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Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

- Ιούλιος 2021 -

**Men would live exceedingly quiet if these two
words, mine and thine, were taken away.**
(Anaxagoras)

Newsletter of the Hellenic Society of Archaeometry

- July 2021 -

Nr. 244

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ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

2nd International Conference on TRANSDISCIPLINARY MULTISPECTRAL MODELLING AND COOPERATION FOR THE PRESERVATION OF CULTURAL HERITAGE “Rebranding the World in Crisis through Culture”, ATHENS @ 12 12 21, FINAL CALL FOR PAPERS

Dear Colleague,

We are pleased to announce the **final call for papers** at the 2nd International TMM_CH Conference on “**Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage. Rebranding the World in Crisis through Culture**”, that will be held in Athens, Greece, on December 12th-15th 2021, following the successful 1st International TMM_CH Conference in 2018.

You are invited to submit your research contributions for oral and poster presentations, before the **new and extended full paper deadline at July 11th 2021**. Please look at the **new roadmap**: https://www.tmm-ch.com/#key_dates

For more information about the publications, the fees and the topics of the Conference: <https://www.tmm-ch.com/>

INTERNATIONAL STEERING COMMITTEE

https://tmm-ch.com/files/TMM_CH2021_Steering_Committee.pdf

INTERNATIONAL SCIENTIFIC COMMITTEE

https://tmm-ch.com/files/TMM_CH2021_Scientific_Committee.pdf

ABOUT THE CONFERENCE

Innovative scientific methodologies and challenging projects marking future trends in the protection of cultural heritage, have initiated a universal conversation within a holistic approach, merging competence from the scientific fields of architecture, civil engineering, surveying engineering, materials science and engineering, information technology and archaeology, as well as heritage professionals on restoration and conservation, stakeholders, industry representatives and policy makers. The combined utilization of digital documentation technologies with innovative analytical and non-destructive techniques, numerical, computational and 3D techniques, archaeometric and archaeogene methods, supports the creation of a transdisciplinary multispectral modeling towards the sustainable preservation of cultural heritage. Innovation is enhancing and revealing a critical dimension of the preservation of cultural heritage along with social participation and communication.

The National Technical University of Athens interdisciplinary team “Protection of monuments” [Prof. A. Moropoulou, Prof. M. Korres, Prof. A. Georgopoulos, Prof. C. Spyarakos, Ass. Prof. C. Mouzakis], scientific responsible for the Holy Aedicule’s rehabilitation of the Holy Sepulchre in Jerusalem, and the Technical Chamber of Greece, in collaboration with international and Greek Authorities, organize the 2nd TMM_CH International Conference on “Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage: Rebranding the World in Crisis through Culture”, on 12-15 December 2021, in Athens, Greece, discussing modern trends in the original agora of our technological and democratic roots.

The Conference is organized under the patronage of H.E. the President of the Hellenic Republic, Ms Katerina Sakellaropoulou, by the National Technical University of Athens in cooperation with the Technical Chamber of Greece and the organization AHEPA Hellas.

Distinguished scientists and representatives of the National Geographic Society, the Cultural Heritage Finance Alliance, the International Council of Monuments and Sites ICOMOS, the Organization of World Heritage Cities OWHC, the European Society for Engineering Education SEFI, the European Construction Technology Platform ECTP, the International Federation of Surveyors FIG, the International Committee CIPA Heritage Documentation, the World Monuments Fund and other major International and European Organizations, Associations, networks Universities and Research Centers in the field of cultural heritage preservation, participate in the International Steering and Scientific Committees which had successfully organized the 1st TMM_CH Conference as well.

The conference will be held at the Eugenides Foundation in a hybrid format, if needed. Scientific walk and talk visits on 12 December 2021 to Acropolis Monuments and Museum [in the footsteps of the Greek Peripatetic Philosophical School] and other visits planned upon demand.

At the 1st TMM_CH Conference, which was held with great success in October 2018 at the Eugenides Foundation in Athens, with the presence of 350 delegates from 22 countries from all continents, the emblematic rehabilitation of the Holy Aedicule of the Holy Sepulchre in Jerusalem was presented as an exemplary application, in the field of monuments' protection, of interdisciplinary and multispectral collaboration, as an outcome of innovation, not only on Research, but in the implementation process as well, with emphasis on technological advancements, not only intersecting all the scientific fields of engineers and natural scientists, but also initiating an ongoing dialogue with humanities, such as Archaeology, Theology, Sociology, Diplomacy and Tourism. Innovative knowledge transfer through practice and education is continuing the venture for the rehabilitation projects in the Holy Sepulchre Church, adjoining the National Technical University of Athens and La Sapienza University of Rome with Bezalel Academy of Science and Arts in Jerusalem, in cooperation with Israeli Antiquities Authority, through the Erasmus+ Strategic Alliance EDICULA "Educational Digital Innovative Cultural Heritage related Learning Alliance".

The scope of the 2nd TMM_CH Conference is to present the latest developments in research and innovation that identify novel trends to build an interdisciplinary approach to conservation and holistic digital documentation of cultural heritage. The utilization and reuse of monuments, historic cities and sites, forms the framework of a sustainable

preservation of cultural heritage, in accordance with the principles of circular economy; in terms of respect and protection of values, materials, structures, architecture and landscape; with an informed society, able to participate effectively in the policies that will design and implement the new strategies required.

Sharing knowledge, experiences, and recommendations about sustainable cultural heritage approaches and practices at a moment of great risk and a time of renewed possibilities, will reorientate conversation to explore the current conditions and contours of the World in crisis rebranding itself through Culture, and relaunching development.

TOPICS

- Multispectral, Multidimensional, Novel Approach through Transdisciplinarity and Cooperation in the Protection of Cultural Heritage: Exemplary Projects (The Project of the Rehabilitation of the Holy Sepulchre's Holy Aedicule, EDICULA Erasmus+ Strategic Partnership, et als)
- Digital Heritage
- Heritage at Risk
- Resilience to Climate Change, Natural Hazards and Pandemic Risks – Biosafety
- Advanced Non Destructive and Structural Techniques for Diagnosis, Redesign and Health Monitoring
- Archaeometry, Archaeogene
- Conserving Compatibility, the Materiality of Structures and Architectural Authenticity
- Cross-Discipline Earthquake Protection and Structural Assessment of Monuments
- Transdisciplinary Dialogue among Architecture, Engineering and Natural Sciences with Humanities and Diplomacy
- Bridging Heritage Stakeholders, Science and Industry
- Sustainable Preservation and Management of Cultural Heritage
- Historical / Architectural Sites, Monuments and Complexes as Open Labs of Innovation and Sustainable Socioeconomic Development
- Historic Cities and Centers: New Preservation Strategies by Reuse for Development
- The Reuse of Cultural Heritage through Circular Economy and Social Participation as Key Contribution to Local and Regional Development
- Cultural Heritage and Tourism

- Revealing and Protection of Cultural and Natural Assets within Green and Blue Deal for Integrated Sustainable Development of Isolated Areas (Islands, Mountain areas, et als)
- Novel Educational Approach for the Preservation of Cultural Heritage
- From Research and Innovation to Policy
- Rebranding the World in Crisis through Culture

PUBLICATIONS

Accepted papers will be published, as in the case of the 1st TMM_CH Conference, in Proceedings and Scientific Journals in the field of Cultural Heritage Preservation, selectively, available in early 2022 following the Conference.

Proceedings

- Springer Proceedings in Communications in Computer and Information Science - Transdisciplinary Multispectral Modeling and Cooperation for the Preservation of Cultural Heritage
- Springer Proceedings in Materials - Advanced Non Destructive and Structural Techniques for Diagnosis, Redesign and Health Monitoring for the Preservation of Cultural Heritage

Journals

- Developments in the Built Environment - Special Issue on Monitoring and Assessment for the Sustainable Preservation of the Built Environment
- Heritage - Special issue on Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage
- European Journal of Engineering Education
- International Journal of Architectural Heritage

PAPER SUBMISSION

Abstracts can be submitted, but only full papers will be peer reviewed.

Accepted papers will be distributed into sessions. Plenary lectures [after invitation] will cover major accomplishments, innovations and challenges.

All papers should be written in English. Full papers should be up to 10 pages and short papers up to 6 pages. You must submit papers via EasyChair, using the conference link: <https://easychair.org/conferences/?conf=tmmch2021>

For the preparation of all papers, please follow Guidelines for Proceedings Authors Templates, sample files & useful links

- Detailed Guidelines
- LaTeX2e Proceedings Templates (zip)
- Microsoft Word Proceedings Templates (zip)
- Microsoft Word 2003 Proceedings Templates (zip, 229kb)

- Your ORCID identifier
- Bookmetrix

Copyright Form, as well as the final paper in DOC file to be published, will be requested from authors upon final acceptance after the review process is completed.

IMPORTANT DATES

Full Paper submission deadline: July 11th, 2021

Notification of author's acceptance with paper corrections: August 31st, 2021

Final paper submission: September 11th, 2021

Completion of early bird registration: October 15th, 2021

Announcement of preliminary program: October 20th, 2021

Announcement of the program: November 12th, 2021

Conference dates: December 12th-15th, 2021

The President of the International Steering Committee of the TMM_CH Conference
Prof. A. Moropoulou

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

CALL FOR APPLICATIONS: DAI-ANAMED
PROJECT FELLOWSHIPS IN
ENVIRONMENTAL ARCHAEOLOGY (FOR
POST-DOCTORAL SCHOLARS)

The Deutsches Archäologisches Institut, Abteilung Istanbul (DAI) and Koç University's Research Center for Anatolian Civilizations (ANAMED) invite applications again for DAI-ANAMED Project Fellowships in Environmental Archaeology to support post-doctoral scholars. The fellowships will support research on the environmental archaeology of Anatolia using approaches such as zooarcheology, archaeobotany, anthracology, environmental modelling, and related specializations. The primary responsibility of fellowship holders will be to conduct work relating to a longitudinal research project titled "Humidity & Society: 8,500 Years of Climate History in Western Anatolia" (within the DAI-Cluster "Groundcheck"). Using Neolithic through Classical period materials from excavations associated with the DAI and Koç University (e.g., Barcın Höyük, Kaymakçı, Pergamon), the project is conducting high-resolution stable isotope carbon and other analyses of ancient botanical and faunal materials to estimate past relative humidity and water availability and thus to understand past climatic conditions for agricultural and pastoral activities.

ANAMED, located in Beyoğlu, İstanbul is dedicated to fostering research on the archaeology, art, heritage, and history of Anatolia through fellowships, exhibitions, symposia, publications, and library collections and services. Selected post-doctoral fellows will work in ANAMED's environmental archaeology laboratory as Koç University ANAMED research fellows, help develop reference collections therein, and run hands-on workshops related to the fellowship. Fellows must be resident in Istanbul but might spend up to two months elsewhere in Turkey carrying out field work or on-site research related to the fellowship.

QUALIFICATIONS

Successful applicants will have a strong combination of the following qualifications:

- * PhD in a related specialization (i.e., archaeology, anthropology, ancient history and/or related social sciences and humanities fields);
- * Demonstrated expertise in zooarchaeology, archaeobotany, anthracology, environmental modelling, isotope analyses in archaeology, and/or related specializations;
- * Demonstrated interpersonal, organizational, and collaborative skills for working within teams;
- * Ability to work independently and to prioritize multiple, simultaneous projects;
- * Ability to communicate effectively (written and spoken) in English with project-related researchers as well as Koç University faculty, administration, staff, and students; Turkish and/or German is preferred as well;
- * Flexibility in work schedule, as needed; and

* No military obligations.

COMPENSATION AND BENEFITS

The successful applicant will be provided a fellowship stipend commensurate with experience, health benefits, a research account, and assorted other benefits.

TERM

The successful applicant will be ready to start the one-year fellowship on 27 September 2021. Renewal thereafter is contingent on project progress and available funding.

APPLICATION MATERIALS & SUBMISSION

Required application materials include;

- (1) an application letter detailing the applicant's relevant experience and motivation to win a fellowship;
- (2) a Curriculum Vitae; and
- (3) the names and emails of two referees familiar with the applicant's experience. Up to two relevant publications or writing samples are welcome, also. Applicant materials must be submitted via email to

anamedapplication@ku.edu.tr<[https://nam10.safelinks.protection.outlook.com/?url=http %3A%2F%2Fanamedapplication%40ku.edu.tr%2F&data=04%7C01%7Cjyounger%40k u.edu%7C6d20ca6bfaf244df9f4f08d9314c595b%7C3c176536afe643f5b96636feabbe3c1 a%7C0%7C1%7C637595026267481184%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiM C4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6I6k1haWwiLCJXVCI6Mn0%3D%7C3000 &sdata=Elm7Pk6%2F5jNfZLMCCPf1TB5G920TH%2Fc1p57ivnfIFYE%3D&reserved =0](https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fanamedapplication%40ku.edu.tr%2F&data=04%7C01%7Cjyounger%40ku.edu%7C6d20ca6bfaf244df9f4f08d9314c595b%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C1%7C637595026267481184%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiM C4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6I6k1haWwiLCJXVCI6Mn0%3D%7C3000 &sdata=Elm7Pk6%2F5jNfZLMCCPf1TB5G920TH%2Fc1p57ivnfIFYE%3D&reserved=0). Application files should be saved as MSWord or PDF files, with filenames containing the applicant's last name. Questions should also be addressed to anamedapplication@ku.edu.tr<[https://nam10.safelinks.protection.outlook.com/?url=http %3A%2F%2Fanamedapplication%40ku.edu.tr%2F&data=04%7C01%7Cjyounger%40k u.edu%7C6d20ca6bfaf244df9f4f08d9314c595b%7C3c176536afe643f5b96636feabbe3c1 a%7C0%7C1%7C637595026267491137%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiM C4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6I6k1haWwiLCJXVCI6Mn0%3D%7C3000 &sdata=CLzIyDeZ4UFxjA%2BzTLT%2BTHIL6zXU8ourLFLuBCc7ifY%3D&reserved =0](https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fanamedapplication%40ku.edu.tr%2F&data=04%7C01%7Cjyounger%40ku.edu%7C6d20ca6bfaf244df9f4f08d9314c595b%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C1%7C637595026267491137%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiM C4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6I6k1haWwiLCJXVCI6Mn0%3D%7C3000 &sdata=CLzIyDeZ4UFxjA%2BzTLT%2BTHIL6zXU8ourLFLuBCc7ifY%3D&reserved=0).

The application review process will proceed until the position is filled.

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istanbul
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CAMBRIDGE JOB: SENIOR TEACHING **ASSOCIATE IN ARCHAEOLOGICAL** **SCIENCE**

Dear all,

Please help me circulate this job to potential candidates. A 5-year position for an archaeomaterials specialist to join the archaeological science community at Cambridge!
[Archaeological Science Senior Teaching Associate \(Fixed Term\) - Job Opportunities - University of Cambridge](#)

Deadline: 22 July 2021.

Start date: 15 September 2021 or asap thereafter.

Many thanks,
Marcos

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ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS
**CRIMES IN THE PAST: ARCHAEOLOGICAL
AND ANTHROPOLOGICAL EVIDENCE**

edited by Tatyana Shvedchikova, Negahnaz Moghaddam and Pier Matteo Barone.
Paperback;

205x290mm; 264 pages; 102 figures, 5 tables. 733 2021.

Available both in printed and e-versions.

Printed ISBN 9781789697780.

Epublication ISBN 9781789697797.

Crimes in the Past: Archaeological and Anthropological Evidence aims to discuss the possible examples of crimes in the archaeological past, their detection and interpretation with the help of modern scientific methods, and how interdisciplinary approaches can be conducted in further research concerning ‘crimes of the past.’ The idea to create this publication was born after organizing Session #169 Past Crimes during the 25th Annual Meeting of the European Association of Archaeologists (EAA 2019) in Bern. In this book, readers will find cases of historic and prehistoric ‘crimes scenes’ known from various contexts, including the findings of (pre)historic (mass) graves and lethal violent acts related to warfare, ritual killings, or possible murder cases. In order to get to the bottom of the possible archaeological crime scenes, contemporary interdisciplinary approaches will be used, which allow us to extend the frames of classical archaeological study.

Tatyana Shvedchikova completed her studies in Social Anthropology at the Russian State University for the Humanities in Moscow. From 2010 she has worked as a research fellow at the Department of Theory and Methods at the Institute of Archaeology, Russian Academy of Sciences.

Dr Shvedchikova’s main research interests lie in the fields of forensic anthropology and archaeology, in particular bone tissue degradation processes and multidisciplinary approaches to the study and identification of human remains. ;

Negahnaz Moghaddam completed her studies in Human Genetics and Physical Anthropology at the Ludwig-Maximilians-University of Munich, Germany. Since 2017 she has been head of the forensic anthropology research group at the Unit of Forensic Imaging and Anthropology (UIAF) and the Swiss Human Institute of Forensic Taphonomy (SHIFT). Her activities on archaeological excavations, laboratory analyses including stable isotope research, and forensic case work have allowed her to bridge the gaps between various disciplines. ;

Pier Matteo Barone is a full-time lecturer in the Archaeology and Classics Department of the American University of Rome. He teaches Forensic Geoscience with particular regard to geophysical prospections, remote sensing, GIS, and archaeology applied to crime scene investigations and to crimes in antiquity.

Please visit the site:

<https://archaeopress.com/ArchaeopressShop/Public/displayProductDetail.asp?id=%7b5D094F07-4034-4087-A3BE-EC60CE5B9791%7d> [Go there for price range]

THE FIRST THOUSAND YEARS OF GLASS- MAKING IN THE ANCIENT NEAR EAST COMPOSITIONAL ANALYSES OF LATE BRONZE AND IRON AGE GLASSES

by Wendy Reade.

Paperback; 205x290mm; 274 pages; 204 figures, 72 tables. 731 2021.

Available both in printed and e-versions.

Printed ISBN 9781789697032.

Epublication ISBN 9781789697049.

Glass-Making in the Ancient Near East explores glass composition and production from the mid-second to mid-first millennia BC, essentially the first thousand years of glass-making. Multi-element analyses of 132 glasses from Pella in Jordan, and Nuzi and Nimrud in Iraq (ancient Mesopotamia), produce new and important data that provide insights into the earliest glass production. A novel method for data interpretation and presentation has been developed and used to characterise the glass types and to investigate questions of composition, raw materials, regional differences and similarities, and changes through time from the earliest consistent glass manufacture as represented at 16th century BC Pella, which is compared with Late Bronze Age Nuzi, to the Iron Age at both Pella and Nimrud. These compositional data are compared with available glass compositional data from the widespread regions of the Levant, Mesopotamia, Egypt, Iran and France, uncovering fascinating connections that, when placed in the archaeological context, reveal much about glass production, raw material sources, and distribution of finished and raw glasses.

Technological innovations, including the introduction of natron-fluxed glasses, early decolouring with antimony, and the use of Egyptian cobalt colourant in Near Eastern glasses, are explored as part of this unique investigation of the critical developments in sophisticated and complex glass-making that laid the foundations for the establishment of large-scale production in the ensuing Hellenistic and Roman periods.

Wendy Reade has obtained a Postgraduate Diploma in Ancient Documentary Studies from Macquarie University and a PhD in Archaeological Science from the University of Sydney in 2009. She is an Honorary Associate in the Department of Archaeology at the University of Sydney, where she lectured in Archaeology and Archaeological Science from 1999 to 2015.

She has worked as an archaeologist and conservator on excavations in Jordan, Egypt, Bahrain, United Arab Emirates, Syria, Greece, the Republic of North Macedonia, Myanmar and Australia.

Please visit the site:

<https://archaeopress.com/ArchaeopressShop/Public/displayProductDetail.asp?id=%7bE125C862-3EB1-45F0-8213-178A2C5B0776%7d> [Go there for price range]

THE GEOLOGY OF GREECE, **DIMITRIOS I. PAPANIKOLAOU**

Faculty of Geology and Geoenvironment, National and Kapodistrian University of Athens, Athens, Greece

Introduction

This book introduces the reader to the unique geology of Greece. This country is a natural geology laboratory that can help us understand the present-day active geodynamic processes in the Hellenic orogenic arc, including earthquakes, volcanoes, coastline changes and other processes of uplift and subsidence, as well as the intense erosion, transport and deposition of sediments. Additionally, Greece offers a remarkable geological museum, reflecting the complex history of the area over the last 300 million years. By studying the rocks of Greece, one can discover old oceanic basins, e.g. in the Northern Pindos and Othrys mountains, crystalline rocks of Palaeozoic age, old granitic and volcanic rocks, as well as other sedimentary rocks including fossils from the shallow neritic facies to pelagic and abyssal facies. The younger sediments demonstrate the continuously changing palaeogeography of Greece, with areas of lakes, high plateaus and gulfs that are transformed into new forms of islands, peninsulas or high mountains, etc. All the above subjects are included in the book, which describes the tectonic structure of the geological strata, together with the evolutionary stages of the palaeogeography and geodynamics within the broader Mediterranean context. A special characteristic of the book is the development of the orogenic model of the Hellenides with the application of the tectono-stratigraphic terrane concept in the Tethyan system.

Keywords

tectono-stratigraphypalaeozoic continental crusttectono-stratigraphic terranesmolassic basinsneotectonics and active tectonicstectono-metamorphic beltsTethyan systemmediterranean paleogeographyAlpine-Himalayan orogenic beltEvolution of the Hellenides

About the authors

Dimitrios I. Papanikolaou is an Emeritus Professor of Geology specialized in Structural Geology and Tectonics, Geology of Greece, Marine Geodynamics and Neotectonics at the National and Kapodistrian University of Athens. He studied Natural Sciences (Bsc 1971) and Geology (Bsc 1976) and obtained his PhD in Geological Sciences (1978) in the University of Athens. He was elected successively Lecturer, Assistant Professor, Associate Professor and in 1993 Full Professor of Geology at the University of Athens. He did his post doctoral research in the University of Lausanne (1979-1981). He acted as a visiting Professor in the University of Reims (1982-1983) and the University of MIT in Boston (2003) and provided lectures in several other Institutions worldwide for shorter periods. Throughout his carrier he was teaching structural geology and Tectonics as well as The Geology of Greece (for over 40 years) supported by fieldtrips. He was the Director of the post-graduate Msc programs «Prevention and Management of Natural

Hazards» (2008-2016) and «Oceanography» (2007-2016). He was elected President of the Geological Society of Greece (1988-1996) and of the Carpatho-Balkan Geological Association (1993-1995). He was the Project Leader of IGCP 276 of UNESCO/IUGS «Paleozoic geodynamic domains and their alpidic evolution in the Tethys» (1987-1997). For several years he served as President of the Earthquake Planning and Protection Organization of Greece (1993-1998), as General Director of the Hellenic Centre for Marine Research (1994-2000) and as Secretary General for Civil Protection in the Ministry of Interior (2000-2002). He is associate editor in several international scientific journals and has edited several special volumes, particularly regarding the Geology of the Aegean. He has published more than 300 papers in various international and Greek scientific journals.

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PHARMACY AND MEDICINE IN ANCIENT EGYPT PROCEEDINGS OF THE CONFERENCE HELD IN BARCELONA (2018)

edited by Rosa Dinarès Solà, Mikel Fernández Georges and Maria Rosa Guasch-Jané.
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Pharmacy and Medicine in Ancient Egypt presents the proceedings of the 3rd International Conference on Pharmacy and Medicine in Ancient Egypt (Barcelona, October 25-26, 2018). The conference included presentations on new research and advances in the topics covered in the first two conferences (Cairo, 2007 and Manchester, 2008). It showcased the most recent pharmaceutical and medical studies on human remains and organic and plant material from ancient Egypt, together with related discussions on textual and iconographic evidence, to evaluate the present state of knowledge and the advances we have made on pharmacy and veterinary and human medicine in Ancient Egypt. The conference program combined plenary sessions, oral communications and posters with discussions that established interdisciplinary collaborations between researchers and research groups to formulate breakthrough approaches in these fields. Participation in the conference and poster sessions ranged from distinguished researchers and professors from academic institutions, museums and universities, to postgraduates and doctoral students at the beginning of their careers.

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Dr Maria Rosa Guasch-Jané holds a BSc in Pharmacy (1996), MSc in Nutrition and Food Science (1998), MA in Egyptology (2000) and PhD in Pharmacy (2005). Dr Guasch has been director of the Study of Viticulture and Oenology in Egyptian Tombs research project (2011-2014) at Nova University, Lisbon, and post-doctoral researcher Marie-Sklodowska Curie on the EGYWINE European project (2016-2018) at the Mondes Pharaoniques lab (UMR 8167 'Orient et Méditerranée') of Sorbonne University in Paris

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ANCIENT GREEK MEDICINE IN QUESTIONS AND ANSWERS: DIAGNOSTICS, DIDACTICS, DIALECTICS. STUDIES IN ANCIENT MEDICINE, VOLUME 54

BMCR 2021.06.41

Michiel Meeusen, Leiden; Boston: Brill, 2020. Pp. xi, 242. ISBN 9789004437654
€106,00.

Review by Claire Hall, All Souls College, Oxford. claire-hall@all-souls.ox.ac.uk
[Authors and titles are listed at the end of the review.]

Originally presented at a conference in 2016, this volume of nine papers addresses the theme of questions and answers in Greek medicine from a number of perspectives. The chapters include analysis of texts which take an explicitly question-and-answer format (problemata texts and the so-called erotapokriseis medical Q&A papyri) as well as theorising Q&A in medical encounters and in logic. On the whole, the theme works well, with some helpful continuities between contributions. There is a strong trio of essays on medical papyri and a sustained focus on the relationship between Galen's medicine and the school of his near-contemporary Alexander of Aphrodisias.

A brief introduction sets out the context of the work within the literature. Michiel Meeusen makes the case that there has been a great deal of recent work on ancient medical texts, including Q&A texts (e.g. Mayhew's edition of *Problemata Physica*, Brill, 2015). However, as he points out, much of this work tends to focus on individual texts, whereas the present volume seeks to make a wide-ranging comparative examination from a variety of perspectives. It is successful in that aim.

The first contribution, from Andrés Pelavski, uses the Q&A format as a framework for discussing altered states of consciousness in the Hippocratic corpus. Pelavski argues that, although work has been done on mental illness in ancient medical texts, less attention has been paid to alternative explanations for acute episodes in which patients act or speak abnormally. The Q&A form employed by doctors to assess patients, implicit in various Hippocratic texts, displays a developed notion of altered consciousness (and therefore of consciousness) which has significant overlap with the modern notion. Pelavski further claims that this is separate from ancient philosophical discussions of the mind. His examples are well chosen, but his discussion of the absence of a theory of consciousness in other Greek thought is less convincing. For example, the idea is very clearly present in texts on prophetic mania, including in Plutarch and Philo.

Robert Mayhew focuses on the understudied prologue to Book 4 of the *Ps.-Aristotelian Problemata Physica*. The *Problemata* concern questions of a philosophical type. One question Mayhew analyses in detail is about the formation of seed, which was the source of significant doctrinal disagreement between Hippocratics and Aristotelians. Mayhew argues carefully and impressively that the *Problemata*, instead of being a set-piece on the topic, treats the subject (surprisingly) as a genuinely open question: the author of the

Problemata takes aspects of both Hippocratic and Aristotelian accounts, raises questions, and gives speculative and sometimes mutually exclusive answers.

Katerina Oikonomopoulou seeks to identify the intended audience of the Supplementary Problems, a pseudo-Aristotelian Q&A text. As she shows, there is a very uneven distribution of topics, discussed at varying levels of assumed expertise, which makes it hard to assess audience.

Oikonomopoulou helpfully compares the Supplementary Problems with more explicitly rhetorical texts like Plutarch's Table Talk or Aulus Gellius' Attic Nights, where the author functions not only as a formal expert but as a sophisticated raconteur disseminating knowledge in a social (as opposed to formal educational) environment. By making this case, she also implicitly makes a strong case for the volume as a whole as a method for studying the wider social context of medical Q&A texts.

Meeusen's own contribution is on 'unsayable properties' (ιδιότητες ἄρητοι) in ps.-Alexander of Aphrodisias' Medical Puzzles and Natural Problems. He shows that, for ps.-Alexander, epistemic limits on the doctor were not only – as in Galen – because of the lack of availability of reliable information, but also had a theological significance: some questions were 'better left unresolved'. In arguing this, Meeusen also clearly sets out a wider agenda for the study of Q&A texts, which makes this chapter a linchpin in the work as a whole.

Luca Gili's focus is on logic in Alexander of Aphrodisias and Galen.

In particular, he demonstrates that neither Alexander nor Galen have an erotetic logic—that is a logical system which uses questions as logical terms. Both, however, clearly believe that question-and-answer dialogue with patients is an essential part of the diagnostic process, and both believe that such dialogues can (and must) be translated into syllogistic logic. Gili convincingly argues that, while Alexander used modal logic to encode the sorts of uncertainties endemic to patient interactions, Galen did not employ modal logic and instead attempted to encode uncertainty directly into premises in his syllogistic.

Although the most technical, this chapter is perhaps the most exciting in the book.

Antonio Ricciardetto's chapter (which is in French) discusses medical documents among Egyptian papyri. Ricciardetto examines a number of records of patient examinations in which injuries are described, usually in a non-specialist register, and demonstrates convincingly that many of the descriptions are for use in a legal setting as evidence of violence. Ricciardetto makes a comparison with case histories in the Hippocratic text Epidemics which take a very similar form. This contribution is a fascinating look into the texts and into the social context of everyday people's injuries (the infant patient who has been injured with a potsherd by another infant, the man who falls from the top of a baker's oven, the young woman who is joking around and accidentally slaps her friend too hard). It is not, however, immediately clear how it fits with the Q&A theme; Ricciardetto concludes that in both the Hippocratic case histories and the papyri, the doctor has apparently worked through a checklist of symptoms phrased as questions – but this seems a tenuous use of the volume's theme.

Isabella Bonati's piece, which is also papyrological, focuses on the erotapokriseis, a category of Q&A medical texts well represented among papyri. Though traditionally regarded as teaching manuals, these have been considered in more recent interpretations to be in line with scientific writings of the problemata type. By examining a set of specific medical terms and comparing their use in the erotapokriseis and in other medical texts, Bonati demonstrates that the erotapokriseis exhibit a greater degree of ordering and lexical particularisation than has usually been supposed.

Nicola Reggiani also discusses the erotapokriseis, but from a papyrological and digital humanities point of view, building on interpretations (such as Bonati's) which take the Q&A format as essential to the organising principles and structure of these medical texts. Given various papyrological features of erotapokrisic texts, including the fact that questions are often indented or indicated with diacritical marks, it is important to establish the proper layout for them in editions or online. Reggiani provides a clear programme for how this can and should be done, building on work undertaken by Isabella Andorlini. He demonstrates the difference between visually reproducing paratextual features of printed editions of papyri and actually representing them in code, and argues that with a better set of editions, it may become possible to distinguish whether there are consistent differences in paratextual features used among subgenres.

Laura Mareri's contribution examines the use of questions and answers in patient interactions in Alexander of Tralles' Therapeutica. As Mareri notes, Alexander only rarely engages in dialogue with patients, preferring to work off his own Hippocratic and Galenic principles, but in some cases he must rely on their answers to make a diagnosis of physical or mental illness. This short chapter has resonances with Pelavski's work earlier in the book but does not push its conclusion very far.

The volume provides excellent coverage of the medical papyri and problemata-style texts, with essays on audience, genre, logic, structure and text-critical and papyrological issues cohering closely together. However, at times, the theme of Q&A becomes a little unfocused: a lengthier theoretical introduction or a conclusion might have helped to solidify the theme. Nonetheless, it is generally successful in its aim to use Q&A as a springboard to provide unexpected 'windows' onto wider cultural, philosophical, and textual features of ancient medicine. It will certainly be of interest and use not only to those working on ancient medicine more generally but also to scholars interested in wide-angled approaches to genre. It is a well-produced book with a thorough index.

Authors and Titles

Introduction: Michiel Meeusen

1. Questioning the Obvious: The Use of Questions and Answers in Assessing Consciousness in the Hippocratic Corpus – Andrés Pelavski
2. Peripatetic and Hippocratic seeds in Pseudo-Aristotle, Problemata 4: Raising Questions about Aristotle's Rejection of the Pangenesis Theory of Generation – Robert Mayhew
3. Author(s) and Reader(s) in the Supplementary Problems (Supplementa Problematorum) – Katerina Oikonomopoulou
4. Ps.-Alexander of Aphrodisias on Unsayable Properties in Medical Puzzles and Natural Problems – Michiel Meeusen

5. Erotetic Logic, Uncertainty and Therapy: Galen and Alexander on Logic and Medicine – Luca Gili
6. La réponse du médecin : les rapports d’inspection médicale écrits en grec sur papyrus (Ier – IVe siècles) – Antonio Ricciardetto
7. Definitions and Technical Terminology in the Erôtapokriseis on Papyrus – Isabella Bonati
8. Digitizing Medical Papyri in Question-And-Answer Format – Nicola Reggiani
9. Questions on the Unseen: Alexander of Tralles’ Patient Interaction – Laura Mareri

Please visit the site: <https://bmcr.brynmawr.edu/2021/2021.06.41/>

NEW BOOK OUT: LES ORS DE L'EUROPE ATLANTIQUE A L'AGE DU BRONZE - TECHNOLOGIES ET ATELIERS

Dear colleagues,

I would like to inform you about the release of a recently published book to all those of you who are interested in Later Prehistoric fine metal working craft, entitled: *Les ors de l'Europe Atlantique à l'âge du Bronze - technologies et ateliers. Association des Publications Chauvinoises. Mémoire LIV (Chauvigny 2021)*. It is a compendium of about 30 years of research on gold working technologies, the tool equipment of fine metal working workshops, and the main types of gold ornaments and vessels of the Atlantic Bronze Age. It takes advantage of an interdisciplinary approach. The book is written in French and richly illustrated with colour pictures.

If you want to order the book, you will find all information needed on the website of APC Chauvigny:

http://chauvigny-patrimoine.fr/Editions/fiche_memoires.php?sku=MEM054

On the bottom of this website you find the pdf with information (“[Télécharger le sommaire et la préface](#)”), including a glimpse on the cover, table of contents and foreword.

Yours

Barbara Armbruster

EΙΔΗΣΕΙΣ - NEWS RELEASE

ARCHAEOLOGISTS INVESTIGATE PAST IMPACT OF SEA-LEVEL CHANGES AT ISRAELI COASTAL SITES

A multinational team of archaeologists and scientists is reassessing the history of sea-level change in the Eastern Mediterranean based on underwater excavation and photogrammetry at sites on Israel's Carmel coast.

The new findings, published today in the open-source journal PLOS ONE*, are based on archaeological constructions near Tel Dor dating back to the Middle Bronze Age roughly 3,800 years ago up to the end of the Roman period (1,800 years ago).

“Our observations and analysis of submerged buildings and infrastructure have allowed us to establish a more reliable relative sea level for the Carmel coast and Southern Levant,” said principal investigator Assaf Yasur-Landau, director of the University of Haifa's Leon Recanati Institute for Maritime Studies. “Understanding sea-level change is critical because this coastline has been inhabited continuously for thousands of years.”

“This is the first study of sea levels in Israel which included new data on the critical historical periods of the Iron Age to the Hellenistic periods for which almost no data existed before,” explained co-author Dorit Sivan, a University of Haifa professor and pioneer of archaeological sea level research in Israel. Other institutions participating in the project included the University of California San Diego, University of Bologna, and Italy's National Institute of Geophysics and Vulcanology.

The team found that Iron Age harbor structures at Dor remained at roughly the same elevation for 400 years when the relative sea level was roughly 2.5 meters below present levels. That period of stability began to change in the Hellenistic period, with sea level rising rapidly during the Hellenistic through the end of the Roman period approximately 1,800 years ago.

According to UC San Diego archaeologist Thomas E. Levy, a co-author on the new paper and co-director of the Scripps Center for Marine Archaeology (SCMA) in the Scripps Institution of Oceanography, the main social impact of sea-level rise is relocation and sometimes, forced migration. He points to the team's December 2020 publication in PLOS ONE, which identified a mega-tsunami in the early Neolithic period. “The Carmel coastal wetland environment disappeared after the tsunami,” said Levy, a professor in the Department of Anthropology in UC San Diego's Division of Social Sciences. “Neolithic villagers had been beautifully adapted to the coastal environment, but the Neolithic landscape was submerged by sea-level rise and the people were forced to move to higher ground away from the coastal plain.”

“The situation in the later periods covered by this new publication is much more nuanced, as Assaf has shown,” added Levy, who also directs the Qualcomm Institute's Center for Cyber-Archaeology and Sustainability at UC San Diego.

Historical and archaeological sources have revealed the decline and occasional disappearance of Hellenistic sites along the coast of Israel ca. 2nd century BCE, including at Yavneh Yam, Ashdod Yam, Straton’s Tower and Tel Tananim. The latest paper attributes this decline to the long period of rising sea levels. “All along the Israeli coast, Hellenistic harbors and anchorages would have been hampered in their activity, and artificial harbor installations would have ceased to serve their function, even if occasionally modified,” according to the study. “The economic setbacks and occupational gaps witnessed in the local coastal settlements starting in the 2nd century BCE may be connected to this phenomenon.”

The authors also note that at Akko-Ptolemais, “the large harbor installations built in the Hellenistic period were never replaced by a substantial Roman harbor.”

“The entire coastal Southern Levant appears to have put on hold all prospects for an improved maritime interface,” observed Yasur-Landau.

“With the relics of earlier installations still protruding dysfunctionally out of the water, knowledge of the rising sea level and its rapid pace would have been widely available, serving as a painful reminder of past glory for such cities as Dor and Akko, and as a clear discouragement of investment in coastal facilities for the entire area.”

UC San Diego’s Levy points out, “In addition to underwater excavation, our team used photogrammetry, the science of precisely measuring objects from numerous sets of photographs that are then processed with computer programs to generate 3D images of the different sites. This relatively new technique helped us nail down and measure the rising sea level.”

Dor, the principal site investigated for the latest study, is located 21 km south of Haifa and 13 km north of Caesarea. It was settled in the Middle and Late Bronze Ages and remained inhabited through some 2,300 years until the end of the Roman period. “Dor’s rich settlement history as a coastal port site makes it an ideal case for a diachronic study of archaeological proxies for sea-level changes, providing examples of harbor and coastal installations dating from the Early Iron Age to the Roman period,” explained the University of Haifa’s Yasur-Landau.

Much of the newest data was gathered in 2018 during a joint expedition undertaken by UC San Diego and the University of Haifa with funding from the Koret Foundation.

Citation

* Yasur-Landau A, Shtienberg G, Gambash G, Spada G, Melini D, Arkin-Shalev E, et al. (2021) New relative sea-level (RSL) indications from the Eastern Mediterranean: Middle Bronze Age to the Roman period (~3800–1800 y BP) archaeological constructions at Dor, the Carmel coast, Israel. PLoS ONE 16(6): e0251870.

<https://doi.org/10.1371/journal.pone.0251870>

Please visit the site: <https://ucsdnews.ucsd.edu/pressrelease/archaeologists-investigate-past-impact-of-sea-level-changes-at-israeli-coastal-sites> [Go there for pix, caps, and figs] [Academic study at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0251870>]

7,000-YEAR-OLD SEAL SHEDS LIGHT ON 'BUSINESS' ACTIVITIES IN ANCIENT ISRAEL, BY ROSSELLA TERCATIN

Some 150 clay sealings were found in an excavation conducted by Hebrew University archaeologists in 2004-2007 in Tel Tsaf, a prehistoric village in the Beit She'an Valley in northern Israel.

Seven thousand years ago, residents of prehistoric Israel engaged in complex barter activities and protected property rights, research based on millennia-old clay seal impressions has revealed.

In antiquity, seal impressions – known among experts with the Latin term bullae – were used to sign documents or containers, ensuring they would reach their recipients closed and untouched.

Some 150 clay sealings dating back some 7,000 years were found in an excavation conducted by Hebrew University archaeologists in 2004-2007 in Tel Tsaf, a prehistoric village in the Beit She'an Valley in the North. While their purpose was the same, almost all of these sealings were simple pieces of clay, without any impression on them.

However, an individual small sealing did feature an impression, composed of two distinct geometrical patterns.

The result of the research on these artifacts has now been published in the latest issue of the academic journal *Levant*.

“Even today, similar types of sealing are used to prevent tampering and theft,” said Hebrew University of Jerusalem Prof. Yosef Garfinkel, who led the excavation and is one of the authors of the paper. “It turns out that this was already in use 7,000 years ago by landowners and local administrators to protect their property.”

The artifact is one of the oldest of this kind ever found in the region.

According to the researcher, the fact that two patterns were impressed might indicate that two people were involved in the transaction.

“Tel Tsaf was a big flourishing village,” said Garfinkel. “We uncovered houses that were as large as 100-200 sq.m., large courtyards, and silos which could contain from 3-4 tons to 20-30 tons of grain or other agricultural products.”

“This is unbelievable considering that 1.5 ton of grain was enough to feed a family for one year,” he added.

According to the researcher, the clay used was not local, but it came from at least 10 km. away.

“But it could have come from even farther, considering that we found evidence of exchange with regions such as Mesopotamia, Caucasia and Egypt,” Garfinkel noted. These finds include metal objects and pottery.

All these elements suggest that Tel Tsaf was home to a wealthy community, whose residents entertained relations with far-away regions, even though Garfinkel noted that it would not be accurate to talk about commercial relations since there was no monetary exchange involved, but likely these objects were traded for grain.

“There is no prehistoric site anywhere in the Middle East that reveals evidence of such long-distance trade in exotic items as what we found at this particular site,” the professor said.

“There are other villages dating back to the same period in the area but none of them presents similar features, which makes us believe that Tel Tsaf might have represented some form of regional authority,” he remarked.

Originally excavated in the 1970s by a team from Tel Aviv University, in the past few years Tel Tsaf has been excavated by archaeologists from the University of Haifa, “which makes it one of the very few in Israel which have been excavated by all the three universities of Tel Aviv, Jerusalem and Haifa,” Garfinkel concluded.

Please visit the site: <https://www.ipost.com/archaeology/7000-year-old-seals-shed-light-on-business-activities-in-ancient-israel-670633> [Go there for pix]

ISRAELI ARCHAEOLOGISTS FIND WHOLE 1,000-YEAR-OLD EGG – AND ACCIDENTALLY BREAK IT

So it goes: The egg, an extraordinary discovery from the Islamic period, had been in a toilet all these years. At least its innards can contribute to a DNA study of ancient chickens Ruth Schuster

One day a thousand years ago, a chicken in Yavneh laid an egg. That egg was never to hatch, sadly for that chicken's posterity. For some reason, it wound up in a cesspit in the ancient city's industrial zone – and there it sat.

Until archaeologists from the Israel Antiquities Authority came along, conducting a salvage excavation in the ancient industrial zone of the central Israeli city ahead of construction, and found it. Seasoned in the extraction of extremely delicate matter, they managed to remove the egg from the cesspit, still perfect.

“We were astonished to find it,” IAA archaeologist Alla Nagorsky, head of this part of the salvage dig, told Haaretz. “From time to time we find fragments of eggshells, but a whole egg is extraordinary.”

The egg had apparently been preserved all these years – never mind cracking, it didn't decay and rot – because it had been dropped or placed in the toilet, and was encased in soft waste, which created anaerobic conditions.

And then it broke in the lab; a small crack in the bottom, according to the IAA's Dr. Lee Perry Gal. We won't get into it but on the upside, some yolk has remained in the shell and will serve for DNA future analysis, he says. And maybe it would have had to be broken at some stage anyway to study its inside, Nagorsky comforts the world.

The IAA adds that conservationist Ilan Naor has restored the shell of the egg that was laid a thousand years ago in Yavneh.

How do they know the chicken lived during the Islamic period? Because of other finds in said cesspit, which was not huge: 1.20 meters (about 4 feet) by 80 centimeters, and about 1.3 meters in height. The other finds include three dolls made of bone, typical of the whole Abbasid period from the seventh century to the late 11th century, and an oil lamp.

That lamp was of a type only made in the late Abbasid period, Nagorsky explains – about 1,000 years ago. And thusly, they dated the chicken egg to that time.

The area Nagorsky is responsible for is just part of large-scale salvage digs directed by Dr. Elie Haddad, Liat Nadav-Ziv and Dr. Jon Seligman, which uncovered the ancient industrial zone of Yavneh in the Byzantine period.

“Eggshell fragments are known from earlier periods – for example, in the City of David and at Caesarea and Apollonia. But due to the eggs' fragile shells, hardly any whole

chicken eggs have been preserved. Even at the global level, this is an extremely rare find,” says the IAA’s Gal, a leading expert on poultry in the ancient world.

He added that it is rather less rare for archaeologists to find ostrich eggs, which are thicker.

In fact, there was quite the brisk international trade in decorated ostrich eggs in antiquity. The ancient traders apparently prized “wild” ostrich eggs over the absolutely identical offerings of captive ostriches. Perhaps the reasoning was that wild ostriches are savage and stealing their eggs proved derring-do. In any case, decorating ostrich eggs goes back at least 60,000 years.

There’s no word on when people started decorating chicken eggs. But it bears adding that in the classic world, chickens were prized mainly for their foul tempers – the ancient Greeks, and later the Romans, were into cockfighting. However, the discovery of chicken eggshell (not a whole egg) from 2,600 years ago in Jerusalem led archaeologists to the conclusion that ancient Jerusalemites at the time ate eggs.

**Please visit the site: <https://www.haaretz.com/archaeology/premium-israeli-archaeologists-find-whole-1-000-year-old-egg-and-accidentally-break-it-1.9888356>
[Go there for pix]**

2,300-YEAR-OLD CURSE JAR FOUND IN ATHENS AGORA, BY PATRICIA CLAUD

Archaeologists believe that a 2,300-year-old jar from Ancient Greece containing the bones of a dismembered chicken was likely used as part of a curse to paralyze and kill 55 people in Athens. The recent discovery brings new evidence to light regarding the use of magic in Ancient Greece.

“Curse tablets” or thin sheets of lead inscribed with curses against a certain person, are well-known in Greece. They are commonly found underneath the ground after being buried there many centuries ago by the person who wanted someone to be cursed.

But in a twist on this type of witchery, archaeologists recently discovered the pottery jar filled with chicken bones, along with a coin, underneath the floor of the Athens Agora’s Classical Commercial Building, which millennia ago was the site of craftsmen who plied their trades there.

Jessica Lamont, a professor of Classics at Yale University, wrote in an article published in the American School of Classical Studies in Athens’ journal *Hesperia* “The pot contained the dismembered head and lower limbs of a young chicken.”

The more commonly seen lead sheets continuing curses often feature perforations made with nails; likewise, the person who cast his particular curse also thrust a large iron nail through the pottery jar containing the bones.

Lamont noted “All exterior surfaces of the (jar) were originally covered with text; it once carried over 55 inscribed names, dozens of which now survive only as scattered, floating letters or faint stylus strokes.” The professor then added the Greek writing uses words that may mean “we bind.”

The experts involved in the discovery believe that the nail and chicken parts together most likely played a role in the curse on the 55 different individuals. Nails, which are a common feature associated with ancient curses, “had an inhibiting force and symbolically immobilized or restrained the faculties of (the curse’s) victims,” Lamont stated in her scholarly article.

The archaeologists determined that the chicken that had been killed had been no older than seven months before it was slaughtered to be used as part of the ritual; they believe that the people who employed the magic may have wanted to transfer “the chick’s helplessness and inability to protect itself” to those they cursed by writing their names on the outside of the jar, Lamont stated.

She further explains that the head of the chicken, which had been twisted off, and its piercing, along with the lower legs, meant that the corresponding body parts in the 55 unfortunate people would also be similarly affected.

“By twisting off and piercing the head and lower legs of the chicken, the curse sought to incapacitate the use of those same body parts in their victims,” Lamont notes.

She goes on to state “The ritual assemblage belongs to the realm of Athenian binding curses, and aimed to ‘bind’ or inhibit the physical and cognitive faculties of the named individuals.” The pottery vessel was discovered near several burned pyres that still contained the burned remains of animal — another aspect of the curse, according to Lamont, which may have been something believed to have increased the power of the curse.

The author of the academic paper states in an interview with Live Science that the style of the handwriting on the jar suggests that at least two individuals were responsible for writing the names on the vessel. “It was certainly composed by people/persons with good knowledge of how to cast a powerful curse.”

She went on to speculate that the elaborate, time-consuming ritual may have been part of a legal proceeding at the time.

“The sheer number of names makes an impending lawsuit the most likely scenario,” Lamont wrote in her paper, adding the “curse composers might cite all imaginable opponents in their maledictions, including the witnesses, families and supporters of the opposition.”

The rule of law was important in Ancient Greece and trials were not only a common occurrence in Athens but also attracted widespread attention and dispute.

Additionally, Lamont posits, the jar’s location, in a building used by craftspeople, including potters, no doubt may mean that the curse involved a dispute having to do with that workplace.

“The curse could have been created by crafts persons working in the industrial building itself, perhaps in the lead-up to a trial concerning an inter-workplace conflict,” Lamont theorizes in her article.

However, at the time, Athens and its surrounding regions were in the midst of political turmoil after the untimely death of the young Alexander the Great approximately 2,300 years ago.

After he died in 323 BC in what is now Babylon, Iraq, in the middle of a military campaign, a military and political void was left, in which his generals and other empire officials fought for control.

As Lamont explains, historical records show in great detail who the players were who fought in factions for control of the great ancient city during “a period plagued by war, siege and shifting political alliances.”

The pottery jar used as part of the curse was excavated in 2006, by Marcie Handler, who was a doctoral student in Classics at the University of Cincinnati at that time. However, its use as part of a magic curse but was only brought to light after recent analysis and deciphering by Lamont.

Please visit the site: <https://archaeologynewsnetwork.blogspot.com/2021/06/2300-year-old-curse-jar-found-in-athens.html> [Go there for pix]

WHAT KIND OF SALADS DID THE CANAANITES EAT?

The researchers analyzed more than 3,500 plant finds and identified emmer, lentils, pistachio, grass peas, figs, olives, flax, barley and grapes, among others.

Some 4,500 years ago, Canaanites residents of Gath ate figs, olives, wheat, barley, grapes, and many other species that have been considered symbols of the land of Israel from the time of the Bible to today.

Located in central Israel around 35 kilometers northwest of Hebron, between the Judean Foothills and the southern Coastal Plain, Gath – also known as Tell es-Safi – is prominently featured in the Bible in events taking place several centuries later, including as the city of origin of David’s giant foe, Goliath.

A new macrobotanical investigation has offered unprecedented insights into the daily lives of its residents.

During that period known as the Early Bronze Age, the land went through some major transformations, according to Suembikya Frumin of the Department of Land of Israel Studies and Archaeology at Bar-Ilan University,

Frumin was the lead author of a paper published in the latest issue of the Journal of Archaeological Science, together with Bar-Ilan scholars Aren Maeir, director of excavations at the site, Ehud Weiss, Yoel Melamed, and Haskel J. Greenfield from the University of Manitoba.

“This is the first time that we look at huge settlements, real fortified cities surrounded by thick walls,” she said. “We tried to understand what this form of communal organization looked like.”

In order to do so, the researchers analyzed the plant assemblages found in the relevant levels at the site.

The botanical finds, mostly charred seeds and other plant remains, allowed the researchers to understand not only what kind of food the ancient Canaanites ate, but also how they warmed up their houses, where their fields were located, the seasons of the crops, how work was split between agriculture and herding, and how Gath related to the contemporary commercial routes.

Researchers analyzed more than 3,500 plant finds and identified emmer, lentils, pistachio, wheat, grass peas, figs, olives, flax, barley and grapes, among others.

“For example, we found a lot of weeds in the houses, near where people cooked and eat,” Frumin said. “If I go to the supermarket today, I expect to buy vegetables that are already sorted and clean and are ready to be cooked and eaten. If those residents in Gath had bought the produce, it would have already been clean. The fact that weeds were still

mixed with it tells us that they were the farmers themselves. They probably went out in the fields during the day and came back to the city at night.”

Frumin noted that the farmers likely did not want to go too far from the city, in order not to lose contact and the protection it offered to the fields.

Indeed, the large hill where Gath stood appeared to have offered a diversity of habitats.

“The ecology of the crops suggests exploitation of gentle slopes for cereals, the open slopes in the vicinity of water sources as prime locations for fig cultivation, the well-drained soil pockets among rocks for olives and grapevine, while the lowermost alluvial river plain habitats could have been used for flax,” reads the journal article.

Frumin said there was no evidence of irrigation systems, suggesting that rain and a nearby stream provided enough water. “Everything was very simple and ecological.”

As often happened in dry climates, animal dung was used as fuel. “This way, the city was clean, the food was cooked, and the houses were warmed,” she said.

While most of the species found, including wild herbs, grew in the area of Gath, it was the samples of species that were likely brought from further away that offered a different piece of the puzzle.

The presence of these species suggested that Gath entertained contacts with neighboring regions such as the Sharon and Coastal Plains, the Judean Mountains, and the Northern Negev.

“The land was very densely populated back then, and as soon as someone left their areas they would immediately cross into another city-region, so it is interesting to see what kind of relations they had,” Frumin said.

Please visit the site: <https://www.jpost.com/archaeology/what-kind-of-salads-did-the-canaanites-eat-669805> [Go there for pix]

2,000-YEAR-OLD BASILICA UNEARTHED IN ASHKELON, BY ROSSELLA TERCATIN

“The basilica was first discovered in the 1920s by British archaeologist John Garstang who then covered it once again,” said Dr. Rachel Bar Nathan, IAA director of excavation.

The remains of a magnificent 2,000-year-old Roman basilica, the largest in Israel, have been uncovered in Ashkelon in an excavation conducted by the Israel Antiquities Authority within a development project of the Tel Ashkelon National Park and will soon be accessible to the public, the Nature and Parks Authority announced on Monday.

Located just a few meters from the seashores, the structure, a public building, was divided into three sections, a main hall and two side parts. According to the archaeologists, the main hall was surrounded by massive marble columns as high as 13 meters and ornated with elaborated capitals, featuring plant motives and in some instances an eagle, a Roman symbol. Their remains offer an insight into the splendor of the original building.

“The basilica was first discovered in the 1920s by British archaeologist John Garstang who then covered it once again,” said Dr. Rachel Bar Nathan, IAA director of excavation together with Saar Ganor and Federico Kobrin.

The area would not be excavated again for almost a century, until a few years ago the works started one more time. Among other things, a small theater (odeon) was uncovered.

When the National Park Authority decided to develop the area and reconstruct part of the colonnade, the excavations began once again.

“Garstang had already calculated the dimensions of the building, and seeing the remains of the marble columns, made with materials imported from Asia Minor, he had suggested that the basilica dated back to the time of Herod The Great, since historian Josephus described how the king built a colonnaded hall and other structures in the city,” Bar Nathan said.

Appointed by the Romans as King of Judea in the second half of the 1st century BCE, Herod The Great, was known for the extensive construction and restoration works that were carried out around the land on his behalf, including the complete rebuilding of the Temple of Jerusalem.

“Our project started in 2016,” Bar Nathan said. “When we excavated the basilica we realized that that some of the remains did not date back as early as Herod, but later to the 2nd-3rd century CE, the time of emperor Septimius Severus, who rebuilt the basilica in an even more grandiose style, but the original structure did date back to the time of Herod, as Garstang thought.”

The archaeologists found some Herodian coins at the site. Several massive marble sculptures were also found, some of them portraying pagan gods, including Isis – an

Egyptian deity depicted as Tyche, the city's goddess of fortune - and Nike, the goddess of victory.

When Herod rule over Judea, Ashkelon was a free city and a renowned trade port. A Jewish population lived there but did not represent the majority. Later, Ashkelon became a Roman city.

In Roman times, the basilica was not a religious building, but rather a public building in the center of the city, used for commerce, court cases and other civic functions. In the following centuries, Christian churches would be inspired by this architectural structure.

An earthquake destroyed Ashkelon and the basilica in 363 CE. Its remains would be reused in the Abbasid and Fatimid periods – 8th-12th centuries CE - to build industrial installations in the area.

An operation to preserve and restore the complex, including the basilica and the theater, is currently being carried out by the IAA, as part of a joint project by the Nature and Parks Authority, the Ashkelon Municipality and the Leon Levy Foundation to develop the area and make it accessible to the public.

The organizations are also working on a new itinerary for visitors, touching all the main attractions in Tel Ashkelon, including an arched Canaanite gate.

“The Tel Ashkelon National Park combines a fascinating antiquities site with unique natural resources characteristic of the dunes in the coastal plain,” Shaul Goldstein, CEO of the Israel Nature and Parks Authority, said in a press release. “It was the first national park to be declared in Israel in the 1960s and since then, it has been constantly evolving and renewing for the benefit of visitors from all over the country.”

Please visit the site: <https://www.jpost.com/archaeology/2000-year-old-basilica-unearthed-in-ashkelon-669665>

OXFORD UNIVERSITY PRESS TO END CENTURIES OF TRADITION BY CLOSING ITS PRINTING ARM

Falling sales blamed as 20 jobs axed in final chapter for history of printing in the city, which stretches back to the earliest days of book publishing

Oxford University's right to print books was first recognised in 1586, in a decree from the Star Chamber. But the centuries-old printing history of Oxford University Press will end this summer, after the publishing house announced the last vestige of its printing arm was closing.

The closure of Oxuniprint, which will take place on 27 August subject to consultation with employees, will result in the loss of 20 jobs.

OUP said it follows a "continued decline in sales", which has been "exacerbated by factors relating to the pandemic".

Oxuniprint's closure will mark the final chapter for centuries of printing in Oxford, where the first book was printed in 1478, two years after Caxton set up the first printing press in England. There was no formal university press in the city over the next century, but the university's right to print books was recognised in a decree in 1586, and later enhanced in the Great Charter secured by Archbishop Laud from Charles I, entitling it to print "all manner of books".

OUP has existed in a recognisable form, with its own printing division, since the 17th century, printing everything from the King James Bible to scholarly works. It has outsourced the printing of its own books since 1989, with subsidiary Oxuniprint in Kidlington the last vestige of its rich printing history, working for clients including Oxford University and the NHS, as well as supplementary material for OUP itself.

"Oxuniprint is the latest iteration of OUP's print division which has been around for centuries," said Dr Jude Roberts, chair of the Unite union branch at Oxford University Press. "The idea of Oxford University Press as a press has always been fundamental to what we do.

It's not just about the content, although obviously that is important, it's also about the quality of our publications as cultural artefacts.

It's much more difficult to control that quality when the physical books and journals are produced by somebody else."

Oxuniprint's closure was condemned by Unite, which blamed OUP's increasing outsourcing abroad and its failure to take up the government's furlough scheme.

"This is the final chapter in a distinguished printing history at the OUP, but we feel that there could have been a different outcome if OUP bosses had not been hell-bent on pursuing their outsourcing agenda," said Unite regional officer Kevin Whiffen. "There is

not much loyalty to the centuries-old printing heritage, and those who have given their working lives to it.”

Roberts said that the 20 affected staff are now all in individual consultations about their own redundancies. “The press has said that they are going to attempt to find alternative roles for them. But the fact is that the work that these guys do is so specific, it’s so highly skilled in this particular area, and we don’t do any of that work now without them, so it’s hard to imagine where they could be placed elsewhere in the press. It’s absolutely awful.”

A spokesperson for OUP said: “This decision follows a recent business review of our operations. This has not been an easy decision for us, and we thank the team for the support and dedication to OUP, and their clients, over the years.”

Please visit the site: <https://www.theguardian.com/books/2021/jun/09/oxford-university-press-to-end-centuries-of-tradition-by-closing-its-printing-arm>

NEW C-14 AND OSL DATES GIVE A 6,000 YEAR OVERLAP OF SPECIES, BY AMANDA BORSCHEL-DAN

Prehistoric man lived with and loved Neanderthals in the Negev 50,000 years ago

Using precision carbon dating and secure archaeological contexts, researchers have proof for the first time of when the two cultures overlapped — and where

A new multidisciplinary archaeological study attempting to define when and where early man first met and lived alongside his older Neanderthal cousins has pinpointed that meet-cute to Israel's Negev Desert some 50,000 years ago.

According to the study, it is during this time period that the ancestors of modern humans may have bred with their Neanderthal neighbors, resulting in a lasting Neanderthal genetic fingerprint even after the species itself died out.

“What was the nature of the encounter we have identified between the two human species? Did Neanderthals throughout the country become naturally extinct, merging with modern man, or did they disappear in violent ways? These questions will continue to concern us as researchers in the coming years,” said Dr. Omry Barzilai, excavation director at the Boker Tachtit site on behalf of the Israel Antiquities Authority.

According to an IAA press release, this is the first study that provides scientifically gathered and analyzed evidence for the coexistence of the two prehistoric cultures in the Middle East.

“This goes to show that Neanderthals and Homo sapiens in the Negev coexisted and most likely interacted with one another, resulting in not only genetic interbreeding, as is postulated by the ‘recent African origin’ theory, but also in cultural exchange,” said lead authors Prof. Elisabetta Boaretto of the Weizmann Institute of Science and the IAA's Barzilai in a Weizmann press release.

Part of the evidence was gathered from a recent excavation of Boker Tachtit, located south of modern-day Kibbutz Sde Boker. “Boker Tachtit is the first known site reached by modern man outside Africa, which is why the site and its precise dating are so important,” said Barzilai.

According to the study's authors, through new hi-tech methods and reevaluation of old samples, the researchers have successfully identified the earliest evidence of modern human activity that was concurrently occurring alongside Neanderthal inhabitation in the same region.

The study, which is published in the prestigious Proceedings of the National Academy of Sciences of the United States of America (PNAS) journal on Wednesday, uses traditional archaeological methods, as well as laboratory carbon-14 dating methodology and new hi-tech optically stimulated luminescence (OSL) dates.

“The dating of the site to 50,000 years ago proves that modern man lived in the Negev at the same time as Neanderthal man, who we know inhabited the region in the same period. There is no doubt that, as they dwelt in and moved around the Negev, the two species were aware of each other’s existence. Our research on the Boker Tachtit site places an important, well-defined reference point on the timeline of human evolution,” said Barzilai.

Written by a large team including Weizmann’s Boaretto and the IAA’s Barzilai, the PNAS article, “The absolute chronology of Boker Tachtit (Israel) and implications for the Middle to Upper Paleolithic transition in the Levant,” describes how recent chronological studies based on radiocarbon dating from other sites in the Levant spurred the team to rethink the previously recognized dating at the Boker Tachtit site, determined from earlier excavations.

So the team, funded by the Max Planck-Weizmann Center for the Integrative Archaeology and Anthropology, conducted new excavations from 2013-2015 and gathered very small individual fragments of wood charcoal. At least a millimeter in their longest dimension, the minuscule samples were analyzed by Boaretto and her Weizmann lab.

The samples belonged to four major species: *Pistacia atlantica* (a species of pistachio tree), *Juniperus cf phoenicea* (Phoenician juniper), *Tamarix sp.* (tamarisk, salt cedar) and *Hammada scoparia*. According to the article, the radiocarbon dating samples were from clear archaeological contexts that could be associated with significant flint concentrations, which provide a source of typological dating.

The C-14 dates and the optically stimulated luminescence (OSL) dates overlap between 50,000 and 44,000 years ago, a range of 6,000 years.

“We are now able to conclude with greater confidence that the Middle-to-Upper Paleolithic transition was a rather fast-evolving event that began at Boker Tachtit approximately 50-49,000 years ago and ended about 44,000 years ago,” said Boaretto in a Weizman press release.

According to the study, a lot went down during this relatively short period and it corresponds to three periods earmarked by early man’s development and dispersal in the Levant: Late Middle Paleolithic (LMP), Initial Upper Paleolithic (IUP) and Early Upper Paleolithic (EUP).

“For the first time in prehistoric research, the results of the dating prove the hypothesis that there was definitely a spatial overlap between the late Mousterian culture, identified with Neanderthal man, and the Emiran culture, which is associated with the emergence of modern man in the Middle East,” said Barzilai.

Please visit the site: <https://www.timesofisrael.com/prehistoric-man-lived-with-and-loved-neanderthals-in-the-negev-50000-years-ago/>

ISRAELI ARCHAEOLOGISTS FIGURE OUT WHERE ANCIENT EGYPT GOT ITS METAL AFTER CIVILIZATION COLLAPSED, BY ARIEL DAVID

Analysis of 3,000-year-old statuettes from pharaonic burials suggests disruption of international trade following the Bronze Age Collapse was not as catastrophic as we thought

An analysis of bronze statuettes dating to a period of division and instability in ancient Egypt shows that during this time, the pharaohs were still importing massive amounts of copper from the southern deserts of today's Israel and Jordan.

The research sheds some light on a less-explored period in Egypt's and the Mediterranean's history, which followed the collapse of major civilizations at the end of the Bronze Age, some 3,200 years ago. It highlights how even in this supposed 'dark age' international trade links were not entirely cut, and in fact helped fuel artistic and cultural changes in Egypt, the researchers say.

The study, published this week in the *Journal of Archaeological Science: Reports*, focused on four funerary artifacts dated to around 1010 B.C.E. and unearthed at Tanis, a city in the Nile Delta that served as the pharaoh's capital in those troubled times. The statuettes are part of the collection of the Israel Museum in Jerusalem and were analyzed by the museum's conservators with the help of researchers from Tel Aviv University and Israel's Geological Survey.

The bronze artifacts are ushabtis, stylized mummified figurines that were commonly placed in ancient Egyptian tombs. They were meant to function as servants for the deceased in the afterlife, explains Shirly Ben-Dor Evian, curator of Egyptian archaeology at the Israel Museum. Because they were inscribed with the name of their master or mistress, we know exactly whom the figurines were dedicated to, which allows the archaeologists to date them with some precision.

One ushabti carried the name of the pharaoh Psusennes I; a second belonged to his wife Mutnodjmet and two more to one of the king's generals, whose name, Wendjebaendjedet, just rolls off the tongue.

After the collapse

If you've never heard of these Egyptian leaders, it may not just be because of their tongue-twisting names. Although he reigned for a long time, from around 1056 to 1010 B.C.E., Psusennes belonged to a fairly obscure dynasty, the 21st, which ruled over an Egypt that was only a shadow of its former self.

Until the mid-12th century B.C.E., the pharaohs had presided over a powerful empire that stretched from Sudan to Syria, and included the land of Canaan. This was the era of the famed pharaohs of the New Kingdom: Thutmose III, Tutankhamun, Ramses the Great

and others. It was also a time when Egypt and the rest of the Mediterranean were part of a vast network of international trade, which possibly stretched as far as East Asia, in what some researchers have called an early example of globalization from the Bronze Age.

But this world was brought to a crashing end by a crisis, possibly triggered by climate change, that caused famine, war and instability throughout the Mediterranean. The Hittite empire in Anatolia and the Mycenaean civilization in Greece disappeared. Egypt endured but retreated from its empire in the Levant, leaving a void that would be filled by new nations familiar to any reader of the Bible: Judah, Israel, Edom, the Philistine cities and more.

Meanwhile, the Nile Valley itself became divided, as the High Priest of Amun ruled over Upper Egypt from Thebes, leaving the pharaohs in control only of Tanis and the rest of Lower Egypt. And so we come to the story of Psusennes and his afterlife servants.

“His reign was part of the so-called Third Intermediate Period, which implies that this was a time of decline,” Ben-Dor Evian says. “But while Egypt was no longer an empire, it appears that it was still just as grand as in any other era of Egyptian history.”

The researchers drilled tiny holes into the ushabtis to analyze the lead isotopes found in the figurines, which are mainly made of copper.

Copper deposits contain natural trace amounts of lead, and the varying mix of isotopes of this element can tell researchers where the metal came from, explains Prof. Erez Ben-Yosef, an archaeologist from Tel Aviv University and an expert on ancient metallurgy.

The lead isotopes for all four figurines were compatible with ancient copper mining sites in the Arava Valley, which runs along the modern southern border of Israel and Jordan.

Two major mining operations in this region have been known and investigated by archaeologists for decades: one in Jordan’s Wadi Feynan, and a second at Timna, in the southern tip of Israel.

Who’s in charge here?

These copper production sites have yielded major finds, such as rare textiles and remains of succulent foods that were fed to the local craftsmen, suggesting that this was a sophisticated operation set up by a fairly advanced state entity.

But who exactly controlled the mines in the 11th-10th centuries B.C.E. remains a matter of much debate. If we trust the Bible, this was the time of King David and Solomon, who supposedly ruled over most of the Levant, including its southern desert – which is why the site at Timna was also once nicknamed King Solomon’s Mines. However, archaeology has provided little or no evidence as to the existence and extent of the fabled united Israelite kingdom of David and Solomon.

Some researchers, like Ben-Yosef (who has dug at Timna) believe the copper industry of the Arava is the most tangible legacy of a nomadic kingdom that can be identified with the biblical Edomites.

Other scholars, like Tel Aviv University's Prof. Israel Finkelstein, have challenged this interpretation, noting that the archaeological and historical evidence suggests the Edomite kingdom only arose at the end of the ninth century B.C.E., by which time the copper mines of the Arava were no longer in use.

Cornering the Egyptian market

In any case, there is general agreement that in the time of Psusennes – and his putative biblical contemporary, King David – the Egyptians did not control the copper mines of the Arava. This means that the metal for the figurines from Tanis had to be procured through trading routes that ran over hundreds of kilometers of desert wasteland.

“After believing that Egypt is isolated and sinking into its own world, we now understand there was an international exchange network and that Egypt was part of it,” Ben-Dor Evian notes. “We like to think of this ‘dark age’ as the opposite of the late Bronze Age, with its high degree of interconnectivity, but now we see that there still was interconnectivity, just on a different scale.”

On one hand, it is not entirely surprising that Egypt would import its copper from Timna or Feynan, as the metal from these mines has previously turned up as far as Greece, Ben-Yosef notes.

In fact, he adds that the Bible may have preserved a historical memory of the links between Edom and Egypt during this period in a story of an Edomite prince who escapes David's conquest of his country by finding refuge with the pharaoh. (1 Kings 11:14-22)

On the other hand, it is unusual that all the four ushabtis that were tested could be traced exclusively to the Arava region. Egyptian metal artifacts, both from earlier and later periods, usually contain copper from a mix of sources in addition to the Arava – including Cyprus, and Anatolia – Ben-Dor Evian says.

This is also how the archaeologists figured out that the metal from the Tanis figurines was not recycled.

If Psusennes' craftsmen had just melted down a bunch of objects from the golden age of Ramses then the researchers would have gotten a jumble of indications from their analysis. The unequivocal signal from the tests not only shows that the metal was freshly mined in the Arava but also suggests that this region was the sole provider of copper for Egypt in the 11th-10th centuries B.C.E., Ben-Dor Evian concludes.

Can I get 10 percent off?

Ironically, just as copper became more difficult to come by in this somewhat dark age, Egypt saw a flowering of metal art, Ben-Yosef notes. This indicates that the pharaohs may have grown ever more hungry for Arava copper.

Just over half a century after the death of Psusennes, a new king, Sheshonq I, succeeded in reuniting the Nile Valley.

Sheshonq, who appears in the Bible under the name Shishak, wanted to make Egypt great again, so he promptly invaded Canaan around 950 B.C.E. According to his triumphal inscription on a temple in Karnak, many of the sites the pharaoh raided on this campaign were in Israel's southern desert – the heartland of the copper producing nomads (whoever they were).

Archaeologists have suspected for a while that one of the main goals of Sheshonq's raid was to secure a steady supply of copper. In fact, after the campaign, there appears to be a flourishing of settlements in the area, as well as an increase in the output from the Arava mines, possibly as the result of new technologies introduced by the Egyptians.

“Now we know that by Sheshonq's time Egypt was already receiving copper from the Arava, so why did he need to go there?” Ben-Dor Evian asks. “Maybe he wanted a bigger piece of the pie, maybe he wanted a monopoly, or to have greater control on the copper trade.”

Please visit the site: <https://www.haaretz.com/israel-news/where-ancient-egypt-got-its-metal-after-civilization-collapsed-in-3200-bce-1.9903941> [Go there for pix and caps]

ISRAEL SEA LEVEL ROSE 2 M. IN HELLENISTIC PERIOD, COULD EXPLAIN DECLINE, BY ROSSELLA TERCATIN

"We do not know of such an increase in history. It is an increase that is recognized only when talking about the end of the ice age and the great melting of glaciers."

Some 2,100 years ago Israel experienced a drastic rise in its sea level, which caused the loss of important infrastructure and might have contributed to the decline of some cities in the region, a new study by Israeli and international scholars has shown.

The researchers considered a period of some two millennia, starting from the Middle Bronze Age (2,500 BCE) up to the Roman Period until the 3rd century CE.

"We saw that from the Middle Bronze Age to the end of the Iron Age, a span of some 700 years, the sea rose very slowly, maybe half a meter, but between the Hellenistic period and the Roman period, the sea rose 2 or 2.5 meters within 200 years, which is a lot," said Mediterranean Archaeology Prof. Assaf Yasur-Landau, head of the Recanati Institute of Marine Studies at the University of Haifa and a co-author of the paper published in the academic journal PLOS ONE last week.

The project to trace water-level rise in Israel's coastal cities along the Mediterranean Sea, headed by the universities of Haifa and California, San Diego, focused on the data from the site of Dor, some 21 kilometers south of Haifa.

"In the Bronze Age, Dor was a Canaanite city, a port city entertaining contacts with Cyprus, in the Iron Age it was a Phoenician city, with ties with Cyprus and Egypt," Yasur-Landau said. "In the 9th and 8th centuries it was in the hands of the Israelites and the trade decreased, but later, when the Assyrians conquered the area, they returned the city to the Phoenicians and the commercial exchanges flourished again. From this point we see a rise in the maritime power of Dor all the way into the Persian and Hellenistic period, when Dor reached its peak, an incredibly prosperous center with connections in all the Mediterranean."

In the context of the history of the Levant, Persian period refers to the time of the domination of the Persian Empire, from mid-6th to the second half of the 4th century BCE, when the Hellenistic period began, lasting until the arrival of the Romans in the 1st century BCE.

"During the Roman period, Dor was still important, until the construction of Caesarea which became the main port in the area," Yasur-Landau noted.

As explained in the paper, the project added nine new relative sea level (RSL) data points, to the 13 which were previously known.

Yasur-Landau said that they found an underwater wall and sea gate from the Bronze Age built on dry land, indicating a lower sea level at the time.

“We needed data from the Iron Age and the Hellenistic period to fill the gap between the information we had about the Bronze Age and the Roman time in order to understand how fast the sea rose,” Yasur-Landau said.

What’s more, historical and archaeological evidence of deserted or declining coastal cities supports the theory that a rapid rise saw buildings flooded and coastlines disappearing.

“We have seen similar evidence of a decline in Acre and other Hellenistic coastal cities, and we speculate that the inhabitants of the period, seeing entire buildings gradually covered by the water, recognized the rapid rise in sea level, but in many cases failed to adapt to the new conditions successfully,” Dr. Gil Gambash, a historian from the University of Haifa, noted.

According to the experts, the rise was especially dramatic.

“We do not know of such an increase in [recorded] history. It is an increase that is recognized only when talking about the end of the ice age and the great melting of glaciers,” Professor Thomas Levy of the University of California, San Diego said.

Levy said that as an effect of climate change, the sea level is currently expected to rise by about one meter by the end of the 21st century, stressing how the phenomena they uncovered was even more drastic.

According to Yasur-Landau, a rise similar to the one that Israel experienced some 2,000 years ago would cause much of the coastline to disappear, as well as recurring flooding in coastal Israeli cities like Tel Aviv.

The researchers do not know what caused the sea-level to rise some two millennia ago, but they hope to find out with further studies. They also attested that the current sea-level is similar to the ones from Roman times.

“The past is not a mirror image of the future,” Yasur-Landau said, when asked if their findings can offer insights into the issue of sea-level rise in our times. “But I would say that the sea-level had a very profound impact on vital infrastructure in the past and it is very likely that a quick rise will have a very severe impact on critical infrastructure in the future, such as drainage, harbors, and coastal aquifers and we should keep it in mind.”

Please visit the site: <https://www.jpost.com/archaeology/israel-sea-level-rose-2-m-in-hellenistic-period-could-explain-decline-671173> [Academic article at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0251870>]

NEW TYPE OF ANCIENT HUMAN **DISCOVERED IN ISRAEL,** **BY PALLAB GHOSH**

Researchers working in Israel have identified a previously unknown type of ancient human that lived alongside our species more than 100,000 years ago.

They believe that the remains uncovered near the city of Ramla represent one of the "last survivors" of a very ancient human group.

The finds consist of a partial skull and jaw from an individual who lived between 140,000 and 120,000 years ago.

Details have been published in the journal Science.

The team members think the individual descended from an earlier species that may have spread out of the region hundreds of thousands of years ago and given rise to Neanderthals in Europe and their equivalents in Asia.

The scientists have named the newly discovered lineage the "Nesher Ramla Homo type".

Dr Hila May of Tel Aviv University said the discovery reshapes the story of human evolution, particularly those of the Neanderthals. The general picture of Neanderthal evolution had in the past been linked closely with Europe.

"It all started in Israel. We suggest that a local group was the source population," she told BBC News. "During interglacial periods, waves of humans, the Nesher Ramla people, migrated from the Middle East to Europe."

The team thinks that early members of the Nesher Ramla Homo group were already present in the Near East some 400,000 years ago. The researchers have noticed resemblances between the new finds and ancient "pre-Neanderthal" groups in Europe.

"This is the first time we could connect the dots between different specimens found in the Levant" said Dr Rachel Sarig, also from Tel Aviv University.

"There are several human fossils from the caves of Qesem, Zuttiyeh and Tabun that date back to that time that we could not attribute to any specific known group of humans. But comparing their shapes to those of the newly uncovered specimen from Nesher Ramla, justify their inclusion within the [new human] group."

Dr May suggests that these humans were the ancestors of Neanderthals.

"The European Neanderthal actually began here in the Levant and migrated to Europe, while interbreeding with other groups of humans."

Others travelled east to India and China, said Prof Israel Hershkovitz, suggesting a connection between East Asian archaic humans and Neanderthals in Europe.

"Some fossils found in East Asia manifest Neanderthal-like features as the Nesher Ramla do," he said.

The researchers base their claims on similarities in features between the Israeli fossils and those found in Europe and Asia, though their assertion is controversial. Prof Chris Stringer, from the Natural History Museum in London, has recently been assessing Chinese human remains.

"Nesher Ramla is important in confirming yet further that different species co-existed alongside each other in the region at the time and now we have the same story in western Asia," he said.

"However, I think it's a jump too far at the moment to link some of the older Israeli fossils to Neanderthals. I'm also puzzled at suggestions of any special link between the Nesher Ramla material and fossils in China."

The Nesher Ramla remains themselves were found in what used to be a sinkhole, located in an area frequented by prehistoric humans. This may have been an area where they hunted for wild cattle, horses and deer, as indicated by thousands of stone tools and bones of hunted animals.

According to an analysis by Dr Yossi Zaidner at the Hebrew University of Jerusalem, these tools were constructed in the same manner that modern humans of the time also made their implements.

"It was a surprise that archaic humans were using tools normally associated with Homo sapiens. This suggests that there were interactions between the two groups," Dr Zaidner said.

"We think that it is only possible to learn how to make the tools through visual or oral learning. Our findings suggest that human evolution is far from simple and involved many dispersals, contacts and interactions between different species of humans."

Please visit the site: <https://www.bbc.com/news/science-environment-57586315> [Go there for pix and caps] [See also <<https://www.jpost.com/archaeology/new-prehistoric-human-unknown-to-science-discovered-in-israel-671949>

EGYPTIAN – LEVANTINE COPPER TRADE WAS GOING STRONG DURING THE EARLY IRON AGE

Royal Egyptian artifacts of the Tanite pharaohs showed their copper came from the Arabah region.

Egyptian-Levantine copper trade was going strong during the Early Iron Age since the analysis of royal Egyptian artifacts of the Third Intermediate Period showed that copper used there was coming from the Arabah region, in today's Israeli-Jordanian border.

The source of Egypt's copper supply during the Third Intermediate Period (1070–664 BCE) is largely unknown. The period is characterized by the collapse of central authority in Egypt and its replacement with multiple pharaonic dynasties which controlled different parts of the country. At the same time, the Third Intermediate Period is often seen as the latest “episode” in a period of a major transformation in the Mediterranean, that saw the emergence of new powerful states along the area East of Egypt, which replaced, in their turn, the collapsed Levantine and Middle Eastern Empires of the Late Bronze Age. In that light, while the provenance of imported materials excavated in Egypt is known for the Late Bronze Age artifacts, it has been difficult to pinpoint the origins of the ones dating to the Third Intermediate Period, as the terms of trade during that time are blurred. Still, experts from Israel decided to shed light on the dark routes of the early Iron Age trade, by analyzing the copper found in Egyptian artifacts of the 21st Dynasty, the family who succeeded the last Ramessids, controlling the area around Tanis, Lower Egypt, from 1069 BC.

The team of experts led by Shirly Ben-Dor Evian (Israel Museum and Tel Aviv University) performed analysis on elite objects dating to the 21st, the 24th, and 25th Dynasties. In particular, they performed chemical (elemental) and lead isotope (LI) analysis of four bronze shabtis (funerary figurines) from Tanis which are housed in the Israel Museum, Jerusalem, and date c. 1010 BC. The shabtis are ascribed to pharaoh Psusennes I, his wife, and one of his generals. The team also analyzed two objects from the 24th and 25th Dynasties (8th c. BCE).

Analysis of the shabtis identified the source of the copper used in their construction in the Arabah region, an area covering the southern border of modern-day Israel and Jordan. The area is known to the archaeological record as home to the two major ancient mining sites of Timna and Wadi Feynan, where much of the copper used in Late Bronze Age Egypt was coming from.

The finds provide a basis for the historical reconstruction of the copper exchange network in the southern Levant at the turn of the first millennium BC, suggesting that Egyptian-Levantine trade was going on. Egyptians might either have continued to import copper from Arabah throughout the period of collapse or have resumed their contact with the area once the conditions allowed for it.

At the same time, analysis of the objects from the 24th and 25th Dynasties (8th c. BCE) revealed a marked change in Egyptian copper metallurgy. This change was noted in both the composition (from Cu with traces of Sn to leaded copper with traces of As) and the supply chain (the Arabian ores are excluded). As the sampling involved museum artifacts, the team performed X-ray imaging as a means to avoid sampling of any later metallic modifications and ensure the correct sampling process.

The study has been published online in the Journal of Archaeological Science.

NOTES

1. Journal of Archaeological Science,
<https://www.sciencedirect.com/science/article/abs/pii/S2352409X21002376?via%3Dihub>
(12/06/2021)
2. Haaretz, <https://www.haaretz.com/archaeology/.premium-where-ancient-egypt-got-its-metal-after-civilization-collapsed-in-3200-bce-1.9903941>
(16/06/2021)

Please visit the site: <https://www.archaeology.wiki/blog/2021/06/18/egyptian-canaanite-copper-trade-was-going-strong-during-the-early-iron-age/>

THE OLDEST WINE IN EUROPE WAS JUST DISCOVERED IN GREECE, BY THOMAS KISSEL

The oldest wine in Europe was discovered recently in ancient Philippi, northern Greece, the Department of History and Archaeology of the Aristotle University of Thessaloniki announced.

The University presented research that indicates that making and drinking wine in Europe originates from prehistoric Greece.

Thousands of ancient grape seeds and pomace were found in ancient Philippi house whose contents were preserved in a fire that occurred in 4300 B.C.

The Aristotle University of Thessaloniki Department of Archaeology has been conducting archaeobotanical research for the last twenty years.

The research began with the use of archeological flotation, an archaeobotanical sampling technique where an archaeological deposit is placed in a flotation tank with water that dissolves the deposit until fragments of plants and other material float to the top.

Sultana-Maria Valamoti, professor of Prehistoric Archaeology, director of the Laboratory for Interdisciplinary Research in Archaeology/ EDAE and the PlantCult Laboratory at the Center for Interdisciplinary Research and Innovation of the AUTH, said that “These first steps were the starting point that led to today’s findings.

“Thousands of liters of soil have been processed by the method of flotation and a variety of archaeological sites have already been or are being researched archaeobotanically.

“Thanks to the work done at the Aristotle University of Thessaloniki, this data, often neglected by research, provides a wealth of information on the social and economic organization in northern Greece, the daily activities of people, their farming and agricultural practices, as well as specific symbolic activities from the 7th to the 1st millennium BC” Valamoti added.

University has been researching prehistoric Greece for decades The Aristotle University of Thessaloniki Department of Archeology, who conducted the research and where Valamoti is a professor of prehistoric archaeology, has been at the vanguard of archeological research in Greece.

For years the department was led by George Hourmouziadis, the former Professor Emeritus of prehistoric archaeology, who led excavations in many prehistoric settlements in Thessaly and Macedonia (such as Dimini, Arkadikos and Dramas, etc.)

In 1992 he started the excavation of the Neolithic lakeside settlement of Dispilio in Kastoria, Northwestern Greece. A myriad of items were discovered, which included

ceramics, structural elements, seeds, bones, figurines, personal ornaments, three flutes (considered the oldest in Europe) and the Dispilio Tablet.

The discovery of the wooden tablet was announced at a symposium in February 1994 at the University of Thessaloniki. The site's paleoenvironment, botany, fishing techniques, tools and ceramics were published informally in the June 2000 issue of Eptakiklos, a Greek archaeology magazine.

“I speak and I write using the soil as raw material... this soil is not similar to that which we put in our pots every autumn. It is the soil of a strange garden, a garden where, thousands of years before, people like us, walked on the marks of their toil, anger, and of their rush and calm which they left behind. They left the footprints of their lives,” he noted on the occasion of the publication of his book “Logia kai Coma (Words and Soil).”

Hourmouziadis passed away in 2013.

Please visit the site: <https://greekreporter.com/2021/06/27/oldest-wine-europe-ancient-greece/>

5 NEW OR UPGRADED MUSEUMS TO OPEN **IN GREECE,** **BY DUNCAN HOWITT-MARSHALL**

The Ministry of Culture approves plans for five new or upgraded museums for Chios, Trikala, Sparta, Thyreio and Ermioni.

The Council of Museums, part of the Greek Ministry of Culture, has recently approved plans for five new or upgraded museums in locations across Greece, further enriching an already extensive network of museums in the country.

Chios, Trikala, Sparta, Thyreio and Ermioni will acquire new or upgraded archeological museums to house finds from regional excavations or artifacts already in long-term storage, hitherto unseen by the public.

Welcoming the decision, Culture Minister Lina Mendoni said: “Museums are not just places for exhibiting treasures that come to light from the unique cultural stock of each region of our country. They are centers of education and the creation of culture, places of study for the promotion of our history, benefitting both locals and visitors alike.”

One of the primary aims of the Ministry of Culture and Sports is the continual advancement of the country’s museum program, including the creation of new museums and the systematic upgrade of existing ones.

Regional museums in Greece operate at the vanguard of public outreach for the cultural heritage sector. Their exhibitions give insight into the unique cultural physiognomy of their respective region, and shine a light on the valuable work of archaeologists, conservators and museum curators.

Archaeological Museum of Chios

Built between 1966 and 1971, the plans for the Archaeological Museum of Chios won First Prize in the Panhellenic Architectural Competition in 1965. At the time it was considered an innovative design, featuring inner courtyards, expansive open spaces, and independent entrances to both the exhibition galleries and conservation laboratories.

Over time, the three-story building underwent a series of interventions that altered its original design, including the use of false ceilings, makeshift metal roofs and sealed windows, creating a more enclosed space.

The planned upgrade will include a major expansion of the exhibition and storage spaces, restoring the building to its former aesthetic, as well as installing the necessary features to ensure full access for disabled visitors.

New exhibition spaces will house artifacts from archaeological excavations carried out across the island, spanning from the Neolithic to the Roman era. The expansion will also

house new storage spaces, multi-purpose facilities for the study and conservation of archaeological artifacts, as well as further space for temporary exhibitions.

Diachronic Museum of Trikala

Located in the heart of northwest Thessaly, Trikala is home to some of the oldest archaeological sites in Greece, including the famous Theopetra Cave, first inhabited by Neanderthals some 50,000 years ago.

The new museum is part of an extensive regeneration program to transform the former Poullos Camp, a large Hellenic Army base, into a dedicated museum cluster, comprised of an interactive technology museum and an archaeological museum.

The building that will serve as the Diachronic Museum is the former headquarters of the Army's A Corps and Support Division, consisting of an elongated wing with a ground floor and three levels of 1,000 square meters. The Ephorate of Antiquities of Trikala plans to develop exhibitions on the history and archaeology of the city and surrounding region from earliest prehistory to modern times.

Old Archaeological Museum of Sparta

Founded in 1875, the Archaeological Museum of Sparta has the distinction of being the first museum institution in Greece outside of Athens. Housed in a neoclassical building, the initial exhibition comprised 288 artifacts collected by the then Curator of Antiquities Panagiotis Stamatakis, gradually expanding as excavations in the local region continued into the early 20th century.

The small museum spans seven rooms over a total area of 500 square meters. The collection includes thousands of artifacts from the ancient Acropolis of Sparta and the wider municipality of Laconia, spanning in time from the Neolithic to Late Roman times.

The building and surrounding gardens have since been designated a historical monument in their own right, but, poor upkeep and Sparta's year-round humidity have forced curators to place the majority of the museum's priceless artifacts into long-term storage.

The Ministry of Culture have approved plans to construct a new museum and carry out a total upgrade of the existing museum, including a major underground extension. The initiative included significant funding and promotion from the Stavros Niarchos Foundation, a long-term supporter of cultural heritage projects in Greece.

Archaeological Museum of Thyreio

The existing Archaeological Museum of Thyreio is one of only three museums in the mountainous Aetolia-Acarnania region of western Greece.

Built between 1961 to 1963, the museum consists of eight areas totaling a mere 200 square meters. According to the new proposal, the Ephorate of Antiquities of Aetolia-Acarnania and Lefkada plans to double the size of the building and create an underground extension in order to expose a section of the excavations of ancient Thyreio

(in similar fashion to the Acropolis Museum in Athens and the underground Makrigiannis plot).

Ancient Thyreio formed part of the Aetolian League, a confederation of tribal communities and city-states established in the 4th century BC. Among the finds from the excavations near the current museum include inscriptions detailing the alliance between the Aetolians and the Roman Republic in 212 BC.

Archaeological Museum of Ermioni

The port town of Ermioni in the southeastern part of the Argolid boasts a long and uninterrupted historical presence from at the Early Iron Age to today. Famed in Classical antiquity for its shipbuilding and the production of red dye, the settlement was home to major temples and religious festivals dedicated to the worship of Hestia, goddess of the hearth, and one of the twelve Olympians.

The new proposal for a museum will utilize an existing building in the town, which previously functioned as a Primary School from 1932 to 1999, and then as the City Hall to 2010. Since then it has housed the Municipal Unit of Ermioni, including the local citizen service center (KEP).

Located near an early Christian basilica of the 4th century, the new museum, covering a total area of 383 square meters, will display selected ancient artifacts highlighting the long history of the city.

It will also function as the starting point of a new cultural route that takes visitors around Ermioni and the wider Argolid region.

Please visit the site: <https://www.greece-is.com/5-new-upgraded-museums-open-greece/>

COLOSSEUM OPENS ITS BELLY TO THE PUBLIC - THE UNDERGROUND WARREN WHERE ANCIENT ROMAN GLADIATORS AND ANIMALS AWAITED THEIR FATES HAS BEEN RESTORED, **BY ELISABETTA POVOLEDO**

For nearly 450 years, the majestic amphitheater known today as the Colosseum provided spectacular, often gory, entertainment for legions of ancient Romans, and this week, archaeologists opened its restored warren of underground corridors to the public.

Starting in A.D. 80, spectators were thrilled to gladiatorial contests, bloody tussles between wild animals, staged sea battles and theatrical performances with condemned criminals acting out myths that usually ended badly. Now, visitors can see where it was all methodically planned out.

The hypogeum was “the heart” of the amphitheater, Alfonsina Russo, the director of the Colosseum and its archaeological park, told reporters on Friday during an impromptu tour of what she described as the monument’s backstage, where she said “preparation took place to ensure the optimal execution of the games.”

Under the arena floor, working by torch and oil lamps, unseen stagehands worked elevators and trap doors so gladiators, performers and animals could make dramatic choreographed entrances. “There must certainly have been a director who coordinated all the activities that resulted in the show,” Ms. Russo said.

The restoration, which began in late 2018, adopted a multidisciplinary approach that involved archaeologists, architects, restorers, physicists, topographers and engineers. “As you can imagine,” she said, “it was a very complex effort.”

Their work unearthed new archaeological data that was used “to read” the amphitheater’s history, from the moment it was inaugurated to the final games there in A.D. 523, Ms. Russo said. “The transformations often followed the tastes of the various emperors,” or the fads of the time, she added.

A section of the underground beehive has been open to the public since 2010. In 2015, a model of the elaborate system that raised cages from the bottom of the amphitheater to the arena floor 24 feet above — built to descriptions found in ancient texts — was installed there.

But now visitors can walk down the tunnels that cross the length of the arena.

The opening of the underground area marks the end of the second of three phases of a 25 million euro project (about \$29.8 million) sponsored by the luxury goods maker Tod’s.

The first stage involved cleaning and restoring the Colosseum’s vast, arcaded facade, and substituting the metal gates that seal off the ground-level arches. The third phase calls for the restoration of galleries on its second level and the relocation of the services center outside the monument.

“It shows that when public and private want to do something together, things can happen,” the founder of Tod’s, Diego Della Valle, said on Friday, renewing an appeal to other Italian industrialists to follow suit. He has had few takers, save for other fashion brands, like Bulgari, which revamped the Spanish Steps, and Fendi, which cleaned up the Trevi Fountain.

“With my words today, I hope to bring others onboard,” Mr. Della Valle said.

But the underground corridors at the Colosseum that once housed the elaborate machinery that hoisted scenery, props, animals and people onto the arena floor will not be visible from above for long.

Last month, Dario Franceschini, Italy’s culture minister, announced the winner in a competition to build a replacement floor for the Roman landmark that will allow visitors a glimpse of what it was like to stand as a gladiator.

“It’s a great operation,” Mr. Franceschini said on Friday. “We need to feel proud in these weeks of reopening.”

Ms. Russo, the Colosseum’s director, also attended the inauguration this week of another landmark in her care: the Domus Aurea, or Golden House, which reopened Monday after a forced 14-month closure because of the coronavirus pandemic.

At the Domus Aurea, a palace that was built by the emperor Nero, a new entrance and ramp have been designed by Stefano Boeri Architetti, and they lead directly to a large octagonal room with a semicircular dome that was at the center of the house. There, a multimedia exhibit, “Raphael and the Domus Aurea: The Invention of the Grotesques,” has been installed, celebrating the rediscovery in the late 15th century of the ancient palace and the influence its frescoes had on Renaissance art.

Elisabetta Povoledo has been writing about Italy for nearly three decades, and has been working for The Times and its affiliates since 1992. @EPovoledo • Facebook

Please visit the site: <https://www.nytimes.com/2021/06/26/world/europe/colosseum-underground-opens.html> [Go there for pix]

NEW FOSSILS REVEAL INTERACTIONS BETWEEN ANCIENT HUMAN GROUPS LIVING TOGETHER IN THE LEVANT

A recent archeological dig in central Israel unearthed evidence that Homo sapiens, humans that inhabit the earth today, likely lived alongside a group of archaic humans known as the Middle Pleistocene Homo. This discovery, and the international collaborations that made it possible, provide the first evidence that the two human types lived at the same time and interacted with one another. Their findings were published today in Science.

This discovery came about where a team of archaeologists, led by Dr. Yossi Zaidner at the Hebrew University of Jerusalem (HU), found stone tools alongside human fossils at a site called Neshar Ramla in central Israel. They shared their find with a team of dating specialists from France (CNRS, Université Bordeaux Montaigne, National Museum of Natural History in Paris, and Université Paris-Saclay) who dated them to 120,000 years ago, when Homo sapiens and Neanderthals were the only known human species roaming about Africa, Europe, and the Near East.

Taking a closer look at the human fossils, a team of researchers led by Tel Aviv University Professor Israel Hershkovitz, was amazed to see that their features closely resembled those of a less developed human species that was thought to have become extinct more than 300,000 years ago. They published their findings, as well, in a companion paper in Science and named the new human fossil Neshar Ramla Homo, based on its location. “This discovery is particularly dramatic because it shows us that there were several types of Homo living at the same place and the same time at this later stage of human evolution,” Zaidner shared.

Neshar Ramla, located near the modern city of Ramla, was an active site used by hominins roughly 120,000-140,000 years ago. As a result, an 8-meter layer developed, thick with the remnants of stone tools, bones of hunted animals, and remains of ancient fireplaces accumulated there. Studying these remnants gives clues to how Neshar Ramla Homo lived; in this case, a quite sophisticated life. Neshar Ramla Homo was a skilled hunter of rhino, wild cattle, deer, and horses. They created stone tools using methods and techniques that had previously only been identified with more advanced hominins, such as Homo sapiens and Neanderthals.

The advanced nature of their stone tools led Zaidner and his team to conclude that the Neshar Ramla Homo and Homo sapiens who lived in Israel 120,000 years ago interacted with one another and shared knowledge between their two groups. “It would stretch the imagination to think that Neshar Ramla Homo or Homo sapiens would have been able to independently invent such an indistinguishable set of ‘technologies,’” Zaidner explained.

“A far more sensible explanation is that through interactions, these two hominins transferred key knowledge. We still don’t know what the extent or length was of any communication or whether it was individuals meeting and interacting or there were larger social groups that came together,” he added.

The findings at Nesher Ramla provide archaeological support for close cultural interactions and genetic admixture between different human lineages before 120,000 years ago. Though recent genetic studies suggest that links between the two populations of archaic and modern humans occurred as early as 200,000 years ago, until this latest discovery, it hadn't been what those links looked like or where they occurred. We now know that these two groups met on the terra firma of modern-day Israel and that the ties between them were close enough to allow for a transfer of knowledge with regards to tool production and technique. A glimmer of hope in the Middle East not always known for getting along.

CITATION: Middle Pleistocene Homo Behavior and Culture at 140,000 to 120,000 Years Ago and Interactions with Homo Sapiens. Yossi Zaidner, Laura Centi, Marion Prévost, Norbert Mercier, Christophe Falguères, Gilles Guérin, Héléne Valladas, Maïlys Richard, Asmodée Galy, Christophe Pécheyran, Olivier Tombret, Edwige Pons-Branchu, Naomi Porat, Ruth Shahack-Gross, David E. Friesem, Reuven Yeshurun, Zohar Turgeman-Yaffe, Amos Frumkin, Gadi Herzlinger, Ravid Ekshtain, Maayan Shemer, Oz Varoner, Rachel Sarig, Hila May, Israel Hershkovitz. DOI TBD.

Please visit the site: <https://www.afhu.org/2021/06/25/new-fossils-reveal-interactions-between-ancient-human-groups-living-together-in-the-levant/>

ARCHAEOLOGIST DISCOVERS 6,000 YEAR- OLD ISLAND SETTLEMENT OFF CROATIAN COAST

Archaeologist Mate Parica was examining satellite images of Croatia's coastline when he spotted something unusual.

"I thought: maybe it is natural, maybe not," said Parica, a professor at the University of Zadar.

The image showed a large, shallow area on the seabed jutting out from the eastern shore of the island of Korcula.

Parica and a colleague decided to dive at the site and discovered what they believe is a Neolithic settlement from around 4,500 years BC, built on a small piece of land that was connected to the main island by a narrow strip.

The pair found the remains of stone walls which had surrounded the settlement, as well as tools and other objects used by the inhabitants.

"We found some ceramic objects and flint knives," he said.

Marta Kalebota who runs the archaeological collection in the Korcula town museum, said the settlement's location was highly unusual.

"We are not aware at the moment of a similar finding elsewhere that a Neolithic settlement was built on an islet connected with a narrow strip of land," she said.

Parica also said the island settlement discovery was atypical and that Neolithic finds were mostly made in caves.

"The fortunate thing is that this area, unlike most parts of the Mediterranean, is safe from big waves as many islands protect the coast. That certainly helped preserve the site from natural destruction," he said.

Reporting by Antonio Bronic, writing by Igor Ilic, Editing by Raissa Kasolowsky

Please visit the site: <https://www.reuters.com/lifestyle/science/archaeologist-discovers-6000-year-old-island-settlement-off-croatian-coast-2021-06-24/>

RUSSIA GAINS FOOTHOLD IN SYRIA’S PALMYRA THROUGH ARCHAEOLOGICAL RESTORATION, BY VASILY MAXIMOV

Russia has begun a project to rehabilitate Syria’s ancient city of Palmyra in its latest efforts to gain a foothold in the country’s vital sectors.

Pursuant to three agreements signed with the Syrian government, Russia has announced the start of a project to restore artifacts from the ancient city of Palmyra in the eastern countryside of Homs in central Syria.

The first agreement, founded in November 2019 between the State Hermitage Museum in St. Petersburg and the Directorate-General for Antiquities and Museums, is to restore the Archaeological Museum of Palmyra and its collections.

The second agreement, with the Russian Academy of Sciences Institute of Material Culture, is to train Syrian staff and exchange information on image-based 3D modeling when assessing the damage caused by the Islamic State (IS). The Association Stone Industry of Russia signed the third agreement in November 2020 to restore the Arch of Triumph in Palmyra.

The outbreak of COVID-19 in 2020 prevented the implementation of the agreements.

Syrian media outlets quoted Dmitry Medyantsev, the project manager in Palmyra, as saying on June 13 that Russian experts taking part in the restoration of the ancient city have already completed the first stage of the project, which includes measurements and ground surveys. In the second stage, they will remove the rubble, scan the fragments of destroyed monuments and prepare an inventory. The Russian experts will create an interactive model of the city, which will reveal the missing parts to be re-created, he added.

In this context, Mohamad Hasan al-Ayid, director of the Palmyra News Network, an opposition-affiliated media outlet in Palmyra, told Al-Monitor, “The Russian interest in Palmyra began when IS was still controlling the city. At the time, Russia supported the regime forces in regaining control of Palmyra. The Russian forces oversaw the demining efforts and removal of explosive remnants of the war in the city. [After IS was expelled in 2016], Russia showed interest in the restoration of the ancient city, part of which IS destroyed.”

“IS destroyed the Temple of Bel, the Temple of Baalshamin and the Arch of Triumph, in addition to several artifacts displayed in the city’s museum. In early [2017], the terrorist group destroyed the Tetracylon, which the UN labeled a war crime. Meanwhile, regime forces also targeted archaeological sites in the ancient city under the pretext that IS cells were hiding there,” he added.

Ayid continued, “In addition to its cultural importance, Palmyra is located near the phosphate mines and gas fields, making it a priority for Russia. The city has turned into a

hub for archaeological excavations. We have no idea about the fate of the artifacts after the regime's control of the city and the entry of Russian and Iranian militias. We do not know the extent of the destruction or the number of stolen artifacts. Russia has transferred hundreds of artifacts, including the Lion Statue, to Damascus for restoration purposes. More than 60 funerary reliefs and portraits, which IS destroyed, have been under restoration by Syrian experts at the National Museum in Damascus. Yet field visits and surveys are required in large parts of the city so as to assess the damage.”

Nasr al-Yousef, a Syrian-Russian journalist based in Moscow and an expert on Russian affairs, told Al-Monitor, “The most prominent Russian statements on Palmyra were made in 2016 when Russia urged UNESCO to help restore the ancient city. Also, then-Russian Deputy Foreign Affairs Minister Gennady Gatilov met with UNESCO Director-General Irina Bokova in May 2016 to discuss a plan to dispatch international experts to Palmyra to assess the damage.”

“Moscow put forward a 3-D model of the city, including the [Roman] theater and the Temple of Bel. Natalia Solovyova, deputy director of the Hermitage Museum, says that the model would allow to assess new excavation sites, study the city planning and reconstruction costs without being present in the city,” he added.

Yousef went on to say that “in early August 2020, 12 Russian experts arrived in Damascus with the aim of supervising archaeological excavation works and assessing archaeological sites in Palmyra.

Contracts were signed with 35 Syrian experts to carry out excavations.

On Sept. 17, 2020, the team found 28 artifacts that were extracted within 48 continuous working hours. Then they were moved to 30-meter-long and 20-meter-wide warehouses built at the Palmyra military air base where the artifacts were hosted until the arrival of cargo aircraft where the artifacts were loaded.”

“With this, Russia seeks to draw the attention of the world to the destruction incurred in Palmyra in order to obtain restoration funds, although it does not have the experience in restoration of antiquities. Moscow also aims to take hold of the city through antiquities and the reconstruction process, to steal the UNESCO funds and open new investments in the city. Previously, most of the missions working in Syria were mainly German and French, in addition to some Japanese, Belgian and US ones. Russia only had one mission operating intermittently in Tell Khazneh in Hasakah. We have not seen any scientific publications by [this Russian] mission,” he added.

Russia seeks to control most of the sectors in Syria that would serve its economic interests in the future. Moscow shows special interest in the city of Palmyra and the city's monuments, given its touristic importance and the possibility of implementing major projects should the situation become stable in the country. The Russian army built a military base within the ancient city of Palmyra in order to prevent the Iranian militias from seizing the area.

Wael Olwan, a researcher at the Istanbul-based Jusoor Center for Studies, told Al-Monitor, “Russia seeks to take hold of all dossiers that would generate economic gains in Syria, including raw materials, the reconstruction file and tourism, which is mainly

centered on the Syrian coastal and archaeological areas. It also seeks to show that the Syrian regime is the one that won the battle, that it is actively seeking to achieve social stability, and that Syria's tourism and investment projects have begun their recovery. Russia is trying to keep Iran away from the ancient city because the militias stole and smuggled antiquities through Lebanon. Since Russia is in control of the area, it seeks to prevent such operations from taking place so as to avoid any accusations in this regard.”

Please visit the site: <https://www.al-monitor.com/originals/2021/06/russia-gains-foothold-syrias-palmyra-through-archaeological-restoration>
