

A NEOLITHIC FUNGAL TRAVELLING KIT

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It was Thursday 19th September 1991, when walking in the Tyrolean Mountains Erika and Helmut Simon found a body that was emerging from the enclosing ice. They took a picture (the last in their film roll) and went on, staying at an inn that night and telling of their discovery.

After some hiatus, not the least of which was the competing national concerns regarding the exact location of the body in relation to the Italian and Austrian border, which finally resulted in a new survey showing that the corpse had laid 92.56 metres from the border, on Italian territory.

The body when examined after being recovered was found to be that of a Neolithic man, which recent radiocarbon dating from three different laboratories made on plant material with the body, the equipment found with him and body tissue, all confirm that he lived some 5,300 years ago.

He was a small man; about 159 cm in height and bone studies show he was 46 years old. Forensic evidence from his sole remaining fingernail reveals he had been very ill three times in the last six months of his life, and the last and most serious episode occurred about 2 weeks before his death.

The cause of his death remains obscure, originally thought to be a natural death from exhaustion and frostbite, there has been a recent suggestion that x-rays reveal an arrowhead in his back under the left shoulder and this may have been the cause of death. However, requests for its removal and examination remain unfulfilled.

The body, dubbed the "Iceman", had been mummified and was in a fairly good condition, although some damage had been done to the body when excavating it from the ice, remarkably though, the clothing and the items he was carrying had been very well preserved.

Amongst the items salvaged was a belted pouch, probably fastened around his waist, containing a tinder kit consisting of a piece of *Fomes fomentarius*, the 'true tinder' fungus and flints for making sparks. Examination showed this to be a section cut from between the pileus and lower tubular layer, as this the only section from the fungus that is suitable as tinder. *F. fomentarius* is perhaps the earliest known fungus to be used by humanity, being found in a Mesolithic camp, at Star Carr, Yorkshire, UK, dated about 8000 BC.

Further, on each of two narrow strips of fur was threaded a spongy sample that proved to be sterile tissue from *Piptoporus betulinus*, the "Birch fungus". From corresponding marks it is thought that he carried these samples on his left wrist.

While the purpose of the tinder kit was clearly to make fire, the reason for carrying the Birch fungus is not. *P. betulinus* is not suitable as tinder, but it does contain pharmacologically active compounds (triterpenes) and hence may have been used as a Neolithic medicine kit. Of recent times, prior to the general use of matches, smouldering pieces were convenient firestarters and up until the early part of the 20th century the fungus was sometimes known as the 'Razor Strop' fungus, referring to the use of its pore surface as a razor strop.

Tree fungi have a long folk history, some are known, today, to be medicinally active, indeed, many early authors recommended them as treatment for a wide variety of diseases.

So, while we may never know the true story of why he carried these samples of the two fungi, one may reasonably speculate that these were the necessary fungal components of a Neolithic travelling kit.

The Iceman now rests in a specifically built chamber that keeps him at –6 degrees Celsius and about 99 percent humidity, at the South Tyrol Museum of Archaeology in Bolzano, Italy,

The full and fascinating story of the discovery of the body and analysis of the equipment may be found in “The Man in the Ice”, Konrad Spindler, (1994) published by Weidenfeld and Nicolson, London. ISBN 0 297 81410 9.

As a rather sad twist of fate, in October 2004, Helmut Simon, who, with his wife, in 1991, discovered the Iceman, was found dead in the Austrian Alps about eight days after he went missing on a hike. The body of the 67-year-old was found on a peak called Gaiskarkogel, near a resort town south of Salzburg, Austria. He is believed to have been hiking along an unmarked path and died instantly when he fell some 100m.