Human Identification

Oral presentation

**What Has Forensics Got To Do with Archaeology:**

**A Human Skeletal Remains from the Early Bronze Age Site Vučedol (Vukovar, Croatia)**

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In the last few decades the application of forensic methods to archaeology increases the criteria providing reliable and very precise results of material analysis, even in the case of a very small sample size as traces, or fragments. The aim of this research is to present two archaeometrical cases. The use of red pigments linked to burial practice is widely documented, primary as the Near Eastern tradition in prehistory and also as a part of the later European practice. The samples of pigment traces for this research were recovered from the skeletons from seven highly significant Early Bronze Age graves from the location Vineyard Streim on the site Vučedol. Only few of them conﬁrm the use of cinnabar (HgS), the most beautiful red pigment in the prehistory. Following the pattern of its appearance on distinct skeletal elements, with the help of anthropological analysis, it was possible not only to give a new insight into the burial practice, but also to confirm the presence of cinnabar as allochthonous element. The preliminary results embraced the elemental and structural physicochemical analysis (SEM–EDX, EDXRF, RAMAN spectrometry) of the pigment trace samples on the skeletal remains. The second case presents a possibility, but also some problems of age at death determination as a part of biological profile, with the help of histomorphometric techniques on high fragmented bone samples. Although this method does not meet high forensic standards yet, with introduction of new protocols in analysis it is coming nearer. The method was obtained for all well preserved skeletons whose preservation degree exceeded 80%. The histomorphometric analysis was performed with a polarizing microscope and SEM.

Keywords: red pigment analyses, histomorphometric analysis, anthropological analysis, forensics, archaeology, Vučedol culture.