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Reconstruction of Neanderthal (left) compared to modern human macroevolution.narod.ru

[Neanderthals Died Frozen!](#)

Sewing tools could have helped us win the survival race

Anthropologists are still debating what gave Homo sapiens a step ahead over the Neanderthals so that our evolutionary cousin disappeared about 30,000 years ago. Ian Gilligan, a postgraduate researcher from the Australian National University, comes with a new theory in his study, published in the journal "World Archeology": they froze to death in the last glaciation, because they could not make warm clothes. "By the time some Neanderthals developed sewing tools it was too little too late," said Gilligan. Homo sapiens entered Europe, Neanderthals' habitat, about 40,000 years ago, and 12,000 years later, Neanderthals were virtually extinct. Most researchers put this on better hunting tools and technology of Homo sapiens, which helped them obtain the food required to stand a cold climate. The new study comes with a different point of view. "For a start, Neanderthals were already successful hunters, surviving in Eurasia for over 100,000 years. Most of the tools supposed to have given modern humans the edge over Neanderthals were actually more useful for making warm clothes. The important tools developed by modern humans included stone blades, bone points and eventually needles, which could cut and pierce hides to sew them together into multi-layered clothes including underwear," said Gilligan. "They're not related to hunting, they're related to clothing. These tools are related to tailored, fitted clothing, what I call complex clothing," he added. Modern humans are much more sensitive to the cold than Neanderthals were, and they could have developed clothing at least 90,000 years ago in order to face a cooler climate in regions of Africa, during the peak of the glaciation. "This made them pre-adapted to the glacial maximum. But Neanderthals were physically more resistant to the cold," said Gilligan. Neanderthals were not so pressured to develop efficient clothing in warmer interglacial periods, but at the peak of the glaciation, this represented a huge disadvantage. "Climatic evidence shows in the lead up to the glacial maximum there were unusually sudden and massive swings in global temperatures over short periods of time. It was like an on-off switch. Over brief periods, the average temperature would plunge by more than 10 degrees Celsius and then warm again before plunging once again into ultra-cold territory. Neanderthals were unable to adapt their clothing in response to such rapid climate change," said Gilligan. In France, some Neanderthal groups had started to develop a sewing technology, but it did not work. "You cannot develop complex clothing overnight," said Gilligan.