

A Relatively Neglected Field Form: the Headland Ridge¹

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NUMEROUS discussions have appeared in this and other journals on the relationships between the technology of ploughs and the morphology of fields. Indeed, protracted debates have been conducted on the origins, functions, and characteristics of a number of individual field forms—notably “Celtic fields,” strip lynchets, balks, and ridge-and-furrow.² In recent years, the hedgerow seems to have attracted most attention.³ But there exists one feature, now rapidly being destroyed by modern farming methods, which has been relatively neglected: the headland ridge. H. C. Bowen’s admirable survey of vanishing earthworks and landscapes, for example, contained no reference to headland ridges.⁴ The purpose of this note is both to draw attention to this particular field form in a general way and to record some observations made on headland ridges in France.

These low earthen ridges have not gone entirely unnoticed in the English landscape. M. W. Beresford and J. K. St Joseph noted that written estate surveys frequently used the word “balk” to refer not to a grass boundary between strips but to the grass access-way between furlongs. They claimed that many aerial photographs show these access-ways and that centuries of ploughing had sometimes lowered the general level of the surrounding soil, so that they remained as grassy banks above the general level of the fields.⁵ Unfortunately, they did not include a photograph showing clearly these field forms in their aerial survey of medieval England. This particular lack was remedied in the Royal Commission on Historical Monument’s archaeological survey of the river gravels of England, which also noted briefly the existence of these low ridges, notably in the Welland valley of Lincolnshire, and interpreted them intuitively as being boundaries separating furlongs in medieval and later open fields.⁶ More recently, C. C. Taylor has observed that much of the lower slopes of the chalklands of south-east Cambridgeshire are characterized by having low, sinuous, earthen ridges on them. They are usually only 1–2 feet high, up to 30 yards wide, and as much as 700 yards long. He asserted that

¹ I would like to acknowledge helpful discussion of this topic with Professor E. Juillard, of the University of Strasbourg, and Mr C. C. Taylor of the Royal Commission on Historical Monuments, Cambridge. I owe thanks to Mr M. Young, of the Drawing Office, Department of Geography, University of Cambridge, for drawing the diagrams.

² H. C. Bowen, *Ancient Fields. A Tentative Analysis of Vanishing Earthworks and Landscapes*, 1961.

³ E. K. Teather, ‘The hedgerow: an analysis of a changing landscape feature’, *Geography*, 55, 1970, pp. 146–55; M. Hooper, ‘Dating hedges’, *Area*, no. 4, 1970, pp. 63–5.

⁴ Bowen, *op. cit.* ⁵ M. W. Beresford and J. K. St Joseph, *Medieval England. An Aerial Survey*, 1958, p. 24.

⁶ *A Matter of Time. An Archaeological Survey of the River Gravels of England Prepared by the Royal Commission on Historical Monuments (England)*, 1960, pp. 32, 37, 40; Pl. 12(a).

field work left no doubt that such ridges are former headlands between furlongs.¹ What is interesting is that E. A. Pocock, a practising farmer, came to the same conclusion after observing these features in his own arable fields: "the rise on a headland occurs simply because of the accumulation over the years of dirt cleaned off the plough."² Pocock mapped the pattern of ridges from aerial photographs as well as from field evidence, and used this pattern of reconstructed furlong boundaries as the basis for an ingenious study of the relative chronology of colonization in the Oxfordshire parish of Clanfield. His study was based on a number of assumptions, including the assumption that the larger the ridges the older they were, and the more sinuous the ridges the older they were. These assumptions are, of course, somewhat questionable and were made, understandably, without knowledge of continental studies of similar features, most notably a study by E. Juillard on *crêtes de labour* in Alsace, published in 1953.³

It is impossible, unfortunately, to date these earthen ridges at all precisely. Their rate of formation depends upon the degree of slope of the initial terrain, on the nature and depth of the soil, on the character of the climate, on whether any action was taken to prevent the formation of ridges, and on the types of plough and method of ploughing employed. As in the case of strip lynchets, the difficulty of allowing for many of these influences makes it correspondingly difficult to assess the final factor which would be of so much interest: the duration of time under the plough.⁴ The assumption that the higher ridges are the older ones thus remains questionable. Juillard, while suggesting that headland ridges might be used to establish a relative chronology of land clearance along the lines adopted by Pocock, went on to suggest the possibility of establishing an absolute chronology by using a railway line, constructed in 1850, as a datum against which to measure the rate of headland ridge formation in the part of Alsace which he investigated. This suggested an increase in height of 10 cm. per century, so that the ridges of 150 cm. in height which he observed suggested to Juillard that they were at least 1,500 years old and, when allowing for soil weathering and settling, undoubtedly nearer to 2,000 years old.⁵ Even if one were to accept this argument in relation to Alsace, it would be impossible to extend it by analogy to other localities because few, if any, of the other variables would remain constant in any two separate areas. In the absence of precise dating techniques both relative and absolute chronologies for headland ridges must be regarded somewhat sceptically.

None the less, it is now clear that these micro-features of the agrarian landscape both were once widespread and are now rapidly disappearing. An urgent need, bearing in mind the rapid and inevitable rate of destruction, should be—as Bowen has argued in relation to vanishing earthworks in general—the production of as

¹ C. C. Taylor, 'Archaeological results from the North Sea gas pipeline in Cambridgeshire 1968', *Proc. Camb. Ant. Soc.*, 62, 1969, pp. 29–34.

² E. A. Pocock, 'The first fields in an Oxfordshire parish', *Ag. Hist. Rev.*, xvi, 1968, pp. 85–100, quotation on p. 85.

³ E. Juillard, 'Formes de structure parcellaire dans la plaine d'Alsace. Un indice de l'ancienneté des limites agraires: les crêtes de labour', *Bull. de l'Assoc. de Géogr. Français*, nos. 232–3, 1953, pp. 72–7.

⁴ Bowen, *op. cit.*, p. 19. ⁵ Juillard, *op. cit.*, p. 76.

many good annotated plans as possible.¹ In view of the assumption made hitherto that these ridges correspond with former headlands of open fields, surveying them would be particularly fruitful in those parishes not possessing maps of the layout of their pre-enclosure field arrangements. A detailed investigation has been carried out by the present writer, ably assisted by a small group of undergraduates reading Historical Geography at Cambridge.² One commune in the south-western Paris Basin was selected for study on the almost level, limon-covered, terrain of the Beauce plateau.³ Field work involved plotting the location of all existing earthen ridges and the construction of surveyed profiles of a number of them and their adjacent fields. These latter showed that the height difference between the crest of the ridge and the lowest part of the adjacent field was generally between 1 and 2 metres (fig. 1), as Juillard had found on somewhat similar soils in Alsace. Work in

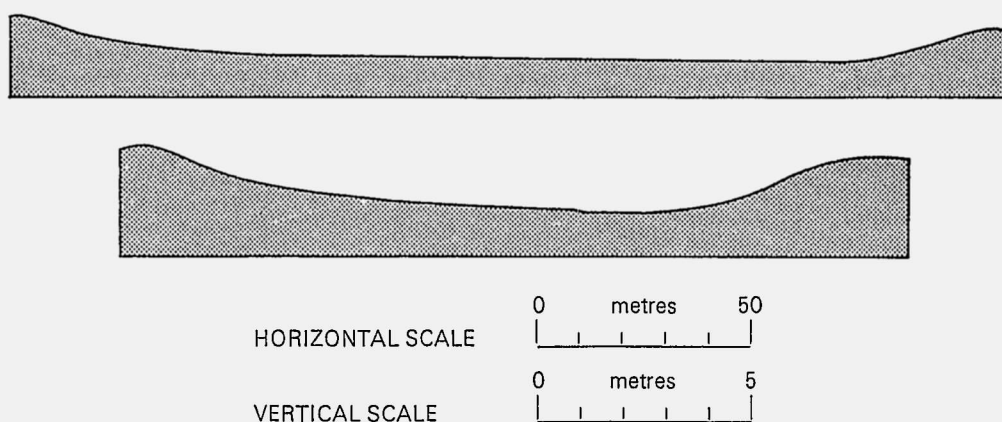


FIG. 1

Two sample profiles of fields and headland ridges in the commune of Josnes (Loir-et-Cher, France).

the archives involved plotting on a modern 1:25,000 map the location of *quartier* or furlong boundaries depicted on the large-scale plans of the *ancien cadastre* of the early nineteenth century.⁴ Comparison of the arrangement of these *quartiers* with that of the existing *crêtes de labour* revealed that 80 per cent of the ridges corresponded exactly with field access-ways of the early nineteenth century (fig. 11). Furthermore, a full 100 per cent of the ridges corresponded with the furlong boundaries, thus demonstrating beyond doubt what has hitherto been only an assumption.

¹ Bowen, *op. cit.*, p. 4.

² I am indebted to those students who accompanied me in France and who worked so enthusiastically both in the field and in the archives.

³ The commune of Josnes, Loir-et-Cher, France.

⁴ I am indebted to the staff of the *Archives Départementales* of Loir-et-Cher at Blois, who made available both the necessary documents and helpful comments on them.

FIG. II

A. Present-day earthen
ridges in the commune of
Josnes (Loir-et-Cher,
France).

B. Early nineteenth-century
furlong boundaries in the
same commune.

- Key: 1 Present-day ridges
corresponding with
early nineteenth-
century access-ways.
2 Present-day ridges not
corresponding with
early nineteenth-
century access-ways.
3 Furlong boundaries of
the early nineteenth
century.
4 Commune boundary.
5 Settlements.

