

5: A landscape in transition? Palaeoenvironmental evidence for the end of the 'Romano-British' period in southwest England

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Introduction

The transition from Roman Britain to medieval England has traditionally been studied using a very limited range of documentary sources, and an archaeological record that is at best patchy in its regional coverage and until recently was dominated by funerary evidence. Discussion has, therefore, been dominated by socio-political issues of continuity, conquest, colonisation and acculturation as seen through the relationship between the native Romano-British population and the Anglo-Saxon immigrants. The scarcity of sources, and socio-political focus of this discussion, has resulted in debate being at a highly generalised level, with only very limited consideration of the extent to which there were local differences in how these processes operated. This paper adopts a very different approach in that it starts with the premise that because there was considerable regional variation in the landscape character of Roman Britain, and considerable regional variation in the landscape character of medieval England, there is likely to have been considerable regional variation in the nature of the transition between the two. There is a need to study landscape evolution at the local scale, though the scarcity of distinctive material culture in many regions makes this difficult. It has traditionally been thought that using palaeoenvironmental evidence was similarly limited due to a lack of suitable peat sequences, though this paper aims to show that a shift in focus away from upland blanket mires, whose location remote from areas that were actually settled at the time makes them largely irrelevant to the majority of Roman Britain, towards small lowland valley and spring mires within areas that were occupied does have the potential to shed new light on the end of that period.

The many landscapes of Roman Britain, and their relationships to the many landscapes of medieval England

It is increasingly appreciated that the landscape of Roman Britain showed distinct regional variations in its character, with the degree of complexity going far beyond the traditional, and far too simplistic, divisions between 'upland-lowland', 'military-civilian' and 'villa-native'. Even a cursory examination of a map of Roman Britain shows marked variations in the distribution and character of settlement, most notably perhaps the density of villas (Figure 5.1; e.g. Jones and Mattingly 1990; Ordnance Survey 2001). Regional variations in the social and economic workings of the landscape are similarly reflected in the distribution of certain artefact types, and

schools of mosaicists. Nowhere is this regional variation more pronounced than in the South West, where a line approximately along the watersheds of the Quantock and Blackdown Hills divides the highly Romanised landscape of eastern Somerset and Dorset from the rest of the South West where very little Romanised material culture has been recovered from a rural settlement pattern that retained a largely prehistoric character, in all but the immediate hinterland of the *civitas* capital of *Isca Dumnoniorum*, modern Exeter (Leech 1983; Griffith and Quinnell 1999; Rippon forthcoming). In contrast, highly Romanised eastern Somerset and Dorset was characterised by numerous villas, estate villages and small towns, which in turn contrast with the chalk downlands of Wessex where a still highly Romanised settlement pattern lacks significant numbers of villas, but does have characteristic village-like nucleated rural settlements (e.g. Branigan 1973; Corney 2000; McOmish *et al.* 2002).

Regional variations in the physical fabric of the landscape presumably reflect differences in the underlying social structure, and the Quantock-Blackdown Hills divide presumably represents the boundary between the Iron Age tribal groupings of the Durotriges to the east and the Dumnonii in the South West, the latter retaining an identity until at least the 7th century when the area was absorbed into the Anglo-Saxon kingdom of Wessex (Todd 1987: 205-266). The Quantock-Blackdown Hills boundary was also of significance in the medieval period, marking what was a relatively sharp division between landscapes characterised by dispersed settlement patterns and enclosed field systems to the west, and nucleated villages and regularly arranged open fields to the east that were created around the 10th century (Figure 5.1; Aston and Gerrard 1999; Rippon, in press; Roberts and Wrathmell 2000; 2003). Most research into this 'great re-planning' has focused on changes in the physical fabric of the landscape (*i.e.* settlements and field systems), with the central/midland zone perceived as an aberration in seeing the creation of villages and open fields (Taylor 1983; Williamson 2003). This could imply that areas to the south east, north and west of the 'village zone' might reflect what the landscape would have looked like had this reorganisation not have taken place though this is unlikely to have been the case: firstly, as has been argued, the extent of regional variation in the character of the landscape of Roman Britain is such that no one area can be regarded as 'typical' of the rest of Roman Britain, and secondly, the Midlands were not the only area to have developed regionally distinctive patterns of settlement and agriculture in the medieval period (e.g. Everitt 1986; Gray 1915; Williamson 2003; and see below).

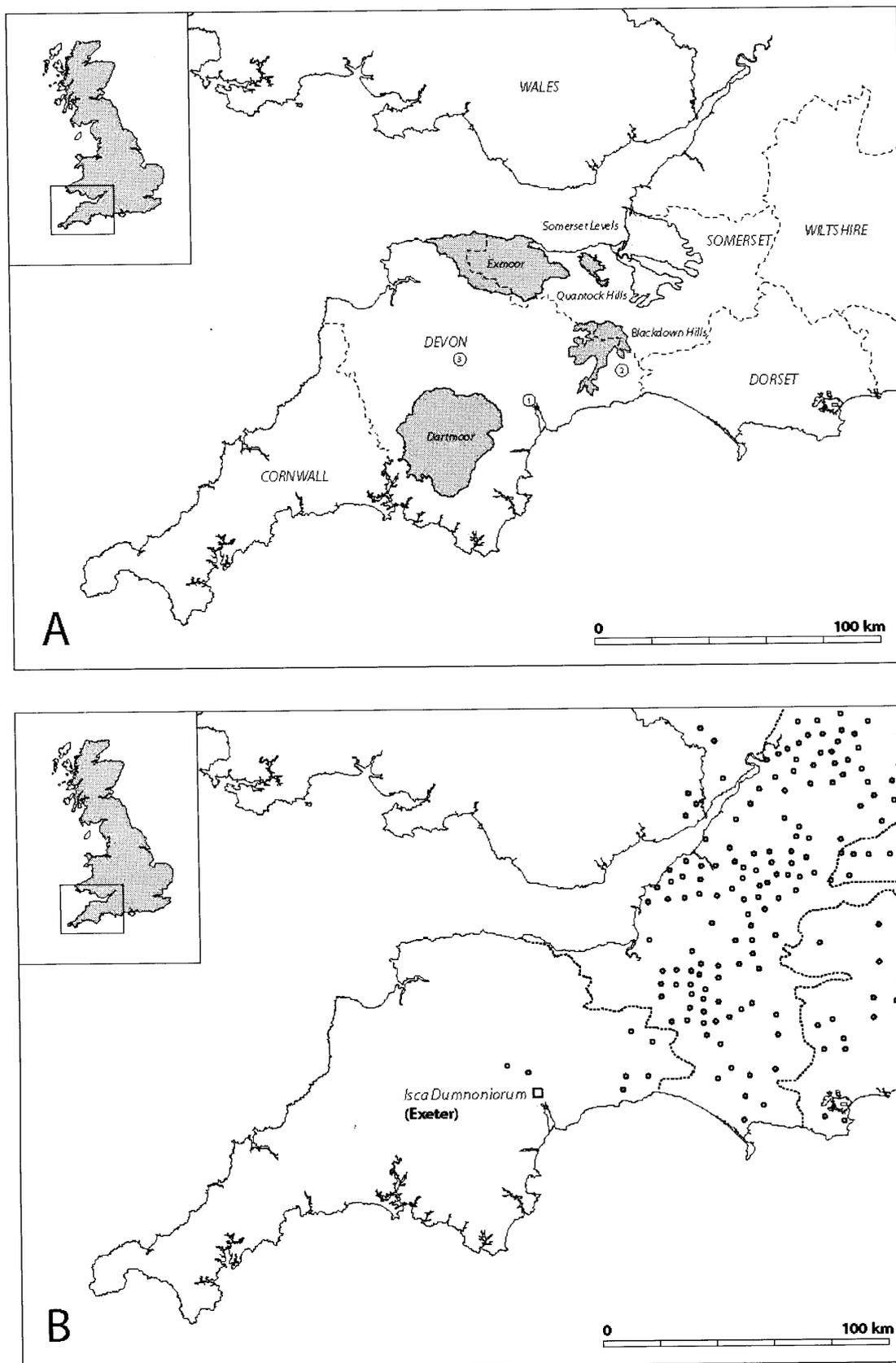


Figure 5.1. A: Southwest England, showing the modern county boundaries and location of areas and lowland pollen sites mentioned in the text (1=Exeter, 2=Aller Farm, 3=Bow). B: Southwest England, showing the distribution of Romano-British villas (Roberts and Wrathmell 2000, Figure 26), and the edge of the 'central province' of medieval nucleated settlement (Roberts and Wrathmell 2000, Figure 1).

The South West is, therefore, a potentially valuable place to study the emergence of regionally distinctive landscapes during the 1st millennium AD in that it represents an area that was unaffected by these three major social forces that shaped the rest of southern Britain: Romanisation, the Anglo-Saxon colonisation, and the creation of villages and open field. However, the South West is a difficult region to study as rural settlements in western Somerset and Devon are associated with very little datable material culture throughout the later prehistoric, Romano-British and early medieval periods. An alternative approach to this problem is to study the emergence of distinctive landscapes by using palaeoenvironmental techniques. Traditionally, however, the deposits that have seen palaeoenvironmental investigation in the South West have been unsuitable for studying this period, as the upper sections of lowland peat sequences (e.g. the Somerset Levels) have been lost to peat cutting and desiccation, leading to a reliance on upland peat sequences which it is argued here are of limited value for understanding changes in the character of the cultural landscape as they lay beyond areas that were actually settled at the time, and at best reflect only a broad regional picture derived from pollen blown in from a wide region (Jacobsen and Bradshaw 1981). Such is the varied topography in the South West, with the resulting differences in resource potential, along with the strong rainfall gradient from the uplands to the lowlands, it is difficult and indeed hazardous to relate the environmental evidence from the uplands to the lowlands (Fyfe *et al.*, in press 1). The landscape of the South West does, however, contain a series of small peat bogs that have previously not been recognised but which do lie within areas that were settled in the later prehistoric, Romano-British and medieval periods and which have produced palaeoenvironmental sequences that allow patterns of landscape management to be reconstructed over the past 2,500 years (Figure 5.2). This paper starts with a summary of previous (upland) work in the region, and then describes the nature of the lowland landscape from these new sites that have been subject to the more recent work. Discussion then focuses on the patterns of agriculture evident in the Roman period to provide the background for an examination of how the landscape responded to the region ceasing to be part of the Roman world. The discussion ends with a consideration of the origins of the medieval landscape, and the extent to which it reflects continuity with the Roman period.

History of palaeoenvironmental research in south west Britain

The earliest palaeoenvironmental research in the South West focussed on the pattern of post-Glacial vegetation development and sea-level changes recorded in the intercalated freshwater peat beds and marine sediments within the low-lying Somerset Levels (Godwin 1941) (Figure 5.1). The majority of this work was focussed on

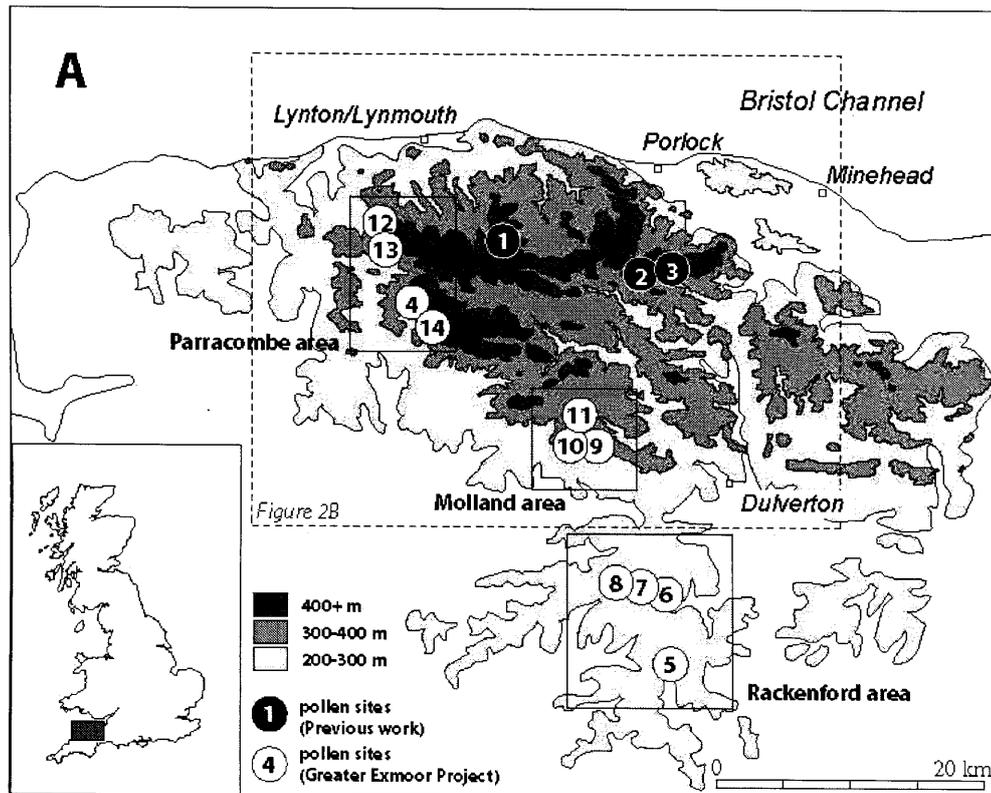
the prehistoric period, and this emphasis continued into the 1970s through the work of the Somerset Levels Project which focussed on the remains of prehistoric trackways discovered as a result of peat cutting (Coles and Coles 1986). Most of the environmental sequences, however, ended short of the historic period though that from Meare Heath continues through to the end of the first millennium (Beckett and Hibbert 1979).

During the 1960s pioneering baseline palaeoenvironmental research began on Dartmoor (Simmons 1964), but due to the lack of lake sediments such as those employed elsewhere in the UK (e.g. Pennington 1970), and the removal and disturbance of sediments through peat extraction and tinning, this research again was concerned mainly with the prehistoric period. Later work on Dartmoor has continued to focus primarily on prehistory, in particular on the relationship between Mesolithic populations and the environment (e.g. Caseldine and Hatton 1993) and the establishment of the Bronze Age field systems (reaves) around the high upland (see reviews in Caseldine and Hatton 1994 and Caseldine 1999). Palaeoenvironmental research also began in the 1970s on Bodmin Moor (Brown 1977), and Exmoor (Merryfield and Moore 1974), although these projects focussed on either early Holocene sequences, or questions concerning the development of blanket peat in the highest uplands. During the 1980s and 1990s greater attention was paid to the post-Roman landscape (e.g. Maguire *et al.* 1983; Austin and Walker 1985; Francis and Slater 1990, 1992; Gearey *et al.* 2000) though still with an emphasis on upland areas. The fortuitous discovery of three peat deposits in the lowlands (Figure 5.1), at Aller Farm, East Devon (Hatton and Caseldine 1992) on the floodplain in Exeter (Caseldine *et al.* 1988), and at Bow, in mid-Devon (Caseldine *et al.* 2000), until recently represented the only lowland post-Roman palaeoenvironmental data in the South West, beyond the Somerset Levels.

It is clear from this brief review that the majority of palaeoenvironmental sequences provide two main problems for analysis of the Romano-British to medieval transition: first the temporal coverage of the sites in that they do not cover the necessary period, and secondly that of spatial distribution of sites: they are overwhelmingly from upland locations beyond the areas actually settled in the Roman and early medieval periods.

The evidence from blanket peat sequences

The analysis of blanket mire sequences on Exmoor, and in particular The Chains (Moore *et al.* 1984), suggests an open pastoral landscape during the Roman period (Figure 5.3). During the 5-6th centuries AD high Exmoor experienced a decline in agricultural activity, and on The Chains, re-establishment of scrubby woodland on the high upland, in particular birch and alder. This decline was characterised by the expansion of heather-heath at



Key to pollen sites: 1: The Chains. 2: Hoar Moor. 3: Codsend Moor. 4: Moles Chamber. 5: Middle North Combe. 6: Lobbs Bog. 7: Windmill Rough. 8: Hares Down. 9: Anstey's Combe. 10: Gourte Mires. 11: Long Breach. 12: Higher Holworthy. 13: Twineford Combe. 14: Sherracombe Ford.

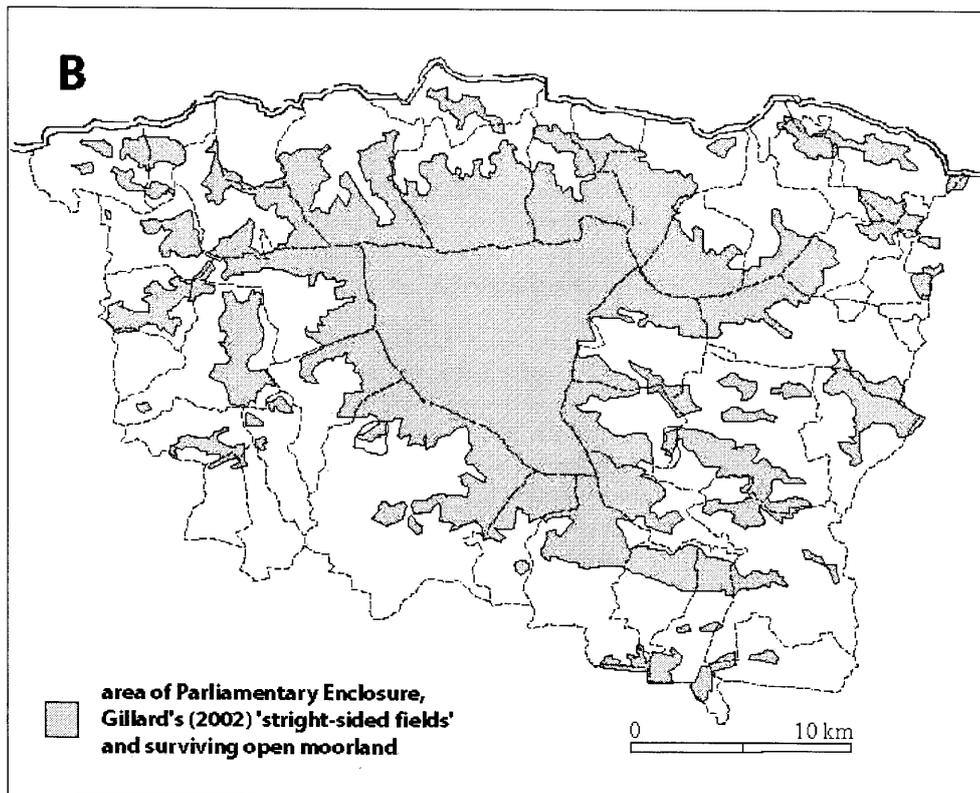


Figure 5.2. A: Exmoor and Rackenford Moors, showing the location of pollen sites in the Greater Exmoor project and from previous work. B: The limits of ancient enclosed land on Exmoor (after Gillard 2002).

nearby Hoar Moor, interpreted as reflecting a reduction in grazing pressure and land management practices during this period (Francis and Slater 1990). On Dartmoor, the general interpretation from the archaeology is that the upland experienced a general retreat of communities to a number of peripheral locations during the first millennium BC, and throughout the Roman and early medieval period was used only for seasonal upland grazing, and although the palaeoenvironmental data for this period is generally poor, it suggests that the uplands were characterised simply by low intensity grazing (Caseldine 1999). Evidence from Bodmin Moor (Gearey *et al.* 2000) and Dartmoor (Austin *et al.* 1980) suggest that the uplands remained part of a seasonal upland grazing system until the 13th and 14th centuries AD when settlement expanded onto the uplands, a chronology that is confirmed by reassessment of the pottery evidence from excavated settlements (Allan 1994). Overall, therefore, this limited palaeoenvironmental evidence would appear to support traditional models of the 'marginality' of these upland areas with low intensity of landuse in the Roman and early medieval periods, followed by an expansion of settlement in the High Middle Ages (c.13th-14th centuries). Unfortunately, however, this tells us little about how the wider landscape was evolving in the adjacent lowlands from where the colonists presumably came.

The Greater Exmoor Project

In order to understand landscapes in the Roman and medieval periods from palaeoenvironmental evidence there is a need to locate suitable sequences both from areas in the lowlands that were continuously occupied as well as the upland fringes into which settlement expanded at times of high population. In order to achieve this, the Greater Exmoor Project established a study area that extended from mid-Devon (c.200 m OD) to the upland fringes of Exmoor (c.300-350 m OD) (Figure 5.2), and through an intensive period of fieldwork identified a series of peat bogs which formed over the past 2,500 years. These bogs are not the typical pollen sites that are traditionally employed in palaeoecology (*i.e.* upland blanket mires or raised bogs), but a series of small fens and spring mires, typically 30 to 50 m in width, and which, it can be argued, will provide accurate archives of the local landscape history around each individual site (Jacobsen and Bradshaw 1981; Sugita 1994). Such deposits may have been avoided by palynologists in the past due to the potential over-dominance of their local pollen recruitment (*sensu* Jacobsen and Bradshaw 1981), that is pollen from the site itself rather than the surrounding, extra-local, vegetation, but in this project that potential problem was avoided by using multiple sites in fairly close proximity, *i.e.* within 1 to 2 km of each other. Each sequence is thought to represent an area of around 1-2 km diameter from the site, and so the comparison of two or three sequences in fairly close proximity allows a broader picture to emerge. A total of

eleven mires were examined in the project, in three clusters: around Rackenford (between 200-250 m OD), Molland Common (300-350 m OD), and Parracombe (300-350 m OD). The sequences from each cluster of sites are reported in detail elsewhere (Rackenford: Fyfe *et al.*, submitted; Molland: Fyfe *et al.*, in press 2; Parracombe: Rippon *et al.*, in prep.) and summarised here for clarity.

The landscape of the lowland and upland fringe during the Romano-British period

It is clear that during the Romano-British period both the lowland and upland fringe around Greater Exmoor were dominated by pastoral activities (Figure 5.3), in a landscape that had been open at least from the middle Bronze Age (Fyfe *et al.*, in press 1). The evidence for arable cultivation is limited: within the Rackenford sequences there are low, yet persistent levels of cereals, with the best representation of these at the lowest lying location, Middle North Combe. Whilst all the Rackenford sites record cereal cultivation with the *region*, the low representation of cereal pollen suggests that cultivation was not being extensively practiced in the immediate proximity of the mires. On the upland fringes, at Molland Common, evidence for cereal cultivation is absent in the Romano-British period, and it seems highly probable that these areas (at around 300-350 m OD) were dominated by a pastoral economy. In both these areas the settlement pattern comprises small enclosed farmsteads, known as hillslope enclosures which elsewhere in Devon are firmly dated between to between the late Prehistoric and early medieval periods. At present there is little evidence for their having been associated with extensive field systems which supports the palaeoenvironmental evidence in suggesting a largely pastoral economy.

Although the landscape is predominantly open, all pollen diagrams record low levels of trees, notably oak and hazel, during the Romano-British period. The evidence from the upland fringe around Molland has allowed some spatial discrimination of land cover types, and strongly suggests woodland is restricted to the steeper-sided valleys, whilst the broad flat interfluvies were grazing land (Fyfe *et al.*, in press 2). The data from the Rackenford sites is not suited to such spatial analysis but it is likely that a similar situation occurred there as well, as the sites such as Hares Down and Middle North Combe, which are located in more incised valleys, have better representation of woodland than those at Lobbs Bog and Windmill Rough, which are situated in shallower valleys. Determination of management of woodland or woodland resources is very difficult from pollen data; however, charcoal analysis from two Romano-British iron working sites on the southwest fringes of Exmoor (at Brayford and Sherracombe) have suggested both pollarding and coppicing of oak and hazel was associated with charcoal production (Gale 2003), and it is possible, although not proven, that woodland

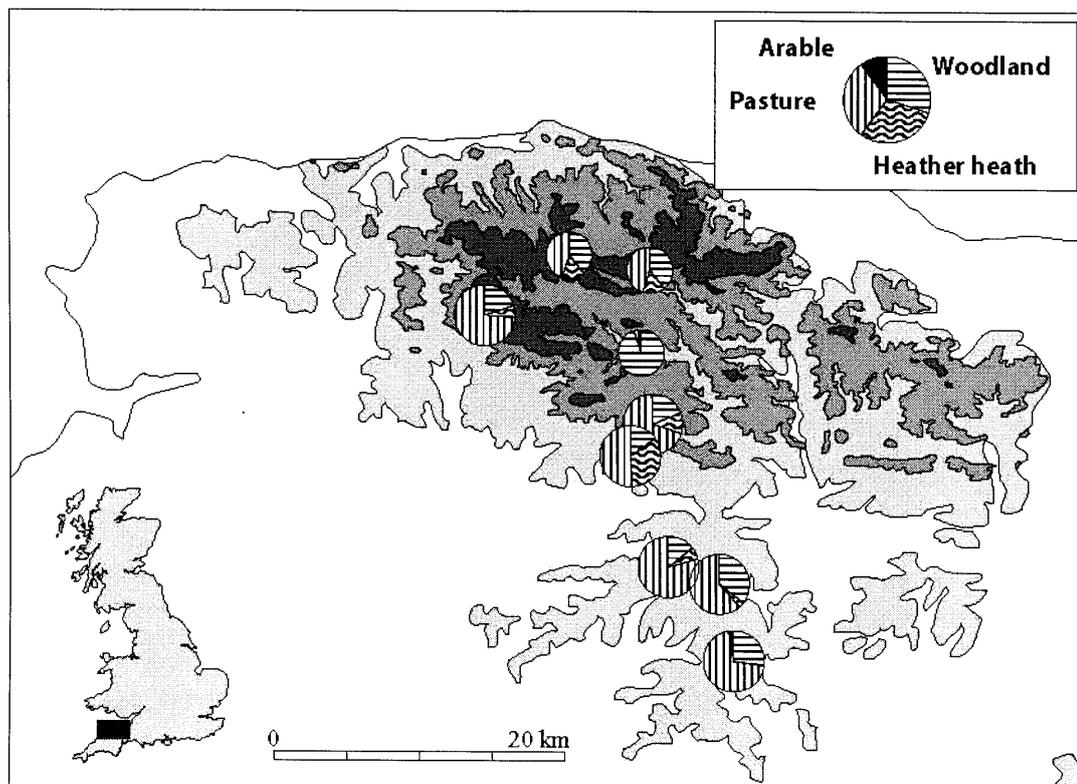


Figure 5.3: The character of the Romano-British landscape in the Greater Exmoor region. Smaller pie-charts indicate previous work, larger pie-charts the results from the Greater Exmoor project.

management may have been undertaken in the valleys around Molland and Rackenford.

The Roman-Medieval Transition

As described above, the earlier work on the 'traditional' pollen sites - the blanket bogs covering the higher uplands of Exmoor such as on the Chains (Merryfield and Moore 1974) - suggested an abandonment of the high upland during the 5-6th centuries AD. The new sequences obtained from the adjacent upland fringes and lowlands, in contrast, present a very different picture. During the 4th to 6th centuries AD there is very little *significant* change in any of the pollen diagrams from the Greater Exmoor project (Figure 5.4). Minor fluctuations in some of the pollen taxa do occur, but the overwhelming picture is unchanging. This lack of change is an important feature in the data, as it suggests continuity in the prevailing landuse, that is pastoralism predominating alongside small-scale arable in the lowlands, and there is certainly no evidence of woodland regeneration in the landscape.

This pollen evidence suggests clear continuity in the agricultural regimes practiced within the study area, from which it might be inferred that there is unlikely to have been any major dislocation in the physical fabric of the landscape (e.g. desertion or expansion of settlement), or

the tenurial structures within which it was exploited (e.g. the pattern of estates). Considering the very limited degree of Romanisation evident in the landscape of the South West, outside of the immediate hinterland of the *civitas* capital *Isca Dumnoniorum* (Exeter), this should not be surprising: the rural population had not become heavily engaged in the socio-economic systems of Roman Britain and so would be relatively unaffected by their decline.

The later 1st millennium AD: the emergence of the 'historic landscape'

This apparent continuity in landuse in the Greater Exmoor region lasted for several centuries after the end of the Romano-British period until approximately the later 8th century AD around Rackenford, at 200-150 m OD (Fyfe *et al.*, submitted), and by the 10th century around Molland Common at 300-350 m OD (Fyfe *et al.*, in press 2), when the pollen evidence shows a marked increase in the cultivation of cereals in the immediate vicinity of the mires. At the same time indicators of pastoralism continue, and the levels of woodland in the landscape are stable, with no indications of clearance. In the lowlands there is also an increase in heathland within the landscape, which at first sight appears to contradict a model of intensification of landuse represented by the expansion of cereals.

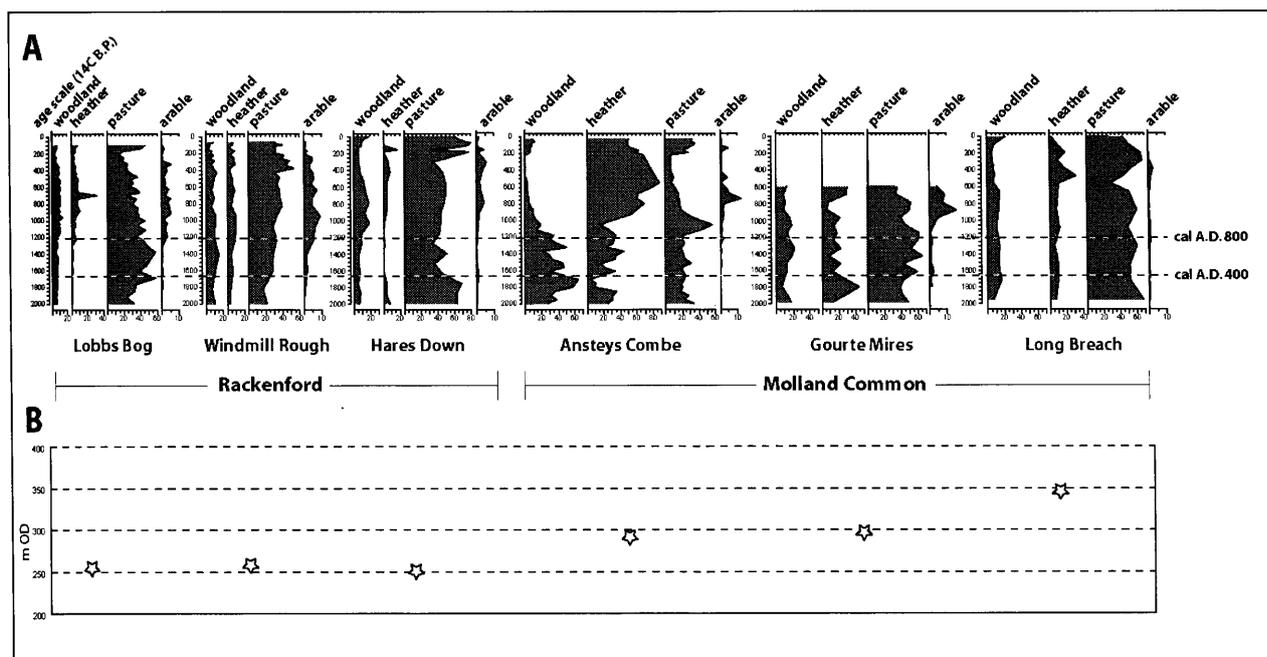


Figure 5.4. A: Summary of pollen work from the Greater Exmoor project. Horizontal axes represent proportion of each vegetation group. B: Altitude of pollen sites in the Greater Exmoor project.

Such a dramatic increase in cereal pollen in the upland fringes such as Molland would traditionally have been interpreted as representing an expansion of settlement into these areas (a traditional 'push into the margins'), though this cannot have been the case; the evidence from the preceding period clearly shows an open and intensively managed landscape, with relatively little woodland and some arable cultivation within the lowlands around Rackenford. Something, however, was causing cereal cultivation to occur in close proximity to the peat bogs for the first time. This may indicate an increase in the density of settlement (internal colonisation), perhaps brought about by rising population, and/or a change in agricultural practice, and it may be that this change in the pollen record might reflect the emergence of a regionally distinctive system of agriculture in the South West, known as convertible husbandry, which is not otherwise documented until the mid-14th century (Hatcher 1988; Fox 1991). Within this system, the land associated with each tenement was arranged in a series of closes, or enclosures. Each close would be cultivated for between 1 and 3 years, before being laid down to grass leys for a long fallow period, of up to 7 years, with cultivation shifting to another close. This system allowed great flexibility as productivity could be individually controlled by the number of closes under an arable crop on each tenement. Fox (1991) suggests that by the 14th century the proportion of land under a crop may have been between 25 and 51%. The date when convertible husbandry was introduced or developed is not documented, but the pollen sequences from the Greater Exmoor region suggests that it may account for the dramatic 8th-10th century increase in cereal pollen for two reasons. Firstly, the amounts of cereal pollen are remarkably high suggesting cultivation

was very close to the peat bogs. For sites such as Lobbs Bog and Windmill Rough in the Rackenford area, which are very peripheral to historic settlement, to have been in an area of permanent cultivation would suggest a remarkably high population/settlement density in the pre-Conquest period, for which there is simply no archaeological evidence: a system of crop/pasture rotation which brought arable cultivation within close proximity of the peat bogs every 4-5 years is a more likely explanation. The second reason why the 8th-10th century pollen change is likely to represent the introduction of convertible husbandry is that there is no other change within these relatively high resolution and continuous sequences that could correspond to its introduction before the 14th century when documentary evidence shows that it certainly existed: the pollen signal from the 8th-10th century is identical to that of the late medieval period by which time convertible husbandry is known to have existed.

The evidence suggests therefore that a rotational system of agriculture is taken up within mid-Devon from around the 8th century (Figure 5.4). The expansion of heather and heath pollen around the Rackenford area may also be indicative of formal enclosure in the landscape, with the segregation of improved closes and rough 'common' grazing land, from which the heath pollen is derived. The data do not suggest any sub-regional agricultural specialisation, with the exception of the high uplands which do not show significant evidence for arable cultivation until the high medieval period, although data is needed from the historically 'richer' agricultural areas such as the Exe valley and the South Hams before this hypothesis can be fully tested.

Conclusions

This paper has examined the contribution that palaeoenvironmental sequences can make to understanding landscape change (or the lack of it) during the Roman to medieval transition, and the origins of the medieval landscape. Such was the regional variation in the character of Roman Britain, and the relatively limited Romanisation in the South West, that care must be taken in extending these results too far, and similar work is required in other lowland areas, but a key *general* theme in the work reported here is that it is possible to obtain palaeoenvironmental sequences from areas that were within that part of the landscape that was settled and farmed during the Roman and medieval periods. The importance of this is most clearly demonstrated by the fact that the results of the datasets from the lowlands and upland fringes of Greater Exmoor reported here are clearly at odds with earlier data from the higher upland blanket mire sequences that lay beyond the limits of Romano-British and medieval settlement, and which can now be seen to be unrepresentative of the wider, settled, landscape.

These upland sequences had suggested that on Exmoor there was a significant contraction of settlement from the higher uplands in the early post-Roman period, while on Dartmoor there was little more than seasonal grazing throughout the later prehistoric and Roman periods until the agricultural expansion into the upland during the 13th century AD. The evidence from the Exmoor upland fringes, in contrast, shows that this 4th-6th century contraction does not extend down as far as 350 m (*i.e.* around Molland Common), and so we can safely assume that during the Romano-British to medieval transition farming and agriculture continued to at least this height. Within the lowland there is no indication for any change until the 8th century AD, when wide-spread arable cultivation is recorded.

Within the lowland/upland fringe landscape there is, in fact, very little evidence for change between the Middle Iron Age and what would traditionally have been called the 'post-Roman' period (e.g. Pearce 1981: 165; Todd 1987: 236). With relatively little engagement of the rural population in the Greater Exmoor region with the 'Roman' world, and virtually no evidence for a change in the patterns of landscape exploitation in the 5th and 6th centuries, the phrase 'post-Roman' is inappropriate for this region. Very little is known about the physical character of the Romano-British landscape in the Greater Exmoor region, though analogy with surveyed and excavated enclosures elsewhere in Devon and west Somerset suggest that a class of site known as hillslope enclosures, of similar character to Cornish 'rounds', continued to be occupied into this period (Griffith 1994; Griffith and Quinnell 1999; Riley and Wilson-North 2001: 55-74; Simpson *et al.* 1989). Relatively few of these enclosures are associated with field systems,

confirming the pollen evidence for a predominantly pastoral landscape.

In terms of landscape exploitation, the 'Roman-medieval' transition could be dated as late as the 8th-10th century, when there was certainly a pronounced change in agricultural practice, which may well represent the emergence of a regionally distinctive form of agriculture: convertible husbandry. This also appears to mark a profound change in the physical character of the landscape, with the later prehistoric/Romano-British tradition of small isolated enclosures, with little evidence for associated field systems, being replaced with a the pattern of scattered farmsteads integrated with a near continuous fieldscape that still forms the basis of today's historic landscape. The links between these two landscapes appears negligible: the incidence of hillslope enclosures lying next to medieval farmsteads on Exmoor, which Aston (1983) identified at Bagley and Sweetworthy and is suggestive of continuity, actually appear to have been unique (Riley and Wilson-North 2001: 73-75). In Cornwall (Turner 2003), it appears that a similar change from a landscape associated with isolated enclosures ('rounds') to one of scattered farmsteads, many with *tre-* place-names, in a near-continuous fieldscape may have occurred during or after the 6th/7th centuries. In and around Greater Exmoor there is now a need to test this hypothesis through a programme of excavations on both hillslope enclosures, to see when they were abandoned, and medieval farmsteads to see when they originated: this will be difficult, as much of the 1st millennium AD is aceramic in this region, though the greater use of scientific dating on the latest stratigraphic phases of 'later prehistoric/Romano-British' enclosures (e.g. Simpson *et al.* 1989), and medieval settlements may produce results. Only then, however, we will fully understand the Roman-medieval transition in the South West.

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