Flute Dates Origins of Music to Ice Age

By Rossella Lorenzi, Discovery News

Dec. 28, 2004 — German archaeologists have discovered one of the world's oldest known musical instruments — a 30,000-year-old flute finely carved from a woolly mammoth's ivory tusk.

Pieced together from 31 fragments found in Geißenklösterle Cave in the Swabian Mountains of southern Germany, not far from modern day Stuttgart, the flute measures 18.7 centimeters (7.4 inches) and features three finger holes.

Two other smaller flutes made from swan bones were discovered at the site more than a decade ago, along with small ivory figurines, which are among the earliest known examples of figurative art.

Made of mammoth ivory, the highest quality material available at the time, the newly discovered flute distinguishes itself from the swan bone flutes for its level of sophistication. Indeed, carving a flute from solid mammoth ivory is much more difficult than producing a flute from hollow bird bones.

According to Nicholas Conrad, an archaeologist at Tübingen University, the ivory flute is "a technical masterpiece."

Conrad and colleagues reported the finding in the latest edition of the *Archäologisches Korrespondenzblatt*.

"The flute was carefully carved in two separate halves that were subsequently bound and glued together along a perfectly prepared, airtight seam," wrote the researchers.

They dated the age of the deposits where the three flutes were unearthed to between 30,000 and 37,000 years old.

This means that the flute's makers lived in the Upper Palaeolithic era of the last ice age, when both the last Neanderthals and the first modern humans occupied Europe.

"The findings would point to the region as one of the key areas of cultural innovation at the start of the Upper Paleolithic and demonstrate that the origins of music can be traced back to the European Ice Age over 30,000 years ago," said the archaeologists.

The flute would have been capable of playing relatively complex melodies, according to Friedrich Seeberger, an expert in prehistoric music.

"Varied and aesthetically pleasing music can be produced from this flute," he said.

The ivory flute will be on display in a special exhibit on Ice Age music in the Württembergisches Landesmuseum in Stuttgart until Jan. 30, 2005.