

Development of ancient maritime culture in European Arctic: Connection to solar forcing of climate?

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In ancient circumpolar culture of hunters on reindeers there were a few "breaks", which were occupied by cultures of sea mammal hunters. The present research is devoted to the reasons of occurrence and disappearance of the ancient maritime culture (AMC) of sea mammal hunters on the coasts of Norwegian, Barents, White and Kara seas. The task was to determine the contribution of environmental factors to this process. A comparative analysis of archaeological, historical, paleozoological and paleoclimatic data was used as the basis of the work. Three periods of AMC prosperity in the given region during the Postglacial time have been established: 7000-5000 B.P., 4000-500 B.P., VIII-XIII centuries A.D. It was shown that the changes of AMC are very tightly connected to variation of radiocarbon of cosmogenic origin. It permits us to interpret the development of AMC as a result of climate variation caused by solar forcing (2400-year periodicity) of the climate in terms of the physical mechanism developed in Polar Geophysical Institute. The additive influence of solar radiation and cosmic rays in the past strongly affect the climate in the region considered.

Therefore we have got the once more evidence of solar forcing on the human being in ancient time. These results furnish insights into the last history of AMCs all over the world.