

## Book Reviews

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*The medicine of the ancient Egyptians. 1: Surgery, gynecology, obstetrics, and pediatrics.* Eugene Strouhal, Břetislav Vachala, Hana Vymazalová; translated by Kateřina Millerová (The American University in Cairo Press, Cairo, 2014); pp. 228; \$59.95; ISBN 978-977-416-640-2.

This publication, dealing with such subjects as surgery, gynecology, and child and mother care in ancient Egypt, is the first volume in a three volume series. The book is based on literary, iconographic and archeological data. The second of three planned volumes will address the topic of internal medicine, while the third volume will discuss ancient Egyptian physicians, diseases, pharmaceuticals, smaller branches of medicine (e.g. ophthalmology and dentistry), as well as the influence of Egyptian medicine on Greek and later European medicine. The first volume, under review here, was written by a number of leading authorities including: Eugene Strouhal, Břetislav Vachala and Hana Vymazalová, and has been translated from Czech by Sean Mark Miller and Kateřina Milerová.

The book is divided into four main parts. The first part consists of four sections and provides an introduction to the overall work, with a full description of the ultimate contents of all three planned volumes of this publication. Strouhal begins by discussing the fame of Egyptian medicine and physicians in the ancient world. He goes on to provide the reader with a short history of papyrus making, he emphasizes the uniqueness and comprehensive system of ancient Egyptian medicine, the nature of which is largely known from a series of preserved medical texts (thirteen found to date). Though this summary section is informative it is also a bit chaotic as several of the entries relate to tangential fields of inquiry (e.g. the papyrus plant, scroll production and storage) making one wonder their purpose in a text on ancient Egyptian medicine.

Strouhal moves on to deal with the popular belief that ancient Egyptian anatomical knowledge derives from the mummification process. He states that this widely held opinion has no basis in reality. Strouhal also discusses the function of medical scrolls in that they were written by and for physicians, they served as guides in everyday work, and also as manuals for young apprentices of medicine. The function of medical papyri is addressed further through a short discussion of a characteristic medical papyri entry. This entry is used to explain why magical treatments are mixed with more practicable medical treatments throughout the various medical papyri. The

next section of the chapter presents a selection of publications in the field of ancient Egyptian medicine.

The author of the second part of the book is Hana Vymazalová. After a short introduction, she presents, in chronological order, a very useful list of nine medical texts with information detailing: the origin of the manuscript, contents, basic publications, and translations of the text. The only papyrus that is somewhat out of place is the Book for Mother and Child as it is not strictly speaking a medical papyrus. The list of sources provided by Vymazalová consists of nine manuscripts, as the book is limited to original Egyptian sources from the Pharaonic era without foreign influences. It is tempting to say that this information should be mentioned earlier—perhaps at the beginning of the book—as it is confusing why the publication deals only with a select number of known ancient Egyptian medical papyri.

The third part, which all three authors contribute to, consists of six articles dealing with ancient Egyptian surgery. The introduction mentions the reasons why surgical texts are often very rational without involving magical treatment or explanations (i.e. causes of external diseases are mostly evident and there is no need to seek solutions in rituals and spells.) There are two papyri from Ancient Egypt classified as surgical. The Edwin Smith Papyrus refers only to surgery (mostly injuries of the upper part of the body), and the Ebers Papyrus, which is a compilation of diverse medical cases, of which several deal with surgical procedures. The chapter provides very detailed information about the Edwin Smith Papyrus, but is less precise about surgical cases from the Ebers Papyrus. In two cases the Edwin Smith Papyrus refers to unpreserved medical texts—one of them the so called “The Skill of Embalmer” which is very interesting since Strouhal states that ancient Egyptian medicine and embalming had nothing in common.

The next section of the chapter concerns ingredients used in the production of remedies, which could be of mineral, herbal and/or animal origin. Where possible the author identifies ingredients by their common name and Egyptian name, and discusses their healing effects. In several cases Vymazalová gives only the Egyptian name of the substances. In the index one can find these ingredients under their modern name, or if the modern name is unknown, under the Egyptian name. This variability in how terms are listed makes it quite difficult to easily search the index. Following the section on Egyptian remedies the text moves on to Vachala’s translation of surgical cases from the Edwin Smith Papyrus and the Ebers Papyrus.

The fourth and fifth sections deal with modern medical analyses of cases compared with limited bioarchaeological examples of pathological conditions discussed in the text. The reason for this limited comparison may be that there are several examples of such cases in bioarchaeological materials. The chapter ends with a section about ancient Egyptian surgeons and data on surgical treatments. It is discussed that

Egyptians could examine the patient and make a proper diagnosis without specific medical knowledge (they did not know the functions of most organs so they cannot connect the injuries and symptoms with particular organs). Use of possible analgesics and sedatives is also discussed here. Besides medical texts, we have only several other sources documenting surgical procedures. Strouhal presents only a few preserved and doubtful reliefs depicting medical treatments. One depiction is exclusively of surgical instruments from the Roman Period. Very rarely is bioarchaeological data presented. The author gives few actual examples of evidence for surgical treatments and deals with the widespread belief that cranial trepanation was an “everyday intervention.” He states that the lack of bioarchaeological data is due to the rare participation of anthropologists and paleopathologists in excavations. The material presented in this section is very useful as it collects all the types of available sources in one location providing a valuable reference work.

The fourth part, by H. Vymazalová and E. Strouhal, is arranged in a similar way consisting of five articles dealing with mother and child care, gynecology (also pregnancy tests and contraceptives), obstetrics and pediatrics. The first part describes several papyri namely, The Kahun Papyrus, Papyrus Carlsberg VIII, Papyrus Berlin 3038, Papyri Ramesseum III and IV, the Edwin Smith Papyrus, The Ebers Papyrus, Papyrus BM 105059 and Papyrus Berlin 3027 (also known as Book for Mother and Child). The next section, as in the previous chapter, deals with the ingredients of remedies. Subsequent sections provide translations of medical texts divided into the aforementioned topics and, as in a previous part of the book, modern medical analyses of the discussed cases. In this part of the book one also finds numerous references to other ancient Egyptian sources and to Egyptian culture as well. The only difficulty in this chapter is the complete lack of bioarchaeological examples of the types of pathological cases under discussion. The lack of palaeopathological cases in this section of the text is probably due to the absence of preserved evidence of such pathological conditions from bioarchaeological contexts rather than simply neglecting to account for documented cases.

Overall, this first volume by Strouhal and colleagues is a very useful study of ancient Egyptian surgery, gynecology, obstetrics and pediatrics—it gathers lexicographical, iconographic, and (bio)archaeological data. It provides not only the translation of texts but also information about physicians, remedies and ancient Egyptian medical knowledge. It also gives a complete list of medical papyri from Pharaonic times. This publication compiles the theory known from medical papyri with modern anthropological knowledge. It is also a benefit that the book is divided by topics, not by papyri, which greatly simplifies the process of searching for the type of cases one is interested in. However, such ease of searching cannot be said about the index, which would benefit from a more logical organization. This work provides a good

example for showing the potential benefits of this kind of interdisciplinary research on ancient Egyptian materials and medicine as it provides an overall picture of the various branches of Egyptian medicine presented in the first volume of the series. *The Medicine of the Ancient Egyptians. 1: Surgery, Gynecology, Obstetrics, and Pediatrics* fully analyzes all available sources on the topics addressed, which makes it a compendium of knowledge useful for students, amateurs and paleopathologists alike.

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*Palaeopathology in Egypt and Nubia. A Century in Review.* Edited by Ryan Metcalfe, Jenefer Cockitt, and Rosalie David (Vol. 6. Archaeopress Egyptology. Oxford, Archaeopress, 2014); pp. viii+169; £74.95; pISBN 978-1-7849-1026-6, eISBN 978-1-7849-1027-3.

Observations and research of human remains of archaeological origin found in Egypt and Nubia are among some of the first and most thoroughly analyzed palaeopathological cases and have provided documentary evidence for some of the first and most commonly known cases of diseases in the past. It should not therefore be a surprise that a book titled *Palaeopathology in Egypt and Nubia. A Century in Review* is of significant interest for persons interested in palaeopathology even without specific interest in Egyptology, and Nubian and Egyptian bioarchaeology.

It should be pointed out that it is not easy to summarize the contents of this book. Contrary to the promise of the title, it is not in any proximity the thorough compendium of the research considering diseases found on human remains dated as ancient Egyptian and Nubian. Only in the acknowledgements is it clearly described as a collection of papers presented during a workshop with the same title as the publication “Palaeopathology in Egypt and Nubia: A century in review”. Even the explanation given by the editors in the preface, stating that the original inspiration for the volume came from the research and work of Sir Grafton Elliot Smith and the Archaeological Survey of Nubia, does not fully explain the common ground for various unrelated papers in this volume, as a number of the papers do not consider findings related to Sir Grafton Elliot Smith or the survey of Nubia expedition.

It seems to be necessary therefore to present eventual readers with a more detailed description of the contents of the book. The papers included are divided into six chapters: ‘History of bioarchaeology’, ‘Palaeopathology’, ‘Dental palaeopathology’, ‘Mummification’, ‘Imaging in bioarchaeology’ and ‘Digital resources’. Only the second and third chapters contain papers of truly palaeopathological topics. As such only seven of the sixteen papers realize the promise given in the title.

The first chapter seems to fulfill the introductory role, describing the history of the Archaeological Survey of Nubia and human remains gathered and studied during its proceedings. The paper by Rosalie David (“Sir Elliot Smith: Palaeopathology and the Archaeological Survey of Nubia”; pp. 1–7) describes the origin of the survey and the first two seasons of archaeological research with direct involvement of Sir Grafton Elliot Smith. The next paper, written by Jenefer A. Cockitt (“Whose body? The human remains from the 1908–1909 season of the Archaeological Survey of Nubia”; pp. 9–22) discusses subsequent seasons of the Nubia survey, which seem not to have risen to the scientific level of the first two seasons. The paper also discusses the post-excavation history of the collected remains, which explains the predominance of research on cranial palaeopathologies in research articles. The addition of the paper written by Ryan Metcalfe, titled “The archaeological work of Alfred Lucas” (pp. 23–29) is not so easily explained. The author describes the chemical analyses and experiments performed at the turn of the twentieth century by Alfred Lucas using archaeologically derived specimens. The main part of Lucas’ research was the study of the natural properties of natron and its employment during the artificial mummification process. This topic of inquiry continues in the fourth chapter of the book, which considers mummification, but by itself does not discuss any problems even loosely connected to the subject of palaeopathology. This problem is present in most of the non-palaeopathological texts included in this volume.

The following two sections consist of papers considering palaeopathology, thus discussing the main subject of the book. They will be discussed together, as the reason for dividing the texts into two groups is a little unclear, especially given that one of the articles from the first section considers palaeopathology of the masticatory apparatus, and is therefore much closer to the topic of dental pathology.

The texts are very diverse in character. Two papers are reviews of the literature. The first one, written by Lisa Sabbahy (“An overview of the evidence for the tuberculosis from ancient Egypt”; pp. 51–55) on evidence of tuberculosis from ancient Egypt presents not only the history of the research, but also the pivotal role of palaeopathological research on tuberculosis in Egypt and in terms of the palaeoepidemiology of the disease. The second paper, by Sonia Zakrzewski (“Palaeopathology, disability and bodily impairments”; pp. 57–68), deals with the problem of disability and bodily impairments in Egypt including a thorough analysis of the implications of such impairments in ancient society.

The other papers of this section present palaeopathological research in two main forms: typical case studies, based on a singular case or sometimes on few specimens, and populational analyses.

The first group of papers include two analyses of ankylosis of the temporomandibular joint. The paper by Ladislava Horáčková and Frank Rühli (“A case of severe anky-

losis of temporomandibular joint from New Kingdom necropolis (Saqqara, Egypt)”; pp. 83–94) describes a juvenile case identified from excavations at the New Kingdom necropolis of Saqqara. The paper by Mervyn Harris, Tristan Lowe and Farah Ahmed (“An interesting example of a condylar fracture from ancient Nubia suggesting the possibility of early surgical intervention”, pp. 41–50) describes a Nubian skull originally excavated during the Archaeological Survey of Nubia and subsequently housed in the Duckworth Laboratory at the University of Cambridge. This research documents interesting perimortem cut marks in the area of a pathologically altered joint, which is controversially explained as resulting from medical intervention. The presented researches challenge previous diagnose of the cranial lesions and present a different aetiology. Including various analyses of similar palaeopathological cases allows for presenting the complexity of the process which is the compiling the palaeopathological diagnosis. The last paper of the case studies, by Abeer Eladany (“Harris lines, ill health during childhood, poor diet, emotional stress or normal growth patterns”, pp. 31–40), presents the occurrence of Harris lines in ancient Egyptian mummies, and as the title itself indicates and the author discusses, this problem is more than a little controversial. Though traditionally considered the result of arrested growth of the long bones, Harris lines have started to be regarded as a normal growth pattern. The research done by the author on three cases, of which two with proposed Harris lines were previously reported, shows that the issue of Harris lines can be quite complex. For in one of the mummies previously assessed as having Harris lines, the presence of Harris lines was not observed in the re-assessment by Eladany.

The two remaining palaeopathological papers present very interesting populational analyses of the occurrence of dental palaeopathologies. The first paper, by Roger J. Forshaw (“Dental infections in ancient Nubia”; pp. 69–81), presents the results of a dental survey of approximately 900 skulls from the original Archaeological Survey of Nubia, curated nowadays in several different collections. Forshaw discusses the aetiology of periapical bony cavities, together with possible types of infections and their outcome for the effected individual. He presents selected case studies applying in each case the analysis of all of the previously mentioned aspects. The presented cases are then summarized for the whole collection.

The article by Nancy C. Lovell (“Occlusal macrowear, antemortem tooth loss, and temporomandibular joint arthritis at Predynastic Naqada”, pp. 95–106) is a thorough analysis of the skulls from the Petrie collection originating from excavations at Naqada. The research summarizes patterns of occlusal macrowear, antemortem tooth loss and lesions of the temporomandibular joint among Predynastic Egyptians. These pathological conditions are analysed in the context of dietary habits and biomechanics of mastication. Lovell presents a very complete picture of the problem showing the pathological conditions as parts of a common health problem, discussing possi-

ble interactions and causative relations between different palaeopathological changes. The complex description of the Naqada population includes the discussion of possible variation between both sexes, as well as between different age groups.

The rest of the book consists of widely variable texts including language analysis of the mummification papyri found at Abusir and their impact on the knowledge on mummification practices (Jiří Janák and Renata Landgráfová, “How to make a mummy: A late hieratic guide from Abusir”, pp. 107–117), an introduction to the potential of modern science in analyzing mummified remains (Michael R. Zimmerman, “Studying mummies: Giving life to a dry subject”, pp. 119–127), and the chemical analysis of meteorite iron beads found in a grave from Gerzeh cemetery (Diane Johnson, Monica M. Grady, Tristan Lowe and Joyce Tyldesley, “Microstructural analysis of Predynastic iron meteorite bead”, pp. 129–140). The last part of the collection gathers papers discussing the advances in computer applications, which can be used for aiding the analysis and accessibility of archaeological collections. Though interesting, these papers are not directly connected to the subject of palaeopathology, nor even, as other papers in this volume, the archaeology of Ancient Egypt and Nubia. They consist of discussions of imaging analysis in anthropology by Norman MacLeod (“Imaging and analysis of skeletal morphology: New tools and techniques”; pp. 141–155), and two cases of on-line databases with information on collections of mummies: one by Ahmad Alam and colleagues describing mummies from the Dakhleh Oasis (Ahmad Alam, Ian Dunlop, Robert Stevens, Andrew Brass, Jenefer Cockitt, Rosalie David and Ryan Metcalfe, “Mummies on rails”; pp. 157–166), and the other by Barbara Zimmerman and colleagues (Barbara Zimmerman, Sukeerthi Shaga, Pavitra Kaveri Ramnath and Sai Phaneendra Vadapalli, “Mummy website and database”; pp. 167–169) considering the database of histological slides and samples gathered by Michael Zimmerman from the same collection.

As this book review summary shows that the subjects presented in the papers gathered in *Palaeopathology in Egypt and Nubia. A Century in Review* are numerous and variable. The collection therefore can hardly be considered a presentation of the topic introduced in the title, which can baffle the potential reader. Unfortunately, it seems that the problem lies in selection of the texts for publication. The book should probably be presented under another title, perhaps something focusing on the bioarchaeological research of the Archaeological Survey of Nubia, with the very broad definition of bioarchaeology, including different types of biochemical analyses. In its present state the collection seems more than a little chaotic, with a core of only several palaeopathological papers. It should be pointed out though that several of the palaeopathological papers truly enhance the present state of knowledge about disease in ancient Egypt and Nubia. The rest of the papers seem to be very random, though to varying extents they have a vague association with the bioarchaeology of ancient

Egypt and Nubia. The clarity of the publication is further muddled by inconsistency in compilation. Even though the articles are divided into 6 chapters as suggested in the Table of Contents, there is no indication of changing the chapter in the body of the text, therefore the proposed divisions are not clear during the lecture of the volume. Some of the papers describing similar topics are for unknown reasons divided between different chapters, as in case of papers considering palaeopathological changes to temporomandibular joints, where the paper of Mervyn Harris and colleagues is presented in Chapter 2, and the analysis of Ladislava Horáčková and Frank Rühli considering similar palaeopathology, as well as populational research by Nancy C. Lovell are offered in the following Chapter 3. This promotes the impression of chaotic compilation of the papers, which could be avoided.

It seems that only part of the book has potential interest for readers whose attention will be gained by the title. It is possible that the readers more interested in other analyses included but not supposedly covered by the book will miss the publication altogether.

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