The interdisciplinary study of the results confirms that stones in the monument show deterioration in terms of mineralogy, fabric and physical properties in comparison with quarried stones. Moreover stone-testing proves compatibility between quarried and historic stones. Good correlation is observed between the non-destructive-techniques and laboratory tests results which allow us to minimize sampling and assessing the condition of the materials. Concluding, this research can contribute to the diagnostic knowledge for further studies that are needed in order to evaluate the effect of recent and future protective measures.

Mammalian remains from a new site near the classical locality of Pikermi (Attica, Greece)

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We present the first results on the fossil mammalian fauna recovered during the first excavation season at the new site Pikermi Valley-1 (PV1). The fauna comprises two hipparionine species *(C. cf. mediterraneum, H. cf. brachypus),* a giraffid *(Bohlinia cf. attica),* five bovids *(Palaeoreas lindermayeri, Protragelaphus skouzesi, Tragoportax cf. amalthea, Gazella* sp., Bovidae indet.) and two carnivores *(? Adcrocuta eximia,* Felidae indet.). The composition of the fauna suggests a Turolian age.

Thermal behavior of freshwater cultured pearls

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The 95% of the pearls present in the gem market are freshwater cultured pearls in Hyriopsis ssp. Heating is frequently applied to off-colored pearls for their color enhancement. The understanding of the thermal behavior of pearls, would be useful to separate the natural colored from the treat-colored (after heating) pearls. This study presents analysis of the mineral structure and the organic matrix as well as the thermal behavior of Hyriopsis ssp. cultured pearls.

The studied samples were white freshwater cultured pearls in Hyriopsis ssp. which were analyzed with the X-ray powder diffraction (XRPD) and the Fourier transform infrared spectroscopy (FTIR) methods. In the XRPD patterns of all samples only calcium carbonate was identified with the structure of aragonite. The FTIR transmittance spectra of the powdered samples, using the KBr technique, show the characteristic absorption peaks of aragonite. However, some additional shoulders, at about 1662, 1270 and 1172 cm^{-1}, were observed probably due to the organic matter of the pearls. Furthermore, the broad bands in the region between 3600 and 3200 cm^{-1} are probably attributed to the water content of the pearls. After heating at "low" temperatures (up to 250 ^{o}C), changes were observed only in the FTIR peaks related to the organic matter and the water. No changes on XRPD patterns were observed.

This preliminary study indicates that heat-treatment of the pearls up to 250 ^{o}C, changes only the bands of organic matter and water in the FTIR spectra. With a followed heat treatment, especially of the whole pearls, the critical temperature of their color changes can be