Virtual Fauna: Building a 3D Skeletal Comparative Collection

Because comparative animal skeletons are not always available to zooarchaeologists for use in identifying archaeological faunal remains, the Department of Human Evolution at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, is currently building a virtual comparative skeletal collection using the Breuckmann triTOS-HE structured light scanner. These high resolution 3D images can be transported on a laptop computer for use in the field or laboratory. Although such images will never replace genuine comparative skeletons for identifying archaeological animal remains, they will suffice for basic identifications in remote field locations.

The structured light scanner creates surface-only 3D models of fossils and artifacts. Scan data can be converted into a variety of formats for viewing such as simple JPEG images or, more importantly, PDF images that can be viewed in Adobe Acrobat Reader 8 or higher which as 3D capabilities. This freely available software allows users to adjust the magnification of the image and rotate it so that it can be viewed from any angle, which is a significant advantage over static line drawings and photographs. Scans can also be printed in 3D to produce life-sized prototypes of the scanned skeletal part.

Our current goal is to focus on those species commonly found in Late Pleistocene faunas from Africa and Europe and, thus far, we have completed scans of horse, reindeer, and gazelle skeletons. We plan to expand this to include species that are rare both in archaeological assemblages and comparative collections, such as large carnivores. One advantage of the method is that it facilitates access to specimens that are difficult to find as comparative material, including rare and extinct taxa and juvenile animals. We are aiming to make these images available to other researchers and educators by means of the internet in the near future. For a more detailed technical description of the equipment used in this project, please visit the project website at http://www.eva.mpg.de/evolution/files/fanal_comparative_collection.htm.

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BIOARCH: A New Research Network

European archaeozoologists and botanists researching biodiversity dynamics and sustainable development during the Holocene period are steadily increasing in number. As this research focus grows, important multi-institutional collaborations are being established. Owing to European networking programs and funding from the Centre National de la Recherche Scientifique (CNRS) in France, eight bioarchaeology laboratories have signed an agreement to increase research collaborations through a formalized network. Collaborations amongst institutions include laboratories in Brussels (Belgium), Lyon, Montpellier, and Paris (France), Munich (Germany), Barcelona (Spain), Basel (Switzerland), and Durham (UK). This official collaboration will exist initially for four years, January 2008–2011. The network, known as BIOARCH, comprises nearly 100 scientists who are focusing their collective research towards three major research themes: 1) human impact and climate change during the Holocene, 2) Neolithization, and 3) historic times, which includes the Bronze and Iron Ages, Classical antiquity, and the birth of the modern world.

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**Zlatozar Boev** has recently examined the avian remains from several Neolithic and Chalcolithic settlements in Bulgaria, including Hotnitsa, Slatina, Yabalkovo, and Burgas. Discussion of these materials has been submitted to the journal, *Acta Zoologica Bulgarica*, and is awaiting publication.

**Haskel Greenfield** has received a three year (2009-2011) research grant from the Canadian Social Science and Humanities Research Council for $127,300 CDN to study non-elite Early Bronze Age urban household subsistence and taphonomy in the southern Levant through the analysis of zooarchaeological remains from Tel es-Safi, Israel. Safi is ancient Gath, the hometown of the famous Philistine warrior named Goliath.

The **Alaska Consortium of Zooarchaeologists (ACZ)** will be co-sponsoring the Alaska Anthropology Association meetings in Anchorage, Alaska, between March 25-27, 2010. On March 24, the day before the conference, the ACZ will conduct their 11th Annual Workshop. This workshop will cover Pleistocene Mammals. There will also be two ACZ-sponsored symposia, one on coastal zooarchaeology and another on inland zooarchaeology. For more information about the conference, workshop, and symposia please visit the ACZ Website at http://www.akzooarch.org.

The **Anthropology Laboratories at the University of Manitoba** are closed for the next several months due to a fire and subsequent water damage on the floors above the laboratory. The collections and research materials are largely intact, but smoke, soot, and water have permeated the entire facility. The laboratory, including collections, books, papers, and other items, will be cleaned over the summer and all computers replaced. It is anticipated that all facilities will be open in time for the fall semester.

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**ICAZ Working Group Updates**

The **ICAZ Fish Remains Working Group (FRWG)** reports that the organization of its 15th meeting is well under way. The conference, entitled “Fishes--Culture--Environment through Archaeoichthyology, Ethnography and History,” will be held between September 3-9, 2009, in Poznan and Torun, Poland. The principal organizer, Daniel Makowicki, has secured support for the conference from a number of prestigious local institutions. The second circular and registration form have been sent to more than 300 addresses, in addition to the 183 addresses listed on the FishNet Website. (Please note: Beginning in 2008, FRWG e-mail addresses have been published online at http://www.archeozoos.org/en/article340.html. These addresses were updated in March 2009 by the founder of FishNet, Foss Leach). As of early April, 2008, about 30 persons have registered for the conference, which is already comparable to many previous FRWG meetings’ attendance numbers. The registration deadline is May 30 so more participants are expected to register between now and then. The deadline for abstracts (papers and posters) is June 15, 2009. For more information, please contact Daniel Makowicki (E-mail: makedown@umk.pl, Tel.: +48-56-6112349; Fax: +48-56-6113971). FRWG update contributed by László Bartosiewicz (FRWG Liaison), Department of Archaeometry, Institute of Archaeological Sciences, Loránd Eötvös University, Hungary, E-mail: bartwicz@yahoo.com.

The **ICAZ Worked Bone Research Group (WBRG)** reports that its 7th meeting will be hosted by the Institute of Archaeology at the University of Wroclaw in Poland between September 7-11, 2009. Justyna Baron (E-mail: justyna.baron@gmail.com), Bernadeta Kufel (E-mail: bernadeta.kufel@gmail.com), and Marcin Diakowski (E-mail: m.diakowski@gmail.com) are organizing the conference. To date, the conference organizers have received more than 60 contributions, including 48 papers and 16 posters. For more information about the WBRG please visit our website at http://www.wbrg.net. The WBRG has grown considerably since its first meeting in 1997 in London, UK, hosted by Ian Riddler. I am pleased to note that a number of fruitful, collaborative projects have grown out of these meetings. I have also observed that a consensus is developing within the WBRG regarding appropriate methodologies for tackling the wide variety of questions that can be asked about ancient worked osseous materials. WBRG update contributed by Alice Choyke (WBRG Liaison), Aquincum Museum and the Department of Medieval Studies, Central European University, Budapest, Hungary, E-mail: hl3017cho@helka.iif.hu.

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Dear ICAZ Members,

The Recent Publications section of the ICAZ Newsletter has become a popular spring feature. The publications that appear in this section are diverse, ranging from informative site reports to glossy articles popularizing our discipline, and deserve our attention. It can be a complex issue to adhere to the ICAZ Professional Protocols’ principle of “publishing the results… in a timely way that meets the project goals and the highest professional standards.” Project goals often depend upon whether one works in a natural science or arts and humanities setting. The pseudo-dilemma between archaeozoology and zooarchaeology should not be reiterated here, however, in spite of recent convergence between the two fundamental approaches to our discipline, expectations of research output will differ depending upon the official bodies who rate our achievements as employees or grant applicants.

Holding a degree in animal science, but having always worked in an arts and humanities setting (archaeology is regarded as a branch of historical studies in most European institutions), I have recently sensed shock waves during the planning of criteria for the so-called “Research Excellence Framework” at British universities. The “M-word” (for scientometry) has emerged again. The ensuing debate has been vivid, and has yet to be concluded. Historians, advancing their careers by writing voluminous books, are understandably upset that in a rigid metric system their oeuvres are neglected. Archaeologists, who write volumes based on decades of field work, would appear to produce works similarly irrelevant (and even writing a bad book can take years of hard work). In contrast to professional journals, the lengthy and potentially costly pre-publication peer review is not a standard practice for books in Europe; therefore not even the illusion of objectivity can be maintained in rating books.

This is not the first time I have encountered this problem. I have always enjoyed a certain edge among archaeologists, having published a few papers in...