



Geology Sheet 5

Bog Wood; the remains of ancient trees found in bogs



Bog wood is wood from ancient trees that were buried in peat bogs and preserved for hundreds or thousands of years. Irish bog wood usually dates to between 1 AD and 4,000 BC, but the oldest bog wood found in Ireland dates to 7,000 BC. Bogs first began to develop in Ireland around 7,000 BC, when much of the lowlands were flooded by glacial meltwater, and fens and marshes began to form (Fig. 1).



Fig 1. Fen in Rokua Geopark, Finland. Photo Jari Nenonen. This is what Ireland would have looked like in 7,000 BC

Between 7,000 BC and 4,200 BC, Ireland's climate warmed and the bogs stayed relatively small and great forests of oak, ash, yew, birch and hazel covered most of the country. Around 4,200 BC, the climate deteriorated and became much wetter and cooler (possibly caused by volcanic eruptions elsewhere in Europe that cast large amounts of dust into the earth's atmosphere). This caused a decline in the native forests. At the same time, humans began clearing the forests for farming. The decline in forest cover resulted in greatly increased run-off of rainwater from the land, promoting the spread of bogs. As the bogs spread, trees at the edges of the bogs were drowned (Fig. 2).

In Ireland, bog wood is often called "bog oak", but it can come from other types of tree, such as yew or Scot's pine. The wood is preserved by the acidic bog waters: when the bogs expanded and drowned the trees, the wood was completely waterlogged and buried. This slowed down or even stopped the normal process of decay. The tannins in the bog waters react with the wood and change its colour. Bog oak is usually jet black, bog pine is usually reddish, and bog yew can be anything from beige to dark brown.



Fig. 2. Stump of a tree at the edge of a bog.