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# Ashmoor Common, Hereford and Worcester

[SO 855 465]

## Highlights

The Ashmoor Common site provides an excellent example of a palaeochannel of the River Severn. The site, abandoned around 6000 BP, contains evidence of former sedimentary evolution of the floodplain.

## Introduction

This site contains an example of a palaeochannel of the Severn system. In addition to providing information on one stage of the palaeohydrology of the Severn, the palaeochannel deposits have also provided detailed information on floodplain sedimentary conditions and an absolute chronology of its development. The depression, which is a fragment of channel of an earlier River Severn, is well above the present Severn floodplain in height, although it is still flooded occasionally by ground water. Sedimentary analysis shows inorganic deposits with channel sands lying on top. A radiocarbon date from the base of the small palaeochannel gives a date of abandonment of around 6000 BP.

## Description

Ashmoor Common, 7 km south of Worcester, comprises a small strip of common land belonging to the parish of Kempsey. It is a linear depression 4 km long which joins the floodplain proper at Severn Stoke. The depression is delineated by land-use boundaries and is approximately 160 m in width. The head of the depression is well above the level of the local floodplain, although the lower portion is still flooded occasionally. Surrounding the depression, and bounded by relatively steep slopes, is land over 15 m OD. This includes a strip of land above the site that separates it from the floodplain to the north. The interest of the site relates to the palaeoecological and palaeohydrological conditions revealed by investigations of its surface and subsurface topography, and of its stratigraphy.

The stratigraphy of the site is laterally variable and has been investigated by hand augering. The auger locations followed a herringbone pattern concentrated on Ashmoor Common. The resulting contour pattern reveals a meandering channel of considerably smaller dimensions than the whole depression (Figure 6.26).

The basal grey clay has a diffuse boundary with a relatively unhumified wood peat, dominated by alder fragments. At a depth of 54 cm there is a gradual change to a peat composed mainly of fragments of herbaceous stems and roots. This sequence is found throughout the north of the site, whereas to the south the sequence is interrupted by a brown clay (Figure 6.27). Three basal samples from the main core all contained small amounts of charcoal which were probably washed in from the surrounding slopes along with the clay.

## Interpretation

Five samples were sieved from the inorganic deposits underlying the peat, which varied from sand and gravel to silty sands. These can be compared to a sample from the main terrace and the top of the Worcester terrace, suggesting that at least part could be terrace derived. The sand and gravels are interpreted as being channel and/or locally inwashed sediments, while the clay is typical backswamp sediment. From the grain size analysis alone, it is difficult to separate the underlying sand and gravels from terrace and modified terrace deposits. However, the depth of occurrence, relative lack of thickness, lack of cohesion and relatively greater proportion of fines suggest they are reworked terrace channel deposits, with channel sands, also probably locally derived, lying on top. The large Ashmoor channel post-dates the Worcester terrace which it dissects, and it is probably of Late Glacial age.

The site is a relict tract of floodplain which has filled with autochthonous peat over the past 6000 years (basal dated 5930  $\pm$  70 BP, HAR4350). The stratigraphy shows that organic deposition may have started at approximately the same time as the main fill, but due to its protected situation, this deposition has continued up to the surface, which is now at a level above the main floodplain. From this site, a pollen diagram with four radiocarbon dates (Brown, 1983a) shows the deforestation of the surrounding terrace woodland at about 3600 BP and a much later two-stage clearance of the floodplain alder woodland. This two-stage, or stepped, alder clearance is also clearly seen elsewhere, and it is suggestive of two processes, either adjacent partial clearance or some form of management, probably coppicing (Brown, 1982), which reduced pollen production and decreased the input of alder macro-remains into the peat. A date of around 2000 BP can be estimated for the clay inwash of terrace soil at the head of the bog on the basis of pollen correlation with the main core.

Ashmoor Common also provides evidence of the elm decline commencing around 5930  $\pm$  100 BP, and more particularly, is the clearest example of the considerable decline of lime, giving the earliest date of 3600 BP (Brown, 1983a).

At Ashmoor Common, due to the difficulty of estimating the large palaeochannel depth, estimates of discharge were made only for the smaller, peat-filled channel (Figure 6.28). It is suggested that the small palaeochannel does not significantly pre-date the basal radiocarbon date and carried local drainage of the surrounding terraces during the pre-Boreal and Boreal. Pollen evidence suggests that the channel was lined and probably filled, or partially obstructed by rushes, sedges and alder.

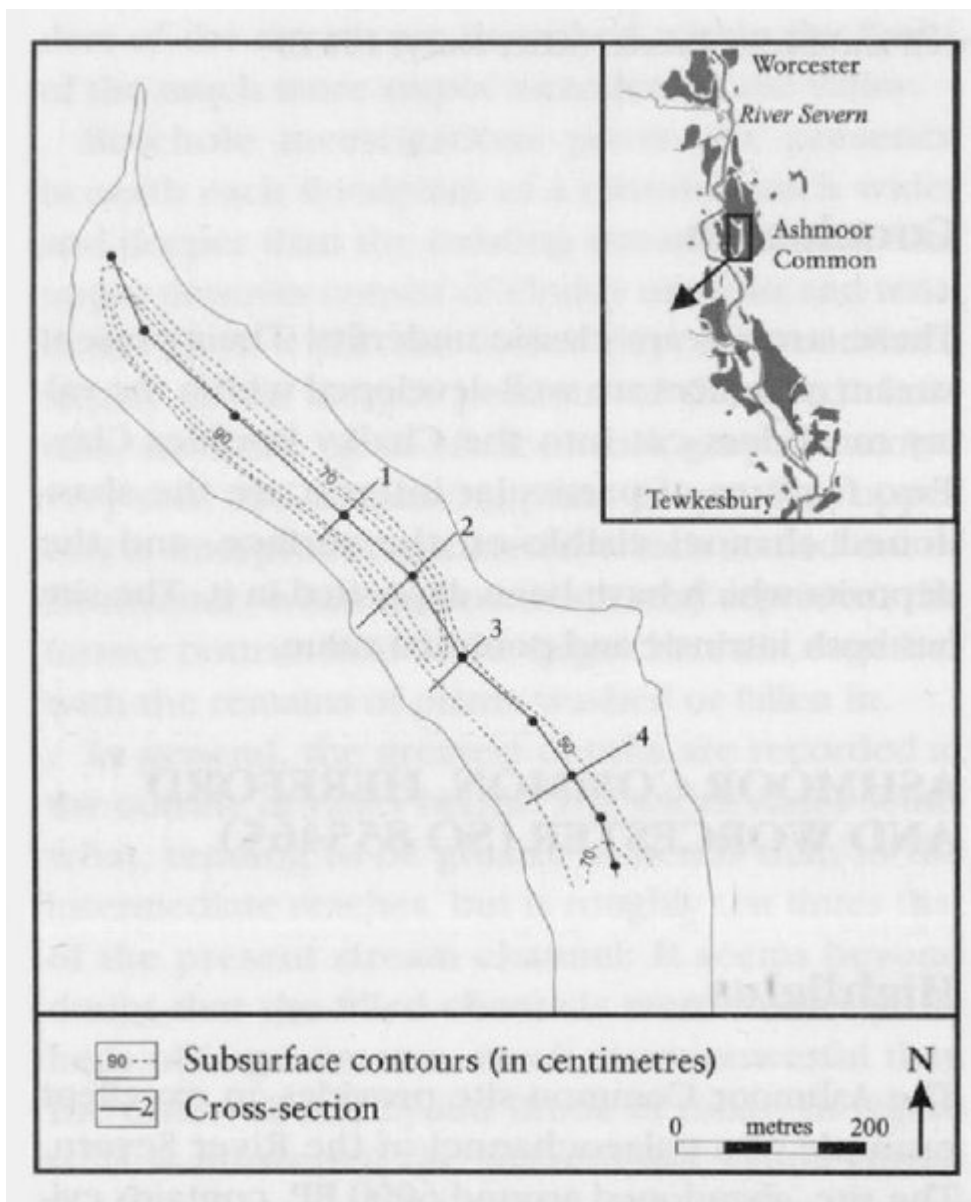
The general sequence of events recorded in the infill deposits is complicated by the action of man. After channel abandonment, the water level would still have been influenced by the water table of the floodplain and, although the site is far enough up the channel to be out of the range of significant overbank deposition, it would occasionally have been flooded. This flooding would have decreased in frequency as the surface level of the peat rose (assuming a static flood datum) which may help to explain the decrease in accumulation rate with depth. The only disturbance is a small clay inwash from the north.

Evidence relating to the palaeohydrology of the Severn has been derived from a number of sites in the basin. The range at this site is unusual in that it includes palaeoecological, sedimentary and surface morphological evidence which combine to make a valuable contribution to the understanding of the Late Devensian development of the lower Severn basin.

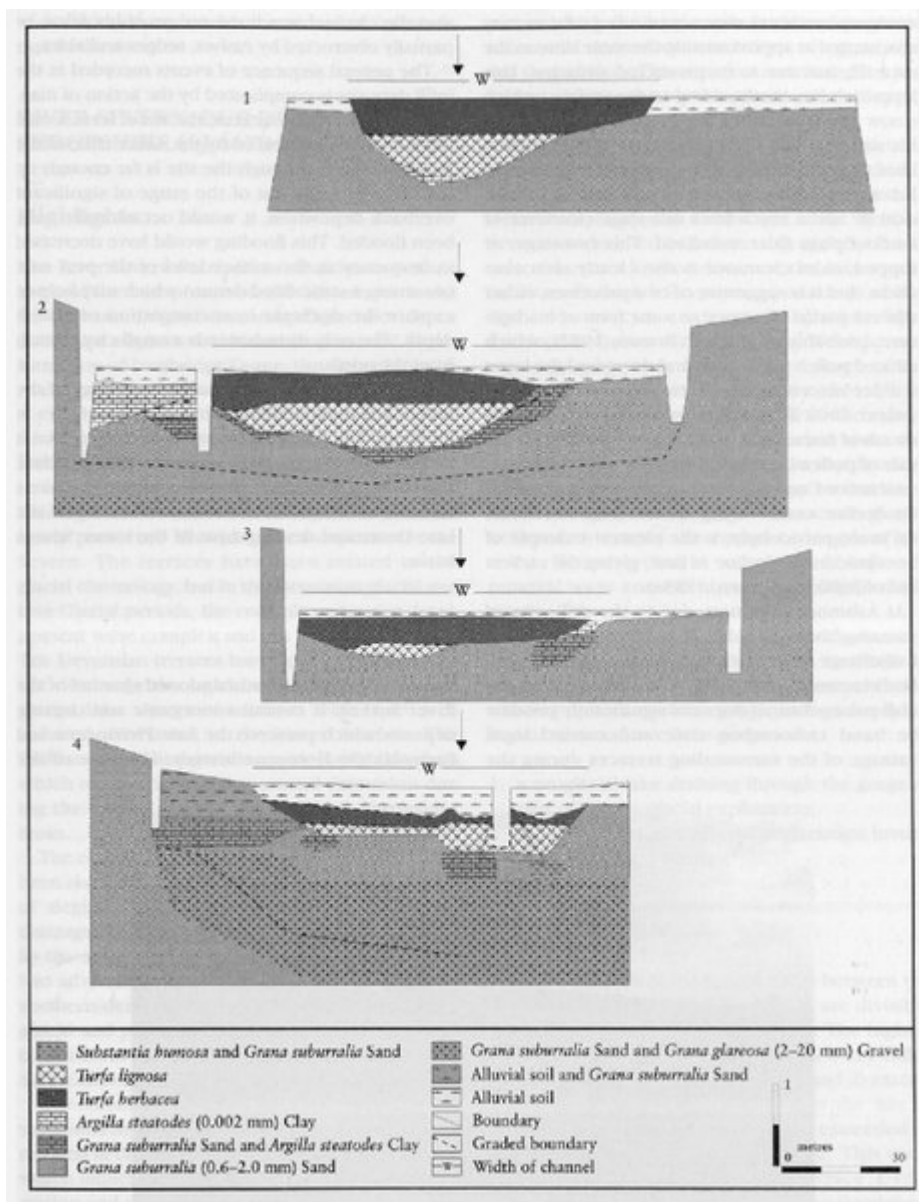
## **Conclusion**

Ashmoor Common is an abandoned channel of the River Severn. It contains inorganic and organic deposits which preserve the Late Pleistocene and Early-Middle Holocene history. The base of the peat has been dated as c. 6000 BP. Pollen analysis of overlying layers reveals the record of deforestation in the area.

## **[References](#)**



(Figure 6.26) Ashmoor Common: location and sub-peat contours. (After Brown, 1982.)



(Figure 6.27) Ashmoor Common: cross-sections. contours. (After Brown, 1982.)



*(Figure 6.28) General view of Ashmoor Common. (Photo: R.J. Davis.)*