

A LATER MESOLITHIC SITE AT PANNEL BRIDGE, NEAR PETT LEVEL, EAST SUSSEX

by Robin Holgate and Andrew Woodcock

Excavations in 1986 defined the limits of a later Mesolithic camp, and also produced flintwork of later Neolithic/earlier Bronze Age date. Recent survey work and research into the Flandrian vegetational history of the Pannel valley enable the site to be placed in its environmental context.

INTRODUCTION

Pannel Bridge (TQ 882152) is one of the few localities in South East England with organic deposits dating back to the early Flandrian period (Holgate and Woodcock 1988; Waller *et al.* 1988). A detailed study of the pollen and plant macrofossil assemblages at this site has been carried out by Waller as part of research into the Flandrian vegetational history of the Brede and Pannel valleys (Waller *et al.* 1988). Fieldwalking in the vicinity of Pannel Bridge by the Hastings Area Archaeological Research Group, organised largely by Vahey, has located archaeological material dating from the Mesolithic period at a number of places. One such place, adjacent to a spring at the foot of the valley side immediately east of Pannel Bridge (Fig. 1), was also sampled during a borehole survey undertaken to record the lithostratigraphy of the valley between 1983 and 1984 (Woodcock 1984). A considerable quantity of possibly *in situ* Mesolithic flintwork was recovered, lying buried under a thin layer of colluvium. Given the potential for recording an undisturbed Mesolithic site and other archaeological remains in close proximity to contemporary peat deposits, sample excavations were carried out in late September, 1986 (Fig. 1C).

THE EXCAVATIONS

The objectives of the excavations at Pannel

Bridge were to investigate the colluvial deposits on the northern side of the valley; to define the extent and character of past human activity in this area; and to relate the evidence for human activity to the pollen and plant macrofossil assemblages studied by Waller.

The main excavation, trench A (Figs. 1C and 2), was positioned on the northern edge of the Pannel valley at the place where the Mesolithic material had previously been found; the intention was to record the relationship between colluvial and peat deposits, and to determine whether or not *in situ* Mesolithic material was preserved. The excavation revealed a series of drainage ditches which had been dug during and after the Second World War (Fig. 2A: contexts 7-9, 14, 15, 38-40, 44, 46/22 and 48), and disturbance associated with trackway construction (Fig. 2A: contexts 2, 3 and 5). In effect, all traces of colluvial deposits adjacent to the peat (Fig. 2A: contexts 23 and 32) had been destroyed. It was not possible, therefore, to establish the relationship between the peat and any colluvial deposits that might have existed in this area. Trenches A1 and A2 (Fig. 1C), which were then excavated to the north of trench A, located a thin layer of colluvium of probable medieval/post-medieval date.

From the Ashdown Beds subsoil (Fig. 2B: context 4) at the north end of trench A, and beneath the disturbed layers, a dense scatter of

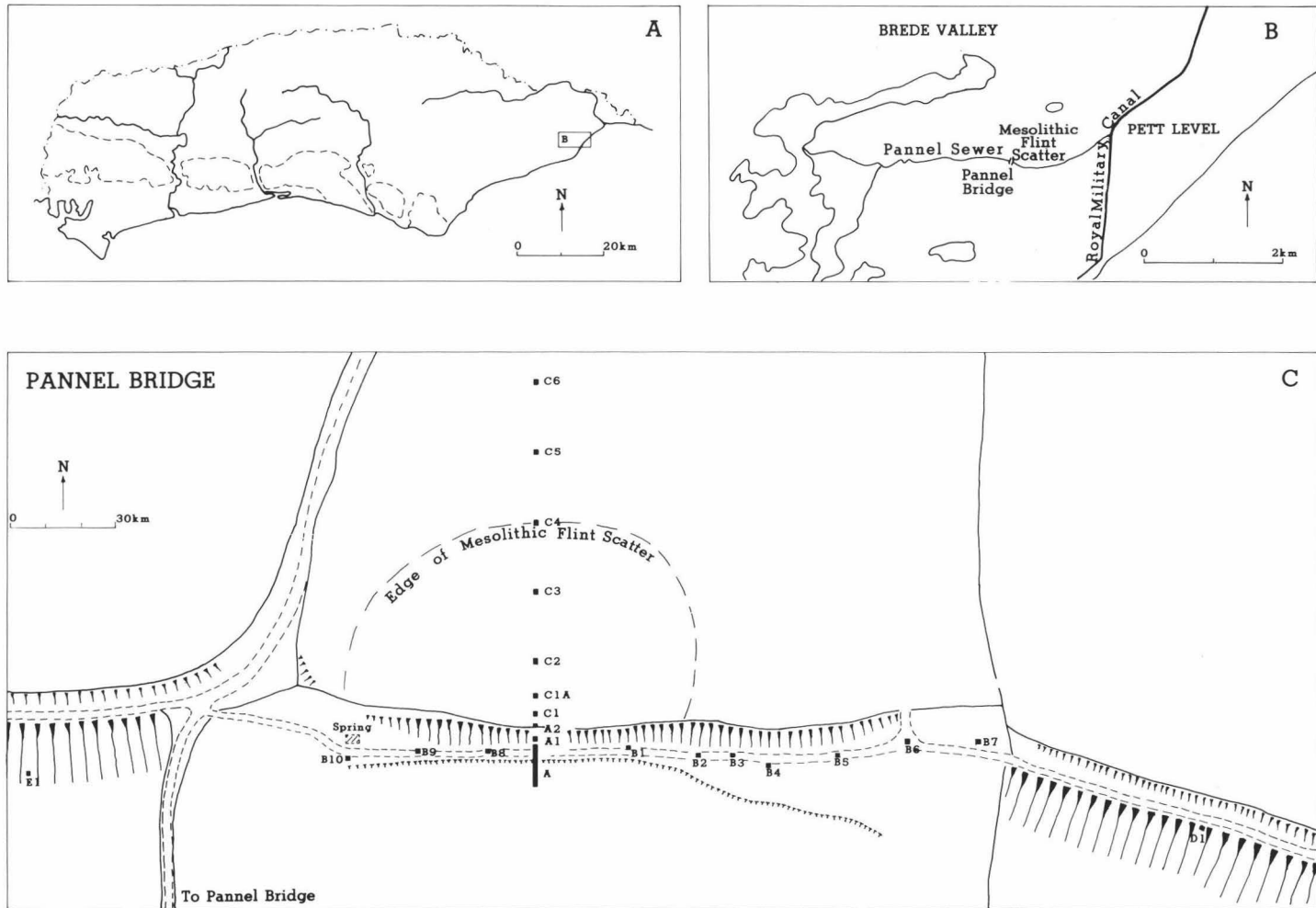


Fig. 1 A and B: location map of Pannel Bridge; C: plan of the excavations and the edge of the Mesolithic flint scatter as defined by surface collection survey (see Fig. 3).

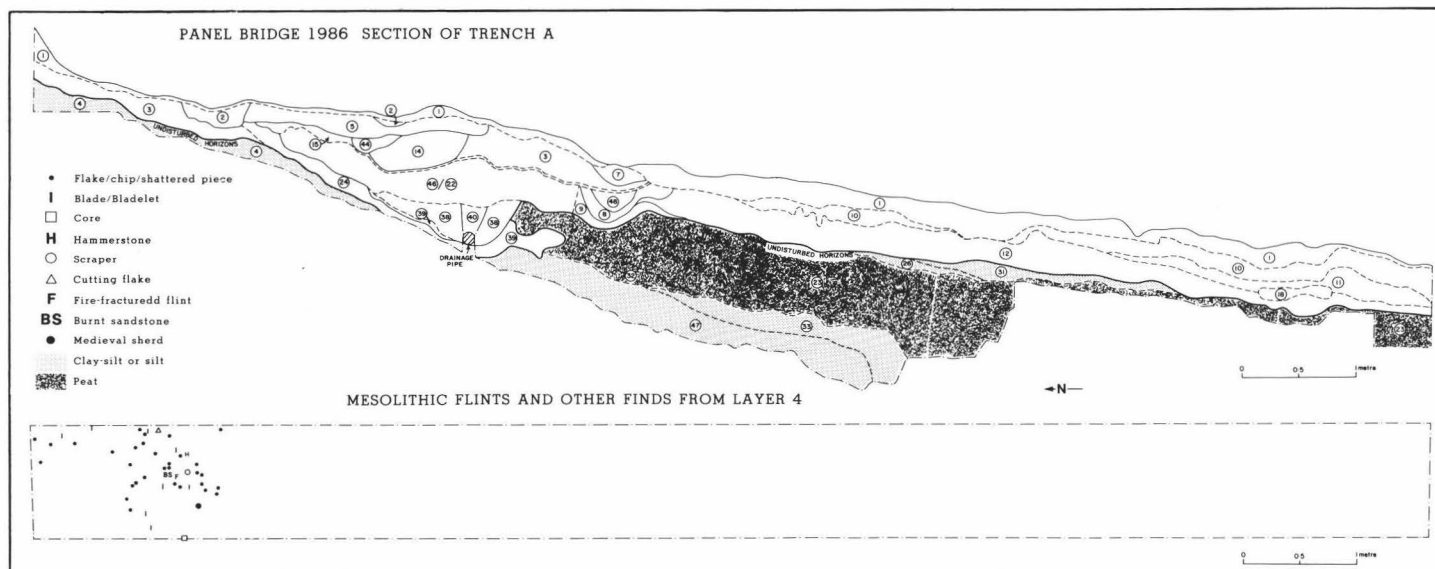


Fig. 2 A: west-facing section of trench A; B: distribution of the Mesolithic flintwork recovered from context 4. Key to section: 1, topsoil; 2, 3 and 5, disturbed layers associated with trackway; 7-9, 14, 15, 38-40, 46/22 and 48, layers associated with drainage ditches; 10, desiccated peat; 11, 12 and 18, yellow-orange clay, probably associated with digging the drainage ditches; 26 and 31, light grey silt; 23 and 32, dark brown peat; 33, grey-blue silt; 4 and 47, yellow-cream clay silt horizon—the Ashdown Beds subsoil.

Mesolithic flintwork was recovered. The discovery of a late medieval sherd amongst this material shows that artefacts have been pushed downwards in the soil profile by natural processes, probably partly by earthworm activity, but it was not possible to assess how far these flints have moved horizontally since they were deposited. However, the presence of small chips, a variety of flakes and blades, a core and hammerstone suggest that flintworking took place here. Other flints of mainly Mesolithic date were also recovered from the disturbed contexts in trench A (Table 1).

In order to define the extent of the Mesolithic flint scatter along the side of the valley, trenches B1–B10, D1 and E1 were excavated (Fig. 1C). Mesolithic flintwork was recovered from disturbed contexts in the seven trenches either side of trench A (trenches B1–B4 and B8–B10), and also from trenches B7 and E1 (Table 1). The flints from the lower levels of trenches B1–B4 and B8–B10 came from the Ashdown Beds subsoil, and probably lie relatively close to the places where they were discarded in the Mesolithic period.

A surface collection survey of the cultivated field to the north of the excavations, described above, defined the northern limit of Mesolithic flintwork in the vicinity of the spring (Fig. 3). Trenches C1–C6 were excavated to trace the extent of the colluvial deposits up the slope, and to search for undisturbed Mesolithic flintwork (Fig. 1C). However, no traces of colluvium were present in any of the trenches, and any previously *in situ* flint artefacts had been dispersed throughout the ploughsoil. Trenches C1–C5 produced some Mesolithic flints (Table 1); the subsoil surface in trench C1 also yielded a piece of grog-tempered Romano-British pottery and a late medieval sherd, both of which could have been derived from manuring practices.

THE FINDS

Flint

The excavations produced 416 flints; these

are listed according to context in Table 1, and summarized in Table 2.

The raw material largely consists of dark grey, dark brown or light orange nodular flint. Cortex, where present, is thin and heavily abraded. It is probable that most of the flint was obtained from beach deposits, although the original location of these deposits is presently unknown. The hammerstone is also a flint beach pebble.

Nearly half of the flints came from trench A (Table 1). Over half of the assemblage includes pieces which are Mesolithic in date, consisting of blades and bladelets detached from carefully prepared cores with soft hammers, other forms of débitage, some of the scrapers, cutting blades and the four microliths (Table 2). The microliths are of the narrow-blade variety and include a small obliquely-blunted point (Fig. 4, no. 14), a blunted-down-one-edge microlith (Fig. 4, no. 13), a two-edge-blunted 'rod' (Fig. 4, no. 11) and a small mis-hit microlith (Fig. 4, no. 12). In South East England, these microlithic forms usually occur in assemblages of later Mesolithic date (*c.* 6000–*c.* 3500 b.c.; Jacobi 1978, 19). Most of these flints had acquired a bluish-white patination.

The remaining flints consist of hard hammer-struck flakes, rough flake cores and a variety of implements, including scrapers, the scraper-knife combination tool and the piercer, which had also been produced on hard hammer-struck flakes. This material is probably of later Neolithic/earlier Bronze Age date (*c.* 2600–*c.* 1500 b.c.). As these pieces were unpatinated, a selection of the implements was examined under a microscope for use-wear traces. In all instances, though, post-depositional surface modification obscured any polishes and striations that might have resulted from use (Roger Grace pers. comm.).

Pottery

Post-medieval pottery was recovered from disturbed contexts in trenches A, B1–B3, B6–B10 and E1. Two sherds of Romano-British 'East

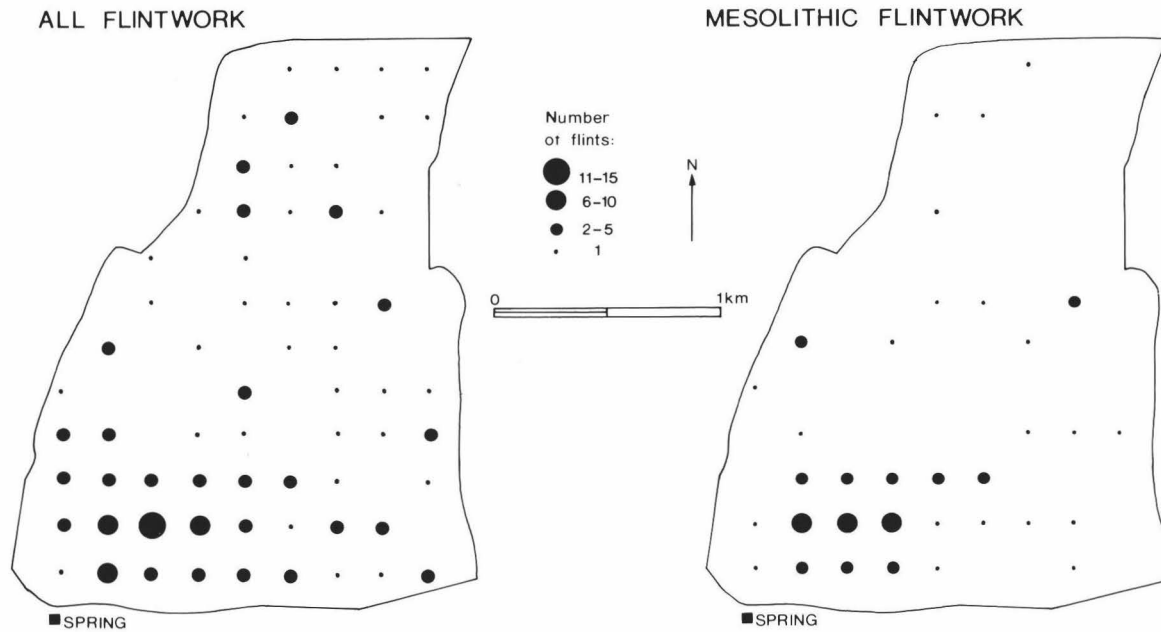


Fig. 3 Distribution of flintwork recovered by total surface collection using a 20 metre grid orientated on the O.S. grid from the field immediately north of the spring and trenches A and B1-B10.

B8/27	9	4	6	—	—	1	—	—	—	—	—	—	—	—	—	1	13	34	
B9/1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
B9/16	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
B9/29	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	2	
B9/30	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
B9/41	4	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	5	
B9/45	5	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	7	
B10/1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	
B10/28	10	1	1	2	8	—	—	—	—	—	—	—	—	—	—	—	1	23	
Total	92	23	29	13	17	1	—	—	—	1	—	—	1	—	4	—	1	21	204
C1/1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	4	
C1/35	3	4	4	1	—	—	—	—	—	—	—	—	—	—	—	—	1	13	
C1A/1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
C2/1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	
C3/1	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
C3/35	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
C4/1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
C5/1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Total	8	6	11	1	—	—	—	—	—	—	—	—	—	—	1	—	2	29	
E1	2	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	4	
Total	2	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	4	
Overall total	180	49	68	25	34	1	1	2	1	3	1	6	1	1	5	1	4	33	416

TABLE 2
The excavated flint assemblage

Flakes	180
Blades	49
Bladelets	68
Chips	25
Crested blade	1
Core tablets	2
Core rejuvenation flake	1
Bladelet core	1
Flake cores	3
Shattered pieces	34
Hammerstone	1
End scrapers	6
Side scraper	1
Scraper-knife combination tool	1
Cutting flakes or blades	5
Piercer	1
Microliths	4
Fire-fractured flints	33
Total	416

Sussex Ware' came from trench B3, context 4 and trench C1, context 35, while three sherds of late medieval pottery were found in trench A, context 11, trench B2, context 19, and trench C1, context 35 (David Rudling pers. comm.).

Geological material (by Caroline Cartwright)

Fragments of burnt ferruginous sandstone were recorded from trench A, context 4 and trench B9, context 45; a fragment of unburnt ferruginous sandstone came from trench B8, context 27.

Charcoal (by Caroline Cartwright)

3 g of *Quercus* sp. (oak) charcoal came from trench A, context 23.

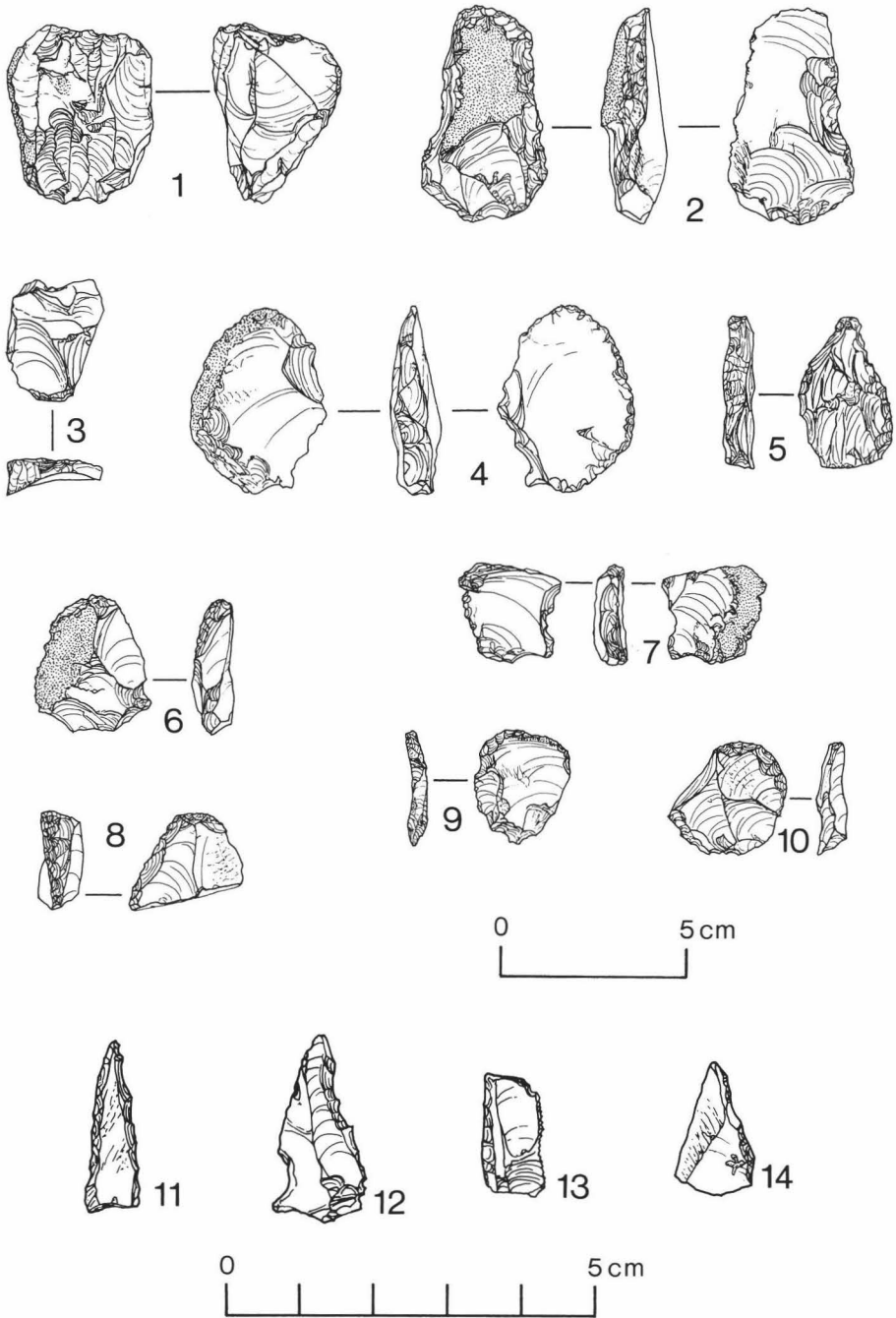


Fig. 4 Flint artefacts from the excavations: 1, core; 2 and 6–10, scrapers; 3, core tablet; 4, combination tool; 5, piercer; 11, microlith; 12, mis-hit microlith; 13 and 14, microlith fragments.

DISCUSSION

The excavations defined a *c.* 50 metres diameter area of prehistoric activity adjacent to a spring on the lower slopes of the Pannel valley overlooking the Pannel Sewer. The Mesolithic flints from the site consist of débitage, scrapers, cutting blades and microliths. This material represents the remains of a short-stay camp used for a restricted range of tasks. The site was probably visited intermittently during the later Mesolithic period by mobile hunter-gathering groups. Some of the flints from the site are of later Neolithic/earlier Bronze Age date. This again probably represents transitory activity, as opposed to permanent settlement.

Surface collection survey of three fields east of Pannel Bridge at the time of the excavations and of about 15 fields to the south of the Pannel Sewer by the Hastings Area Archaeological Research Group during the last decade resulted

in the discovery of a number of discrete Mesolithic flint scatters (Holgate and Woodcock 1988: Fig. 2). The range of material recovered from these scatters is similar to that from the excavations; the only other artefact of note is a small tranchet axe found by Vahey in the field immediately south west of Pannel Bridge. In addition, a small quantity of later Neolithic/earlier Bronze Age flintwork came from some of these sites (Fig. 5).

Analysis of the pollen and plant macrofossil assemblages extracted from the Flandrian deposits at Pannel Bridge shows that the dryland environments in the valley during the later Mesolithic period were heavily wooded with deciduous trees, particularly *Tilia* and *Quercus*; the vegetation on the floodplain alternated between periods of *Alnus* and *Cyperaceae* domination (Waller in Holgate and Woodcock 1988). After *c.* 4000 b.c., Alder-dominated fen

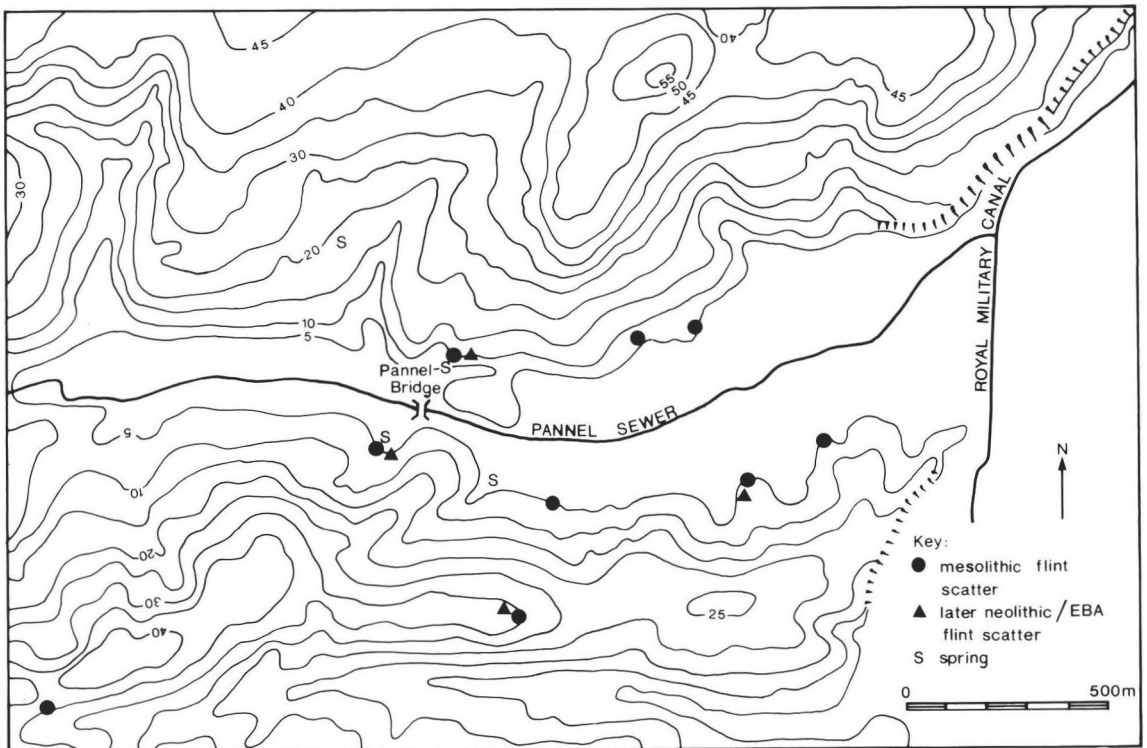


Fig. 5 Location map of Mesolithic and later Neolithic/earlier Bronze Age flint scatters in the Pannel Valley. Contours in metres O.D.

conditions prevailed, until extensive forest clearance (the *Tilia* decline) occurred at *c.* 1700 b.c. Fluctuations in the proportions of arboreal to non-arboreal pollen are recorded after the decline in *Tilia*, until *c.* 100 b.c., when *Alnus* re-exerted its domination of the local environment.

The results of the excavations and the limited survey work undertaken in recent years indicate that the valley was visited intermittently by hunter-gathering groups in the later Mesolithic period. However, this activity had minimal effect on the vegetational cover in the valley. In the later Neolithic period and earlier Bronze Age, human activity of some description spread onto the lower valley slopes, possibly playing a part in the *Tilia* decline. Thereafter, there is virtually no archaeological or palaeoenvironmental evidence for human activity within the Pannel valley until the expansion of arable farming in the Romano-British and medieval periods. Future work should include a survey of the valleys and coastal area surrounding the Pannel valley in order to provide a broader regional context for the traces of prehistoric activity recorded from the vicinity of Pannel Bridge.

Archive

The finds and site archive have been deposited at Hastings Museum and Art Gallery (accession no. 986.PB).

Acknowledgements

We are grateful to the following for their help: Mr. Stephen Rumsey, for granting permission to carry out the fieldwork; Zoe Vahey, for her help on the site and for providing access to the material collected by the Hastings Area Archaeological Research Group; Twigs Way, who supervised the excavations, and Debs Foyle for her particle size analysis of the inorganic deposits on the site; David Rudling, who identified the pottery, Roger Grace for examining the flint implements for possible use-wear traces and Caroline Cartwright for reporting on the geological material and the charcoal; Andy Walters, who produced Figs. 1 and 2 and Lys Drewett for the flint drawings in Fig. 4; and Martyn Waller for discussing his work on Flandrian vegetational changes in the Pannel Valley with us. The excavations were supported by East Sussex County Council.

Authors: Robin Holgate, Luton Museum, Wardown Park, Luton, Bedfordshire LU2 7HA.
Andrew Woodcock, East Sussex County Council Planning Department, Lewes, East Sussex.

References

- Holgate, R. & Woodcock, A. 1988 'Archaeological and Palaeoenvironmental Investigations at Pannel Bridge, near Pett Level, East Sussex', in *Romney Marsh—Evolution, Occupation and Reclamation* (eds. J. Eddison and C. Green) Univ. of Oxford Committee for Archaeology Monograph 24: 72–6.
- Jacobi, R. 1978 'The Mesolithic of Sussex', in *Archaeology in Sussex to AD 1500* (ed. P. L. Drewett), 15–22. C.B.A. Research Reports 29.
- Waller, M., Burren, P. J. & Marlow, A. 1988 'Flandrian Palaeoenvironments of the Romney Marsh area', in *Romney Marsh—Evolution, Occupation and Reclamation* 3–29.
- Woodcock, A. G. 1984 'The Sedimentological History of the Pannel Valley, Pett, East Sussex', unpub. M.Sc. Dissertation, City of London Polytechnic and North London Polytechnic.