

33rd SCHOOL OF BIOLOGICAL ANTHROPOLOGY – »Current Issues in Paleoanthropology: From Bones to DNA«

Schools of biological anthropology organized by the Croatian Anthropological Society have a long tradition, spanning for more than 30 years. The first School of Biological Anthropology was held in 1975 in Zagreb, and since then it has been a yearly event, even at the hardest times in Croatian history, during the war times. Distinguished colleagues and scholars from all over the world participated in the schools, thus contributing not only to our mutual scientific cooperation, but also giving a first-hand experience and up-to-date information and knowledge to our students, many of which are now themselves well known scientists in their fields. The scientific collaboration of the Max Planck Institute for Evolutionary Anthropology (Leipzig) and Croatian Academy of Sciences and Arts in which members of the Institute for Anthropological research are also involved resulted in the invitation to scientists from Leipzig to come and participate in this year's School.

The 33rd School of Biological Anthropology was held under the high auspices of Professor Dragan Primorac, Minister of Science, Education and Sports of the Republic of Croatia and under the direction of academician Pavao Rudan (Institute for Anthropological Research, Zagreb, Croatia) and academician Svante Pääbo (Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany). The organizers of the School were the Croatian Anthropological Society and the Institute for Anthropological Research, Zagreb.

The lectures were held at the premises of the Croatian Medical Council in Zagreb. After the official opening ceremony and speech by Professor Pavao Rudan, the Dragutin Gorjanović Kramberger awards of the Croatian Anthropological Society were awarded to Professor Svante Pääbo, and to Vlasta Krklec, the director of the Museum of Evolution in Krapina, Croatia whose new building is expected to be opened by the end of the year.

After the opening ceremony, Professor Svante Pääbo gave a talk under the title »The Neandertal genome« thus providing a framework of this year's school. He emphasized the importance of our collaborative work on Vindija hominin remains from which the first successful

extraction of Neandertal nuclear sequence was published last year, and the ongoing work that will soon be published. Professor Pääbo, as a member of the first team that successfully extracted mitochondrial DNA from the original Neander Valley specimen (Feldhofer 1) in 1997 has a first-hand knowledge of the issues in ancient DNA research, which he shared with our students in his lecture. Thus he spoke on the history and methodology and problems with ancient DNA research.

After the short break, three lectures were given. Professor Jean Jacques Hublin gave a talk entitled »Neandertal origin and evolution« in which he provided a brief overview of Neandertal anatomical evolution in its geological and environmental setting and discussed the proposed models of the extinction of this prehistoric population. Of special interest were the results of analyses done by the researchers of the Max Planck Institute on the dental structure and growth trajectories of Neandertals and anatomically modern humans.

Moving away from taxonomic issues, Professor Michael Richards' talk on the »Isotope evidence of Neandertal diet and mobility« provided further insight into how far we have come in our understanding of past events. Through the analysis of stable isotopes it is not only possible to see dietary preferences of a prehistoric group, but sometimes it is possible to follow a mobility pattern of a single individual that has lived over 40 000 years ago. Dr. Richards has been involved in analyses of Croatian Neandertals for a number of years and this is surely going to result in a number of interesting analyses in the future.

The lecture entitled »Genes, Culture and Human Evolution« by one of the original authors of the famed 1987 mitochondrial study (the so-called »African Eve«) that proposed the African origin for anatomically modern humans based on molecular research (several authors proposed this model based on anatomical evidence prior to this study). However, Professor Stoneking's lecture concentrated on the ongoing evolution of humans (a fact that humans continue to evolve since the establishment of our biological species, *Homo sapiens sapiens* is

often neglected). Through the examples such as well-known lactose intolerance/tolerance patterns, or social patterns such as matrilineal/patrilineal mate exchange the interaction of culture and genetics becomes a valuable addition to our understanding of the living humans, as well as past populations.

The final lecture of this year's School of Biological Anthropology was given by Professor Svante Pääbo. As its

title »Future perspective« suggested, Professor Pääbo gave us a brief prospect of the future work and the ongoing analyses by our joint Croatian-German based teams. It is within a year that we can expect further insight into the Neandertal genomics, and the fact that our own Vindija fossils will have a crucial role in it makes us very proud.

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