

Ötzi: The Iceman and His Equipment

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The 'Horizon' programme of 27 April 1992 about the Iceman must have excited everyone involved in archaeology, both professionals and amateurs. I am one of the latter.

Having read Dr Lawrence Barfield's review in *Antiquity* (1994) of the various papers and books on the subject, and having bought and read the English translation of Professor Konrad Spindler's book (1994), I decided to attempt the replication of some of the Iceman's equipment.

I decided to do the work using only materials and tools that he or his group would have had available: i.e. wood, flint, sinew, bast and grass. I have some slight skill in flint-knapping, am used to hand tools for wood-working, and have experience with basketry.

The first project was the retouching of the blade of the dagger. Unfortunately, the dagger blade broke as the last flake was removed to form the tang! I wonder how many times this must have happened in the past. The second attempt was successful and the next task was the hilt.

Using ash-wood, as in the original, and only flint tools for the work, the task took a whole morning.

Once the blade and the hilt fitted, although a little loosely, the next task was the preparation of sinew for the binding at the blade-end of the hilt. Some leg-venison was bought that still contained about 25 cm of sinew, and this was carefully separated from the meat (the meat was not wasted). Two lengths of this 'green' sinew were joined using 'Hunter's Bend' and held firmly. After the binding was applied there was still some 'play' in the joint. We are told that the Iceman had not used birch tar on his dagger, although he had used it in making his arrows. I, therefore, filled the gap with melted bee's-wax, an item he surely would have known. The blade was now held firmly.

The sheath, or scabbard, for the dagger presented very different problems as I had never prepared or used bast (in this case of lime). I obtained some Lime-tree shoots about 35 mm thick, removed the bark, pounded it with a cobble, and stripped off the bast. Weaving a basket, of any size, that has no base presents difficulties, as there is no framework on which to start weaving the

horizontal strands. When the basket, in this case the scabbard, has an internal diameter of only 35 mm, the task is even more difficult. Sixteen pieces of bast, each 30 cm long, were folded in half and slotted into a split stick so that the work could be held firmly. The form of weaving used on the original scabbard was 'pairing', a stitch that has not changed in over 5000 years it appears. This was the stitch I used. After weaving the small flat basket the sides were sewn together with bast, the base was formed to a point and bound and the task was complete.

The flint tools used in these projects were:-

1. A saw, made on a broad flake with the sharp edge retouched using a copper point to give it teeth.
2. A flint blade worked to form a 8 or 9 mm drill, about 50 mm long.
3. A heavy flake with a convex edge which was retouched to make a scraper.
4. Two narrow blades, one end of each formed into a narrow saw or scraper, used to make the triangular slot in the hilt for the tang of the dagger blade.
5. A strong 8 cm blade for use as a knife.
6. Two short sections of blade for use as chisels.

I have also made a copy of one of "Ötzi's" birch-bark containers, but that is another story.

Acknowledgements

I would like to thank Bo Madsen for making the blade which served as the blank for the manufacture of the dagger.

References

- Barfield, L. 1994. The Iceman reviewed. *Antiquity* 68, 10-26.
- Spindler, K. 1994. *The Man in the Ice* (translated by E Osers) (London, Weidenfeld and Nicolson).

Mesolithic and Neolithic Activity on the South Downs at Pyecombe, West Sussex

Chris Butler

Introduction

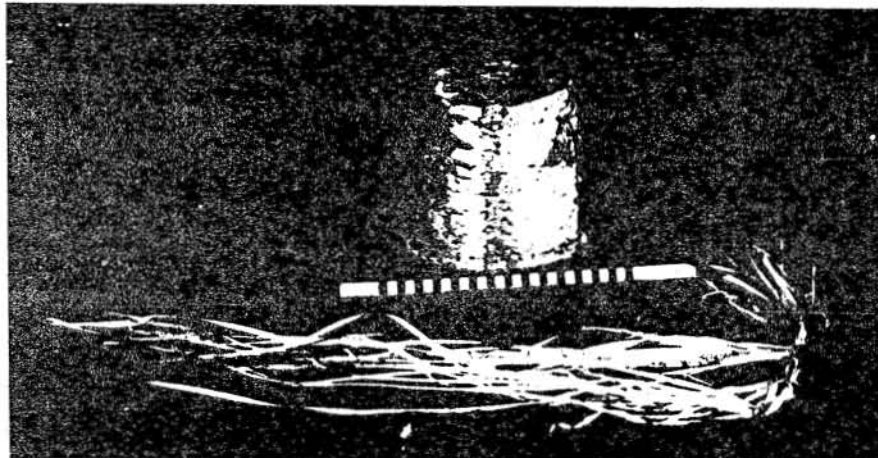
As part of a landscape project, a section of the South Downs was fieldwalked at Pyecombe, West Sussex, just to the north of Brighton (Butler 1988). This area was selected due to the large quantities of flintwork recovered here by flint collectors during the earlier part of this century. Most of the large number of pieces retrieved by these collectors consist of finely-retouched implements, such as arrowheads, scrapers and knives. These implements, dating to the Neolithic and early Bronze Age, suggest that activity of some description took place here in these periods, although the lack of any debitage gives a rather biased picture of its character.

The Survey

In total an area of approximately 1 km² was fieldwalked between 1985 and 1987, using 20 m transects, with material bagged in 20 m collection units. There was a general scatter of worked flint across the upper slopes of the Downs, together with discrete areas where higher densities of material were found. A number of concentrations of fire-fractured flint were also located. The largest concentration of flintwork occurred on the Clay-with-Flints capping on top of the Downs where, together with Neolithic and early Bronze Age pieces, a small concentration of Mesolithic flintwork, including blades, bladelets, blade cores, tranche axe sharpening flakes and scrapers was also found.

A total collection of some twenty-five 20 m squares was then carried out over this concentration, with material collected from the whole surface area of each square. In total some 9,300 pieces of flintwork were collected, of which 1,200 were Mesolithic in date.

The Mesolithic material included geometric and rod microliths, a tranche axe and a Hassocks adze, together with end scrapers, blades, bladelets and cores. A small quantity of the remaining material may date to the early Neolithic, but the majority dates to the later Neolithic and early Bronze Age, with large numbers of hard hammer-struck flakes, flake cores, scrapers, knives, notched pieces and piercers. Later Neolithic arrowheads include transverse, oblique and chisel varieties, with barbed and tanged arrowheads also present, showing that activity continued into the early Bronze Age.



a



b

Plate: The equipment used in replicating the Iceman's dagger (a); and lime bast and a replica birch bark container (b).