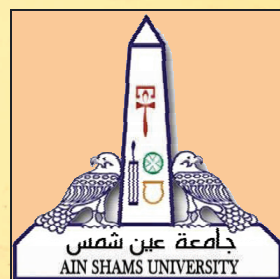
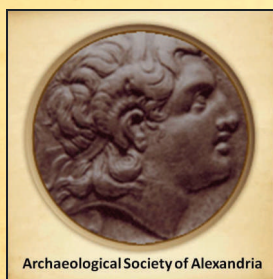


# *JOURNAL OF THE HELLENIC INSTITUTE OF EGYPTOLOGY*

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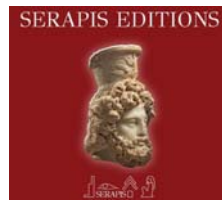
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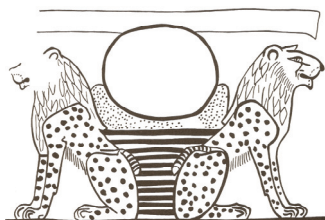


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	EG = Egyptology		CO = Coptology		AA = Archaeoastronomy		TH = Theology		AN = Anthropology	
	HRAPH = Helleno–Roman Archaeology/Philology & History		AT = Ancient Textiles		FOR = Forensics					
	AR = Arabic Studies		MEA = Middle Eastern Archaeology		CT = Cultural Technology		INF = Informatics			

## EDITORIAL

The *Journal of the Hellenic Institute of Egyptology (JHIE)* is jointly co-published annually, in one fascicle, by the HELLENIC INSTITUTE OF EGYPTOLOGY (Athens, Hellas), by the ARCHAEOLOGICAL SOCIETY OF ALEXANDRIA (Alexandria, Egypt) and by the UNIVERSITY OF  AIN SHAMS (Cairo, Egypt). The aim of *JHIE*, based on the principles of Humanism and the desire for International Synergies and collaboration between colleagues of different nationalities that characterize both the Institute, the Society and the Department of Tourist Guidance of the Faculty of Arts of  Ain Shams University, is to provide a modern scientific *forum* for the discussion of a pleiade of aspects, notions and facets from various domains of Egyptology, Archaeology and Archaeoastronomy, with emphasis on the religion, funerary texts, language and scripts, Epigraphy, Papyrology, Sciences (Astronomy, Mathematics, Botany, Chemistry, Architecture, & c.) of ancient Egypt, as well as Helleno-Roman Archaeology related to Egypt; furthermore, Coptology is also represented. Interdisciplinarity and the harmonious interference between various scholarly fields and disciplines are highly desirable, as is also a general emphasis on the collaboration of countries all over the Mediterranean Basin, encompassing studies of individual civilisations (in particular those related to ancient Egypt and Hellas), as well as common elements, contacts and interactions among them. Our journal is kindly published, handled and distributed by SERAPIS EDITIONS, Athens, Hellas. All payments are due to SERAPIS EDITIONS, and not to the Institute, neither to the Society, nor to the University.

*JHIE* is based on the highest standards and accepts, after peer-reviewing, original papers from all authors, without any discrimination between nationality, religion, gender or sexual orientation. We publish the work of international scholars, while also providing a virtual *forum* for the finest Hellenic and Egyptian scholarship; thus, we welcome original articles dealing with the aforementioned thematologies. Articles discussing different cultures will be considered for publication if they are clearly relevant to the ancient Mediterranean World (specifically to Egypt and Hellas), including ancient Hebrews, Phoenicians, Mesopotamians, Assyrians, Persians, Babylonians, Hittites, Arabs, North Africans, & c. Information about new egyptological, archaeological and archaeoastronomical discoveries and current scholarly events is also welcome (in the form of very short notes). Publishers are highly encouraged to send review copies of their books in the relevant fields (please see *infra*).

*JHIE* is a double-blind peer-reviewed journal. Articles must not have been published in, or submitted to, another publication at the time of submission and must be original. All submitted papers are firstly very carefully read by at least two Editors of *JHIE*, who will give a feedback to the author(s). Articles (excluding book reviews or research reports) are afterwards reviewed anonymously by at least two referees in their specific field, appointed by the Executive Editors. The whole peer-review process, as well as any judgment, is based on the quality of the article, its originality and the research conducted therein (only!). In cases where the reviewers recommend changes in the manuscript, authors are requested to revise their articles. In the rare case of unreasonable claims by a reviewer, the Executive Editor in Chief deserves the right to agree with the author not to accept these claims. The final approval of articles lies at the Executive Editors and at the Editorial Board. Throughout the whole peer-review process, articles are treated confidentially. In case of (alleged or suppo-

sed) interest conflict, misconduct or plagiarism of any party involved, the Executive Editor in Chief and/or (if necessary) another Member of the Editorial Board) shall pursue the case and should the situation of taking action arise, shall notify the respective party. The List of the Editorial Board can be found printed in the journal and also at its official web-site. We collaborate with more Colleagues worldwide for specific themes and issues. Finally, in order to make the double-blind peer-review process more transparent and comprehensible, we shall also publish occasionally in our web-page the names of some referees; for this, see: <https://hiegaker.wordpress.com/jhie/>. All authors whose papers have been accepted must follow carefully and precisely all our *Editorial Guidelines*, otherwise their papers will not be published! The preferred languages for publication are English and French.

The current issue of the journal is a special one dedicated to the **Athens Mummy Project**, in particular, and mummification, in general. It contains a good number of original papers on both domains (written by illustrious colleagues in these fields); as well as two brief review and introductory papers on mummification and the decomposition of human bodies (written by the Coordinator of the Project and one of the Members of our Team), these last do not claim much originality, but deemed necessary to be included. It contains also three Prologues by all involved parts: the 1<sup>st</sup> is written by the new Director of the NATIONAL ARCHAEOLOGICAL MUSEUM in Athens, Dr Anna-Vasiliki KARAPANAGIOTOU, distinguished Archaeologist and Scholar, whose presence there ignited a renaissance in the most important Hellenic Museum; the 2<sup>nd</sup> is jointly written by the Chief Financial Officer of the ATHENS MEDICAL CENTRE GROUP, Mr Emmanuel MARKOPOULOS, whose friendship/common course we cherish since 2008, and by the Corporate and International Affairs Director, Mr Constantine CHADJIYANNAKIS; the 3<sup>rd</sup> and most extended is written by an old and good friend as well, Em. Prof. Dr Stephanos GEROULANOS, Member of our Team, distinguished Surgeon and President of the INTERNATIONAL HIPPOCRATIC FOUNDATION, as well as eminent Historian of Medicine. We gratefully thank all of them for their inspired Prologues, sponsorship and continuous assistance. Furthermore, at this point I should also like to thank two more Members of the HELLENIC INSTITUTE OF EGYPTOLOGY, namely: Mr Markos FILIANOS (distinguished Pharmacologist, owner of a modern laboratory, former Student of the Seminar, good friend and Research Partner); Dr Elsa FAVIOU, MD (distinguished Microbiologist, good friend and Research Partner). Their collaboration and partnership in various activities of the Institute is highly appreciated. Follow twelve additional original and interesting papers, related to the subjects of this fascicle, covering several facets of mummification, amulets, mummies in Museums, CT-Scanning of mummies, death and the judgment according to the ancient Egyptian religious beliefs, & c. The volume also features — at its end — six interesting reviews, presenting related prominent books. Finally, let us note at this point that due to the voluminous contents of this fascicle it was impossible to include the *Chronicles'* pages, which are — for the moment — withheld until one of the next issues of our journal appears in the near future. May I also note here that the sequence of papers in the current volume is not in alphabetical order (i.e.: following the family name of each author), but strictly in chronological (following the chronology of the era examined in each one of them), with a preponderance given to more general and introductory articles. The two short papers by Dr Hab. Dario PIOMBINO-MASCALI and Dr Hab. Mykola TARASENKO are both brief reports. We expect that the very next issue (*JHIE* 5: December 2022) will publish the Proceedings of the 2<sup>nd</sup> Athens



International Conference of Egyptology that was dedicated to Women in Ancient Egypt and in the Mediterranean Basin (it took place in Athens, in February 2020).

This volume has been generously sponsored by the ATHENS MEDICAL CENTRE GROUP, due to the kind funding that was offered by its Direction, namely through the generosity of its Chief Financial Officer, Mr Emmanuel MARKOPOULOS, to whom I would like to reciprocate my warm thanks and gratitude once more! The continuous support and assistance of the ATHENS MEDICAL CENTRE GROUP to the **Athens Mummy Project** is to be thankfully acknowledged. The contribution of this high standards' private hospital to this endeavour is significant and it was a *sine qua non* for the successful performance of this Research Project, especially the devoted and fruitful participation of Dr Nikolaos BONTZOGLIOU, MD, eminent Radiologist of international fame and illustrious scholar, whose analysis of the results, together with his Team of Radiologists, is hereby highly praised. Without his involvement and without my stamina and determination, this Project may have never been performed!

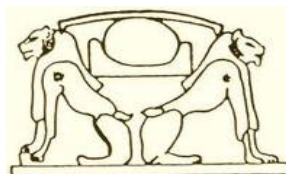
All communications, manuscripts, disks and books for review should be sent to the Executive Editor in Chief in Hellas: Dr Dr Alicia MARAVELIA (*JHIE*), c/o: SERAPIS EDITIONS: 27, Notara Str., GR-106 83, Athens, Hellas. For e-mailing, please use the following alternatives (Mrs Sophia TSOURINAKI, Treasurer of the Institute): **hie-g-aker.org@otenet.gr** and also **s.tsourinaki@yahoo.com**. For matters of payment and subscriptions, please communicate ONLY with the Publisher (SERAPIS EDITIONS), as above, NOT with the Institute, the Society or the University; and in this case, for e-mailing, kindly use: **serapis.gr@gmail.com**.

We should like to thank ALL of you wholeheartedly for your contributions and for accepting to co-journey with us again in our (dual and virtual) celestial and terrestrial *iter*, this time with metaphysical and funereal observances' allusions; namely to a voyage that strives to approach mummification in ancient Egypt in a modern way, through the **Athens Mummy Project**, and through some original papers on this fascinating topic ... And we must never forget that the sophisticated funereal rites together with mummification are not to be misunderstood as a preoccupation/obsession with death or as a thanato-centric *forma mentis* of the Egyptians, but rather as unequivocally proving their immense love for life and its numerous pleasures that were meant to be continued in the hereafter with an *ennobled body* (*sḥꜥt*), a body that could —in principle— endure for ever and that would be the result of embalming and preservation of the physical *body/corpse* (*ḥꜥw/ḥt/ḥꜥt*) after all necessary mummification procedures and rituals had been performed.

**Dr Dr Alicia MARAVELIA**

*Executive Editor in Chief*

Athens, December 2021



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# PROLOGUE BY THE DIRECTOR OF THE NATIONAL ARCHAEOLOGICAL MUSEUM



## ΕΘΝΙΚΟ ΑΡΧΑΙΟΛΟΓΙΚΟ ΜΟΥΣΕΙΟ

I would like once again to thank and praise Dr Dr Alicia MARAVELIA, President of the HELLENIC INSTITUTE OF EGYPTOLOGY and distinguished Egyptologist, for her initiative and tedious efforts to conceive and implement the **ATHENS MUMMY PROJECT**, bringing together Scientists from different fields of knowledge, such as Medical Doctors, Forensic Scientists, Egyptologists Archaeologists and Conservators, in order to present the results of their research, regarding mummification and the rituals of death in ancient Egypt, through the detailed and scholarly study of 9 out of 10 Ptolemaic mummies from Panopolis kept at the premises of the Egyptian Collection of the NATIONAL ARCHAEOLOGICAL MUSEUM of Athens.

Modern technology, such as CT-Scanning, and traditional Science (detailed documentation, collection and interpretation of archaeological data) have been harmoniously combined and I am sure they offer valuable conclusions for our knowledge of the burial process, the so-called *rites de passages*, the Palaeopathology, the societal structure and even the diet and the habits of the population that lived in ancient and Ptolemaic Egypt.

Congratulations to all Members of the Research Team! I would also like to address my warmest greetings and sincere thanks to all who were involved and supported this Research Project from the very beginning, especially to the Athens Medical Group (the CEO, Dr Vasilios G. APOSTOLOPOULOS, the CFO M<sup>r</sup> Emmanuel MARKOPOULOS and the Corporate and International Affairs Director, M<sup>r</sup> Constantine CHADJIYANNAKIS; as well as to the distinguished Radiologist and Director of the CT-Scanning Unit of that Hospital, Dr Nikolaos BONTZOGLU (MD), and his Team). I also mention Dr Georgios KAKKAVAS, because during his tenure the whole Programme started; moreover my predecessor, Dr Maria LAGOGIANNI, who supported the implementation of the research; and finally the recently retired colleague M<sup>rs</sup> Eleni TOURNA, who for several years was the «soul» of the Egyptian Collection.

I trust that this scholarly edition will add to our scientific knowledge and simultaneously will be an incentive for the completion of this (until now unique in Hellas) Research Project and its complete publication.

**Dr Anna–Vasiliki KARAPANAGIOTOU**

*Archaeologist*

*Director of the National Archaeological Museum*

*Hellenic Ministry of Culture and Sports*

*Athens, HELLAS*



## PROLOGUE BY THE CFO AND THE CORPORATE AND INTERNATIONAL AFFAIRS DIRECTOR OF THE ATHENS MEDICAL GROUP



The accomplishment of THE ATHENS MUMMY PROJECT is the capstone of fruitful collaboration between the HELLENIC INSTITUTE OF EGYPTOLOGY, the NATIONAL ARCHAEOLOGICAL MUSEUM OF ATHENS and the ATHENS MEDICAL CENTRE (which constitutes the basic sponsor for this endeavour). It is an innovative venture that took place for the first time in Hellas at the premises of our distinguished private hospital (ATHENS MEDICAL CENTRE in Marousi) and started to be materialized 6 years before through the Non-Invasive Mapping MDCT-Study of 5 out of 9 mummies of the Egyptian Collection of the Museum, under the scientific supervision of Dr N. BONTZOGLU, Director of the CT- and MRI-Department. The ATHENS MEDICAL CENTRE could not be absent from this enterprise, but was present to contribute effectively and profess its interest for this Research Project, contributing with its high scientific standards Staff, as well as the use of the most cutting edge technology and modern CT-Scanner and medical equipment. Today, from this position, we are here as companions to enjoy the fruits of the scientific results, the scholarly conclusions and the highly professional collaboration between the three Institutions. These results shed ample light into the Palaeopathology of the Egyptians, as well as towards understanding their society and metaphysical quests. This specific Research Project gives us the potential to denote that collaboration between two important domains of Science —Medicine and Egyptology/Archaeology— can provide excellent results for the benefit of all Humanity!

We should like to thank particularly Dr Dr Alicia MARAVELIA, President of the HELLENIC INSTITUTE OF EGYPTOLOGY, who conceived the whole Project as early as 2002 and whose restless efforts brought the ATHENS MEDICAL CENTRE in close contact with the NATIONAL ARCHAEOLOGICAL MUSEUM since 2008. We also thank very much the NATIONAL ARCHAEOLOGICAL MUSEUM, its former Directors, as well as the current Director Dr Anna-Vasiliki KARAPANAGIOTOU for the kind assistance, collaboration and contribution to the continuation of this illustrious Research Project. Last, but not least, we would like to express our gratitude and thanks to the Director of the CT- and MRI-Department of our Hospital, Dr Nikolaos BONTZOGLU (MD), together with his highly qualified Team of experienced Radiologists, who contributed decisively to the integration of these studies.

ATHENS MEDICAL CENTRE GROUP shall always be a helper for all Hellenic Scientists in their endeavour towards knowledge, progress and the development of our society.

**Mr Emmanuel MARKOPOULOS**

*Chief Financial Officer  
Athens Medical Centre Group  
Athens, HELLAS*

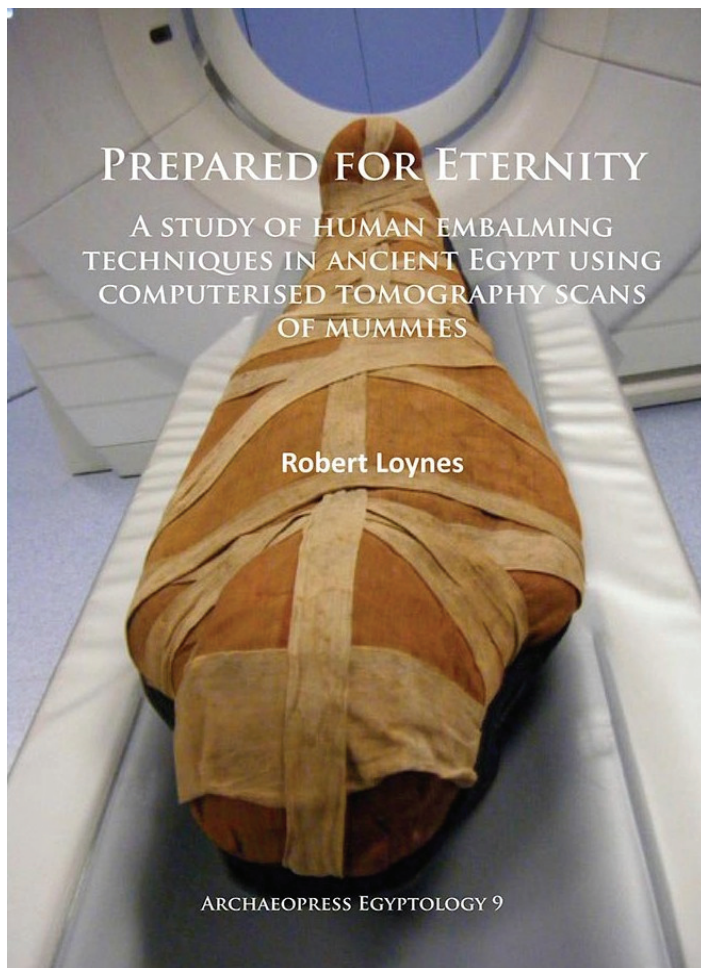
**Mr Constantine CHADJIYANNAKIS**

*Corporate and International Affairs Director  
Athens Medical Centre Group  
Athens, HELLAS*

**BOOK REVIEW:** LOYNES, Robert: *Prepared for Eternity: A Study of Human Embalming Techniques in Ancient Egypt using Computerised Tomography Scans of Mummies*, Oxford (Archaeopress / Archaeopress Egyptology 9) 2015, 250 + xx pages, ISBN 978-1-78491-110-2.

**Andrew J. NELSON** 

*Department of Anthropology, University of Western Ontario & Royal Ontario Museum, Ontario, Canada*



Robert LOYNES is an honorary Lecturer at the KNH (Centre for Biomedical Egyptology) at the University of Manchester. After a career as an Orthopedic Surgeon, he retrained as an Egyptologist, bringing his medical expertise to bear on issues of ancient Egyptian mummification, mortuary practices and techniques and pathological conditions<sup>1</sup>. This book is based on his 2014 Dissertation which was supervised by the distinguished Bioarchaeologist Andrew CHAMBERLAIN. The goal of the Dissertation and book was to bring the perspective of a trained medical professional to test pre-existing conceptions of mummification techniques by having a single set of eyes systematically study a large sample of mummies. This is an approach that I loudly applaud, as it is an approach that has shaped my own work on Egyptian (and other) mummies. The author tests those pre-existing conceptions, that are

largely dependent on the descriptions of Hērodotos and/or case studies of single or very few mummies, by amassing an impressive sample of 60 mummies collected from Museums and Institutes in the UK (including Birmingham, the British Museum, Exeter, Ipswich, Liverpool, Manchester, Perth and Sheffield) and Europe (including Zürich and Turin). Radiographic data came in the format of X-Rays and CT-Scans, with either direct access to the data or access only to a Server. Loynes does not tell us how long it took him to gather all this data, but I can only imagine that the logistical obstacles were considerable, and the task was clearly Herculean. As discussed above, each X-Ray and/or CT-Scan was analyzed directly by the author in a systematic manner, designed to elucidate variation relative to time and place. While I wholly applaud Loynes's approach, a limitation of this sample, and, admittedly, with most of the samples I work with, is that it is really not a systematic sample. It represents collecting decisions made by Collectors and Museums over the course of two or more centuries as well as the vagaries of curatorial access, and so is drawn from multi-

<sup>1</sup> Concerning KNH, see the URL: <https://sites.manchester.ac.uk/knhcentre/>. Additionally, see also his ACADEMIA.EDU web-site at the URL: <https://manchester.academia.edu/RLoynes>.

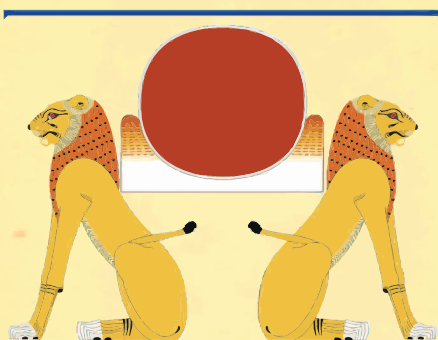
ple sites and time periods and the individual mummies are often without any provenience information. By no means does this negate the author's conclusions, but it emphasizes that an appreciation of the full range of variability in the ancient Egyptian mortuary tradition is «unfinished business». The book *Prepared for Eternity* is organized into 10 Chapters: Introduction; Methods; five Results Chapters (general; head; trunk; skin, subcutaneous tissues and position of arms; Demographics and Paleopathology); two Discussion Chapters (mummification techniques related to era, geographic location and age at death; and specific mummification techniques); and Conclusion. The Introduction provides a brief overview of the basics of ancient Egyptian religious beliefs and reviews the historical references to mummification. Those interested in these topics will be interested to read the recent Doctoral Thesis by Sofie SCHIØDT (2020)<sup>2</sup>, which is a translation and interpretation of a medical papyrus from 1450 BC (that includes the earliest and one of the few embalming manuals known). Other topics covered in *Prepared for Eternity* include classification, the mummy trade (important to understand how these mummies got to their current homes) and medical imaging and its application to mummy studies. This Chapter closes with the aims and objectives. The Methods Chapter discusses how the sample was assembled, lists the individual mummies and their origin and date, has a valuable discussion of provenance (and problems with it), bioarchaeological methods and the structure of reporting. The report structure is illustrated with a thorough description of a Helleno–Roman Mummy from the Birmingham Museum. The first Results Chapter provides an important discussion of the different data formats (X–Ray, old CT and new Digital CT), which contextualizes the difficulties involved in systematic analysis. The rest of the Results Chapters provide descriptions of the embalming techniques organized by regional anatomy. Loynes's systematic descriptive approach structures these Chapters and provides excellent descriptions of the different techniques. The two Discussion Chapters focus on embalming techniques by time period, location, age at death and focus on the specific methods including the effect of outside cultural influences on the practice of mummification. The Conclusion Chapter brings the material together for interpretation. Loynes identifies patterns of technique that differ both by time and location. An important conclusion is that no single trait will characterize a time period; rather one must examine suites of traits together. He adds a section with carefully articulated caveats and closes by looking to the future, encouraging cooperation and collaboration to systematically study more mummies to form «more robust opinions». In sum, this study is an excellent model of careful, systematic research that those with interests in the practice of mummification in Ancient Egypt should seek to emulate and build upon. It is also a «must cite» reference for every case study, or study of small samples of mummies, to put them in the broader context. Loynes has provided models of change in mummification practice over time and by region that can be tested and reinforced. It is up to the community to answer the call for collaboration and cooperation to achieve those goals. Finally, I do note that the excellent printing, the high quality paper, with the accompanying colour (not many), together with the abundant black–and–white good pictures, are characteristic of the professional work of David DAVISON (and his Archaeopress Team).

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<sup>2</sup> See SCHIØDT, S.: *Medical Science in Ancient Egypt: A Translation and Interpretation of Papyrus Louvre–Carlsberg* (pLouvre E 32847 + pCarlsberg 917) (Doctoral Dissertation), Copenhagen (University of Copenhagen / Department of Cross–Cultural and Regional Studies) 2020.



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