

evenly distributed from Week St Mary in the very N. of Trigg to Kelynack near Land's End. This would make good feudal sense for one who would play a major part in the supervision of the count's demesne and in the overall administration of the whole Cornish fief. It is not surprising, therefore, to learn that ring-works have been located within several of Richard's manors, at Restormel in Polscoe, at Week St Mary where he held one hide in 1086,⁹² and at Penhallam which has recently been excavated. None of these fortifications are mentioned in the Domesday Survey, where the only Cornish strongholds were Count Robert's castle of Dunheved at Launceston, and Reginald de Valletort's at Trematon.⁹³ Archaeological investigation, however, has ascribed all three ring-works to the early Norman period.⁹⁴ There is some evidence to suggest that Penhallam was the most prominent from the earliest days and there are indications of this in Domesday itself where its enumerated population was greater than that of Polscoe and Week combined. This was also the case in all the various categories of livestock, which points to the existence of a larger and more productive estate. That Penhallam was chosen above the others in the late 12th century as the site of a manor house⁹⁵ confirms this importance and no doubt it became the temporary *caput* of the family's lands before Cardinham, which did not exist as a manor in 1086, was chosen as the location of a new castle (*c.* 1200) and gained the ascendancy.

IAN N. SOULSBY

BARTON BLOUNT: CLIMATIC OR ECONOMIC CHANGE?

The changes that occurred within the English village in the later middle ages have in recent years increasingly preoccupied students of medieval agrarian history. Historians have documented a trend towards pastoral farming and the disintegration of many village communities in the 14th and 15th centuries. It is now also recognized that many villages enclosed by the early 16th century had experienced a declining population for a century or more before enclosure. Archaeologists through excavation have also identified these changes; Guy Beresford has presented the most recent and complete evidence for these developments.⁹⁶ Although historians and archaeologists are united in recognizing the same phenomena, they differ in their explanations; on both sides, these tend to be restricted to one cause. Historians propose an economic interpretation whereas some archaeologists, including Beresford, have adopted the thesis of climatic deterioration. Beresford stresses in his monograph that "the climatic changes of the medieval period affected not only the building of houses, but the entire ecology of settlements", but it may be thought that the issue is prejudged, for this interpretative element is interwoven with the presentation of the actual evidence. A number of innovations are attributed almost wholly to climatic deterioration: not only changes in house construction — the introduction of eaves trenches, cobbled thresholds and internal drains — but also broader economic changes: the abandonment of arable in favour of pastoral farming (especially on unworkable, waterlogged clay soils), and as a consequence the appearance of crew-yards for cattle; and the abandonment of clay-land settlements for those which had, fortunately, been "depopulated by the Black Death", and where "the soil was easier to cultivate".⁹⁷ This note is not intended to reopen the

⁹² L. Alcock and D. J. Cathcart, 'Ringworks of England and Wales' in A. J. Taylor (ed.), *Château Gaillard; European Castle Studies*, III (London, 1969), 103.

⁹³ *D.B.*, III, ff. 263b, 256.

⁹⁴ *Op. cit.* in note 71, 95, 97.

⁹⁵ *Ibid.*, 90.

⁹⁶ G. Beresford, *The Medieval Clay-land Village: Excavations at Goltho and Barton Blount* (Soc. for Medieval Archaeol., monograph series, VI, London, 1975). I am grateful to C. C. Dyer and P. A. Rahtz for their helpful suggestions.

⁹⁷ *Ibid.*, 50-4 and *passim*.

somewhat sterile 'archaeologists versus historians' debate, but rather to add a documentary dimension to Beresford's important excavations at one of his two clay-land villages, Barton Blount in Derbyshire.⁹⁸

Although the documentary evidence for the medieval manor of Barton Blount itself is very slight,⁹⁹ that for the county as a whole can throw light on the general economic and social changes which must have affected this particular village. The cultivation of poor marginal soils as part of economic expansion in the 12th and 13th centuries appears to have led to a deterioration of yields in the late 13th century.¹⁰⁰ By the early 14th century assarting had ended in the Trent valley and agricultural production had passed its peak; it was a period when land lay vacant.¹⁰¹ Very heavy rain made the harvest of 1315 a disaster throughout England, precipitating an "agrarian crisis" during the following decade: "a succession of arable and livestock disasters" caused "dearth", "famine" and many deaths among men, stock and sheep.¹⁰² On the Derbyshire manors of the honour of Tutbury rent receipts fell by 30% between 1313-14 and 1321-2. It was said that tenants had abandoned land through poverty, that no other tenants could be found to take it up, even as pasture, because of a severe shortage of stock resulting from murrain and the recent political disturbances.¹⁰³ Whether the result of agrarian crisis or pillage during the civil war of 1321-2 or a combination of the two, such effects appear to have persisted in some areas of Derbyshire for several years before a recovery was made. On two manors of Lancastrian adherents, both about 3½ miles from Barton Blount, land had still not been taken back into cultivation in the late 1320s: at Hoon 40 acres of demesne yielded only herbage returns in 1326 and the 200-acre demesne at Dalbury was said to lie waste in 1329.¹⁰⁴

Pressure on land fell again within a generation. In the years immediately after the Black Death Derbyshire court rolls record empty holdings and falling entry fines throughout the county, testifying to a decline in the rural population.¹⁰⁵ After a brief recovery in the later 14th century, decline resumed in the S. of the county and lasted for most of the period from 1400 to 1475. Tenant farmers in the S. tended to change from an arable to a more balanced mixed husbandry. They may have benefited from low rents, enabling them to take up and improve larger holdings, for example, by enclosure. Yet as late as 1475 there were still vacant lands and rents were low. Overstocking and enclosures suggest that the southern foothills of the Peak and Charnwood Forest, however, shared in the prosperous beef-stock farming which flourished in NW.

⁹⁸ On the geographical position of Barton Blount (alias 'Barton' and 'Barton Bakepuz' before the 15th century, but referred to here as 'Barton Blount'), Beresford (*ibid.*, 3) may usefully be quoted: "Barton Blount . . . is a deserted medieval village . . . lying 9 miles west of Derby [N. of the R. Trent] . . . The village lies a little below the 300-ft. contour. The subsoil consists of red Boulder Clay, giving way in places to bands of shale, sand and gravel, over Keuper Marl. The land is reasonably dry and must have afforded good pasture and crops, but, owing to its 'heavy' nature, some plough-lands may have been difficult to cultivate during adverse weather conditions."

⁹⁹ No manorial records appear to survive for the medieval period; inquisitions *post mortem* for the holders of the manor are brief and unhelpful in this context, although the Blount family figure prominently in the records of the King's Bench in the 15th century and Barton was clearly their main residence.

¹⁰⁰ M. M. Postan, 'Medieval agrarian society in its prime: England' in M. M. Postan (ed.), *Cambridge Economic History of Europe*, 1, *The Agrarian Life of The Middle Ages* (Cambridge, 1966), 548-65; J. Z. Titow, *Winchester Yields. A Study in Medieval Agricultural Productivity* (Cambridge, 1972), *passim*.

¹⁰¹ I. S. W. Blanchard, *Economic Change in Derbyshire in the late Middle Ages 1272-1540*, Ph.D. thesis, University of London (1967), 47-51. See also *id.* (ed.), *The Duchy of Lancaster's Estates in Derbyshire 1485-1540* (Derby. Archaeol. Soc., *rec. ser.*, III, 1971); J. R. Birrell, *The Honour of Tutbury in the Fourteenth and Fifteenth Centuries*, M.A. thesis, University of Birmingham (1962).

¹⁰² I. Kershaw, 'The great famine and agrarian crisis in England 1315-1322', *Past and Present*, no. 59 (May 1973), 18-19 and *passim*.

¹⁰³ Birrell, *op. cit.* in note 101, 53-7.

¹⁰⁴ Blanchard, thesis, *op. cit.* in note 101, 25, 57.

¹⁰⁵ For the rest of this and the succeeding paragraph see *ibid.*, *passim*; *id.*, *Duchy of Lancaster's Estates*, *op. cit.* in note 101.

Derbyshire in the 15th century. This specialist activity is documented for Trusley and Marston Montgomery, manors close to Barton Blount.¹⁰⁶

How is this reorientation in Derbyshire's agrarian economy from dominant arable farming to pastoral to be explained? The shortage of labourers — a result of the considerable decline in population in the 14th century — dramatically increased wages and could have made direct farming by large landowners impracticable and often unprofitable. Pastoral farming was rendered a more attractive proposition because of the lower costs involved compared with arable; price movements also suggest that pastoralism, particularly stock-farming, could be more lucrative.¹⁰⁷ Some of the richest merchants in Derby were butcher-graziers engaged in rearing cattle for sale to other graziers for fattening.¹⁰⁸

Barton Blount may have experienced these changes. Few complete tax returns survive for this part of the county but Barton Blount does appear in the lay subsidy of 1334, paying 22s. 4d.¹⁰⁹ Barton was omitted from the extant return of 1524-5, but is recorded in 1536 with four taxpayers with goods of between £20 and £30.¹¹⁰ Barton is only one of two places returned with as many as four taxpayers, but these men should not be assumed to imply a thriving community; they may have been the only tenant farmers in Barton Blount and moreover non-resident lessees. The results of excavation at Barton Blount do indeed suggest that provision was being made for animals there in the 15th century — at least on one croft — while other crofts were apparently deserted in the later 14th century.

Thus both the historical and the archaeological evidence fit a pattern seen elsewhere: a fall in the number of villagers in the century after 1300, together with the accumulation of holdings by the remaining tenants who turned to pastoralism.¹¹¹ However it would be as dangerous to generalize from the very sparse historical information which specifically relates to Barton Blount as it is from the full excavation of only three crofts and part-excavation of two others. Beresford would no doubt agree that when there were forty-three crofts visible on the ground, the picture gained from five may be far from typical.

In view of this documentation the interpretation of the excavation at Barton Blount is too heavily dependent on climatic change; it fails to take into account economic developments in the medieval period. Beresford's interpretation depends on a long-term climatic deterioration. The best known English exponent of such a climatic change, H. H. Lamb, has suggested that the end of the 'early medieval warm epoch' in northern Europe occurred about 1300 and possibly earlier and that thereafter deterioration set in, culminating in the 'Little Ice Age' which lasted until c. 1700.¹¹² As regards the effect of this change on man's environment, Lamb himself considered that "... the ground probably only became wetter towards the end of that time [that is the late 13th century]

¹⁰⁶ And also nearer Derby at Allestree and Breadsall, possibly influenced by the proximity of the Derby market.

¹⁰⁷ C. Dyer, 'Population and agriculture on a Warwickshire manor in the later middle ages', *Univ. Birmingham Hist. Jnl.*, xi, 2 (1968), 121-2; T. H. Lloyd, *The Movement of Wool Prices in Medieval England* (Econ. Hist. Rev. supplement, vi, 1973), 19-30, esp. 24-30.

¹⁰⁸ Blanchard, thesis, op. cit. in note 101, 432; cf. R. H. Hilton, 'A study in the pre-history of enclosure in the fifteenth century' in id., *The English Peasantry in the Later Middle Ages* (Oxford, 1975).

¹⁰⁹ Public Rec. Off. (hereafter P.R.O.), E 179/91/7, printed by R. E. Glasscock (ed.), *The Lay Subsidy of 1334* (British Academy, Records of Social and Economic History, n.s., II, 1975), 45-6. Cf. Longford 24s., Hoon 11s., Alkington 22s. 6d., Hungry Bentley 13s. 5d., Saperton 6s., Ashe 19s., Dalbury 11s.; see op. cit. in note 96, fig. 1, B.

¹¹⁰ 1524-5: P.R.O., E 179/91/95; 1536: E 179/91/110 — the only name legible is that of Robert Savage, goods £30, and a Robert Savage also appears under Dovebruge which immediately precedes Barton, goods £20.

¹¹¹ See, for example, Hilton, op. cit. in note 108.

¹¹² H. H. Lamb, 'The early medieval warm epoch and its sequel', *Palaeogeography, Palaeoclimatology, Palaeoecology*, 1 (1965), 13-37, and 'Britain's changing climate', *Geog. Jnl.*, cxxxiii (1967), 445-68. For a recent summary see J. G. Evans, *The Environment of Early Man in the British Isles* (London, 1975), 174-9.

when the autumns were often notably wet".¹¹³ Thus to attribute as does Beresford the appearance of eaves trenches, drains and cobbling, assigned to the late 12th and early 13th centuries, to climatic deterioration seems to be overstretching the theory.¹¹⁴ However, it is equally difficult to suggest an economic explanation for the increased sophistication of building construction evident by about 1300. Improved techniques would be compatible with the evidence for rising standards of living among the peasantry in c. 1400 but not c. 1300. As regards the desertion of Barton Blount in favour of a drier site, there seems to be some difference of opinion: the soil scientist's report concludes "There is no obvious reason why this site should have been abandoned".¹¹⁵ Deserted villages also occur of course not only on clay soils but also on gravels, chalk and limestone,¹¹⁶ presumably just the kind of drier sites thought by Beresford to have soils more easily worked in adverse climatic conditions.

Some debate has indeed taken place in recent years as to the significance of climatic deterioration for later medieval economic history; this remains unresolved. Historians have discounted climate as a major factor. Evidence for extremes of climate in the 13th and 14th centuries has been assembled by J. Z. Titow. Titow, however, concluded: "if it can be accepted that individual years whose yields fall well below, or well above, the average yield for the period do represent unusual weather conditions, then it would appear on examination that all our four periods [1209-70, 1271-99, 1300-24, 1325-49] had their share of exceptionally good or bad years, and the case for a progressive climatic deterioration is very hard to support".¹¹⁷ Similarly, Kershaw pointed to long stretches of good harvests between the famine years 1315-22 and the Black Death, and again in the late 14th century, and he found it impossible to agree with any suggestion that the famine years marked the beginning of a long-term deterioration in the climate.¹¹⁸ There is indeed evidence for periods of extremely wet weather in the Trent valley in account rolls for Melbourne of 1440-1 and 1480-1.¹¹⁹ But instability is not the same as long-term deterioration. Le Roy Ladurie has made an extensive investigation of the problems of the historical climate. Attacking the 'climatologists' on their own ground, he argued that, although there certainly were cold periods in the 15th century, these "severe as they might be, were not lasting or general enough, nor did they affect enough of the year . . . to cause a maximal thrust in the Alpine glaciers. As for the catastrophes of the end of the middle ages (1348-1450), they had little to do with the rigors of climate. They arose from, amongst other things, the tragic pattern usually symbolized by the Black Death and the English wars [in France], and mark the end of a long agrarian cycle".¹²⁰ That climatic deterioration affected Barton Blount in any radical way, if at all, can only be an assumption. Maurice Beresford has expressed the view that ". . . the outstanding difficulty for such a simple weather-change determinism is that

¹¹³ Lamb, *Geog. Jnl.*, op. cit. in note 112, 453-4.

¹¹⁴ Dating evidence from Goltho: Period 2 houses at Goltho and Barton Blount (op. cit. in note 96, 20, 23-4).

¹¹⁵ *Ibid.*, 100. Cf. L. Dudley Stamp (ed.), *The Land of Britain. The Report of the Land Utilisation Survey of Britain*, LXIII (London, 1941), 12, 20, 57.

¹¹⁶ Gravels, e.g. Purley Parva and Sheffield: M. W. Beresford and J. G. Hurst, 'Introduction to a first list of deserted medieval village sites in Berkshire', *Berks. Archaeol. Jnl.*, ix (1962), 92-7; T. Gates, *The Middle Thames Valley* (Oxford, 1975), 25, 31.

Chalk, e.g. Gomeldon: D. Algar and J. Musty, *Current Archaeol.*, II (1969), 87-91; Wharram Percy: *ibid.*, v (1975), 39-49. Limestone, e.g. Upton: R. H. Hilton and P. A. Rahtz, 'Upton, Gloucestershire, 1959-1964', *Trans. Bristol and Glos. Archaeol. Soc.*, LXXXV (1966), 70-146.

¹¹⁷ Titow, op. cit. in note 100, 24. See also *id.*, 'Evidence of weather in the account rolls of the bishopric of Winchester 1209-1350', *Econ. Hist. Rev.*, 2nd ser., xii (1960), *passim*.

¹¹⁸ Op. cit. in note 102, 7-8; and cf. Lamb, *Geog. Jnl.*, op. cit. in note 112, 446, 453.

¹¹⁹ Blanchard, thesis, op. cit. in note 101, 215, 269.

¹²⁰ E. Le Roy Ladurie, *Times of Feasts, Times of Famine; A History of Climate since the Year 1000* (London, 1972 ed.), 265-6, and esp. chaps. iv, vi, also 14-16 for a critique of the vineyard argument advanced by, for example, Beresford, op. cit. in note 96, 50.

deserted and non-deserted villages are found side by side all over the English countryside and — local as the English climate is — it would be rather difficult to imagine the raindrops being so locally selective”.¹²¹

The case of Barton Blount is just one illustration of a much wider issue of considerable interest: the divergence between two schools of thought. Historians have for long been concerned to document changes in the social structure of the rural population and in the relationship between factors such as demography and the market, preferring an economic and social interpretation based solely on documentary evidence. Some archaeologists, faced with interpreting the evidence in the ground, have tended to concentrate on environmental factors, looking to the soil itself and the prevailing weather for a physical explanation. It is a pity that some archaeologists have dogmatically adhered to the theory of climatic deterioration as the only cause, where a combination of the archaeological and documentary evidence could provide a more satisfactory explanation.¹²²

SUSAN M. WRIGHT

STRUCTURAL ASPECTS OF MEDIEVAL TIMBER BRIDGES: ADDENDA *MAJOR BRIDGES*

NEWARK-ON-TRENT. In *Medieval Archaeol.*, xix (1975), 52–4, a hypothesis was advanced that, until the use of heavy pile-drivers became widespread, not later than the early 16th century, the posts of major timber bridges commonly stood upon sole-plates, as in minor bridges; it was also suggested that the earlier structural form may have been repeated in bridges rebuilt in periods when the ‘projecting pile’ support had become usual. Thus, the bridge at Chepstow, as it survived until the early 19th century, although it may have been completely rebuilt in the 16th, was cited as a plausible model of the bridge as it had existed under Henry III.

Both suggestions are confirmed by an indenture, not noticed in the earlier discussion, but already printed by Salzman,¹²³ dated March, 1 Hen. VII (1486, new style), by which Edward Downes, carpenter of Wirkisop, undertakes to rebuild, with new oak, the bridge over the Trent, adjoining the bishop of Lincoln’s castle at Newark, Nottinghamshire,¹²⁴ which had lately been destroyed by floods. The constitutional and economic aspects may need further discussion: the bishop has provided 100 marks; the burgesses, under an alderman (but not fully corporate?), act as his agents and are to build the abutments and provide carriage; the carpenter is to do his work and provide timber at his own costs for £40, which, in view of the size of the bridge and the ruling prices for large timber, seems too little; a concealed subsidy from the king’s or bishop’s woods is possible.¹²⁵ The structural aspects, however, are quite clear. The bridge is to be between

¹²¹ M. Beresford in M. Beresford and J. G. Hurst (eds.), *Deserted Medieval Villages* (London, 1971), 20.

¹²² e.g. J. G. Hurst in *ibid.*, 121–2; D. G. and J. G. Hurst, ‘Excavations at the medieval village of Wythemail, Northamptonshire’, *Medieval Archaeol.*, xiii, 167, 181; cf. L. A. S. Butler, *Current Archaeol.*, 11 (1969), 146. A similar situation has arisen regarding moated sites, but the importance of, for example, cultural change is now becoming generally accepted: cf. D. G. and J. G. Hurst, ‘Excavation of two moated sites: Milton, Hampshire, and Ashwell, Hertfordshire’, *Jnl. British Archaeol. Assoc.*, 3rd ser., xxx (1967), with C. C. Taylor, ‘Medieval moats in Cambridgeshire’ in P. J. Fowler (ed.), *Archaeology and the Landscape* (London, 1972), esp. 246–8, and H. E. Jean Le Patourel, *The Moated Sites of Yorkshire* (Soc. for Medieval Archaeol., monograph series, v, London, 1973).

¹²³ L. F. Salzman, *Building in England* (1st ed., Oxford, 1952), 546–7.

¹²⁴ The Newark branch may be now reckoned as part of the Devon, but was formerly the main stream of the Trent: E. Jervoise, *Ancient Bridges of Mid and Eastern England* (London, 1932), 14, 53–4. The bridge was rebuilt in masonry in 1775.

¹²⁵ The carpenter came from the Sherwood district. Elizabeth I granted sixty trees from Sherwood for the repair of the bridge: *op. cit.* in note 124, 53–4.