

The iceman



Otzi ??? The Iceman??? Many preserved, ancient bodies have been discovered all across the world and through the use of technology and scientific analysis, insight into their life and times have been revealed. One of the most famous ancient bodies found was Otzi, widely known as The Iceman. Through scientific analysis, The Iceman has thought to have been born near the present village of Feldthurns (Velturmo), which is north of Bolzano, has been aged at 45 and has thought to have lived around 3300BC. His height has been estimated to be 5 ft 5 in, and his weight has been guessed at around 50kg. The Iceman was found on September 19th, 1991 on the Schnalstal glacier of the Otzal Alps, which is located near Hauslabjoch on the border between Austria and Italy. The Iceman was discovered by two German tourists by the names of Helmut and Erika Simon.

The Iceman was later excavated by German archaeologist Konrad Spindler and was then taken to a morgue in Innsbruck, where the scientific analysis began. Many scientific tests and experiments have been performed on the Iceman, and through them we are able to gain an insight into the life and times of the Iceman. His childhood and birthplace near the present village of Feldthurns has been indicated through analysis of pollen, dust grains and the isotopic composition of his tooth enamel. The environment/ecosystem of where The Iceman lived and where he died has been ascertained from looking at the stomach/intestinal contents, which revealed his last two meals. Both meals were eaten with grain as well as roots and fruits, the only difference being that one meal contained chamois meat, while the other meal contained red deer meat. The grain was thought to be consumed in the form of bread, given that the grain was a highly processed einkorn wheat

bran. The first meal was consumed in a mid-altitude conifer forest. This has been indicated by the pollen found in the meal and other pollens have indicated the presence of wheat and legumes, which may have been domesticated crops.

The pollen was fresh at the time of The Iceman's death, indicated by how well it was preserved. This also places The Iceman's death in the Spring. The Iceman has been speculated to have been involved in copper smelting. This is due to high levels of copper particles and arsenic being found in his hair. The Iceman's 99.

7% pure copper axe has also contributed to this speculation. Through examination of the Iceman's tibia, femur and pelvis, the Iceman's lifestyle has been ascertained to have included long walks over hilly terrain. The mobility involved suggests that The Iceman may have been a shepherd. The Iceman's health before his death was not so great. He had whipworm and an intestinal parasite and during Ct scans, it was observed that three to four of his ribs had been squashed either by the ice crushing his body or from lying face down after death. Three Beau's lines were found on one of his fingernails, indicating The Iceman was sick three times in the six months before his death. The process of being mummified in ice has removed his outer skin layer. There have been many theories and speculations concerning the death of the Iceman.

3 main theories have been speculated, and through technological advances in scientific techniques, there is now one main general idea of how The Iceman died. The first theory of how The Iceman died was first speculated by

the man who excavated him, Konrad Spindler. Spindler theorised that Iceman was a shepherd who came from a Neolithic settlement in Northern Italy.

Spindler's theory was based on the age, physique, equipment, clothing and place of death. Spindler first theorised that Iceman was overcome by a storm. However x-rays and CT scans of the body revealed several ribs had been broken shortly before his death. Spindler then theorised that these injuries indicated a violent conflict before his death. Based on the fact that Neolithic populations were massacred, it has been suggested that Iceman's village was attacked but he escaped. He then lay down to rest in a sheltered gully, died of hypothermia due to lack of equipment and was buried in the ice.

Evidence found in 2003 supported Spindler's theory of a violent conflict before Iceman's death. DNA analysis of blood samples found on Iceman's knife, axe and jacket indicated that they came from four different individuals. However, in 1998, new evidence was found by the re-examination of the Iceman. Examination of the intestines revealed the presence of hop hornbeam pollen. The excellent preservation of the pollen indicated the freshness of the plant, meaning that the Iceman must have consumed it when the plant was newly flowering.

This places the Iceman's death in Spring, meaning that Spindler's cause of death being hypothermia, was no longer feasible. The second theory was based on evidence found by re-examining Iceman in 2001. The new x-rays revealed that a flint arrowhead near Iceman's shoulder.

The new cause of death is based around this evidence, seeming that Iceman was shot in the back with the arrow which he then proceeded to pulling out. Iceman could only reach the top of the mountain before he was too weak to continue to due blood loss. The evidence found in 2003 also supports this theory. The final, more widely accepted, theory of how Iceman died was theorised in 2007 by an Italian-Swiss team of scientists. By using state-of-the-art CT scan, a lesion was found on the dorsal wall of the left subclavian artery, which is the artery underneath the clavicle, which was caused by an earlier, already-detected, arrowhead found near Iceman's shoulder. In addition to this, a large bruise could be seen in the surrounding tissue.

By using both historic and modern data, scientists concluded that the Iceman died within a short time due to this lesion. So through scientific analysis, research of the local area and from employing top scientists from across the world, we have a pretty precise understanding of the Iceman's life, his lifestyle and his death.