

# AGRICULTURE: THE MAJOR INDUSTRY

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## Introduction

In the previous chapter a view was outlined that involves the following major tenet; namely, that Roman agricultural efficiency and organisation led to the ability to support larger populations, and brought with it a need, inherent in the system, for administration, markets and expansion.

Agriculture was the major industry of Roman Britain, and the following chapter describes what is known about its organisation in the North-West.

## AGRICULTURE AND THE ENVIRONMENT

Before turning in detail to the Roman impact on agricultural strategy in the North-West, it is important to consider the environment limitations on crop production in the region.

The North-West is an area of great geological and topographical variety (Pennington 1970, 41); the lowlands are mainly covered with glacial drift deposits, predominantly boulder clay, sands and gravels. More recent deposits are also present, including river terraces, alluvium, blown sand, and peat. The earliest soil for tillage on the lowlands is the brown soil. This would probably have proved most attractive to early settlers, but is liable to degradation unless well maintained. The soil occurs mainly on the sands, gravels, sandstone and river terraces, which are generally located along the moorland fringes, in river valleys and on the south-west Lancashire plain. Much of the rest of the lowlands are covered with clay soils which require a heavy investment in energy (Kenyon, pers comm). Much of the coastal area of the North-West is low lying, and prior to extensive drainage in the 18th century, widespread tracts of land were moss, marsh and mere (Rodgers 1955, 87). Evidence of occupation before drainage occurs mainly above the 50ft contour (Kenyon pers comm; Higham and Jones 1975, 28). In the low lying areas of the south-west Lancashire plain, settlement tended to be concentrated on the ridges and 'islands' of higher land. The distribution of

open arable fields in the area gives some indication of the areas under cultivation during the medieval period. Several were located north of, and along, the Lune valley with a further concentration in the Fylde and upper Ribble valley, and a number in the Manchester embayment. The greatest concentration, however, was on the south-west Lancashire plain (Youd 1962). In general, these fields were located on the lowlands, often along river valleys and on a variety of soils including the clay lands. It has been demonstrated that in Lancashire during the 14th century, the areas which had the highest evidence of arable open fields were the wealthiest and also presumably the most densely populated (Morris 1983, 23).

It is difficult to assess the agricultural potential of the lowlands during the Roman period. Lamb (1982, 157-9) has suggested that the climate was warmer and drier until cAD 400, when it became wetter. Higher sea-levels would also, presumably, have had a dramatic effect on the drainage of the clay soils, river valleys, and the lowland mosses to the east and west of Manchester. At the beginning of the period the sea-level was falling, but by the middle of the Roman period water levels were rising to their highest recorded levels (Tooley 1980, 84). A contrasting view has been suggested on the basis of the introduction of cereals into the Lake District and the Morecambe Bay area in the late Roman period. This may represent a climatic improvement (Pennington 1970, 72). Writing in the early 17th century, Camden (1610, 745) describes the land usage of lowland Lancashire as it existed before widespread improvement had been undertaken:

"Where the ground is plain and champion, it yieldeth good store of barley and wheat; that which lieth at the bottom of the hills, is better for ates. The soile everywhere is meeteley good and tolerable, unlesse it be in certain moist places and unwholesome called Mosses".

In the upland areas, the solid geology forms the parent material. This consists of millstone grit and carboniferous limestone in the Pennines, and Silurian, Ordovician and Pre-Cambrian rocks in the Lake District (Edwards and Trotter 1954, 5). Such soils as did exist in these areas are very susceptible to human activity. In the Lake District in the late Romano-British period for example, soil erosion and leaching resulting from agricultural activity, may have caused the present acidic and infertile soil cover in the area (Pennington 1970, 72). The most suitable crop for cultivation at higher altitudes in the area is oats. Its success above 250m in current climatic conditions is affected by three factors; exposure, summer warmth, and summer wetness (Parry 1981, 325). These vary with changing slope, aspect and surface roughness (Parry 1978, 75). Accurate assessment of the areas suitable for such cultivation is therefore difficult. This task is made more formidable by the probable changes in climatic conditions since the Roman period outlined above. North of the Lune estuary, the upper limit for prehistoric and Roman settlement appears to have been around 300m on the limestone soils and lower on the other soils (Higham 1980, 41). This may well give some indication of the upper boundary for cereal cultivation in the region as a whole.

In conclusion, therefore, although there were problems associated with maintaining fertility, drainage and the like, significant areas of the North-West were suitable for arable production. In the lowlands these areas may have been quite extensive, but in the highlands, suitable locations would have been often widely dispersed and in some cases relatively inaccessible.

#### AGRICULTURAL PRODUCTION

Direct evidence relating to agricultural production in the pre-Roman period in the North-West is unfortunately poor, as few rural sites west of the Pennines have yet clearly been shown to belong to this period. This is perhaps because late Iron Age culture in the North-West was largely aceramic (Higham 1979, 43). Wheeler (1954, 27-9) has suggested that the Brigantian economy was based on flocks and herds while Piggott (1958, 19) proposed that this involved an element of pastoral nomadism. Jones and Walker (1983) have recently emphasised the likelihood of direct continuity of agricultural practice from the Iron Age to the Roman period in the North-West. This is significant, as work on rural sites of the Roman period in Cumbria has indicated a greater reliance on arable agriculture than was previously assumed.

Known rural sites of probable Roman date in the area are located predominantly north of the Lune estuary (Higham 1980, 41-2). There is little correlation between the distribution pattern of these sites (generally discovered by aerial reconnaissance) and that of Roman finds spots, many of which occur on the south-west Lancashire plain in the Manchester embayment and along the fringes of the Pennines. Some of these must represent rural settlement. Indeed, as has been

shown above, the pedological and medieval evidence suggest that these latter areas provided some of the best arable land in the area, and other factors being equal, it would be surprising if they were not exploited during the Roman period when less attractive upland areas were also being cultivated.

Of the sites that are known, most are isolated homesteads which generally consisted of a circular or square bank or ditch, enclosing less than one third of an hectare and containing one or more huts, usually circular in shape, although several rectangular examples are known from the 3rd century. Locally available construction materials were utilised, including stone (Higham 1980, 41; Collingwood 1908-9). In Cumbria, many sites are clustered in the vicinity of the forts, and in some cases they are directly linked to them by trackways (Higham and Jones 1975, 25-6; Jones and Walker 1983, 188). The majority, however, were not apparently related solely to forts (Jones and Walker 1983, 187). The density of known sites south of the Solway is significantly greater than that to the north, suggesting that conditions to the south of the Roman border were more settled. In addition less than 2% of known sites in Cumbria have more than one ditch, while to the north of the Solway, nearly 20% have two or more defensive ditches (*ibid*).

The farm boundaries and associated field system located at Yanwath Wood near the River Lowther provide an example of the agricultural systems in use. Here more than 7ha, and possibly up to 30ha, of arable field system have been identified. Situated at around 200m above sea level, protection from exposure seems to have been an important factor governing the location of both fields and field walls. The lack of field boundaries led Higham (1980, 41-2) to suggest that both arable and pastoral production were important elements in the farm economy.

Perhaps the most noticeable aspect of rural settlement in the North-West during this period is the lack of villas. There are less than 50 known possible sites in the north of England and all are located to the east of the Pennines, predominantly in the territory of the Parisi (Branigan 1980, 18-19).

A fundamental consideration for those wanting to invest in villas was whether or not the investment would be safe from attack, and Branigan (1980, 26) has suggested that insecurity was a major factor causing the lack of villas in the north. Such evidence as exists, however, suggests that a reasonable level of peace was maintained. The positive effect of increased security created by the border has been demonstrated above (Jones and Walker 1983, 188). In addition, there is little evidence for unrest in the Brigantian population: the occupied forts in the North-West may well have been primarily associated with support services behind the Cumbrian coastal defences further north (Hartley 1980, 5) rather than local policing. Whether or not the level of security in the area was below the threshold for encouraging investment cannot be established. Nevertheless, insecurity is

not a wholly satisfactory explanation and in this context it is perhaps worth noting that the villa system was extensively adopted in the border provinces of upper and lower Germany where relatively insecure conditions prevailed (Percival 1976, 84).

Forts and their associated civilian settlements often attempted to supply themselves with food (Manning 1975, 114-15), and in the north, examples of field systems obviously associated with military centres are known at Usk and Housesteads (ibid), and at Old Carlisle and Newton Kyme (Higham and Jones 1975).

Clearly, however self-sufficiency by the military was not widely attained, as is shown by the clustering of farm sites in the hinterland of several North-West forts.

### CONCLUSION

The question which remains is why was the agricultural economy of the North-West not integrated, in part at least, into the Roman system. It has been shown above that land suitable for cultivation was fairly widely available, and there was great potential for land improvement and drainage (which occurred during the 18th century). There was also a readily available market in the

form of the military presence and associated civilian population. Insecurity may have been a discouraging factor but it does not necessarily explain the absence of villa development and of Romanisation in general.

Although no specific solution to this problem has arisen from this discussion, the explanation must be related to the cost of integration touched upon above. The alien nature of the Brigantian social structure may well have made the prospect of Romanisation mutually unattractive. Furthermore, the population of the North-West may have appeared largely irrelevant to the Roman administration as long as they paid their taxes and remained peaceful. The tendency for non-intergration between advanced and more primitive societies is repeated in many colonial situations (Jones, M J 1982). It is nevertheless surprising that, over three centuries, the only evidence of Romanisation in agricultural production outside the military posts is the occasional adoption of the rectangular house form. As has been suggested in Chapter 9, however, the maintenance of a poorly integrated sector in society resulted in greater systemic stability in the Empire as a whole, and the North-West may be viewed as one small element of this strategy.