THE CONTEXT AND MEANING OF THE ROMAN GOLDCLIFF STONE, CALDICOT LEVEL

by J.R.L. Allen

Postgraduate Research Institute for Sedimentology, The University of Reading, PO Box 227, Whiteknights, Reading RG6 6AB, UK

A reconsideration in terms of modern knowledge is made of the geological and archaeological contexts of the Goldcliff Stone, a contentious intertidal discovery of 1878. The Stone, in combination with recently excavated features in the neighbourhood, is suggested to record the construction of a paired bank and back-ditch defining a substantial Roman military land-claim to the west and south of the late Quaternary bedrock island at Gold Cliff on the Caldicot Level. An Iron Age date for the land-claim has been proposed but is not accepted. Taken together with other discoveries, the land-claim points to the variety of ways in which the Caldicot Level may have been exploited during the Roman period.

INTRODUCTION

A source of confusion and debate, the Goldcliff Stone, displayed at the National Museum of Wales (Cardiff), is a remarkable inscribed slab of naturally worn Lias limestone (Knight 1962, pl. 1). In form it is trapezoidal; the overall length is 53 cm, and the shorter ends measure respectively 20 cm and 36 cm. The metrical Latin inscription is placed just below and parallel with the longer end of the Stone, in crude lettering clearly by inexperienced hands. It is generally considered to record the completion of 33½ paces of some unspecified linear, engineered structure by the century of Statorius Maximus of the first cohort, supposedly of *Legio II Augusta* based at Caerleon (Knight 1962; Boon 1967, 1980; Locke 1970-71). The inscription is thought to imply that the task commemorated was part of an effort by gangs divided into three, and that the structure as a whole was at least 100 paces long (Collingwood and Wright 1965, no. 395). Knight (1962) proposed, on the basis of its form and the placing of the inscription, that the Stone was intended to be stood upright with the lower, narrower end in the ground, in the manner of a milestone.

The Goldcliff Stone is probably the most celebrated of the early archaeological discoveries to have been made in the intertidal zone of the Severn Estuary Levels. Because the Stone came to light as the result of coastal erosion, and because the archaeology of the Levels is largely concealed within a thick and stratigraphically complex Holocene estuarine sequence, it will never be possible to establish for certain the context and meaning of this artefact. A defensible interpretation of the Goldcliff Stone, however, is possible in the light of recent discoveries, as this note attempts to explain.

GEOLOGICAL CONTEXT

The Goldcliff Stone was discovered in November 1878 at a height of *c.* 3 m OD a short distance to the east of the mouth of Goldcliff Pill on the coast of the Caldicot Level (Figure 1A, overleaf), the find-spot (National Grid Reference ST 363824) appearing on the Ordnance Survey's first edition of the detailed maps of the area (1881-82, Monmouthshire Sheet XXXIVSW&SE). A record of the find was made by the antiquarian Octavius Morgan, first through a report on the inscription (Watkin 1880), and shortly afterwards in a longer but obscure pamphlet of 1882. Other artefacts and archaeological materials may have been associated with the Stone, as there is an allusion to bones. These sources have been extensively reconsidered by Knight (1962) and Locke (1970-71), who quote in full the passages relevant to the discovery and context of the find.

Morgan's accounts make it clear that the Stone was found projecting from the lower part of a cliff which formed the erosively retreating, seaward edge of a high, mature salt marsh. The cliff, formed of silt and of the order of 2 m high, presented to him a two-fold lithostratigraphy. The upper unit, *c.* 1.5-1.8 m thick, was described as

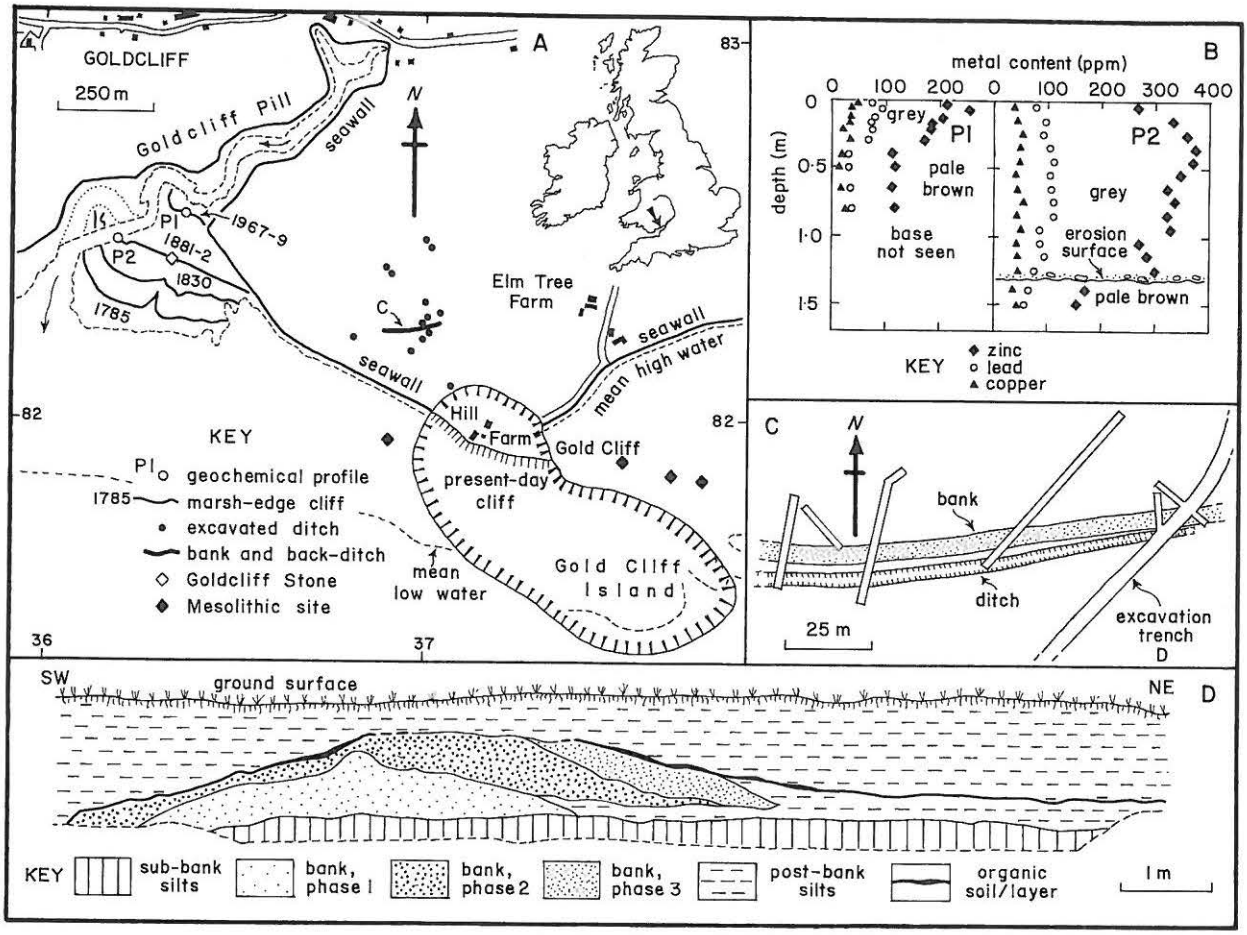

Figure 1: The Goldcliff Stone and associated Roman landscape, Caldicot Level. A, the area around Gold Cliff, showing reconstructed position of Gold Cliff Island (excluding Pleistocene deposits), the history of marsh-edge retreat, the location of geochemical profiles, the find-spot of the Goldcliff Stone, the buried bank and back-ditch (see C), and other excavated ditches (based on Locock 1997; Allen 2000b; Bell et al, *2000, 2001). B, Vertical distribution of heavy metals in parts per million (by weight) in profiles 1 and 2. C, excavation trenches and the paired ditch and bank* c. *300 m to the north-west of Hill Farm (based on Locock 1997). D, oblique profile across the buried, multiphase bank north-west of Hill Farm (simplified from Locock 1997).*

hard and compact, and prone to undercutting. In contrast, the much thinner, lower bed (*c.* 0.3-0.6 m) was found to be soft, full of the upright stems of reeds (*Phragmites*), and more readily eroded. It was this bed that was reported as yielding the inscribed slab. No other lithological information was given, other than the description of the deposits as silt and the comment on resistance to erosion and the profile thus conferred on the cliff. Colours in particular were not mentioned.

Local information left Morgan in no doubt that the marsh-edge cliff he saw had been retreating inland for a substantial period, as depicted in Figure 1A. That retreat has continued into recent times. The earliest documentary record is a map of Hill Farm, prepared in 1785 by Samuel Minshull (Newport Reference Library), which shows a substantial tract of salt marsh to the south of the seawall. Significant losses had occurred by the time of the 1830 survey by the Commissioners of Sewers (Book of Maps of Caldicot Level, Gwent Record Office D 1365.1). Further retreat was evident by the time the Goldcliff Stone was found (Ordnance Survey, 1881-82, Monmouthshire Sheet XXXIVSW&SE;

1899-90, Monmouthshire Sheet XXXIVSW). The cliff bordering the high marsh was first recorded in its present position during an air-photographic resurvey of 1967-9 (Ordnance Survey Sheet ST 38SE). It had by then been stable for some decades, as the result of the rapid upward and outward growth to the south of a new, protective salt marsh, attributable (see below) to Allen and Rae's (1987) final Holocene Northwick Formation. The rate of retreat over the period covered by the maps averages annually *c.* 1.5 m at a minimum.

The small portion of the high marsh which survives today is bordered on the seaward side by a cliff no more than *c.* 0.5 m high. It exposes faintly laminated, pale brown silts that grade up into *c.* 0.25 m of grey silt (Figure 1A, B, P1), the sequence of heavy-metal values (Zn, Pb, Cu), with its thin contaminated zone (*c.* 0.35 m) beneath the marsh surface at the top, assigning the exposure to the latest Holocene Rumney Formation (Allen and Rae 1987). The Rumney Formation was seen again on the south-eastern bank of a deep, steep-sided channel dug in 1985/86 to cut off the final meander of Goldcliff Pill, the wandering of which was threatening the seawall to the north-west. A section measured here (Figure 1A, B, P2) showed a few decimetres of pale brown, banded and laminated silts (Rumney Formation), overlain sharply and erosively by 1.32 m of the Northwick Formation beneath the new marsh. Visible on the inaccessible walls of the cut several decimetres below the base of the section were grey-green silts and thin peats of the Wentlooge Formation (Allen and Rae 1987), the main Holocene unit in the Severn Estuary Levels. The levels of heavy metals recorded suggest that the exposed part of the Rumney Formation at this point dates from the late middle of the nineteenth century (Allen 1988; French 1996). The overlying Northwick Formation yields much higher contaminant levels. There is little evidence, however, for the two marked peaks in values identified by French (1996) from work at high resolution. Hence the unit at this point may not date from before the 1940s.

The above evidence leaves little doubt that Morgan's thick, upper unit, was the Rumney Formation, possibly with the erosional base exposed, and that Locke's (1970-71, 13-14) inference that Morgan had seen only 'blue/grey clay and silt' (of the upper Wentlooge Formation) should be discounted. Remnants of the Rumney Formation, invariably underlying a high salt marsh, are seen at many other places along the Gwent coast besides Goldcliff Pill. The unit contributes at Rumney Great Wharf to bold marsh-edge cliffs which in part resemble in profile those seen by Octavius Morgan (Allen 1987). It also occurs beneath high, embayed marshes at Peterstone Great Wharf (Allen 1987; Allen and Rae 1987), on both sides of the mouth of the Usk (Allen and Rae 1987; Allen 2000a), in a small revetted outcrop at the seawall 350 m west of Goldcliff Pill (Allen and Rae 1987), east of Magor Pill (Allen and Rippon 1997) and at Caldicot (Allen and Rae 1987). Wherever it can be seen the base of the unit proves to be erosional. At Rumney Great Wharf the inception of the Rumney Formation can be dated ceramically to not earlier than the late seventeenth century (Allen 1996). Unpublished pottery evidence points to a similar age for the base of the formation on the shore off Peterstone.

The attribution of Morgan's thin lower unit with reeds is less clear. Locke (1970-71) may not be correct in assigning it to the Wentlooge Formation, for to do so creates a serious stratigraphical problem if this bed was truly the repository of the Goldcliff Stone. The artefact is unquestionably Roman, yet the upper Wentlooge Formation at the stratigraphical depth implied by the altitude at which the Stone was found indicates, as Bell *et al* (2000, 83-130) established at a nearby site, an Iron Age date.

Two other possibilities merit consideration. The first is that, during the widespread erosional event which preceded deposition of the Rumney Formation, the artefact had fallen onto the wave-cut platform which eventually formed the base of this deposit and, as the result of self-induced scour by wave and tidal currents, had gradually sunk into a hollow eroded into Wentlooge silts. The Stone would then have appeared to be at the same level as the silt with reeds, assuming this bed to have been part of the Wentlooge Formation. The second possibility also relates to the character of the Rumney Formation. Upright reed stems a few centimetres long certainly emerge above the tops of some thin peats in the Wentlooge Formation,

and there are also horizons of concentrated reed stems within some of the silts. The detailed survey at Rumney Great Wharf, however, showed that upright reeds are particularly abundant and well-preserved along the bottoms and especially the lower sides of deep drains that had been cut into the upper Wentlooge Formation and subsequently plugged with grey-green to pale brown silts (Allen 1987). These infills in places antedate and are erosively succeeded by the Rumney Formation, but are mainly attributable to it. If such a drain had been more or less aligned with the marsh-edge cliff as Morgan saw it, he would not have noticed, and had cause to comment upon, any significant lateral variation in the deposits. On the other hand, referring to the way archaeological features control coastal forms on the Wentlooge Level (Allen 1987), the embayments seen in the marsh-edge cliff in 1785 and 1830, and the way they point at the find-spot of the Goldcliff Stone (Figure 1A), might suggest the presence to the south of an almost north-south drain. Hence the Goldcliff Stone could have been found either in a local hollow at the base of the Rumney Formation or at the bottom of a substantial ditch cut into the Wentlooge Formation. Whichever interpretation is preferred, the conclusion seems unavoidable that the Goldcliff Stone, when found, had already in some way become displaced from its original position.

As an initial conclusion, at the time of Morgan's report the upper intertidal zone to the east of Goldcliff Pill was probably divided into three elements. To the north lay a high, mature salt marsh. The seaward edge of the marsh was formed of a bold cliff which revealed the Rumney Formation above either silts infilling the bottom of a drain or a little of the upper Wentlooge Formation. Overlooked by the cliff was an extensive wave-cut platform, probably eroded largely on the lowermost part of the upper Wentlooge Formation but with the lowermost Rumney Formation exposed here and there.

The focus of the wider geological context of the Goldcliff Stone is Gold Cliff Island to the east of the find-spot (Allen 2000b). This roughly oval eminence of soft Triassic and earliest Jurassic rocks measured *c.* 375 m in width and *c.* 1 km in length during the last interglacial (Ipswichian) and glacial (Devensian) periods, when it acquired a circumscribing fringe of first shelly beach and shoreface deposits and then head (Figure 1A). The lower slopes of the island dip gently away to an almost level rockhead surface (-5 to -10 m OD), and are shrouded to the east, north and west by a complex sequence of silts and peats assigned to the Wentlooge Formation (Bell *et al* 2000; Allen 2001a). The only part of the island surviving today is the small, semicircular outcrop which supports Hill Farm. This outcrop is defined on its southern side by a rock cliff stabilised by a brick and masonry casing. The history of marine erosion at Gold Cliff Island as the post-glacial sea-level rose is not fully clear but some of the stages can be glimpsed. Buried late Mesolithic activity/ occupation sites (Bell *et al* 2000, 2001) exist to both west and east of the surviving part of the feature, in terrestrial contexts which indicate that the island at the time was probably complete. The White Benedictine priory founded in AD 1130 on the island was prosperous up to the late thirteenth century (Williams 1964), suggesting that the island was not yet under significant attack. During the fourteenth and early fifteenth centuries, however, much land was lost to erosion and the church was half-undermined (Williams 1964). As with the Wentlooge Level to the south-west (Allen and Fulford 1986; Allen 1997), it was probably at about this time or soon after that the seawall on the Caldicot Level was set back to its present location across the fields of an older and more extensive agricultural landscape (Rippon 1996, 2000). By the late eighteenth century the cliff that bordered the remnant of the island was stable in its present position (1785, The Hill Farm, Newport Reference Library). Unlike Gold Cliff Island, those islands in the Severn Estuary and inner Bristol Channel formed of the strong, resistant Carboniferous Limestone - Denny Island, Flat Holm and Steep Holm - seem to have experienced negligible change during the post-glacial rise of sea level.

ARCHAEOLOGICAL CONTEXT

Almost nothing was known of Roman activities on the Caldicot Level at the time the Goldcliff Stone was discovered. What recent discoveries suggest is that it lay at the heart of a busy but varied landscape of the period.

The Goldcliff Stone attracted much attention and, because of confusion over the meaning of Octavius Morgan's original and slightly ambiguous reports, it was for many decades widely treated as firm proof of the Roman origin of the *present* seawall. Knight (1962) convincingly disposed of this error, pointing out that, although Morgan speculated from the artefact to the wall, he did not claim that the Stone was associated with it. Various dates have been placed on the Stone but none on explicit evidence. Boon (1967, 126) thought it late and assigned it to the third century AD. A narrower date, in the latter part of the third century, was suggested by Locke (1970-71, 14). Boon (1980, 28) later proposed that the Goldcliff Stone 'can hardly be early Roman, and is most probably of the later second or the third century A.D.'. A comparatively wide age-bracket is placed on the artefact by the substantial finds of Romano-British pottery from the area, ranging in date from the second century AD to the fourth century (Bell 1994; Locock 1997). A similarly wide but slightly earlier bracket is implied if the involvement of *Legio II Augusta*, is accepted; this legion was at Caerleon from *c.* 75 AD until the 290s.

An extensive Roman landscape of ditched fields (Figure 1A) has been shown to lie concealed beneath several decimetres of sterile, post-Roman alluvium in the ground between Hill Farm and the find-spot of the Goldcliff Stone (Bell 1994, 2000; Locock 1996, 1997; Bell *et al* 2000). The most significant element amongst these recent finds is undoubtedly a substantial east-west bank and parallel ditch which was traced through the excavation trenches for at least 125 m without ends being found (Figure 1C). Locock (1997, 64) saw this complex as 'a localised reclamation from intermittently-flooded marsh', but offered no further analysis of the physical evidence beyond noting the multiphase character of the bank. Although Rippon (1996, figs 12, 34) indicates that a Roman date was possible, the so-called 'Rippon boundary' (Locock 1997, 55-58, fig. 1) is visible in the landscape today and, upon excavation, gave every sign of being a natural if exploited feature.

The character of the buried features themselves, combined with comparative evidence, leaves little doubt that the bank and ditch are the critical monuments that once defined a land-claim (Allen 1997). The bank (width *c.* 5 m) was built up on the surface of a salt marsh (Locock and Walker 1998, 41-42) in three, eventually truncated phases using silt (Figure 1D). These phases descend on the south side to roughly the same level as the original surface. On the north side, however, the later phases fall to a higher level, where they interfinger with a rising sequence of horizontally bedded salt-marsh silts (Locock and Walker 1998). Sealing the bank, the overlying silts yield the same plentiful foraminifera assemblage as the uppermost fill of the paired ditch nearby (Locock and Walker 1998), suggesting that the two deposits record the same final, smothering event. The stratigraphical relationships just outlined are exactly those expected (Allen 1997, illus. 5e), and seen in excavations (Allen 2001b, fig. 2.1, 2, 8), at seabanks upgraded at intervals during the build-up of an adjoining active marsh under the impact of a gradually rising sea level. The almost parallel ditch has a measured depth of 0.85 m at the eastern end of the set of excavations, and lies no more than a few metres from the bank to its south. This combination of bank and ditch find parallels not only in the seabanks/seawalls and back-ditches throughout the modern Severn Estuary Levels, but also in many other European areas of coastal land-claim (Allen 1997). Combining the stratigraphical and earthwork evidence, the bank and ditch seem to have formed a pair of genetically related structures that divided an active salt marsh to the north from an enclosed, stabilized and protected former marsh to the south.

Contradictory dates have been ascribed to this land-claim. Locock (1996, 1997) initially assigned it to the Roman period on the basis of pottery found within or associated with the ditched landscape. Later, on the basis of radiocarbon analyses (Locock and Walker 1998; Locock 1999), the date was revised to the middle of the Iron Age, some centuries earlier. Bell (2000, 87-88) has cogently argued against this revision. He pointed out that the stratigraphical and altitudinal evidence do not support the earlier date; such disparities as there are lie within the limits allowed by the variability of the Wentlooge Formation, as controlled by depositional and post-depositional factors (Allen 2001a). Bell further noted that some of the radiocarbon dates obtained from the Hill Farm complex are definitely Roman

and that, with respect to those which seem to imply the Iron Age, the radiocarbon calibration curve for the general time yields exceptionally wide calibrated ranges that do not exclude Roman construction. As the evidence currently stands, the land-claim is accepted here as Roman, within the bounds suggested by the available ceramic evidence as cited above.

CONCLUDING DISCUSSION

A part of the enigma of the Goldcliff Stone seems to disappear in the light of these more recent discoveries.

Although *c.* 750 m apart, the find-spot of the Goldcliff Stone is not greatly removed from the projected alignment of Locock's (1997) paired ditch and bank, which shows a slight northward turn at its western end (Figure 1A, C). We may consequently speculate that the excavated features, and the linear work to which Statorius Maximum and his cohort contributed, are different but linked parts of the same system of a paired ditch and multiphase bank that defined an extensive land-claim in the area, with Gold Cliff Island as its logical focus. Its multiphase character suggests that the bank was maintained over a substantial period. Knight (1962) had suggested that the soldiery were engaged in building a sea defence, whereas Boon (1967, 126; 1980, 28) and Wacher (1974, 376) preferred the view that the structure was a ditch marking the boundary of a legionary farm. The former speculation is the more plausible, given the stratigraphic evidence for the build-up of salt marsh to the north of the excavated bank (Figure 1D). A ditch alone would be of little use in this context.

It might appear surprising that the above speculation should be made in respect of buried monuments and an artefact located so close to the present coast, but which apparently defended a land-claim to their south. Surprise does not seem warranted. There is abundant stratigraphic, sedimentological, archaeological and documentary evidence that the coast of the Caldicot and Wentlooge Levels as a whole has retreated significantly landward (?1-2 km) since the Iron Age (Allen and Fulford 1986; Allen 1987, 2000a, 2000b; Rippon 1996, 2000). Thus a Roman military land-claim in the Goldcliff area could have ranged for some distance south-westward along the left-bank of Goldcliff Pill before its seabank turned eastward along the coast of the time. The marshlands to the west of Goldcliff Pill also saw Roman activity, but the environmental evidence does not in their case point to enclosure but rather to seasonal use (Meddens and Beasley 2001). How far the land-claim ranged to the east and north is a matter of further speculation and future investigation. A Roman presence to the east is attested at Redwick (Allen and Bell 1999), and especially at Magor (Allen and Rippon 1997), and the enclosure could on these grounds have extended for some kilometres in that direction, at least as far as the major palaeochannel at Redwick, which could have served as a major natural barrier. If there was no seabank linking the Goldcliff area with the drylands to the north, access to the land-claim from the legionary base could only have been guaranteed by sea. Taken with the conclusions of Meddens and Beasley (2001), the land-claim argued for above represents another way in which the wetlands of the Caldicot Level seem to have been exploited at this time.

BIBLIOGRAPHY

Allen, J.R.L. (1987) Late Flandrian shoreline oscillations in the Severn estuary: the Rumney Formation at its typesite (Cardiff area). *Philosophical Transactions of the Royal Society* B315, 157-184.

Allen, J.R.L. (1988) Modern-period muddy sediments in the Severn Estuary (southwestern UK): a pollutant-based model for dating and correlation. *Sedimentary Geology* 58, 1-21.

Allen, J.R.L. (1996) An early post-medieval timber setting and subrectangular diggings in Late Flandrian estuarine sediments, Rumney Great Wharf, Cardiff (formerly Monmouthshire). *Archaeologica Cambrensis* 145, 152-168.

Allen, J.R.L. (1997) The geoarchaeology of land-claim in coastal wetlands: a sketch from Britain and the north-west European Atlantic-North Sea coasts. *Archaeological Journal* 154, 1-54.

Allen J.R.L. (2000a) Late Flandrian (Holocene) tidal palaeochannels, Gwent Levels (Severn

Estuary), SW Britain: character, evolution and relation to shore. *Marine Geology* 162, 353-380.

Allen, J.R.L. (2000b) Goldcliff Island: geological and sedimentological background. In: Bell, M., Caseldine, A. and Neumann, H. (eds.) *Prehistoric Intertidal Archaeology in the Welsh Severn Estuary*. York, Council for British Archaeology Research Report 120, 12-18, 382-400.

Allen, J.R.L. (2001a) Late Quaternary stratigraphy in the Gwent Levels (southeast Wales): the subsurface evidence. *Proceedings of the Geologists' Association* 112, 289-312.

Allen, J.R.L. (2001b) Land-claim and sea defence: labour costs of historic earthbanks in Holocene coastal lowlands, NW Europe. *Archaeology in the Severn Estuary* 12, 127-134.

Allen, J.R.L. and Bell, M.G. (1999) A late Holocene tidal palaeochannel, Redwick, Gwent: late Roman activity and a possible early medieval fish trap. *Archaeology in the Severn Estuary* 10, 53-64.

Allen, J.R.L. and Fulford, M.G. (1986) The Wentlooge Level: a Romano-British saltmarsh reclamation in southeast Wales. *Britannia* 17, 91-117.

Allen, J.R.L. and Rae, J.E. (1987) Late Flandrian shorelines oscillations in the Severn Estuary: a geomorphological and stratigraphical reconnaissance. *Philosophical Transactions of the Royal Society* B315, 185-230.

Allen, J.R.L. and Rippon, S.J. (1997) Iron Age to early modern activity and palaeochannels at Magor Pill, Gwent: an exercise in lowland coastal-zone geoarchaeology. *Antiquaries Journal* 77, 327-370.

Bell, M. (1994) Field survey and excavation at Goldcliff, Gwent 1994. *Archaeology in the Severn Estuary* 5, 115-144.

Bell, M. (2000) Environmental archaeology in the Severn Estuary: progress and prospects. *Archaeology in the Severn Estuary* 11, 69-103.

Bell, M., Caseldine, A. and Neumann, H. (2000) *Prehistoric Intertidal Archaeology in the Welsh Severn Estuary*. York, Council for British Archaeology Research Report 120.

Bell, M., Allen, J.R.L., Nayling, N. and Buckley, S. (2001) Mesolithic to Neolithic coastal change *c.* 6500-3500 cal BC. *Archaeology in the Severn Estuary* 12, 27-53.

Boon, G.C. (1967) Roman pottery from the base of the alluvium at Magor. *The Monmouthshire Antiquary* 2, 121-127.

Boon, G.C. (1980) Caerleon and the Gwent Levels in early historic times. In: Thompson, F.H. (ed.) *Archaeology and Coastal Change*. London, Society of Antiquaries, Occasional Papers 1, 24-36.

Collingwood, R.G. and Wright, R.P. (1965) *The Roman Inscriptions of Britain. Vol. 1. Inscriptions on Stone*. Oxford, Clarendon Press.

French, P.W. (1996) Implications of a saltmarsh chronology for the Severn Estuary based on independent lines of dating evidence. *Marine Geology* 135, 115-125.

Knight, J.K. (1962) The Goldcliff Stone - a reconsideration. *The Monmouthshire Antiquary* 1, 34-36.

Locke, S. (1970-71) The post glacial deposits of the Caldicot Level and some associated archaeological discoveries. *The Monmouthshire Antiquary* 3, 1-16.

Locock, M. (1996) Hill Farm, Goldcliff: a field evaluation on the proposed Gwent Levels Nature Research, 1996. *Archaeology in the Severn Estuary* 7, 59-66

Locock, M. (1997) Gwent Levels Wetlands Reserve, Hill Farm, Goldcliff: excavations 1997. *Archaeology in the Severn Estuary* 8, 55-65.

Locock, M. (1999) Buried soils of the Wentlooge Formation *Archaeology in the Severn Estuary* 10, 1-10.

Locock, M. and Walker, M. (1998) Hill Farm, Goldcliff: middle Iron Age drainage on the Caldicot Level. *Archaeology in the Severn Estuary* 9, 37-44.

Meddens, F.M. and Beasley, M. (2001) Roman seasonal wetland pasture exploitation near Nash, on the Gwent Levels, Wales. *Britannia* 32, 143-184.

Rippon, S. (1996) *Gwent Levels: the Evolution of a Wetland Landscape*. York, Council for British Archaeology Research Report 105.

Rippon, S. (2000) Historic landscapes of the Severn Estuary Levels. *Archaeology in the Severn Estuary* 11, 119-135.

Wacher, J. (1974) *The Towns of Roman Britain*. London, Batsford.

Watkin, W.T. (1880) Roman inscriptions discovered in Britain in 1879. *Archaeological Journal* 37, 136-154.

Williams, D.H. (1964) Goldcliff Priory. *The Monmouthshire Antiquary* 3, 37-54.