

TREPANATION AMONG THE NOMADS OF CENTRAL KAZAKHSTAN (8TH-3D CENTURIES BC)

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Burials with stone mounds, which gave the name to the archaeological culture of Tasmola ("Stone Grave") are being investigated by archaeologists in the very heart of Kazakhstan. Tasmola sites date to the 8th–3d centuries BC and are mainly located in Central Kazakhstan, though some parallels are found in southeastern Urals and in southern Siberia. The study of skeletal materials excavated over the past several decades resulted in assembling a large collection of ca. 60 individuals of good preservation. Ten male and one female crania demonstrated trepanation holes, all of which are located on the occipital or on the posterior part of parietal bones. The number of trepanations varies between one and 15 per skull. Similar cases have been recorded in the past, but only two concern crania of the same chronological and cultural background. The pattern of trepanations in Central Asia can be related to embalming rites, which have also been recorded in the Pazyryk Culture of the Altai. We assume that in our case perforations were made for ritual purposes and were post mortem, as no traces of healing on male crania were identified. While differing in appearance, trepanation cases from Central Kazakhstan may indicate proximity of the ideological views of Tasmola people to those held by people in Western Siberia, Mongolia, and China, although at the moment it is hard to define the purpose of such operations in Tasmola people. The diameter of holes is too small for brain extraction, and absence of obliteration suggests non-medical purpose of the intrusion. Perhaps, this could be explained by the specificity of the funeral rites of the early nomads Central Kazakhstan. Notably, in this case trepanations were performed on individuals of high social position, buried with golden artifacts, under large mounds. These features can indicate the flourishing of mummification and postmortem cranial autopsy rites in the early Iron Age population of Central Asia. Further analysis of similar manipulations could significantly expand our understanding of the death rituals in the ancient world.

Key words: *trepanation, Early Iron Age, Central Asia, Central Kazakhstan, death rituals*

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RESULTS OF AN INTEGRATIVE ANALYSIS OF METRIC AND NONMETRIC TRAITS IN CRANIA FROM THE MEDIEVAL CEMETRY AT MAMISONDON, NORTHERN CAUCASUS

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The paper focuses on the biological affinities of the medieval population of Mamisondon, the Alagir district, Republic of North Ossetia–Alania. Because the cultural affiliation of Mamisondon people is controversial, biological data can provide important information on the origin and population history of that group. We used data on two morphologically independent systems of traits: craniometric and cranial nonmetric. First, cranial measurements of medieval and modern groups from northern Eurasia including Mamisondon were subjected to canonical variate analysis (CVA) whereas frequencies of nonmetric characters of the same groups were subjected to the principal component analysis (PCA). Next the resulting CV and PC scores were treated as new traits and integrated using PCA. The results of both analyses, metric and nonmetric, are consistent despite the independence of both trait sets. The correlation coefficient between CV 1 and PC

1 reaches 0.9 and that between CV 2 and PC 2 equals 0.5. According to the results of both analyses, the Mamisondon people are autochthonous, possibly with some admixture from the Alans. Our data suggest that Adygeis are the most similar to Mamisondon people among the modern groups. The specific position of Mamisondon on CV 3 shows that random microevolutionary processes were an important factor in the population history of this group possibly due to its geographic isolation.

Key words: *North Caucasus, Alan Culture, Middle ages, craniometry, nonmetric cranial traits*

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NEW DATA ON A MEDIEVAL COPTIC POPULATION OF DAIR AL-BANAT, THE FAYOUM OASIS, EGYPT

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The medieval site of Dair al-Banat is situated in the Eastern part of the Fayoum governorate in a deserted area about 2 km from the monastery of Dair al-Malak. All female long bones from that cemetery were very gracile and so were all male arm bones. Most male femora and tibiae were gracile, but some were very robust. The estimated stature of Dair al-Banat men is average – 169.5 cm (range, 163–179 cm), and that of women equals 155.4 cm (range, 150–160.5 cm). Also, we studied limb proportions of males and females. Both were characterized by relatively long legs, forearms and shins, and relatively narrow shoulders and hips. All female arm bones and some male arm bones have weak muscular attachments. In certain men the insertion areas of the following arm muscles were well developed: tuberositas deltoidea, cristae tuberculi majoris and minoris, tuberositas ulnae, tuberositas radii and supinator relief. The leg bones of most individuals showed well developed attachment sites for muscles such as tuberositas glutea, linea intertrochanterica, trochanter major, epicondili medialis and lateralis femoris, tuberositas tibiae, and linea musculi solei. We conclude that people of Dair al-Banat spent much time walking. The typical postcranial pathology is the osteoporosis of long bones. Frequent cases of palatine porosity, cribra orbitalia, and periodontosis are accompanied by tooth loss.

Key words: *physical anthropology, osteology, muscular attachments, Egypt, Copts*

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COMPOSITE PORTRAITS OF SOUTHERN SINAI BEDOUINS

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The aim of the study was to create series of composite portraits (CP) of southern Sinai Bedouins based on photographs of the Israeli expedition of 1979–82 and using new digital technologies. For that purpose, 89 photographs of adult Bedouins in two norms—full face and profile, and those of 116 children aged 7–15 were processed with the “Face on Face” software (Savinetsky-Syroezhkin). Anthropometric and descriptive traits of the head and face were analyzed. CP were collected to specify the information about different aspects of anthropological variability in Bedouin tribes. Three adult and five children’s portraits reflect age-specific characteristics; the profile portrait provides information on the vertical facial profile and nasal morphology. Integral visual images representing various tribes and subtribes as well as the general portrait of the