fourteenth and late sixteenth centuries, and this also appears to have been the case in

Caldicot. All along the coast, the sea-wall cuts across the line of pre-existing fields, suggesting that few if any stretches are early medieval in date.

Much of the backfen was probably common moor in the late medieval period, though by the mid-sixteenth century at least, there was some rudimentary enclosure and drainage. For example, a document of 1552 describes Elver Pill Reen (then called Earls Reen), and a gout at Hoskins Corner (now at the south east corner of the steel works) which implies that Middle Wall Reen (between the two) must have existed.

The later post-medieval period saw further fundamental changes to this landscape. The last remnants of common moor were enclosed in the eighteenth and nineteenth centuries, including the vast common pastures at Green and Caldicot Moors. The last remnants of the common fields, including the near intact Broadmead in Redwick were also enclosed by Parliamentary Act. A period of sustained alluvial accretion around the mouth of the Usk allowed the build up of saltmarshes which were reclaimed in the eighteenth century. However, at the same time, saltmarshes along the open coast, and land abandoned following the retreat of the sea-wall, was being eroded.

The late post-medieval period also saw a dramatic population increase. Though some of this was accommodated in the existing nucleated settlements, most of the new population lived in farms and especially cottages along the streets and commons. In places small nucleated settlements grew up, for example at Pye Corner and Broadstreet Common in Nash.

The Landscape on Wentlooge (Figures 4-10)

There are important similarities and differences between the landscapes of Caldicot and Wentlooge. The main

similarity is in the 'irregular landscapes'. A similar piecemeal process of reclamation can be assumed as for Caldicot, integrating the meandering courses of natural creeks into the landscape (Figure 5). The Wentlooge 'irregular' landscape is also similar to the western part of Caldicot in its dispersed settlement pattern, indicative of indigenous Welsh colonisation, rather than the plantation of settlements by the English; the latter may have occurred on a very small scale, indicated by a handful of 'ton' place-names around the Wentlooge coast.

The major point of contrast between Caldicot and Wentlooge is in the Peterstone area. This central part of Wentlooge has a quite unique landscape, dominated by long narrow fields, which excavations at Rumney Great Wharf have shown be of Roman origin (Allen *et al.* 1992; Fulford *et al.* 1994). The survival of the Roman landscape here, while it was flooded and sealed by alluvium on Caldicot, has several important implications. Firstly, there cannot have been a significant inundation of central Wentlooge, as this would have led to the ditches filling with silt. Therefore, the Roman sea defences must have held, at least along the Peterstone coast. The second implication of the survival of this Roman landscape is that it is probably unique in Wales, and one of very few such landscapes in Britain as a whole. Indeed, it is unlikely that there are other major examples of surviving Roman reclamation in north west Europe.

In terms of the landscape development, at least five stages can be identified (Figures 9-10). By the end of the prehistoric period (*c.*2000 years ago), the Wentlooge Level was a tidal saltmarsh, traversed by a number of creeks (one such channel was recorded at Rumney Great Wharf; Figure 9.1). The exact line of the Rivers Rhymney and Ebbw is not known, but they must have flowed in the same

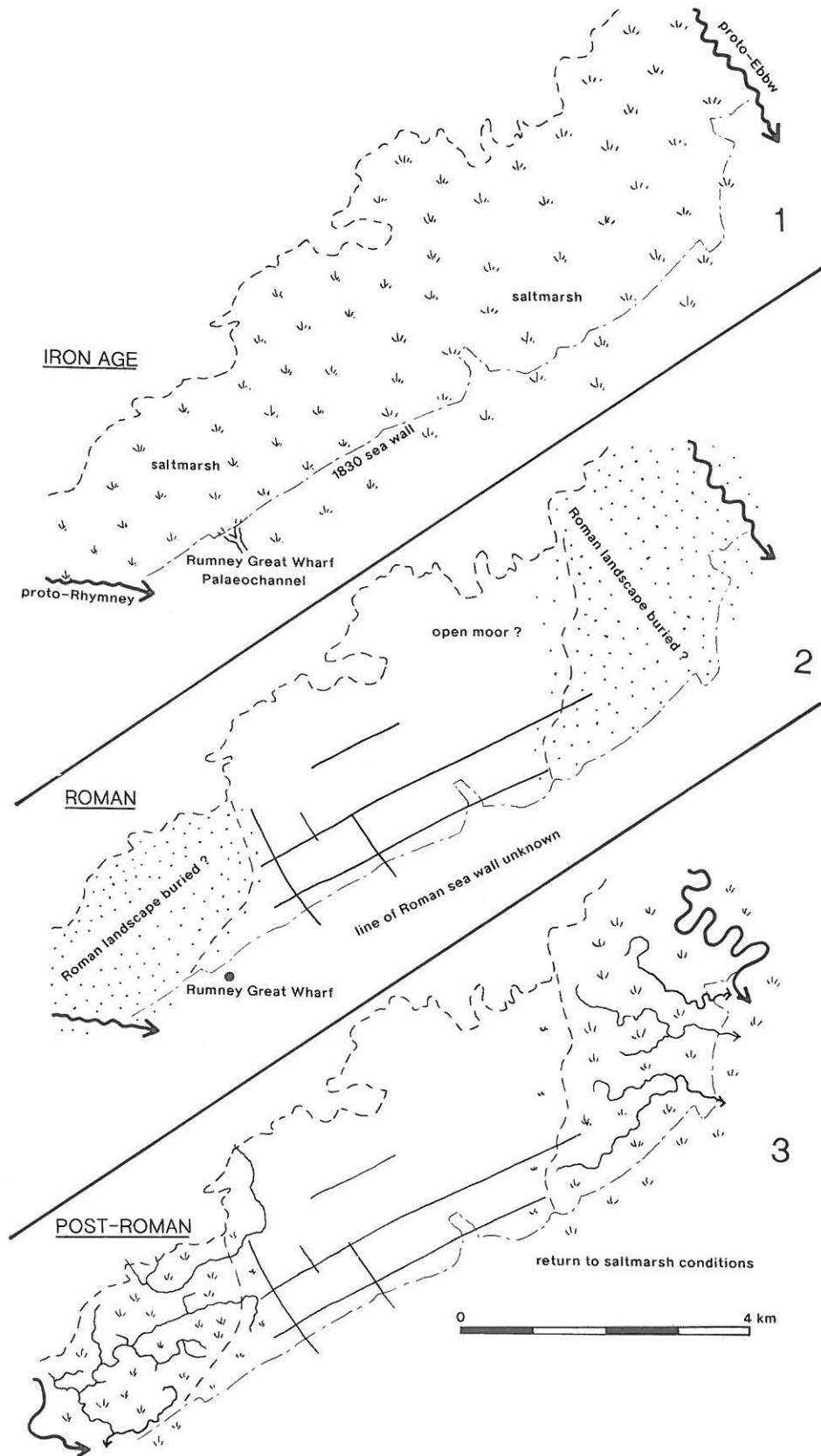


Figure 9. Wentlooge Level: Development of the landscape, Iron Age to post-Roman.

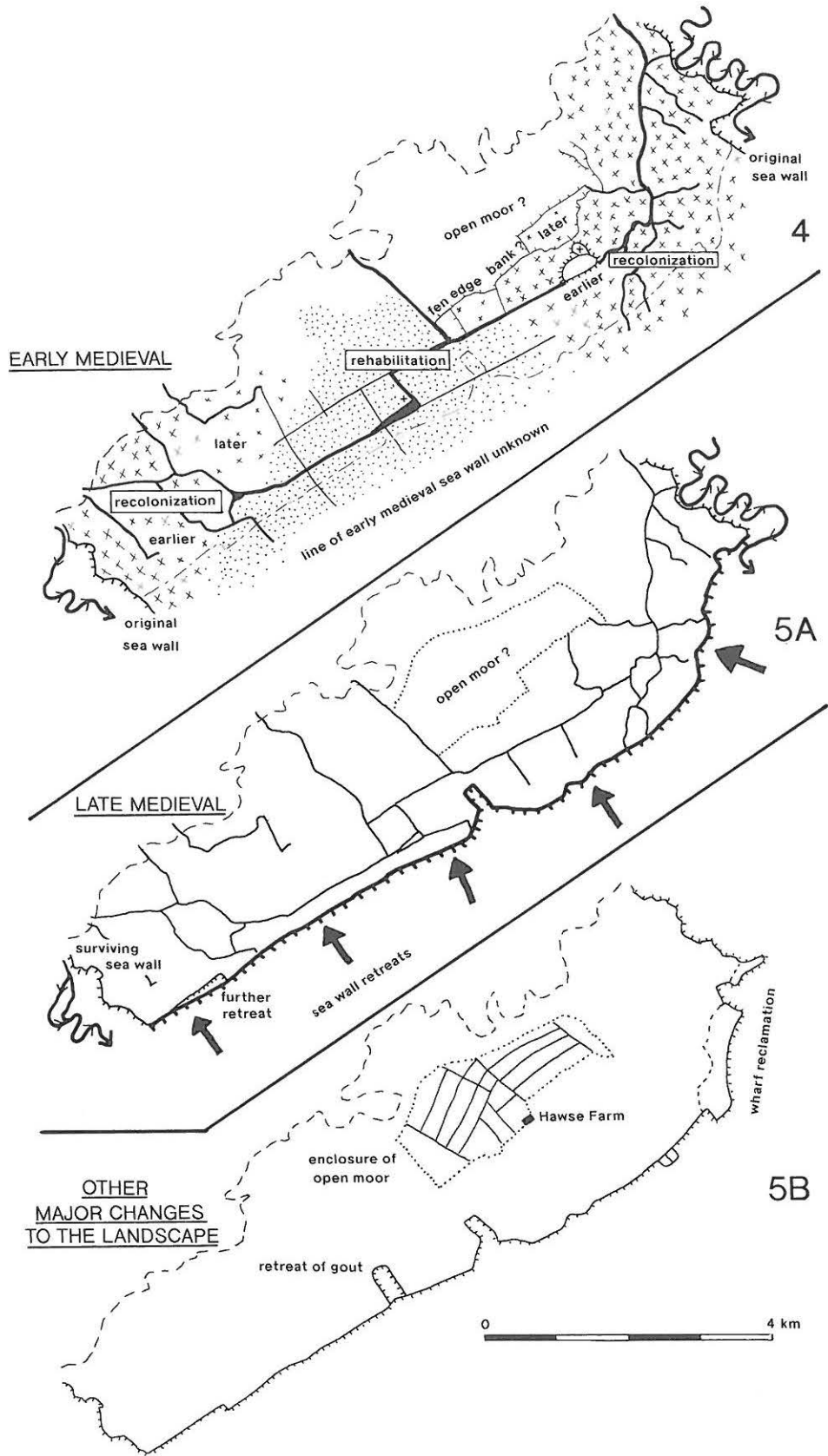


Figure 10 Wentlooge Level: Development of the landscape, medieval to post-medieval.

broad 'corridor' as today. In the Roman period (second or third century AD), the Wentlooge Level was enclosed by sea walls and drained by a network of ditches (Figures 4, and 9.2). The line of the Roman sea wall has been lost due to later erosion, and the complete plan of the Roman field system is not known due to *limited* post-Roman flooding from the south-west and north-east, in Rumney and St. Brides (see below). A number of the major axial elements in the Roman landscape can be identified, while others appear to have been expanded to become street commons (e.g. Broadstreet Common). The line of Broadstreet Common continues east of the church as a green lane; this is truncated by Peterstone Gout, but the line is continued to the east by Hawse Reen.

The date of Percoed/Drenewydd Reen is unknown, though it pre-dates all the adjacent field systems. Its function appears to be to catch water drain running off the uplands, and taking it into Broadway Reen which flows to the coast. A close parallel appears to be the Car Dyke, a Roman 'catchwater drain' in the English Fenland (Simmons 1979).

In the post-Roman period there was a major episode of flooding, affecting the extreme eastern and western parts of the Wentlooge Level (Figure 9.3). The Roman landscape in these areas was buried and a series of meandering tidal creeks created. As yet there are no stratigraphic observations of the buried Roman landscape in these areas; the reason for assuming post-Roman flooding is their elevation. They lie over 6 m O.D., well above modern Mean High Water Spring Tide; elsewhere around the Estuary Roman ground surfaces lie c.0.5 - 1.0 m below modern M.H.W.S.T. at the adjacent coast. On this basis, we can postulate that the ground surface in St. Brides and Rumney has been elevated since the Roman period through sedimentary accretion. This is another area in which fieldwork is required.

In the early medieval period, the flooded areas were recolonized (Figure 10.4). Scattered settlements were established on the higher coastal land all along the coast, once again, probably in the late eleventh/twelfth centuries. Over time, as more land was required, parts of the lower lying backfen were enclosed by fen banks and drained. The lowest lying areas probably remained as open moor. The line of the early medieval sea wall may have survived alongside the Rivers Rhymney and Ebbw, but along the coast it has been lost to erosion.

In the late medieval period, coastal erosion caused the sea wall to be set back to its present position (Figure 10.5A). In the late sixteenth century, a small stretch of wall was set back further. This well preserved, stone faced earthwork still survives to the south of Newton, and is of very great importance as it is one of the very few sea walls around the Estuary whose origin is actually documented (Allen 1990b).

The date when the last areas of open moor, around Pennings Reen and Maerdy Farm were enclosed is not known (Figure 10.5B). Hawse Farm lies just beyond one of a sequence of fen-bank north of St. Brides. It is tempting to see the whole of the remaining open moor between the fen-banks and Percoed Reen as having been enclosed at the same time, with Hawse Farm responsible for the western 'Pennings Reen' block and Maerdy responsible for the eastern area (Figure 7). In the post medieval period, there were further changes to the landscape. Inland of the sea wall, the roadside commons were enclosed, while seaward, there was reclamation of tidal saltmarshes east of St. Brides.

Conclusion

The Gwent Levels Historic Landscape Study has resulted in a general model for the development of the landscape on the Gwent Levels. There are

numerous points of detail yet to be resolved, and many of these will require fieldwork. The project was not an archaeological evaluation of the landscape, but should provide a research framework within which future work can be structured.

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Author's address:
Archaeology Department
University of Reading
Whiteknights
Reading
RG6 2AA

