

Mummy Melodrama: Top Secrets About Otzi the Iceman

Tia Ghose, LiveScience Staff Writer | November 08, 2012 10:30pm ET

In 1991, a pair of hikers in the Ötztal Alps along the Austrian-Italian border stumbled over the frozen, mummified body of an ancient man. The 5,300-year-old mummy, affectionately known as Ötzi, was amazingly well preserved. Since then, scientists have pieced together an incredibly detailed picture of the iceman who lived before from where he lived to what he ate before dying in the ice.

Based on animal hair from his clothing, [Ötzi herded sheep, cows](#), and goats. The skin from his clothing came from domesticated animals, according to a 2008 study in *Rapid Communications in Mass Spectrometry*. That would make Ötzi a member of the more progressive culture at the time, unlike the more primitive hunter-culture that existed around the same time.

During the Stone Age, animal skins were all the rage. Most of Ötzi's clothing was badly disintegrated, but researchers did manage to salvage parts of his sheep- and cow-leather shoes, [goatskin leggings](#), bear fur cap, and animal skin loincloth. The iceman also carried a grass mat or cape with him, either to sleep on or shield him from the rain.

Ötzi's body was so well preserved that scientists had a rough idea of what he looked like for years. But in 2011, researchers gave the [iceman a makeover](#). Using 3-D images of his skull, two brothers assembled an extremely lifelike [reconstruction of Ötzi's face](#). The weather-beaten man had deep-set eyes, a long, and a hooked nose. Like other Copper Age men, Ötzi was a diminutive 5 feet 3 inches tall and weighed around 110 pounds.

For years, Ötzi's murder was the world's oldest case. The fact that he had an undigested meal in his stomach suggests the Iceman was ambushed, but scientists couldn't agree whether he was bashed over the head or killed by an arrow that nicked an artery in his shoulder. In a 2012 study detailed in the *Journal of the Royal Society Interface*, scientists analyzed the [mummy's red blood cells](#) and concluded that [Ötzi bled to death](#) after the arrow wound. The blood cells showed traces of a clotting chemical that quickly appears in human blood after a wound but disappears immediately after; the fact that it was still around suggested Ötzi didn't survive long after the injury.

All evidence suggests Ötzi was quite crafty. The herdsman carried several pieces of equipment when he died, including several wooden tools that were used to make clothing or utensils. His copper axe was a status symbol, indicating that he ranked

high in his pastoralist culture. Ötzi was also carrying a bow and arrow, which he had leaned against a tree before he died.

Ötzi made it to the ripe old age of 45, but he wasn't necessarily in top condition when he died. Analysis of his skeleton revealed he had bad knees. A 2012 study of the herdsman's genome revealed that he was lactose intolerant (sad news for a shepherd), and was infected with [Lyme Disease](#). And before dying, Ötzi had taken a medicinal herb called hop hornbeam, suggesting that he may have been suffering from nausea or stomach upset.