



Επιστημονικό Σωματείο,  
Έτος Ίδρυσης 1982, έδρα:  
Κάνιγγος 27, 106 82 Αθήνα  
(Ενωση Ελλήνων Χημικών)  
<http://archaeometry.org.gr>

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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Ιανουάριος 2026 -**

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**HAPPY NEW YEAR!  
ΚΑΛΗ ΧΡΟΝΙΑ!**

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# Newsletter of the Hellenic Society of Archaeometry

**- January 2026 -**

**Nr. 298**

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## ***ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS***

### **15<sup>TH</sup> INTERNATIONAL CONFERENCE “METHODS OF ABSOLUTE CHRONOLOGY” (MACH2026), 26-29 MAY 2026, JELENIA GÓRA, POLAND, FIRST CIRCULAR**

Dear Colleagues,

The Institute of Physics – Centre for Science and Education of the Silesian University of Technology together with Polish Quaternary Association POLQUA would like to invite you to take part in the 15<sup>th</sup> International Conference “Methods of Absolute Chronology”, which will be held from 26<sup>th</sup> to 29<sup>th</sup> May, 2026 in Jelenia Góra, Poland.

We are striving to provide a platform to exchange knowledge and experience in the area of quaternary dating methods and their applications. We are looking forward to receiving submissions that will cover a range of subjects to foster this exchange of ideas.

The conference scientific programme includes plenary and poster sessions. The working language of the conference is English. Any questions related to the conference can be directed to the e-mail address: [mach2026@polsl.pl](mailto:mach2026@polsl.pl).

#### **CONTRIBUTIONS**

Please register and submit your abstract on the conference website (<https://mach2026.polsl.pl/conference>), and indicate preferred presentation form (oral/poster). In case of a large number of oral presentations, some contributions may be moved to poster sessions upon the decision of the Scientific Committee.

The posters should be in A1 format (594 x 841 mm) in portrait orientation.

The accepted presentations will be published in the open-access journal “Geochronometria”, following the regular reviewing schedule.

#### **TOPICS COVERED**

Depending on the scope of received abstracts the following list may be updated by the Scientific Committee:

- Advances in Radiocarbon Dating Innovations in Luminescence Dating
- Applications in Archaeology Dendrochronology and Single-Year Analysis
- Applications in Earth Sciences Challenges in Absolute Chronology and
- New Perspectives

#### **COSTS**

		<b>Conference fee</b>
		Early bird (up to 15 <sup>th</sup> March 2026)
		Standard (up to 30 April 2026)
Professional	1050 PLN 250 EUR	1250 PLN 300 EUR
Student (Accompanying person)	850 PLN 200 EUR	1050 PLN 250 EUR

The fee covers admission to conference sessions, coffee breaks, lunches, ice-breaker dinner (26<sup>th</sup> May), grill party (27<sup>th</sup> May), gala dinner (28th May), conference excursion and a conference kit.

The fee should be paid in advance by a bank transfer to one of the following accounts:

in **PLN**:

Polska Unia Czwartorzędu POLQUA  
Account No: PL56 1140 2004 0000 3002 8451 0928

in **EUR**:

Polska Unia Czwartorzędu POLQUA  
Account No: PL98 1140 2004 0000 3712 2627 3420  
BIC/ SWIFT: BREXPLPWMBK

When making your bank transfers please state your name and purpose (conference fee payment: MACh2026 Conference) in the transfer title.

## VENUE

The conference will be held at the Pałac Wojanów Hotel which is located at the Wojanów 8 street, 58-508 Jelenia Góra (50°52'35.45"N 15°48'50.80"E).

## ACCOMMODATION

The compulsory conference accommodation is at the Pałac Wojanów Hotel only. All participants should book their rooms by emailing [recepcaja@palac-wojanow.pl](mailto:recepcaja@palac-wojanow.pl) and including MACh2026 in the message. Bank transfers for the accommodation are done directly to the Pałac Wojanów Hotel account.

Accommodation is not included in the conference fee. For conference participants, the cost for three nights (26/27, 27/28, 28/29) is: 1170 PLN for a single room; 1290 PLN for a double room (i.e., 645 PLN per person)

## TRAVEL

The nearest airport to Jelenia Góra is Wrocław Airport (WRO), located approximately 110 km away. Jelenia Góra can be reached easily from Wrocław main station by train.

## IMPORTANT DATES

Registration starts: 1<sup>st</sup> December 2025

Second circular:	1 <sup>st</sup> March 2026
Early Bird payment:	up to 15 <sup>th</sup> March 2026
Submission of abstracts:	up to 15 <sup>th</sup> April 2026
Standard registration and payment:	up to 30 <sup>th</sup> April 2026
Abstract acceptance:	30 <sup>th</sup> April 2026
Conference:	from 26 <sup>th</sup> to 29 <sup>th</sup> May 2026
Submission of manuscripts:	30 <sup>th</sup> June 2026

On behalf of the Local Organising Committee

Piotr Moska and Grzegorz Adamiec

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**ARCHIVES AND RECORDS ASSOCIATION**  
**UK & IRELAND ANNUAL**  
**CONFERENCE: ‘AUTHENTICITY’, 5<sup>TH</sup>-7<sup>TH</sup>**  
**AUGUST 2026, GLASGOW, UK**

ARA's conference this year will take place in Glasgow (not Newcastle as previously advertised at conference in August). We are something of a victim of our own success and could not find a big enough venue in Newcastle. We had planned to go to Glasgow in 2027 so we moved it forward a year! We appreciate this week may not be ideal for everyone but we were constrained by the upcoming Commonwealth Games in Glasgow and this is the only week that we can do in 2026.

The venue is the Radisson Blu which is incredibly central and right by the main railway station - so great for travel connections.

Because of the delay in confirming the dates and venue we will not be opening the portal for submissions in answer to our call for papers until the middle of January. There will then be a slightly shorter window in which to submit - however we do know the theme (see below) and ask that you check your availability, put your thinking caps on and be ready to submit when the portal opens.

**Call for Papers**

**We are calling for papers on the theme of ‘Authenticity’.**

Annie Starkey, chair of the ARA Conference Committee says:

“As we return to a fully in-person conference for 2026, it feels appropriate to address the theme of authenticity - how do we approach the practices of Record Keeping in an age where ‘truth’ feels increasingly under fire?

We've seen Heads of State alter, deny, and destroy archival records. If history is determined by the victor, how do we work with integrity and preserve the full truth when those in power may seek to quash it? Conversely, as Record keepers we have been described as 'Custodians of the Truth', but who's truth? How do we ensure fair and balanced representation, especially when some views feel so alien to us?

How do we manage the legality of digitising records for Records Management purposes, when – for example - the digitised records supersede the 'original' items as the 'legal' copies? When original formats have a limited lifespan, either because of their inherent instability or technological obsolescence – how do we give people an authentic experience when accessing born-digital records? Is authenticity in fact the priority, or does access trump truth?

There are also discussions to be had around the ethics of AI and machine-learning and its use – can it simplify tasks like metadata capture or transcription, increasing efficiency; or will it impact on data quality, dilute understanding, and lead to de-skilling of record

keepers?

The authenticity of the physical record can be viewed through conservation decision-making lens, but what are the implications of the treatments we undertake and the materials we use? Are we compromising authenticity, or broadening the narrative of what can be perceived as authentic?

In an era marked by disinformation, contested histories, and rapid technological change, the concept of authenticity in recordkeeping has never been more complex—or more critical. How do we navigate truth, ethics, and recordkeeping in a Post-Truth World?"

**Suggested Ideas for exploration might be:**

- What is the authentic experience within the archive? Is there a "hierarchy of authenticity" when prioritising or foregrounding the experience of different individuals or groups?
- Does authenticity matter? Are we in danger of trying to create a static and immobile template that ignores interpretation and varied opinion?
- How is authenticity changing in response to AI? In an ongoing age of disinformation, what does authenticity really mean?
- How does the choice of AI source material contribute to perpetuating stereotypes around subjects such as race, gender and religion?
- "Truth, trust, provenance and overcoming the 'age of stupidity'". As record-keepers, should this be our mission statement?
- Archives are socially constructed - how do changing social perspectives affect authenticity?
- Record keeping establishments are places of destruction as much as preservation. What narratives control retention choices? Where does the burden of authenticity rest?
- Contested histories - what is the place of an archive to challenge or uphold certain narratives?
- Archival and record-keeping theory – if apparently minor issues such as page order are compromised, is this conscious dissociation? What is the impact on perceived authenticity?
- When archives are used within other systems of governance and authority, what does this mean for authentic narratives of major events? Presidential elections, the UK newspaper hacking scandals and the UK Post Office enquiry, have all laid bare flaws in documentation and decision-making. The use and misuse of records that have a dramatic impact on 'real life'
- The digital record vs. the original record - what is the reader seeking to experience? Is one 'more' authentic than the other?
- Who wields tools of authentication such as heritage science? What role does material analysis play in understanding collections? How can new technologies deepen this understanding?
- Does interventive conservation treatment compromise authenticity? Best practice dictates use of sympathetic materials, emphasising reversibility, but what does it mean for treatment integrity when manufacturing processes of materials are changed, or accessibility is affected by external factors such as climate change?
- What of inevitable changes to the item to preserve them and/or make them accessible? Is accessibility the enemy of authenticity? Do these treatments change the fundamental nature of collection material?

And of course, we are open to many more ideas than this!

All we need at this stage is a 500 word (max) abstract for your presentation, panel or workshop. **We expect that all presentations will be made in-person in Glasgow.**

As in previous conferences we offer the following formats:

- **Individual contributions** – presentations of 20 minutes, and if successful your proposal will be combined into a session with other speakers.
- **Panel sessions** – three to five speakers presenting related papers on a specific theme or topic.
- **60 minute workshop** – a longer session aimed at including a practical element as well as presentation.

**Further details will be available in January.**

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**37<sup>TH</sup> INTERNATIONAL CONFERENCE ON  
SURFACE MODIFICATION TECHNOLOGIES  
(SMT37), APRIL 24, 2026, UNIVERSITY OF  
MONS, BELGIUM, CALL FOR ABSTRACTS**

Dear Colleagues,

On behalf of the ASM Archaeometallurgy Committee, I'm writing to share information about an upcoming symposium that may be of interest to the archaeometallurgy community.

The "Arts and Surfaces" symposium will take place on April 24, 2026, as part of the 37<sup>th</sup> International Conference on Surface Modification Technologies (SMT37) at the University of Mons, Belgium. This special session focuses on surface treatment for art and heritage, bringing together researchers, conservators, and archaeometallurgists working at the intersection of materials science and cultural heritage.

The symposium will feature Dr. Alessandra Giumlia-Mair as a plenary speaker, presenting on "Black variations on metals in antiquity: an updated survey."

**\*\*Abstract Deadline: January 4, 2026\*\***

To submit an abstract: <https://smt37.sciencesconf.org/>

For complete conference information: <https://web.umons.ac.be/en/agenda-events/smt37/>

Questions can be directed to the organizers at [SMT37@umons.ac.be](mailto:SMT37@umons.ac.be)

Best regards,  
Scott Henry

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**EAA ANNUAL MEETING, SESSION #282 –  
INTERDISCIPLINARY APPROACHES TO  
ARCHAEOLOGICAL METAL ANALYSIS, 26-  
29 AUGUST, 2026, ATHENS**

Dear colleagues,

I am pleased to share that the next EAA Annual Meeting, which will take place in Athens next August, will include a session dedicated to archaeometallurgy and archaeometrical analyses of metals:

**Session #282 – Interdisciplinary Approaches to Archaeological Metal Analysis**

We hope this session will provide an excellent opportunity to meet many of you in person and to exchange ideas and perspectives. The call for contributions is open until **5 February 2026**. <https://www.e-a-a.org/EAA2026/contributions>

Best regards,

Elisa

\*\*\*\*\*

Dr. Elisa Grassi  
Ricercatore  
CNR - Istituto di Scienze del Patrimonio Culturale  
via Roberto Cozzi 53, 20125 Milano  
tel.02 66173388

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## **SYNCHROTRON RADIATION FOR CULTURAL HERITAGE MATERIALS - PART 2 WEBINAR, WEDNESDAY, 21 JANUARY 2026**

The Society for Archaeological Sciences (SAS) Student Ambassadors are organizing the “Synchrotron Radiation for Cultural Heritage Materials – Part 2” webinar taking place on Wednesday, 21 January 2026 at 14:00 GMT.

This webinar will explore how synchrotron radiation contributes to the study of diverse cultural heritage materials, including pigments and metals. Through selected case studies, we will show how synchrotron-based techniques, such as XRF, XAS, XRD, CT, offer unique insights into composition, microstructure, and alteration processes that are otherwise inaccessible with conventional techniques.

Building on examples from ongoing research, the webinar will highlight how these analytical approaches help archaeologists, conservators, and heritage scientists answer key questions about technology, provenance, and preservation. The webinar also aims to open a dialogue between cultural heritage researchers and synchrotron beamline scientists, laying the groundwork for future interdisciplinary collaborations.

Part 2 of the series will focus on Synchrotron applications for pigments and metals.

### **Talk 1: Pigments**

*Speaker: Marine Cotte (Beamline Group Leader, European Synchrotron Radiation Facility, ESRF, France)*

### **Talk 2: Metals**

*Speaker: Emilie Bérard (Assistant Professor, Université Paris-Saclay, France)*

**To register, participants need to fill in this form:**

<https://forms.gle/wGLDVtZHVAZDNPZ9>

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**THE FRIENDS OF THE INSTAP STUDY  
CENTER PRESENT THE 4<sup>TH</sup> ANNUAL  
MALCOLM H WIENER SYMPOSIUM,  
SATURDAY, JANUARY 10, 2026**

10:30 am Pacific Time

Held in conjunction with the 2026 AIA Meetings, San Francisco

From pots to politics: ceramic regionalism and political integration in east Crete during the Neopalatial period

Eleni Nodarou<sup>1</sup> and Yiannis Papadatos<sup>2</sup>

1 INSTAP Study Center for East Crete, Pacheia Ammos, 72200 Crete, Greece. Email: [enodarou@yahoo.gr](mailto:enodarou@yahoo.gr)

2 National and Kapodistrian University of Athens, Department of History and Archaeology, N. Politi 1, Panepistimioupoli 15772, Athens, Greece. Email: [gppapadat@arch.uoa.gr](mailto:gppapadat@arch.uoa.gr)

The lecture will be available online. Please register at:

<https://us02web.zoom.us/meeting/register/-G6Hdv50TMCs5VANkILtrw.com>

After registering, you will receive a confirmation email containing information about joining the meeting.

### **Abstract**

Over the past two decades, intensive excavation and systematic fieldwork in southeast Crete have significantly reshaped scholarly perceptions of this region. Recent excavations at Bramiana, Vainia, Chrysi, Gaidourophas and Stavromenos, alongside surveys on the southeastern slopes of Mt. Dikte and the plain of Ierapetra have convincingly demonstrated that this part of the island is neither an empty landscape nor an underdeveloped countryside. In particular, evidence from the Neopalatial period reveals a dynamic and evolving region, characterized by sites of different magnitude and character, actively engaged in regional and interregional networks, as evidenced by their material culture.

This presentation integrates data from recent excavation and survey projects in southeast Crete with the petrographic analysis of complete ceramic assemblages to explore patterns of ceramic regionalism, insular and inter-island trade networks, and patterns of interaction. By moving beyond the analysis of individual archaeological contexts, we examine the importance of specific sites as political and economic centers of the Neopalatial period. Our approach highlights the integration of southeast Crete into the broader palatial framework of resource exploitation, despite the absence—thus far—of an identifiable palace in the region.

**ΕΤΑΙΡΕΙΑ ΔΙΕΡΕΥΝΗΣΗΣ**  
**ΑΡΧΑΙΟΕΛΛΗΝΙΚΗΣ ΚΑΙ ΒΥΖΑΝΤΙΝΗΣ**  
**ΤΕΧΝΟΛΟΓΙΑΣ - ΠΡΟΓΡΑΜΜΑ**  
**ΕΚΔΗΛΩΣΕΩΝ ΕΔΑΒΥΤ ΧΕΙΜΕΡΙΝΟ 2026**

**ΙΑΝΟΥΑΡΙΟΣ 2026**

**Τρίτη 27 Ιανουαρίου, Θεοδόσιος Π. Τάσιος, Δρ. Πολιτικός Μηχανικός, Ομότιμος Καθηγ.** ΕΜΠ: «Η γεφύρωση του στενού του Ευρίπου από τους αρχαίους μέχρι του ενετικούς χρόνους».

**ΦΕΒΡΟΥΑΡΙΟΣ 2026**

**Τρίτη 03 Φεβρουαρίου, Παλυβού Κλαίρη, Δρ. Αρχιτέκτων, Ομότιμη Καθηγ. ΑΠΘ, Διαχειρίστρια ΕΔΑΒΥΤ: «Ο καινοτόμος χαρακτήρας της Μινωικής αρχιτεκτονικής».**

Η είσοδος είναι ελεύθερη για το κοινό. Η παρουσία Μελών και Φίλων της ΕΔΑΒΥΤ είναι χαρά για όλους-μας, ανεβάζει δε και τη στάθμη των παραγωγικών συζητήσεων που επακολουθούν κάθε ομιλίας.

Οι διαλέξεις φιλοξενούνται ευγενώς στην αίθουσα του Συλλόγου των Αθηναίων (Κέκροπος 10, 10558 Πλάκα). **Ωρα έναρξης: 18:30.**

\*\*\*\*\*  
Λέκκα 23 -25, Αθήνα 10562 | 23 -25 Lekka str., Athens 10562 Προσωρινό Τηλέφωνο Επικοινωνίας: 6973.304141 Ηλεκτρονικές διευθύνσεις : edabyt.tee@gmail.com , edabyt.tee.1@gmail.com Ιστοσελίδα : <http://portal.tee.gr/portal/page/portal/edabyt>  
Πρόεδρος: Θ.Π. Τάσιος, Αντιπρόεδρος: Κ. Παλυβού Γενικός Γραμματέας: Κ. Σ. Γιαννακός , Ταμίας: Ε. Χιώτης Μέλη: Τ. Βασιλειάδου , Α. Μιχαηλίδου, Μ. Μπελογιάννη

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## **ISA 2026 - TURIN – ITALY**

Dear Colleagues,

We would like to sincerely thank you for the impressive response to our Call for Abstracts.

More than 500 abstracts, nearly 450 authors from 50 countries around the world! We are truly grateful for your enthusiasm and for the high level of interest shown in the conference.

The convenors are now actively working on the review and selection of the submitted contributions. According to the ISA 2026 [timeline](#), the selection process will be completed by **15 January 2026**, when notification of acceptance is expected, coinciding with the opening of conference registration.

As we approach the holiday season, we would also like to extend our warmest wishes to all of you. Please note that [info@isa2026torino.it](mailto:info@isa2026torino.it) will be taking a short break over the holidays and, although we remain available, responses may be slower than usual until **6 January 2026**.

We look forward to welcoming you to the conference!

With best regards,

The ISA 2026 Organising Committee

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## **EAA SESSION #124 HALF A CENTURY OF CERAMIC ANALYSIS IN THE ANCIENT GREEK WORLD: DIACHRONIC DEVELOPMENTS, CURRENT TRENDS, AND FUTURE PERSPECTIVES, CALL FOR PAPERS**

Join us in Athens for the 2026 EAA conference.

Over the past fifty years, ceramic analysis in the ancient Greek world has evolved into a truly interdisciplinary field that integrates archaeology, materials science, art history, and ethnography. Moving beyond typological and stylistic frameworks, research now combines scientific, experimental, and digital methods to explore ceramics as both technological artefacts and social objects. This session seeks to reassess how these developments have reshaped our understanding of pottery production, consumption, and circulation across time and space.

We invite papers that adopt interdisciplinary and diachronic perspectives, from prehistory to the Medieval period, to trace transformations in ceramic traditions, technological practices, and interpretative paradigms. Topics may include methodological and theoretical advances, craft organisation and technological innovation, resource exploitation and production strategies, consumption patterns, and the role of ceramics in connectivity networks, exchange systems, and socio-cultural interaction.

By bringing together synthetic overviews and detailed case studies, this session aims to highlight the richness and diversity of Greek ceramic traditions, from mainland landscapes to coastscapes and islandscapes, to showcase innovative analytical approaches, and identify current challenges and future directions. Ultimately, it seeks to provide a comprehensive and up-to-date reflection on half a century of ceramic studies in the ancient Greek world, situating them within their broader cultural and disciplinary context.

### **Organizers**

Sergios Menelaou (Greece), Fitch Laboratory, British School at Athens/Univ. of Cyprus

Eleni Nodarou (Greece) Institute for Aegean Prehistory Study Center for East Crete

Jill Hilditch (Netherlands) University of Amsterdam

Evangelia Kiriati (Greece), Fitch Laboratory, British School at Athens

**SESSION DESCRIPTION AND ABSTRACT**  
**CALL FOR SPECIAL SESSION -**  
**ARCHAEOMETRY THEME, GOLDSCHMIDT**  
**CONFERENCE, MONTREAL, 2026**

Hi folks

I am a professor at Saint Mary's University in Halifax, Canada. I am hoping you might be able to assist in circulating a description and abstract call (abstracts due Feb 26th) for the following archaeometry-themed session at the upcoming Goldschmidt Conference in July, 2026 in Montreal, Canada.

Thanks in advance for any assistance ! JH

<https://conf.goldschmidt.info/goldschmidt/2026/meetingapp.cgi/Session/8892>

06d - Tracing the Past: Analytical, Isotopic and Geochemical Frontiers in the Archaeology of Metals and Earth Materials

**Theme:** Theme 06: Analytical and Computational Frontiers

**Description**

Identifying the sources of metals and other earth-derived materials used in the production of archaeologically recovered artifacts lies at the core of archaeometry. This session explores how advances in analytical, isotopic and geochemical techniques are reshaping our ability to reconstruct ancient technologies, trade networks, and human-environmental interactions. We invite contributions that highlight the intersection of geochemical innovation and archaeological inquiry—ranging from isotopic and geochemical fingerprinting of ores and metallic artifacts to provenance studies of ceramics, pigments, and lithic materials. We especially welcome interdisciplinary work that bridges laboratory and field perspectives, develops new reference materials, or applies geochemical tracers to questions of technology, human behavior, and environmental change in the past.

**Conveners**

M

Ryan Mathur

Juniata College, Huntingdon, USA

F

Mostafa Fayek

University of Manitoba

H

Jacob J Hanley

Saint Mary's University

P

Wayne Powell

Brooklyn College, CUNY

\*\*\*\*\*

Dr. Jacob J. Hanley  
B.Eng., M.Sc., Ph.D., FSEG  
Full Professor  
Mineral Exploration and Ore Fluids Laboratory  
Department of Geology  
Saint Mary's University  
923 Robie Street, Halifax, Nova Scotia B3H3C3  
Ph: 902-491-6334  
Email: [jacob.hanley@smu.ca](mailto:jacob.hanley@smu.ca)

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## **GEOCHRONOLOGY SUMMER SCHOOL IN MORTERATSCH, SWITZERLAND 2026**

Dear colleagues,

it is our pleasure to announce the

### **17th International Geochronology Summer School:**

Dating techniques in environmental research

Date: **August 30 – September 3, 2026**

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,  $^{137}\text{Cs}$ ,  $^{210}\text{Pb}$ , 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 Freiburg i.Br.), 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 2026**

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

\*\*\*\*\*

Prof. Dr. Markus Egli  
Geochronology  
Soil and Landscape Dynamics  
Department of Geography  
University of Zurich  
Winterthurerstrasse 190  
CH-8057 Zurich

Switzerland

Tel: + 41 44 635 51 14

e-mail: [markus.egli@geo.uzh.ch](mailto:markus.egli@geo.uzh.ch)

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## **EGU26 - GEOCHRONOLOGICAL TOOLS FOR ENVIRONMENTAL RECONSTRUCTION EGU SESSION, VIENNA, AUSTRIA**

Dear colleagues,

If you consider participation in the next annual meeting EGU26

You are welcome to submit an abstract to this session dedicated to different chronological tools.

Looking forward to seeing you in Vienna.

Wishing you a good Holiday Season,

Best wishes,

Irka

**Deadline Thursday 15 January 13:00 CET**

Submit your abstract to the session now!

<https://meetingorganizer.copernicus.org/EGU26/session/56332>

Enjoy the Oral presentation day and meet and expand your network during the exciting poster session!

In this Session, Contributions related to the following topics are welcome:

Instrumental developments for Quaternary age determination.

Approaches to quantify, reduce and express dating uncertainties in dating methods including radiocarbon.

The use of established geochronological methods to answer new questions.

The use of new methods to address long standing issues.

The combination of different chronometric methods and techniques to improve results.

The analysis of chronological datasets and application of modeling techniques.

High resolution chronologies (time and spatial resolution).

Applications to understand the long-term landscape evolution, quantify rates of geological processes, provide chronologies for records of climate change and anthropogenic effects on Earth's system.

AI applications to analyze chronological datasets for environmental reconstructions.

Analytical methods and use of novel or not typical techniques:

Radiocarbon

Cosmogenic

Varve counting

Dendrochronology

Trapped-charges based methods

Radioactive decay chains based methods

\*\*\*\*\*

Convener group, headed by [Irka Hajdas](#) : [Negar Haghipour](#) @MichalSlowinski and  
[fernando jimenez](#)

\*\*\*\*\*

Don´t miss the opportunity to present your work with us!

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**ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –**  
**JOB VACANCIES/FELLOWSHIPS**  
**PHD OR POST-DOC, UNIVERSITY OF HAIFA**

The [Metallurgy and Materials Lab](#) at the School of Archaeology and Maritime Cultures at the University of Haifa, Israel, invites applications for:

**A 3-year PhD position or a 2-year post-doc position**

**This is a second call for this position which has not yet been filled**, starting as soon as possible. The project aims to evaluate the earliest use of scales, weights, and metal currency in the region. The candidate is expected to write a doctoral thesis (PhD) or publish papers (post-doc) during employment under the supervision of the PI in Haifa. The successful candidate will be part of the DFG Middle-East collaboration project titled “Elusive data? Weights and silver in the EBA-MBA southern Levant (Ancient Canaan)”, headed jointly by Dr. Tzilla Eshel, the School of Archaeology and Maritime Cultures, University of Haifa, and Prof. Dr. Lorenz Rahmstorf at the Seminar of Prehistory and Early History at the University of Göttingen.

**The project**

During the mid 3<sup>rd</sup> millennium BC the use of silver as currency emerged in Mesopotamia in the form of fragmented silver coils and scrap exchanged for their weighed value. The southern Levant showed urbanized settlement patterns since the EBA II–III and was continually influenced by the surrounding material cultures during the Bronze Age. The project will investigate the source of the silver, and whether silver (and gold) were precisely measured by weight and scales in EBA and the earlier MBA in the southern Levant, as in the rest of the Near East. With the help of the Principal Investigators the candidate will sample and analyze silver items for typology, detailed chemical composition and isotopes. The candidate will investigate the implications for economic integration, interregional exchange and social organization in Southern Levantine societies. The twin project in Göttingen will focus on weights during the same period and apply analytical work and metrological analyses of potential weights in close collaboration with the Haifa team.

**Requirements:**

Academic degree in (Bronze Age/East Asia) Archaeology, Archaeometallurgy or Geochemistry.

Experience in working with metals and lab work

Experience with XRF, ICP, ICP-MS – an advantage

Proficiency in at least one programming language – an advantage

Enrolment as a PhD/ post-doc student at the University of Haifa and compliance with the Bloom Graduate School requirements and guidelines

**Soft skills**

Responsible and self-motivated nature

Curiosity and critical thinking  
The ability to learn quickly and independently  
Strong teamwork abilities

### Responsibilities

Close cooperation with the project part in Göttingen (PhD and PI Prof. Dr. Lorenz Rahmstorf; weight metrology and economic complexity in the Southern Levant during the Early and Middle Bronze Ages)

For PhD candidates: Lead a full segment of the project from design to finished doctorate thesis under the supervision of the PI in Haifa (Prof. Tzilla Eshel)

Collect and organize archaeological metal artifacts

Apply the established methodology with the help of the PI

Participation as a co-author in the publication of scientific articles detailing methodology and results of the project in peer-reviewed journals

Present and communicate the project in different venues

The successful candidate will be able to begin as soon as possible, with flexible start-date options depending on availability. The application must be written in English. Please send a detailed CV, list of publications (if applicable), a short cover letter detailing your motivation, documentation of qualifications (Master diploma, other certificates) and the contact information within **01.01.2026** to [teshel@univ.haifa.ac.il](mailto:teshel@univ.haifa.ac.il).

Tzilla Eshel

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Head of the Metallurgy and Materials Lab  
School of Archaeology and Maritime Cultures  
Zinman Institute of Archaeology  
University of Haifa, P.O.B. 3338, Haifa 3103301, Israel

<https://haifa.academia.edu/TzillaEshel>

<https://www.researchgate.net/profile/Tzilla-Eshel>

<https://sites.google.com/humanities.haifa.ac.il/metallurgy-materials-lab/home>

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## **POSTDOCTORAL POSITION AT AARHUS UNIVERSITY**

Location: Department of Archaeology and Heritage Studies, School of Culture and Society, Faculty of Arts, Aarhus University, Denmark

Vacancy: Postdoctoral position in radiocarbon dating and Bayesian modelling at the Department of Archaeology and Heritage Studies

For more information: <https://international.au.dk/about/profile/vacant-positions/job/postdoctoral-position-in-radiocarbon-dating-and-bayesian-modelling-at-the-department-of-archaeology-and-heritage-studies>

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## **JOB OPPORTUNITY: RESEARCH SCIENTIST, ROCHESTER INSTITUTE OF TECHNOLOGY, IMAGE PERMANENCE INSTITUTE, ROCHESTER INSTITUTE OF TECHNOLOGY, ROCHESTER, NY**

The Image Permanence Institute (IPI) at Rochester Institute of Technology (RIT) is seeking a highly skilled and motivated Research Scientist to advance knowledge and research in the chemical degradation and stability of cultural heritage collection materials. This position is ideal for individuals with expertise in materials testing, atmospheric pollutants, chemical interactions, organic chemistry, or chemical engineering. The appointed researcher will manage IPI ISO testing services, conduct independent research, collaborate on multi-scholar projects and lead specific components of larger research programs under the direction of a senior or principal researcher. This role involves publishing research results and findings in peer-reviewed journals, producing reports and contributing to workshops and conferences, and supporting educational programs related to preservation science.

We welcome applications from fields outside of cultural heritage but will look favorably on candidates demonstrating a strong interest in the preservation science of cultural heritage.

The pay range for this position is RIT's **119A wage band**, with a minimum salary level of \$52,300 and maximum of \$87,600. The application review process will start **mid-January 2026**, and the position will remain open until filled. Learn more about the position and apply at [\*\*RIT Career Zone 9984BR\*\*](#).

If you have specific questions about this position, please contact IPI's Director of Research and search committee Chair, Emma Richardson, at [\*\*ejrpph@rit.edu\*\*](mailto:ejrpph@rit.edu)

### **About IPI**

The Image Permanence Institute (IPI) is a preservation research center in the College of Art and Design at Rochester Institute of Technology, Rochester, NY. IPI achieves its mission to support and inform the preservation of cultural heritage collections through applied research, the development of practical preservation resources and tools, professional-level education and training programs, and consulting and materials testing services. As a non-profit research center, IPI depends on private and public philanthropy to fund its research program. Institutions that use IPI preservation products and consulting and testing services further support IPI's mission.

Learn more about IPI at: [\*\*https://www.rit.edu/ipi\*\*](https://www.rit.edu/ipi)

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Dr Emma Richardson  
Director of Research

Image Permanence Institute  
Rochester  
United States

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## **FELLOWSHIPS/INTERNSHIPS AND GRANTS FROM THE INSTAP STUDY CENTER FOR EAST CRETE**

he INSTAP Study Center for East Crete announces the following fellowships, internships and grants for 2026:

R. Seager Fellowship for doctoral researchers

H. Boyd Hawes Fellowship for doctoral / post-doctoral researchers or artists

W. A. McDonald Ceramic Petrography internship for doctoral / post-doctoral researchers

William D.E. Coulson Archaeological Conservation Internship

Librarian Fellowship

The Al & Mary Leonard Emergency Preservation Fund

For further information and applications, please visit the website: <https://instapstudycenter.net/about/membership-and-fellowships/>

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Dr Eleni Nodarou  
INSTAP Study Center for East Crete  
Pacheia Ammos, Ierapetra  
72200 Crete  
GREECE

Tel: 0030 28420 93027

<https://instapstudycenter.net/>

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**2 PHD POSITIONS AT THE DEUTSCHEs  
BERGBAU-MUSEUM BOCHUM, GERMANY  
IN ARCHAEOMETALLURGY AND OTHER  
FIELDS**

Dear colleagues,

The research department of the Deutsches Bergbau-Museum Bochum (Germany) is currently looking for two PhD candidates (36 month, 65% FTE). The topic suggested by the applicant should fit into the framework of "Criticality and Ambivalence of Georesources".

Please refer to the job posting for further information and contacts for further inquiries:  
<https://karriere.bergbaumuseum.de/jobposting/bb8799203f0acdcb6971d62eeaa5f15ed04abc750>

Best regards,

Thomas

## **CALL FOR A FUNDED PHD OR POST-DOC SCHOLARSHIP IN ARCHAEOOMETALLURGY AT THE UNIVERSITY OF HAIFA**

The Metallurgy and Materials Lab at the School of Archaeology and Maritime Cultures at the University of Haifa, Israel, invites applications for:

A 3-year PhD position or a 2-year post-doc position

This is a second call for this position which has not yet been filled, starting as soon as possible.

The project aims to evaluate the earliest use of scales, weights, and metal currency in the region.

The candidate is expected to write a doctoral thesis (PhD) or publish papers (post-doc) during employment under the supervision of the PI in Haifa.

The successful candidate will be part of the DFG Middle-East collaboration project titled “Elusive data? Weights and silver in the EBA-MBA southern Levant (Ancient Canaan)”, headed jointly by Prof. Tzilla Eshel, the School of Archaeology and Maritime Cultures, University of Haifa, and Prof. Dr. Lorenz Rahmstorf at the Seminar of Prehistory and Early History at the University of Göttingen

**For more information:**

<https://drive.google.com/file/d/1W4XL6RE8dOP8Idt6BUdEDjlAeJWdv3gY/view>

Tzilla Eshel

\*\*\*\*\*

Head of the Metallurgy and Materials Lab  
School of Archaeology and Maritime Cultures  
Zinman Institute of Archaeology  
University of Haifa, P.O.B. 3338, Haifa 3103301, Israel

<https://haifa.academia.edu/TzillaEshel>

<https://www.researchgate.net/profile/Tzilla-Eshel>

<https://sites.google.com/humanities.haifa.ac.il/metallurgy-materials-lab/home>

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## **VACANCY FOR ALDAMA SCIENTIFIC FELLOW AT THE NATIONAL GALLERY, LONDON**

The National Gallery is pleased to offer a 22-month fellowship in the Scientific Department funded by the Aldama Foundation.

The fellowship will provide an excellent development opportunity for an early career researcher. Working within a busy team, you will carry out technical examination of paintings from the National Gallery and other publicly accessible collections to support a wide range of projects. In the role, you will investigate questions that arise during conservation treatments (including condition or deterioration phenomena) and also conduct historical technical research to further our understanding of the collection. Using a range of scientific techniques within the well-equipped laboratories and studios, you will focus especially on macro X-ray fluorescence (MA-XRF) scanning but also assist with other non-invasive techniques, and carry out paint sample analysis.

In addition to working with other scientists, you will collaborate closely with conservators and curators. You will report and present research results internally and externally to a wide variety of audiences.

Salary: 36,950 GBP per annum

**Closing date for applications is 12<sup>th</sup> January 2026**

Interviews will likely to be held in week commencing 19th January 2026

**Please see the following link for more information and application details:**  
[ce0838li.webitrent.com/ce0838li\\_webrecruitment/wrd/run/...](http://ce0838li.webitrent.com/ce0838li_webrecruitment/wrd/run/...)

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Catherine Higgitt  
Principal Scientist  
The National Gallery  
London  
[catherine.higgitt@nationalgallery.org.uk](mailto:catherine.higgitt@nationalgallery.org.uk)

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## **RESEARCH ASSISTANT PROFESSOR (POST-DOCTORAL FELLOW) AT THE UNIVERSITY OF HONG KONG ON ANALYSIS OF CHINESE PAINTINGS**

I am excited to share that we are hiring a postdoctoral fellow, at the rank of Research Assistant Professor, to work with me in the newly established Laboratory for Conservation and Science at HKU on the scientific analysis of Chinese paintings. This is a collaboration with the Hong Kong Museum of Art and the Conservation Office of the Hong Kong Government's Leisure and Cultural Services Department (LCSD). The fellowship is a three-year, full-time position. It comes with a highly competitive package, including medical benefits, annual leave, and conference and research support, which will be offered to the successful applicant.

If you would like to discuss the position and how it will impact the growing arts sector in Hong Kong, please contact Marc Walton at [mwalton@hku.hk](mailto:mwalton@hku.hk).

**Qualifications:** Applicants should have a PhD degree in Chemistry, Materials Science and Engineering, Physics or related disciplines or in Conservation/Heritage/Archaeological Science prior to the start of the fellowship. The degree must have been obtained within the last three years.

**Salary range:** The salary range for a Research Assistant Professor starts at HKD \$48,000 / month (~\$74,000 USD / year).

**Deadline:** Applications will be reviewed starting on January 15, 2026 and continue through February 28, 2026 or until the post is filled.

**More details and application link:** [HKU Careers](#)

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Professor Marc Walton  
Museums Studies Programme  
University of Hong Kong

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## **ANAKOINΩΣΕΙΣ - ANNOUNCEMENTS**

### **WIENER LABORATORY FOR ARCHAEOLOGICAL SCIENCES, SUMMER 2026 WEEK-LONG COURSES**

**Deadline: January 15, 2026**

#### **Ancient DNA Course**

An intensive week-long course to introduce participants to methods and applications in ancient DNA (aDNA) research. The main objectives of this course are to offer a theoretical and basic technical training in the analysis and interpretation of aDNA data through lectures, seminars and interactive hands-on practical sessions. By the end of the course, participants will be familiar with most aspects of aDNA research and the different insights aDNA can offer into the past.

Enrollment: 16 participants.

#### **Bioarchaeology Course**

An intensive week-long course in bioarchaeology to introduce participants to the analysis of human skeletal remains from archaeological settings. The objective of the course is to familiarize participants with the study of human remains and the diverse information they can offer about life and death in the past.

Enrollment: 12

#### **Geoarchaeology Course**

A week-long field school focused on archaeological context, geoarchaeology, and material sciences. Students will participate in the excavation. Through field observations, on-site laboratory analysis, and lectures, students will learn about archaeological sediments and deposits, as well as gain experience to understand site formation processes.

Enrollment: 12 participants

#### **Micromorphology Course**

The intensive week-long course will primarily focus on deciphering site formation processes and micro-stratigraphy. Students will receive instruction in optical mineralogy, description of micromorphological thin sections, and analysis of soil fabrics and sedimentary microstructures.

Enrollment: 9 participants

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Alicia M. Dissinger, PhD  
Programs Administrator  
American School of Classical Studies at Athens

321 Wall Street  
Princeton, NJ 08540-1515  
Telephone: +1 609-454-6819 (direct dial)  
Email: [adissinger@ascsa.org](mailto:adissinger@ascsa.org)  
Website: <https://www.ascsa.edu.gr>  
Pronouns: she, her, hers

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## **ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS**

### **OPEN QUESTIONS REGARDING THE RELIABILITY OF $^{14}\text{C}$ DATING IN THE CONTEXT OF ANCIENT NEAR EASTERN CHRONOLOGY, BY UWE ZERBST, PIETER G. VAN DER VEEN**

Since the introduction of Bayesian statistics and microarchaeological sampling, radiocarbon ( $^{14}\text{C}$ ) dating has made considerable progress in recent years. For the first time ever, its results achieve an accuracy that makes it seem realistic to use them as primary data in archaeological research. On the other hand, the comparison between conventional archaeological ages and ages based on  $^{14}\text{C}$  still reveals significant discrepancies, at least for the Bronze and Iron Ages, the periods that are of special interest to us here. Until it is universally agreed that satisfactory explanations can be found to solve these issues, there is no justifiable reason why we should replace conventional archaeological dating by the results obtained through  $^{14}\text{C}$ . In this article we shall provide an overview of the current situation and propose a more radical evaluation of  $^{14}\text{C}$  over and against undisputed historical-archaeological ages. Only if the necessity of this approach is sufficiently appreciated, significant progress can be made in the field.

Please visit the site:

[https://www.academia.edu/142939896/Open\\_Questions\\_Regarding\\_the\\_Reliability\\_of\\_14\\_C\\_Dating\\_in\\_the\\_Context\\_of\\_Ancient\\_Near\\_Eastern\\_Chronology?email\\_wor rk\\_card=view-paper](https://www.academia.edu/142939896/Open_Questions_Regarding_the_Reliability_of_14_C_Dating_in_the_Context_of_Ancient_Near_Eastern_Chronology?email_wor rk_card=view-paper)

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# **BRONZE AGE PURPLE DYE PRODUCTION ON CHRYSSI ISLAND, BY THOMAS M. BROGAN, DIMITRA MYLONA, CHRYSΑ SOFIANOU, VILI APOSTOLAKOU, MELISSΑ EABY, PHILIP P. BETANCOURT**

## **PORPHYRA**

The Materiality of Purple Dye Production and Use in Cyprus and the Aegean from Prehistory to the Late Roman Period

Edited by D. Mylona, T.M. Brogan, M. Eaby and M. Iacovou

© Presses universitaires de Louvain, 2025

Registration of copyright: D/2025/9964/15

ISBN: 978-2-39061-578-1

ISBN PDF version: 978-2-39061-579-8

Printed in Belgium by CIACO scrl – printer number 108629

## **Introduction**

Evidence from survey and excavation on the small island of Chryssi is shedding new light on the production of purple in the Cretan Middle and Late Bronze Age (Apostolakou et al. 2016; Brogan et al. 2019; Sofianou 2020). The island was surveyed first by Chalikias in 2007 (Chalikias 2013a). His study, exploring the settlement history on Chryssi, identified 28 sites (Fig. 3.1) which attest to small-scale habitation or exploitation during the Final Neolithic, Bronze Age, Hellenistic, Roman, Early Byzantine and Venetian periods. One site (Fig. 3.1: no. 1) near the modern lighthouse or Pharos in the north-western part of the island was particularly interesting because of the large numbers of crushed purple shells found on the surface together with Middle and Late Bronze I pottery. In response to the growing pressure of tourism on the island, the directors of the Lasithi Ephorate decided to probe the site with a series of excavations: rescue work under Vili Apostolakou from 2008-2009 and systematic excavation since 2016 by Ch. Sofianou. From the beginning it was hoped that the results of the survey and recent excavations would help preserve and promote the important ancient remains on the island, which also fit nicely into current discussions about the archaeology of small islands around Crete, the Aegean and the wider Mediterranean (Broodbank 2000; Rainbird 2007; Bevan & Connolly 2013; Chalikias 2013a; Knodell et al. 2020). During the 2008 and 2009 excavation seasons, the team uncovered a well-preserved building, B.1 (Fig. 3.2), which appeared to serve as a Bronze Age workshop producing purple dye (Apostolakou et al. 2016; Brogan et al. 2019). Subsequent excavations have uncovered more of this settlement and its maritime aspects, including the exploitation of a wide range of marine resources and trade. This paper focuses on the archaeology of the purple dye workshops on Chryssi in the Protopalatial and Neopalatial periods and attempts to outline the cultural context in which they functioned.

**Please visit the site:**

[https://www.academia.edu/143198284/Bronze\\_Age\\_Purple\\_Dye\\_Production\\_on\\_Chryssi\\_Island?email\\_work\\_card=view-paper](https://www.academia.edu/143198284/Bronze_Age_Purple_Dye_Production_on_Chryssi_Island?email_work_card=view-paper)

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**LE TEMPS ET SES NOMS - CONSTRUIRE**  
**UNE CHRONOLOGIE ÉGÉO-BALKANIQUE**  
**DU 7<sup>E</sup> AU 4<sup>E</sup> MILLÉNAIRE AVANT J.-C.,**  
**BY ZOÏ TSIRTSONI**

Collection et numéro : [BEFAR](#) 419

Année de parution : 2025

Éditeur(s) : École française d'Athènes

ISBN : 978-2-86958-609-3

The book focuses on the relative and absolute chronology of the long period—about 3,500 years—known in Greece as the “Neolithic.” The diversity of chronological divisions and terminologies, within Greece as well as in neighboring Bulgaria and western Turkey, combined with the uneven distribution and variable quality of available dates, makes it particularly difficult today to establish temporal parallels between the phenomena observed in different places. To remedy this, the author proposes a new periodization scheme—neutral, reliable, and applicable across the entire region—which can be used either independently or as a reference standard between existing systems. It is based on the stratigraphic sequences of 146 archaeological sites from the three countries, which have yielded around 2,000 dates, mainly obtained through the radiocarbon method (14C). More than half of these dates are further analyzed in detail and modeled using Bayesian methods, allowing for the validation and refinement of the new scheme. This unprecedented undertaking lays the foundations for a renewed understanding of this crucial period, which witnessed—though at different paces across regions—the emergence and diversification of agropastoral economies, pottery, architecture, cemeteries, and metallurgy. Designed for archaeologists specializing in the Aegean and Balkan prehistory, as well as for anyone interested in the measurement of time, dating methods, and the integration of chronological data into historical narratives, the new scheme—reliable and easy to use—offers a shared standard for the entire corpus, which should prove equally valuable to other disciplines (geography, natural sciences, genetics) engaged in large-scale modeling.

*Zoï Tsirtsoni is Director of Research at the CNRS (UMR 7041 “Archéologies et Sciences de l’Antiquité”). A former member of the French School at Athens and co-director of the Franco-Hellenic research program at Dikili Tash, she specializes in pottery, settlement patterns, and the chronology of the Aegean–Balkan world from the 7th to the 2nd millennium BC.*

Please visit the site: <https://editions.efa.gr/?r=publication&id=1106>

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**FOTIS KONTOGLOU: A PRELIMINARY  
NON-INVASIVE STUDY OF PAINTING  
MATERIALS IN ICONS FROM LACONIA,  
PELOPONNESE, BY FLORENTIA  
ALIPRANTI, GEORGIOS P.  
MASTROTHEODOROS AND CHRISTOS  
KARYDIS**

*Heritage 2025*, 8(12), 528

**Abstract**

Fotis Kontoglou (1895–1965) was a prominent Greek painter and writer, known primarily for revitalizing byzantine painting in the 20th century and being one of the first artist-conservators in Greece active at this period. The current study represents the first systematic attempt to examine seven (7) icons (i.e., ecclesiastical panel paintings) attributed to Kontoglou, currently located in two famous monasteries in Laconia, Greece. The research utilized exclusively non-destructive analytical techniques, namely digital optical microscopy, UV-induced visible fluorescence photography (UVIVF), and portable X-ray fluorescence (p-XRF) spectroscopy, to identify the materials—particularly pigments—employed in the corresponding paintings. The results are interpreted under the light of Kontoglou's own writings on painting, in particular his “Ekphrasis” painting manual. Preliminary assessments of surface morphology and state of preservation were achieved through macroscopic and microscopic probing, as well as through inspection under ultraviolet light, while further analysis was performed using portable X-ray fluorescence spectroscopy. The results confirm the employment of both traditional and modern synthetic inorganic components, while comparisons with the pigments listed in Kontoglou's “Ekphrasis” painting manual suggest his persistent use of a rather limited palette of pigments. Nevertheless, despite the fact that the paintings were executed in a small period of time (1954–1956), data revealed notable differentiation between the studied icons, which probably indicates procurement of materials from various sources. Given the scarcity of technical investigations of modern (20th century) paintings, this study is relevant and reveals some interesting hints, which may pertain to the trends of the mid-20th century Greek paint market, like, e.g., the rather limited distribution of Ti-white. Additionally, the current findings contribute considerably towards understanding Kontoglou's artistic methods during a highly creative period and can be utilized to support future conservation efforts. Ultimately, the current preliminary study sheds light on some methodological aspects of the pertinent research and assists towards establishing a detailed protocol for future studies.

**Keywords:**

pigment; zinc white; gilding; XRF; UV photography; digital optical microscopy

Please visit the site: <https://www.mdpi.com/2571-9408/8/12/528>

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**FEEDING THE DEAD, SUSTAINING THE  
LIVING : AN ARCHAEOBOTANICAL STUDY  
OF MYCENAEAN ELEON IN BOEOTIA,  
GREECE, BY GKINOUDIS, SYMEON, VAN  
DAMME, TREVOR, BURKE, BRENDAH,  
BURNS, BRYAN AND MARGARITIS, EVI**

(2025), *Journal of Archaeological Science : Reports* .  
ISSN 2352-409X. (In Press)

**Abstract**

Eleon is located in east Boeotia, on mainland Greece. Research conducted by the Eastern Boeotia Archaeological Project has revealed a long-lasting occupational sequence at the site. At the beginning of the Late Bronze Age, a monumental burial enclosure, the Blue Stone Structure, was constructed on the east side of the plateau. Settlement remains from both the Palatial and Post-Palatial periods have been documented, with the latter being more extensively explored and better understood. This study presents new archaeobotanical macroremains recovered from MH III-LH I burial and LH IIIA-C settlement contexts. In the Blue Stone Structure, the plant remains retrieved—mainly cereal crops, but also pulses, and tree fruit/nuts—indicate deliberate destructions by fire, as part of mortuary customs and feasting events. A diverse, but very fragmented, plant assemblage was retrieved from Palatial period contexts (Structure A and the Northwest Complex). This fact does not allow us to determine in detail the nature of agricultural practices or to identify shifts in production that occurred during the Post-Palatial times. A more significant and better preserved archaeobotanical assemblage was recovered from the Post-Palatial period contexts (Northwest Building, Structures B and C). During this period, diversification in production is implied, with an emphasis on cereals and, to a lesser extent, pulses.

Please visit the site: <https://wrap.warwick.ac.uk/id/eprint/195484/>

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## **ΕΙΔΗΣΕΙΣ - NEWS RELEASE**

# **BEHIND THE SCENES OF BERLIN'S PERGAMON MUSEUM RENOVATION, BY ELIZABETH GRENIER**

Berlin's iconic Pergamon Museum is closed for extensive renovation work. With a wing of the museum due to reopen in 2027, here's a sneak peek at some of the treasures inside.

As part of the UNESCO-listed Museum Island, the Pergamon Museum is one of Berlin's "must-see" attractions. But seeing it isn't so easy: It has been completely closed for renovation since October 2023, and many parts will remain closed for 14 to 20 years — until 2037 to 2043.

However, some of the museum's main highlights will be greeting visitors a decade before the rest of the building's refurbishment is completed.

The north wing of the museum and the impressive Pergamon Altar hall, housing the famed Ancient Greek temple entrance for which the museum is named, are due to reopen in early 2027. The hall has been inaccessible since 2014.

A preview event for the press on December 4 provided insight into the museum's monumental restoration project.

"This is a treasure of humanity," noted Wolfram Weimer, federal government commissioner for culture and the media, at the presentation. "This will be a sensation. We're not expecting hundreds of thousands of visitors here in the coming years; we're expecting millions, because it's designed as a location of global significance."

### **Securing outdated structures**

The Pergamon Museum was commissioned by German Emperor Wilhelm II and built from 1910 to 1930 according to plans by Alfred Messel. The museum's restoration and additions follow many of the architect's original designs.

The museum is a protected national heritage site, and the renovation preserves its main architectural attributes and original building techniques, as well as various elements such as the windows.

A few years after the Pergamon Museum opened in 1930, it was severely damaged during World War II, suffering from air raids and artillery fire.

After the war, the East Germany — where the museum was located — did not have the necessary funds to properly refurbish the building.

The current restoration process will preserve some traces of war damage as a testimony to the city's history, while the parts that have naturally deteriorated over time are being repaired.

The lighting, climate control and security standards are being modernized to better conserve the millennia-old exhibits, and the entire museum is being made accessible to individuals with disabilities.

### **Unstable foundation, unexpected costs**

The museum required significant reinforcement due to its location next to the Spree River on unstable, sandy ground. The foundations were anchored with more than 700 high-strength steel bars known as micropiles.

This led to an unexpected engineering challenge: While drilling 10 to 30 meters (30 to 100 feet) into the earth to install the micropiles, two pumping stations from the initial construction site were discovered. Built to drain groundwater, they were never completely dismantled, and the remains had been covered without being documented, leading to an unplanned step (and costs) in the restoration process.

The budget for this first phase of renovation has reached nearly €500 million (\$580 million) — twice as much as initially estimated. The entire restoration project is planned to cost about €1.5 billion.

### **The highlights to be (re)discovered in 2027**

So what treasures will once again be accessible to the public in 2027?

The monumental Pergamon Altar, excavated by Carl Humann in the ancient city of Pergamon (in present-day Turkey) in the 1870s, retains its own hall.

The Pergamon Museum was designed around the monumental altarImage: Elizabeth Grenier/DW

The original museum was custom-built around this temple structure dating back to the 2nd century BC. Decorated with a frieze in high relief depicting the battle between the Giants and the Olympian gods, the altar has been described in classical lists as one of the Seven Wonders of the Ancient World.

The space, more impressive than ever, is now flooded with light, as the ceiling's glass elements have been completely renewed. A new protective roof structure, also made of glass, has been added above the hall.

As it would have been too complicated to remove the altar from the building during the refurbishment, its elements were kept within the room, protected by casings specially built for the restoration phase.

"It's quite exceptional to build and renovate a building amid its existing collection," Weimer noted.

Pergamon Altar elements that were protected for the renovation period could be seen at the December 4 press eventImage: Elizabeth Grenier/DW  
However, other major exhibits were moved to new spaces.

Among them is the Mshatta Facade, a treasure of early Islamic art. It dates back to the era of the caliph Al-Walid II (743-744 AD) during the Umayyad period. Excavated in 1840 near Amman (the present-day capital of Jordan), the 33-meter-long (108-foot-long) palace facade was given by Ottoman Sultan Abdul Hamid II to Emperor Wilhelm II of Germany in 1903.

The Aleppo Room, a series of intricately painted wooden panels belonging to a reception room, was also cautiously dismantled during the renovation work and moved from the south wing to the north wing of the museum. The paintings, which have been splendidly renovated, merge Christian and Islamic iconography and were purchased in Aleppo in 1912.

The Aleppo Room features wooden panels with intricate paintings and carvingsImage: Elizabeth Grenier/DW

The Alhambra Cupola, an intricately carved wooden dome dating back to the 14th century, was also temporarily relocated. Its post-renovation space will include various features designed to stimulate visitors' senses, such as audio installations with poetry, as well as fragrance stations emitting odors related to the cedar and poplar wood dome's origins.

The dome was acquired in 1885 from the famous former palace in the Alhambra, the historic citadel of Granada, Spain. Originally installed in a private house, it was donated to the Pergamon Museum nearly a century later.

### **A unique combination of Islamic Art and Antiquity**

The Pergamon Museum's collection is unusual in how it brings together Islamic Art and Ancient Greek treasures.

"What you see here is unique worldwide, namely that under one roof there are architectural styles from different ancient regions and times," noted Marion Ackermann, director general of the Prussian Cultural Heritage Foundation, which oversees various museum collections including the Pergamon Museum, at the press presentation.

This concept, added Ackermann, was already established with the museum's founding to mark the fact that its Antiquity exhibits had been excavated in Mesopotamia and eastern Mediterranean regions — the same regions where Islamic cultures developed.

"This simply shows once again that cultures never arise in complete isolation. They always exist through interaction with one another or in transcultural processes," said Ackermann. "And that is, of course, a very contemporary and forward-looking way of thinking."

Fans of world heritage can now look forward to discovering the meticulous and bright restoration of this museum — in spring 2027.

Please visit the site: <https://www.dw.com/en/behind-the-scenes-of-berlins-pergamon-museum-renovation/a-75026467> [Go there for pix and embedded linx]

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## **HUGE SECTION OF JERUSALEM'S 'FIRST' CITY WALL FOUND BENEATH PRISON,**

### **BY RUTH SCHUSTER**

Hasmonean Jerusalem had a bristling stone city wall five meters thick to protect the people against the bitter enemy, but that apparently isn't who brought the wall down 2,000 years ago

A 40-meter-long section of the ancient city wall of Jerusalem, a monster edifice around five meters thick, has been unearthed within the grounds of the Kishle prison complex that dates to the Turkish and British periods. It was found right by "David's Citadel," which actually dates to King Herod's time.

The newly uncovered section of wall is one of the most complete and longest to be discovered in ancient Jerusalem to date, the Israel Antiquities Authority said on Monday. They date it to the Hasmonean period, which began in the second century B.C.E., the period of the Second Temple, and it must have been a daunting sight to the foul enemy.

This Hasmonean city wall may have risen as tall as 10 meters in height, the archaeologists guess based largely on precedent, and the width of its foundations. That is well above the height of the present city wall, which dates to the Ottoman period. Nor was any of that the baked mud brick used to wall lesser cities. It was constructed using the white limestone typical of Jerusalem construction.

The excavation in the prison, directed by Dr. Amit Re'em and Dr. Marion Zindel of the IAA, is being done ahead of construction works, the IAA reveals – an archaeology and art wing is to arise in the complex of incarceration.

The archaeologists call this the "first city wall" of Jerusalem, but that may be something of a misnomer, Re'em tells Haaretz by telephone. It seems this wall followed the trajectory of older fortifications. It was built some decades after the "Hanukkah event" (a rebellion against the Seleucids) and makes the present city wall, which mostly dates to Ottoman reconstruction, look pitiful.

During the Second Temple period, the wall would have also surrounded Mount Zion, which the Ottoman wall does not. Mount Zion is outside today's wall, but sections of the ancient wall have been found there as well as in the City of David, located south of Temple Mount, and elsewhere.

For all its might, the wall was destroyed, dismantled, pulled down and was thereafter gone; this was not done by howling enemy soldiers with bloodied spears, but by workers laboring under meticulous instructions, the archaeologists believe; and the million-shekel question is who did it.

The Roman-Jewish historian of dubious reputation, Yosef ben Matityahu or Josephus, who would be captured by the Romans in the battle over Yodfat, wrote in detail about the

mighty Jerusalem wall and its gates, calling it "impregnable" with no less than 60 guard towers along its length.

Maybe it was impregnable. "It is clear that it was systematically destroyed and razed to the ground. This is predetermined destruction – not the result of the ravages of time, nor of enemy attack," says Re'em. "This raises questions about who was responsible for the wall's destruction."

That it does. One theory is that it was dismantled by the very people who built it – the Hasmoneans, as part of the settlement reached with the overlord – at the time, Antiochus VII Sidetes, the last Seleucid king, who ruled from 138 to 129 B.C.E. He besieged Jerusalem, but that didn't end in fiery conquest but in an agreement.

According to Josephus, the cowed Hasmonean leader John Hyrcanus I reached a peace agreement with Sidetes, who may have been richly bribed with treasures pilfered from the tomb of King David. Sidetes also demanded that the city wall be pulled down and maybe that is exactly what happened, leaving behind only the stumps that archaeologists have been uncovering today.

Another possibility, however, is that perhaps King Herod "the builder" did it himself, jealously bidding to distinguish the wonder that was he from the Hasmonean kings. He may have deliberately pulled down their hallmark construction projects, including their monumental city wall, as a political statement, the archaeologists say, as in – Here today, gone tomorrow, but right now I am here.

Supporting this thesis is the fact, Re'em explains, that this great wall was found dug into the foundations of Herod's palace, which was one of the great structures of ancient Jerusalem, hailed for its treasures by Josephus, who compares its dimensions and beauty to the great Temple itself.

"So we think the one who pulled it down may have been Herod," Re'em sums up. "Why would he do that? Why not use the wall to continue protecting his palace and city? We think Herod wanted to send a message to the Jewish population: 'Guys, the time of the Hasmoneans is over; the Jewish kings are over; I'm here.' How do you send such a message at the time? You destroy the Hasmonean monuments, dismantle them and get the message through loud and clear."

Anyway this likely wasn't the first fortification of Jerusalem. Josephus speaks of an old wall that he thinks was built by David and Solomon, which would place its construction in about the 10th or ninth century B.C.E. The archaeologists may now have uncovered what could be the smoking gun of an earlier wall before the Hasmonean one, from the time of the First Temple, Re'em sums up.

In any case, the great wall surrounding Hasmonean Jerusalem hadn't been a victim of war because the dismantling was too systematic, yet terrible battle had been done there. Earlier excavations at the base of the "First Wall," done by Renee Sivan and Giora Solar, discovered a vast amount of catapult stones, hundreds of arrowheads, sling-stones and lead "bullets" from the Hellenistic period, which they identify with the Seleucid siege. Unable to penetrate that monster wall, the weapons of destruction raining down from the foul enemy fell uselessly at its base.

Please visit the site: <https://tinyurl.com/3ud3b6pc> [Go there for pix & caps]

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## **THE BRIGHT SIDE: EGYPTOLOGISTS FIND 225 'EXCEPTIONAL' FIGURINES IN PHARAOH'S TOMB**

A French team of excavators found hundreds of funerary figurines in a pharaoh's tomb in Tanis, Egypt, in early October, uncovering a long-standing mystery of who was buried in the sarcophagus.

A treasure trove of 225 funerary figurines has been discovered inside a tomb in the ancient Egyptian capital of Tanis in the Nile Delta, a rare find that has also solved a long-running mystery.

"Finding figurines in place inside a royal tomb has not happened in the Tanis necropolis since 1946," French egyptologist Frederic Payraudeau told reporters in Paris on Friday.

Such a find has also never happened before further south in Egypt's Valley of the Kings near modern Luxor – apart from the tomb of the famous boy king Tutankhamun in 1922 – because most such sites have been looted throughout history, he added.

Payraudeau, who leads the French Tanis excavation mission, said the remarkable discovery was made on the morning of October 9.

The team had already excavated the other three corners of a narrow tomb occupied by an imposing, unnamed sarcophagus.

"When we saw three or four figurines together, we knew right away it was going to be amazing," Payraudeau said.

"I ran out to tell my colleagues and the officials. After that it was a real struggle. It was the day before the weekend – normally, we stop at 2pm. We thought: 'This is not possible.'"

The team then set up lights to work through the night.

It took 10 days to carefully extract all of the 225 small green figurines.

They were "carefully arranged in a star shape around the sides of a trapezoidal pit and in horizontal rows at the bottom", Payraudeau said.

The funerary figurines, which are known as ushabti, were intended as servants to accompany the dead into the afterlife.

More than half the figurines are women, which is "quite exceptional", Payraudeau said.

Located in the Nile Delta, Tanis was founded around 1050 BC as the capital of the Egyptian kingdom during the 21st dynasty.

At the time, the Valley of the Kings – which had been looted during the reign of pharaohs including Ramses – was abandoned and the royal necropolis was moved to Tanis, Payraudeau said.

### **One mystery leads to another**

The royal symbol on the newly discovered figurines also solves a long-standing mystery by identifying who was buried in the sarcophagus.

It was Pharaoh Shoshenq III, who reigned from 830 to 791 BC.

This was "astonishing" because the walls of a different tomb at the site – and the largest sarcophagus there – bear his name, Payraudeau said.

"Why isn't he buried in this tomb?" the expert asked.

"Obviously, for a pharaoh, building a tomb is a gamble because you can never be sure your successor will bury you there," he said.

"Clearly, we have new proof that these gambles are not always successful," Payraudeau said with a smile.

Shoshenq III's four-decade reign was turbulent, marred by a "very bloody civil war between upper and lower Egypt, with several pharaohs fighting for power", he said.

So it is possible that the royal succession did not go as planned, and the pharaoh was not buried in his chosen tomb.

Another possibility is that his remains were moved later due to looting.

But it is "difficult to imagine that a 3.5 by 1.5 metre granite sarcophagus could have been reinstalled in such a small place," Payraudeau said.

After the figurines are studied, they will be displayed in an Egyptian museum, Payraudeau said.

**Please visit the site: <https://www.france24.com/en/live-news/20251205-amazing-figurines-find-in-egyptian-tomb-solves-mystery>**

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## **MAPPING TROY'S LUWIAN CONTEXT - STUDY MAPS BRONZE AGE ANATOLIAN SITES, BY NATHAN STEINMEYER**

For some, the first thing the name “Troy” brings to mind is the 2004 Brad Pitt film, if not the ancient Homeric epic, the Iliad, on which the movie is loosely based. But one thing people generally do not think about is the Luwians, who inhabited most of western Anatolia during the Bronze and Iron Ages. And that is a problem, because no matter how they might be portrayed in modern pop culture, the Trojans were not Greek. Nor were they Hittites, the imperial power that dominated Anatolia for much of the period. Instead, the Trojans belonged to the oft-forgotten Luwian civilization.

### **Identifying a Civilization**

In a paper published in the journal *Nature Scientific Data*, an international team from the Luwian Studies Foundation provided the most up-to-date map of Middle and Late Bronze Age (c. 2000–1200 BCE) Luwian settlements ever catalogued, which includes ancient Troy. The study, comprising 483 settlements, illuminates the cultural landscape around Troy and challenges long-standing scholarly assumptions. Alongside the scientific article, the team also published an interactive settlement map that provides an incredible wealth of information on each site, including archaeological and chronological data.

To capture the information, the team participated in dozens of excavations and surveys, producing more than 400 scientific publications on the various Luwian sites they studied. The sites are spread across much of western Turkey and cover an area roughly the size of Germany. The study pushes back against the standard view that ancient western Anatolia was simply a land caught between Hittite and Mycenaean influence, despite the region’s wealth of resources, as evidenced by the many important cities that later emerged there in the Hellenistic and Roman periods.

The site of Troy, widely identified with modern Hisarlık in northwestern Turkey, lies just south of the Dardanelles Strait. In Hittite writings, the city was known as Wilusa, a name related to the classical Greek Ilios (Iliad), a secondary name for the more familiar Troia (Troy). Troy would have been one city among the wealth of Luwian sites. As Eberhard Zangger, President of the Luwian Studies Foundation, told *Bible History Daily*, “We consider Troy to be the epitome of a Luwian town.”

Zangger was quick to point out, however, that modern cultural terms such as Mycenaean, Hittite, or even Luwian are ultimately no more than terms of convenience. “Some 3,000 years ago, identities of this kind did not exist in the clear-cut forms we use today. When we speak of ‘Luwians,’ we are referring to a region whose inhabitants certainly did not regard themselves as part of either the Mycenaean or the Hittite cultural spheres. Linguistically and ethnically, this area was home to numerous tribes and groups. People would have identified primarily with their city-state.”

Please visit the site: <https://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-near-eastern-world/mapping-trovs-luwian-context/> [Go there for pix]

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## **UNKNOWN ALPHABET IN DEAD SEA SCROLLS HAS BEEN CRACKED, SCHOLAR SAYS, BY RUTH SCHUSTER**

Cryptic B was considered impenetrable because there's so little material. Then, Emmanuel Oliveiro, a scholar in the Netherlands, noticed what looked like the word 'Yisrael'

Decades after a number of unknown alphabets were discovered among the Dead Sea Scrolls, and against all odds, Emmanuel Oliveiro of the University of Groningen in the Netherlands believes he has cracked the "impossible" one known as Cryptic B.

The code had been considered to be impossible to decipher, mainly because of the sheer paucity of Cryptic B material. All we have are isolated fragments from two scrolls called 4Q362 and 4Q363, and a few spots in other scrolls where scribes briefly introduced Cryptic B in the middle of a Hebrew text, Oliveiro explains, in the journal *Dead Sea Discoveries* in December.

Oliveiro's process was based on analysis and intuition, similar to the methodology the scholar Józef Milik used when deciphering Cryptic A in 1955. Both began with assuming that they were dealing with a mono-alphabetic substitution system—where each of the 22 letters of Hebrew or Aramaic is consistently replaced with a specific cryptic sign (as in – say A is always be replaced by \$).

Well and good. Oliveiro also saw similarities between Cryptic B and Cryptic A, and that Cryptic B also featured what looked like modified "Jewish" Hebrew letters.

But the key breakthrough was suddenly realizing that a sequence of five letters in a Cryptic B fragment might represent the five-letter Hebrew word Yisrael, spelled yod, sin, resh, aleph, lamed.

It is true that the resh did not survive the eons intact. But looking at the high-resolution image of the age-darkened fragment – the word יִשְׂרָאֵל (Yisrael) leaps out. "Once you've seen it, you can't unsee it," as Oliveiro tells *Haaretz* by Zoom.

The word 'Yisrael' in Cryptic B leaps out Credit: Courtesy of the Leon Levy Dead Sea Scrolls Digital Library, Israel Antiquities Authority/ Shai Halevi

The texts in 4Q362 and 4Q363 don't seem to be one-on-one identical to biblical texts, but echo biblical idioms and eschatological themes appearing in Qumran writings, he says - for example, "Judah", "shall forsake", and "the tents of Jacob".

He also identified a numeric theme in the scanty Cryptic B corpus, possibly referring to dates, which also resonates with the biblical corpus such as in Ezra 6:15: "This temple was completed on the third day of the month Adar; it was the sixth year of the reign of King Darius."

## Dark mysteries?

The discovery of the Dead Sea Scrolls starting in 1947 was a turning point in the annals of biblical studies. To date, we have four more or less complete scrolls and around 20,000 scroll fragments found in Qumran and surrounding caves by the Dead Sea; recent research expanded the span of their authorship from the 4th century B.C.E. to the 2nd century C.E. This is not the corpus of one or other Jewish sect; it is a collection from multiple sources and times, that was likely concentrated and sequestered in the desert caves during the multiple Jewish revolts against the Romans (from 66 to 136 C.E.).

Most of the Dead Sea Scrolls corpus was written in the square-shaped Jewish/Aramaic script. "A handful of manuscripts was written completely in paleo-Hebrew, and paleo-Hebrew also appears in a number of manuscripts written in standard script, particularly the name of YHWH (we have no idea why they did this)," Oliveiro says.

Also, some are in Aramaic, some in Greek and even in Latin. But there were some texts that were written in unfamiliar alphabets. Scholars initially identified three coded scripts that they called Cryptic Script A, B and C.

Later, Antony Perrot and Emile Puech deduced that Cryptic C was actually paleo-Hebrew cursive and that a parchment in Cryptic C wasn't a copy of biblical lore but apparently described "armed bands" devastating a city sanctuary. They postulate this might refer to the contamination and looting of the Jerusalem Temple by Antiochus IV Epiphanes during his campaigns in 170-168 B.C.E.

So much for Cryptic C; that left two. The assumption was that encrypted texts conveyed powerful mystical secrets not meant for casual access by the unwashed masses but only by the spiritually meritorious and literate. Such as horoscopes, it turned out, after Cryptic Script A was deciphered in 1955 by Józef Milik.

The consensus by now is that the cryptic texts didn't hide the secrets of the supernatural, Oliveiro explains. So why would the ancients have resorted to such contortions? Perhaps, he suggests, "not to achieve encryption in the modern sense but rather to convey a prestige to a text. If you could read it, you had access to these manuscripts and were probably of a certain class or ranking within this pious community." In other words it was more than fancy calligraphy, but short of modern coding.

Very short. "Mono-substitution is very powerful but the weakness of single substitution is that a language has patterns, so if you find the pattern, you can crack the substitution code – which is what I did here," Oliveiro says.

So Cryptic B couldn't be casually read by any erudite donkey-driver, but anybody literate in Hebrew could figure out the texts with some intuition and imagination.

The problem dogging Cryptic B scholars over the decades, that not even Cousin AI could resolve, was the paucity and poor preservation of the material. There was just so little of it. Also, Oliveiro explains, assuming a rigid mono-alphabetic substitution system and assuming that Cryptic B was like Hebrew or Aramaic and written using 22 letters, that produces 22 ( $\approx 1.1 \times 10^{21}$ ) theoretical letter combinations.

Nobody wants that. It is an unworkable number. How could it be reduced? Half a century ago, Milik decrypted Cryptic A using "an array of paleographic, linguistic, pattern-recognition, and deductive approaches" – and intuition, a methodology to which Oliveiro pays homage.

He began with seeking recurring patterns of letters in 4Q362, and searching for the same patterns within the Hebrew Bible and Qumran corpus. The eureka moment was when he realized that he was looking at a sequence of signs that might represent the word יִשְׁרָאֵל in 4Q362.

The first letter resembled a yod with an additional stroke;

the second was a paleo-Hebrew he, which was used in Cryptic A as a shin;

the third letter was in bad shape but resembles a paleo-Hebrew resh;

the fourth is the same as a Cryptic A aleph;

and the fifth is a regular Jewish lamed with an embellishment.

So, what had he? Five different signs – like a, b, c, d, e. Pattern searches in the biblical corpus for words consisting of five different letters produced יִשְׁרָאֵל as the first or second most frequent result, meaning the statistically most probable.

Identifying the letters of Yisrael was key to decrypting the remainder of Cryptic B, most of it, anyway; five signs remain enigmatic because of their rarity and the terrible condition of the manuscripts. But, he argues, these missing elements do not appear to undermine the overall validity of the decryption.

Christopher Rollston, professor of Biblical and Near Eastern Languages and Civilizations at the George Washington University and an expert on biblical apocrypha and ancient Hebrew and Greek, accepts Oliveiro's decipherment of the Qumran Cryptic B script as plausible, albeit difficult to verify.

"Oliveiro's methodology is reasonable, and it is also the same basic 'tried and true' methodology which has been used on other undeciphered scripts in the past. However, because of the extreme dearth of well-preserved manuscripts written in the Cryptic B script, testing and proving Oliveiro's decipherment on additional manuscripts (with the intent of being able to duplicate the results) is practically impossible," Rollston says, explaining the caution.

### **Can't see me**

Well, what is certain in this life? Looking at photographs of 4Q362 is frustrating. You can't see a thing. Of this manuscript, researchers have identified 21 fragments ranging in height from 9 to 33 millimeters and widths ranging from 8 to 25mm, each with one and five lines. But the leather blackened with age and the writing is only legible under infrared light, Oliveiro explains.

The writing was done in black ink and many letters are inconsistent in shape and proportion, both within and between fragments. Spacing between them is inconsistent too.

Pictures of 4Q363 are no better. There are ten fragments s, with heights ranging from 12–67mm and widths ranging from 16-70mm, ranging in color from orange to dark brown. Each fragment has one or two lines of text; there are inconsistencies and what seem to be corrections.

"The manuscripts of Cryptic B display considerable variation in letter forms, spacing, and general scribal execution," Oliveiro observes. Also, the two manuscripts exhibit minor variations between otherwise identical letter forms (e.g., bet, he, khet, and mem), he writes; and there are more significant differences in the signs for specific letters, especially lamed and tav.

What can we make of the scribal quality seemingly being all over the place? Could that smack of apprentice scribes undergoing training? No.

First of all, even the finest parchments from the past exhibit signs of correction and inconsistency, Oliveiro answers. Maybe the parchment was for internal use so they weren't being fussy about the handwriting. Maybe the scribe was in a hurry and might have had mad talent but was being uncaring; when writing a shopping list, you don't tap your inner calligrapher.

"The reason why I would not classify either of the manuscripts as writing exercises, is that, although both manuscripts are written rather irregularly - the tiny size of the handwriting of 4Q362 requires quite a lot of handwriting and fine motor skills, so it is not something one would expect of a person who is just learning to write," he says. In addition: "4Q363 is irregular, but the strokes are very fluid, suggesting that it was written by someone with a fair amount of writing experience (so again, not a novice)."

So what have we? It seems the two Cryptic B manuscripts weren't copies of biblical texts *per se*; they weren't done as exercises by novice scribes; but because they're so fragmentary, more is hard to say. There may be mention of a grave but it isn't clear whose grave.

Oliveiro himself concedes that some of his interpretations are based on intuitive judgments and that five of the 22 letters, or almost 25 percent of the alphabet, remain challenging to identify. "All of this very much suggests that more work needs to be done before one can declare with certainty the decipherment of Qumran Cryptic B," Rollston sums up.

So, without certainty, Oliveiro cracked the impenetrable. "I told my friends and wife that I am going to try this and they're like, you could be stuck here for 40 years and never crack the code," he says. "And what do you hope to find anyway, a secret falafel recipe? But once I saw it – I think it was quite fast." How fast? About two months to cross the desert of Cryptic B and see Yisrael.

Please visit the site: <https://tinyurl.com/3radzxzs> [Go there for images] [See also <https://research.rug.nl/nl/publications/cracking-another-code-of-the-dead-sea-scrolls-deciphering-cryptic/>]

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## **SCIENTISTS DECODE 3,500-YEAR-OLD DNA—AND DISCOVER A BRONZE AGE COMMUNITY UNLIKE ANY OTHER**

High in the Pollino massif of southern Italy, a cave has been quietly holding its breath for thousands of years. Stone walls absorbed footsteps, whispers, rituals, and grief long before written history reached this rugged landscape. Today, that silence has finally been broken.

An international team of researchers led by scientists from the Max Planck Harvard Research Center for the Ancient Mediterranean in Leipzig and the University of Bologna has reconstructed, for the first time, the genetic and social profile of a Protoapennine community that lived in northwestern Calabria about 3,500 years ago. Their work, published in *Communications Biology*, transforms Grotta della Monaca from a shadowy archaeological site into a place populated by real people with families, movements, diets, and social rules.

This is not a story of kings or empires. It is the story of a small mountain community, preserved in bone and DNA, finally stepping back into the light.

### **Inside the Cave Where Lives Were Laid to Rest**

Grotta della Monaca lies deep within the Pollino massif, near Sant'Agata di Esaro in the province of Cosenza. The cave has long been known as one of Calabria's most important prehistoric sites. Archaeologists have already recognized it for its early evidence of copper and iron ore exploitation and for its use as a funerary space.

What the researchers did next changed everything. By analyzing ancient DNA extracted from human remains dated between 1780 and 1380 BCE, they were able to place this community within the broader genetic landscape of the Mediterranean Bronze Age. The cave was no longer just a hollow in the mountain. It became a lens through which an entire way of life could be seen.

The Protoapennine culture, a cultural horizon attested in Southern Italy around the Middle Bronze Age, had left behind artifacts and burial traces. What had been missing was the people themselves—their relationships to one another, their origins, and how they fit into the shifting human tapestry of prehistoric Europe. Grotta della Monaca provided that missing link.

### **Tracing Ancestry Across Water and Stone**

As the genetic data came into focus, a surprising picture emerged. The community buried in Grotta della Monaca shared strong genetic affinities with Early Bronze Age groups from Sicily. This connection speaks of contact across the Strait of Messina, a narrow stretch of water that has long linked Calabria and Sicily.

**Yet something was missing.**

“Our analysis shows that the Grotta della Monaca population shared strong genetic affinities with Early Bronze Age groups from Sicily, yet lacked the eastern Mediterranean influences found among their Sicilian contemporaries,” explains Francesco Fontani, first author of the study and affiliated researcher at the Max Planck Harvard Research Center for the Ancient Mediterranean. “This suggests that, while in contact across the Strait of Messina, Tyrrhenian Calabria followed its own demographic and cultural trajectories during prehistory.”

In other words, this was not a passive community absorbing influences from every direction. Despite contact and exchange, they followed their own path. Their genetic profile reflects a local story shaped by selective connections rather than broad assimilation.

### **A Community That Was Small, But Not Isolated**

At first glance, a mountain cave burial site might suggest isolation. The genetics told a different story. Among the individuals studied, two carried ancestral links to populations from northeastern Italy. These traces hint at long-distance mobility and gene flow across the Italian peninsula, even during a period when travel was slow and landscapes were unforgiving.

The genomes also revealed contributions from European hunter-gatherers, Anatolian Neolithic farmers, and Steppe pastoralists. These ancestral components were common in Bronze Age Europe, but here they formed a distinctive local signature. The people of Grotta della Monaca were not genetic outsiders, nor were they carbon copies of their neighbors. They were part of a broader human movement while maintaining a recognizable identity of their own.

This balance between connection and independence is one of the most striking features of the research. It paints a picture of a community that engaged with the wider world without losing its internal coherence.

### **The Cave as a Map of Family and Identity**

By combining genomic, archaeological, and anthropological data, the researchers uncovered patterns of sex- and kinship-based burial organization within the funerary area. The placement of individuals was not random. It reflected social structures, family ties, and shared identities that were meaningful to the living as they laid their dead to rest.

Then came a discovery that stopped the researchers short. Among the remains, they identified a parent-offspring union. This is the first genetic evidence of such a union ever documented in a prehistoric European context.

“This finding emphasizes the distinction between unambiguous biological evidence and its social meaning,” notes Alissa Mittnik, group leader at the Department of Archaeogenetics of the Max Planck Institute for Evolutionary Anthropology and co-senior author of the research. “This exceptional case may indicate culturally specific behaviors in this small community, but its significance ultimately remains uncertain.”

The data reveals what happened, not why it happened. The researchers are careful not to project modern interpretations onto ancient lives. What remains clear is that Grotta della Monaca holds evidence of social practices that were complex, possibly unusual, and deeply rooted in the community's cultural framework.

### **Milk, Mountains, and a Genetic Paradox**

Life in the Pollino massif was not easy. The terrain is steep, the climate demanding, and resources limited. Yet isotopic and genetic data reveal that this community practiced pastoralism and consumed milk and dairy products.

Here, the story takes an unexpected turn. Genetically, these individuals carried variants associated with adult lactose intolerance. By modern standards, they should not have been able to digest dairy without discomfort. And yet, they clearly relied on it.

According to Donata Luiselli, co-senior author of the study and head of the Ancient DNA Laboratory at the University of Bologna, this contradiction speaks volumes. She explains that it “illustrates how cultural adaptation can precede genetic evolution. These people had developed dietary strategies that allowed them to thrive in a challenging mountain environment, despite lacking genetic tolerance to lactose.”

Culture, in this case, moved faster than biology. Through processing, fermentation, or selective consumption, the community adapted its practices to its environment. Survival was not dictated by genes alone, but by knowledge passed down through generations.

### **Rethinking the Role of Caves in Protoapennine Life**

The findings also reshape how archaeologists understand the function of caves in Protoapennine society. Rather than being marginal or symbolic spaces used only occasionally, Grotta della Monaca appears to have been a central place of communal importance.

The cave functioned as a collective burial site that reinforced shared community identity and familial bonds. It was a space where social memory was built layer by layer, generation after generation. The dead were not hidden away. They were gathered together in a place that mattered.

This interpretation challenges older assumptions and places caves at the heart of social life rather than at its edges.

### **A Small Community That Reshapes Big Histories**

Felice Larocca, speleoarchaeologist and director of the research at Grotta della Monaca, underscores the broader importance of the site. “Situated over 600 meters above sea level in the Pollino massif, Grotta della Monaca continues to reveal key evidence about the first complex societies of Southern Italy—and, more broadly, about the biological and cultural roots of human diversity.”

What makes this research remarkable is not just what it reveals about one community, but how it reframes the story of prehistoric Europe. Large-scale migrations and sweeping cultural shifts often dominate narratives of the Bronze Age. Grotta della Monaca reminds us that small groups, living in difficult landscapes, made choices that mattered just as much.

### Why This Research Matters

This study matters because it restores humanity to prehistory. It shows that even 3,500 years ago, communities navigated identity, mobility, family, and survival with creativity and resilience. Through genetic evidence, we see that cultural practices could override biological limitations, that social rules shaped burial traditions, and that local histories unfolded alongside broader population movements.

Grotta della Monaca teaches us that the past is not silent. It waits patiently for the right questions, the right tools, and the willingness to listen. By reconstructing the genetic and social profile of a Protoapennine community, researchers have given voice to people who lived, adapted, and cared for one another in a mountain cave long before history was written.

In doing so, they remind us that human diversity, in all its complexity, has always been part of the story.

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More information: Francesco Fontani et al, Archaeogenetics reconstructs demography and extreme parental consanguinity in a Bronze Age community from Southern Italy, Communications Biology (2025). DOI: 10.1038/s42003-025-09194-2

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Please visit the site: <https://www.sciencenewstoday.org/scientists-decode-3500-year-old-dna-and-discover-a-bronze-age-community-unlike-any-other> [Go there for pix]

# **TOMB OF ANCIENT GREEK NOBLEWOMAN**

## **DISCOVERED - EXCAVATIONS REVEAL**

### **REMARKABLE BURIAL,**

### **BY NATHAN STEINMEYER**

During salvage excavations in central Greece, archaeologists discovered a cemetery dating to the Archaic and Classical periods (c. 800–323 BCE). It was what they discovered inside one specific grave, however, that they found most remarkable: the seventh-century BCE remains of a noblewoman attired in the finery of her status.

#### **Burying Nobility**

Excavations at the site of Spilia-Katavothra, located near the Oracle of Apollo at Delphi, revealed the remains of a fortified settlement and a large cemetery, the latter consisting of several pit graves, burial pyres, and tiled-roofed tombs. Many of the graves belonged to local landowning elites, but one grave stood out.

Dating to the second half of the seventh century BCE, the grave was the burial place of a young woman, aged 20 to 30. On the woman's head was a bronze-banded diadem, a symbol of nobility and wealth. The diadem was decorated in front with a large sun-shaped rosette. Around the band were pairs of male and female lions facing each other, another symbol of authority and wealth. The diadem was also placed upside down, an act that may have symbolized the death of a monarch or other royal figure. The burial featured many other impressive grave goods, including a pair of bronze buckles decorated with horses, bone and ivory beads, copper earrings, a bracelet, and spiral rings.

Together, the finds paint a picture of an incredibly important individual. Interestingly, the very time when the woman would have lived falls within a transitional period in the history of ancient Greece, when the classic system of hereditary kingship was being overtaken by the rise of oligarchical and aristocratic systems. Researchers believe the woman likely belonged to one of the powerful royal families that remained. Adding to this, another nearby grave held the remains of a young girl around four years old, who similarly wore a copper diadem inlaid with rosettes. This grave dates to about the same time and may have belonged to one of the woman's close relatives.

Please visit the site: <https://www.biblicalarchaeology.org/daily/ancient-cultures/tomb-of-ancient-greek-noblewoman-discovered/> [Go there for pix]

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