

BOOK REVIEW

Review of *Egyptian Bioarchaeology: Humans, Animals, and the Environment*

Egyptian Bioarchaeology: Humans, Animals, and the Environment, by Ikram, S., Kaiser, J. & Walker, R. (eds). Sidestone Press, 246 pages, 2015, ISBN: 9789088902871

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This book comprises papers representative of the Conference of Human Remains held in Cairo in 2013. As the editors explain in the Preface, this conference was designed to bring together scholars from the fields of bioarchaeology, Egyptology and archaeology. This inter-disciplinary approach immediately reminded me of the *Histories of Egyptology; Interdisciplinary Measures* edited by W. Carruthers (2015), the focus of which was also to unite interdisciplinary approaches of Egyptology.

This bioarchaeology volume focuses primarily on the skeletal remains which in the past have often been ignored and sometimes discarded. It comprises 17 papers separated into three uneven sections; human remains, faunal remains and dendrochronology. As a volume designed to be dipped into rather than read from cover-to-cover the odd arrangement of articles will not be apparent to most readers. However, rather than ending the section on human remains with Zakrzewski's paper on Egyptian Bioarchaeology and Ancient Identities it may have been better to introduce the section with it, as this paper questioned the value of bioarchaeology and how it can be used, not only to discover the basics of sex, age, stature,

and pathology but also the impact this had on the individual creating identities behind the skeletons studied. This paper then could be better followed by Sabbahy's A Decade of Advances in the Paleopathology of the Ancient Egyptians and Ikram's Studying Egyptian Mummies in the Field which were summaries of research (Sabbahy) or procedures (Ikram) which did not follow the same format of the other articles in the volume. The same could be said for the single article which forms the section on dendroarchaeology. This article by Creasman was a description of dendrochronology and how it is superior for accurate dates than C14 dating, as well as being able to identify environmental issues not possible with radiocarbon dating.

Most papers were in the form of a case study providing scientific analysis of particular sites. For example Bellandi et al. discuss in detail two shafts at the Temple of Millions of Years of Amenhotep II at Luxor, and the 55 individuals within, and Cybulski et al. produces a similar report on shaft 3 from the TT65 Project, also at Luxor. Each study examines the number of individuals, age, sex, stature and general health and pathology. Some surprising results were discovered from the South Tomb Cemetery at Amarna as discussed by Dabbs et al. Through the studies of the skeletal remains it was discovered

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that the people at Amarna were shorter than Egyptians from other sites and periods which could be the result of malnutrition. They also suffered from extensive injuries associated with hard labour (p. 51). This, the author comments is in direct contrast to the image of an abundant utopia presented in the official artwork of the period (p. 52).

A particularly interesting article was offered by Dupras et al. on Birth in Ancient *Egypt: Timing, Trauma and Triumph?* which examined the Kellis 2 cemetery at Dakhleh Oasis from the Romano-Christian Period. Studies of the remains of neo-nates, infants, juveniles and their mothers produced fascinating results as a number of the children showed evidence of trauma in the form of broken clavicles, humeri and ribs sustained through the birth process. They came to the conclusion that this part of the cemetery shows: "a particularly rough midwife, or possibly that females linked to this part of the cemetery had problematic obstetric dimensions" (p. 65). The studies carried out were also able to identify popular times of conception during the period, such as in July and August which coincided with fertility festivals held at Dakhleh (p. 59).

Kozieradzka-Ogunmakin's paper *A Case of Metastatic Carcinoma in an Old Kingdom-Period Skeleton from Saqqara*, discusses what is believed to be a case of breast cancer which spread to the bone. This cancer only affected the cranium in the form of a number of lesions and one vertebra which manifested itself in bony growths. Due to the restrictions of time only the cranium was x-rayed so there is the possibility there were other sites of lytic lesions. This problem of time, financial or political restrictions is further addressed briefly by Ikram in her article on the how to assess human remains in the field.

This identification of diseases was also discussed by Rühli et al., but in this case through the study of canopic jars and their contents; a grossly understudied resource. The Institute for Evolutionary Medicine (University of Zurich), started the Canopic Jar Project in 2012. The aim was to study

the mummified viscera in jars that could be matched to their mummies rather than those that were isolated in order to search for pathologies which manifest in the viscera.

One of the problems encountered by scholars working on the Canopic Jar Project or any human remains is that of mismatched data. The most common is when the coffin does not belong to the mummy within, whether this was due to reuse in antiquity, re-wrapping before placement in the mummy caches or modern reassembling. Two case studies deal with this issue; Piombino-Mascali et al., and Sampsell. Both case studies are approached in a similar way by explaining the mismatch as well as how the mummy was acquired followed by a report on the research carried out to identify the problem. Another common form of mismatched data was addressed by Wahba in her article which investigates the possible owner of the new pyramid at Saggara. She demonstrates the process of matching written and archaeological evidence with the bioarchaeological data from the human remains to identify the owner in the absence of an identifying text.

The section on animal remains contains two articles, one on Dogs at El Deir (Dunand et al.) and one on an ancient Egyptian cat mummy (Johansson et al.). In their article Durand et al. study five hundred dog mummies, skeletons and disarticulated bones from the dog cemetery at El Deir, coming to the conclusion they were pets as they covered all age groups from puppies through to elderly dogs (p. 175). There is more work to be done, however, as sexing the dogs and identifying the breeds still needs to be confirmed. In Johansson et al.'s article the focus is one cat mummy from a private collection in Sweden. DNA studies have shown that this may be a cross-breed between a f.silvestris and a f.chaus which could throw doubt on other breed identifications which are normally identified as one or the other (p. 199). A lot of raw data and methodology is presented in this article in the form of tables and charts which seemed somewhat out of proportion to the results discussed.

As with most volumes of this kind some articles stand out more than others. Two articles which stood out as particularly interesting was Piombino-Mascali's article, From Egypt to Lithuania which was both scholarly and gripping as we learnt the story of the mummy from discovery to identification including the purchasing archaeologist in 1924 placing a bottle of lavender oil amongst the wrappings to lend the mummy a pleasant aroma (p. 103). The second which stood out was Dupras' article on childbirth, as it is an understudied area due to the paucity of evidence and the findings of the study were fascinating and presented a real insight into this dangerous time in both a woman's and a child's life.

This volume will be a useful addition to any Egyptologist's or bioarchaeologist's bookshelf, although due to the speed in which the field is progressing within a very short time the material reported here, which is all of work in progress could in fact be out of date. However, it provides an overview of where bioarchaeology is at present in relation to Egyptology.

Competing Interests

The author worked with Afaf Wahba (a contributing author) at the American Research Center in Egypt in 2014. The author declares no other competing interests.

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