Editorial

A geoarchaeology is fully recognized nowadays for the autonomous sub-discipline in archaeology. The geoarchaeological methodology utilizes a wide range of scientific methods used in the Earth Sciences. Many new research projects are devoted to issues related to impact of climate change on ancient civilizations and past cultures. Such approach requires a wide use of paleoclimatological knowledge and research methods. It seems probable that archaeological climatology or archaeoclimatology will become soon the first specialisations or alternatively, sub-disciplines within a geoarchaeological science.

An interaction between climate and past humans has been discussed during the 3rd Geoarchaeological Conference in Warsaw '*Impact of the Holocene rapid climate events (8.2, 5.9, 4.2 ka and others) on past cultures and civilizations'*, organized by Dr. Fabian Welc (Institute of Archaeology of Cardinal Stefan Wyszyński University in Warsaw) in cooperation with Professor Leszek Marks (Department of Climate Geology, Faculty of Geology of the Warsaw University).

The conference was held under the scientific patronage of Committee for Quaternary Research of the Polish Academy of Sciences, Scientific Society of Polish Archaeologists (Geoarcheological section) and Society of Polish Climatologists. The event was hosted in the Institute of Archaeology of Cardinal Stefan Wyszyński University in Warsaw on November 28-29, 2014. Twenty scientists from Croatia, Cyprus, Czech Republic, Poland, Slovakia and UK presented their newest research achievements. Some of the most interesting papers are presented in this issue of *Studia Quaternaria*.

The conference was focused on issues related to the Impact of the Holocene rapid climate changes (RCC) on past cultures and civilizations, recorded in natural and anthropogenic deposits examined in numerous archaeological sites in Europe, North Africa and the Middle East. This issue is of particular significance, because still quite recently the Holocene has been considered as a period with relatively stable climate. However, studies in the last years provided with evidence for highly dynamic climate changes. They caused environmental changes that exerted strong influence on past human cultures and civilizations in terms of land use strategies and colonization. It becomes more and more obvious at present that past human cultural communities developed accordingly to climate changes, although a feedback effect on environment of human activities is still not well understood. The most significant RCCs occurred at about 8,200 and 4,200 yrs BP. The rapid climate change at 4,200 yrs BP corresponded with the Bond Event 3 and influenced presumably mid- to low latitudes in the northern hemisphere. It resulted in a collapse of the early Bronze Age civilizations, indicated by termination of Acadian Kingdom in Mesopotamia, Old Kingdom in Egypt and Harappa civilization in the Indies. Interdisciplinary geoarchaeological and paleoclimatological research can enrich our understanding of the mechanism of RCCs (Bond events) but also enables comprehending their influence on past archaeological cultures and ancient civilizations.

Fabian Welc