

For a researcher of prehistoric times, Central Sudan is an unusual place, giving immense possibilities to study one of the most important stages of human development - Neolithisation. It would seem that our knowledge on the subject is vast. Contemporary studies show, however, that the changes which led to the transition from hunter-gatherer to manufacturing economy occurred in different places independently, and assumed various forms, like in the Nile Valley or in the Western Desert in Egypt, where the emergence of one of the world's most ancient shepherds was not accompanied by large settlements or developed social structure, although over 10 000 years ago they were capable of manufacturing excellent, richly adorned ceramics. Africa's most ancient clay pottery is probably located in the Southern and Central Sahara, Northern Sahel and on southeastern edges of the desert. It occurs in largely differing cultural units. Some researchers (e.g. Huysecom) claim that pottery may have been invented in the present-day Sahel-Sudanese belt, from where it expanded to central Sahara. Others seek its origin somewhere between the Nile and the Hoggar Massif (e.g. F. Jesse), while some believe it to stem from the Nile Valley (e.g. R. Haaland). Early dates from sites such as Sorourab in Sudan prove that the present-day province of Khartoum may in fact have been one of the places where new tradition came to life.

The above-mentioned transition from hunter-gatherer to manufacturing economy in the region is also a highly interesting issue. In the Early Holocene, in favourable environmental conditions, Central Sudan was inhabited by hunter-gatherer communities, who were replaced by first shepherds in 6 000 BC. We can find signs of both of these populations on the Khor Shambat site. The proposed research project appertains to studies on settlement, economy, social structure, funeral rites and chronology of prehistoric communities inhabiting Central Sudan. Consequently, the aim of the project is an attempt to answer numerous questions and, above all, to reconstruct processes which led to the transition from a hunter-gatherer to a manufacturing economy. Keeping domesticated animals, gathering wild grains, hunting and fishing - what was the role of particular sectors of economy in early agricultural communities? What factors effected in the popularisation of ceramic pottery among hunter-gatherer communities? Was it possible for the two types of economy to function in parallel with each other? What was the cause of social disparities which appeared in the Early Neolithic?

One of the reasons for choosing the subject of study, apart from the project author's direct interests, is the nature of the site (once inhabited by both hunters-gatherers, and shepherds), which allows a multi-faceted analysis of different remnants of settlements. Results of excavation works performed here and effects of studies on the materials will make it possible to formulate systematics of the development of pre-Neolithic and Neolithic settlements. On the basis of geological, geomorphological, archeobotanical, archeozoological and malacological analyses it will be possible to launch the studies on paleoenvironment reconstruction. Anthropological studies, which may include analyses of stable isotopes ($^{87}\text{Sr}/^{86}\text{Sr}$), supported by the analyses of dental plaque, should result in an overview picture of the communities, and perhaps also origins of particular individuals. An important part of the research will be a detailed recognition of the function of ceramic pottery through the analysis of sediments preserved inside them (among others lipids), which will enable a thorough examination of the ways milk was used and processed. Stone tools will be carefully examined for the presence of fitolites. In order to define the basis of chronology more precisely a series of accelerated datings is intended. It will be especially significant for the studies on settlement and cemetery chronostratigraphy. It is also planned to make datings with OSL and TL methods.

Furthermore, it is intended to make surface prospecting of the vicinity in order to search for other settlement traces, as well as rock material resources, exploited by prehistorical communities for tool production. Comparative studies, including another analysis of materials from Kadero, comparisons with materials from the latest studies on the Blue Nile, in El-Salha and in the Sixth Cataract, will also be of fundamental significance.

Finally, the study will result in a new, fuller view of what Central Sudan was like between 9 000 and 4 000 BC and what factors drove the population of the time to change their economy and way of thinking.