RECLAMATION AND UTILISATION OF THE UPPER AXE VALLEY DURING THE ROMAN PERIOD

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The Axe Valley is a little studied part of the Somerset Levels, but has the most outstanding landscape remains relating to the Roman period. Focusing on an area known as Monk Moor, the occupation and utilisation of the upper Axe Valley is reviewed and original fieldwork and research presented. Evidence indicates that the landscape was heavily farmed from the second century onwards, taking advantage of the protected location of the valley and the prevailing environmental conditions. The presence of a canal within this landscape is examined in relation to the settlement and exploitation of the valley.

INTRODUCTION

The Romano-British reclamation and exploitation of the lowlands of Britain has been researched in recent years in areas such as the Fenlands, Romney Marsh and the coastal wetlands surrounding the Severn Estuary. A growing body of evidence is indicating the scale and sophistication with which this exploitation took place. The archaeological value of the upper Axe Valley (Figures 1 and 2) of Northern Somerset was initially recognized in the 1970s through the work of Leech and McDonnell (eg Leech 1977a; McDonnell 1979).

Detailed aerial-photographic transcription (Figure 3) has made analysis of occupation within the upper Axe Valley possible. An examination of the wider contextual setting of the evidence is necessary for understanding the impetus for the reclamation of a previously hostile environment. Settlement within these lowlands was established on a permanent basis for the first time during the second century AD; there are aspects of the settlement, most notably a canal, suggestive of Roman control or influence.

THE ROMAN LANDSCAPE AND LOWLAND RECLAMATION

Roman landscape utilisation can be examined at three scales, international, national and local. It is beyond the scope of this study to review the international evidence, but research in the fens and the Severn levels provides a basis for both national and local reviews.

In Britain, the utilisation of marginal land after the conquest is indicated by the occupation

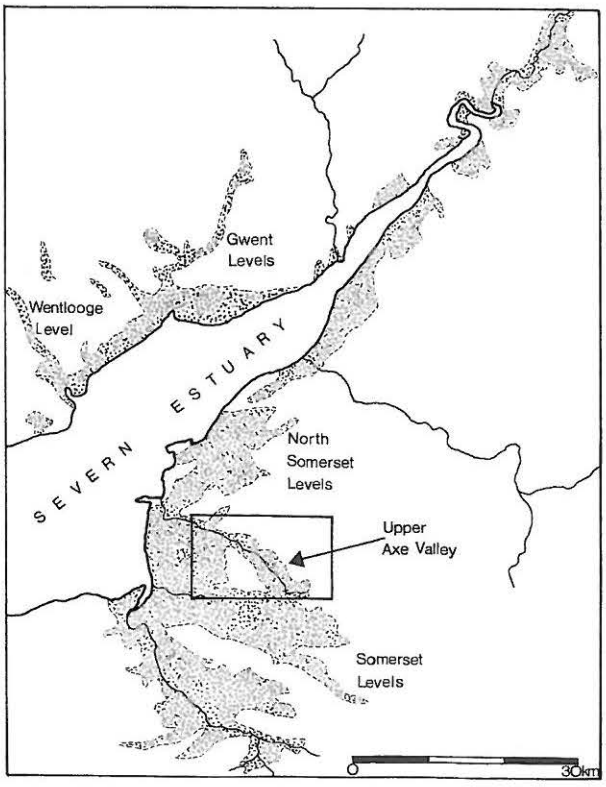


Figure 1: Location of the upper Axe Valley within the Severn Estuary wetlands. Stipple represents alluvial clay and peat below 10 m OD. Boxed area is detailed in Figure 2.

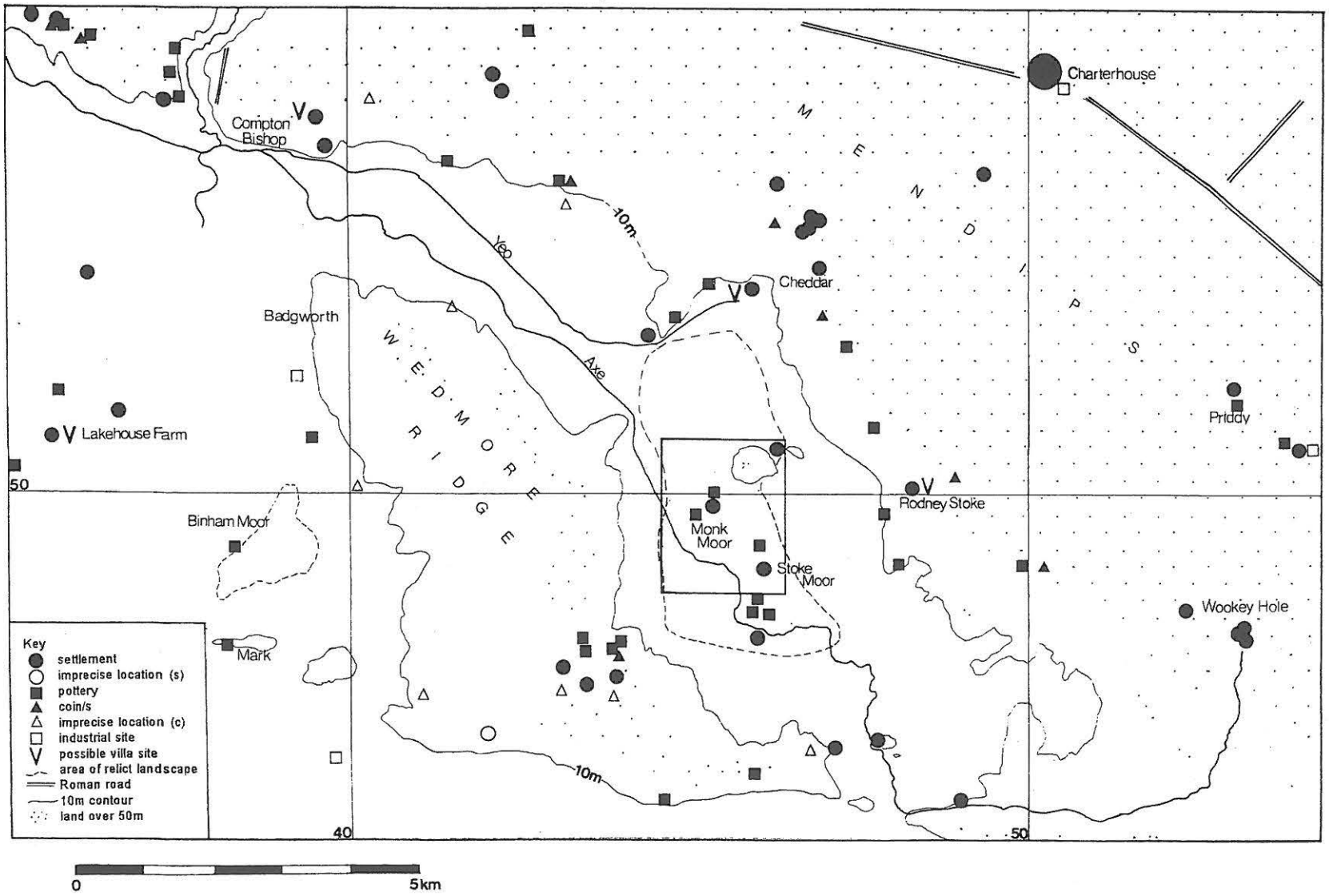


Figure 2: Romano-British occupation evidence for the upper Axe Valley and environs.

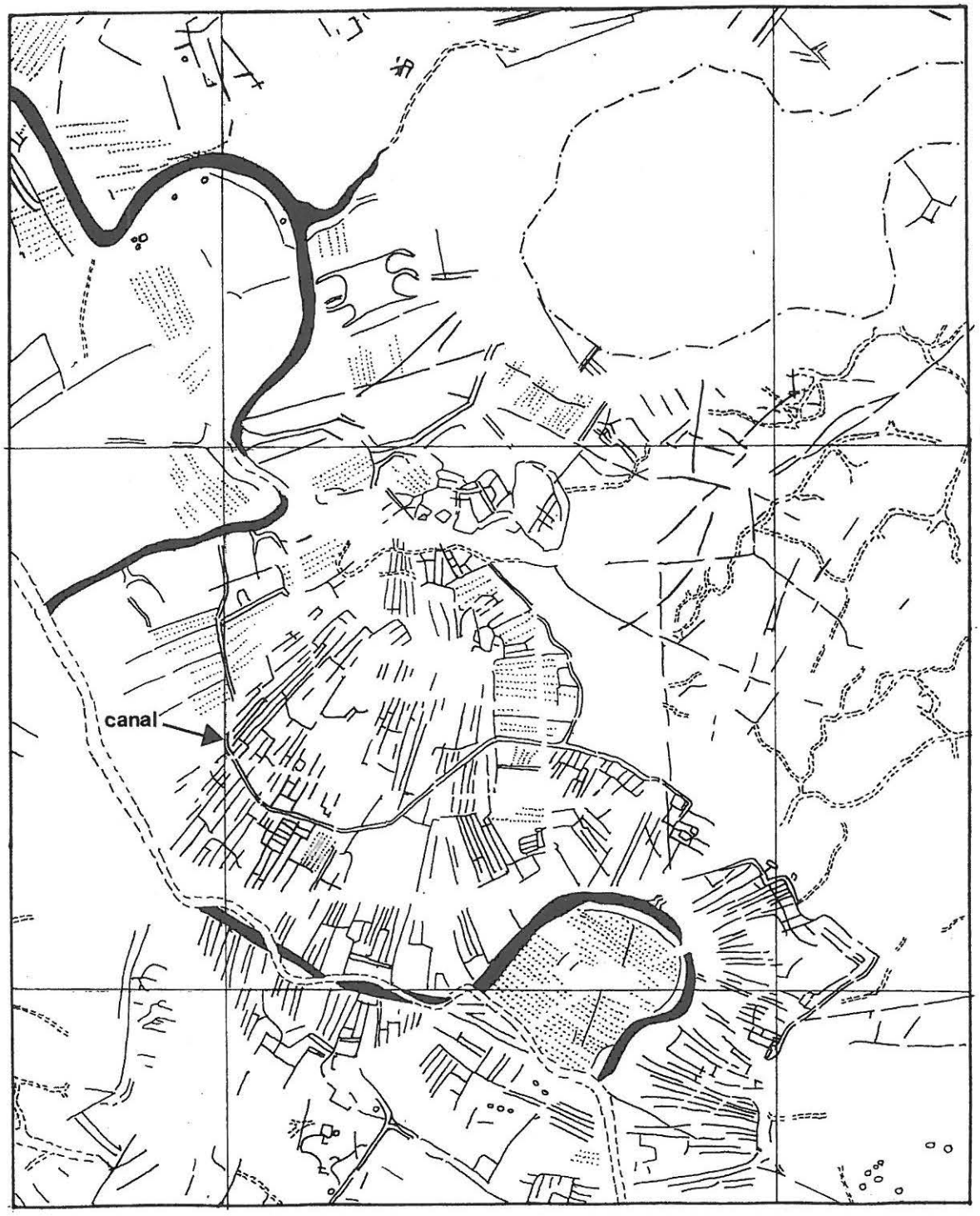


Figure 3: Monk Moor aerial photographic transcription. Sources: D. Broomhead (pers comm), McDonnell (1979), J. Grove (NMR search 966367).

of upland sites, as at Charlton Down, Wilts, and the utilisation of lowlands, notably the fenlands, which are thought to have been exploited from the first century (Crowson *et al* 2000, 238; Potter 1989, 158). The recent Fenland survey has identified a number of canals in association with relict field systems, but does not, with the possible exception of the Lincolnshire Car Dyke, associate them with drainage (Hall and Coles 1994, 121), preferring to see them as part of a communication or transport network linking settlements, often of high status, for example, Stonea and Flaggrass. This could be due to the fact that by the early Roman period the whole area of the fens had a much reduced water-table, caused by a fall in relative sea level (Hall 1981, 56).

The Severn Estuary

Roman use of the levels around the Severn Estuary has been the subject of research over the past twenty-five years, with advances made in the understanding and recognition of areas of reclamation and exploitation. This exploitation has been partly associated with specific industries, for example, iron making at Rumney Great Wharf and other sites on the upper Severn, sourced to the Forest of Dean, and glass from Ley Pill, both linked to trade with Worcester (Allen and Fulford 1987, 278). The reclamation of the Wentlooge Level has been linked to military organisation and labour (Allen and Fulford 1986, 93; Fulford *et al* 1994, 177), while the recent discovery of the third century Barland's Farm (Nayling and McGrail 1994, 59) plank built boat gives an indication of the importance that water-transport must have played in the economy. There is also recent evidence for Roman occupation on the Caldicot Level at Goldcliff (Bell 1994, 141).

On the English side of the Severn, Roman reclamation has been identified as far north as Elmore, 7 km south of Gloucester, within a loop of the River Severn (Allen and Fulford 1990, 17-32). Continuous second to fourth/fifth century Romano-British occupation is indicated further south on alluvium between Severn House Farm and Oldbury Pill (Allen and Fulford 1987, 249-253). The Avon Levels came under scrutiny during the construction of the Second Severn Crossing, Romano-British occupation was identified at Northwick, Ellinghurst Farm, Awkley Hill and Crooks Marsh Farm (Barnes *et al* 1993, 7-11).

The North Somerset Levels have been recently researched (Rippon 2000), and areas of relict landscape identified. Analysis indicated an area protected from the sea and available for permanent settlement, such as at Wemberham Villa on the River Yeo (Reade 1885, 64-73). The possibility of arable agriculture on the levels has been raised by the presence of a corn-drier at Kenn, where the relict landscape has been definitely associated with the later Roman period (Rippon 1997, 82-6). The relict landscape at Kenn covers thirty hectares and consists of earthworks and crop/soil marks aligned NE/SW. It is a roughly rectilinear system of large enclosures with internal subdivisions, and a concentrated area of smaller enclosures - paddocks and possibly buildings.

Somerset

An understanding of much of the organisation of the Somerset Levels during the Roman period has been achieved through the work of Leech (1977a, 1981), whose theoretical model of a divided landscape focuses on salt production in the southern wetlands and land reclaimed for agriculture between the Rivers Siger and Axe.

Leech first noted the distinction between site-types on the coastal lowlands. South of the River Siger, in the lower Brue, a wetland Romano-British industry is seen through a concentration of salt production mounds, producing large quantities of briquetage and pottery. The dating of these mounds showed that first to second century production was located west of the third to fourth century sites, a probable response to rising sea level, which was not noted to the north of the Siger. Here, Lakehouse Farm villa, (Figure 2) a lowland site evincing occupation spanning the first to fourth centuries, is indicative of a stable and habitable environment, possibly due to flood control of the River Siger (Rippon 1996, 112).

The process of reclamation is seen as utilising river-banks and sea-walls (Leech 1981, 32). In addition, Barrow Wall and Applewithy rhynes, located inland to the west of Brent Knoll,

which is centred on the village of Wedmore, which is perhaps indicative of development and fieldwork as much as a true distribution. No complete structures have been identified, but material evidence in the form of burials, coins, pottery, 'occupation deposits', ditches and walling occur within a concentrated area (Somerset SMR 10882).

The majority of evidence for Romano-British occupation within the area comes from numerous caves, spanning all centuries of the Roman period, though third and fourth century remains are more common. The Romano-British use of the caves in Cheddar Gorge has usually been investigated by antiquaries during palaeolithic research and references to occupation deposits of the Romano British period are sketchy. However, the finds from the caves are varied, and occasionally of high status, but also point to ritual and burial activity spanning five centuries. Caves at Wookey Hole, in a similar location to the south-east, have produced a similar range of evidence for use, spanning the first to fourth centuries, including burial and ritual activity. Further west, Scraggs Hole at Compton Bishop (SMR 10459) produced evidence for a definite Romano-British occupation level, but no date has been established. That the caves were occupied within the Romano-British period is unquestioned, but their use and function is more obscure than for simple settlement, as ritualistic 'burials' and indications of possible cannibalism show (Wookey Hole cave, SMR 24355). A function as a retreat, winter quarters or hiding place (as evinced by hoards and bronzes) can also be postulated. Caves on the top of the Mendips again show evidence of burial practice, (SMR 24097), but also occupation, as a saddle quern was found in Swilden's Cave at Priddy (SMR 23950).

The Coastal Belt

The Roman landscape to the west, the coastal lowlands, has been mostly covered by estuarine clay, a resumption of the Wentlooge deposition, due to a marine transgression of probable post-Roman date. The data recovered during the construction of the M5 motorway represents the main body of evidence for Roman occupation. A key discovery was that of Lakehouse Farm villa (Leech 1981, 29), which was located to the east of Brent Knoll; it proves that continuous, not seasonal, occupation was made possible in some form during the Roman period, as a villa, or high-status site would not be built in a landscape subject to tidal inundation. Much of this area has been the subject of extensive research by Leech (1977a, 1981) and more lately by Rippon (1997), but two sites in particular, at Badgworth (Leech 1977b, 89-96) and Binham (Rippon 1997, 117) form an interesting juxtaposition, and present anomalies that are not immediately resolvable.

The upper Axe Valley below the ten metre contour

A large tract of land south of Nyland Hill combines relict landscape with evidence of Romano-British occupation. The material evidence for Roman occupation of the upper Axe Valley has mostly resulted from chance finds and fieldwalking. A survey of the Somerset claylands (McDonnell 1985) identified some of the possible Romano-British landscape remains.

Eight settlement sites border the river (Figure 2), seven of them south-east of Nyland. Spatially, the occupation sites are approximately 1 km apart, but this is, of course, not definitive of continued settlement over three to four centuries. Four of the sites have produced datable finds, either second to third or third to fourth centuries. No site spans all three centuries, but little of the available evidence is refined beyond being assigned to the Romano-British period. The finds from the four settlements adjacent to and immediately south of Nyland are discussed in detail later, but generally relate to occupation of the second to fourth centuries. There are four other occupation sites - one to the north at Hythe, and three to the south.

At Hythe (SMR 11415) a hearth with Romano-British pottery and fibulae was reported as being found below a mound. The site does not relate to any relict landscape features. The three sites to the south are clustered near to the Panborough/Bleadney gap, and located at the ten metre contour. At Northload (SMR 12516), the western site of the three, settlement has been suggested by the area and quantity of probable third century pottery in association with a dark soil and skull fragments. The location of the site

is on the edge of the levels on a low spur of high ground. At Marchey (SMR 23003, SM 22808) a slight rise in ground level next to the River Axe is associated with the earthworks of an early Christian monastic site, but has also produced third and fourth century Romano-British pottery (Batt 1969, 58) in a quantity suggestive of settlement. No coherent relict landscape is associated. At Henton, east of Marchey, complex earthworks are present in association with Romano-British pottery, coarsewares and Samian (SMR 23000).

The valley north of Nyland Hill contains less evidence for widespread occupation, but includes rare findspots of coins and pottery (SMR 11418, 11414, 11463, 10067) and many undated landscape features.

The main evidence for high-status occupation within the valley is the site at Cheddar of a possible villa. Located below the ten metre contour, but on solid geology, and producing material dating from the first to fourth centuries, its veracity as a villa, or a high status site, is only secure for the fourth. The presence of a late villa is implied by wall plaster, stone rubble and 'hypocaust ash' (Rahtz 1973, 67), but no ground plan or substantial structural evidence was produced by two seasons of excavation. The interpretation was reinforced by parch-marks in 1975 which are supposed to clearly show villa walls within the vicarage garden (Everton Papers; SMR 11441). The primary occupation evidence produced from the excavations dates to the late first and early second centuries, about which Rahtz is very definite. Associated deposits, relating to industrial activity, appear to have continued into the third century, as pottery of this date was found in association with charcoal and burnt clay. Coins found date from AD 137-306.

A function as a port has been inferred for Cheddar, though the material evidence for this is scarce, and has been implied from the presence of a road running parallel to the river, dating from the second to fourth centuries, and its location at the foot of Cheddar Gorge, as an obvious connection with the town of Charterhouse 5 km to the north-east at the head of the gorge.

Discussion

Leech (1977a, 36) identified first to fourth century pottery from the site of Lakehouse Farm villa. If this is correct, then reclamation of at least part of the lowlands must have occurred during the first century, following on from the probable native use of the area for salt production, fishing, fowling and pasture. An interesting question is posed by the presence at Badgworth of a salt production site, which produced pottery of late Iron Age to fourth century date, although the majority was attributed to the first and second (Leech 1977b, 91-95). Clearly, the presence of a salt-production site in a reclaimed landscape is not feasible. This would seem to indicate that either the site continued in use for some purpose other than salt production; or that Leech's speculative, though accepted, model of a reclaimed tract of land between the Siger and Axe needs refining. Leech's model takes no account of the relict landscape of Binham Moor, which had not been identified at the time of his research. The site at Badgworth is sealed by 0.75 m of alluvial clay, and is recorded as not having a buried soil horizon, while Binham Moor, only 1.5 km to the south, exhibits a relict landscape which has not been subject to tidal inundation (Rippon 1997, 117). Scant evidence exists for the dating of the Binham Moor system apart from comparative landscape analysis. There is no reason why Binham was not inundated apart from its distance inland and its partially identified enclosure.

Evidence for occupation of the coastal clay belt to the north of Yorks Farm (SMR 10484) and south of the Axe is confined to one site at Batch (SMR 10721), evincing mid-late Roman pottery and one piece of briquetage, at a depth of 0.60-0.75 m below the present ground surface. If both Badgworth and Batch are salt production sites of a later date than the first century, then this is in direct contradiction for a first century date for the reclamation of much of the coastal belt. This suggests that the area reclaimed was less than that proposed by Leech, and that the reclamation could be piecemeal rather than wholesale, the northern and eastern limits possibly relating to the southerly course of the Axe to the west of Wedmore Ridge, and thereby leaving Badgworth, which is close to a relict channel of the Axe,

subject to tidal flow. Piecemeal reclamation could have spread onto the lowlands from the higher ground, from Brean Down, the Wedmore Ridge and Brent Knoll, in contrast to large scale reclamation indicated elsewhere, such as Rumney Great Wharf (Allen and Fulford 1994, 175-7) which has been linked to imperial control.

On the available dating evidence, the upper Axe Valley was first settled in the second century, the period when Badgworth salt production declined. As the Badgworth area showed no evidence for reclamation, prevention of tidal flood water entering the upper Axe valley could possibly have caused higher flooding of the land to the west of the Wedmore Ridge, and thereby limited the activity of the Badgworth salt production sites.

The recent excavation of an early Roman ditch immediately to the south of Brean (Allen and Ritchie 2000) and the recovery of Roman pottery from fieldwalking around Wick (Fitton pers comm) needs to be fitted into any future model for reclamation and utilisation of the coastal belt, taking into account the possible previous course of the Axe to the south of Brean Down (Bell 1990, 256-8).

The reclamation of the upper Axe Valley would appear to date from the second century, which is later than that proposed for the Lakehouse Farm area. The actual mechanics of controlling the water levels and flow within the valley must relate to the volume of water within the river, and the range of tidal flow up-river. The distance of the valley inland, in conjunction with the falling sea-level (Hall and Coles 1994, 115) may have produced a degree of protection; taken together with a possible combination of drainage engineering, sluices and embankments, the exploitation of the upper Axe Valley would have been feasible for the Roman reclaimers. The evidence for flood defences within the Axe is complicated and obscured by medieval and later drainage, the difficulty of dating non-occupation earthworks, the meandering nature of the river, and uncertainty as to the extent of post-Roman deposition.

MONK MOOR - A HISTORICAL AND ARCHAEOLOGICAL REVIEW

In order to establish the veracity of assigning part of the landscape evidence (Figure 3), in particular the possible canal, to the Roman period, it was necessary to undertake detailed archaeological and documentary research, focussing on Monk Moor, but incorporating the surrounding areas.

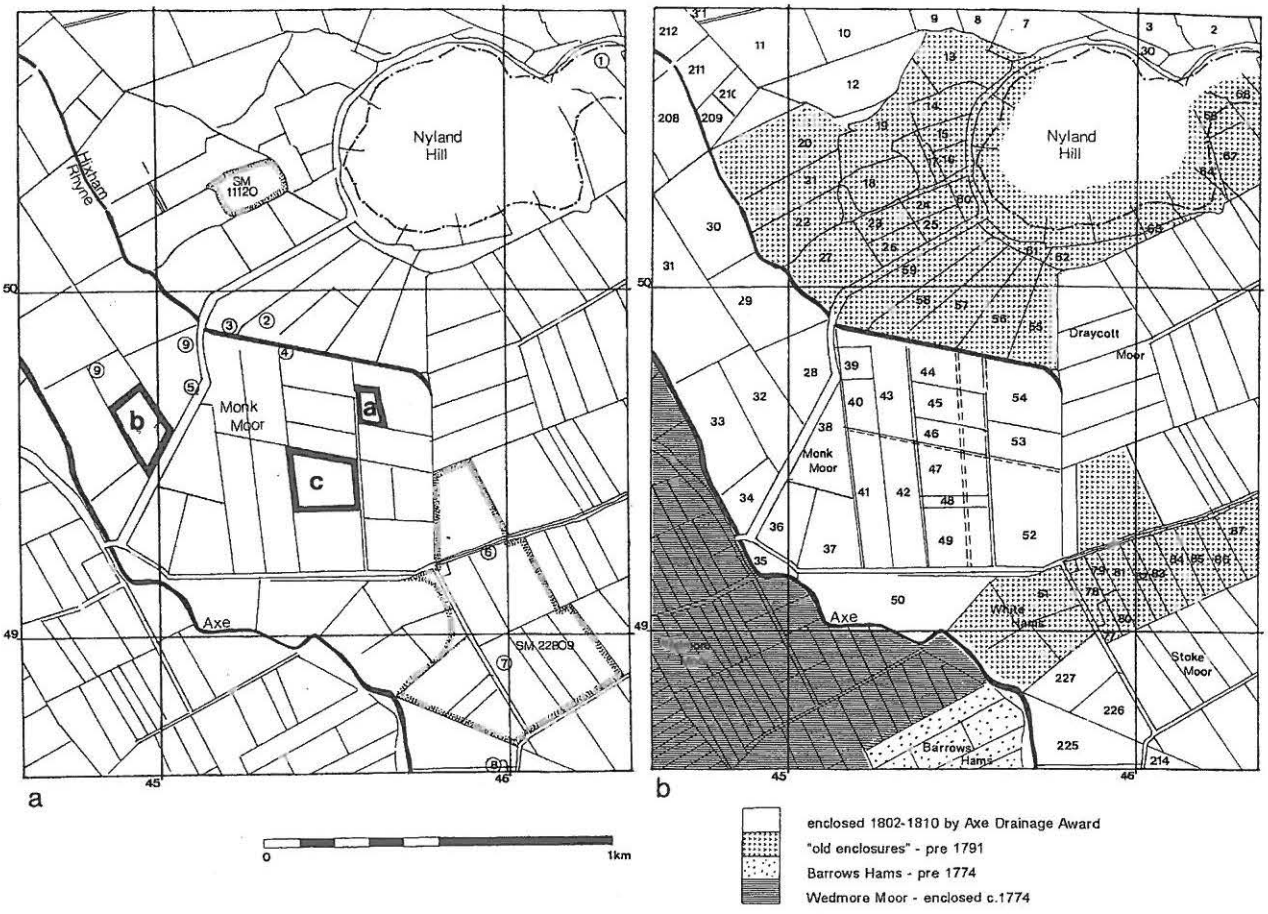
Post medieval enclosure

Documentary evidence relating to much of the field and road layout evident today is accessible through tithe and enclosure maps and awards. With the loss of some and addition of other boundaries, the general layout occurred during the late eighteenth and early nineteenth centuries. The dates of these boundaries are shown on Figure 4b.

It would seem that Monk Moor was not enclosed until approximately 1802, as it is depicted in its enclosed form in pencil in the late eighteenth century (SRO - DDPO/68 Nyland and Badcombe Survey and map of 1773-1790), while those around it are in ink. Field drains were also drawn in, running east to west. Monk Moor is referred to in the Nyland and Badcombe survey of 1773-1790 as a common of 246 acres, 2 roods and 37 perches The south side of the Axe falls within the parish of Wedmore, which was finally enclosed by an Act of 1778 (Rose 1982, 20-85).

There is no mapped depiction or documentary reference to a watercourse across Monk Moor. Prior to the final enclosures there had been some attempt at drainage and reclamation within the Axe Valley, although a comparison between the amounts of land which were unreclaimed in 1638 and 1800 showed there to be little difference made in 150 years (Williams 1970, 111). A survey of 1638 of the 'Moores and Lowe Grounds' (Williams 1970, 109) shows the Axe Valley to be divided fairly equally between commons (4994 acres) and meadows (4574 acres).

Williams states that the Drainage Awards post-dated the individual reclamation which had failed to achieve a lasting improvement. Bad



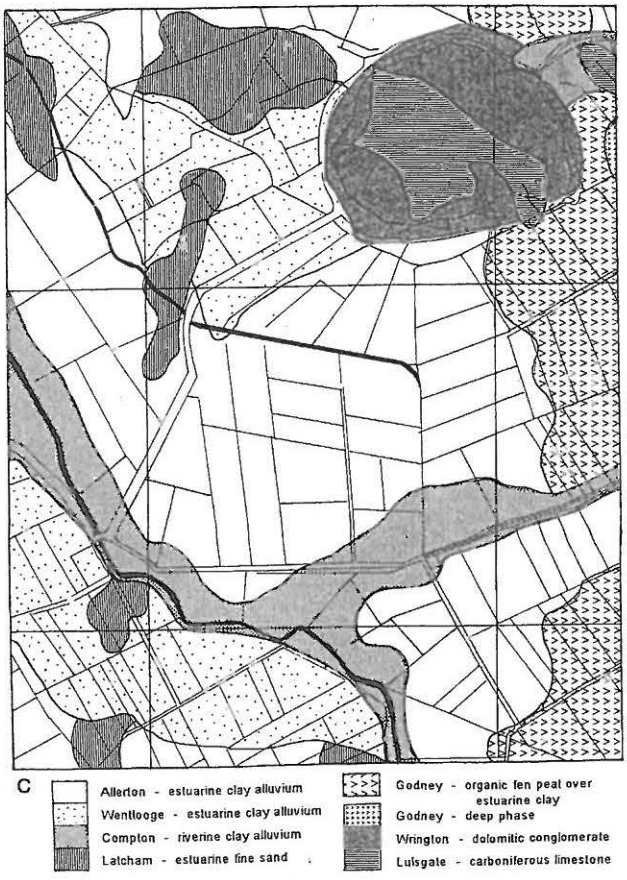


Figure 4: Monk Moor: a) study area showing sites mentioned in text, outlined area of field survey depicted in figure 5 and scheduled monuments; b) study area enclosure landscape; c) study area soils.

flooding in the winter of 1799 proved to be an impetus for the final improvement; a sluice was erected at Hobb's Boat at the neck of the valley in 1810, which resulted in the successful drainage and reclamation of the Axe Valley (Williams 1970, 144).

The medieval period

Glastonbury Abbey controlled the manor of Nyland, and it is frequently referred to as the site of a chapel, along with Godney, Beckery and Marchey. The chapel was located at Court Farm, possibly a manorial centre (Figure 4a, site 1), and was still visible in 1793 (V. Russett pers comm).

A feature of the landscape mentioned in documentary sources from the early seventeenth century is the Ox Moor Ridge. Crossing Monk Moor between Hixham Corner and the River Axe, it relates to a relict river channel, and suggests that a section of the river was embanked. It is first mentioned in a Cheddar perambulation of 1610 (SRO - DDX RBN Cheddar Perambulation) as Ox Moor Bank, and is marked on the Nyland and Badcombe survey of 1773-90, being further annotated with the description of the 'Lake or Low Place on the East Side of the Ridge'. This description implies that the ridge or embankment was protecting land on the west side of the river, leaving an unembanked east side subject to flooding.

The location and form of the Ox Moor Ridge is similar to medieval floodbanks detailed for the Tone Valley (Williams 1970, 49). Medieval embanking of the River Axe is known from documentary sources with regards to Lympsham in the Lower Axe, and between Northload and Wedmore in the upper Axe (Williams 1970, 71; H. Hudson pers comm). Further river banks can be seen on aerial photographs; however, dating these features in relation to their landscape requires detailed examination, research and analysis before anything other than a general comment can be made.

That reclamation occurred on the moors in the medieval period is further borne out by the evidence of the Kippmerewall, an early fifteenth century boundary bank between Wedmore and Northload, which improved and protected the land belonging to the Dean of Wells and caused friction between the ecclesiastical houses who had interests in the moors (Hudson and Neale 1983, 58).

The medieval period saw reclamation of the moors at the edges of higher ground, and in some isolated locations (Kelting 1968, 14). The moors in the medieval period were primarily used for summer grazing, fishing and fowling, for timber, rushes and reeds; a complex organisation of intercommoning existed for regions of pasturing. No mapped depiction exists for the study area, but a series of linear marks are noticeable on aerial photographs to the south of Nyland Hill. These pre-date the enclosure landscape, and clearly post-date the long, small rectangular fields to the south.

Monk Moor is included within the old parish of Nyland and Badcombe; falling within the bounds of Glastonbury Abbey's Twelve Hides. Nyland is mentioned within the Abbey records as a supplier of eels from its fisheries. These are first detailed in the twelfth century as being the property of Glastonbury Abbey, expected to produce 2000 eels. The fishery at Marchey appears to have been larger, as its expected catch was of 7000 (Williams 1970, 26). The aerial photographic record (Figures 3 and 4a, site 9) depicts two spur-shaped features joining the south bank of the relict channel of the River Axe to the south-west of Nyland. These features are still impressive earthworks today, and could be the locations of the fisheries (R. Broomhead pers comm).

The Twelve Hides perambulation of 1503-1510 passes along two sides of Monk Moor, from White Hams north between 'the moor of the Lord of Rodeney and Monkenmore', encircling Nyland and passing to the south 'including Oxmore and Monkenmore with the twelve hides' (Morland 1984, 35-54). Andresey (Nyland) is mentioned in connection with the Twelve Hides in 1121.

A single reference to Monk Moor being enclosed in 1310 is found in 'Wedmore's Moors and the Enclosure Acts of the 18th Century' (Rose 1982, 17), but this is from an unreferenced source, and the overwhelming evidence, both documentary and archaeological, is against this being the case.

The River Axe, in the early medieval period, up to the thirteenth century, flowed from Glastonbury through the Panborough-Bleadney gap, with ports recorded regularly along its length, as at Bleadney, Clewer, Radcliffe or Rackley and Wear. The redirection of the Brue through the modern Brue Valley to the Pilrow Cut, would have caused a reduction in the flow of the Axe, and probably reduced flooding, as the river channel would have excess capacity. The channel was still navigable, as is shown by records for the transport of goods and contact by river between Nyland and Glastonbury (Williams 1970, 64-5). In 1326, the waterway between the Axe and Brue valleys, from Bleadney Bridge to Hurn, was straightened, made 12 feet wide, and it was stated that the bridges built over it had to be high enough to allow the passage of boats (Williams 1970, 37). An indication of the date of the redirection is supplied by a record of the services of Robert Malerbe, a tenant of the Abbey, whose duties included care of the waterway between Clewer and Street, and Mark and Glastonbury (Morland 1984, 38). This is dated to the abbacy of Michael of Amesbury (1235-52), who was renowned for consolidating and reclaiming the Abbey's property, as well as initiating improvements in agriculture.

Post-Roman - Saxon

Evidence for the ownership and use of Monk Moor during Saxon and post-Roman times relies heavily on medieval copies of Saxon charters produced by Glastonbury Abbey to establish their title to property and land (Dunning 1983, 21). The Saxon charters record the growth and establishment of the Twelve Hides. Andersey is mentioned in a charter of AD 959-975 (Morland 1986, 61-66). A reference to Andersey exists in a forged charter of 670-672, and probably relates to an eleventh or twelfth century desire to establish ownership by the Abbey. Domesday Book records Nyland as 'a third island called Ederisige, in which are two hides that never paid geld' (Morland 1984, 36). There is evidence for the importance of Cheddar, the Saxon palace, within this period, and it must have influenced the surrounding area, but there is no indication of physical sub-division of the moors.

Roman

That the majority of features plotted from aerial photographs and visible as earthworks in the immediate vicinity of Monk Moor relate to the Roman period is confirmed by the evidence of comparative landscapes and the type of finds which have been recorded.

No excavations have been published, though two have taken place, along with some investigation earlier this century. The majority of sites which have provided dating evidence are within the study area, though the landscape remains are more widespread. Only one site on the south side of the river has produced structural and artefactual evidence; located (SMR 10888; Hudson and Neale 1990, 219) on Latcham Moor, 3.3 m of laid limestone walling was exposed by cattle poaching. Faced, with a rubble core, and 0.5 m wide, the wall was orientated NE/SW. War-time ploughing produced Romano-British pottery and a stone quern; subsequently black and grey Romano-British pottery and butchered animal bone have been found at and around the above grid reference. The site lies immediately to the south of the Axe, in an area of little activity according to aerial photographic survey. A possible trackway and linear boundary are present, but nothing to suggest the settlement which can be inferred from the finds.

An examination of the artefactual evidence in relation to the aerial photographic transcription provides valuable information with regards to interpretation of the whole landscape.

Site 1 (Figure 4a) at Court Farm (SMR 10418), adjacent to Nyland Hill, was the site of an excavation in 1977, which uncovered a courtyard, Roman ditches, disarticulated (possibly medieval) burials and the corner of a stone built structure. Artefacts from the site in Axbridge Museum are varied, and the recovery of stamped Samian, glass, decorated fine wares, colour coated wares, carved bone, slag, daub, Congresbury ware, rim-sherds from large storage vessels, tiles (including one hypocaust tile), a spindlewhorl, a fragment of plaster and iron objects implies a site of some complexity. A brief comparison with finds from the Romano-British settlement of Catsgore in south Somerset (Leech 1982) shows that all the

above type of finds were present there also. Occupation of this site since at least the medieval period means that little of the immediate landscape can be related to the Roman period.

Site 2 is recorded as being the subject of an unrecorded excavation in 1960, which produced 'occupation material' (SMR 10338). The same field was ploughed in 1986, and produced over 500 sherds of second to fourth century pottery, a complete upper rotary quern of a non-local conglomerate and a lower rotary quern of fine-grained sandstone. It is reported that metal detectorists later looted the site, finding bronze brooches and coins (Russett 1986, 148-9). The transcription shows a number of features in this area, irregular small enclosures (approximately 20 m x 30 m) and a possible trackway. The focus of occupation for this site would appear to be located further to the east. This was confirmed during the widening of the south edge of Hixham Rhyne, site 4, when possible flooring slabs of dolomitic conglomerate (source at Nyland, Figure 4c) were exposed over a fairly wide area. Pottery dating to the third and fourth centuries, including local Congresbury ware, and half a rotary quern were associated with the slabs (Batt 1969, 45). The transcription evidence suggests a settlement in excess of 200 m^2 extending both north and south of the rhyne, consisting of small enclosures, rectangular fields, an ovoid enclosure and a boundary bank (Figure 5a) which consists of a slightly raised central mound flanked by shallow ditches.

Romano-British pottery was recovered from site 5, (SMR 11427) which appears to be within a system of long rectangular fields to the east of the modern road, and series of grypes and ditches of the same orientation on the west side.

Site 6, within the area of the scheduled monument, is the location of Romano-British pottery. The precise position of the finds lies beyond the enclosing boundary bank of the settlement or between two in-turned banks. The interpretation is hindered by the presence of the modern road, but it is possible that the in-turned bank on the south side of the modern road is respecting the course of Draycott Brook, or a predecessor. Creeks from the peat of Draycott Moor are present to the north-east, and there are some transcription marks on the north-north-east side of the Axe meander, suggestive of a joining channel.

First scheduled in 1977, site 7, (SMR 24283, SM 22809) the area of the scheduled monument covers 18.5 hectares, and relates to surviving earthworks comprising trackways, banks, enclosures, fields and probable building platforms. A part-survey in 1985 (McDonnell 1985 and Figures 3 and 4) emphasised the preservation of a complex of ditched and embanked enclosures and platforms. The remains appear to be a coherent unit, the linear feature to the south-east probably being of a later date. The occupation area appears to be located near to the boundary bank, the fields radiating out from, and respecting the course of, the river. The bank continues intermittently to the south, parallel to the river, and enclosing a long rectangular field system.

The major dating evidence stems from agricultural activity in 1925. Stone was taken from one of the earthworks, and the finding of a pitched courtyard and a paved roadway reported (Gray 1927, 129-30). At a depth of 0.40 m beside the road, two urns were uncovered, one of which contained a hoard of forty-three coins, dating AD 138-296, from Antoninus Pius to Alectus (Symonds 1927, 129-30) with a further ten coins found nearby. The roadway uncovered in 1925 heads directly for the river, implying the presence of a wharf at ST45864003. The dating of the hoard reflects instability within the economy, and possibly relates to the fall of the rebel Alectus (Isaac 1976, 57) when hoards were concealed in fear of looting troops. In comparison to other hoards found within Somerset, that on Stoke Moor is poor, and possibly reflects the relative status of the community.

Black-burnished, grey and Samian pottery was recovered during agricultural building work to the south of the scheduled monument, at site 8. The Samian sherd was notable in that it was of an identifiable form, Dragendorff 31, stamped 'Illiomarus', and can be dated to AD 150-180 (McDonnell 1979, 79). The location of these sherds does not appear to be related to settlement, but falls within the field system which continues to border the river for approximately 1 km to the south east, where further sherds of pottery have been found.

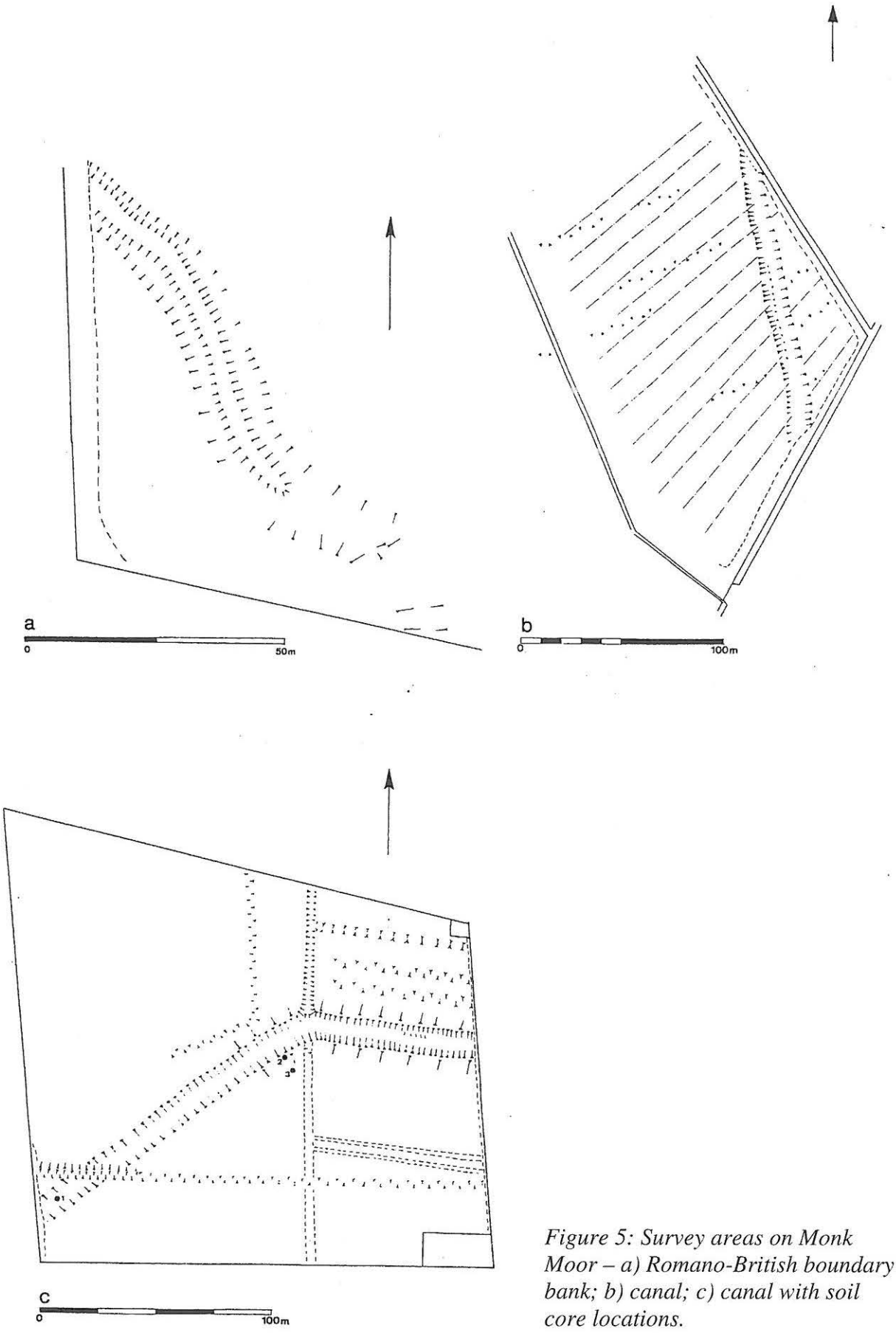


Figure 5: Survey areas on Monk Moor – a) Romano-British boundary bank; b) canal; c) canal with soil core locations.

A less coherent system exists to the south of the river, but again on a different alignment to the enclosure landscape. The features are not so regularly aligned towards the Axe and the fields appear generally larger and less narrow. No dating evidence exists in this area, but the strength of the associated evidence would suggest a Roman date. The settlement to the south of the river, on Latcham Moor, has no visible related field system. Further fieldwork is needed to definitely associate the remains on Wedmore Moor to the Romano-British period.

To summarize, there are three distinct settlements which can be distinguished within the study area:

(i) Court Farm, with no landscape setting, but probably a rural Romano-British settlement, exploiting the resources of Nyland Hill and the adjacent low grounds, of a status possibly above that of the settlements on the moor.

(ii) Either side of Hixham Rhyne is widespread evidence for irregular paddocks, building platforms and enclosures; the settlement extends south of the rhyne, platforms located within the boundary bank presumably conceal habitation structures. No distinct boundary bank is visible to the north the rhyne, the main boundary bank runs up to Hixham Rhyne from the south.

(iii) A large settlement, mainly relating to the area of the scheduled monument, extending to and enclosed by a boundary bank, which runs for at least 1.4 km around the north and east of the area, connecting the last two areas of occupation.

A general theme of the settlement earthworks is their location adjacent to the boundary bank; the enclosed area is mainly on the Allerton soils (Figure 4c), and does not extend onto, or under, the area of Godney peat, as there is a clear demarcation provided by the enclosing bank. This encloses an area of long rectangular fields, or divided ground, which is aligned either on the boundary or the river. To the north of the river, within the field system, there appears to be three alignments:

(i) A coherent system radiating from the river to the southern settlement, site 7.

(ii) A central area of Monk Moor, where the system is aligned on the river, but appears to be radiating from the north.

(iii) Boundaries and grypes aligned on the boundary bank and the linear feature which bisects the moor from east to west.

Pre-Roman

There is a further possibility which has significance for the dating of this landscape. As mentioned previously there is evidence for Iron Age settlement within the upper Axe Valley, which is located at site 3, to the north of Hixham Rhyne (Russett 1986, 145). Glastonbury decorated Iron Age pottery was recovered from spoil during the cleaning of the rhyne and further pottery was recovered from a layer in the north section, sealed by alluvium. A minor excavation revealed a probable circular house structure, again sealed by alluvium, approximately 0.50 m beneath the ground surface. The pottery has been broadly identified as dating to the first and second centuries BC (Russett and McDonnell pers comm).

On comparison with the soils map (Figure 4c), it can be seen that the site is located exactly on a tongue of Wentlooge alluvium, and could represent the limit of post-Roman flooding. This is backed up by the lack of evidence for Romano-British occupation to the north of this location, possibly sealed by the resumption of Wentlooge deposition.

Whether this settlement was of a seasonal or permanent nature remains to be determined, but it could be significant that the site is so close to Romano-British settlement, suggestive of seasonal occupation that was permanently occupied when conditions improved. This is in conflict with the environment predicted by Housely for the upper Axe Valley (Housely 1995, 136).

A ROMAN CANAL ON MONK MOOR

A feature which stands out within the aerial photographic transcription (Figure 3) is the linear feature crossing Monk Moor. McDonnell (1979, 78) suggests that this is a canal related to the Roman settlements. Much of the preceding

research was directed towards establishing whether any evidence existed in documentary or archive form to suggest other possible dating for the feature. The physical form and the landscape setting of the feature both indicate a probable Roman date.

Physical Form

The feature is visible on air photographs as a linear ditch between embankments, running for a length of 1.1 km from ST44994982 to ST45624945 in a series of straight sections, which turn at angles or either 30^0 or 45^0. The longest section is of 250 m, the shortest of 50 m. The west end terminates adjacent to the relict course of the Axe and the east end at a corner of the Romano-British boundary bank. It is embanked on either side, flanking a shallow channel, 0.4 m deep. From bank-top to bank-top the width is consistently 11-12 m, the spread of the bank increases the width in places to 23 m. The bank only rarely remains visible as an earthwork. The inner base width of the channel is 4-6 m.

Two fields were surveyed in detail to establish the form of the feature (Figures 5b and 5c), and the rest of the course inspected where access was available. These two examples are probably the best-preserved sections bar one (no access was available to a field at ST450493), but have both been subject to some form of agricultural improvement. In both fields surveyed, the feature exhibited undulation along the base, which was due to a drain being laid in part of the eastern field, and probably similarly in the western field.

Soil cores were taken from three locations. Core 1 was taken at the west end of the eastern field, where undisturbed deposits showed the channel to be filled with 1.15 m of laminated yellow-grey silt, implying a slow silting process. The base of the channel was 1.4 m below the ground surface, at a height of 5.1 m OD. The silt showed few clear horizons, gradually changing in colour and texture from a light yellow-grey soft silt at the top of the deposit, to a plastic brown-grey clay-silt at the base. Some streaks of blue clay and organic preservation were noted towards the base, but the laminated nature of the deposit was its most distinctive characteristic.

Cores 2 and 3 were taken from and beyond the southern bank, establishing that the banked material was of a brownish grey stiff clay loam, surviving to a height of 0.31 m. However, the banked material was adjacent to the position of the modern drain, and should therefore not be taken unreservedly as being of Roman origin. The channel was cut through a 0.80 m depth of stiff grey-brown clay, presumably the Roman land-surface, at 5.75-5.80 m OD.

The lower core profiles are also of interest, as they consistently show four distinct horizons below the alluvium. An unknown depth of peat was recorded at 2.50 m OD, equating to the 'turfa' peat, underlying marine clay (Haslett *et al* 1998) covered by 2-4 cm of a grey reedy silt, possibly identifying a change in the environment to wetter conditions, as it precedes a 1-2 m deposit of blue-grey estuarine clay, with a high organic content, which merges into up to 1.2 m of blue-grey estuarine clay with a low organic content.

Setting within the Roman landscape

The setting of the watercourse is important in the interpretation of the function of the feature, the main points of note are:

(i) A distinctive paralleling of the relict channel of the River Axe, following the course at a distance of between 200 and 300 m.

(ii) The feature appears to cut across a linear field-system central to Monk Moor.

(iii) The east end terminates at a bend of the Romano-British boundary bank (an aerial photograph of 1969, OS/69152/088, shows that the junction of these two features has been disturbed by agricultural activities, probably levelling off or filling in).

(iv) The west end is obscure, its possible junction with the Axe may have been disturbed by the construction of medieval fisheries.

(v) The feature appears contemporary with the relict field-system to the west and east of the central area, and some of these boundaries appear to respect it (Figure 3).

work, as the canal appears to post-date some of the field divisions. A second possibility relating to drainage concerns a postulated build-up of flood or run-off water from the land to the east of the enclosed settlement; a directed breach of the boundary bank could have relieved a threat of inundation from a waterlogged area. However, this would probably not require a channel of such size and depth.

For the channel to be used for transport, it would need to have a constant level of water, which would presumably involve a sluice arrangement at the west end. If the channel was following a contour, this could help to maintain a constant water-level. If access to the river was the reason for construction, there seems no reason why a shorter or straighter canal would not have sufficed for the distance involved, unless a stretch of the river was not navigable due to seasonal or physical conditions.

However, evidence from the fens demonstrates that canals often parallelled road or river communication routes (Table 1) and as core 1 suggested that the channel was constantly water-filled and that deposition was a continuous slow process, it does seem that a Roman canal was constructed on Monk Moor principally for navigation, but possibly with a subsidiary drainage function.

CONCLUSION

The upper Axe Valley would seem to have been permanently settled from the second century AD, in response to the potential of newly available land. Whether this resulted from a fall in sea level or reclamation work imposed on the whole landscape is not known. The evidence from the Fenlands (Hall and Coles 1994, 109) indicates that the settlement and exploitation there was a response to an emerging landscape, and not a large-scale drainage project. That reclamation and sea and river defence did occur has been shown for the North Somerset Levels (Rippon 1997, 261-2) and South Somerset (Leech 1981, 22-29) although the reclamation in the latter area was probably carried out on a more piecemeal basis than has previously been suggested.

Post-Roman inundation of the clay belt has obscured the picture of Roman Somerset. There appears to have been intensive use of some areas of the upper Axe Valley, especially to the south-east of Nyland, but little recorded for lowland occupation to the north-west; although many linear features have been recorded on Cheddar Moor, none have produced dating evidence. Clarification is needed for the extent of post-Roman flooding to establish the location of the Roman land surface within the northern upper Axe Valley. East of Badgworth, there is no record of a Roman soil horizon below post-Roman alluvial clay. This leaves a distance of approximately 5 km to the first record of Roman occupation within the upper Axe Valley, at Hythe. The height of the Roman land surface at Lake House Farm Villa is 5.1 m OD, at Rooksbridge 5 m OD, at Badgworth 5.6 m OD (Rippon 1993, 434); the height of the suggested land surface on Monk Moor is slightly above these, between 5.7 and 5.9 m OD, which suggests that its distance inland and slightly higher ground level had a protective influence.

The settlements on Monk Moor do not appear to have been threatened by floods from the river, but were more concerned with protecting land from run-off water; the evidence from Badgworth, where no Roman land-surface was recorded, suggests that the lower Axe was still tidal to the west of the Wedmore Ridge. If the upper Axe Valley was subject to tidal inundation, then some form of water control would have to be implemented, possibly a tidal barrier at the neck of the valley. No salt-making sites have been recorded within the upper Axe Valley, so the influence of the Severn has still to be established. The soils map needs refining; dating of the peat to the east of Monk Moor would enhance understanding of the environment, as it is probable that there was no Romano British reclamation attempted in this area.

There is a relative dearth of villas south of the Mendips, interpreted by Branigan (1976, 123) with a suggestion that Somerset, South Gloucestershire and most of Dorset were kept under government control as a series of estates, initially based on the imperial estate of Charterhouse, in response to opposition of the Roman conquest, and to supply the garrison of Wales. He further proposes that the majority of villas in these areas relate to a Gallic influx in the late third and fourth centuries – the identification

of the 'villa' at Cheddar is secure only for the fourth century. As seen previously, there are few definite villa sites within the vicinity of the Axe Valley, and none suggested to the south.

Blocks of long rectangular fields have been noted from areas surrounding fenland settlements (Taylor 1975, 56). The form of the settlements on Monk Moor compares well with the 'girdle' settlement type (Hingley 1989, 99) of closely spaced related communities, which have been recognised in the Fenlands and as far north as Wetwang Slack in Humberside. It is suggested that some groups of settlements may have constituted homes of large-scale kinship groupings based on the divided inheritance of an area of land. It is probable that the Axe settlements ceased to function during the fourth century as a result of deteriorating climatic and economic conditions.

What emerges from this study is that, while the whole of the Axe valley might have been protected from tidal inundation, there was piecemeal reclamation within the lowlands of the upper Axe Valley, dating from the second century. The land within the enclosed area appears to have been intensively utilised, and the possibility of arable agriculture cannot be dismissed, as the number of querns found in the vicinity, and the evidence from a similar site at Kenn (Rippon 2000, 105) suggests that the environment was suitable. The community within this reclaimed land appears to be have been a permanent society, adapting subtly to the changing environment, with the canal indicative of Roman, rather than Romano-British, influence.

BIBLIOGRAPHY

Allen, J. and Fulford, M. G., (1986) The Wentlooge level, a Romano-British saltmarsh reclamation in SE Wales. *Britannia* 17, 91-117.

Allen, J. and Fulford, M. G. (1987) Romano-British Settlement and Industry on the Wetlands of the Severn Estuary. *Antiquaries Journal* 62, 237-289.

Allen, J. and Fulford, M. G. (1990) Romano-British and later reclamation on the Severn Salt Marshes in the Elmore Area, Gloucestershire. *Transactions of the Bristol and Gloucestershire Archaeological Society* 108, 17-32.

Allen, M. J. and Ritchie, K. (2000) The Stratigraphy and Archaeology of Bronze Age and Romano-British Deposits below the beach at Brean Down, Somerset. *Proceedings of the University of Bristol Spelaeological Society* 22(1), 7-49.

Armitage-Robinson, J. (1908) Andresey, or Nyland. *Somerset and Dorset Notes and Queries* 18, 74-79.

Balch, H. (1963-64) A Romano-British farmstead, Hole Ground, Wookey Hole. *Wells Archaeological and Natural History Society Proceedings,* 75-76, 1-23.

Barnes, I., Adam, N. J., Bellamy, P., Butterworth, C., Coe, D., Graham, A.H., and Powell, A. (1993) Second Severn Crossing: English Approaches; an interim statement on the 1992/93 fieldwork. *SELRC Annual Report 1993,* 5-30.

Batt, M. C. (1969) *Archaeology Review (CBA 12).*

Bell, M. (1990) *Brean Down Excavations 1983-1987.* London, English Heritage Archaeological Report no. 15.

Bell, M. (1994) Field Survey and excavation at Goldcliff, Gwent. *SELRC Annual Report 1994* 115-144.

Bradbury, J. (1991) Rodney Stoke, Somerset. In: Frere, S.S. (ed.) Roman Archaeology 1990. *Britannia* 22, 279.

Branigan, K. (1976) Villa Settlement in the West Country. In Branigan, K. and Fowler, P.J. (eds.) *The Roman West Country, Classical Culture and Celtic Society.* London, David and Charles, pp. 120-141.

Clark, J. (1949) Report on excavation on the Cambridgeshire Car Dyke. *Antiquity Journal* 29, 137.

Crowson, A. Lane, T. and Reeve, J. (2000) *Fenland Management Project Excavation 1994 and 1995.* Lincolnshire Archaeology and Heritage Reports Series, No.3.

Dunning, R. (1983) *A History of Somerset.* Darwin County History Series, 21.

Findlay, D. C. 1965 *The soils of the Mendip District of Somerset.* Memoirs of the Soil Survey of Great Britain, London, HMSO.

Fulford, M. G., Allen, J. and Rippon, S. J., (1994) The Settlement and Drainage of the Wentlooge Level, Gwent: Excavation and Survey at Rumney Great Wharf 1992. *Britannia* 25, 175-211.

Gray, H. St. G. (1927) Roman Remains in Rodney Stoke Moor. *Proceedings of the Somerset Archaeological and Natural History Society* 73, 129-30.

Hall, D. N. (1981) The Cambridgeshire Fenland: An intensive archaeological fieldwork survey. In: Rowley, T. (ed.) *The Evolution of Marshland Landscapes.* Oxford, Oxford University Department for External Studies, pp. 52-73.

Hall, D. and Coles, J. (1994) *Fenland Survey.* London, English Heritage Archaeological Report No. 1.

Haslett, S. K., Davies, P., Curr, R. H. F., Davies, C. F. C., Kennington, K., King, C. P. and Margetts, A. J. (1998) Evaluating late Holocene relative sea level change in the Somerset Levels, south west Britain. *The Holocene* 8, 197-207.

Haslett, S. K., Davies, P., Davies, C. F. C., Margetts, A. J., Scotney, K. H., Thorpe, D. J. and Williams, H. O. (2000) The Changing Estuarine Environment in Relation to Holocene Sea-Level and the Archaeological Implications. *Archaeology in the Severn Estuary* 11, 35-54.

Hawkins, A. B. (1973) Sea Level Changes Around South West England. *Colston Papers* 23, 67-87.

Housely, R. (1988) The Environmental Context of Glastonbury Lake Village. *Somerset Levels Papers* 14, 63-82.

Hingley, R. (1989) *Rural Settlement in Roman Britain.* London, Seaby.

Housely, R. (1995) The Environment. In: Coles, J. and Minnitt, S. *Industrious and Fairly Civilized - The Glastonbury Lake Village.* Taunton, Somerset Levels Project and Somerset County Council Museum Service, pp. 121-36.

Hudson, H. and Neale, F. (1983) The Panborough Saxon Charter AD 956. *Proceedings of the Somerset Archaeological and Natural History Society* 127, 55-69.

Hudson, H. and Neale, F. (1990) Wedmore, Latcham. *Proceedings of the Somerset Archaeological and Natural History Society* 134, 219.

Isaac, P. (1976) Coin Hoards and History in the West. In: Branigan, K. and Fowler, P. J. (eds.) *The Roman West Country, Classical Culture and Celtic Society.* London, David and Charles, pp. 52-62.

Kelting, E. L. (1968) The Rivers and Sea Walls of Somerset. *Proceedings of the Somerset Archaeological and Natural History Society* 112, 12-20.

Kenyon, K. M. (1948) *Excavations at the Jewry Wall Site, Leicester.* Leicester, Leicester Museums Service.

Leech, R. H. (1977a) *Romano-British Rural Settlement in South Somerset and N Dorset.* Unpublished PhD thesis, Bristol University.

Leech, R. H. (1977b) Late Iron Age and Romano-British Briquetage Sites at Quarrylands Lane, Badgworth. *Proceedings of the Somerset Archaeological and Natural History Society.* 121, 89-96.

Leech, R. H. (1981) The Somerset Levels in the Romano-British period. In: Rowley, T (ed.) *The Evolution of a Marshland Landscape.* Oxford, Oxford University Department for External Studies, pp. 20-51.

Leech, R. H. (1982) *Excavations at Catsgore 1970-73, a Romano British Village.* Bristol, Western Archaeological Trust.

Macauley, S. P. and Reynolds, T. (1994 rev. 1996) *Car Dyke, A Roman Canal at Waterbeach.* Cambridge, Cambridgeshire County Council Archaeological Field Unit.

McDonnell, R. (1979) The upper Axe Valley, An Interim Statement. *Proceedings of the Somerset Archaeological and Natural History Society* 123, 75-83.

McDonnell, R. (1985) *Archaeological Survey of the Somerset Claylands.* Taunton, Somerset County Council.

Morland, S. C. (1984) Glastonbury Twelve Hides. *Proceedings of the Somerset Archaeological and Natural History Society* 128, 35-54.

Morland, S. C. (1986) The Glastonbury Manors and their Saxon Charters. *Proceedings of the Somerset Archaeological and Natural History Society* 130, 61-70.

MPP. (1988) *Canals - Romano British, MPP Single Class Description.* London, English Heritage.

Nayling, N. and McGrail, S. (1994) Barland's's Farm, Magor, Gwent: A Romano-Celtic boat find. *SELRC Annual Report 1994,* 59-66.

Phillips, C. W. (1970) *The Fenland in Roman Times.* London, Royal Geographic Research Series: No.5.

Potter, T. W. (1981) Marshland and Drainage in the Classical World, In: Rowley, T (ed.) *The Evolution of a Marshland Landscape.* Oxford, Oxford University Department for External Studies, pp. 1-19.

Potter, T. W. (1989) The Roman Fenland - A Review of Recent Work In: Todd, M (ed.) *Research on Roman Britain 1960-89. London,* Britannia Monograph No. 11, pp. 147-174.

Rahtz, P. A. and Hirst, S. M. (1973) Cheddar Vicarage 1970. *Proceedings of the Somerset Archaeological and Natural History Society* 117, 65-96.

Rawlins, M. and Crockett, A. (1996) *Brean Down Sea Defences, Somerset - Archaeological Excavation Results.* Salisbury, Wessex Archaeology.

Reade, R. C. (1885) The Roman Villa at Great Wemberham in Yatton. *Proceedings of the Somerset Archaeological and Natural History Society* 31, 64-73.

Rippon, S. J. (1991) The Somerset Levels in the Roman Period. *SELRC Annual Report 1991,* 43-6.

Rippon, S. J. (1992) The exploitation of the North Somerset Levels during the Roman Period. *SELRC Annual Report 1992,* 35-38.

Rippon, S. J. (1993) *Landscape Evolution and Wetland Reclamation around the Severn Estuary.* Unpublished PhD Thesis, Reading University.

Rippon, S. J. (1994) The Roman settlement and landscape at Kenn Moor, North Somerset, interim report on survey and excavation 1993/4. *SELRC Annual Report 1994,* 21-35.

Rippon, S. J. (1995) *The Roman Settlement and Landscape at Kenn Moor, Avon, second interim report on survey and excavation 1994/5.* Reading, University of Reading.

Rippon, S. J. (1996) Roman Settlement on the Somerset Coast: the work of Samuel Nash. *Proceedings of the Somerset Archaeological and Natural History Society* 39, 99-117.

Rippon, S. J. (1997) *The Severn Estuary – Landscape Evolution and Wetland Reclamation.* Leicester, Leicester University Press.

Rippon, S. J. (2000) The Romano British Exploitation of Coastal Wetlands: Survey and Excavation on the North Somerset Levels 1993-7. *Britannia* 21, 69-200.

Rose, C. A. (1982) *Wedmore's Moors and The Enclosure Acts of the Eighteenth Century.* Wedmore, C. A. Rose.

Russett, V. (1986) Cheddar, Monksmoor. *Proceedings of the Somerset Archaeological and Natural History Society* 130, 149.

Scott, E. (1993) *Gazetteer of Roman villas in Great Britain.* Leicester, Leicester Archaeology Monographs 1.

Simmons, B. B. (1979) The Lincolnshire Car Dyke, Navigation or Drainage? *Britannia* 10, 183-96.

Symonds, H. (1927) Coins from Roman Remains on Rodney Stoke Moor. *Proceedings of the Somerset Archaeological and Natural History Society* 73, 130.

Taylor, C. (1973) *The Cambridgeshire Landscape. London, Hodder and Stoughton.*

Taylor, C. (1975) *Fields in the English Landscape.* London, Dent.

Thorpe, T. and Zeffertt, T. (1989) Excavation of the Lincolnshire Car Dyke, Boston, *Fenland Research* No 6, 1988-89, 10-15.

Todd, M. (1973) *The Coritani.* Stroud, Alan Sutton.

Whitwell, J. B. (1970) *Roman Lincolnshire.* History of Lincolnshire Vol. 11. Lincoln, Lincolnshire Local History Society.

Williams, M. (1970) *The Draining of the Somerset Levels.* Cambridge, Cambridge University Press.