

ACHEULEAN OF THE CAUCASUS (aspects of chronology, paleoecology and adaptation)

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1. To date in the Caucasus there were discovered six stratified Acheulean cave sites (Azykh, Kudaro I, Kudaro III, Tsona, Akhshtyr, Treugol'naya) and a large number of open air occurrences. The earliest stages of Acheulean have not been ascertained there yet. The mentioned sites and Dmanisi are divided with interval about 1,0 Myr. The present data on absolute age (TL and ESR dates around 500-600 Kyr BP for the lowermost Acheulean layers in the cave sites of Kudaro III and Treugol'naya) and biostratigraphy suggests that the earliest Acheulean levels may be assigned to the second part of Cromerian.

2. The Acheulean period in the Caucasus is characterized by repeated and considerable changes of natural circumstances. To judge by the pollen data during Acheulean occupation of the Azykh cave five alterations of climate happened, in Kudaro I there were seven and in Kudaro III, at least, ten such oscillations. Environments changed from subtropical conditions to subalpine ones.

3. Compared with the southern areas and, in particular, the Levant where the origins of the Caucasus Acheulean are thought to be placed the Pleistocene natural stresses in the Caucasian mountain region were much stronger and more contrasting. This was reflected in certain peculiarities of adaptive behavior manifested by Acheulean hominides in this area. They are as follows :

1. Much earlier, than in Levant, occupation of caves resulted probably from deterioration of climate (pollen data from Azykh, Kudaro III and Treugol'naya).

2. Sufficiently frequent using of fire. At Azykh where the sediments did not suffered from erosion the hearthes and ashy streaks remained within five Acheulean levels and the largest streak is almost 10 sq.m in area and 0,26 m in thickness. Traces of former hearth were observed also in the Bed 5 of Kudaro III and in two levels of both Kudaro I and III the clusters of small charcoal pieces have been found by the use of microscopic analysis of pollen samples.

3. Certain inter-regional migrations of population influenced likely by changes of glacial climatic conditions (for example, the late Acheulean is not presented in the cave sites).

4. Owing to wide spectrum of altitudinal belts and their nearness resulting in mosaic landscape there was a possibility to hunt animals of different biotopes. Overall list of the game mammals whose remains have been found in the Acheulean levels of the caves contains more than 40 species. Changes of their composition and quantity of remains appeared aves of Kudaro I and Kudaro III there was fishing that may be regarded as one of the most interesting examples of adaptation to local natural resources. 6. Technological and typological characteristics of the Acheulean wich existed in different parts of the Caucasus reflect both local tradition and adaptation to different kinds of raw material. Industries to different kinds of raw material.