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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Μάιος 2024 -**

**Character is destiny.**

**(Heraclitus)**

## Newsletter of the Hellenic Society of Archaeometry

**- May 2024 -**

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## **ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS**

### **RE-IV INTERNATIONAL RADIOCARBON IN THE ENVIRONMENT CONFERENCE, 23<sup>RD</sup> - 27<sup>TH</sup> SEPTEMBER 2024 IN LECCE, ITALY**

Dear colleagues,

We remind you that the **May 1<sup>st</sup>** is the deadline for the abstract submission for the **RE-IV International Radiocarbon in the Environment Conference** that will take place from **23<sup>rd</sup> to 27<sup>th</sup> September 2024 in Lecce, Italy**

As we indicated in our previous mail to submit your proposals, connect to [www.motusanimi.it/cedad2024/](http://www.motusanimi.it/cedad2024/) or to [www.cedad.unisalento.it](http://www.cedad.unisalento.it) to be directed to the conference website.

A preliminary conference schedule is already available on the website of the Conference. First you have to login to create your account and after registration go in the reserved area. Download first the Abstract Template, attach the file and submit one or more abstracts indicating the scientific sessions and the presenting author.

Do not miss the opportunity to be part of the RE-IV Radiocarbon International in the Environment Conference enjoying not only the scientific presentations but also the city of Lecce, the Salento culture and popular traditions and its spectacular natural resources. We inform you that Lecce and Salento are renowned tourist destinations. Therefore we strongly recommend you to make an early booking of the travel tickets and accommodation.

We are looking forward to meeting you in Lecce.

On behalf of the Re-IV Organizing Committee:

Prof. Lucio Calcagnile  
Director of CEDAD  
Prof. Gianluca Quarta  
Department of Mathematics and Physics  
University of Salento, Lecce - Italy  
Chairs of the RE-IV 2024 Conference

**POSTGRADUATE CYPRIOT ARCHAEOLOGY**  
**(POCA) 2024, 21<sup>ST</sup> MEETING, NOVEMBER**  
**21<sup>ST</sup> - NOVEMBER 23<sup>RD</sup> 2024, TRINITY**  
**COLLEGE DUBLIN, TRINITY LONG ROOM**  
**HUB ARTS & HUMANITIES RESEARCH**  
**INSTITUTE, THE UNIVERSITY OF DUBLIN,**  
**IRELAND, CALL FOR PAPERS**

In memory of Professor Petros Florides

The Department of Classics at Trinity College Dublin invites postgraduate students and early career researchers to submit their papers for the 21st Meeting of Postgraduate Cypriot Archaeology (PoCA). The meeting will take place from the 21st to the 23rd of November 2024 in Dublin. It will be held in a hybrid form with both remote and on-site attendance.

PoCA aims to bring together Master's graduates, PhD students and fresh postdoctoral researchers (within six years of the completion of their PhD), from various backgrounds and disciplines of Cypriot archaeology to present their research, meet colleagues who work in the same domain and exchange ideas in a friendly and collegial environment. One of PoCA's main objectives and conceptions is the organisation and publication of the conference by doctoral students for doctoral students and recent postdocs. This year's conference returns to Dublin after almost 20 years since its last organisation in 2005; and it is dedicated to the loving memory of Prof. Petros Florides, an ambassador of Cyprus in Trinity (and Ireland more broadly).

Participation in the conference is free of fees for both on-site and online presentations. Participants who attend in person will, however, need to make their own travel and accommodation plans and arrangements. The organising committee will provide travel information and a list of affordable accommodation.

All interested researchers are requested to send their paper proposals, including the title, name, affiliation and year of studies or graduation of the author(s), address and an abstract of no more than 250 words, as well as their preference for on-site or online presentation, to [pocadublin24@gmail.com](mailto:pocadublin24@gmail.com) no later than the 31st of May 2024. Communications should be 20 minutes long, followed by 10 minutes discussion. The official language of the conference is English.

Participants are advised that papers reporting on excavations or excavated finds from the occupied area of Cyprus will not be accepted.

We intend to publish the papers presented at the meeting. All submissions will be subject to peer review. Further information about the publication will be given during the meeting.

We look forward to welcoming you in Dublin!

### **Organising Committee PoCA 2024**

Elena Loizou (Ph.D. student)  
Francesco Ripanti (Postdoctoral Fellow)  
Amy O’Keeffe (Ph.D. student)  
Dermot Grant (Ph.D. student)

### **Institutional Support PoCA 2024**

Dr Giorgos Papantoniou  
Prof. Christine Morris

### **Steering Committee**

Giorgos Papantoniou, Coordinator (Trinity College Dublin)  
Stephan Schmid (Humboldt University of Berlin)  
Ourania Kouka (University of Cyprus)  
Athanasios K. Vionis (University of Cyprus)  
Jennifer Webb (La Trobe University/ University of Cyprus)  
Charalambos Paraskeva (Department of Antiquities, Cyprus)  
Elena Loizou (Trinity College Dublin)

We are pleased to announce that the Call for Papers for the 21<sup>st</sup> Postgraduate Cypriot Archaeology (PoCA) conference is now available. The deadline for the submission of paper proposals is May 31.

For more information visit PoCA 2024 website: <https://pocadublin24.wordpress.com/>

\*\*\*\*\*

Dr Giorgos Papantoniou (he/his)  
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<http://www.tcd.ie/classics/people/giorgos-papantoniou.php><<http://www.tcd.ie/classics/people/giorgos-papantoniou.php>>

My working schedule may be different than yours. Please do not feel obliged to reply outside your normal working hours.

Unlocking Sacred Landscapes - Cultural Heritage and Virtual Tour :  
<https://www.unsala.com/>

\*\*\*\*\*

**16<sup>TH</sup> INTERNATIONAL CONFERENCE ON  
ACCELERATOR MASS SPECTROMETRY,  
CO-HOSTED BY GUANGXI NORMAL  
UNIVERSITY (GNU), CHINA INSTITUTE OF  
ATOMIC ENERGY (CIAE), AND INSTITUTE  
OF EARTH ENVIRONMENT, CHINESE  
ACADEMY OF SCIENCES (IEECAS),  
OCTOBER 20 TO 26<sup>TH</sup>, 2024, GUANGXI  
NORMAL UNIVERSITY, GUILIN, CHINA**

Dear Colleagues,

A friendly reminder that the abstract submission deadline is **May 1st., 2024 at 23:59 CST.**

Please ensure that you submit your abstracts through the indico system by this date.  
<https://indico.ihep.ac.cn/event/20503/>.

The correct way to **create an account with indico system is:** Click on the **Register button at the top right corner** of the page, or **Click Here**. Please **DO NOT** click the **"Submit new abstract"** button until you have registered your indico system.

**Registration for AMS16** will be opened in the latter part of April.

The Registration Fee will cover the **Publication of Proceedings (NIM B Elsevier)**, Conference materials, Daily coffee breaks, lunches, Conference Banquet, transportation, and admission tickets to Guilin Forbidden City and Duxiu Hill.

Regular (Early Registration before July 1, 2024) 580 USD  
Regular (Early Registration before July 1, 2024) 3800 RMB for Chinese citizen  
Student (Early Registration before July 1, 2024) 400 USD  
Student (Early Registration before July 1, 2024) 2800 RMB for Chinese citizen  
Regular 800 USD  
Regular 5000 CNY for Chinese citizen  
Student 500 USD  
Student 3500 CNY for Chinese citizen  
Accompanying Persons 150 USD  
Accompanying Persons 1000 CNY for Chinese citizen

The conference will be held at the **Guilin Bravo Hotel, in the center of Two Rivers and Four Lakes Scenic Spot**, and the organizing committee will help you book the conference hotel. Hotel price information will be shown on the registration system later.

We hope you enjoy the beautiful scenery of Guilin while participating in this grand event.

Thank you for your attention, and we look forward to hosting you in Guilin.

On behalf of the Organizing Committee of AMS-16  
Director of the GNU-AMS Lab  
Hongtao Shen  
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Guangxi Normal University,  
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# **11<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON THE CONSERVATION OF MONUMENTS IN THE MEDITERRANEAN BASIN (MONUBASIN), EXPLORING MATERIAL, TECHNIQUES AND TECHNOLOGICAL ADVANCES FOR CONSERVATION, URBAN RESTORATION AND MANAGEMENT OF CULTURAL HERITAGE IN THE NEW ERA**

Dear colleagues,

We are pleased to announce **the 3<sup>rd</sup> circular of the 11<sup>th</sup> MONUBASIN conference**. In the attached file, you will find the updated information regarding the submission deadlines and the conference proceedings. More specifically:

Deadline for abstract or full paper submission: **30th of April, 2024**

Deadline for poster submission: **31<sup>st</sup> of May, 2024**

The proceedings of 11<sup>th</sup> MONUBASIN will be published in [eProceedings](#) service with Open Access, by the National Documentation Center (EKT). *eProceedings* is an innovative service for the electronic publishing and management of conference proceedings that helps researchers and academic institutions reach a wider readership and effectively promotes new ways of scholarly communication in full compliance with the principles of open access initiative. Each paper in the proceedings will get a unique DOI and will be indexed by Google Scholar and other citation indexes.

In addition, two special issues in esteemed International Journals will be published to further enhance the visibility and dissemination of the conference papers (Infrared Physics & Technology - <https://www.sciencedirect.com/journal/infrared-physics-and-technology> by Elsevier and Journal of Integrated Information Management - <http://ejournals.uniwa.gr/index.php/JIIM> by the University of West Attica).

**Moreover, we would like to inform you that the Registration process is already open. Also, take into account that authors who cannot participate through physical attendance can present their papers online (please check the registration details for more information).**

Additional information regarding the submission process and registration are available on the website (<https://monubasin2024.alis.uniwa.gr/>).

Do not hesitate to contact the Conference Organizing Committee via email ([monubasin2024@uniwa.gr](mailto:monubasin2024@uniwa.gr)) for more information.

We look forward to your participation and are eager for your submissions and further dissemination and publicity of the conference.

On behalf of the organizing committee,

**Dimitrios Kouis**

Associate Professor

\*\*\*\*\*

*Head of Department of Archival, Library and Information Studies  
University of West Attica*

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**SYMPOSIUM ON PALAEOONTOLOGICAL  
PREPARATION AND CONSERVATION  
(SPPC) 2024, 11<sup>TH</sup> SEPTEMBER 2024,  
SOUTHAMPTON UNIVERSITY, UK, CALL  
FOR ABSTRACTS**

Please send abstracts of <250 words plus one image to [sppc@geocurator.org](mailto:sppc@geocurator.org) by 30 July 2024. Abstracts will be considered on any topic of earth science conservation or preparation – including all work undertaken to prepare geological material for research, teaching, storage, display, etc. Please state if the abstract is for a poster or platform presentation. We are planning to have a virtual element for people who cannot attend in person.

Best wishes,

Lu  
(on behalf of the SPPC Committee)

\*\*\*\*\*

L. Allington-Jones (she/her)  
BSc MSc MSc MA  
Principal Conservator  
The Conservation Centre  
The Natural History Museum  
Cromwell Road  
London SW7 5BD

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## **FIRST WORLD NEOLITHIC CONGRESS, 4<sup>TH</sup>** **TO 8<sup>TH</sup> NOVEMBER 2024, ŞANLIURFA,** **TÜRKİYE**

The first World Neolithic Congress will take place from 4<sup>th</sup> to 8<sup>th</sup> November 2024 in Şanlıurfa in Türkiye, very close to some of the most exciting early Neolithic Hotspots.

<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.worldneolithiccongress.org%2F&data=05%7C02%7Cagade%40list.vanderbilt.edu%7C32f46c712b1140bd4a9d08dc54105d8b%7Cba5a7f39e3be4ab3b45067fa80faecad%7C0%7C0%7C638477676453712998%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Iik1haWwiLCJXVCi6Mn0%3D%7C0%7C%7C%7C&sdata=CTH%2Fjq0Aw02i0pyh%2BUAk%2F2GOIRT4QQn4tWUCe7Tyzg%3D&reserved=0>

As members of the Scientific Committee and organizers of the session:

\*G21 - /Icons in Transition. The Role of Signs and Symbols during the Great Transformation/\*//we would like to inform you about the session (see abstract below). If you would like to contribute to the session, please submit your abstract via the official website of the World Neolithic Congress. The submission \*deadline is April 30, 2024\*.

<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.worldneolithiccongress.org%2Fread-before-submission.aspx&data=05%7C02%7Cagade%40list.vanderbilt.edu%7C32f46c712b1140bd4a9d08dc54105d8b%7Cba5a7f39e3be4ab3b45067fa80faecad%7C0%7C0%7C638477676453712998%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Iik1haWwiLCJXVCi6Mn0%3D%7C0%7C%7C%7C&sdata=wXiMAm9wyaIMnqSdW%2B%2FebDq3v0XPrLZi%2Bld9vCpfO1U%3D&reserved=0>

Due to the high number of expected participants with almost 30 parallel sessions, the WNC Committee cannot grant travel expenses.

We still hope that it would be possible for you to participate and we are very much looking forward to meeting you in Şanlıurfa and visit the famous newly discovered sites in the environments with you.

\*/G21 - Icons in Transition. The Role of Signs and Symbols during the Great Transformation/\*

The early Neolithic of the Urfa Region is famous for its extraordinary imagery during the great transformation towards sedentary lifeways. Monumental architecture and a vast panoply of imagery seemed to indicate a turning point in media or even in cognition. Which role did symbolic systems play in constructing and maintaining communities during this transition? What were their predecessors and how did they develop further? Symbolic systems are of central importance for understanding structural continuities and changes in the social fabric and the dialectic relationship of communities and media in times of fundamental socio-economic transformations.

This session aims to compare changes in mediality on a worldwide scale and in a long-durée perspective, applying a transdisciplinary approach. We consider the various symbolic systems, from signs to images, from built space to burial rituals, as polyvalent, intersubjective and contextual. Contributions should focus on the reflexivity, standardisation, ubiquity and materiality of imagery, and on spatial as well as on temporal aspects of archaeological records: Which symbols were represented, how and where? Did medial systems allow participation and interaction? Which role did these media play in socialisation? Was their use private or public, egalitarian or exclusive, monumental or small, random or canonised? Were they omnipresent or accessed only during specific moments? How did symbols contribute to the creation and stabilisation of collective memories?

This session invites contributions from a wide range of disciplines, from prehistoric archaeology to social neurosciences, to share perspectives and case studies in this multidimensional approach to symbolic acts and artefacts.

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## **16<sup>TH</sup> INTERNATIONAL GEORAMAN CONFERENCE, 24-27 SEPTEMBER 2024, RHODES ISLAND, GREECE**

Dear all Ramanists and Raman fans,

We are pleased to announce an extension on the deadline for the abstract submission for the upcoming 16th International GeoRAMAN Conference, which will take place from 24 to 27 September 2024 on the island of Rhodes, Greece. **The new deadline is 13.05.2024.**

We have made great efforts to enable postgraduate students to attend the conference with reduced financial participation. In this regard, we are announcing that **we will cover 100% of the registration fees of ten (10) postgraduate students who submit an abstract by the deadline.** For terms and conditions and more information, please visit the conference website <https://georaman2024.ntua.gr/> or follow us on [Facebook](#) and [LinkedIn](#).

The GeoRaman2024 conference will cover a wide range of applications of Raman spectroscopy in the geosciences sensu lato, including:

- Petrology and Mineralogy,
- Gemmology,
- Planetary Sciences and Exobiology,
- Cultural heritage and Archaeometry,
- Geo-environment and Geo-Energy,
- Raman Techniques and Instrumentation.

Following a long tradition of successful special issues on GeoRAMAN conferences, we will also publish a special issue of the Journal of Raman Spectroscopy with peer-reviewed papers.

Details about the Conference:

Date: 24-27 September 2024

Venue: Rhodes Island, Greece

Important dates:

NEW Deadline for the submission of abstracts: 13.05.2024

Early registration: 31.05.2024

Deadline for submission of the full paper: 15.10.2024

For further information please visit our website <https://georaman2024.ntua.gr/>

We look forward to your participation in this dynamic and enriching event that will bring together Raman experts and enthusiasts to discuss the latest advances, challenges and opportunities and explore new horizons of Raman application in the geosciences.

Attached you will also find the invitation to GeoRAMAN2024, please share it to your

colleagues!

Kind regards,

On behalf of the organising committee,

Maria Perraki, Professor

\*\*\*\*\*

<https://georaman2024.ntua.gr/>

<https://www.facebook.com/georaman2024>

[georaman2024@mail.ntua.gr](mailto:georaman2024@mail.ntua.gr)

On behalf of the organising committee

Dr. Maria Perraki, Professor in Mineralogy & Environmental Geochemistry

Department of Geo-Sciences

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**EUROPEAN X-RAY SPECTROMETRY**  
**CONFERENCE (EXRS-2024), 24-28 JUNE 2024,**  
**ZAPPEION MEGARON, ATHENS, GREECE,**  
**NEW DEADLINE FOR POSTER AND SPECIAL**  
**SLOTS**

Dear colleagues,

We are excited to let you know that 2024 edition of the European X-ray Spectrometry conference to be held on 24-28 June 2024 in Zappeion Megaron in Athens, Greece has extended a special invitation for poster presentations. This new deadline has been set for 15th of May. Plus, we have reserved a restricted number of prime spots for high impact oral presentations. Submit your work now and seize the opportunity to network with experts in your field.

With best regards,

On behalf of the EXRS-2024 organizing committee,

Andreas Karydas  
Chair of the EXRS-2024

Institute of Nuclear Physics  
NCSR “DEMOKRITOS”

\*\*\*\*\*

European Conference on X-Ray Spectrometry (EXRS)  
24-28 June, Athens, Greece  
<https://exrs2024.demokritos.gr/>

\*\*\*\*\*

**ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –**  
**JOB VACANCIES/FELLOWSHIPS**  
**BRITISH SCHOOL AT ATHENS: A.G.**  
**LEVENTIS FELLOWSHIP IN HELLENIC**  
**STUDIES**

The British School at Athens invites applications for the A.G. Leventis Fellowship in Hellenic Studies. The Fellowship, funded by the A.G. Leventis Foundation, is tenable at post-doctoral level to support research into the anthropology, archaeology, architecture, arts, environment, geography, history, language, literature, religion and topography of Greece and Cyprus, and related areas, from prehistory to the late 19th century/ early 20th century. The Fellowship is tenable for three years from 1 October 2024 or shortly thereafter.

The A.G. Leventis Fellowship represents an important strengthening of the intellectual life of the BSA and of its relations with Greece and Cyprus. The BSA is looking for candidates of the highest potential who will make best use of the opportunity for a prolonged period of research in Greece. If the Fellow is not fluent in Greek or if the Fellow's native language is other than English, it is essential that they become fluent within six months of taking up the Fellowship.

The A.G. Leventis Fellow will be expected to take a leading role in the life and work of the BSA. Teaching and other duties will be agreed with the Director at the beginning of each academic year. The Fellow will be expected to give one seminar per year and one public lecture during the term of the Fellowship. The Fellow may be asked to participate in courses taught by the BSA, and they may undertake a small amount of outside teaching with the approval of the Director. It is expected that the Fellow will take a lively interest in the research of BSA Students.

Normally the Fellow will be expected to have satisfied all the requirements for their doctorate no more than five years and at least three months before taking up the post.

Past Leventis Fellows have included Professor Dr Marina Terkourafi (2002-05) now professor and chair of Sociolinguistics at Leiden University; Dr Matthew Haysom (2006-08) now Lecturer in Archaeology in Newcastle University; Dr Evi Margaritis (2009-11) now Associate Professor at the Science and Technology in Archaeology and Culture Research Center of the Cyprus Institute and Dr Irini Avramopoulou (2015-2018) now Assistant Professor in Social Anthropology in the Panteion University of Athens.

Applicants should submit:

- a letter of application (including an explanation of why the proposed research should be undertaken in Greece)
- CV
- a research proposal (1,500 words maximum)
- a writing sample of no more than 8,000 words (normally a thesis chapter or published article)
- The names and email addresses of two referees, who will be requested to submit their letters of reference by Friday 10 May 2024.

Interviews have provisionally been scheduled for early June 2024.

The salary will be €28,000 per annum. In addition, the BSA offers health insurance and can provide continuity of any pre-existing USS pension scheme. The BSA will pay for travel to Athens at the commencement of the Fellowship, up to €350 for one return journey home per year thereafter, and for return travel at the end of the Fellowship. The BSA will also offer research expenses (to include travel, attending conferences, preparation of or obtaining research materials, etc.) of up to €1,750 per year. The Fellow should apply to the Director for any such grants in advance.

The Fellow will be expected to have an affiliation with a UK university (such as a previous degree, post or working relationship). Where possible, Fellows will continue their UK affiliation for the duration of the Leventis Fellowship and if necessary, the BSA will help to negotiate this. They must submit a report each May to the Director for forwarding to the BSA's Council and the A.G. Leventis Foundation on the year's work. In the first year, during which the appointment will be probationary, the Fellow should also submit an interim report in March.

The A.G. Leventis Fellow will acknowledge the BSA and the Fellowship in all publications resulting from tenure of the post.

Fellows are encouraged to reside in the Hostel in the first instance.

The deadline for applications and receipt of references is Friday, 10 May 2024.

Further information and the link to apply is available at:  
<https://www.bsa.ac.uk/2024/04/04/a-g-leventis-fellowship-in-hellenic-studies-2024-2027/>

\*\*\*\*\*  
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Please note that my working hours are 10.30 to 18.00 EEST  
\*\*\*\*\*

## **POSTDOCTORAL RESEARCH ASSISTANT IN** **COMPOUND SPECIFIC RADIOCARBON** **DATING, OXFORD RADIOCARBON** **ACCELERATOR UNIT**

Dear all,

The Oxford Radiocarbon Accelerator Unit is currently advertising for a Post-Doctoral Research Assistant in compound specific radiocarbon dating. The post holder will be responsible for implementing the compound specific radiocarbon dating component of NERC's National Environmental Isotope Facility (NEIF) programme ([www.isotopesuk.org](http://www.isotopesuk.org)), which provides state-of-the-art isotopic services to the UK's research community. It will involve development of new methods for the dating of specific amino acids and lipids, collaboration with NEIF users and development of new research projects, and the post-holder is expected to provide guidance to students and other members of the team in compound specific work.

This is a 3 year position, with possibility for extension. Deadline; 7<sup>th</sup> May 2024.

<https://www.jobs.ac.uk/job/DGZ916/postdoctoral-research-assistant-in-compound-specific-radiocarbon-dating>

Please feel free to get in contact if you are interested.

Best wishes,

Rachel

\*\*\*\*\*

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## **ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS**

# **15<sup>TH</sup> INTERNATIONAL GEOCHRONOLOGY SUMMER SCHOOL: DATING TECHNIQUES IN ENVIRONMENTAL RESEARCH, MORTERATSCH, SWITZERLAND, 1-5 SEPTEMBER, 2024**

Dear colleagues,

it is our pleasure to announce the

15<sup>th</sup> International Geochronology Summer School: Dating techniques in environmental research

Date: 1-5 September 2024

Location: Morteratsch (Switzerland)

Webinfo: <http://www.geo.uzh.ch/en/units/gch/geochronologysummerschool.html>

Topics to be covered in lectures, excursions and workshops include dating techniques such as numerical methods (radiocarbon, exposure dating with cosmogenic nuclides, OSL, <sup>137</sup>Cs, <sup>210</sup>Pb, etc.), dendrochronology, anthracology, archaeomagnetic dating, palaeolimnology, as well as relative methods like soil weathering and Schmidt-hammer technique.

### **List of Lecturers:**

Holger Gärtner (WSL), Paolo Cherubini (WSL), Markus Egli (University of Zurich), Dmitry Tikhomirov (University of Zurich), Dennis Dahms (University of Northern Iowa), Irka Hajdas (ETH Zurich), Evdokia Tema (University of Torino), Elena Serra (University of Bern), Nathalie Dubois (EAWAG) and others.

The Summer School is open to young researchers (PhD students and Post-Docs) worldwide.

Participation is competitive and will be limited to a maximum of 20.

The registration fee (800 CHF) includes accommodation (room sharing required), half board and lunch, field trips and teaching material.

**DEADLINE FOR APPLICATIONS: 30 April 2024**

### **Registration:**

<http://www.geo.uzh.ch/en/units/gch/geochronologysummerschool/registration.html>

## **THE FREIE UNIVERSITÄT BERLIN IS INTRODUCING A NEW MA IN SCIENCE, TECHNOLOGY AND MEDICINE IN THE ANCIENT WORLD**

The Science, Technology and Medicine in the Ancient World MA is an interdisciplinary two-year master's degree program that focuses on the many different areas and contexts in the ancient world in which the transmission and development of knowledge and / or scientific thinking play a central role. The program is tuition-free, taught exclusively in English and culminates with an MA thesis.

The lead faculty are Cale Johnson and Mathieu Ossendrijver at the Freie Universität Berlin, although students will be able to take courses throughout the Freie Universität Berlin and the broader academic landscape in Berlin.

<https://www.geschkult.fu-berlin.de/e/wissensgeschichte/index.html>

The program starts in October of 2024.

The deadline for applications is May 31st, 2024.

**For more information:** <https://www.geschkult.fu-berlin.de/en/e/ma-stmaw/index.html>

The Freie Universität Berlin is a German, public university, so no tuition to speak of. There are a few small fees, about 300 Euros per semester, including a free transit pass. Living expenses in Berlin are approximately 1000 Euros per month.

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## **ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS**

### **FIELD SAMPLING FOR LABORATORY ANALYSIS IN ARCHAEOLOGY, BY EVI MARGARITIS, ARTEMIOS OIKONOMOU, EFTHYMIA NIKITA AND THILO REHREN (EDS)**

The application of methods from the natural and environmental sciences to archaeology has become common practice in many excavations and research projects, world-wide. Numerous research groups, both ad hoc in universities or museums and those situated in more long-term centres dedicated to one or more branches of archaeological science, devote their skill, experience and infrastructures using scientific methods to address archaeological research questions. At the same time, the number of archaeological fieldwork projects is ever-increasing, both for research and driven by ongoing development. The pressures of daily work, and the physical separation of field-based and laboratory-based archaeologists often prevent the level of communication and practical interaction that one would like to see, in order to ensure a seamless transmission of experience and skill between the field and the lab. This Handbook aims to help bridge this gap in the daily practice of archaeological fieldwork and lab-based research. There are, of course, numerous handbooks of archaeological science, of chemistry for archaeology, and even whole textbooks of specific branches within the archaeological sciences; these offer detailed explanations of how the science works, and how to do the labwork. However, we felt that few of these were addressing the daily needs of the field-based archaeologist who may be confronted with an unexpected find, and needs to brush up quickly on the practicalities of how to document and sample finds for future analysis in a lab.

And there is something else, too, to consider. So far, science-based archaeological research and postgraduate training have been heavily concentrated at museum laboratories and university departments in central and northern Europe, the US, Canada and Australia, while relatively few such research hubs exist in the EMME region, a region of vast archaeological richness and fast-growing populations. As a result, much of the professional practice has been developed within the financial, structural, ecological and archaeological reality of these ‘global northern’ countries – relatively few archaeological sites, stable institutions, strong economic frameworks, and a deep pool of human talent with access to well-established research centres and universities. The reality in the wider EMME region is the polar opposite: the region is drowning in archaeology, has few and often fragile and permanently understaffed institutions, and generally rather stretched economies. Thus, the benchmarks of the global north are not really applicable for the daily reality here.

The research potential of the region in archaeology and cultural heritage is enormous, ranging through the full spectrum of human occupation from the Palaeolithic to the recent past, while the scientific potential of such material can only be reached through the use of techniques and methodologies that require dedicated expertise. This Handbook

hopes to offer an accessible and practical guide for colleagues working in the field, focussing on the practical steps that often mark the beginning of a larger journey. Steps that can be done without all the heavy kit and high-end expertise that characterises so much of modern science – initial steps which are absolutely essential as sampling protocols and form the basis for any subsequent work!

Archaeological Science research at The Cyprus Institute is focussing on primary production activities in the widest sense, from important foodstuffs such as olive oil and wine to basic metals such as copper and iron, and ceramics, and how the production and long-distance exchange of these goods is reflected in the osteobiographies of the humans engaged in these activities. Within this broad field, we aspire to contribute to the shaping of disciplinary practice in the EMME and beyond. To do this, we joined forces with the KU Leuven and the University of Cambridge, two leaders in archaeological science, and received generous funding from the European Commission under the H2020 framework. Our project Promised – Promoting Archaeological Sciences in the Eastern Mediterranean, Grant Agreement 811068, ran from 2018 to 2022, and facilitated a large number of key activities, including supporting three international summer schools in Cyprus for emerging and mid-career researchers from the EMME region, two conferences (ICAS-EMME 2 and 3), and numerous training, mentoring and outreach activities. As part of our ambition to support the wider archaeological community in the EMME region to benefit from archaeological science, we humbly present this handbook as one of the outputs of Promised.

Please visit the site: <http://levantis-chair.cyi.ac.cy/wp-content/uploads/Field-Sampling-for-Laboratory-Analysis-in-Archaeology.pdf>  
<http://levantis-chair.cyi.ac.cy/wp-content/uploads/Εργαστηριακές-αναλύσεις-στην-αρχαιολογία-δειγματοληψία-στο-πεδίο 2024.pdf>

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## **HERE AND NOW: TOWARDS AN EXPERIENTIAL ARCHAEOLOGICAL FIELDWORK, BY ORESTIS APOSTOLIKAS**

Norwegian Archaeological Review, 2024

<https://doi.org/10.1080/00293652.2024.2330957>

### **Abstract**

This article is not about the archaeological past *per se*: It is about the archaeological *presence*, the *here* and the *now* and the experiential aspects of archaeological fieldwork. It introduces the concept of an ‘experiential archaeological fieldwork’ as a means to provoke bodily sensory awareness and the embodiment of the experienced (archaeological) landscape through a vivid sensorial experimentation. At the same time, the experiential fieldwork aspires to re-negotiate the ontology of the archaeological field project, as a social, intellectual, and physical act. The project I present here was practiced in the mountainous landscapes of Lake Plastiras (central Greece), as part of the Neolithic project in the area.

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## **ARCHAEOLOGICAL AND MOLECULAR EVIDENCE FOR ANCIENT CHICKENS IN CENTRAL ASIA, BY CARLI PETERS ET AL.**

*Nature Communications* volume 15, Article number: 2697 (2024)  
<https://doi.org/10.1038/s41467-024-46093-2>

### **Abstract**

The origins and dispersal of the chicken across the ancient world remains one of the most enigmatic questions regarding Eurasian domesticated animals. The lack of agreement concerning timing and centers of origin is due to issues with morphological identifications, a lack of direct dating, and poor preservation of thin, brittle bird bones. Here we show that chickens were widely raised across southern Central Asia from the fourth century BC through medieval periods, likely dispersing along the ancient Silk Road. We present archaeological and molecular evidence for the raising of chickens for egg production, based on material from 12 different archaeological sites spanning a millennium and a half. These eggshells were recovered in high abundance at all of these sites, suggesting that chickens may have been an important part of the overall diet and that chickens may have lost seasonal egg-laying.

Please visit the site: <https://www.nature.com/articles/s41467-024-46093-2>

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# **GEOCHEMICAL ANALYSES TO MAKE THE INVISIBLE MORE CONCRETE: CYCLES OF BUILDING USE AND ROOF HATCHES AT THE EARLY NEOLITHIC SITE OF AŞIKLI HÖYÜK, BY FATMA KALKAN, MIHRIBAN ÖZBAŞARAN & RANA ÖZBAL**

*Journal of Field Archaeology*, 1–17, 2024

<https://doi.org/10.1080/00934690.2024.2338621>

## **Abstract**

This study focuses on understanding the use of space at Aşıklı Höyük in central Turkey through the geochemical analyses of five overlying floors of a quadrangular mudbrick building dating to the Pre-Pottery Neolithic Period. The research allows us to follow the process on a micro-scale, from the design and construction of the structure to its abandonment. We aim to perceive the role of plastered floors to gain insights into the producers and users of the building and those who kept it alive and maintained it. We will treat floors as one of the main actors of these spaces and zero in on entangled relationships by addressing a range of other aspects in the building. The analyses enable the identification of use patterns. Based on our results, we attempt to provide suggestions about the location of the roof hatches and hence the main access of the inhabitants to the external world.

**Keywords:** Use of space, sediment geochemical analyses, ICP-OES, building biography, materiality, central Anatolian Neolithic, Aşıklı Höyük

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## **ATIQOT 114 (2024), WINE PRODUCTION, TRADE AND CONSUMPTION IN THE SOUTHERN LEVANT**

EISSN 2948-040X

Front Matter & Editorial

Atiqot 114

Keywords: Front Matter & Editorial

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Identifying the (Royal) Winepresses in the “Valley of the King” (Pp. 1–22)

Benyamin Storchan, Nathan Ben-Ari, Neria Sapir and Oded Lipschits

Keywords: Iron Age, winepress, Judah, viticulture, Valley of the King, wine production, royal estate, mmšt

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Iron Age II and Persian-Period Wine Production in Southern Samaria: New Data from Archaeological Surveys (Pp. 23–45)

Aharon Tavger

Keywords: Iron Age, Persian period, winepress, winery, Samaria, Assyrian conquest, Northern Kingdom, ancient economy, agricultural specialization, landscape archaeology

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Transport Wine Amphorae and the Economic System in Southern Phoenicia during the Achaemenid Regime (Pp. 47–74)

Yiftah Shalev

Keywords: imperial control, transport amphorae, Achaemenid Empire, southern Phoenicia

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Wine Production in the Byzantine Winepresses of Southern Israel: Insights from a Statistical Analysis (Pp. 75–89)

Matan Chocron, Oren Ackermann, Ilan Stavi and Boaz Zissu

Keywords: Byzantine period, simple winepress, complex winepress, statistical analysis, screw press, treading floor, collection vat, fermentation

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From *Gat* to *Bet-Gitot*: Wine Production in the Southern Levant (Pp. 91–136)

Yehoshua (Yeshu) Dray

Keywords: wine, winemaking, winepress, Gat, Bet-Gitot, ‘free-run’ wine, pressed wine, treading floor

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Changes in Wine Consumption in Palestine, c. 600–1100 CE: The Ceramic Evidence (Pp. 137–177)

Itamar Taxel

Keywords: late antique, Early Islamic Palestine, viticulture, wine consumption, continuity and change, local ceramic containers, imported ceramic containers

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The Identification of Ancient Wine through Organic Residue Analysis of Ceramic Vessels (Pp. 179–192)

Ayala Amir

Keywords: wine, organic residue analysis, tartaric acid, wine-markers, Southern Levant, ceramic vessels

.....  
Grapevine Variety Identification—Methodological Aspects: Sample Preparation, Three-Dimensional Positioning and Morphological Comparison (Pp. 193–211)

Michal David, Yekaterina Shapira, Avshalom Karasik, Elyashiv Drori and Ehud Weiss

Keywords: lab procedure, archaeobotany, archaeology, 3D model, GMM, position, drying, scan, grapevine variety

.....  
Bronze Age Winepresses and Roman-Period Burial Caves near Nein, Giv'at Ha-More (Pp. 215–255)

Eyad Bisharat and Yardenna Alexandre

Keywords: simple winepresses, Roman period, kokhim, burial caves, Galilean pottery, Jezreel Valley/southern Carmel pottery, Jewish lamps, Samaritan lamps

.....  
Glass Finds from the Roman-Period Burial Caves near Nein (Pp. 257–270)

Yael Gorin-Rosen

Keywords: Roman glass, burial caves, Galilee, candlestick bottles, small amphoriskos, glass bracelet, bead, glass debris, local glass production

Excavations at et-Ṭuweiri and the Boundary between the Dioceses of Tyre and 'Akko-Ptolemais in the Byzantine Period (Pp. 271–306)

Danny Syon, Nimrod Getzov and Zohar Daniel

Keywords: Tyre, 'Akko-Ptolemais, inscriptions, winery, Byzantine period, Christianity

.....  
Late Byzantine and Early Islamic Glass from et-Ṭuweiri: A Rural Site in Western Galilee (Pp. 307–322)

Yael Gorin-Rosen

Keywords: Byzantine period, Umayyad period, glass, wineglasses, oil lamps, tonged decoration, stirring rod, glass production

The Mollusks from et-Ṭuweiri (Pp. 323–326)

Inbar Ktalav

Keywords: mollusks, snails, malacology, food consumption, trade, building material

**Please visit the site: <https://atigot.org.il/>**

## **BODY AND MACHINE IN CLASSICAL ANTIQUITY, BY MARIA GEROLEMOU AND GEORGE KAZANTZIDIS**

Cambridge; New York: Cambridge University Press, 2023.  
Pp. 348.  
ISBN 9781316514665.

BMCR 2024.04.15

Review by Philip D. Bunn, Clemson University. [pbunn@clemson.edu](mailto:pbunn@clemson.edu)  
[Authors and titles are listed at the end of the review.]

With much recent attention paid to the advent of commercial artificial intelligence tools and the potential future fusion of man and machine, it is surprising that comparatively little attention has been paid to the ancient historical roots of imaginative and practical approaches to human use and assimilation of machines. This volume attempts to fill a scholarly gap by bringing novel studies of “body-machine intersections” (1) in classical thought to the fore. Seeking to answer questions about what purpose body-machine analogies serve, and to explore the use, absorption, and fusion of machines by and with the body in ancient works, the authors cover territory from the medical to the mechanical and everywhere in between.

The volume proceeds in three sections: the first set of contributions covers “Blended Bodies,” considering issues of automatons and the fusion of machines with the body in classical imagination, from the statues of Daedalus and the devices of Hephaestus in poetry and myth to the production (or proposed production) of automatons made for dramatic and ceremonial purposes. The second grouping consists of works on “the technological body,” while the third is themed “towards the mechanization of the human body.”

The distinction between these final two groupings is somewhat subtle but, as the editors explain in their conclusion (319), the grouping and ordering represents a kind of unfolding story or argument. In the first section there is an imaginative component, with classical thinkers conceiving of a body augmented by and fused with tools in poetry, depicted in art, and finally brought to life in mechanical augmentation or constructed automatons of various styles and complexities. In the second, there is a study of the application of new mechanical tools in the service of the health of the human body and the practice of medicine. In the third and final section, the lengthiest of the three, there is a successive movement towards understanding the human body itself and its component parts as machines, aided by progress in the study of mechanics and then efforts to understand the body in light of these principles (lungs as bellows, hearts as pumps, and so on).

Deborah Steiner’s opening article frames the volume well, introducing not just examples of automatons in both the Iliad and Pindar, but paying heed to the contrast between their portrayals. There is a kind of awe in Homer at Hephaestus’s devices having a principle of movement that is their own. This speaks to the strangeness of their “composite or hybrid

character, their capacity to combine disparate and contrasting spheres and so to breach seemingly inviolable boundaries, uniting in one the sentient and inert, the divine and human, the organic and fractured, the original and its counterfeit” (19). The presence of “vivified objects” (20) throughout classical poetry implies boundaries are only “seemingly” inviolable, and it is in Pindar that Steiner sees a possible condemnation of the apparent violation. While the golden serving girls aid Hephaestus in his efforts, and the lifelike depictions upon Achilles’ shield are praised, the Charmers of Pindar’s invention are ultimately deprived by the gods of voice, which is, with motion, “among the prime demarcators of a living being...the Charmers are returned to the sphere of silent and immobile artefacts from which they have, misguidedly, been permitted to emerge” (45).

This poetic repudiation of automatons may find echoes in ancient practice. As Isabel A. Ruffell explores in depth in her *Not Yet the Android*, the third chapter of this volume, among the actual mechanical creations of the ancients, human automata are relatively scarce compared to depictions of the gods or animals (20). Ruffell suggests that this might represent a kind of “inhibition against representing an articulated human form,” (20) though she suggests more strongly that “attempts by ancient mechanical practitioners to render the human form mechanically were strictly circumscribed” primarily by practical constraints and dramatic convention, more than by a moral hesitation (20).

In the second chapter of the volume, Jane Draycott draws on her previous work on assistive and prosthetic technologies in the ancient world. Again, as with the previous scholars, Draycott draws from both imaginative, literary sources and from practical and historical ones. The depiction of Hephaestus as disabled, making use of assistance devices, is used to shed some light on how those in the ancient world imagined the use of these technologies by those who were disabled, and how that imaginative portrayal might cross over into reality, as with the comparisons between literary automatons and theatrical automatons in Ruffell’s chapter.

Draycott’s fairly short chapter ends on a somewhat tantalizing note: just prior to her conclusion, Draycott briefly touches on “The Close Association of Impairment and Technology” (61). There was, Draycott argues, a “commonly stated... belief that those who undertook trades would become impaired, as a combination of the sedentary nature of the occupation and the repetitive physical activity it required would deform the body” (61). This leads to an interesting situation, where those who are impaired, either before beginning their trade or as a result of their trade, are perhaps best positioned to use the skills of their trade to invent and improve augments and aids. As this volume is at least partially interested in comparing or contrasting modern period body-machine analogies to those of the ancients, this is perhaps ripe ground for further comparison. Was the feared risk of the trades purely physical, that these workers would be physically harmed by their narrow work? Or was there here a precursor to modern forms of a similar fear, voiced by Adam Smith and others, that narrow and repetitive work could be harmful to the psyche as well as the body, “mentally mutilating” as well as physically harmful? And if so, what sort of augments might be required, or developed by the practitioners of these arts?

Though the first section of the volume is of greatest interest to me, and thus this review is weighted accordingly, this should not be taken to imply a lack of quality in the remaining

sections. George Kazantzidis's entry on *The Beauty That Lies Within*, for example, draws subtle distinctions between a teleological appreciation for the human body and the type of wonder elicited by the machine-body analogy, which he argues "reinstates a more elusive kind of wonder in which informed admiration and a simultaneous sense of bewilderment blend inextricably with each other" (218). To take another example, Maria Gerolemou's chapter on *Technical Physicians and Medical Machines* excavates a typology of medical machines in the works of the Hippocratic authors. The machines used to heal are classified "according to accessibility, transportability, complexity, the type of force they release, and their dependence on the physician's physical skills" (122). When these devices reach the level of a "complicated machine," additional ethical issues are introduced, namely the possibility that the machine's power might operate outside of the control of the physician, causing unintended harms, as well as the "possibility that this may converge into something that solely serves the unethical interests of its user" (122). Gerolemou has uncovered, then, ancient sources that typologize technology and its ethical risks in ways that one imagines could provide a helpful exemplar to contemporary conversations attempting to develop similar typologies of new technologies.

The issue of possible contemporary relevance raises the primary substantive issue I wish to mention with the volume, which is merely one of omission. At the risk of critiquing something for what it does not attempt to be, many potential applications of the material to political philosophical concerns are passed over (the scant attention paid to Plato is a facet of this). Analogies between body and machine are unsurprising to many readers, common as they are in the writings of the modern period. Hobbes' *Leviathan* famously opens with an elaborate comparison of man to clockwork, analogizing human beings as artificial, and further suggesting the possibility of the creation of a vast artificial man in the form of his *Leviathan*. That body-machine comparisons have political implications seems intuitive, and it is interesting that much of the volume does not draw this out. The exceptions to this are more narrowly focused, with authors speaking specifically to disability studies, for example. It would be excellent, then, to see future scholars build on the work done here in other domains.

The presentation of the text is generally quite readable, and the footnotes effective in presentation and elaboration. There is some inconsistency, intentional or not, in the presentation of the Greek against the translations, with some authors choosing to include only translations in the body of the piece, with the Greek relegated to the smaller font footnotes, and others including Greek and the English translations parallel within the body of the text. In both cases, however, the source of the translation and the presence of changes are noted. In short, the expansive topical range and quality of scholarship ensures that this volume will be of interest to scholars of many kinds, both those interested in narrow excavation and close reading of classical sources and those interested in broader conceptual questions about technology, humanity, and the future of both.

### **Authors and Titles**

An Introduction to Body-Machine-Intersections, Maria Gerolemou and George Kazantzidis

Part I. Blended Bodies:

1. More than a thing: figuring hybridity in archaic poetry and art, Deborah Steiner
2. Automata, cyborgs, and hybrids: bodies and machines in Antiquity, Jane Draycott
3. Not yet the android: the limits of wonder in ancient automata, Isabel A. Ruffell

Part II. The Technological Body:

4. Technical physicians and medical machines in the Hippocratic Corpus, Maria Gerolemou
5. The empirical, art, and science in Hippocrates' On Joints, Jean De Groot
6. Hippocrates' Diseases 4 and the technological body, Colin Webster

Part III. Towards the Mechanization of the Human Body:

7. Aristotle on the lung and the bellows-lungs analogy, Giuli Korobili
8. The ill effect of south winds on the joints in the human body: Theophrastus, De ventis 56 and pseudo-Aristotle, Problemata 1.24, Robert Mayhew
9. The Beauty that lies within: Anatomy, mechanics and thauma in Hellenistic Medicine, George Kazantzidis
10. The mechanics of the heart in Antiquity, Matteo Valleriani
11. The mechanics of Galen's Theory of Nutrition, Orly Lewis
12. Iatromechanism and Antiquarianism in Morgagni's Studies on Celsus, 1720–1761, Marquis Berrey.

Please visit the site: <https://bmcr.brynmawr.edu/2024/2024.04.15/>

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**KINET HÖYÜK 2. THE EARLY BRONZE AGE  
AND EARLIER OCCUPATIONS. BILKENT  
UNIVERSITY EXCAVATIONS AT KINET  
HÖYÜK (HATAY): FINAL REPORTS,  
BY CHRISTINE ESLICK; WITH  
CONTRIBUTIONS BY M. EROĞLU, M.-H.  
GATES, A. FAIRBAIRN, M. HARDING, D.  
HESLOP, S. IKRAM, A. KESKIN, E. PARR, T.  
ZIMMERMANN**

Istanbul: Ege Yayınları, 2024.  
Hardcover, 424 pp (xx + 404), 246 ills  
color & b/w  
ISBN/ISSN: 978-625-8056-77-8 € 119,00

Kinet Höyük 2: The Early Bronze Age and Earlier Occupations publishes the results of ten fieldwork campaigns in the Early Bronze Age levels of this eastern Cilician seaport, and the unstratified Neolithic and Chalcolithic material attesting the site's earlier prehistoric foundations. Excavations, primarily on the West Slope of the EB citadel, revealed eleven periods dating to EB II and EB III (ca. 2800 to ca. 2000 BC). A lower town was also established beside the shoreline. In the earlier periods, houses stepped down the slope inside the town's fortification wall. The finds suggest that at this time the site's connections were mainly northeast towards the interior. Near the beginning of EB III a large storage complex was built on the West Slope and the town became part of trading networks extending northward from the cities of western Syria into Cilicia. The town maintained these networks during late EB III but the storage complex was not rebuilt, and in the final period the West Slope was abandoned, the population withdrawing to the upper mound.

This comprehensive report presents the coastal site's long sequence of household and civic architecture; and its large inventory of local and imported ceramics, tools, weapons and jewelry. Insights on the economy and technological skills of its inhabitants are provided by

zooarchaeological and archaeobotanical reports, and archaeometric analysis of metalwork and ceramics. Together they explain the commercial dynamics that enabled this Mediterranean seaport to survive and prosper over the long term.

Preface (M.-H. Gates) / Acknowledgments / Türkçe özet (A. Keskin) / Introduction /

1. The site and excavation /
2. Neolithic and Chalcolithic /
3. Stratigraphy and phasing /
4. Architectural form and features /
- 5.1-9 Pottery /

- 5.10 Ceramic archaeometric analysis (M. Eroğlu, M.-H. Gates) /
- 6. Other finds: clay; metal; metallurgy (T. Zimmermann); chipped stone; ground stone; grindstones (D. Heslop); bone; shell; from the east terrace and harbor area /
- 7. Zooarchaeological evidence (S. Ikram) / 8. Plant use (A. Fairbairn, M. Harding) /
- 9. Chronology /
- 10. Kinet Höyük in the Early Bronze Age / Appendixes / References / Index

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## **SYNCHRONIZING THE DESTRUCTIONS OF THE MYCENAEAN PALACES, BY REINHARD JUNG, ELEFThERIA KARDAMAKI**

Mykenische Studien, 36;  
Denkschriften der philosophisch-historischen Klasse, 546.  
Vienna: Verlag der österreichischen Akademie der Wissenschaften, 2022.  
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Review by Trevor Van Damme, University of Victoria. [trevvd@uvic.ca](mailto:trevvd@uvic.ca)

\*\*Open access\*\*

[Authors and titles are listed at the end of the review.]

The destruction of the Mycenaean palaces remains a key turning point in the history of mainland Greece. Most scholars have abandoned the idea of a mass migration of Dorians or co-ordinated onslaught of Sea Peoples. Yet the fact of the palatial destructions looms large, and more recent scholarship has resorted to a multi-causal confluence of disasters, or perfect storm, to explain them.[1] While this is a sensible approach to the wide-scale phenomenon of palatial collapse across the central and eastern Mediterranean region around 1200 BCE, it is somewhat less satisfying at the site-specific level of analysis. As the editors of the present volume emphasize, “a palace site was destroyed for a reason, and our research into the fine chronology of such major historical events is intended to aid the search for the reasons behind those events” (p. 21). The major aim of the present study therefore is to provide site-specific data in the hopes of gaining a better understanding of what some of those causes might be.

To do so, the editors outline several key topics in need of further exploration (p. 16): 1) the character and extent of the destructions; 2) the existence of major destructions prior to 1200 BCE; 3) the synchronization of palatial building phases and destructions across regions; 4) the development of pottery styles at each palace during the 14th and 13th centuries BCE; and 5) the historical implications resulting from this sequence of events.

The volume opens with two contributions concerning the Argolid. The first, by Kim Shelton, addresses the now well-documented destruction of the Petsas House in LH IIIA2. The chapter provides some interesting insights into the post-destruction site formation processes, in particular the apparent intentional collection and burning of refuse from the ruined building (p. 42–43), which Shelton links to a catastrophic site-wide earthquake destruction in LH IIIA2 (p. 43–44). The paper on Tiryns, by Soňa Wirghová, provides a detailed overview of a stratified sequence of ceramic deposits recovered from the northern tip of the Lower Citadel that document the development of local ceramic styles and consumption patterns from LH IIIB to C Early. The detailed presentation of the material by phase and abundant illustrations will make this essential reading for future studies of the LH IIIB to LH IIIC transition. One minor drawback to the study is the limited quantity of LH IIIB Early to Developed material, something most acutely illustrated by the statistical analysis of bowl types (p. 77–78). Of particular

interest is the appearance of several groups of imported wares, including transport, storage, and cookware vessels from Aegina, the Levant, Crete, Kythera, and Kos (p. 56–73). The Koan vases consist exclusively of large monochrome-decorated amphoras and hydrias that may have so far escaped detection at other sites (p. 68, fig. 10.1–3, figs. 12.1–2, 13.1). As of yet unpublished petrographic data is used to support the provenance suggested for each imported ware.

Eleni Andrikou reports on a destruction deposit from the palatial center of Thebes, the lone contribution from central Greece. Through meticulous comparison with other LH IIIB deposits from Thebes, Andrikou highlights the consistency across those assemblages that have received more detailed publication (p. 111–114). These observations underscore the early presence of monochrome deep bowls across all deposits, leaving no doubt that they were in regular use at the end of the palatial period in central Greece.[2] An issue raised (p. 112), but not developed further in this contribution, is the date of Building III at 1 Oedipus St (aka “the Liangas Plot”) where a series of inscribed sealings were excavated. While the excavator, Christos Piteros, dates the destruction of Building III to an earlier destruction in LH IIIB1, the pottery published in preliminary reports is similar to other LH IIIB2 deposits and it is likely that this too dates from the final palatial destruction of Thebes.[3]

Attention is then directed toward Messenia. The first chapter, by Salvatore Vitale, Sharon Stocker, and Jack Davis, aims to refine the dating of the two major destruction horizons (A and B) identified by Marion Rawson and Carl Blegen. The former is associated with the destruction of the first palace on the site and the preservation of the earliest linear B documents (all fragmentary) and, the latter, with the final destruction of the palace and the main corpus of linear B documents including the famous archive room. Horizon A, previously dated to LH IIIA, can now be placed in LH IIIA2 Early based on the stemmed open shapes, which capture a time when kylikes were dominant but had not yet fully replaced goblets (p. 126–128, tab. 6–7). It is the discussion of the date of Horizon B, however, that is most significant in light of recent attempts to establish an early date for the final destruction of the Palace of Nestor.[4] The striking absence of decorated pottery in the palace destruction deposits (~2% of all pottery) is plausibly explained due to the primary function of the pottery stores in feasting events (p. 124). Among the painted fraction, however, 72% of the painted vessels from the final floor deposits fit comfortably in the LH IIIC Early ceramic phase (p. 130, tab. 9). This contribution calls attention to the fact that palace assemblages are not typical settlement deposits and therefore require additional critical assessment to securely date. Cynthia Shelmerdine’s contribution on Iklaina meanwhile provides a detailed summary of the key evidence for the major ceramic phases in evidence from the excavations of this important secondary site, typically identified as \*a-pu2. Noteworthy, for scholars already familiar with the site, is Shelmerdine’s implied disagreement with Michael Cosmopoulos’ hypothesis of a late incorporation of Iklaina into the Pylian kingdom (p. 159), which has implications for how resilient the Pylian state really was.

Two contributions address the site of Ayios Vasileios, where the discovery of a Mycenaean palace and archive of linear B tablets has transformed our understanding of LBA Laconia. The first contribution by Adamantia Vasilogamvrou, Eleftheria Kardamaki, and Nektarios Karadimas provides a detailed report on research into the stratigraphy and dating of the palace complex. The presence of a stratigraphic section and detailed discussion of the labelled deposits made it easy to follow the associated

discussion (p. 162–167, fig. 5). The present chapter places the destruction in LH IIIB Middle based on the pottery assemblages linked to the destruction deposits found in the West and South Stoa. While the authors provide conclusive evidence that the palatial destruction was followed by a reoccupation phase dating to LH IIIC Early (p. 173–177, figs. 10–12), the rather specific dating of the destruction to LH IIIB Middle is less certain (p. 167–172, figs. 6–8). As the authors point out, the majority of the pottery is undecorated and displays a number of early features (p. 167–170). The few painted sherds, however, point to a later date including at least a group B deep bowl pottery fragment reworked into a stopper, suggesting that it had been in use for some time before entering into the archaeological record (p. 171–172, fig. 8.20). This chapter would have benefitted from a cross-reference to the detailed discussion of the evidence from Pylos in the same volume, which provides the best parallel for the destruction deposits under discussion and serves as a cautionary tale for dating them. Vasco Hachtmann and Sofia Voutsaki's contribution on the cemetery further emphasises the challenges in identifying LH IIIB deposits in the North Cemetery at the same site and they propose regional trends as a likely culprit (p. 205–206).

The next geographic region surveyed is Crete. It is striking that neither of the two palatial centers on the island are addressed directly. In the introduction, it is noted that the excavator of the LM IIIB palace at Chania gave a paper at the workshop but was unable to contribute to the volume (p. 20, n. 59). This is an unfortunate lacuna, as the relative destruction dates of the Cretan palaces, and Knossos in particular, remain contentious. Jeremy Rutter nonetheless provides a detailed account of some of the key issues and provides a well reasoned and almost certainly correct suggestion that LM IIIB2 at Chania should be synchronized with LH IIIC Early 1 and possibly even part of LH IIIC Early 2 on the mainland (p. 214–219).

In the penultimate chapter, Joseph Maran seeks to shift the framework for analysing the palatial destructions away from prime movers (e.g., earthquakes, invasion, climate change) and towards the short-term, site-specific causes (p. 231–234). Maran begins with the short-term events that led to the destructions of the palaces and he points to recent work by Reinhart Jung that makes a convincing case that at least some of the palaces were intentionally looted before they were burnt down (p. 234–236). He then presents a list of middle- to long-term factors that led to collective violence against the palaces: conflicts among elites, large-scale construction projects, and changes in the palatial armed forces. All of these are interpreted to support his ultimate conclusion that class conflict lies at the heart of their destructions (p. 241–242).

Lastly, Reinhart Jung presents a clear account of the synchronization of palatial destructions in the northern half of the Levantine coast and Cyprus with the Argive sequence. This work is important as we can correlate Aegean ceramic chronology with the historical chronologies of Egypt and the Levant (p. 257, 262–265, 273, 275). As Jung rightly points out, this endeavour is possible since most of the Aegean exports to this area come from Argolid directly or are established based on local vases that relied on Argive models (p. 256–257). While secure imports in well-defined palatial destruction deposits are rare due to the collapse of Argive exports in LH IIIB Middle, Jung is upfront with the limitations in the data and this leads to an interesting observation: LH IIIB Middle imports from the Argolid at Tell Tweini and Tell Kazel co-exist with locally made pottery seemingly adopting motifs from LH IIIC Early (p. 269–271, 276–285).[5]

Emerging from the product of a focused workshop, the papers are mostly cohesive in their theme; there are significant divergences, however, in the level of analysis and methodologies employed which invites the question of how comparable the underlying data are and whether they get us closer to the avowed goal of synchronization. I was also surprised that “palatial destruction” is never defined. From a historical perspective, one centered on the question of causation that is raised by the editors and discussed in more detail by Maran and Jung, this topic would benefit from further theorization and analysis.[6] Ultimately, the major value of the present volume is the presentation of previously unpublished legacy data and the results of recent and ongoing excavations, which will serve to advance our understanding of the individual sites under discussion while we await their final publication.

I would like to conclude this review by commending both the editors and the publisher for making this entire volume available open access online. While the volume is too technical for a general audience, making these data available and accessible to the entire academic community without the dreaded paywall will ensure it is widely read and cited.

### **Authors and Titles**

Reinhard Jung – Michaela Zavadil, “Preface”

Reinhard Jung – Eleftheria Kardamaki, “Introduction”

Kim Shelton, “On Shaky Ground: Petsas House and Destruction at Mycenae in LH IIIA2”

Soňa Wirghová, “Turning Points in the Ceramic Sequence of the Northern Tip of the Lower Citadel at Tiryns”

Eleni Andrikou, “Kadmeia, Thebes: The Pottery from a Storeroom Destroyed at the End of the Mycenaean Palatial Period”

Salvatore Vitale – Sharon R. Stocker – Jack L. Davis, “The Destructions of the Palace of Nestor at Pylos and its LH IIIA Predecessor as a Methodological Case Study”

Cynthia W. Shelmerdine, “Pottery and Stratigraphy at Iklaina in the 14th–13th Centuries BC”

Adamantia Vasilogamvrou – Eleftheria Kardamaki – Nektarios Karadimas, “The Destruction at the Palace of Ayios Vasileios and Its Synchronisms”

Vasco Hachtmann – Sofia Voutsaki, “The Ayios Vasileios North Cemetery in the Palatial Period”

Jeremy B. Rutter, “LM IIIB Ceramic Regionalism and Chronological Correlations with LH IIIB–C Phases on the Greek Mainland”

Joseph Maran, “The Demise of the Mycenaean Palaces: The Need for an Interpretative Reset”

Reinhard Jung, “Synchronizing Palace Destructions in the Eastern Mediterranean”

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## Notes

[1] For an up-to-date account with further bibliography, see Cline, E. 2021. 1177 B.C.: The Year Civilization Collapsed, 2nd ed., Princeton.

[2] See also, Vitale, S. and A. Van de Moortel. 2020. “The Late Helladic IIIB Phase at Mitrou, East Lokris: Pottery, Chronology, and Political Relations with the Palatial Politics of Thebes and Orchomenos/Glas,” *Annuario della Scuola archeologica di Atene e delle missioni italiane in Oriente* 98, 9–59.

[3] A finding that was previously suggested by the presence of the individual a-e-ri-qo, who appears on two sealings from Building III (Wu 70 and 76), in a list of Theban basileis-issued ox hides discovered in a destruction context from the so-called New Palace, see Aravantinos, V., L. Godart, and A. Sacconi. 2008. “La tavoletta TH Uq 434,” *Pasiphae* 1, 23–33.

[4] This debate was recently reignited by Louis Godart and Anna Sacconi in their recent edition of the Linear B documents from the Palace of Nestor: Godart, L. and A. Sacconi. 2019–2020. *Les archives du Roi Nestor: Corpus des inscriptions en Linéaire B de Pylos*, Vol. I & II, Rome.

[5] It is perhaps worth noting here that the deep bowl from Tell Kazel shown on p. 285, fig. 16.1 has an excellent parallel from the earliest LH IIIC material from Eleon in Boeotia (EBAP P0011).

[6] Fruitful frameworks for such a future analysis might be found in Fachard, S., and E. Harris. 2021. *The Destruction of Cities in the Ancient Greek World: Integrating the Archaeological and Literary Evidence*, Cambridge.

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Please visit the site : <https://bmcr.brynmawr.edu/2024/2024.04.12/> [Go there for link to download book under review]

**LIFE-HISTORY OF PALAEOLOXODON  
ANTIQUUS REVEALS MIDDLE  
PLEISTOCENE GLACIAL REFUGIUM IN  
THE MEGALOPOLIS BASIN, GREECE, BY  
EFFROSYNI RODITI, HERVÉ BOCHERENS,  
GEORGE E. KONIDARIS, ATHANASSIOS  
ATHANASSIOU, VANGELIS TOURLOUKIS,  
PANAGIOTIS KARKANAS, ELENI  
PANAGOPOULOU & KATERINA HARVATI**

Scientific Reports volume 14, Article number: 1390 (2024)  
<https://doi.org/10.1038/s41598-024-51592-9>

**Abstract**

The Balkans are considered a major glacial refugium where flora and fauna survived glacial periods and repopulated the rest of Europe during interglacials. While it is also thought to have harboured Pleistocene human populations, evidence linking human activity, paleoenvironmental indicators and a secure temporal placement to glacial periods is scant. Here, we present the first intra-tooth multi-isotope analysis for the European straight-tusked elephant *Palaeoloxodon antiquus*, on an adult male individual excavated in association with lithic artefacts at the MIS 12 site Marathousa 1 (Megalopolis basin, Greece). The studied find also exhibits anthropogenic modifications, providing direct evidence of hominin presence. We employed strontium, carbon and oxygen isotope analysis on enamel bioapatite to investigate its foraging and mobility behaviour, using a sequential sampling strategy along the tooth growth axis of the third upper molar, to assess ecological changes during the last decade of life. We found a geographically restricted range, in a C 3-dominated open woodland environment, and relatively stable conditions over the examined timeframe. Our results show that, despite the severity of the MIS 12 glacial, the Megalopolis basin sustained a mesic habitat, sufficient plant cover and limited seasonal fluctuations in resource availability, pointing to its role as a glacial refugium for both fauna and hominins.

Please visit the site: <https://www.nature.com/articles/s41598-024-51592-9>

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## **ΕΙΔΗΣΕΙΣ - NEWS RELEASE**

### **ARCHAEOLOGICAL GEM DURA-EUROPOS FOUND TO BE MIRROR IMAGE OF IRAQ'S ANQA, BY JUDY SIEGEL-ITZKOVICH**

Strategically located Dura-Europos was a ‘forgotten city’ in Syria and neglected by archaeologists who finally identified Iraq’s Anqa as its near-mirror image.

For Israelis, Syria is a trouble-making, war-torn country that supports terrorist attacks on Israel. Yet, parts of it are archaeological gems.

The Dura-Europos site in modern-day Syria is famous for its exceptional state of preservation. Like Pompeii, this ancient city has yielded many great discoveries and serves as a window into the world of the ancient Hellenistic, Parthian, and Roman periods. Yet despite the prominence of Dura-Europos in Near Eastern scholarship, there is another city only a few kilometers down the Euphrates River that presents a long-neglected opportunity for study.

A new paper in the Journal of Near Eastern Studies titled “The Ancient City of Giddan/Eddana (Anqa, Iraq) the “Forgotten Twin of Dura-Europos” identifies the city of Anqa as a near mirror image of Dura-Europos, of the same size, comparable composition, and potentially equal value to scholars of the region.

Anqa is located just across the Syrian border from Dura-Europos, in the present-day Al-Qaim district of the Anbar Governorate in Iraq. Its remains include an identifying tel mound at the northern end of the site, a polygonal inner wall circuit, and a large outer defensive wall (enceinte).

Situated at a point where the Euphrates floodplain narrows radically, the city would have controlled movement between the populous section of the valley upstream and the trade route downstream linking Syria, Northern Mesopotamia, and Babylonia, giving it great strategic and economic significance.

Syrian forces of President Bashar Assad are seen on al-Haara hill in Quneitra area, Syria July 17, 2018 (credit: SANA/HANDOUT VIA REUTERS)

Dura-Europos was built on a steep slope 90 meters above the southwestern bank of the Euphrates river. It is located near the village of Salhiyé, in present-day Syria. It was founded around 300 BCE by Seleucus I Nicator who also established the Seleucid Empire as one of the generals (Diadochi) of Alexander the Great. In 113 BC, Parthians captured and held it, with one brief Roman intermission of 50 years.

The Romans decisively captured Dura-Europos in 165 CE and greatly expanded it as their easternmost stronghold in Mesopotamia until it was captured by the Sasanian Empire after a siege in 256–257 CE. Its population was deported, and the abandoned city eventually disappeared from sight under sand and mud.

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### **What is Outbrain**

Dura-Europos is of extreme archaeological importance and was called the “Pompeii of the Desert” because it was abandoned after its conquest in 257 CE, and nothing was built over it. As we remember, it was looted and mostly destroyed between 2011 and 2014 by the Islamic State during the Syrian Civil War.

### **Archaeologists did not pay attention to site until 1850s**

However, archaeologists paid no attention to the site until the publication in 1850 of a British Middle Euphrates expedition survey, followed by a more thorough study of the site that had been carried out in the late 1930s by Aurel Stein, including aerial photographs of the standing structures, but even after these forays, there was little desire to learn more than the geographical location of this twin city to Dura-Europos.

The article author, University of Leicester Prof. Simon James, an archaeologist of the Iron Age and Roman period, writes that one reason for the disparity in interest between Anqa and Dura-Europos is the history of British and French colonial intervention in the region.

His research interests are the Roman world and its interactions with the Celts and Middle Eastern peoples. In 1920, as a result of the San Remo conference, Iraq was placed under British control and Syria under the French. As James wrote, the “new political, military, and administrative boundary created a barrier to research and understanding of the earlier history of the region as a whole.”

Yet while Dura-Europos and some other sites in Iraq and Syria have suffered from looting, destruction, and civilian death as a consequence of conflict in the region, Anqa has remained relatively untouched.

As further archaeological inquiry is performed, he suggested, Anqa may continue to provide valuable insight into the history of the Middle Euphrates. Furthermore, as methods of digital scholarship bring thinkers together “despite political borders,” the practice of studying sites like it may even, in James’s words, help “address the consequences of colonialism in archaeology.”

**Please visit the site: <https://www.jpost.com/archaeology/article-798100> [Go there for pict]**

## **THE UMM JIRSAN LAVA TUBE SYSTEM OF SAUDI ARABIA HAS PROVIDED SHELTER FOR HUMANS HERDING LIVESTOCK FOR AT LEAST 7,000 YEARS. CREDIT...PALAEODESERTS PROJECT, BY ROBIN GEORGE ANDREWS**

Ancient humans left behind numerous archaeological traces in the cavern, and scientists say there may be thousands more like it on the Arabian Peninsula to study.

When ancient humans pushed into the Arabian Peninsula, they found a world marked by magma. Swaths of it once erupted from volcanoes, leaving a landscape of craters and frozen lava flows. Many of these seemingly otherworldly volcanic fields are adorned with archaeological remains — from small dwellings to colossal animal-corralling structures called kites — that date back millennia.

Little is known about the identities and lives of those humans. But a study published Wednesday in the journal PLOS One has revealed that their occupation of this volcanic realm extended underground. Archaeologists at a site in northwestern Saudi Arabia have excavated a lava tube — the naturally hollowed-out subterranean remnant of a lava flow.

In this lava tube, named Umm Jirsan and the first in Saudi Arabia to be excavated, they uncovered stone tool fragments, animal remains and human bones, the oldest of which were close to 7,000 years old.

“This is really the first clear evidence of people occupying these caves,” said Mathew Stewart, a paleontologist at Griffith University in Australia who is one of the study’s authors.

Umm Jirsan’s tunnels have a combined length of almost 5,000 feet, and only small sections have been examined. Rather than as a permanent habitat, early humans probably used this volcanic cave as a way station during migrations between oases. “Umm Jirsan would have offered a really nice place of refuge,” from shifting and often extreme climatic conditions, Dr. Stewart said.

With thousands of additional volcanic caves like Umm Jirsan across Saudi Arabia, the new study shows that they “hold huge promise” for understanding the migrations of early humans, Dr. Stewart said.

Eight views, with the bottom four traced for clarity, of identifiable animals in the rock art of Umm Jirsan: (A) sheep; (B) goat and two stick figures with tools on their belts; (C) long-horned cattle; (D) ibex with ribbed horns and coat markings. Credit...Stewart et al., 2024, Plos One

The Arabian Peninsula has been a site of human migration and occupation for hundreds of thousands of years. In extensive surveys in recent years, scientists have spied millions of archaeological features (like lakeside hearths) and structures (like tombs and ritual gathering sites) that those people left behind. “On the volcanoes themselves, there’s archaeology,” said Melissa Kennedy, who is an archaeologist at the University of Sydney not involved with the new work. Many such sites date back to times when stone tools were in vogue.

The timing and nature of the region’s various occupations are still poorly understood. One issue is that desert heat and winds degrade bones and other organic material. But Saudi geologists, who had comprehensively mapped their country’s lava tubes, had noted the presence of archaeological remains, suggesting that these caves may better preserve fragile matter.

To test that notion, in 2019, Dr. Stewart’s team went to Umm Jirsan to conduct the first archaeological excavation of an Arabian Peninsula lava tube. An earlier study based on that expedition revealed that hyenas had used it as a den and left behind remains of birds, hare, gazelle and camels (all possibly prey). Two human skull fragments were also found.

“Hyenas were robbing graves,” Dr. Stewart said. But aside from these scavengings, were there more human remains in the lava tube?

The team’s new study reveals an abundance of evidence of human sojourns elsewhere in the cave: obsidian flakes (fragments of sharp volcanic rock shards used in tools), additional human remains and many more animal bones. Various dating techniques suggest that humans intermittently occupied Umm Jirsan over a period of at least 7,000 years, including recent centuries.

They brought animals with them, a notion supported not just by the remnants at the site. The team discovered 16 rock art panels in the entrance to another lava tube nearby. Some show people herding cattle, sheep and goats, sometimes with the aid of dogs; others depict people hunting gazelles and possibly ibex.

The current crop of evidence paints a vivid picture of the past, but much of the lava tube remains unstudied. “There could be some really spectacular stuff in there,” said Hugh Thomas, an archaeologist at the University of Sydney who was not involved with the new work.

But it’s already clear that Saudi Arabia’s lava tubes offer a new way “of looking through time and through space,” said Michael Petraglia, who is the director of the Australian Research Centre for Human Evolution at Griffith University and an author of the new study. Each could be an unopened window into the lives of humanity’s ancestors.

**Please visit the site: <https://www.nytimes.com/2024/04/17/science/saudi-arabia-lava-tube.html> [Go there for pix]**

## **4000-YEAR-OLD SEAL FOUND IN ANCIENT CITY OF KALBA IN GULF OF OMAN, BY DARIO RADLEY**

Archaeologists of the Austrian Academy of Sciences (OeAW) excavating the prehistoric coastal site of Kalba on the Gulf of Oman have unearthed compelling evidence of extensive trade networks dating back approximately 4500 years.

Kalba, situated in the Emirate of Sharjah, United Arab Emirates, emerged as a pivotal hub in these early trade networks, persistently inhabited from the Early Bronze Age to the Iron Age (c. 2500–600 BCE). Despite environmental shifts towards aridity, Kalba's strategic location facilitated its resilience as a trading center. Its proximity to Wadi Ham provided a vital link between the eastern coast, the desert, and the sea routes, making it a crucial gateway for both land-based caravans and maritime trade.

The significance of Kalba's role in these networks becomes evident through the discovery of artifacts made from exotic materials not native to the region. Excavations revealed evidence of copper processing, likely sourced from nearby deposits in the Hajar Mountains, alongside flint, jasper, and chalcedony artifacts indicative of long-distance trade.

Central to the findings is the discovery of a "Persian Gulf-type" seal at Kalba, crafted from soft stone and dating to the late third millennium BCE.

The seal itself offers intriguing insights into the fusion of Eastern and Western iconographic traditions. Depicting a bull and possibly a lion in an attacking posture, the seal reflects influences from the Indus Valley seals as well as the cylinder seals of Mesopotamia. This synthesis of motifs underscores the unique character of Kalba as a coastal trading hub, where diverse cultural influences converged.

Moreover, the research highlights the cohesive nature of early trade networks, with the Gulf region serving as a nexus between East and West. Through a combination of strategic location, raw-material procurement strategies, and cultural synthesis, Kalba emerged as a center of commerce, shaping the region's economic landscape.

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More information: Schwall C, Brandl M, Börner M, et al. (2024). Kalba: research on trade networks of a prehistoric coastal community on the Gulf of Oman, United Arab Emirates. *Antiquity*:1-8. doi:10.15184/aqy.2024.45

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Please visit the site: <https://archaeologymag.com/2024/04/4000-year-old-seal-found-in-ancient-city-of-kalba-in-gulf-of-oman/> [Go there for pix]

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## **POMPEII: BREATHTAKING NEW PAINTINGS FOUND AT ANCIENT CITY, BY JONATHAN AMOS, REBECCA MORELLE AND ALISON FRANCIS**

Stunning artworks have been uncovered in a new excavation at Pompeii, the ancient Roman city buried in an eruption from Mount Vesuvius in AD79.

Archaeologists say the frescos are among the finest to be found in the ruins of the ancient site.

Mythical Greek figures such as Helen of Troy are depicted on the high black walls of a large banqueting hall.

The room's near-complete mosaic floor incorporates more than a million individual white tiles.

A third of the lost city has still to be cleared of volcanic debris. The current dig, the biggest in a generation, is underlining Pompeii's position as the world's premier window on the people and culture of the Roman empire.

Park director Dr Gabriel Zuchtriegel presented the "black room" exclusively to the BBC on Thursday.

It was likely the walls' stark colour was chosen to hide the smoke deposits from lamps used during entertaining after sunset.

"In the shimmering light, the paintings would have almost come to life," he said.

Two set-piece frescos dominate.

In one, the god Apollo is seen trying to seduce the priestess Cassandra. Her rejection of him, according to legend, resulted in her prophecies being ignored.

The tragic consequence is told in the second painting, in which Prince Paris meets the beautiful Helen - a union Cassandra knows will doom them all in the resulting Trojan War.

The black room is the latest treasure to emerge from the excavation, which started 12 months ago - an investigation that will feature in a documentary series from the BBC and Lion TV to be broadcast later in April.

A wide residential and commercial block, known as "Region 9", is being cleared of several metres of overlying pumice and ash thrown out by Vesuvius almost 2,000 years ago.

Staff are having to move quickly to protect new finds, removing what they can to a storeroom.

For the frescos that must stay in position, a plaster glue is injected to their rear to prevent them coming away from the walls. Masonry is being shored up with scaffolding and temporary roofing is going over the top.

Chief restorer Dr Roberta Prisco spent Tuesday this week trying to stop an arch from collapsing.

"The responsibility is enormous; look at me," she said, as if to suggest the stress was taking a visible toll on her.

"We have a passion and a deep love for what we're doing, because what we're uncovering and protecting is for the joy also of the generations that come after us."

Region 9 has thrown up a detective story for archaeologists.

Excavations in the late 19th Century uncovered a laundry in one corner. The latest work has now revealed a wholesale bakery next door, as well as the grand residence with its black room.

The team is confident the three areas can be connected, physically via the plumbing and by particular passageways, but also in terms of their ownership.

The identity of this individual is hinted at in numerous inscriptions with the initials "ARV". The letters appear on walls and even on the bakery's millstones.

"We know who ARV is: he's Aulus Rustius Verus," explained park archaeologist Dr Sophie Hay. "We know him from other political propaganda in Pompeii. He's a politician. He's super-rich. We think he may be the one who owns the posh house behind the bakery and the laundry."

What's clear, however, is that all the properties were undergoing renovation at the time of the eruption.

Escaping workers left roof tiles neatly stacked; their pots of lime mortar are still filled, waiting to be used; their trowels and pickaxes remain, although the wooden handles have long since rotted away.

Dr Lia Trapani catalogues everything from the dig. She reaches for one of the thousand or more boxes of artefacts in her storeroom and pulls out a squat, turquoise cone. "It's the lead weight from a plumb line." Just like today's builders, the Roman workers would have used it to align vertical surfaces.

She holds the cone between her fingers: "If you look closely you can see a little piece of Roman string is still attached."

Dr Alessandro Russo has been the other co-lead archaeologist on the dig. He wants to show us a ceiling fresco recovered from one room. Smashed during the eruption, its recovered pieces have been laid out, jigsaw-style, on a large table.

He's sprayed the chunks of plaster with a mist of water, which makes the detail and vivid colours jump out.

You can see landscapes with Egyptian characters; foods and flowers; and some imposing theatrical masks.

"This is my favourite discovery in this excavation because it is complex and rare. It is high-quality for a high-status individual," he explained.

But if the grand property's ceiling fresco can be described as exquisite, some of what's being learned about the bakery speaks to an altogether more brutal aspect of Roman life - slavery.

It's obvious the people who worked in the business were kept locked away in appalling conditions, living side by side with the donkeys that turned the millstones. It seems there was one window and it had iron bars to prevent escape.

It's in the bakery also that the only skeletons from the dig have been discovered. Two adults and a child were crushed by falling stones. The suggestion is they may have been slaves who were trapped and could not flee the eruption. But it's guesswork.

"When we excavate, we wonder what we're looking at," explained co-lead archaeologist Dr Gennaro Iovino.

"Much like a theatre stage, you have the scenery, the backdrop, and the culprit, which is Mount Vesuvius. The archaeologist has to be good at filling in the gaps - telling the story of the missing cast, the families and children, the people who are not there anymore."

**Please visit the site:** <https://www.bbc.com/news/science-environment-68777741> [Go there for nice pix] [Also at <https://www.nytimes.com/2024/04/11/world/europe/pompeii-dining-room-trojan-war.html>]

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## **ARCHAEOLOGISTS IN POMPEII FIND ANCIENT CONSTRUCTION SITE, UNDISTURBED SINCE VESUVIUS’ ERUPTION, BY JULIA BINSWANGER**

The discovery is cluing researchers into the techniques used to build Rome’s most remarkable structures

Researchers have uncovered an ancient construction site in Pompeii, shedding new light on building techniques used thousands of years ago, according to a statement from the Pompeii Archaeological Park.

At the time of Mount Vesuvius’ eruption in 79 C.E., workers at the site were likely in the middle of a home renovation. Archaeologists found piles of lime, stones, ceramics, tiles, bricks and tools, frozen in time under layers of volcanic ash.

The excavation provides new insights into how the ancient Romans mixed cement. Workers appear to have created cement walls via “hot mixing,” a technique in which quicklime is mixed with pozzolanic sand and water.

Decorative tiles were discovered at the site, which experts think was an active home renovation. Italian Ministry of Culture

When water is added to quicklime, the reaction creates heat. Normally, this step happens long before construction begins. In Pompeii, however, “workers did not pre-soak quicklime,” per All That’s Interesting’s Amber Breese. “Instead, they opted to mix the lime with pozzolanic sand first and then apply water shortly before construction.”

The result: Because the walls were built while the mixture was still hot, drying time would have been reduced.

“It is yet another example of how the small city of Pompeii makes us understand so many things about the great Roman Empire, not least the use of cement,” says Gabriel Zuchtriegel, director of the park, in the statement. “Without cement, we would have neither the Colosseum, nor the Pantheon, nor the Baths of Caracalla.”

The hot mixing technique was also used to renovate existing structures. Zuchtriegel thinks durable cement would have been important for touch-ups and repairs following a major earthquake in 62 C.E., 17 years before Vesuvius’ eruption.

Additionally, researchers found a mythological painting depicting Achilles on the island of Skyros inside the home, which is located near a recently discovered ancient bakery.

Researchers uncovered a painting of Achilles at the site. Italian Ministry of Culture

The site also featured Roman numerals written in charcoal, which researchers think were notes from builders, as well as “tools like lead weights for pulling up heavy walls and iron hoes used to mix the mortar,” writes CNN’s Barbie Latza Nadeau.

According to Zuchtriegel, the discovery will not only give researchers a better understanding of everyday Roman life but also help teach valuable lessons about “sustainability and the reuse of materials.”

“Pompeii is a treasure chest, and not everything has been revealed in its full beauty,” says Gennaro Sangiuliano, Italy’s culture minister, in the statement. “So much material has yet to emerge.”

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Please visit the site: <https://www.smithsonianmag.com/smart-news/researchers-unearth-an-ancient-roman-construction-site-at-pompeii-180984045/>

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## **EXCAVATIONS OF MOUNT ELLANIO** **SUMMIT REVEALS MYCENAEAN REFUGE**

A team of Archaeologists are conducting a study of Mount Ellanio, the tallest peak on the Greek island of Aegina.

Situated near the mountain summit is the Temple of Zeus Hellanios, a 4th century Greek temple where a 13th-century Byzantine church now stands.

A Greek-Swiss archaeological mission is currently conducting excavations on the summit to find traces of the mountain's prehistoric occupation, in addition to finds associated with the Temple of Zeus Hellanios.

In a press statement issued by the Greek Ministry of Culture, the mission has discovered a Mycenaean building measuring 4.5 by 3 metres, in which they also uncovered over thirty ceramic vessels within the building's interior.

Based on the form and style of the vessels, the researchers suggest that they date from the decline of the Mycenaean palatial system, a period of destruction between 1200–1050 BC.

The cause of the destruction has long been the subject of academic debate, with some theories suggesting a series of natural disasters, or a period of conflict – evidenced by a building program of defences around major population centres.

As a result of this turmoil, specific regions in mainland Greece witnessed a dramatic population decrease as Mycenaean refugees migrated to Cyprus, the Levant, and several of the Greek islands.

According to the archaeologists, the people on Aegina likely settled on the summit as a refuge and for protection, as the mountain was already known to them as a place of worship.

To understand the surrounding landscape, the mission also conducted a surface survey which revealed traces of human occupation from the prehistoric period until the mid-20th century, including retaining walls, an ancient tower, quarries, rock inscriptions, and several abandoned settlements.

Please visit the site: <https://www.heritagedaily.com/2024/04/excavations-of-mount-ellanio-summit-reveals-mycenaean-refuge/151328> [Go there for pix]

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## **EARLY HUMANS LIVED ON 'PERSIAN PLATEAU' FOR 20,000 YEARS AFTER LEAVING AFRICA, STUDY SUGGESTS,** **BY KRISTINA KILLGROVE**

After early humans traveled out of Africa 70,000 years ago, they had a "hub" on the so-called Persian plateau, a new study suggests.

After waves of Homo sapiens left Africa, they left few traces of their whereabouts until they reappeared in Eurasia 20,000 years later. So where did they go in the intervening time? A study proposes that Homo sapiens outside of Africa made their home on the Persian plateau during that mysterious period.

Fossil evidence of early Homo sapiens migrations shows that members of our species moved out of Africa at least as far back as 210,000 years ago, while genetic evidence shows that a large wave of migration around 70,000 years ago was the most successful, contributing genes to all modern-day non-African people. But there is a widespread lack of Homo sapiens fossils across Eurasia between 60,000 and 45,000 years ago, prompting the researchers of the new study to investigate where modern humans went during this time.

Using climate models and genetic data, the team found that the Persian plateau was the most suitable location for human occupation during this time, according to the study, published on March 25 in the journal Nature Communications.

However, not everyone agrees with their findings, saying that more evidence is needed.

The Persian plateau, which the researchers defined as a population hub in a previous study, includes most of modern-day Iran as well as the Persian Gulf and Mesopotamia. The team suggests the ancestors of all present-day non-Africans lived there between 70,000 and 45,000 years ago.

The researchers previously looked at information from paleolithic Eurasian genomes and correlated these data with archaeological evidence for changes in stone tool technology. From this, they found that modern humans likely congregated in a population hub that served as the base for multiple migrations throughout Eurasia. But inferring the homeland of the population hub required the addition of a paleoclimate model, which is included in the new study.

By modeling the distribution of a hunter-gatherer Homo sapiens population and reconstructing areas that had suitable environmental conditions for human occupation between 70,000 and 45,000 years ago, the researchers figured out that the Persian plateau was the geographical location most likely able to support a population hub.

The Persian plateau also hosts known Neanderthal fossil sites whose dates overlap with the presence of Homo sapiens. "Admixture [coupling] with Neanderthals occurred during this timeframe, so it is possible that it took place inside the Hub," Leonardo Vallini, a

molecular anthropologist at the University of Padua and lead author of the study, told Live Science in an email. "It is also possible, however, that the two groups were avoiding each other and the interactions were much more sporadic."

During this key period of human evolution and expansion, Homo sapiens were hunter-gatherers, Vallini explained. But within this area, people likely traded key information. The hub "might have served as an incubator for the development of cultural innovations" such as rock art and projectile weapons, the researchers wrote in the study.

However, other experts believe more evidence is needed to locate a possible population hub. Sang-Hee Lee, a biological anthropologist at the University of California Riverside who was not involved in the study, told Live Science in an email that the new study brings up images of a dynamic center of ancestral human occupation. However, Lee wonders if the palaeoecology model is a suitable one for ancestral humans.

"Paleoecology data from the 'Hub' rely on a single data point in Iran," Lee said, referring to the lone data point the study authors present to verify their hypothesis that the hub was a hospitable place. "Of course, an absence of evidence does not mean an evidence of absence," Lee noted.

The study authors acknowledge that more hominin fossils and climate data are necessary to validate their hypothesis.

But if the Persian plateau was indeed a population hub for tens of thousands of years, this key region is ideal for searching for both fossil evidence and paleoecology data that could fill in the gaps in ancestral humans' migrations throughout Eurasia, the authors said in their study.

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Kristina Killgrove is an archaeologist with specialties in ancient human skeletons and science communication. Her academic research has appeared in numerous scientific journals, while her news stories and essays have been published in venues such as Forbes, Mental Floss and Smithsonian. Kristina earned a doctorate in anthropology from the University of North Carolina at Chapel Hill and also holds bachelor's and master's degrees in classical archaeology.

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**Please visit the site: <https://www.livescience.com/archaeology/early-humans-lived-on-persian-plateau-for-20000-years-after-leaving-africa-study-suggests> [Go there for pix, maps]**

## **PLATO’S FINAL HOURS RECOUNTED IN SCROLL FOUND IN VESUVIUS ASH, BY LORENZO TONDO**

Newly deciphered passages outline Greek philosopher’s burial place and describe critique of slave musician

Newly deciphered passages from a papyrus scroll that was buried beneath layers of volcanic ash after the AD79 eruption of Mount Vesuvius may have shed light on the final hours of Plato, a key figure in the history of western philosophy.

In a groundbreaking discovery, the ancient scroll was found to contain a previously unknown narrative detailing how the Greek philosopher spent his last evening, describing how he listened to music played on a flute by a Thracian slave girl.

Despite battling a fever and being on the brink of death, Plato – who was known as a disciple of Socrates and a mentor to Aristotle, and who died in Athens around 348BC – retained enough lucidity to critique the musician for her lack of rhythm, the account suggests.

The decoded words also suggest Plato’s burial site was in his designated garden in the Academy of Athens, the world’s first university, which he founded, adjacent to the Mouseion. Previously, it was only known in general terms that he was buried within the academy.

In a presentation of the research findings at the National Library of Naples, Prof Graziano Ranocchia, of the University of Pisa, who spearheaded the team responsible for unearthing the carbonised scroll, described the discovery as an “extraordinary outcome that enriches our understanding of ancient history”.

He said: “Thanks to the most advanced imaging diagnostic techniques, we are finally able to read and decipher new sections of texts that previously seemed inaccessible.”

The text also reveals that Plato was sold into slavery on the island of Aegina, possibly as early as 404BC when the Spartans conquered the island, or alternatively in 399BC, shortly after Socrates’ passing.

“Until now it was believed that Plato was sold into slavery in 387BC during his sojourn in Sicily at the court of Dionysius I of Syracuse,” Ranocchia said. “For the first time, we have been able to read sequences of hidden letters from the papyri that were enfolded within multiple layers, stuck to each other over the centuries, through an unrolling process using a mechanical technique that disrupted whole fragments of text.”

Ranocchia said the ability to identify these layers and virtually realign them to their original positions to restore textual continuity represented a significant advance in terms of gathering vast amounts of information.

He said the work was still in its nascent stages and the full impact would only become apparent in the coming years.

The scroll was preserved in a lavish villa in Herculaneum and discovered in 1750, and is believed to have belonged to Julius Caesar's father-in-law.

Over the years, scholars have tried to decipher the scrolls found in this villa, known as the Villa of the Papyri.

Domenico Camardo, an archaeologist at the Herculaneum conservation project, compared the impact of the AD79 eruption on Herculaneum, an ancient Roman beach town close to Pompeii, to the dropping of an atomic bomb on the Japanese city of Hiroshima during the second world war.

Such was the heat of the pyroclastic surge produced by Vesuvius – believed to have been between 400C and 500C – that the brains and blood of victims instantly boiled.

**Please visit the site: <https://www.theguardian.com/books/2024/apr/29/herculaneum-scroll-plato-final-hours-burial-site>**

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