

ROMAN MEDICINE VS. CRANIAL SURGERY OF THE BARBARS

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Surgical trephination is a tradition known worldwide and it has been practiced since the Upper Paleolithic. Its earliest written evidence dates back to the ancient Egypt. Mostly as a method of wound treatment, surgical trephination was also known in ancient Europe following the works of Hippocrates, Celsus, Heliodorus and Galenus. Despite the written sources and the abundance of bioarcheological remains from the era, very few trephined skulls have been unearthed so far from the territory of the Roman Empire. More than 130 surgically trephined skulls have come to light in the territory of today's Hungary. The earliest evidence derives from the Neolithic. The history of Hungarian trephination research was discussed in details in the works of Lajos Bartucz (1966), Tamás Grynæus (1996), Péter Tomka (2000) and László Józsa and Erzsébet Fóthi (2007), but none of these works cite any Roman relics from the province of Pannonia (today Western Hungary). A recently published article (Tóth-Kiss, 2008) describes a possible case of surgical trephination from the Roman Age, but the evidence introduced in the paper better corresponds to the diagnosis of enlarged parietal foraminae. However, earlier publications have already mentioned 3 cases from Barbaricum, the Sarmatian territory partly enclosed by Roman provinces (today Eastern Hungary). 3 other Sarmatian cases of surgical trephination have also come to light during the excavations and the osteological research of the last decade. The authors wish to give a detailed description of these 6 Sarmatian cases, compare them with accessible evidence of Roman trephinations from other imperial territories, and put forward a possible explanation of the controversy between the written resources and the osteological evidence.

Key words: *surgical trephination, Roman Age, Sarmatians, Hungary, paleopathology, cranial surgery*

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PREDICTORS OF ACCEPTANCE OF EVOLUTION IN MILWAUKEE, WI, USA

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Recent research indicates that less than half of American agree with the idea that modern humans are the result of evolutionary processes that shape the biological world. Most attribute the lack of belief in evolution in the U.S. to religious fundamentalism. In fact, acceptance of evolution has been shown to vary inversely with the importance of religion across countries, but these results have not controlled for other factors such as economic development and education. To explore the role of religion in the acceptance of evolutionary more deeply, we surveyed visitors to the Milwaukee Public Museum during summer 2013. Information was collected on education levels, religious affiliation and practice, and familiarity with concepts of human evolution. Acceptance of evolution was assessed using the Measure of Acceptance of the Theory of Evolution (MATE) instrument, a twenty-item Likert-scaled questionnaire. Based on a total of 259 questionnaires, we found that neither religious denomination nor frequency of church attendance were related to educational attainment. Now was religious denomination related to knowledge of evolutionary terms. Christian affiliation was associated with lower acceptance of evolution, with nondenominational Christians showing the lowest level of acceptance. In a multivariate model, knowledge of evolutionary terms was predicted by both education and religious denomination. Acceptance of evolution was predicted by education, religious denomination, frequency of church attendance and knowledge of evolutionary terms. Our results are consistent with previous findings in U.S. samples demonstrating religious denomination, religiosity and education as predictors of evolutionary acceptance among adults. In addition, they confirm our hypothesis that religion and education represent largely distinct pathways in the acceptance of evolution. The major impact of religious denomination is on the acceptance, not knowledge of, evolution. These results focus attention on understanding what processes al-

low religious fundamentalists to block the conversion of knowledge about evolution into evolutionary belief. In addition, they raise a larger cultural question about the predictors of evolution acceptance in countries where evolution is more accepted. Is education level the only predictor or do factors such political conservatism and personality differences play the role that religious fundamentalism plays in the U.S.?

Key words: *acceptance of evolution, religion, education*

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MICROSTONYX FROM THE UPPER MIOCENE OF HAYRANLI-HALIMINHANI, TURKEY

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Microstonyx major refers to the Suid remains retrieved from two different localities that date back to the Late Miocene period, Derindere Member of the Incesu Formation in the Hayranlı-Haliminhani area (Sivas, Turkey). These localities have the potential of yielding hominoid fossils. Microstonyx teeth display some changes in incisor morphology, which are interpreted as a further adaptation to rooting. These changes occurred during a short period of time most probably between 8.7 and 8.121 Ma ago and it could be related to environmental change. It seems that the partially open shrubland and savannah grasslands during the early or/and the Middle Turolian period (MN 11-12) has created a rich faunal diversity exaggeration in the Hayranlı-Haliminhani area. These findings are discussed within the regional context and how it contributes to our knowledge of fossil mammals in Anatolia.

Key words: *Suidae, Microstonyx, ecology, Late Miocene*

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THE EXACT DAY AND TIME OF PETRALONA SKULL DISCOVERY

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In the present-day bibliographical data the 16th of September 1960 is indicated as the discovery day for the famous Petralona human skull. The first of the authors is a son of the late Ioannis Malkotsis (BSc Agronomy) who was one of the six persons present during the very moment of the skull's discovery inside a small chamber towards the, until then known, end of Petralona cave. I. Malkotsis was also a person who took the first photos, mainly due to whom the discovery status of Petralona skull is world wide known among anthropologists, as well as other scientists and/or ordinary people. On the opposite side of the photo, by Malkotsis' hand, instead of the 16th, the 15th of September 1960 is written. Discussing this matter we concluded that the 15th of September 1960 is the correct day of Petralona human skull discovery. On the other hand, according also to the shadows observed on the other two photos, as well as according to a recent oral communication of Dr. Aris Poulianos (a father of the second author), the discovery time of about 10-11 p.m. is the most probable. The above evidence approaches with more accuracy the exact day and time of Petralona skull discovery, reconfirming once more the very point where it was found within the Petralona cave underground surroundings.

Key words: *Petralona skull, discovery day, Khalkidhiki, Central Macedonia, Greece*

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