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EARLY PALEOLITHIC OF EURASIA: NEW DISCOVERIES

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Early Paleolithic of Eurasia: New Discoveries: Abstracts of the International Conference (Krasnodar – Temryuk, September 1–6, 2008). Rostov-on-Don, 2008. 208 p. Fig.: 16. Tab.: 2.

The book presents the materials of the International Conference held at Temryuk (Krasnodar Region, Russia) and devoted to the latest investigations in the Early Paleolithic of Eurasia. The papers cover a wide range of topics related to the initial peopling of Eurasia. Special attention is given to the distribution and chronology of the Early Paleolithic sites, and to the problem of human adaptations to different paleoenvironmental conditions.

Addressed to archaeologists, paleontologists, geologists, paleogeographers.
Fig. – 16. Tab. – 2.

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The analysis of the newly obtained data allows us to conclude, that the large mammal bones found at Sinyaya Balka were buried as a result of mud volcanism and sediment accumulation that took place in the subaqueous conditions. The small mammal fauna is indicative of the Early Pleistocene (=Eopleistocene) age of the bone-bearing bed, suggesting at the same time that the chronological limits of the Taman faunal complex could be broader than it had been believed before. Judging from the palynological and microtheriological evidence, the Taman fauna was primarily associated with steppe and forest-steppe landscapes.

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PALEOMAGNETISM OF BONE-BEARING DEPOSITS OF THE SITE SINYAYA BALKA/BOGATYRI

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Controversial hypothesis on geological structure of the Sinyaya Balka type locality of the Tamanian mammal complex have been put forward in the past (see Dodonov, Tesakov, Simakova, this volume). In this situation no paleomagnetic research of the locality's sediments was possible. Due to careful archaeological excavations of V.E.Schelinsky and his colleagues during field seasons of 2005-2007, fossiliferous deposits have been exposed with unprecedented quality, including contact zones with host deposits (see Shchelinsky, Koulakov, 2007; Shchelinsky et al., this volume). Stratification of the site became evident for the first time. The section is interpreted as an allochthonous block, overturned to the north (dipping 195° at the angle 75°).

In 2007, three oriented samples for paleomagnetic study were taken from the least disturbed part of the Sinyaya Balka section directly below the bone breccia, at 0.45, 1.1, and 1.9 m above the unconformable contact with dark-gray clays (fig. 1). Samples 1 and 2 were taken from the lower and middle part of yellow, fine-grained poorly cemented sands, the sample 3, from the upper part of this bed, where the sand grades to light-gray. All samples processed according to the standard technique and subjected to step-wise thermal demagnetisation up to a maximum of $+500^\circ\text{C}$. The original magnetisation of all three samples can be unambiguously interpreted as reversed. The obtained paleomagnetic data can indicate the formation of the section's deposits during Matuyama reversed polarity chron (2.58-0.78 Ma). Taking into consideration the widely accepted correlation of Tamanian faunal unit localities with the later part of Early Pleistocene (1.1-0.9 Ma), the correlative time interval can be narrowed to the

chron C1r.1r (0.99–0.78 Ma), version (1) in the fig. 1. New biostratigraphic data on large mammals (see Bajgusheva, Titov, this volume) can, however, indicate an older age of the Sinyaya Balka deposits and suggest their correlation with chron C1r.2r (1.77–1.07 Ma), version (2) in the fig. 1.

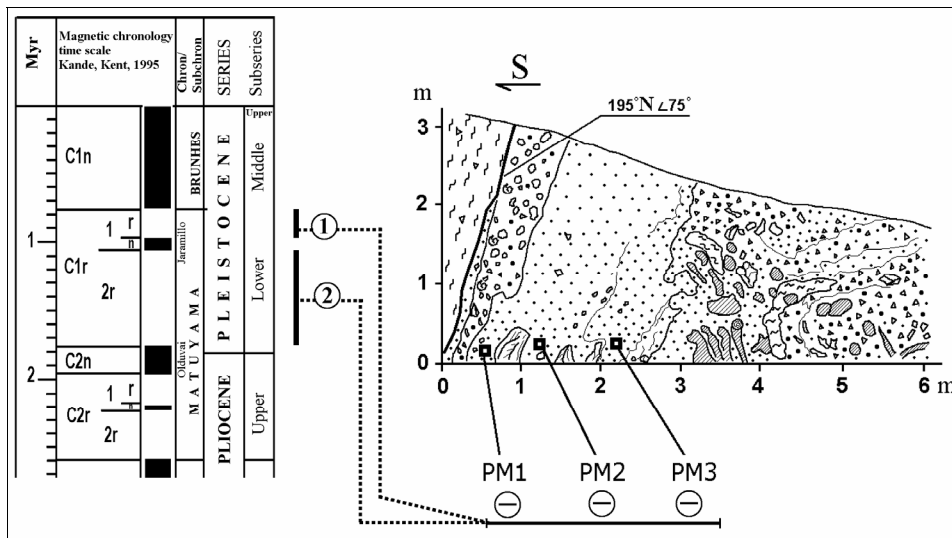


Fig. 1. Location of paleomagnetic samples in the section of Sinyaya Balka and their correlation with magnetic polarity time scale

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