

The final continuation of the Peterborough Chronicle, dated *c.* 1155, uses 7 for *and*; 7 for *et* in manuscript texts continues into the 13th century. One of the latest examples known to me is 7 for *et* in MS. London, B.L. Royal 9 B. V, dated 1231.<sup>10</sup>

In conclusion it seems to me likely that the newly-found fragment from Stow dates from the 11th or 12th century. It may have been constructed during the Saxon rebuilding of the early 11th century or when Norman rebuilding was in progress. During one of the subsequent restorations it was presumably cut into its present shape for re-use in building. Although its recent history is entirely conjectural, it is possible that it was disturbed during the 19th-century restoration and left in the churchyard where it was subsequently found.

ELISABETH OKASHA

#### NOTES

<sup>1</sup> I am most grateful to Richard Falkner for allowing me to examine the stone while it was in his possession and to Naomi Field, North Lincolnshire Archaeological Unit, for information about repair work at Stow.

<sup>2</sup> For a detailed account of the architectural history of the church, see: A. W. Clapham, 'Stow', in A. W. Clapham, *et al.*, 'Lincolnshire Priors, Abbeys, and Parish Churches', *Archaeol. J.*, 103 (1946), 168–70; N. Pevsner and J. Harris, *The Buildings of England. Lincolnshire* (Harmondsworth, 1964), 380–83; H. M. Taylor and J. Taylor, *Anglo-Saxon Architecture* I, II (Cambridge, 1965), 584–93.

<sup>3</sup> The text is transliterated with spacing as on the stone, where A represents a clearly legible letter A and — indicates complete loss of text at beginning or end.

<sup>4</sup> E. Okasha, *Hand-list of Anglo-Saxon Non-runic Inscriptions* (Cambridge, 1971), 92–93 and fig.

<sup>5</sup> See A. R. Green, *Sundials, Incised Dials or Mass-Clocks . . .* (London, 1926).

<sup>6</sup> Okasha, *op. cit.* in note 4, 73 and fig.; 87–88 and fig.; 105 and fig.

<sup>7</sup> *Ibid.*, 47 and fig.

<sup>8</sup> J. Bilson, 'Weaverthorpe Church and its Builder', *Archaeologia*, 72 (1922), 51–70, esp. 57–69 and fig.

<sup>9</sup> D. Whitelock (ed.), *The Peterborough Chronicle (The Bodleian Manuscript Laud Misc. 636). Early English MSS in Facsimile*, 4 (Copenhagen, 1954), folio 14a, p. 27. The translation is my own.

<sup>10</sup> S. H. Thompson, *Latin Bookhands of the Later Middle Ages 1100–1500* (Cambridge, 1969), no. 90.

## A NEW LANDSCAPE CONTEXT FOR HOUNDTOR, DEVON (Figs. 5 and 6)

The site of Houndtor, Devon, has figured prominently in the literature on medieval settlements in Britain and was recently published by Mr G. Beresford in the pages of this journal.<sup>1</sup> Some of the assumptions and conclusions have, however, been challenged by one of the present authors in an article which urges, among other things, more attention to environmental evidence.<sup>2</sup> In part the purpose of this note is to demonstrate the value of such evidence and in part to offer further comment on the Houndtor conclusions. The medieval hamlet lies at about 1,000 ft (*c.* 315 m) just below Hound Tor on the E. side of Dartmoor, and consists of a cluster of rectangular structures within an abandoned field system (Fig. 5). The complex is currently in the guardianship of the Historic Buildings and Monuments Commission for England.

Criticism of the conclusions in the original Houndtor report centred on a number of issues fundamental to the archaeological discussion of upland farming during the high Middle Ages including the validity of the dating, the nature of the field system, the circumstances of colonization and the context of the farming economy.<sup>3</sup> It was suggested by Beresford that the settlement could have originated in the Anglo-Saxon period, but this has been challenged and a 12th- or 13th-century date proposed. It has also been pointed out that the field system around the deserted hamlet was likely to have been an extension of the enclosures on the lower land to the east. Although Beresford suggested that the colonization was a separate undertaking from the tenements to the east and that this led to the creation of a

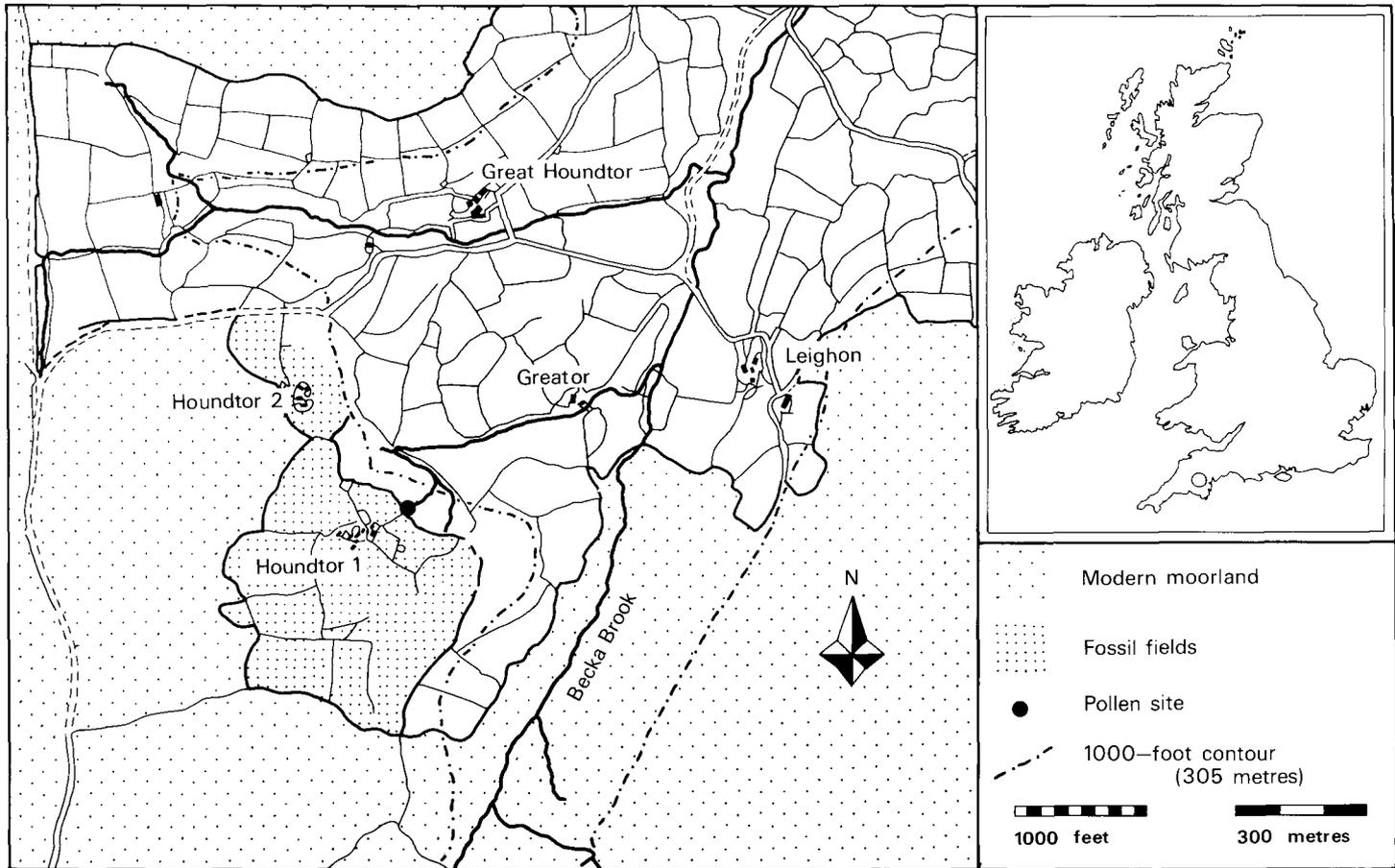


FIG. 5  
HOUNDTOR, DEVON

Plan of the Houndtor context with fossilized fields based on survey by P. F. Brandon (*Medieval Archaeol.*, xxiii (1979), 151, fig. 27)

separate manor with its manor-house, it is more likely that the hamlet was an extension of the demesne or other holdings in the valley around the modern farm of Great Houndtor (Fig. 5), a sequence also reflected at Holne Moor, Dartmoor.<sup>4</sup> Within this interpretation, therefore, the mixed arable and pastoral economy of the deserted hamlet is perhaps best seen as a short-term expansion of the lowland pattern which existed before, and continued after, this brief episode on the higher and more marginal arable land.

In an attempt to provide more data for this discussion, the authors sought to find a suitable source for a pollen sequence which might reflect the activities of the farmers in this area during the Middle Ages. Such a site was located on the eastern slope of Houndtor Down where a series of springs give rise to a small stream that drains north-eastwards past the settlement of Great Houndtor and eventually joins the Becka Brook (Fig. 5). One of these springs rises in a deep cleft in the hillside (N.G.R. SX 748 788) less than 100 m to the north-east of, and approximately 20 m below, house 4 in Houndtor Village. Although the land falls away steeply a bog has developed on what appears to be a small structural bench immediately below the spring and test bores revealed that peat has accumulated to depths in excess of 0.70 m. Diffuse overland flow characterizes the surface of the mire but a relatively dry area was found where a pit could be excavated down to the basal growan. The stratigraphy at that point was as follows:

- 0–50 mm Poorly-compacted root layers
- 50–220 mm Fibrous peat becoming increasingly comminuted with depth
- 220–400 mm Fine sedge peat
- 400–750 mm Amorphous peat grading downwards into organic mud. Minerogenic content increasing towards the base
- 750 mm Growan

Peat monoliths each measuring 250 mm in thickness and approximately 200 mm × 200 mm in cross section were then removed from the vertical face.

In the laboratory, samples for pollen analysis were taken from the peat monoliths at 250 mm intervals and subjected to 5% sodium hydroxide (NaOH) digestion followed by Erdtman's acetolysis.<sup>5</sup> The residues were mounted in safranin-stained glycerine jelly and counted on a Vickers M15C microscope at ×400 magnification, but with critical identifications under oil at ×1000 or using phase contrast. A sum of 300 land pollen was achieved at all levels. Pollens and spores were classified according to the criteria of Moore and Webb,<sup>6</sup> with additional guidance from Grohne,<sup>7</sup> Beug<sup>8</sup> and particularly from reference type collections. The results of the pollen analyses are shown in Fig. 6.

Samples for radiocarbon dating were removed from the peat monoliths at 150 mm, 450 mm and 700 mm. At each of these horizons, slices of sediment c. 15–20 mm in thickness and weighing in excess of 400 gm (wet weight) were removed. The samples were dated at the Harwell laboratory and the results are shown on the left-hand side of the pollen diagram.

The most significant feature of the pollen diagram from Houndtor is the relatively high frequency of cereal grains recorded in the lower levels of the profile. Gramineae pollen were attributed to the category *Cerealia* type on the basis of size (>40 μm), surface sculpturing (aided by phase contrast microscopy) and the presence of a clearly-defined germ pore delimited by a prominent annulus. Identifications were also aided by the use of type material and reference to photographs.<sup>9</sup> Although it is possible that some wild grasses and reeds (whose pollens possess similar characteristics)<sup>10</sup> have been recorded within the *Cerealia* category, the relatively high counts for *Cerealia* type pollen in the basal layers of the profile is considered to be significant and to reflect cereal cultivation in the Hound Tor area. In view of the fact that cereals (with the possible exception of *Secale*) are low pollen producers and moreover, cereal pollens are generally poorly dispersed outside the area in which the crop is grown,<sup>11</sup> the strong representation of *Cerealia* type pollen in the lower levels of the profile suggests cereal cultivation in the immediate vicinity of the site. The radiocarbon determination of a.d. 1220 ± 70 (HAR 6298) from 700 mm, which gives a mean calendar age of c. A.D. 1270 on recently published calibration curves,<sup>12, 13</sup> dates the cereal phase to the medieval



period, and hence links this episode of agricultural activity to the Houndtor settlement. A quantitative separation of cereal grains at the genus level was not attempted,<sup>14</sup> but positive identifications were made of *Avena* (Oat) and *Secale* (Rye). The former is of particular interest in view of the fact that charred grains of oats were found in the corn-drying kiln in Barn 3 of the settlement.<sup>15</sup> The pollen evidence therefore confirms the existence of an upland arable economy based on oats and rye during the medieval period. However, the very high frequencies of Gramineae pollen and the occurrence of taxa often associated with roughly-grazed upland pasture including *Plantago lanceolata*, *Potentilla erecta*, *Taraxacum* type and *Rumex acetosa/acetosella* suggests that pastoralism was also being practised on Houndtor Down at that time.

The date at which cereal cultivation began in the area cannot be established on the basis of the pollen stratigraphy as this predates the onset of peat accumulation at Houndtor. However, a relationship between the development of the bog and agricultural activity might reasonably be inferred, for the construction of field boundaries and subsequent cultivation on the steep slopes above the pollen site would have had a major effect on surface drainage. Hence changes in run-off patterns, sediment yield, etc., may well have led to the initiation of peat growth in areas of impeded drainage as, for example, at the break in slope below the Houndtor settlement. The pollen evidence suggests a local presence of *Alnus* and *Corylus* scrub with some limited stands of oak woods during the initial stages of peat accumulation.

The decline in arable farming activity on Houndtor Down is reflected in the pollen diagram at around 650 mm by which point counts for Cerealia type pollen have fallen to 1% TLP (total land pollen). The marked reduction in *Rumex* pollen frequencies may also be significant as *Rumex acetosella* is a species often associated with arable farming activity. At the same level, there is a marked upward trend in the curve for Ericaceae perhaps reflecting the colonization of the abandoned farmsteads by heather and bilberry. This episode has not been dated directly, but on the basis of interpolation between the date from 700 mm and the age determination of a.d. 1560 ± 80 (HAR 6297; mean calibrated age of c. A.D. 1470) from 450 mm, a date of around A.D. 1300–10 might be inferred. This is in broad agreement with the archaeological evidence which suggests that, although desertion was gradual, the farms had been 'abandoned to the bracken and heather' by the middle of the 14th century.<sup>16</sup>

Following the abandonment of the farms, an essentially open grassland landscape seems to have characterized Houndtor Down until the present day, although a limited wood and scrubland cover with *Betula*, *Alnus*, *Quercus*, *Salix* and *Corylus* appears to have existed, probably in sheltered localities below the 300 m contour. The low (1% TLP or less) but consistent representation of Cerealia type pollen probably reflects continued cereal cultivation in the lowlands around Great Houndtor (less than 1 km to the north) until well into the 19th century, while the increased frequencies of *Plantago lanceolata* and *Potentilla* between 150 mm and 250 mm may be indicative of more intensive pastoral activity during the later part of that time period. The '101% modern' age determination (HAR 6296) from the 150 mm level implies that the increase in arboreal pollen in the upper reaches of the diagram is essentially a 20th-century phenomenon reflecting varying degrees of afforestation around the northern fringes of the moor.

Tentatively, therefore, the pollen evidence and a consideration of the context of Houndtor would seem to suggest that the upslope clearance and creation of fields stimulated a change in the local drainage regime which led to the onset of peat accumulation some time in the early 13th century. Relatively high levels of cereal pollen in the basal peats are interpreted as reflecting cereal cultivation in the fields around the now deserted medieval farmsteads. At some time in the 14th century local cereal production ceased and the subsequent low frequencies of cereal pollen recorded in the diagram are attributed to the continuation of mixed farming on the lands of Great Houndtor to the east. The conversion of this arable to permanent pasture in the last two hundred years or so is also apparent in the pollen diagram and brings the story up to the present day. Such an interpretation would echo the results found in Okehampton Park<sup>17</sup> and accord with the new conclusions proposed for Houndtor.<sup>18</sup>

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## NOTES

<sup>1</sup> G. Beresford, 'Three deserted medieval settlements on Dartmoor: a report on the late E. Marie Minter's excavations', *Medieval Archaeol.*, 23 (1979), 98-158.

<sup>2</sup> D. Austin, 'Dartmoor and the upland village of the southwest of England', 71-80 in D. Hooke (ed.), *The Medieval Village* (Oxford, 1985).

<sup>3</sup> The contrasting views represented in the following paragraph are to be found in the two above-mentioned publications and are not given separate entries.

<sup>4</sup> A. Fleming and N. Ralph, 'Medieval settlement and land use on Holne Moor, Dartmoor: the landscape evidence', *Medieval Archaeol.*, 26 (1982), 101-37.

<sup>5</sup> K. Faegri and J. Iversen, *Textbook of Pollen Analysis* (Oxford, 1975).

<sup>6</sup> P. D. Moore and J. A. Webb, *An Illustrated Guide to Pollen Analysis* (London, 1978).

<sup>7</sup> U. Grohne, 'Die Bedeutung des Phasenkontrast-verfahrens für die Pollenanalyse, durchgeführt am Beispiel der Gramineen pollen von Getreidetypp', *Photographic Forsch.*, 7 (1957), 237-48.

<sup>8</sup> H. J. Beug, *Leitfaden der Pollenbestimmung* (Stuttgart, 1961).

<sup>9</sup> E.g. Beug, op. cit. in note 8.

<sup>10</sup> S. Th. Andersen, 'Identification of wild grass and cereal pollen', *Danmarks Geologiske Undersogelse, Årbog 1978* (1979), 69-92.

<sup>11</sup> I. Vuorela, 'Relative pollen rain around cultivated fields', *Acta Botanica Fennica*, 102 (1973), 1-27.

<sup>12</sup> M. Stuiver, 'A high-precision calibration curve of the AD radiocarbon timescale', *Radiocarbon*, 24 (1982), 1-26.

<sup>13</sup> G. W. Pearson and M. G. L. Baillie, 'High-precision C<sup>14</sup> measurement of Irish oaks to show the natural atmospheric C<sup>14</sup> variations of the AD time period', *Radiocarbon*, 25 (1983), 187-96.

<sup>14</sup> See also D. Austin *et al.*, 'Farms and fields in Okhampton Park, Devon: the problems of studying medieval landscape', *Landscape History*, 2 (1980), 39-57.

<sup>15</sup> Beresford, op. cit. in note 1, 143.

<sup>16</sup> *Ibid.*, 146.

<sup>17</sup> Austin *et al.*, op. cit. in note 14.

<sup>18</sup> Austin, op. cit. in note 2.

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## SOME EXAMPLES OF MEDIEVAL DOMESTIC PEWTER FLATWARE (Fig. 7; Pl. VIII, B)

Pewterware was probably being made in London by the second half of the 13th century, albeit on a very small scale when compared with the output later in the medieval period. The pewterers' need for the Ordinances of 1348<sup>1</sup> implies significant activity prior to that date. Very few pewter objects of the 13th and 14th centuries survive; the only items certainly from the period are priests' funerary chalices and patens of very inferior quality pewter.<sup>2</sup> There are a few other ecclesiastical pieces such as the Ludlow and Weoley Castle cruets,<sup>3</sup> and a few domestic spoons may be from this period; these are not all certainly of English manufacture, however.

Until recently it was believed that no domestic flatware had survived from the period prior to 1400. This view was supported by the lack of written evidence for domestic pewter ownership at this time even at the highest social levels and the recognized lack of durability of