



Επιστημονικό Σωματείο,
Έτος Ίδρυσης 1982, έδρα:
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(Ένωση Ελλήνων Χημικών)
<http://archaeometry.org.gr>

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Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

- Φεβρουάριος 2023 -

Wait for the wisest of all counselors, time.

(Pericles)

Newsletter of the Hellenic Society of Archaeometry

- February 2023 -

Nr. 263

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ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

15TH IRUG INTERNATIONAL CONFERENCE & WORKSHOP, 25-29 SEPTEMBER 2023, TOKYO, JAPAN

[Tokyo University of the Arts](#) (Geidai), the [Tokyo National Research Institute for Cultural Properties](#) (Tobunken), and the Infrared and Raman Users Group ([IRUG](#)) are excited to confirm that the 15th IRUG International Conference will take place in the week **25-29 September 2023, in Tokyo, Japan** (the week after the [SWBSS Conference](#) in Nara, Japan and [ICOM-CCs 20th Triennial Conference](#) in Valencia, Spain). Papers and posters are invited on all aspects of IR and Raman spectroscopies and their application to the study of cultural heritage, with submissions on attenuated total reflection (ATR) or reflectance mode techniques encouraged. The in-person conference (Covid developments permitting) will also feature a **workshop on portable ATR and reflectance instruments** with emphasis on data acquisition, processing, and interpretation. The deadline for submission of abstracts (in English, no more than 1000 words please) and titles is **30 March 2023** and should be sent as an email attachment to IRUG15@ml.geidai.ac.jp. Further conference information and details will follow!

EAA ANNUAL MEETING, SESSION
“MULTIDISCIPLINARY APPROACHES TO
METALS: FROM ORE MINING AND METAL
PRODUCTION TO THEIR IMPACTS IN
HUMAN LIFE AND ENVIRONMENT”, 30
AUGUST - 2 SEPTEMBER 2023, BELFAST, UK

Dear list members,

The call for papers for the next EAA annual meeting (Belfast, 30 August - 2 September 2023) is open until **9 February 2023**: [EAA2023 Home](#)

We are organising a session entitled *Multidisciplinary approaches to metals: From ore mining and metal production to their impacts in human life and environment*. Proposals are very welcome.

These are the session details:

Session number: #609

MULTIDISCIPLINARY APPROACHES TO METALS: FROM ORE MINING AND METAL PRODUCTION TO THEIR IMPACTS IN HUMAN LIFE AND ENVIRONMENT

Theme: artefacts_buildings_and_ecofacts

Session organisers: **Noemí Silva-Sánchez** - Institute of Heritage Sciences (Incipit), CSIC, Spain; **Xosé-Lois Armada** - Institute of Heritage Sciences (Incipit), CSIC, Spain; **Emmanuelle Meunier** - CRBC, Université de Bretagne Occidentale - CREAAH, Université de Rennes, France; **Olalla López-Costas** - Ecopast, Cretus, Universidade de Santiago de Compostela, Spain; **Tim Mighall** - School of Geosciences, University of Aberdeen, United Kingdom.

Keywords: Metal studies, Experimental Archaeology, Mining Archaeology, Metallurgy, Palaeopollution, Human-animal remains.

Abstract

The investigation of metals, from ore extraction to object production, has always been multidisciplinary. Understanding ore extraction requires knowledge of mining archaeology and geology; metallurgy utilises evidence from material sciences and chemistry, including isotopic analysis to provenance metal sources and to reconstruct technological processes; palaeoenvironmental approaches, through palaeopollution reconstruction, provide diachronic information on past mining and metallurgy and their impact on the landscape, and metal studies on human and animal remains provide a direct

link with sociological aspects of metal use, medical treatments or cosmetics. The combination of these approaches enables a better understanding of the metal operational chain and reconstruct human behaviours behind them. It also contributes to answering questions about the social interactions around metal production and exchange, regarding the weight of metal production in ancient economies, and in relation to the environmental and socio-economic imprints on territory, as well of their impact in human lives. Each specialist brings part of the story and articulating them all together can be challenging.

This regular session attempts to build a bridge among all the approaches frequently used for the study of metals. There are no geographical or chronological limits to the contributions although we welcome multidisciplinary approaches that encourage a wider view of the full metal operational chain and a reflection on the strengths and weaknesses of multidisciplinary approaches applied to the study of metals.

The type of questions we want to address in this session are for example: How the aforementioned approaches can be combined to gain a better understanding of the extraction and use of ancient metals? Do palaeoenvironmental and archaeological data share a common narrative? To what extent the information generated for geological surveys is useful for the study of ancient metals? What was the impact of metals on human health and in archaeological soils?

Do not hesitate to contact us if you need any further information.

Kind regards,
Xosé-Lois Armada

6TH INTERNATIONAL INNOVATION IN ART RESEARCH AND TECHNOLOGY CONFERENCE (INART2024), 4-7 JUNE 2024, OSLO, NORWAY

Welcome to InART2024, a platform of knowledge-sharing in heritage science.

www.khm.uio.no/english/research/inart2024/index.html

The conference aims to merge natural sciences and conservation, providing a dynamic space for active interaction, scientific exchange, interdisciplinary contacts and debates on the central issues of heritage science research.

InART 2024 welcomes scholars from around the world who focus on research and conservation issues of artworks and archaeological materials.

Topics:

1. Development of new tools (devices, technology, software, etc), advanced data analysis and FAIR data management.
2. Development and /or implementation of new methods and routines (diagnostic and conservation) for the understanding of heritage materials, techniques and degradation processes (chemical, physical and biological).
3. Development, testing (includes mechanical testing), and characterization of new materials for conservation (special attention to *green treatments*).
4. Application of non-invasive / non-destructive techniques.
5. Preventive conservation: environmental monitoring techniques and climate / micro-climate effects on the conservation of heritage sites and exposed objects.

contact-inart2024@khm.uio.no

To submit your contribution, please refer to the suggested list of topics.

InART2024 wants to emphasize that many of the topics can have multiple perspectives.

Please visit the site: www.khm.uio.no/english/research/inart2024/index.html

2023 EAA ANNUAL MEETING, SESSION: #670 **NEOLITHIZATION OF THE** **MEDITERRANEAN: INTEGRATED** **APPROACHES TO OLD QUESTIONS, 30** **AUGUST - 2 SEPTEMBER 2023, BELFAST, UK**

The Call for papers for the 2023 EAA Annual Meeting in Belfast 2023 in Northern Ireland on 30 August - 2 September 2023, is now open.

We would like to invite you to our session:

#670 _ Neolithization of the Mediterranean: Integrated Approaches to Old Questions

Abstract: The spread of Neolithic lifeways, farming and herding, from the Middle East and Anatolia to the rest of the Mediterranean and Europe approximately 9 thousand years ago is a complex landmark event in the history of humankind that so far has been understood only in broad strokes.

Despite the extensive scholarship on the subject that includes studies of material culture, settlement, linguistic, archaeozoological, archaeobotanical, biogeochemistry and archaeogenetic data offering explanations about the processes involved, major questions remain concerning the specifics of demographic and cultural change, and chronology. Where population movement has been invoked to interpret change and cultural discontinuity, movements tend to have been simply identified as events, rather than further investigated as to the size, composition or organisation of the migrant groups, the motivation and consequences for all social groups involved, i.e. the people moving, the receiving communities as well as those staying behind.

This session therefore aims to shed new light on the Neolithic expansion through the Mediterranean in this context by studying population changes in detail and linking it to changes in material culture, language, lifeways and the socio-economic organisation of the populations involved, within a clear chronological framework. To this end we invite proposals for papers on this topic from a broad array of disciplines including archaeology, bioarchaeology, archaeogenetics, biogeochemistry, archaeodating, and linguistics.

Organisers:

Argyro Nafplioti (argyro.nafplioti@gmail.com) Çiğdem Atakuman (ciğdem.atakuman@gmail.com) Mehmet Somel (somel.mehmet@gmail.com)
Tristan Carter (stringy@mcmaster.ca)

We would be very happy to receive your abstract for an oral or poster presentation through the event website by the deadline on February 9th 2023, 23:59 CET. Please feel free to get in touch with us to discuss any questions you may have or ask for more information.

Submission instructions:

Proposals for oral or poster contributions should be submitted through the EAA website system indicating Session #670 “Neolithization of the Mediterranean: Integrated Approaches to Old Questions”.

Abstracts should be between 150 and 300 words long and the title should be maximum 20 words. Additional information can be found at the meeting’s website

MATERIAL RECONSTRUCTION OF THE DSS **USING DIGITAL TOOLS A HANDS-ON** **WORKSHOP, FEBRUARY 6-7, 2023, CALL** **FOR APPLICATIONS**

Researchers and graduate students are invited to submit applications for a practical workshop on material reconstruction of the DSS using digital tools.

The workshop will be a two-day, in-person, intensive course of a technical nature, where we will introduce participants to a wide variety of software and demonstrate many digital techniques. The workshop will not merely be theoretical but will include hands-on practice of methods and procedures required for digital reconstruction of scroll fragments, using participants' personal computers; each participant will choose or be assigned a section of a scroll on which to work for the duration of the workshop.

The goal of the workshop is to establish familiarity with the tools and methodology used in the digital reconstruction of ancient manuscripts and to provide the practical tools for an independent continuation of such research.

The workshop will be held February 6-7, 2023, at the Mount Scopus Campus, the Hebrew University of Jerusalem. There is no cost for the workshop itself, but participants will cover the cost of their own travel; accommodations will be partly subsidized (the Orion Center will assist you in reserving a room at Beit Maierdorf Faculty Club).

The Center will provide letters of acceptance that may be used to seek travel funding from home institutions. We gratefully acknowledge the Father Takeji Otsuki Chair of Biblical Studies, held by Prof. Michael Segal, and the World Union of Jewish Studies, for their generous support of the workshop.

The workshop will be conducted in Hebrew or English, depending on the makeup of the group.

Applicants are asked to fill out the application form at the link below. Please note: a one-page letter stating your academic background and interest in the topic of the workshop is required. The number of places is limited. Preference will be given to those with a background in Qumran scrolls research.

Application form:

Material Reconstruction of the DSS using Digital Tools שחזור חומרי דיגיטאלי של מגילות
קומראן <https://tinyurl.com/57978cus>

Workshop facilitators:

Dr. Asaf Gayer, Department of Land of Israel Studies and Archaeology, Ariel University.
Dr. Hila Dayfani, Center for Digital Humanities and Bible Department, The Hebrew University of Jerusalem; Oriel Centre for the Study of the Bible, University of Oxford.

For further details, please contact: asafgayer@gmail.com;
hiladayfani@mail.huji.ac.il.

11TH INTERNATIONAL CONFERENCE ON THE APPLICATION OF RAMAN SPECTROSCOPY IN ART AND ARCHAEOLOGY (RAA2023), NATIONAL GALLERY-ALEXANDROS SOUTZOS MUSEUM, ATHENS, GREECE

Dear Raman Enthusiasts!

We are pleased to announce that the abstract submission is now open for the 11th International Conference on the Application of Raman Spectroscopy in Art and Archaeology (RAA2023). The RAA2023 conference will be hosted by the National Gallery-Alexandros Soutzos Museum, Athens, Greece, in collaboration with Ghent University, Belgium.

For submitting your abstract to the RAA2023 conference, you are kindly invited to use the abstract template. The latter can be found at the conference website (<https://www.raa2023.ugent.be/>) together with the requirements of the abstract submission. **The abstracts must be submitted via the online system of the RAA2023 web page.**

Please note that **all abstracts should be submitted before 19th March 2023. This submission deadline is definitive and no extension is foreseen after this date. Abstracts received after this deadline will not be considered. The official language of the RAA2023 conference is English.**

*** Abstract submission is not an official registration. All presenting authors must be fully registered by 2nd of July 2023.**

Further information regarding both, the Raman spectroscopy training school and the RAA2023 conference, will be regularly updated on the conference website. For any questions do not hesitate to contact the conference chairs and the organizing committee by email to raa2023@ugent.be.

On behalf of the organizing committee of the 11th International Conference on the Application of Raman Spectroscopy in Art and Archaeology (RAA2023).

The Chairs of RAA2023

Dr. Anastasia Rousaki, Ghent University, Ghent, Belgium

&

Dr. Eleni Kouloumpi, The National Gallery-Alexandros Soutzos Museum, Athens, Greece

HMS RESEARCH IN PROGRESS 2023 - ANNOUNCEMENT CALL FOR PAPERS

Dear colleagues,

I cordially invite you to the Research in Progress Meeting 2023 of the Historical Metallurgy Society, which will take place online on Saturday, 22nd of April. It provides a forum for everyone working on topics related to ancient and historical metallurgical practices, the past use of metal objects, and related fields. We are keen to learn more about your ongoing or recently finished projects! The meeting aims to foster links between the different disciplines and geographical regions. Therefore, we particularly encourage submissions from early career researchers, contract archaeologists/conservators, and colleagues from outside Europe. There will be an HMS prize for the best student presentation.

Abstracts (up to 200 words) can be submitted until March, 31st using the form provided on the meetings' webpage <https://archaeothommy.github.io/hms-rip23/>. Presentations can be either 6 min or 15 min long (with time for questions added). We encourage all presenters to take full advantage of the flexibility a virtual event provides and present their project in a way that suits them and their project best. Pre-recorded contribution are possible but the presenter must be present in the meeting to answer any questions. Presentations will be scheduled in a way that considers the presenters' time zones.

Participation is free of charge. Please register for the event until April, 20 using the registration form on the meeting's webpage. The link to the meeting room will be displayed after the successful registration.

The programme and any updates will be announced on the meeting's webpage and circulated by mail. Please don't hesitate to contact me for any further information.

We are looking forward to seeing you in April!

Best regards,
Thomas

3RD ¹⁴C AND DIET CONFERENCE, 20TH-23RD **JUNE 2023, OXFORD, UK**

Dear all,

We are pleased to announce that abstract submission is now open for the 3rd ¹⁴C and diet conference, to be held in Oxford 20th-23rd June 2023. Abstract submission will close 22nd February.

For details please see <https://www.arch.ox.ac.uk/radiocarbon-and-diet-2023>

As in previous meetings, the focus of this conference will be on the relationships between radiocarbon, stable isotopes and diet. We welcome presentations that use radiocarbon and stable isotopes to explore diet, both in the past in fields such as archaeology and palaeontology, and in the present in forensics and ecology. We also welcome presentations that investigate the impact of dietary choice on the construction of reliable chronologies, and that explore the scale, variability and causes of radiocarbon reservoir effects in terrestrial, aquatic and marine contexts.

We look forward to welcoming you to Oxford!

Best wishes,

The organising committee

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

ARCHAEOLOGICAL CONSERVATION
INTERNSHIPS ON THE ISLAND OF CRETE,
GREECE

The Institute for Aegean Prehistory Study Center for East Crete (INSTAP SCEC) invites applicants for two summer internships in archaeological conservation.

The INSTAP SCEC was established as a non-profit organization (501K) in the United States. It supports the research and publication of Cretan archaeological material by Greek and international archaeologists. The lively Study Center offers interns a chance to meet students and experts in a variety of fields from many different universities. It hosts a summer lecture series, has an excellent library, and is a good base for exploring the archaeology of Crete, including many nearby sites that are open to visitors.

The conservation team works on recently excavated archaeological material in a well-equipped modern conservation laboratory. Interns participate fully in the work of the lab including examination and analysis of artifacts, cleaning and reconstruction, and full documentation and photography, as well as discussion with materials specialists. In 2023 there will be limited opportunities to spend time on-site as part of an archaeological team, since most excavations will conduct study seasons rather than archaeological fieldwork. Interns will work on a variety of archaeological materials, but there will likely be a wider variety of ceramic vessels for conservation with occasional access to other material types. These positions are not paid, but thanks to a generous donation there is a grant of \$2,000 for each intern. This is intended to cover part of the cost of housing as well as travel to and from Crete.

Applicants must be currently enrolled in, or recently graduated from, a graduate-level or equivalent conservation program. Ideal candidates will be proficient in written and spoken English.

Internships may vary in length from 6 to 8 weeks and will be undertaken between May 1st and July 31st. Applicants should indicate their preferred time frame in the application. Successful candidates are required to obtain their own medical insurance for the duration of the internship. They are also required to submit a written report at the close of the internship.

To apply: Please send a curriculum vitae, a letter of reference and a cover letter to Elizabeth Shank (elizabethshank@hotmail.com<<mailto:elizabethshank@hotmail.com>>). Applications are due by January 31, 2023.

For inquiries contact: Kathy Hall, Senior Conservator
(kathyh@otenet.gr<<mailto:kathyh@otenet.gr>>).

And for information about INSTAP SSEC see:
<https://instapstudycenter.net/<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Finstapstudycenter.net%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7C60864405e2b441ede4a508dae1e0dcce%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638070653127276174%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=LYVd2eES9W83tcMgrCL6ZphxumshlY6GUUpSN9kdWhU%3D&reserved=0>

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www.instapstudycenter.net<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Finstapstudycenter.net%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7C60864405e2b441ede4a508dae1e0dcce%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638070653127276174%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=LYVd2eES9W83tcMgrCL6ZphxumshlY6GUUpSN9kdWhU%3D&reserved=0

UNIVERSITY OF HAIFA, SCHOOL OF
ARCHAEOLOGY AND MARITIME
CULTURES, CALL FOR APPLICATIONS –
TENURE-TRACK POSITION IN
ARCHAEOLOGICAL DATA SCIENCE

The School of Archaeology and Maritime Cultures (SAMC) at the University of Haifa, Israel, invites applications for a tenure-track position in archaeological data science, starting in October 2023. The newly established SAMC comprises the Department of Archaeology, the Department of Maritime Civilizations, the Department of Conservation of Material Culture, and the Department of Archaeological Sciences (under construction).

The current position is intended jointly for the departments of Conservation of Material Culture and the Department of Archaeological Sciences.

We are seeking candidates with proven academic excellence in their fields of expertise. Candidates should have quantitative savvy, and demonstrate working knowledge with a variety of methods, such as artificial intelligence and machine learning methods, meta-analysis, Bayesian modeling, and agent-based modeling.

Candidates are expected to show how their research is relevant for the study of archaeological materials and human ecology in terrestrial, coastal and underwater sites, as in the SAMC framework they are expected to conduct research in these fields.

Applicants must have an approved Ph.D. at the time of application and at least 1 year of post-doctoral research. They should also have publications in leading peer-reviewed journals. They must demonstrate excellence and originality in research, and proven experience in field and laboratory/experimental projects. Candidates should demonstrate background knowledge in archaeology. The position is open to all ranks.

When applying, candidates are requested to send their CV and a research program, and arrange three letters of recommendation.

Applications should be sent to Ms. Galit Aghion the Administrative Coordinator of the School, at: <gaghion@univ.haifa.ac.il>.

The deadline for the applications (including the recommendation letters) is March 15 th , 2023.

The successful candidate will be expected to teach the equivalent of 8 hours per semester of undergraduate and graduate-level courses. The primary teaching languages are Hebrew and English. The candidate will be expected to supervise theses and carry usual non-teaching duties.

SCE POSITION: RESEARCHER IN ^{14}C **GEOCHEMICAL AND** **GEOCHRONOLOGICAL (M/F)**

Hello

The LSCE (Université Paris-Saclay, Gif-sur-Yvette, France) is looking for a highly motivated researcher in ^{14}C geochronology and geochemistry.

Whatever your favorite scientific topic, if ^{14}C is your main approach, if you like writing the word " ^{14}C " in articles and projects to get funding and if you dream of chemistry, join us! This is a permanent CEA position to be filled as soon as possible. The deadline to apply is mid-March. More information on this link and by asking us.

Researcher in ^{14}C geochemical and geochronological (M/F)

https://www.emploi.cea.fr/job/emploi-chercheur-en-geochimie-et-geochronologie-h-f_25304.aspx?LCID=2057

all the very best

Christine

Christine HATTÉ

email: christine.hatte@lsce.ipsl.fr

ΝΕΟ ΚΥΠΡΙΑΚΟ ΜΟΥΣΕΙΟ (ΝΚΜ) – **ΠΡΟΚΗΡΥΞΗ ΘΕΣΕΩΝ ΟΡΙΣΜΕΝΟΥ** **ΧΡΟΝΟΥ ΓΙΑ ΑΡΧΑΙΟΛΟΓΟΥΣ ΚΑΙ** **ΣΥΝΡΗΡΗΤΕΣ**

Το Τμήμα Αρχαιοτήτων, του Υπουργείου Μεταφορών, Επικοινωνιών και Έργων, ανακοινώνει ότι, σύμφωνα με τις πρόνοιες του περί της Ρύθμισης της Απασχόλησης Εργοδοτούμενων Αορίστου και Εργοδοτούμενων Ορισμένου Χρόνου στη Δημόσια Υπηρεσία Νόμου του 2016 (Ν. 70(I)/2016), γίνονται δεκτές αιτήσεις για απασχόληση εργοδοτούμενων ορισμένου χρόνου, για περίοδο τριάντα έξι (36) μηνών, για την πλήρωση πέντε (5) θέσεων Αρχαιολογικών Λειτουργιών (Κλ. Α8, Α10, Α11) και δέκα (10) θέσεων Συντηρητών [Κλ. Α8, Α10 και Α11] στο Τμήμα Αρχαιοτήτων, για την υλοποίηση του έργου του Νέου Κυπριακού Μουσείου (ΝΚΜ).

Τελευταία ημερομηνία παράδοσης των αιτήσεων στο Τμήμα Αρχαιοτήτων είναι η Παρασκευή, 17/2/2023, ώρα 14:00.

Αριθμός 92

ΠΡΟΣΛΗΨΗ ΕΡΓΟΔΟΤΟΥΜΕΝΩΝ ΟΡΙΣΜΕΝΟΥ ΧΡΟΝΟΥ ΓΙΑ ΤΙΣ ΑΝΑΓΚΕΣ
ΤΟΥ ΥΠΟΥΡΓΕΙΟΥ ΜΕΤΑΦΟΡΩΝ, ΕΠΙΚΟΙΝΩΝΙΩΝ ΚΑΙ ΕΡΓΩΝ (ΤΜΗΜΑ ΑΡΧΑΙΟΤΗΤΩΝ)
ΘΕΣΕΙΣ ΑΡΧΑΙΟΛΟΓΙΚΟΥ ΛΕΙΤΟΥΡΓΟΥ (Κλ. Α8, Α10 και Α11)

Το Υπουργείο Μεταφορών, Επικοινωνιών και Έργων, Τμήμα Αρχαιοτήτων, ανακοινώνει ότι, σύμφωνα με τις πρόνοιες του περί της Ρύθμισης της Απασχόλησης Εργοδοτούμενων Αορίστου και Εργοδοτούμενων Ορισμένου Χρόνου στη Δημόσια Υπηρεσία Νόμου του 2016 (Ν. 70(Ι)/2016), γίνονται δεκτές αιτήσεις για απασχόληση εργοδοτούμενων ορισμένου χρόνου, για περίοδο τριάντα (36) μηνών, για την πλήρωση πέντε (5) θέσεων Αρχαιολογικών Λειτουργιών (Κλ. Α8, Α10, Α11), στο Τμήμα Αρχαιοτήτων, για την υλοποίηση του έργου του Νέου Κυπριακού Μουσείου (ΝΚΜ).

Σημειώνεται ότι, όπου γίνεται αναφορά στην παρούσα προκήρυξη στον όρο «Αρχαιολογία», για τους σκοπούς του παρόντος έργου, νοείται η μελέτη των διαφόρων κατηγοριών τεχνέργων και μνημείων, που είναι κατασκευασμένα από τον άνθρωπο, από την Επिताλιαϊκή μέχρι και τη Ρωμαϊκή Περίοδο.

Οι ειδικότητες για την παρούσα προκήρυξη είναι οι ακόλουθες:

Αρχαιολόγος με ειδικευση στην Επिताλιαϊκή ή/και Νεολιθική περίοδο (1 θέση)

Αρχαιολόγος με ειδικευση στη Χαλκολιθική ή/και Πρώιμη-Μέση Εποχή του Χαλκού (1 θέση)

Αρχαιολόγος με ειδικευση στη Γεωμετρική ή/και Αρχαϊκή ή/και Κλασική περίοδο (1 θέση)

Αρχαιολόγος με ειδικευση στην Ελληνιστική ή/και Ρωμαϊκή περίοδο (1 θέση)

Αρχαιολόγος με ειδικευση σε οποιαδήποτε περίοδο της κυπριακής αρχαιολογίας και με εξειδικευμένη γνώση στη Μουσειολογία (1 θέση)

1. Καθήκοντα και ευθύνες:

Εκαστος/η εργοδοτούμενος/η θα:

i. Εργαστεί για διάρκεια τριάντα (36) μηνών.

ii. Συμβάλει στην εφαρμογή της Μουσειολογικής και Μουσειογραφικής Μελέτης για το ΝΚΜ. Οι εργασίες που θα πρέπει να διεκπεραιωθούν συμπεριλαμβάνουν: Μελέτη της Μουσειολογικής και Μουσειογραφικής Μελέτης για το ΝΚΜ, επικαιροποίηση του καταλόγου εκθεμάτων του ΝΚΜ και των περιγραφών τους, συγγραφή κειμένων (κείμενα ενστίμων, ορόρων υλικού, λεζάντες εκθεμάτων, κειμενολεζάντες), έρευνα και συλλογή του επιστημολογικού/εικονογραφικού υλικού που θα χρησιμοποιηθεί σε γραφιστικές συνθέσεις και ψηφιακές εφαρμογές, σχετική βιβλιογραφική έρευνα, οποιαδήποτε άλλη εργασία του ανατεθεί σε σχέση με την εφαρμογή της Μουσειολογικής και Μουσειογραφικής μελέτης.

iii. Είναι σε συνεχή επαφή, συνεννόηση και συνεργασία με τη Συντονιστική Επιτροπή του Τμήματος Αρχαιοτήτων και θα συνεργάζεται με το προσωπικό του Τμήματος Αρχαιοτήτων σε όλα τα επίπεδα και σε όλες τις επαρχίες.

2. Απαιτούμενα Προσόντα:

i. Πανεπιστημιακό δίπλωμα ή τίτλος ή ισότιμο προσόν στην Αρχαιολογία (Σημ.: ο όρος «πανεπιστημιακό δίπλωμα ή τίτλος» καλύπτει και μεταπτυχιακό δίπλωμα ή τίτλο).

ii. Εξειδικευση στην Κυπριακή αρχαιολογία στην ειδικότητα για την οποία γίνεται η αίτηση.

iii. Πολύ καλή γνώση της Ελληνικής και πολύ καλή γνώση είτε της Αγγλικής είτε της Γαλλικής είτε της Γερμανικής γλώσσας, όπως καθορίζεται από τα κριτήρια της ΕΔΥ.

iv. Ακεραιότητα χαρακτήρα, οργανωτική και διοικητική ικανότητα, πρωταβουλία, υπευθυνότητα και ευθυκρισία.

Σημειώσεις:

i. Ο/η αιτητής/τρια μπορεί να αιτηθεί για εκείνη τη θέση στην οποία κατέχει την ειδικευση.

ii. Για περιπτώσεις όπου α/η αιτητής/τρια αιτείται για περισσότερες από μια θέσεις, θα πρέπει να συμπληρώνει ξεχωριστό Έντυπο Αίτησης για την κάθε μια.

iii. Αποδεκτό τεκμήριο ειδικευσης σε ειδικότητα της κυπριακής αρχαιολογίας αποτελεί τουλάχιστον ένα από τα ακόλουθα κριτήρια: (α) μεταπτυχιακή διπλωματική εργασία σε θέμα που αφορά τον υλικό πολιτισμό της κυπριακής αρχαιολογίας στην ειδικότητα για την οποία γίνεται η αίτηση, (β) τουλάχιστον δύο επιστημονικές δημοσιεύσεις σχετικές με την κυπριακή αρχαιολογία στην ειδικότητα για την οποία γίνεται η αίτηση.

iv. Για τη θέση Αρχαιολόγου με ειδικευση σε οποιαδήποτε περίοδο της κυπριακής αρχαιολογίας και με εξειδικευμένη γνώση στη Μουσειολογία, αποδεκτό τεκμήριο εξειδικευμένης γνώσης στη Μουσειολογία αποτελεί (α) η κατοχή πανεπιστημιακού διπλώματος ή τίτλου ή ισότιμου προσόντος στη Μουσειολογία ή η μετεκπαίδευση στη Μουσειολογία και (β) η πείρα στην εκπόνηση και εφαρμογή τουλάχιστον δύο μουσειολογικών μελετών.

v. Ενόψει Απόφασης του Ανώτατου Δικαστηρίου στην Αναθεωρητική Έφεση 80/2011, η κατοχή των γλωσσών στο απαιτούμενο επίπεδο θα πρέπει να τεκμηριώνεται από τους υποψηφίους είτε μέσω αποδεκτών τεκμηρίων είτε μέσω εξετάσεων μέχρι την ημερομηνία λήξης της υποβολής των αιτήσεων.

Κατάλογος των «Τεκμηρίων Γνώσης Γλωσσών» υπάρχει αναρτημένος στην ιστοσελίδα της Επιτροπής Δημόσιας Υπηρεσίας (www.psc.gov.cy).

Αναφορικά με τους υποψηφίους -

- (i) των οποίων η μητρική γλώσσα δεν είναι η Ελληνική και δεν έχουν απολυτήριο Ελληνικού Σχολείου Μέσης Εκπαίδευσης, και
- (ii) οι οποίοι, δυνάμει του Άρθρου 2.3 του Συντάγματος, επέλεξαν να ανήκουν στην Ελληνική κοινότητα, απαιτείται μόνο καλή γνώση της Ελληνικής γλώσσας, νοούμενου ότι θα έχουν άριστη γνώση της Αγγλικής γλώσσας.

3. Κριτήρια αξιολόγησης των υποψηφίων και μοριοδότηση:

ΚΡΙΤΗΡΙΑ ΑΞΙΟΛΟΓΗΣΗΣ	ΜΟΡΙΑ
A) Μεταπτυχιακός τίτλος επιπέδου διδακτορικού στην κυπριακή αρχαιολογία	4
B) Μεταπτυχιακός τίτλος ή ισότιμο προσόν στην κυπριακή αρχαιολογία	3
Γ) Μονογραφία για την κυπριακή αρχαιολογία	3
Δ) Επιμέλεια έκδοσης για την κυπριακή αρχαιολογία	2
Ε) Άρθρα σε έγκριτα επιστημονικά περιοδικά ή τόμους (peer reviewed) για την κυπριακή αρχαιολογία	2
Σ1) Προηγούμενη πείρα σε παρόμοιας φύσης έργα	2
Ζ) Άρθρα σε συλλογικούς τόμους, πρακτικά συνεδρίων, λοιπά άρθρα (non-peer reviewed) για την κυπριακή αρχαιολογία	1
Η) Συμμετοχή σε έργο σχεδιασμού ψηφιακής εφαρμογής που να αφορά πολιτιστική κληρονομιά	1
Θ) Λήμματα σε εγκυκλοπαίδειες, λήμματα σε καταλόγους αρχαιολογικών εκθέσεων, βιβλιοκριτικές, οδηγοί εκθέσεων και μνημείων σχετικά με την κυπριακή αρχαιολογία	0,5

Σημειώσεις:

- i. Για την τεκμηρίωση όλων των πιο πάνω θα πρέπει να υποβληθούν σχετικά αντίγραφα, πιστοποιητικά ή βεβαιώσεις.
- ii. Σε περίπτωση που αιτητής/τρια θεωρηθεί ως υποψήφιος λόγω Μεταπτυχιακού διπλώματος ή τίτλου που κατέχει, το συγκεκριμένο Μεταπτυχιακό δίπλωμα ή τίτλος δεν θα μοριοδοτείται. Σε αυτή τη περίπτωση θα μοριοδοτούνται επιπρόσθετα Μεταπτυχιακά διπλώματα ή τίτλοι, αν υπάρχουν.
- iii. Σε περίπτωση που η ειδικευση σε ειδικότητα της κυπριακής αρχαιολογίας τεκμαίρεται με δύο επιστημονικές δημοσιεύσεις, αυτές δεν θα μοριοδοτούνται. Σε αυτή την περίπτωση θα μοριοδοτούνται επιπρόσθετες δημοσιεύσεις, αν υπάρχουν.
- iv. Αποδεκτό τεκμήριο για προηγούμενη πείρα σε παρόμοιας φύσης έργο αποτελεί πείρα τουλάχιστον τριών (3) μηνών σε: α) έργο Μουσειολογικής φύσης που να αφορά μόνιμες ή περιοδικές εκθέσεις ή β) σε καταγραφές κινητών ευρημάτων αρχαιοτήτων στο πλαίσιο μεταπτυχιακής διπλωματικής εργασίας/δημοσίευσης ή γ) σε έργο καταγραφής ή ψηφιοποίησης αρχαιοτήτων. Να υποβληθεί σχετική βεβαίωση.
- v. Σε περίπτωση ισοβαθμίας, λαμβάνονται διαδοχικά υπόψη με την ακόλουθη σειρά προτεραιότητας: (α) η κατοχή διδακτορικού τίτλου σπουδών, (β) η μοριοδότηση των δημοσιεύσεων (βλ. σημεία Γ, Δ, Ε, Ζ πιο πάνω), (γ) η προηγούμενη πείρα σε παρόμοιας φύσης έργο.
- vi. Οι μονάδες που δίνονται για τις δημοσιεύσεις είναι ανά δημοσίευση.

4. Επιπλέον πληροφορίες:

- i. Η βασική αμοιβή θα είναι στην αρχική βαθμίδα της Κλίμακας Α8 και σε αυτή θα προστίθεται οποιαδήποτε συγκεκριμένη αύξηση και το τιμητικό επίδομα που θα ισχύει κατά την περίοδο απασχόλησης.
- ii. Με βάση το άρθρο 10 του Ν. 70(Ι)/2016, εργοδοτούμενος ο οποίος προσλαμβάνεται δυνάμει των διατάξεών του, απασχολείται με μειωμένη κλίμακα εισοδήματος πρώτους είκοσι τέσσερις (24) μήνες από την πρόσληψή του, όπως καθορίζεται στον εκάστοτε ειρήσιο σε ισχύ περί Προϋπολογισμού Νόμο.

- iii. Με βάση τον υπό αναφορά Νόμο, τα άτομα που προσλαμβάνονται δεν θα μετατρέπονται σε εργοδοτούμενους αορίστου χρόνου. Σημειώνεται επίσης ότι σε περίπτωση που το έργο ολοκληρωθεί πριν τη λήξη της σύμβασης ή/και κατά την πορεία εξέλιξης του έργου ο εργοδοτούμενος κριθεί ανεπαρκής, τότε τυγχάνουν εφαρμογής οι διατάξεις του περί Τερματισμού Απασχόλησεως Νόμου του 1967 έως 2022 (Ν. 24/1967).
- iv. Σύμφωνα με το άρθρο 15(1) του Νόμου 70(Ι)/2016 κάθε εργοδοτούμενος ορισμένου χρόνου, οφείλει να συμμορφώνεται προς τις υποχρεώσεις του που απορρέουν από την εκάστοτε σε ισχύ οικεία νομοθεσία και τις σύμφωνες προς αυτή διοικητικές οδηγίες και εγκύκλιες διαταγές σε σχέση με τα καθήκοντα και υποχρεώσεις που ισχύουν αντιστοίχως, για τους δημοσίου υπαλλήλους.
- v. Τα πρόσωπα που θα προσληφθούν θα κληθούν να υπογράψουν σύμβαση απασχόλησης ιδιωτικού δικαίου ορισμένου χρόνου για εκτέλεση έργου τακτής προθεσμίας τριάντα έξι (36) μηνών. Πριν την υπογραφή της σύμβασης θα κληθούν να υποβάλουν επίσημο έγγραφο που να αποδεικνύει καθαρό ποινικό μητρώο.
- vi. Η σύμβαση απασχόλησης δύναται να τερματίζεται αυτοδικαίως ητρουμένων των προνοιών του περί Τερματισμού Απασχόλησεως Νόμου, σε περίπτωση που η εργασία για την οποία προσληφθούν να εκτελέσουν παύσει να υφίσταται πριν την πάροδο των τριάντα έξι (36) μηνών.
- vii. Με τη λήξη της απασχόλησης η εργοδότησή του/της τερματίζεται αυτοδικαίως χωρίς την καταβολή αποζημίωσης ή την τήρηση οποιασδήποτε άλλης διατύπωσης. Σε περίπτωση υποβολής αίτησης από υποψήφιους/ες με αναπηρίες, εφαρμόζονται οι διατάξεις του περί Πρόσληψης Ατόμων με Αναπηρίες στον Ευρύτερο Δημόσιο Τομέα (Ειδικές Διατάξεις) Νόμου, Ν. 146(Ι)/2009.
- viii. Ο/η αιτητής/τρια πρέπει να είναι πολίτης της Κυπριακής Δημοκρατίας ή πολίτης κράτους μέλους της Ευρωπαϊκής Ένωσης.
- ix. Ο/η προσληφθείς/φθείσα θα τοποθετηθεί στο Τμήμα Αρχαιοτήτων, στη Λευκωσία ή/και όπου αλλού του ανατεθεί από το Τμήμα Αρχαιοτήτων.
- x. Οι ενδιαφερόμενοι/ες πρέπει να υποβάλουν την αίτησή τους σε ηλεκτρονική μορφή, ως ακολούθως:
- (α) Να προμηθευτούν το έντυπο «Αίτηση για Απασχόληση Εργοδοτούμενων Ορισμένου Χρόνου στη Δημόσια Υπηρεσία» μέσω της Ιστοσελίδας του Τμήματος Δημόσιας Διοίκησης και Πρωτοκόλλου ([https://www.mof.gov.cy/mof/papd/papd.nsf/All/62494234DCC162D2C22567ED002D9C17/\\$file/Aitih%20εργοδοτουμενων%20ορισμενου%20χρονου.pdf?OpenElement](https://www.mof.gov.cy/mof/papd/papd.nsf/All/62494234DCC162D2C22567ED002D9C17/$file/Aitih%20εργοδοτουμενων%20ορισμενου%20χρονου.pdf?OpenElement)) ή μέσω της Ιστοσελίδας του Τμήματος Αρχαιοτήτων (<http://www.mcw.gov.cy/mcw/DA/DA.nsf/All/6F876C2508C5F02DC225893A00293DB3?OpenDocument>). Οι ενδιαφερόμενοι/ες μπορούν επίσης να προμηθευτούν το έντυπο της αίτησης από τα Κεντρικά Γραφεία του Τμήματος Αρχαιοτήτων (Κυπριακό Μουσείο, Λεωφόρος Μίκη Θεοδωράκη 1, 1097 Λευκωσία).
- (β) Το έντυπο αίτησης πρέπει να συμπληρώνεται κατάλληλα, να υπογράφεται, να περιέχονται σε αυτό με ακρίβεια όλα τα ζητούμενα στοιχεία και να συνοδεύεται με τα αναγκαία πιστοποιητικά. Ναείται ότι όλα τα έγγραφα (πτυχία, διπλώματα, βεβαιώσεις), που αναγράφονται στην Παράγραφο 2, θα πρέπει να υποβληθούν με την αίτηση των ενδιαφερομένων. Τα πρωτότυπα πιστοποιητικά να παρουσιαστούν εφόσον ζητηθούν για έλεγχο. Αιτήσεις που δεν θα συνοδεύονται από τα απαραίτητα πιστοποιητικά δεν θα γίνονται αποδεκτές και δεν θα εξετάζονται.
- (γ) Οι αιτήσεις θα πρέπει να παραδίδονται στο Αρχείο του Τμήματος Αρχαιοτήτων (Κυπριακό Μουσείο, Λεωφόρος Μίκη Θεοδωράκη 1, 1097 Λευκωσία), είτε να σταλούν συστημένες μέσω Ταχυδρομείου στην θυρίδα Τ.Θ: 22024, 1516 Λευκωσία. Στον φάκελο της αίτησης θα πρέπει να αναγράφεται «Αίτηση για τη θέση Εργοδοτούμενου/ης Ορισμένου Χρόνου στο Τμήμα Αρχαιοτήτων, Θέσεις Αρχαιολογικού Λειτουργού, Αρ. Φακ.: 15.17.007.02». Η αίτηση θα πρέπει να υποβληθεί εντός του χρονικού περιθωρίου που αναφέρεται στην ακόλουθη παράγραφο με αριθμό 4 (x) (δ).
- Η αρμόδια Επιτροπή διατηρεί το δικαίωμα να ζητήσει την παρουσίαση των εγγράφων σε έντυπη μορφή για επιβεβαίωση των στοιχείων που έχει υποβάλει ο/η αιτητής/τρια. Τα πρόσωπα που θα κληθούν να υπογράψουν τη σύμβαση θα πρέπει να υποβάλουν τα έγγραφα της αίτησής τους σε πρωτότυπη μορφή για έλεγχο πριν την υπογραφή της σύμβασης. Σε αυτή την περίπτωση, εφόσον εντοπιστεί οποιαδήποτε αλλοίωση στοιχείων που επηρεάζουν το αποτέλεσμα της προσφοράς της θέσης σε υποψήφιο/α, το αρμόδιο Τμήμα θα προχωρήσει με την απόρριψη της αίτησης και δεν θα προχωρήσει σε υπογραφή της σύμβασης με τον/την εν λόγω υποψήφιο/α και θα προχωρήσει με την προσφορά της θέσης στον/στην αμέσως επόμενο/η υποψήφιο/α, σύμφωνα με τον πίνακα που θα έχει δημοσιευτεί.
- (δ) Τελευταία ημερομηνία παράδοσης των αιτήσεων στο Τμήμα Αρχαιοτήτων είναι η Παρασκευή, 17/2/2023, ώρα 14:00.
- xi. Για περισσότερες πληροφορίες οι ενδιαφερόμενοι/ες μπορούν να επικοινωνούν με την κα Ευθυμία Άλφα, τηλ. 22865886 και την κα Άννα Σατράκη, τηλ. 24205990 ή στο ηλεκτρονικό ταχυδρομείο του Τμήματος Αρχαιοτήτων antiquitiesdept@da.mcw.gov.cy

Αριθμός 93

ΠΡΟΣΛΗΨΗ ΕΡΓΟΔΟΤΟΥΜΕΝΩΝ ΟΡΙΣΜΕΝΟΥ ΧΡΟΝΟΥ ΓΙΑ ΤΙΣ ΑΝΑΓΚΕΣ
ΤΟΥ ΥΠΟΥΡΓΕΙΟΥ ΜΕΤΑΦΟΡΩΝ, ΕΠΙΚΟΙΝΩΝΙΩΝ ΚΑΙ ΕΡΓΩΝ (ΤΜΗΜΑ ΑΡΧΑΙΟΤΗΤΩΝ)
ΘΕΣΕΙΣ ΣΥΝΤΗΡΗΤΗ (Κλ. Α8, Α10 και Α11)

Το Υπουργείο Μεταφορών, Επικοινωνιών και Έργων, Τμήμα Αρχαιοτήτων, ανακοινώνει ότι, σύμφωνα με τις πρόνοιες του περί της Ρύθμισης της Απασχόλησης Εργοδοτούμενων Αορίστου και Εργοδοτούμενων Ορισμένου Χρόνου στη Δημόσια Υπηρεσία Νομού του 2016 (Ν. 70(Ι)/2016), γίνονται δεκτές αιτήσεις για απασχόληση εργοδοτούμενων ορισμένου χρόνου, για περίοδο τριάντα έξι (36) μηνών, για την πλήρωση δέκα (10) θέσεων Συντηρητών [Κλ. Α8, Α10 και Α11] στο Τμήμα Αρχαιοτήτων στο πλαίσιο υλοποίησης του έργου του Νέου Κυπριακού Μουσείου (ΝΚΜ).

Σημειώνεται ότι όπου γίνεται αναφορά στην παρούσα προκήρυξη στον όρο «Συντήρηση», για τους σκοπούς του παρόντος έργου, νοείται η Συντήρηση Κινητών Αρχαιοτήτων οι οποίες απαρτίζονται από τα πιο κάτω υλικά: μέταλλο, γυαλί, πηλό, λίθο, φαγεντιανή, οστό, ελεφαντοδόντιο και άλλα συναφή υλικά. Στην προκήρυξη αυτή δεν συμπεριλαμβάνονται η συντήρηση ακίνητων αρχαιοτήτων (όπως μνημείων, αρχαιολογικών καταλοίπων ή ιστορικών κτηρίων) ή η συντήρηση ταχυγραφιών, ψηφιδωτών, χαρτιού, υφάσματος, πινάκων, εκδόσεων και εκκλησιαστικών κειμηλίων.

Στόχος του έργου είναι η Συντήρηση και προετοιμασία για μεταφορά και έκθεση των κινητών αρχαιοτήτων που θα εκτεθούν και φυλαχθούν στο ΝΚΜ, οι οποίες επί του παρόντος εκτίθενται ή φυλάσσονται στα Μουσεία και αποθήκες υπό την αρμοδιότητα του Τμήματος Αρχαιοτήτων: το Κυπριακό Μουσείο στη Λευκωσία και τα Αρχαιολογικά Μουσεία στις Επαρχίες Λεμεσού, Λάρνακας και Πάφου.

1. Καθήκοντα και ευθύνες:

Εκαστός/η εργοδοτούμενος/η θα:

- i. Εργαστεί για διάρκεια τριάντα έξι (36) μηνών.
- ii. Αναλάβει την πρακτική (hands-on) συντήρηση αρχαιολογικών αντικειμένων και ευρημάτων που θα εκτεθούν ή φυλαχθούν στο ΝΚΜ. Τα αντικείμενα/ευρήματα αυτά μπορεί να είναι μεταλλικά, κεραμικά, γυάλινα, λίθινα, οστέινα, ελεφαντοστέινα, φαγεντιανά, κ.ά.
- iii. Συμμετέχει στην αφαίρεση και απομάκρυνση αρχαιολογικών αντικειμένων από τους εκθεσιακούς χώρους των υφιστάμενων Μουσείων.
- iv. Συμμετέχει στον σχεδιασμό και εφαρμογή νέων στηριγμάτων των εκθεμάτων.
- v. Τεκμηριώνει και καταγράφει όλες τις επεμβάσεις συντήρησης σύμφωνα με τις διαδικασίες του Τμήματος Αρχαιοτήτων.
- vi. Προετοιμάζει τα αρχαιολογικά αντικείμενα/ευρήματα για τη μεταφορά τους στο ΝΚΜ και συμμετέχει στη συσκευασία τους.
- vii. Εκτελεί οποιαδήποτε άλλη εργασία του ανατεθεί σε σχέση με τη Συντήρηση και προετοιμασία των αντικειμένων που θα εκτεθούν ή θα φυλαχθούν στο ΝΚΜ.
- viii. Είναι σε συνεχή επαφή, συνεννόηση και συνεργασία με τη Συντονιστική Επιτροπή του Τμήματος Αρχαιοτήτων και συνεργάζεται με το προσωπικό του Τμήματος Αρχαιοτήτων σε όλα τα επίπεδα και σε όλες τις επαρχίες.

2. Απαιτούμενα Προσόντα:

- i. Πανεπιστημιακό δίπλωμα ή τίτλος ή ισότιμο προσόν στη Συντήρηση (Σημ.: ο όρος «πανεπιστημιακό δίπλωμα ή τίτλος» καλύπτει και μεταπτυχιακό δίπλωμα ή τίτλο). Οι σπουδές θα πρέπει να συμπεριλαμβάνουν πρακτική εξάσκηση/εκπαίδευση στη Συντήρηση αρχαιολογικών κινητών ευρημάτων/αντικειμένων, όπως αυτή ορίζεται πιο πάνω. Να υποβληθεί σχετική βεβαίωση/έγγραφο αναλυτικό πρόγραμμα σπουδών.
- ii. Πολύ καλή γνώση της Ελληνικής και πολύ καλή γνώση της Αγγλικής ή της Γαλλικής ή της Γερμανικής γλώσσας όπως καθορίζεται από τα κριτήρια της ΕΔΥ.
- iii. Ακεραιότητα χαρακτήρα, οργανωτική και διοικητική ικανότητα, πρωτοβουλία, υπευθυνότητα και ευθυκρισία.

Σημειώσεις:

- i. Ενόψει Απόφασης του Ανώτατου Δικαστηρίου στην Αναθεωρητική Έφεση 60/2011, η κατοχή των γλωσσών στο απαιτούμενο επίπεδο θα πρέπει να τεκμηριώνεται από τους υποψηφίους είτε μέσω αποδεκτών τεκμηρίων είτε μέσω εξετάσεων μέχρι την ημερομηνία λήξης της υποβολής των αιτήσεων.
Κατάλογος των «Τεκμηρίων Γνώσης Γλωσσών» υπάρχει αναρτημένος στην ιστοσελίδα της Επιτροπής Δημόσιας Υπηρεσίας (www.psc.gov.cy).
Αναφορικά με τους υποψηφίους -
(i) των οποίων η μητρική γλώσσα δεν είναι η Ελληνική και δεν έχουν απολυτήριο Ελληνικού Σχολείου Μέσης Εκπαίδευσης, και
(ii) οι οποίοι, δυνάμει του Άρθρου 2.3 του Συντάγματος, επέλεξαν να ανήκουν στην Ελληνική κοινότητα, απαιτείται μόνο καλή γνώση της Ελληνικής γλώσσας, νοουμένου ότι θα έχουν άριστη γνώση της Αγγλικής γλώσσας.

3. Κριτήρια αξιολόγησης των υποψηφίων και μοριοδότηση:

ΚΡΙΤΗΡΙΑ ΑΞΙΟΛΟΓΗΣΗΣ	ΜΟΡΙΑ
1ος Μεταπτυχιακός τίτλος επιπέδου Master στη Συντήρηση	1
2ος Μεταπτυχιακός τίτλος επιπέδου Master στη Συντήρηση ή Μεταπτυχιακός τίτλος επιπέδου Διδακτορικού στη Συντήρηση	1
Προηγούμενη εμπειρία σε παρόμοιας φύσης έργο	0,5 μονάδα ανά 6 μήνες με μέγιστες τις 5 μονάδες (δηλ. 10 χρόνια)

Σημειώσεις:

- Για την τεκμηρίωση όλων των πιο πάνω θα πρέπει να υποβληθούν σχετικά πιστοποιητικά και βεβαιώσεις.
- Ο 1ος Μεταπτυχιακός τίτλος επιπέδου Master στη Συντήρηση πρέπει να συμπεριλαμβάνει να είναι σχετικός με θέματα συντήρησης κινητών αρχαιολογικών ευρημάτων/αντικειμένων, όπως ορίζεται πιο πάνω.
- Σε περίπτωση που αιτητής/τρια θεωρηθεί ως υποψήφιος λόγω Μεταπτυχιακού Τίτλου που κατέχει, ο συγκεκριμένος Μεταπτυχιακός Τίτλος δεν θα μοριοδοτείται. Σε αυτή την περίπτωση θα μοριοδοτούνται επιπρόσθετοι Μεταπτυχιακοί Τίτλοι, αν υπάρχουν.
- Αποδεκτό τεκμήριο (να υποβληθούν σχετικές βεβαιώσεις) για προηγούμενη εμπειρία σε παρόμοιας φύσης εργασία αποτελεί η πείρα που αποκτήθηκε στην πρακτική Συντήρηση κινητών αρχαιολογικών ευρημάτων/αρχαιοτήτων των υλικών που ορίζονται πιο πάνω. Πείρα που αποκτήθηκε στη συντήρηση υλικών που δεν συμπεριλαμβάνονται στα καθήκοντα της θέσης (π.χ. στη συντήρηση τοιχογραφιών, χαρτιού, εκκλησιαστικών κειμηλίων, ψηφιδωτών, ιστορικών/αρχαίων μνημείων, κ.ά) δεν θα μοριοδοτείται. Πείρα που αποκτήθηκε κατά τη διάρκεια σπουδών δεν θα μοριοδοτείται. Σε περίπτωση που στα σχετικά πιστοποιητικά/βεβαιώσεις δεν καθορίζεται η χρονική περίοδος της πείρας, ο καθορισμός του χρόνου αυτής, θα αποδίδεται από το Τμήμα Αρχαιοτήτων, βάσει προκαθορισμένων τιμών, ανά αντικείμενο/ομάδα αντικειμένων.
- Σε περίπτωση ισοβαμίας λαμβάνονται διαδοχικά υπόψη με την ακόλουθη σειρά προτεραιότητας: (α) η προηγούμενη πείρα σχετική με τα καθήκοντα της θέσης, (β) η κατοχή μεταπτυχιακού τίτλου σπουδών, (γ) ο βαθμός Πανεπιστημιακού Διπλώματος ή τίτλου ή ισοδύναμου προσόντος, (δ) άλλη πείρα ή ακαδημαϊκά προσόντα σε άλλους, από τους πιο πάνω καθορισμένους, τομείς της συντήρησης. Σε περίπτωση που αιτητής/τρια θεωρηθεί ως υποψήφιος λόγω Μεταπτυχιακού Τίτλου που κατέχει, στον οποίο δεν έχει αποδοθεί βαθμός, θα μοριοδοτείται ως να έχει πτυχίο με βαθμό «Λίαν Καλώς».

4. Επιπλέον πληροφορίες:

- Η βασική αμοιβή θα είναι στην αρχική βαθμίδα της Κλίμακας Α8 και σε αυτή θα προστίθεται οποιαδήποτε συγκεκριμένη αύξηση και το τιμολογικό επίδομα που θα ισχύει κατά την περίοδο απασχόλησης.
- Με βάση το άρθρο 10 του Ν. 70(Ι)/2016, εργοδοτούμενος ο οποίος προσλαμβάνεται δυνάμει των διατάξεων του, απασχολείται με μειωμένη κλίμακα εισοδήσης για τους πρώτους είκοσι τέσσερις (24) μήνες από την πρόσληψή του, όπως καθορίζεται στον εκάστοτε ετήσιο σε ισχύ περί Προϋπολογισμού Νόμο.
- Με βάση τον υπό αναφορά Νόμο, τα άτομα που προσλαμβάνονται δε θα μετατρέπονται σε εργοδοτούμενους αορίστου χρόνου. Σημειώνεται επίσης ότι σε περίπτωση που το έργο ολοκληρωθεί πριν τη λήξη της σύμβασης ή/και κατά την πορεία εξέλιξης του έργου ο εργοδοτούμενος κριθεί ανεπαρκής, τότε τυγχάνουν εφαρμογής οι διατάξεις του περί Τερματισμού Απασχολήσεως Νόμου του 1967 έως 2022, Ν. 24/1967.
- Σύμφωνα με το άρθρο 15(1) του Νόμου 70(Ι)/2016 κάθε εργοδοτούμενος ορισμένου χρόνου, οφείλει να συμμορφώνεται προς τις υποχρεώσεις του που απορρέουν από την εκάστοτε σε ισχύ οικεία νομοθεσία και τις σύμφωνες προς αυτή διοικητικές οδηγίες και εγκύκλιες διαταγές σε σχέση με τα καθήκοντα και υποχρεώσεις που ισχύουν αντίστοιχως, για τους δημόσιους υπαλλήλους.
- Τα πρόσωπα που θα προσληφθούν θα κληθούν να υπογράψουν σύμβαση απασχόλησης ιδιωτικού δικαίου ορισμένου χρόνου για εκτέλεση έργου τακτικής προθεσμίας τριάντα (30) μηνών. Πριν την υπογραφή της σύμβασης θα κληθούν να υποβάλουν επίσημο έγγραφο που να αποδεικνύει καθαρό ποινικό μητρώο.
- Η σύμβαση απασχόλησης δύναται να τερματίζεται αυτοδικαίως τηρουμένων των προνοιών του περί Τερματισμού Απασχολήσεως Νόμου, σε περίπτωση που η εργασία για την οποία προσληφθούν να εκτελέσουν παύσει να υφίσταται πριν την πάροδο των τριάντα (30) μηνών.
- Με τη λήξη της απασχόλησης η εργοδότησή του/της τερματίζεται αυτοδικαίως χωρίς την καταβολή αποζημίωσης ή την τήρηση οποιασδήποτε άλλης διατύπωσης. Σε περίπτωση υποβολής αίτησης από υποψήφιος/ες με αναπηρίες, εφαρμόζονται οι διατάξεις του περί Πρόσληψης Ατόμων με Αναπηρίες στον Ευρύτερο Δημόσιο Τομέα (Ειδικές Διατάξεις) Νόμου, Ν. 146(Ι)/2009.

- viii. Ο/η αιτητής/τρια πρέπει να είναι πολίτης της Κυπριακής Δημοκρατίας ή πολίτης κράτους μέλους της Ευρωπαϊκής Ένωσης.
- ix. Ο/η προκληφθής/φθείσα θα τοποθετηθεί στο Τμήμα Αρχαιοτήτων, στη Λευκωσία ή/και όπου αλλού του ανατεθεί από το Τμήμα Αρχαιοτήτων.
- x. Οι ενδιαφερόμενοι/ες πρέπει να υποβάλουν την αίτησή τους σε ηλεκτρονική μορφή, ως ακολούθως:
- (α) Να προμηθευτούν το έντυπο «Αίτηση για Απασχόληση Εργαζομένων Ορισμένου Χρόνου στη Δημόσια Υπηρεσία» μέσω της ιστοσελίδας του Τμήματος Δημόσιας Διοίκησης και Προσωπικού ([https://www.mof.gov.cy/mof/papd/papd.nsf/All/62494234DCC182D2C22587ED002D9C17/\\$file/Αίτηση%20εργαζομένων%20ορισμένου%20χρόνου.pdf?OpenElement](https://www.mof.gov.cy/mof/papd/papd.nsf/All/62494234DCC182D2C22587ED002D9C17/$file/Αίτηση%20εργαζομένων%20ορισμένου%20χρόνου.pdf?OpenElement)) ή μέσω της ιστοσελίδας του Τμήματος Αρχαιοτήτων (www.mcw.gov.cy/mcw/DA/DA.nsf/All/6F878C25D8C5F02DC225893A00293DB3?OpenDocument). Οι ενδιαφερόμενοι/ες μπορούν επίσης να προμηθευτούν το έντυπο της αίτησης από τα Κεντρικά Γραφεία του Τμήματος Αρχαιοτήτων (Κυπριακό Μουσείο, Λεωφόρος Μίκη Θεοδωράκη 1, 1097 Λευκωσία).
- (β) Το έντυπο αίτησης πρέπει να συμπληρώνεται κατάλληλα, να υπογράφεται, να περιέχονται σε αυτό με ακρίβεια όλα τα ζητούμενα στοιχεία και να συνοδεύεται με τα αναγκαία πιστοποιητικά. Νοείται ότι όλα τα έγγραφα (πτυχία, διπλώματα, βεβαιώσεις), που αναγράφονται στην Παράγραφο 2, θα πρέπει να υποβληθούν με την αίτηση των ενδιαφερομένων. Τα πρωτότυπα πιστοποιητικά να παρουσιαστούν εφόσον ζητηθούν για έλεγχο. Αιτήσεις που δεν θα συνοδεύονται από τα απαραίτητα πιστοποιητικά δεν θα γίνονται αποδεκτές και δεν θα εξετάζονται.
- (γ) Οι αιτήσεις θα πρέπει να παραδίδονται στο Αρχείο του Τμήματος Αρχαιοτήτων (Κυπριακό Μουσείο, Λεωφόρος Μίκη Θεοδωράκη 1, 1097 Λευκωσία), είτε να σταλούν συστημένες μέσω Ταχυδρομείου στην θυρίδα Τ.Θ. 22024, 1516. Στον φάκελο της αίτησης θα πρέπει να αναγράφεται «Αίτηση για τη θέση Εργαζομένου/ης Ορισμένου Χρόνου στο Τμήμα Αρχαιοτήτων, Συνηρητές, Αρ. Φακ.: 15.17.007.01». Η αίτηση θα πρέπει να υποβληθεί εντός του χρονικού περιθωρίου που αναφέρεται στην ακόλουθη παράγραφο με αριθμό 4(χ)(δ).
- Η αρμόδια Επιτροπή διατηρεί το δικαίωμα να ζητήσει την παρουσίαση των εγγράφων σε έντυπη μορφή για επιβεβαίωση των στοιχείων που έχει υποβάλει ο/η αιτητής/τρια. Τα πρόσωπα που θα κληθούν να υπογράψουν τη σύμβαση θα πρέπει να υποβάλουν τα έγγραφα της αίτησής τους σε πρωτότυπη μορφή για έλεγχο πριν την υπογραφή της σύμβασης. Σε αυτή την περίπτωση, εφόσον εντοπιστεί οποιαδήποτε αλλοίωση στοιχείων που επηρεάζουν το αποτέλεσμα της προσφοράς της θέσης σε υποψήφιο/α, το αρμόδιο Τμήμα θα προχωρήσει με την απόρριψη της αίτησης και δεν θα προχωρήσει σε υπογραφή της σύμβασης με τον/την εν λόγω υποψήφιο/α και θα προχωρήσει με την προσφορά της θέσης στον/στην αμέσως επόμενο/η υποψήφιο/α, σύμφωνα με τον πίνακα που θα έχει δημοσιευτεί.
- (δ) Τελευταία ημερομηνία παράδοσης των αιτήσεων στο Τμήμα Αρχαιοτήτων είναι η Παρασκευή, 17/2/2023, ώρα 14:00.
- xi. Για περισσότερες πληροφορίες οι ενδιαφερόμενοι/ες μπορούν να επικοινωνούν με την κα Στέλλα Πισσαρίδου, τηλ. 22865658 και την κα Ελένη Λοιζίδου, τηλ. 22865812 ή στο ηλεκτρονικό ταχυδρομείο του Τμήματος Αρχαιοτήτων antiquitiesdept@da.mcw.gov.cy

ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS

CALL FOR SUBMISSIONS - SPECIAL ISSUE OF APPLIED SCIENCES: ADVANCES IN ANALYTICAL METHODS FOR CULTURAL HERITAGE

Hello all,

Dr. Federica Pozzi, Director of Scientific Laboratories at the Center for Conservation and Restoration of Cultural Heritage "La Venaria Reale" in Turin, Italy, and I, Sally and Michael Gordon Conservation Scientist at the Museum of Modern Art (MoMA) in New York, USA, are guest editing an issue of the Journal *Applied Sciences*. The subject is *Advances in analytical methods for cultural heritage*. We are writing to announce that we are interested in receiving the results of your research & development for this issue! The deadline for manuscript submissions is September 30, 2023. Looking forward to hearing from you.

Advances in Analytical Methods for Cultural Heritage

Technical analysis of cultural heritage is the key to advancing current scholarship in the fields of archaeology and art history, enhancing the accessibility and fruition of artifacts, and best preserving these aspects for future generations. Relentless research in the field of miniaturization has resulted in portable and handheld instrumentation where ever-improving performance is placing data quality in close proximity to well-established benchtop equipment. Global challenges such as climate change and the depletion of natural resources have similarly prompted the use of cutting-edge digital and technological resources to identify or monitor environmentally responsible storage and display conditions for cultural heritage. This Special Issue will gather contributions on the latest advances in the field of analytical methods for cultural heritage, with a special focus on non-invasive approaches and portable equipment, hybrid instrumentation or hyphenated techniques, methodologies and strategies for improved preventive conservation, and newly proposed tools for data management and fusion. As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Best, Dr. Catherine H. Stephens and Dr. Federica Pozzi

To learn more details, follow this link: [Advances in Analytical Methods for Cultural Heritage](#)

Catherine H. Stephens, Ph.D.
Sally and Michael Gordon Conservation Scientist

Museum of Modern Art
New York, NY USA

METALLOGRAPHY AND MICROSTRUCTURE.
A SUMMER SCHOOL COURSE IN ANCIENT
AND HISTORIC METALS, SUSSEX COAST
COLLEGE, HASTINGS CAMPUS, STATION
APPROACH, HASTINGS, TN34 1BA, EAST
SUSSEX. MONDAY AUGUST 21ST-FRIDAY
25TH 2023

This week-long course is designed to introduce or further develop knowledge of the microstructure of ancient metals and the practical application of metallography. Using prepared samples from the most extensive collection of mounted ancient metals in the world, course participants will learn how to sample, mount, polish, etch and interpret microstructural features. The course will run from about 9.45am to 4.55 pm each day for five days.

The geographical spread of metals studied during the course encompasses: ancient Greece, Rome, European Bronze Age, Bronze Age China (Warring States to Tang in fact), Africa, Colombia, Peru, Ecuador, England and Ireland. Lectures on a variety of case studies are included. Students may bring their own PREPARED and MOUNTED samples to display to others on the course if they wish. Space on the course has to be STRICTLY LIMITED. Let me apologize in advance if too many people have already signed up and you miss out. For some metallographic images, see the Instagram site [Davidscottmetals](#).

The location of the course is in the centrally located Hastings campus of the East Sussex Coast College. Hastings is a popular seaside destination with many cultural attractions including the Hastings Contemporary Gallery, The Hastings Museum and Art Gallery, and various other Museums and historic sites.

Fee for course is 450 pounds sterling or 600 dollars US. Early booking is advisable due to the holiday trade in the summer months. There are many Airbnb, bed-and-breakfast choices and hotels in the area.

Booking: for booking up the course in 2023 please send an e-mail to: dascott@ucla.edu.

Instructor: Distinguished Professor Emeritus, David A. Scott, is the former head of the Museum Research Laboratory, J. Paul Getty Museum, Malibu. Professor in the Department of Art History, UCLA, and Founding Director of the UCLA/Getty Conservation Programme. His 2002 book, *Copper and Bronze in Art: Corrosion, Conservation, Colourants*, won the award for the best Art/Scholarly book published in the USA in 2002. Now available as an e-book on the Getty website. His latest book is *Art: Authenticity, Restoration, Forgery*, published in 2016. Professor Scott is the author of over 150 peer-reviewed papers and eight books.

SHORT COURSE IN RADIOCARBON DATING AND BAYESIAN CHRONOLOGICAL ANALYSIS

[Oxford University Department for Continuing Education - Facebook](#) [Oxford University Department for Continuing Education - Twitter](#) [Email course](#)
[Print course](#)

- [Overview](#)
- [Programme](#)
- [Fees](#)
- [Tutor](#)
- [Application](#)

You can opt to attend this hybrid teaching event either online (via a livestream) or in person at the Department of Earth Sciences, Oxford. You will be given the option of how you wish to attend during the enrolment process. You can only pick one option. If your preferred attendance format is fully booked, you can email us to be put on the waiting list.

Overview

This course is aimed at researchers using radiocarbon and other techniques, including Quaternary geologists, palaeobiologists, archaeologists and marine geoscientists. The first two days of the course will cover key aspects of radiocarbon dating including sample selection, laboratory processes and Bayesian analyses of radiocarbon dates. Various aspects relating to the production and interpretation of radiocarbon dating will be taught by members of the NERC Radiocarbon Facility, based at both Oxford and East Kilbride. This course aims to become a core component of practical radiocarbon training in the UK.

The third day of the course will expand on this to look at the construction of Bayesian chronologies more generally, including those that rely primarily on other dating techniques. In this third day there will be a focus on using chronologies for environmental records. This day of the course will be suitable for those participating in the INTIMATE (Integrating ice core, marine and terrestrial records) initiative.

The programme has been formulated to introduce radiocarbon dating and other chronometric techniques to participants by exploring – through lectures, tours and tutorials – the key issues essential to the construction of reliable chronologies. This course has been developed by the NERC Radiocarbon Facility, which is NERC and AHRC funded and consists of the science-based archaeology node at Oxford (Oxford Radiocarbon Accelerator Unit: ORAU) and the environment node at East Kilbride (Scottish Universities Environmental Research Centre: SUERC), and as part of the University of Oxford NERC Doctoral Training Partnership.

For those attending in person, bed and breakfast accommodation, sandwich lunches and dinners are available to book as optional extras and are provided by Oxford University

Department for Continuing Education, Rewley House, 1 Wellington Square, Oxford, OX1 2JA. Rewley House is approximately 15 minutes walk from the course location.

Programme details

For those attending in person, the course will be held at the Department for Earth Sciences, South Parks Road, Oxford. Dinner and accommodation will be at Rewley House, 1 Wellington Square, Oxford.

Monday 13 March 2023

Day One: Introduction to Radiocarbon Dating

08.30 Registration opens for in-person attendees at the Department of Earth Sciences

09.00 Introduction

- Archaeological projects
- Environmental projects

Tea/coffee

- What can go wrong in radiocarbon dating
- Sediment, soil, reduced carbon, carbonates and waters
- Introduction to calibration

Lunch

- Hands-on calibration workshop
- Radiocarbon as a tracer

Tea/coffee

- AMS radiocarbon measurement
- Case study: Using radiocarbon to study the Carbon Cycle

17:00 Course ends for the day

19:00 Dinner at Rewley House (optional)

Tuesday 14 March 2023

Day Two: Radiocarbon applications, calibration and Bayesian analysis

09.00 Organic samples - wood, plants, bone

- Compound specific dating
- Stable isotopes

Tea/coffee

- Reservoirs and reservoir correction
- Dealing with reservoir offsets in humans
- Hands-on: reservoir effects/own data

Lunch

- Bayesian age modelling
- Simple age models
- Hands-on: Bayesian model building

Tea/coffee

- Example case study

17:00 Course ends for the day

19:00 Dinner at Rewley House (optional)

Wednesday 15 March 2023

Day Three: Bayesian analysis and the environment

09.00 Introduction to age-depth modelling

- Calibrating sediment sequences

- Hands-on: age-depth modelling

Tea/coffee

- Lab tour: sampling and pre-treatment
- Lab tour: stable isotopes and graphitisation
- Lab tour: AMS measurement

Please note: lab tour for in-person attendees only

Lunch

- Using different dating methods
- Case study: Suigetsu
- INTCHRON

Tea/coffee

- Hands-on: advanced techniques and own data

17:00 Course disperses

Fees

Description	Costs
Tuition: in-person attendance (3 days)	£480.00
Tuition: in-person attendance (Mon & Tues only)	£338.00
Tuition: virtual attendance (3 days)	£480.00
Tuition: virtual attendance (Mon & Tues only)	£338.00
Accommodation: Single B&B (2 nights)	£189.60
Dinner Monday night at Rewley House	£24.30
Dinner Tuesday night at Rewley House	£24.30
Packed Lunch Monday	£8.25
Packed Lunch Tuesday	£8.25
Packed Lunch Wednesday	£8.25

Payment

Payment of fees must be made in full at the time of booking.

Please note that businesses and organisations can be invoiced on provision of a Purchase Order and completed application form. These can be emailed to the CWHE Programme Administrator, email: cwhe@conted.ox.ac.uk.

If you would like to attend part of the course, but not all, please email: cwhe@conted.ox.ac.uk and we can arrange the booking for you (subject to availability).

Day 1 is a general introduction to radiocarbon dating

Days 1 and 2 will be relevant for archaeologists wishing to do Bayesian analysis

Days 2 and 3 are suitable for people interested in Bayesian analysis, who already have a working knowledge of radiocarbon dating

Day 3 is suitable for environmental scientists doing age-depth models and similar

Tutor

[Professor Christopher Ramsey](#)

Course Director

Director of the Oxford Radiocarbon Accelerator Unit, Author of OxCal

Application

Please use the 'Book' or 'Apply' button on this page. Alternatively, please contact cwhe@conted.ox.ac.uk to obtain an application form. Enrolments will close at the end of Monday 13 March 2023.

Accommodation

Accommodation for this three-day course is at Rewley House for Monday and Tuesday nights only. If you would like to book a double or twin room, please contact us via email (cwhe@conted.ox.ac.uk).

Depending on availability it may also be possible to extend your stay; please enquire at the time of booking for availability and prices.

All bedrooms are modern, comfortably furnished and each room has tea and coffee making facilities, Freeview television, and Free WiFi and private bath or shower rooms.

IT requirements

You can opt to attend this hybrid teaching event either online (via a livestream) or in person at the Department of Earth Sciences. You will be given the option of how you wish to attend during the enrolment process. You can only pick one option. If your preferred attendance format is fully booked, you can email us to be put on the waiting list.

For those joining us online

If you wish to join the course online for the hybrid sessions only you will be offered the option to select this when you book. The hybrid sessions will be live streamed using Zoom and you will be sent a link to join the course. The course will be accessible online 15 minutes before the start time and we encourage all participants to join in good time. Please note that this course will not be recorded.

Please visit the site: **<https://www.conted.ox.ac.uk/courses/short-course-in-radiocarbon-dating-and-bayesian-chronological-analysis>**

FITCH LABORATORY, BSA - GLASS IN THE MEDITERRANEAN AND THE NEAR EAST - TRAINING COURSE: GLASS IN THE MEDITERRANEAN AND THE NEAR EAST - ARCHAEOLOGY AND ARCHAEOLOGY FROM THE LATE BRONZE AGE TO THE EARLY MEDIEVAL PERIOD, 19-23 MAY 2023

This five-day course provides an introduction to archaeological glass, its typology, technology, composition and chronological development. It will be of interest to students, early career researchers and others who wish to engage with current research on ancient glass. It comprises daily lectures (20 hours), glass handling sessions, workshops/demonstrations on chemical analysis and scanning electron microscopy of glass, as well as a museum visit (10 hours).

The course co-coordinators and instructors are Dr. Yael Gorin-Rosen (Israel Antiquities Authority, Jerusalem) & Prof. Ian Freestone and Dr Veronica Occari (UCL Institute of Archaeology, London) with contribution by Dr. Carlotta Gardner (Fitch Laboratory, British School at Athens).

Course Fee: The course fee includes tuition, teaching materials, coffee/tea and snacks, and a farewell meal, plus BSA membership for a month with 24-hour access to the superb library and entry to archaeological sites and public museums in Greece. It also covers self-catering, shared accommodation in double rooms (including breakfast) for six nights at the BSA Hostel. The fee is 580€. Please check the BSA's website for further information

(
<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.bsa.ac.uk%2Fmember-services%2Faccommodation%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7Cc46c5872a7d643ea167408db0396add0%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107717935532050%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjIhaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=jFFy%2FNwchpLUXDxYTjtWGwT6WPmWtFLID9RNHCB8Ddc%3D&reserved=0>). Travel to and from Athens and health insurance are the sole responsibility of the course participant.

The course is limited to 12 places. The successful candidates will be informed by late March 2023. Post-graduate students are recommended to apply to their universities for financial support.

If you wish to apply, please check the relevant section on the British School at Athens web page
(<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.bsa.ac.uk%2Fcourses%2Fglass-in-the-mediterranean-and-the-near-east%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7Cc46c5872a7d643ea167408db0396add0%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107717935532050%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjIhaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=jFFy%2FNwchpLUXDxYTjtWGwT6WPmWtFLID9RNHCB8Ddc%3D&reserved=0>).

[b0396add0%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107717935688290%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=06lum9fuzINIn8gVxht2%2BL%2BXXkdzQLvPfnKijfZaez8%3D&reserved=0\).](https://b0396add0%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107717935688290%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=06lum9fuzINIn8gVxht2%2BL%2BXXkdzQLvPfnKijfZaez8%3D&reserved=0).)

Deadline: 27 February 2023.

For further information, contact either of the two course coordinators, Prof . Ian Freestone (i.freestone@ucl.ac.uk) or Dr. Yael Gorin-Rosen (yael.gorin.rosen@gmail.com).

Biographies

The course tutors have collaborated on glass projects for two decades. Their early papers on the archaeology and archaeometry of Levantine glass production are widely cited and articulated a production model which has now become widely accepted.

Yael Gorin-Rosen is a leading specialist in ancient glass. She established the Glass Department of the Israel Antiquities Authority in 1991 and has headed it since then. From 1996 to 2002, she taught ancient glass at the Bezalel Academy of Art and Design in Jerusalem, where in 2017-2019 she is an invited lecturer. She taught at the University of Haifa during 2017. Yael Gorin-Rosen has participated in and supervised several excavations, including the biggest ancient glass production site ever excavated in the world: the raw glass industry at Bet Eli'ezer, Hadera (1992) and more recently the raw glass furnaces at Jalame (2015-2016). She has published more than 150 reports on glass vessels from excavations in Israel, dating from the Hellenistic period to the Middle Ages.

Ian Freestone joined the Institute of Archaeology London as Professor of Archaeological Materials and Technology in 2011. From 1979 he worked in the British Museum as a research scientist, then moved to Cardiff University in 2004, where he was first Professorial Research Fellow then Head of Archaeology. He has published extensively on early glass and ceramics and is a recipient of the Archaeological Institute of America's Pomerance Medal for scientific contributions to archaeology. He is a member of the editorial boards of Archaeometry, the Journal of Archaeological Science and Journal of Glass Studies.

FITCH LABORATORY BURSARY AWARDS **2023-2024**

Applications are invited from graduate students or young scholars for an award to support research at the Fitch Laboratory, British School at Athens (BSA) for up to 3 months in the academic year (September 2023-July 2024) in any of the fields in which the Laboratory is active (e.g. ceramic studies, archaeometallurgy, geophysical prospection, zooarchaeology, archaeobotany, soil micromorphology, ethnoarchaeology, landscape archaeology, archaeology of technology; normally in the context of Aegean/Mediterranean archaeology). The Bursary includes a monthly stipend (400€), BSA membership and accommodation at the BSA Hostel in Athens and, if required for research purposes, also in Knossos. The award holder will be required to submit a report on her/his research at the Laboratory to the Laboratory's Subcommittee and Director.

The successful applicant will be expected to use the facilities of the Fitch Laboratory (including analytical equipment and reference collections) as well as the BSA library to further on-going work, in the context of a postgraduate degree or postdoctoral research. No bench fee charges will be applied but the bursary holder will need to cover the expenses of any planned sample preparation or analysis. The award carries no other formal obligation, although involvement in the academic life of the BSA (for example in the form of a seminar) is welcome.

Applications should include a covering letter (indicating the preferred length and period of stay), a Curriculum Vitae, a statement of the proposed programme of research and a title (up to one page) and the names and contact details of two referees. *Applicants should ask referees to send their recommendations by the deadline*. The successful applicant will be responsible for acquiring on time any required permits for study and transfer of archaeological material to the Fitch Laboratory. If the use of in-house analytical facilities is necessary for the proposed research, applicants are advised to contact the Laboratory Director to get feedback on analytical costs and timing; the latter mainly in relation to the WD-XRF analysis.

Potential applicants may contact Dr Evangelia Kiriati, the Laboratory Director (e.kiriati@bsa.ac.uk), for further information. Additional details about the School and the Laboratory can be found at <https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.bsa.ac.uk%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7C03dbc2e2fd064aea36cb08db0395b513%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107713752050041%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJB>
<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.bsa.ac.uk%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7C03dbc2e2fd064aea36cb08db0395b513%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107713752050041%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJB>

If you are interested in applying for an award, please check our website on how to apply (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.bsa.ac.uk%2F&data=05%7C01%7Caegeanet%40lists.ku.edu%7C03dbc2e2fd064aea36cb08db0395b513%7C3c176536afe643f5b96636feabbe3c1a%7C0%7C0%7C638107713752050041%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJB>

[MzIiLCJBThI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=T4xNOsBqZ8U5%2FQowyyao0kFbFIO6ncUHQDn9RjHT1m8%3D&reserved=0](https://www.hellenicarchaeometry.gr/submit-application?MzIiLCJBThI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=T4xNOsBqZ8U5%2FQowyyao0kFbFIO6ncUHQDn9RjHT1m8%3D&reserved=0)).

Applications should be submitted by 12th May 2023.

INTERNET SITES

WHY TYRIAN PURPLE DYE IS SO EXPENSIVE

Making authentic Tyrian purple dye starts with extracting a murex snail gland. After a series of painstaking steps, Tunisian dye maker Mohamed Ghassen Noura turns as much as 45 kilograms of snails into a single gram of pure Tyrian purple extract.

When he's done, he can sell it for \$2,700. Some retailers sell a gram of the pigment for over \$3,000. In comparison, 5 grams of synthetic Tyrian purple costs under \$4. So, why is real Tyrian purple so hard to make? And is that why it's so expensive?

Please visit the site: <https://youtu.be/IVXqisH6VeM> is this 11' video

ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS

RADIOCARBON, VOLUME 64 / ISSUE 6, **DECEMBER 2022**

ISSN: 0033-8222, EISSN: 1945-5755

Published Online January 2023

Editorial

INTRODUCTION

[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1289 - 1294
doi: 10.1017/RDC.2022.98 Published Online on 17 January 2023

Conference Paper

THE VERSATILE USES OF THE ¹⁴C BOMB PEAK

Walter Kutschera

[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1295 - 1308
doi: 10.1017/RDC.2022.13 Published Online on 4 April 2022

¹⁴C AND OTHER RADIONUCLIDES IN THE ENVIRONMENT IN THE BORDER REGION OF LITHUANIA BEFORE THE START OF THE BELARUSIAN NUCLEAR POWER PLANT OPERATION

Jonas Mažeika, Olga Jefanova, Rimantas Petrošius, Galina Lujanienė,
Žana Skuratovič

[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1309 - 1322
doi: 10.1017/RDC.2022.20 Published Online on 19 April 2022

RADIOCARBON DATING OF URBAN SECONDARY CARBONATE DEPOSITS: SITE EFFECT AND IMPLICATION FOR CHRONOLOGY: CASE STUDY OF PARIS AND VERSAILLES PALACE FOUNTAINS

Edwige Pons-Branchu, Ingrid Caffy, Emmanuelle Delque-Kolic, Jean-
Pascal Dumoulin, Emmanuel Dumont, Sarah Madikita, Gilles Bultez,
Daniella Malnar, Gael Monvoisin, Jules Querleux, Matthieu Fernandez,
Nadine Tisnérat Laborde, Philippe Branchu

[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1323 - 1332
doi: 10.1017/RDC.2022.78 Published Online on 6 December 2022

[CHARACTERISTICS OF PINE NEEDLES EXPOSED TO MULTI-SOURCE POLLUTION IN SILESIA: RADIOCARBON CONCENTRATION IN PINE NEEDLES AND ELEMENTAL ANALYSIS OF THE NEEDLES' SURFACE DEPOSITS](#)

Barbara Sensuła, Bartłomiej Toroń, Joanna Roczniak, Agnieszka Sasiela, Jakub Świątkowski, Aleksandra Tomaszowska
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1333 - 1344
doi: 10.1017/RDC.2022.85 Published Online on 21 December 2022

[A TWELVE-HUNDRED-YEAR STABLE OXYGEN ISOTOPE CHRONOLOGY CONSTRUCTED USING SUBFOSSIL WOOD FROM SCHWARZENSEE LAKE, AUSTRIAN ALPS](#)

Marzena Kłusek, Michael Grabner, Jacek Pawlyta, Sławomira Pawełczyk
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1345 - 1358
doi: 10.1017/RDC.2022.91 Published Online on 20 December 2022

[THE FIRST RADIOCARBON-DATED REMAINS OF THE LEOPARD *PANTHERA PARDUS* \(LINNAEUS, 1758\) FROM THE PLEISTOCENE OF POLAND](#)

Adrian Marciszak, Grzegorz Lipecki, Wiktoria Gornig, Lena Matyaszczyk, Oliwia Oszczepalińska, Dariusz Nowakowski, Sahra Talamo
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1359 - 1372
doi: 10.1017/RDC.2022.33 Published Online on 16 May 2022

[CLIMATIC OSCILLATIONS DURING MIS 3–2 RECORDED IN SETS OF ¹⁴C AND OSL DATES—A STUDY BASED ON DATA FROM POLAND](#)

Danuta J Michczyńska, Danuta A Dzieduszyńska, Joanna Petera-Zganiacz, Lucyna Wachecka-Kotkowska, Dariusz Krzyszkowski, Dariusz Wiczorek, Małgorzata Ludwikowska-Kędzia, Piotr Gębica, Leszek Starkel
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1373 - 1386
doi: 10.1017/RDC.2022.69 Published Online on 17 October 2022

[REINTERPRETATION OF FLUVIAL-AEOLIAN SEDIMENTS FROM LAST GLACIAL TERMINATION CLASSIC TYPE LOCALITIES USING HIGH-RESOLUTION RADIOCARBON DATA FROM THE POLISH PART OF THE EUROPEAN SAND BELT](#)

Robert J Sokołowski, Piotr Moska, Paweł Zieliński, Zdzisław Jary, Natalia

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[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1387 - 1402
doi: 10.1017/RDC.2022.37 Published Online on 9 June 2022

[MIS 3–2 PALEO-WINTER TEMPERATURE RECONSTRUCTIONS OBTAINED FROM STABLE WATER ISOTOPE RECORDS OF RADIOCARBON-DATED ICE WEDGES OF THE BATAGAY ICE COMPLEX \(YANA UPLAND, EASTERN SIBERIA\)](#)

Yurij Vasil'chuk, Jessica Vasil'chuk, Nadine Budantseva, Alla Vasil'chuk
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1403 - 1417
doi: 10.1017/RDC.2022.60 Published Online on 9 September 2022

[AMS ¹⁴C DATING OF SEYAKHA YEDOMA AND JANUARY AIR PALAEOTEMPERATURES FOR 25–21 CAL KA BP BASED ON THE STABLE ISOTOPE COMPOSITIONS OF SYNGENETIC ICE WEDGES](#)

Yurij Vasil'chuk, Alla Vasil'chuk, Nadine Budantseva
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1419 - 1429
doi: 10.1017/RDC.2022.15 Published Online on 8 April 2022

[INFLUENCE OF AIR PARCELS FROM NORTHERN AND SOUTHERN HEMISPHERES ON RADIOCARBON-BASED INCA CHRONOLOGY](#)

Santiago Ancapichún, Jacek Pawlyta, Andrzej Z Rakowski, Dominika Sieczkowska
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1431 - 1446
doi: 10.1017/RDC.2022.87 Published Online on 27 December 2022

[TESTING THE METHODS FOR DETERMINATION OF RADIOCARBON CONTENT IN LIQUID FUELS IN THE GLIWICE RADIOCARBON AND MASS SPECTROMETRY LABORATORY](#)

Jean Baptiste Baranyika, Natalia Piotrowska, Marzena Kłusek, Adam Michczyński, Jacek Pawlyta
[Radiocarbon, Volume 64 / Issue 6](#), December 2022, pp 1447 - 1456
doi: 10.1017/RDC.2022.35 Published Online on 7 June 2022

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doi: 10.1017/RDC.2022.101 Published Online on 17 January 2023

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doi: 10.1017/RDC.2022.102 Published Online on 17 January 2023

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HOT MIXING: MECHANISTIC INSIGHTS INTO THE DURABILITY OF ANCIENT ROMAN CONCRETE

Linda M. Seymour, Janille Maragh, Paolo Sabatini, Michel Di Tommaso, James C. Weaver, Admir Masic

ABSTRACT

Ancient Roman concretes have survived millennia, but mechanistic insights into their durability remain an enigma. Here, we use a multiscale correlative elemental and chemical mapping approach to investigating relict lime clasts, a ubiquitous and conspicuous mineral component associated with ancient Roman mortars. Together, these analyses provide new insights into mortar preparation methodologies and provide evidence that the Romans employed hot mixing, using quick lime in conjunction with, or instead of, slaked lime, to create an environment where high surface area aggregate-scale lime clasts are retained within the mortar matrix. Inspired by these findings, we propose that these macroscopic inclusions might serve as critical sources of reactive calcium for long-term pore and crack-filling or post-pozzolanic reactivity within the cementitious constructs. The subsequent development and testing of modern lime clast-containing cementitious mixtures demonstrate their self-healing potential, thus paving the way for the development of more durable, resilient, and sustainable concrete formulations.

Please visit the site: <https://www.science.org/doi/epdf/10.1126/sciadv.add1602> [Go there for article] [See also <<https://news.mit.edu/2023/roman-concrete-durability-lime-casts-0106>>]

DIGITAL UNDERWATER TECHNOLOGIES **IN THE METHONI BAY CULTURAL** **HERITAGE PROJECT, GREECE:** **INTERDISCIPLINARY APPROACHES AND** **SUSTAINABILITY**

Levy, T.E., Papatheodorou, G., Geraga, M., Christodoulou, D., Georgiou, N., Kordella, S., Gkionis, P., Spondylis, I., Michalis, M., Dimas, X., Tsoulakou, M., Kylafi, M., Vouvalidis, K., Tamberino, A., Clark, L., Reece, J., Cantu, K., Walsh, R., McDonald, C. and Shtienberg, G.

ABSTRACT

Submerged cultural heritage provides a unique opportunity to couple paleoenvironmental and culture-historical research with the contemporary cultural heritage needs of the public where field work takes place. Greece provides an ideal locale for developing what we refer to as maritime cultural heritage asset districts (MCHAD). Here we summarize two seasons (2019, 2021) of field survey work in the Methoni Bay region of Messenia off the southwestern Peloponnese coast that provides an ideal locale for developing a MCHAD.

A number of interdisciplinary survey tools were used to examine cultural and adaptive responses to environmental and cultural change in deep-time around the Methoni Bay with the aim of enhancing cultural heritage tourism in the area. Our project builds on earlier paleogeography and submerged heritage research by conducting: 1) non-invasive high definition shallow marine geophysics including Multibeam Echosounder, Side Scan Sonar, and Chirp sub-bottom profiler; 2) photogrammetry of several previously investigated shipwrecks and a unique submerged Middle Bronze Age/Middle Helladic (MH) settlement (2050/2000 – 1750/1680 BCE) using a three camera custom rig mounted on a scuba scooter for large area coverage; 3) shallow submerged sediment sampling using scuba and diver operated coring device to study the deep-time environmental history of the Methoni embayment and preliminary terrestrial coring using a Cobra percussion core drilling system; and 4) a cyber-archaeology workflow using photogrammetry and 3D laser desktop scanning tools to collaborate with a local museum to curate and disseminate research for the public.

This article provides an overview of the project methods and preliminary results for melding scientific research with cultural heritage objectives.

Please visit the site: <https://tinyurl.com/mphd7ukb> [Go there to download]

ΕΙΔΗΣΕΙΣ - NEWS RELEASE

2,300-YEAR-OLD TEENAGE 'GOLDEN BOY' MUMMY UNDERGOES CT SCAN

Close to 50 amulets were found on the body of a 2,300-year-old teenage mummy kept in the Cairo Egyptian Museum.

A 2,300-year-old mummy that was originally found in 1916 but left unexamined, recently underwent CT scans whereby scientists found him wearing 49 ritually-significant amulets and sandals.

The findings of the CT scan have been published in *Frontiers in Medicine* and were made by a team from the Department of Radiology at Kasr Al Ainy Hospital and the Cairo Egyptian museum.

The amulets and their significance

Following the CT scans, the researchers used 3D printing to enable the tactile and visual study of the amulets, and the result of the 3D CT scanning of the largest amulet in the mummy was translated into a printable format.

Of the 49 amulets found on the ancient mummy, 30 were made of gold or had gold components. Among these amulets were a golden heart scarab placed next to his thoracic cavity, a golden tongue inside his mouth and a two-finger amulet next to his uncircumcised penis.

The remaining 19 amulets were made of stone, fired clay, or Egyptian faience - a ceramic material with a siliceous body and a brightly colored glaze.

The body was also wearing sandals and fern garlands which also hold ritual significance.

The golden scarab was deemed important in the ancient Egyptian belief system, as after death the heart was to be weighed against the goddess Maat's feather. The scarab was thought to silence the heart during judgment day, making the soul more likely to pass through to the afterlife, and act as a substitution for the heart if the organ was ever missing.

Dr. Sahar Saleem, the study's first author and a professor at the Faculty of Medicine of Cairo University, Egypt., believes that the mummy's sandals "were probably meant to enable the boy to walk out of the coffin. According to the ancient Egyptians' ritual Book of The Dead, the deceased had to wear white sandals to be pious and clean before reciting its verses."

The golden tongue placed in the mouth was thought to have enabled him to speak in the afterlife. The amulet placed beside his penis was thought to protect the embalming incision.

He also wore an Isis Knot which was believed to enlist the power of the goddess Isis in the protection of the body. Isis was the ancient Egyptian goddess of fertility, motherhood, magic, death, healing, and rebirth

More about the "golden boy"

The boy is thought to have come from a wealthy and powerful family based on the wealth he was buried with. He is thought to have been around 15 at his time of death and his body was found in a cemetery in Neg el-Hassay, Egypt.

The mummy was laid in two coffins. The outer coffin had Greek inscriptions and an inner wooden sarcophagus.

Postmortem, the viscera had been removed through an incision, while the brain had been removed through the nose and replaced with resin. This is commonly found in mummies from this cultural period.

The 'golden boy' mummy is now available for the public to view at the Egyptian Museum, and the researchers generated 2D- and 3D-CT images of the mummy to be used in a short documentary movie that will play alongside the display in the museum showroom. 3D printed objects will also be used for tactile and visual experiences by the visitors.

Please visit the site: <https://www.jpost.com/archaeology/article-729410> [Go there for pix]

AFTER 220 YEARS, THE FATE OF THE PARTHENON MARBLES RESTS IN SECRET TALKS, BY ALEX MARSHALL

The British Museum and Greece's prime minister are getting closer to a deal on returning the so-called Elgin Marbles to Athens. But key differences remain.

When Lord Elgin, a British aristocrat, sailed home from Greece in the early 1800s, he also shipped to England some of the greatest treasures of antiquity: a collection that included statues of Greek gods and carved frieze panels depicting battling centaurs that once decorated the Parthenon in Athens.

Torn in some cases from the temple walls, ostensibly with the permission of the Ottomans who then ruled Greece, the so-called Elgin Marbles were later sold to the British government and became some of the most storied artifacts in the collection of the British Museum.

But they also became, almost from the very day they were removed, the subject of perhaps the world's most notorious cultural dispute.

Since the days of Lord Byron, the romantic poet who was an early critic of their removal, the fate of the marbles has been bitterly contested. The British say the marbles were legally acquired and are best shown alongside other artifacts in a universal museum, while the Greeks view them as looted treasures that are a foundation of their national heritage.

The debate has only deepened in recent years as the actions of old empires have come under new scrutiny, and restitution battles have come to challenge the foundations of Western museums. The pressure to return the marbles has grown as museums have given back high-profile items including Benin Bronzes, Italian antiquities and other fragments from the Parthenon that were relinquished just last month by the Vatican.

Now there are hopeful signals that perhaps a resolution between the British Museum and Greece could be in sight as officials on both sides have acknowledged that secret talks have taken place. But even as those disclosures have flowered into optimism that real progress will soon be made, both sides have made it clear that no deal is yet imminent.

The talks have been ongoing in London since November 2021, between Prime Minister Kyriakos Mitsotakis of Greece and George Osborne, a former finance minister of Britain who is now the chairman of the British Museum. In the seclusion of plush hotels and at the Greek ambassador's townhouse, the parties have been trying to reach a deal on the marbles' future, according to two people with knowledge of the negotiations who were granted anonymity to discuss confidential talks.

One of those people had knowledge of the Greek position; the other knew the British Museum's.

At several of those meetings, Giorgos Gerapetritis, a minister without portfolio in Greece's government, acted as Mitsotakis's representative, according to both people.

Just how well the negotiations have gone has been a matter of much speculation. One article last month in the Greek newspaper Ta Nea, which broke news of the talks, said they were "90 percent" complete, citing "well-placed" Greek sources. Bloomberg reported earlier this month that the parties were "closing in" on a deal, and other optimistic accounts have followed elsewhere. Under the discussed proposal, the Bloomberg article said, some of the monuments would return to Athens temporarily, in exchange for other ancient treasures.

But a deal remains much further away than those reports suggest, according to the two people with knowledge of the negotiations who spoke to The New York Times. And, in fact, in recent days officials from both sides have spoken publicly to pump the brakes on the soaring expectations that any deal was imminent.

For his part, Mitsotakis has asked the British Museum to return all of the frieze in its collection, some 250 feet of carved stone that once wrapped around the Parthenon, the person with knowledge of the Greek position said. Mitsotakis wanted an agreement that those panels would stay in Greece for at least 20 years, the person added. There, they would be reunited with other parts of the frieze already on display in the Acropolis Museum in Athens.

That person said Mitsotakis hoped that, after 20 years, the agreement would be extended so the frieze panels would remain in Athens.

The Greek side hoped to negotiate the return of the remaining sculptures at a later date, the person with knowledge of its position added. In return for the frieze, Greek museums would supply the British Museum with a rotating selection of priceless artifacts, some of which had never left Greece, the person added.

The British Museum wants a different deal, according to the person with knowledge of its position. So far, Osborne has suggested returning a smaller portion of the frieze, as well as carvings of gods and centaurs, as a short-term loan, the person said. The museum could offer up to a third of the Parthenon artifacts in its collection, the person added.

Once Greece returned those artifacts to London, more would be sent to Athens to replace them, the person said. Over time, the number of artifacts sent to Greece would increase, to reflect growing trust between the two sides, the person added.

The British Museum's view is that it cannot offer more, even if it wanted to, the person with knowledge of its position said. Under British law, the museum cannot remove items from its collection unless they are "unfit to be retained," though it is free to loan objects to other institutions. The museum argues that Lord Elgin (whose name is pronounced with a hard "g" sound, as in "Helga") acquired the artifacts legally, after administrators of the Ottoman Empire, which governed Athens at the time, gave him a permit. It also insists the sculptures are best presented among the museum's global collections, so that they tell part of a broader story about human civilization.

If any agreement with the Greek government did not include a provision that the marbles must return to London, it could be challenged in Britain's courts. But any deal would be written in a way that did not require Greece to give up its claim for ownership of the artifacts, the person with knowledge of the museum's position said.

The British Museum declined to comment on the negotiations, but a museum spokesman acknowledged by email that they were taking place.

"We're actively seeking a new Parthenon partnership with our friends in Greece, and, as we enter a new year, constructive discussions are ongoing," the spokesman said.

With an informal offer and a counteroffer on the table, the talks have reached a stage that "had not been seen before," the person on the Greek side said. Both parties were "negotiating in good faith," the person added, but they did not expect more progress until after Greece held parliamentary elections later this year.

All the while, pressure is growing on the British Museum. Last year, Italy returned a fragment from the Parthenon that for more than 200 years had been on display at a museum in Sicily. And in December, the Vatican announced it would give three Parthenon fragments to the leader of the Greek Orthodox Church, who is expected to pass them on to the Acropolis Museum.

Other major Western collections, including the Smithsonian Institution and the Humboldt Forum, in Berlin, have recently returned high-profile disputed artworks, and the British Museum looks increasingly out of step. As well as the Parthenon artifacts, it holds an extensive collection of Benin Bronzes, claimed by Nigeria; the Rosetta Stone, which some archaeologists want returned to Egypt; and a statue from Easter Island that the Rapa Nui, the island's Indigenous people, have asked for.

This year, the British Museum is scheduled to announce a major renovation including roof and heating system upgrades that could result in some galleries being shut for long periods. The project is expected to cost 1 billion pounds, around \$1.2 billion, according to a report in The Financial Times.

Leslie Ramos, the founding director of Arteater, an agency that advises museums on fund-raising, said in an interview that potential donors for the renovation "might want to have a specific idea" of what the British Museum is doing about the Parthenon artifacts before deciding to contribute. For the museum, entering negotiations on disputed objects would "be a way of appealing to a new generation of philanthropists," she added.

Aside from the two camps' differing offers, there is another major stumbling block: whether British and Greek lawmakers would accept a deal. The British government said last year that it does not plan to change the law and allow a full restitution of the marbles. On Wednesday, Michelle Donelan, Britain's culture minister, told the BBC that returning the artifacts would open a "complete can of worms" and could lead to demands for other items in the museum.

"Sending them back is a dangerous road to go down," Donelan said.

It was also unclear whether Greece would accept a "partnership" if that implied that the marbles belong to the British Museum. Sia Anagnostopoulou, a Greek lawmaker from

the opposition Syriza party who is the party's spokeswoman on culture, said in an email that she opposed any deal that did not make it clear that the marbles are Greece's rightful property, and that a loan would be unacceptable.

"It is a matter of dignity for all Greeks," she said, "as it would be for the British people, if they were asked to temporarily 'borrow' stolen pieces of Stonehenge."

Legal experts and museum administrators worldwide are watching the situation closely.

"If there was some kind of deal, it would be a great symbol for others seeking restitution claims," said Alexander Herman, the director of the Institute of Art and Law, in London.

Max Hollein, the director of the Metropolitan Museum of Art in New York, said by phone that "the whole question of the Elgin Marbles is such a long and complex story" that any solution "would be a major step for the institutions, and for the cultural dialogue in the world."

The Met recently reached a deal with Greece so that the New York museum could display a collection of Cycladic antiquities assembled by the philanthropist Leonard N. Stern while acknowledging that, ultimately, the artifacts belong to the Greek state. Under the deal, artifacts will travel between the United States and Greece. Hollein said Greece's government was open to negotiating innovative solutions to restore ownership of the country's cultural heritage, while allowing items to be displayed abroad.

At the British Museum last week, the gallery where the marbles are displayed was filled with tourists, many snapping selfies in front of the statues and the frieze.

Dilan Polat, 20, an art student who was sketching a centaur's muscled torso from one of the panels, said she felt "really lucky to be able to draw actual Greek sculptures." But, she added, they should return "to their rightful place" in Greece. John Lancaster, 59, a bus driver, said the marbles should return to Greece since they were part of that country's history. "It's like the Crown Jewels," Lancaster added. "If someone took those, you'd want them back, wouldn't you?"

Last year, a survey by YouGov, a polling agency, said 59 percent of Britons believed the sculptures belonged in Greece.

But public opinion is unlikely to be the deciding factor in the negotiations. Herman, the legal expert, said that every few years "there is what seems to be a glimmer of hope" in the debate over the Parthenon Sculptures — but then the process stalls.

The same thing could happen now, he said. But he added that both Mitsotakis and Osborne were "practically minded" businessmen, used to striking deals. "If there are two people who can sit in a room and work it out," Herman said, "it'll probably be people like those two."

Please visit the site: <https://www.nytimes.com/2023/01/17/arts/design/parthenon-sculptures-elgin-marbles-negotiations.html>

IN PARTS OF ANCIENT GREECE, FIRST- COUSIN MARRIAGE WAS NOT ONLY ALLOWED BUT ENCOURAGED, DNA SHOWS, BY LIANNE KOLIRIN

If you wanted to hang on to your land in Bronze Age Greece, you could do worse than marry your cousin.

A team of international researchers analyzing the genomes of ancient human remains has discovered that, unlike in other European societies of the period, first cousins in Minoan Crete and Mycenaean Greece frequently married each other.

Experts from the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, together with an international team of partners, analyzed more than 100 genomes of Bronze Age people from the Aegean.

The team behind the study, published Monday in the scientific journal, *Nature Ecology & Evolution*, say their findings provide “exciting insights” into the social order of the Aegean Bronze Age.

By analyzing the DNA of people buried in a tomb under the courtyard of a house in a Mycenaean hamlet, on the Greek mainland, the researchers managed to reconstruct the family tree of its inhabitants from the 16th century BCE.

I used DNA analysis to find my birth family and it sent me across three continents

Archaeologist Professor Philipp Stockhammer, one of the study’s lead authors, told CNN: “We wanted to have a look at how were people buried together genetically related and about what you can learn about the relevance of the genetic relatedness for the structure of society.”

“We managed to construct the first family pedigree for the Mediterranean. We can see who lived together in this house from looking at who was buried outside in the courtyard.

“We could see, for example, that the three sons lived as adults in this house. One of the marriage partners brought her sister and a child. It’s a very complex group of people living together.”

Even more surprising was the discovery that around half of those living on the islands married their cousins, while the proportion on the mainland was about a third.

“It’s not 100%, but not everybody has a cousin,” Stockhammer said.

“People have studied thousands of ancestral genomes and there’s hardly any evidence for societies in the past of cousin-cousin marriage. From a historical perspective this really is outstanding,” he added.

Stockhammer and his colleagues believe such unions were down to economics, to prevent family land from being divided.

A lost ecosystem revealed in Greenland by oldest environmental DNA He explained: “All of the driving force is to unite the land within the family. If you look at what people were growing, it was grapes and also olives for olive oil, but both grapes and olives might need to be at a certain place for decades.

“If you marry in your family it means that you focus on staying in the same area.”

He said that, by contrast, in other parts of Bronze Age Europe, women often traveled hundreds of miles in order to marry. Resources in those areas would have been more plentiful, he explained.

“In Greece, there’s not much space to grow things and things that you plant need decades to grow,” he said.

“We can completely see the cousin to cousin marriage from the genomic evidence. It’s too many people doing it to say it’s pure chance – but it isn’t 100%. I would say it was quite a strict practice.

“It’s an unwritten rule because everyone has done it.”

Stockhammer explained the significance of the discovery, saying: “With this knowledge we are basically forced to rethink the social organizations in this period and societies that were behind these amazing works of art and architecture.

“It’s a society where we have written records about palace administrations but we are now able to say something about the normal people.”

Please visit the site: <https://www.cnn.com/2023/01/16/europe/ancient-cousins-marriage-scli-intl-scn/index.html>

PRESERVING PAPYRUS: CARING FOR 4000- YEAR-OLD DOCUMENTS, BY HELEN SHARP, CONSERVATOR: PICTORIAL ART

Papyrus conservator Helen Sharp looks at how ancient Egyptian texts have survived for so long and explains how she prepared papyri for the exhibition, Hieroglyphs: unlocking ancient Egypt.

How have ancient Egyptian papyri survived?

The oldest written papyrus from the British Museum in the exhibition dates from the 12th Dynasty (1985–1795 BC) – these delicate papyri have survived for thousands of years, giving us so much information about life in ancient Egypt.

Papyrus is made from the *Cyperus papyrus* plant. The stem of the plant is made into sponge-like strips which are overlapped horizontally then vertically, and then pressed together to form sheets. These sheets can be attached together to form rolls for writing. When first made, papyrus sheets would have been strong and flexible, providing a good surface for writing. The presence of water in the earth causes organic materials such as papyrus, textiles or wood, to deteriorate and rot away. Papyrus is mainly made of cellulose, which ages and deteriorates over time, becoming fragile and brittle as it's broken down by hydrolysis (a reaction with water) and oxidation (a reaction with oxygen).

Luckily, the dry Egyptian climate means that papyrus has been able to survive for thousands of years. This lack of moisture also protects papyrus from being affected by microorganisms, like mould, which could consume and destroy the papyrus. In ancient Egypt the inks used for writing were very stable: the carbon black and red haematite (red ochre) aren't soluble in water and aren't sensitive to light, so the writing can still be read clearly today.

The way papyri were originally used also affects how well they have survived. For example, books of the dead were high-status, high-quality objects made to be used once, when they were placed with the mummy for burial, so they can sometimes survive in surprisingly complete condition. Other papyri were made to be used repeatedly and sometimes became damaged from handling. You can see evidence of this in the Rhind Mathematical Papyrus, where a patch of papyrus was used to repair damage so that the text could continue to be used for reference.

Caring for papyrus today

Surviving papyri can be fragile and brittle, and generally have problems such as missing areas, tears and other examples of deterioration. These ancient manuscripts must be stored and handled very carefully to preserve them for future generations. At the British Museum, papyri are regularly used for study by visiting scholars, displayed in the galleries, or loaned to museums all over the world for exhibitions.

In the collection, papyri are protected by storing them in mounts, made from two pieces of glass taped around the edges. The papyrus is placed between the pieces of glass and attached with Japanese paper hinges so that the papyrus doesn't move around. The Japanese paper that we use is very pure and made from long fibres, resulting in a thin and strong material. The glass supports the papyrus over its whole area and makes both sides visible for study, as many papyri have text on both sides. For large papyri the glass enclosure is usually given extra support from a wooden or metal frame. This keeps the papyrus as stable as possible, by avoiding any flexing of the glass.

Papyri in the exhibition

More than 30 papyri from the British Museum collection were conserved for Hieroglyphs: unlocking ancient Egypt. Some needed only a few repairs or improvements to their framing. However, others needed more extensive treatments. Part of the Book of the Dead of Padihorpara needed a lot of conservation before the exhibition. It was adhered to a 19th-century paper backing which was distracting and unevenly coloured brown with watercolour paint. The papyrus was in two sections with a large gap between the pieces, which were not correctly lined-up – making the text confusing to read. The lower section was badly deteriorated with many missing areas, and it was much darker in colour than the upper section – it had been heavily stained by mummification balm when the rolled papyrus was placed with the mummy for burial.

Balms were made from mixtures containing tree resins, plant oils, bitumen and animal fats, and these had covered the lower end of the papyrus roll. You can read more about mummification balm, what it was used for and why in Dr Kate Fulcher's blog.

Detail from the Book of the Dead of Padihorpara showing the brown backing paper and the two sections of the papyrus.

First, I needed to remove the backing paper and separate the lower papyrus fragments. To do this I strengthened the papyrus fragments temporarily with Japanese paper, adhered with conservation adhesive dissolved in acetone. Next, I used water to remove the paper backing.

As some of the dark brown staining was soluble in water and acetone, this process also reduced the staining a little, making the text easier to read. As the smaller fragments were so thin and deteriorated, I decided to support each of the fragments with a lining of thin Japanese paper adhered with wheat-starch paste to give strength to the whole area. Next, I examined the fragments to see how the text could be matched between sections. The placement of the fragments was then studied over a light box so that the transmitted light would show if the papyrus fibres matched correctly. Finally, I mounted the papyrus between two pieces of glass and bound the edges with linen tape. The conservation treatment was rewarding as it significantly improved the overall appearance of the papyrus as well as correcting the placement of the fragments so that the text is easier to read.

Book of the dead of Padihorpara after conservation

Piecing together a puzzle

The Vaucelles papyrus was recently acquired by the Museum as 15 separate fragments. It dates from 670 BC and is written in a very rare script called cursive hieratic. Some of the fragments were in a poor condition with many missing areas where insects had eaten away the papyrus. Previous repairs with Sellotape covered many of the most damaged areas. I treated the fragments individually, first removing the Sellotape and then repairing the papyrus with many small pieces of toned Japanese paper adhered with wheat-starch paste.

Removing old Sellotape repairs with a scalpel

While carrying out the repairs I noticed that the shape of two fragments, and the placement of the text, suggested that they may have originally been joined together as one piece. Papyrus sheets have a strong vertical and horizontal fibre pattern due to how the strips of papyrus were placed when it was made (see image below). So, I examined the fragments together over a light box where the fibre structure could be revealed by the transmitted light – I was delighted to find that the two fragments joined directly together as the fibre pattern matched across both pieces!

As the treatment continued I found more and more joins, eventually discovering an amazing 12 direct joins between the larger fragments, which was very unexpected. To piece together such a long section of text was really exciting, especially as it turned out to be one of the longest surviving cursive hieratic papyri.

Vaucelles papyrus after conservation

Conclusion

Beautiful papyri with drawings and handwritten text give us a personal connection with real people who lived thousands of years ago. The texts cover a multitude of topics, from religion and history to legal matters, literature and personal correspondence. Hieroglyphs handwritten in ink have an immediacy that we can relate to on a human level which brings the people of ancient Egypt to life as we learn about their society and their daily lives.

You can see the papyri Helen worked on, and many more objects connected to the decipherment of Egyptian hieroglyphs in the exhibition, Hieroglyphs: unlocking ancient Egypt, until 19 February <https://www.britishmuseum.org/exhibitions/hieroglyphs-unlocking-ancient-egypt>

Please visit the site: <https://www.britishmuseum.org/blog/preserving-papyrus-caring-4000-year-old-documents> [Go there for good pix]

‘OLDEST AND MOST COMPLETE’ MUMMY FOUND IN EGYPT

The 4,300-year-old mummy was found covered in layers of gold near the Step Pyramid at Saqqara.

Egyptian archaeologists have uncovered a Pharaonic tomb near the capital, Cairo, containing what may be the oldest and “most complete” mummy yet to be discovered in the country.

The 4,300-year-old mummy was found at the bottom of a 15-metre (49-foot) shaft in a recently uncovered group of tombs dating back to the fifth and sixth dynasties of the Old Kingdom near the Step Pyramid at Saqqara, Zahi Hawass, director of the team, told reporters on Thursday.

The mummy, of a man named Hekashepes, featured a “gold-leaf covering” and was in a limestone sarcophagus that had been sealed in mortar.

“I put my head inside to see what was inside the sarcophagus: a beautiful mummy of a man completely covered in layers of gold,” Hawass said. “This mummy may be the oldest and most complete mummy found in Egypt to date.”

Among other tombs found was one belonging to Khnumdjedef, an inspector of officials, supervisor of nobles and priest during the reign of Unas, the last pharaoh of the fifth dynasty. It was decorated with scenes of daily life.

The expedition found a group of tombs dating to the fifth and sixth dynasties of the Old Kingdom [Amr Nabil/AP Photo]

Another tomb belonged to Meri – “keeper of the secrets and assistant to the great leader of the palace”.

The priestly title of “secret keeper” was held by a senior palace official bestowing the power and authority to perform special religious rituals.

A third tomb belonged to a priest in Pharaoh Pepi I’s pyramid complex, and the fourth to a judge and writer named Fetek, Hawass added.

Fetek’s tomb included a collection of “the largest statues” ever found in the area, Mostafa Waziri, head of Egypt’s Supreme Council of Antiquities, said.

Numerous statues were found among the tombs, including one representing a man and his wife and several servants.

The vast burial site at the ancient Egyptian capital, Memphis, a UNESCO World Heritage Site, is home to more than a dozen pyramids, animal graves and old Coptic Christian monasteries.

In a separate announcement earlier in the week, a group of scientists from Cairo University revealed previously unknown details about a mummified teenage boy dating to about 300 BC.

By using CT scans, the team of scientists shed new light on the boy's high social status by affirming the intricate details of the amulets inserted within his mummified body and the type of burial he received.

Please visit the site: <https://www.aljazeera.com/news/2023/1/27/oldest-complete-mummy-found-egypt>

ARCHAEOLOGISTS BELIEVE THEY FOUND THE TEMPLE OF POSEIDON IN GREECE

The area where the remains were found is prone to tsunamis which would make sense because Poseidon is the god of tsunamis.

Archaeologists discovered remains of what they believe was the temple of Poseidon near Samikon, Greece, according to a report by Phys on Wednesday.

The remains were unearthed and are being researched by the Austrian Archaeological Institute together with researchers from the Johannes Gutenberg University Mainz, Kiel University and the Ephorate of Antiquities of Elis.

The location where the remains were found corresponds to the area referred to by ancient Greek historian Strabo who described the shrine some 2,000 years ago.

Why do researchers believe its the temple of Poseidon?

The area, which is near the coast of the Peloponnese, is known to have been hit with multiple tsunamis in prehistoric and historic times.

While it would seem that people would avoid such an area, this could actually be further evidence for these remains being from the temple of Poseidon because he was believed to be the god responsible for earthquakes and tsunamis.

The remains were first found in 2021, but it wasn't until a few months ago that the archaeologists realized that they were probably what was left of a temple of Poseidon.

More research needs to be done on the structure, and extensive archaeological, geoarchaeological and geophysical analysis is planned for the next few years in order to give us a better understanding of what the structure was and its history.

In Greek mythology, Poseidon is the god of the sea, earthquakes and horses. He is the brother of Zeus, god of the sky and Hades, god of the underworld, and the three are considered the biggest gods of the 12 main Greek gods. He is traditionally depicted with a trident which he is believed to have used to channel his powers.

Please visit the site: <https://www.jpost.com/archaeology/article-728358> [Go there for pix]

SPECTACULAR BYZANTINE CHURCH MOSAICS UNCOVERED NEAR JERICHO

Building appears to have been large house of prayer that survived iconoclasm during early Islamic period and later earthquake; to be relocated for preservation, display

A Byzantine church with elaborate mosaic floors was uncovered in the area of Jericho, in the West Bank, the Civil Administration said in a statement Wednesday.

The Civil Administration, the government body that oversees activity in the West Bank, did not say when the church was first discovered by its archaeology unit, which has been working at the site.

It dated the church to the 6th century CE, and noted it was still being used during the Early Muslim Period a hundred years later.

Though Islam bans the display of icons and images in public places, the mosaic floors showed no indications of damage from destructive iconoclasm.

The church covers 250 square meters, big enough to have served as one of the larger Christian houses of worship in the area at the time. Its nave was almost completely preserved and is covered with a mosaic depicting vine braids and animal figures.

Construction included materials not found locally, such as marble columns and black bitumen stone that would have required great effort to transport from other areas, an indication of the church builders' wealth, the statement said.

A three-meter-long inscription, containing five lines in Greek and found in the prayer area, commemorates Georgios and Nonus, apparently two public figures who donated to the construction of the church.

"The Civil Administration sees great importance in the discovery of antiquities," and will continue archaeological excavations "for the continued discovery of the area's glorious past," the statement said.

The building survived a major earthquake in 749 CE that destroyed other churches and constructions throughout the region, though it was abandoned before the landmark event and its entrance deliberately sealed.

The Civil Administration said it intends to move the building and put it on display in the mosaic museum at the Good Samaritan site, close to the West Bank settlement of Ma'ale Adumim.

Please visit the site: <https://www.timesofisrael.com/spectacular-byzantine-church-mosaics-uncovered-near-jericho/> [Go there for pix]

FRIED OR SCRAMBLED? PREHISTORIC OSTRICH EGGS FOR COOKING FOUND IN ISRAEL

Ostrich eggs were not only used as food in prehistoric times, but also as funerary vessels, luxury items and water carriers

Eight ostrich eggs believed to more than 4,000 years old have been found next to an ancient fire pit in Israel.

A prehistoric camp site used by desert nomads was discovered underneath the Nitzana sand-dunes of the Negev region, the Israel Antiquities Authority said.

Excavation director Lauren Davis said archaeologists also unearthed stone tools and pottery shards, but that the eggs were "the truly special find".

Wild ostriches were common in the area until the 19th Century.

The large flightless birds' eggs have been found in archaeological sites from several periods.

They were used not only as a source of food - one ostrich egg has the same nutritional value as about 25 chicken eggs - but also as funerary vessels, luxury items decorated with engravings or paintings, and as water carriers.

IMAGE SOURCE,IAA

Image caption, The eggs were well preserved because the camp site was covered over by sand-dunes for so long

"It is interesting, that whilst ostrich eggs are not uncommon in excavations, the bones of the large bird are not found," said Amir Gorzalczany of the Israel Antiquities Authority.

"This may indicate that in the ancient world, people avoided tackling the ostrich and were content with collecting their eggs."

The proximity of the eggs to the fire pit discovered in the Beer Milka area indicated that they were intentionally collected and used as food.

The eggs were crushed but well preserved because the camp site was covered over by sand for so long and also because of the dry climate of the area.

"These camp sites were quickly covered over by the dunes and were re-exposed with the sand movement over hundreds and thousands of years," Lauren Davis said.

"This fact explains the exceptional preservation of the eggs, allowing us a glimpse into the lives of the nomads who roamed the desert in ancient times."

Please visit the site: <https://www.bbc.co.uk/news/world-middle-east-64248488> [Go there for pix]

NEWLY RESTORED HOUSE IN POMPEII **OFFERS GLIMPSE OF ELITE LIFE,** **BY FRANCESCO SPORTELLI**

The newly restored remains of an opulent house in Pompeii that likely belonged to two former slaves who became rich through the wine trade offer visitors an exceptional peek at details of domestic life in the doomed Roman city.

On Tuesday, the House of Vettii, Domus Vettiorum in Latin, was being formally unveiled after 20 years of restoration. Given fresh life were frescoes from the latest fashion in Pompeii wall decoration before the flourishing city was buried under the volcanic ash furiously spewing from Mount Vesuvius in 79 AD.

The unveiling of the restored home is yet another sign of the rebirth of Pompeii, which followed decades of modern bureaucratic neglect, flooding and pillaging by thieves in search of artifacts to sell.

That is delighting tourists and rewarding experts with tantalizing fresh insights into the everyday life of what is one of the most celebrated remnants of the ancient world.

“The House of the Vetti is like the history of Pompeii and actually of Roman society within one house,” Pompeii’s director, Gabriel Zuchtriegel, gushed as he showed off an area of the domus known as the Cupid Rooms last month.

“We’re seeing here the last phase of the Pompeian wall painting with incredible details, so you can stand before these images for hours and still discover new details,” the archaeological park’s energetic director told The Associated Press ahead of the public inauguration.

“So, you have this mixture: nature, architecture, art. But it is also a story about the social life of the Pompeian society and actually the Roman world in this phase of history,” Zuchtriegel added.

Previous restoration work, which involved repeated application of paraffin over the frescoed walls in hopes of preserving them, “resulted in them becoming very blurred over time, because very thick and opaque layers formed, making it difficult to ‘read’ the fresco,” said Stefania Giudice, director of fresco restoration.

But the wax did serve to preserve them remarkably.

Zuchtriegel ventured that the fresh “readings” of the revived fresco painting “reflect the dreams and imagination and anxieties of the owners because they lived between these images,” which include Greek mythological figures.

And who were these owners? The Vettis were two men — Aulus Vettius Conviva and Aulus Vettius Restitutus. In addition to having part of their names in common, they shared a common past — not as descendants of noble Roman families accustomed to

opulence, but rather, Pompeii experts say, almost certainly, as once enslaved men who were later freed.

It is believed that they became wealthy through the wine trade. While some have hypothesized the two were brothers, there is no certainty about that.

In the living room, known as the Hall of Pentheus, a fresco depicts Hercules as a child, crushing two snakes, in an illustration of an episode from the Greek hero's life. According to mythology, Hera, the goddess wife of Zeus, sent snakes to kill Hercules because she was furious that he was born from the union of Zeus with a mortal woman, Alcmena.

Might Aulus Vettius Conviva and Aulus Vettius Restitutus have recognized their own life story in some way in the figure of Hercules who overcame challenge after challenge in his life? That's a question that intrigues Zuchtriegel.

After years in slavery, the men "then had an incredible career after that and reached the highest ranks of local society, at least economically," judging by their upscale domus and garden, Zuchtriegel said. "They evidently tried to show their new status also through culture and through Greek mythological paintings, and it's all about saying, 'We've made it and so we are part of this elite'" of the Roman world.

Pompeii's architect director of restoration work, Arianna Spinosa, called the restored home "one of the iconic houses of Pompeii. The residence "represents the Pompeian domus par excellence, not only because of the frescoes of exceptional importance, but also because of its layout and architecture."

Ornamental marble baths and tables surround the garden.

First unearthed during archaeological excavations in the late 19th century, the domus was closed in 2002 for urgent restoration work, including shoring up roofing. After a partial reopening in 2016, it was closed again in 2020 for the final phase of the work, which included restoration of the frescoes and of the floor and colonnades.

Please visit the site: <https://apnews.com/article/entertainment-europe-ap-top-news-world-news-arts-and-entertainment-4f7d78b61fb39b5fd3f71cd07ff3eded>

THE CIRCULAR-SHAPED STRUCTURE UNEARTHED IN UŞAKLI MOUND MAY POINT TO THE HOLY HITTITE CITY OF ZIPPALANDA

Italian-Turkish team of archaeologists led by the University of Pisa unearthed a mysterious circle-shaped structure from the Hittite era at Uşaklı Höyük (Uşaklı Mound), a Hittite settlement in central Turkey.

The find, along with other finds from previous excavation seasons, could help confirm that the site was indeed the ancient sacred city of Zippalanda.

Previous excavations have brought to light important public buildings of the Hittite era, systems of terracing and fortifications dating to the Iron Age, and levels which can be dated to the “late” periods. Six fragments of cuneiform tablets of the Hittite period, a stamp seal impression, and the nature of the public building suggest that the site, already occupied from the end of the 3rd millennium, during the Middle Bronze and Paleo-Hittite phases (18th-16th centuries B.C.).

During this season’s excavations, the team discovered a circle-shaped structure from the Hittite era north of what is most likely the city’s main temple. The construction’s function and purpose are unknown, but Professor Anacleto D’Agostino of the University of Pisa believes it served a ritualistic purpose.

“The structure, together with the other finds discovered over the years, would help to strengthen the identification of Uşaklı with the important Hittite city of Zippalanda, the cult centre of a powerful Storm God, a royal residence, and mentioned in several festivals in which the king took part”, said Professor Anacleto D’Agostino.

One of the ancient Hattic cult centers dedicated to a Hittite weather god, Zippalanda, is described in tablets discovered at Hattusa (the Hittite capital). The tablets describe Zippalanda’s city life, including its festivals and rituals, and they make mention of a temple dedicated to the storm god Ziplantil, Waezzili, Waezzil, or Waezzau.

The Weather god of Zippalanda, originally Hattic, was an important deity for the Hittites. At Zippalanda, he was considered to be the son of Tarḫunna, the ‘Weather god of Heaven’, and the Sun goddess of the Earth.

The important finding took place during the 2022 excavation season of the international archaeological mission led by the University of Pisa. Excavations this season have also unearthed the remains of a large terraced wall surrounding the Iron Age fortress and some tombs from late antiquity.

The aim of the research project is to reconstruct the history of this Anatolian town from the initial phase of urbanization to its transformation during the period of formation of major statues during the Bronze and Iron Ages.

One of the most important discoveries of 2021 was made in Uşaklı Mound, which is located within the borders of Büyük Taşlık Village of Sorgun District of Yozgat. Archaeologists have discovered a 3,500-year-old mosaic in Uşaklı Mound that might be one of the world's oldest.

University of Pisa

Please visit the site: <https://arkeonews.net/the-circular-shaped-structure-unearthed-in-usakli-mound-may-point-to-the-holy-hittite-city-of-zippalanda/> [Go there for pix]

IT'S A MYTH THAT ANCIENT EGYPTIANS PULLED MUMMY BRAINS OUT BY THE NOSE — THEY LIKELY SCRAMBLED THEM INSTEAD, SAYS AN EXPERT WHO TRIED IT, BY MARIANNE GUENOT

There's a good chance you were told ancient Egyptians pulled chunks of brains out through the nose.

Experiments suggest there was a much easier way to do this: scrambling the brains, an expert said.

It's likely embalmers used hooks to liquefy the brains and pour them out, he said.

Contrary to what you learned in school, ancient Egyptian embalmers likely didn't pull out chunk of brains using hooks when they were preparing a dead body for the afterlife.

Experiments suggest that they likely used a much more effective method, albeit one that's more unpleasant, said Stephen Buckley, an expert studying mummification.

Buckley, an archaeologist and analytical chemist at the University of York, told Insider he did experiments on sheep to test ways in which the brain could be removed.

The work formed part of a 2008 History Channel documentary "Mummy Forensics" taking inspiration from a 1969 academic paper by British Egyptologist Filce Leek.

He found that digging out the brain in chunks was not very easy.

"Hooking it out in pieces is not particularly efficient/successful," he told Insider in an email.

It could be "slowly removed as small parts of the brain adhered to the metal hook through repeated insertions and removals", he said. But, even better "liquifying the brain makes the removal of it fairly straightforward."

"If you whisk the brain with a hook for about 20 minutes, the brain liquidizes and you can just pour it out," Buckley said in a later interview.

"It's not very nice, but that's a much more effective way of removing the brain."

There are some times when the brains were left in, Buckley said.

"Particularly with the earlier, still quite well-preserved royal mummies, they actually left the brain in place in situ, so you didn't have to remove them," he said.

Egyptians at that time would not have known about microbes, but they definitely understood that removing organs had a profound effect slowing the body's decay.

If they could afford it, Egyptians would always have their guts, lungs, and other internal organs removed and treated to preserve them.

In some cases they were put in jars, in others they were placed back in the body.

The brain, however, could be left in the body to mummify inside the skull during the embalming process.

For instance, Pharaoh Thutmose I, Queen Tiye, the main wife of pharaoh Amenhotep III, and Pharaoh Amenhotep I were all found with brain tissue still in place.

Please visit the site: <https://www.businessinsider.com/egypt-mummies-did-not-pull-brain-through-nose-2022-12>

POLISH SCIENTISTS REVEAL WHAT EGYPTIAN FAIENCE HAVE TO DO WITH GOLD IN TELL ATRIB (ATHRIBIS)

Powdered quartz for the production of faience vessels discovered by Polish archaeologists during excavations in the ancient city of Atribis in the Nile Delta in Egypt, came from tailing heaps that remained after gold mining, scientists from the University of Warsaw and the Cardinal Stefan Wyszyński University have found.

Tell Atrib (Atribis) was an important political centre in the Nile Delta. The Polish-Egyptian archaeological mission operating there in the years 1985-95 discovered the remains of baths, craft workshops and an ancient villa.

Kilns caught the researchers' attention. It was not clear what they could have been used for. Researchers assumed that faience vessels were fired in them, as those were also discovered by Polish researchers. Egyptian faience is the term used to describe objects made of a sintered-quartz ceramic material.

The leader of the research project, engineering geologist Małgorzata Zaremba, a doctoral candidate at the Institute of Archaeology of the Cardinal Stefan Wyszyński University in Warsaw, has just summarized a several-year research project funded by the National Science Centre on faience products from Tell Atrib. It was confirmed that some of the kilns discovered several decades ago could actually be used to fire faience vessels at a temperature of 1050-1150° C.

The researchers also analysed the chemical composition of seven fragments of 2,000 years old bowls discovered at Tell Atrib. These were exclusive items covered with a glaze that gave them a beautiful blue colour and shine. They could both have decorative functions as well as serve as everyday objects in the homes and on the tables of the then elites.

They are decorated with convex and concave motifs typical of Egyptian, Greek and Oriental cultures: from geometric patterns and floral patterns (lotus flowers, leaves, etc.) to figural scenes. Scientists wondered how they were made. They established that two-piece moulds with patterns visible on the vessel surface were used to form the decorations of the bowls. It is difficult to say with certainty what they were made of, because the moulds have not been identified yet.

They were probably made of clay or plaster.

Researcher working on the project also precisely determined the composition of the vessels. The mixture from which faience items in Egypt were made consisted of approx. 90 percent powdered quartz, approx. 4 percent burnt lime and bone meal mixture, approx. 2 percent river fluvisol, 2 percent gelatine, 1 percent feldspar flour and 1 percent lead sulphide. Each of these ingredients had an important function during the firing process. For example, gelatine gave the mixture its plasticity.

“All the ingredients for the production of the vessels came from Egypt, but that included its more distant regions. All the samples of faience bowls from Tell Atrib we analysed had been made of high-quality quartz powder from gold-bearing veins in the Eastern Desert in Egypt,” says Zaremba.

She adds that the quartz for the production of faience came from heaps formed after gold mining, meaning that it was obtained from the mines in the Eastern Desert. These sites are located 500-600 km from Athribis, between the Red Sea and the Nile Valley.

When asked whether the findings of the Polish team apply to other faience products from Egypt, Zaremba says that they should not be generalized.

“Due to the several thousand years long tradition of manufacturing faience products in Egypt and the existing differences between individual workshops involved in their production, this is not possible,” she says.

According to the researcher, so far no one has attempted such a comprehensive analysis of faience items, especially their cores, hence the lack of data that could be compared.

“However, the research methodology we have developed and the obtained results may encourage other researchers to conduct further interdisciplinary research on faience objects, not only from the Ptolemaic Period,” she adds.

Faience items were very popular throughout the long history of ancient Egypt. Blue and green figurines, pendants and amulets, e.g. in the shape of the key of life – ankh, were being made of faience in Egypt for several thousand years. To this day, scientists have not determined the exact recipe and production method. Souvenirs stylised as faience products are now sold at tourist stalls at famous monuments, such as the Giza pyramids or the Luxor Temple.

The oldest items made this way in Egypt come from the times of the builders of the first pyramids, over 4,500 years ago. The technology flourished in the middle of the second millennium BCE and later, during the reign of Hatshepsut and Ramesses the Great.

A paper on the analysis of Tell Atrib faience items was recently published in the journal MDPI (<https://doi.org/10.3390/ma15186251>). Its co-authors are Małgorzata Zaremba, Dr. Jerzy Trzciński – a geoarchaeologist from the University of Warsaw, Krzysztof Nejbert and Grzegorz Kaproń from the Faculty of Geology of the University of Warsaw.

1. PAP, <https://scienceinpoland.pl/en/news/news%2C94537%2Cpolish-scientists-reveal-what-egyptian-faience-have-to-do-gold.html>

Please visit the site: <https://www.archaeology.wiki/blog/2022/12/16/polish-scientists-reveal-what-egyptian-faience-have-to-do-with-gold/> [Go there for pix]

ISRAEL EMBARKS ON CHALLENGE TO FIND SENSOR TECH TO MAP ARCHAEOLOGICAL SITES, BY SHARON WROBEL

Israel Antiquities Authority seeks to deploy remote sensing as a standard tool in the archaeologist's toolbox to discover ancient treasures

Israel is embarking on a challenge to make the mapping of archaeological sites tech-savvy using remote underground sensor technology in a move to cut costs and resources used up by extensive excavation.

For this initiative, the Ministry of Innovation, Science and Technology and the Israel Antiquities Authority are calling on entrepreneurs and companies specializing in remote sensing technologies to present innovative and groundbreaking solutions for the preliminary underground mapping of archaeological remnants before excavation start.

The IAA announced on Monday that NIS 150,000 (\$43,000) will be earmarked to cover the costs of three remote sensing technologies, which will be selected for the demonstration of their solutions tailored for locating and detecting ancient treasures beneath the surface without using a shovel.

“Israel is the first country in the world launching such an initiative,” stated IAA director Eli Eskosido. “Archaeologists in Israel and around the world use remote sensing technology from time to time, but this is the first time in the world that a country aims to include remote sensing as a standard tool in the archaeologist's toolbox, as well as create a technology adapted to the specific needs of the field.”

The IAA is seeking tech-savvy non-intrusive solutions for archaeological projects to avoid digging up extensive excavation areas and thereby cutting the costs, time, and resources needed as well as mitigating the risk of environmental damage.

The initiative comes as the Israeli government and the IAA is trying to cope with a growing number of construction and development plans at archaeological sites all over the country. There are about 5,000 such projects a year leading to about 300 salvage excavations.

Historically, Israel's knowhow in sensor technology has its origin in military applications for defense needs, putting smart sensors to work around borders and fences and on tanks, or for the Israeli Air Force, and making sense of the data using artificial intelligence and algorithms. Companies such as Elbit Systems, Rafael Advanced Defense Systems and Seraphim Optronics have been at the forefront in this field.

In recent years, there has been a growing need for the deployment of sensor technology using image processing and algorithms in civilian industry in areas such as medical diagnostics and urban infrastructure.

“One of the main problems in archaeological excavations is identifying the layout of the remains in the subsoil, which will make it possible to define in advance the boundaries of the areas within which the excavation will be carried out,” said IAA’s chief scientist Prof. Gideon Avni.

Avni acknowledged that in the past 20 years, many attempts have been made to use remote sensing technologies to locate archaeological remains, but until now they failed to provide a viable solution that would be applicable for different types of soil, rock and topographical areas.

“These methods gained great momentum and were perfected in Israel as the defense establishment was dealing with the challenge of locating the Hamas [crossborder] underground tunnels,” Avni said.

The tech companies seeking to take part in the challenge have until February 12 to submit their sensor tech solutions. After that, eight companies will be chosen to make their pitch before a committee, which will pick the three technologies selected for doing demonstrations in March 2023.

“Innovation in archaeology is necessary in order to preserve our history while maintaining efficiency and speed in development and construction, for the benefit of the entire public,” said Hilla Haddad Chmelnik, director general of the Ministry of Innovation, Science and Technology.

Please visit the site: <https://www.timesofisrael.com/israel-embarks-on-challenge-to-find-sensor-tech-to-map-archaeological-sites/>

THE FALL OF THE BRONZE AGE AND THE DESTRUCTION THAT WASN'T, BY JESSE MILLEK

In any telling of the end of the Late Bronze Age (LBA) in the Eastern Mediterranean, there is one key theme that emerges as an integral component of any theory attempting to explain the collapse of the empires ca. 1200 BCE. Destruction. Trade networks were broken apart because the ports of trade were destroyed by earthquakes and pirates.

Egypt lost its grasp on the southern Levant because the Sea Peoples destroyed their strong holds. The Hittite empire's interior was sacked and burned by the Kashka, while its cities and towns on the Mediterranean coast were too destroyed by the Sea Peoples. Indeed, almost every major and many minor sites in the Eastern Mediterranean have been cited as destroyed ca. 1200 BCE as part of a massive destruction horizon.

This viewpoint is the most noticeable in the maps of destruction which showcase the breadth and width of the devastation ca. 1200 BCE. The first of these was made by Robert Drews in his 1993 book, *The End of the Bronze Age Changes in Warfare and the Catastrophe Ca. 1200 B.C.* In it, he created a map titled, "The Eastern Mediterranean: Major sites destroyed in the Catastrophe" which featured 47 sites destroyed at the end of the LBA. Drews's map, and those that have followed, helped to visualize just how many sites were destroyed ca. 1200 BCE, both for the scholar and for the layperson alike. It gave the impression that, wherever one looks in the Eastern Mediterranean, one will find a city of ruins due to the turmoil brought on by the end of the LBA.

Yet, what if this wasn't the case, and Drews's map was inaccurate, and that over half of all destruction events he claimed affected the Eastern Mediterranean at the end of the LBA never happened at all, or at least not ca. 1200 BCE? As it turns out, this is in fact the case, and Drews's "Map of the Catastrophe" is a perfect example of how many destructions from this supposed "destruction horizon" were misdated, assumed, or simply invented out of nothing and are what we can call, false destructions.

This first type of false destructions are misdated destructions.

Certain destruction events have been put on maps or have been cited as taking place at ca. 1200 BCE, but the destruction occurred either well before or well after 1200 BCE. For instance, Drews asserted that Hazor, in northern Israel, was destroyed around 1200 BCE. Yet, while the site's LBA monumental structures were indeed burned, this event took place during the first half of the 13th century BCE, well before the end of the LBA. A similar story is true for the site of Miletus on the southwestern coast of Anatolia. While Drews's put it on the map as destroyed ca. 1200 BCE, the "Third Building Phase" actually dated between 1130-1060 BCE, well after 1200 BCE. Furthermore, it is not even clear if there was a destruction event at the end of the "Third Building Phase" at all.

The second type of false destructions is the assumed destruction where scholars have assumed a destruction took place based on limited or no evidence. For example, Acco, on Israel's northern coast, is featured on Drews's and most other maps of destruction ca.

1200 BCE. Drews even went so far as to claim that a scarab of the Egyptian Queen Twosret, which was found in the ash from Acco's "destruction," accurately dated it to around 1190 BCE. The only issue though, is that Drews did not mention that the ash layer was uncovered next to a kiln in an industrial area of the site, and that the ash was refuse from the industrial activity. There is in fact no evidence of destruction at Acco.

For Sinda, which is situated in the hinterlands of Enkomi on Cyprus, incomplete evidence from a limited excavation carried out in a short single season during the 1940s was blown out of proportion into a destruction. Only some ash and some minor signs of burning were uncovered with no clear evidence of destruction such as fallen walls, smashed objects, mudbricks, or more severe evidence of burning. Minor signs of ash and burning can come from any number of mundane sources such as cooking, a hearth, or industrial activities, and there is no clear archaeological evidence that Sinda was destroyed ca. 1200 BCE.

The last type of false destructions is the most pernicious, the false citation. Take for example the site of Alaca Höyük, which is one of the preeminent destructions in Anatolia at the end of the Hittite empire both for Drews and others who came after him. The only problem is that Drews's evidence for this destruction was a single article written by Kurt Bittel, a famous Anatolian archaeologist, who stated that at least some of the monumental buildings at Alaca Höyük were destroyed by fire based on the finds from the first season of excavations in 1935. However, in the report on the 1935 excavation, the excavator, Arik, never said that he found evidence of an end of the LBA destruction. Moreover, over the last 90 years of excavations, no destruction dating to ca. 1200 BCE has ever been found at Alaca Höyük. The destruction was a scholarly invention not an archaeological reality.

There is also Kition on Cyprus, which is again one of the featured destruction events from the end of the Late Bronze Age. However, in 1992, the excavator Vassos Karageorghis described the end of the Late Bronze Age as, "At Kition, major rebuilding was carried out in both excavated Areas I and II, but there is no evidence of violent destruction; on the contrary, we observe a cultural continuity." What is more interesting though, is that the article that this quote appeared in is the same article Drews cited to claim that Kition was destroyed.

So, how bad is the problem? How many false destructions are there at the end of the LBA? If one goes through archaeological literature from the past 150 years, there are 148 sites with 153 destruction events ascribed to the end of the Late Bronze Age ca. 1200 BCE. However, of these, 94, or 61%, have either been misdated, assumed based on little evidence, or simply never happened at all. For Drews's map, and his subsequent discussion of some other sites which he believed were destroyed ca. 1200 BCE, of the 60 "destructions" 31, or 52%, are false destructions. The complete list of false destructions includes other notable sites such as: Lefkandi, Orchomenos, Athens, Knossos, Alassa, Carchemish, Aleppo, Alalakh, Hama, Qatna, Kadesh, Tell Tweini, Byblos, Tyre, Sidon, Ashdod, Ashkelon, Beth-Shean, Tell Dier Alla, and many more.

Given this rate of false destructions, the question is, just how did it get to be that so many false destructions made their way into the scholarly literature? There is no single answer to this question, however, one of the main reasons for the problem is that up to this point there has been no accepted method of examining, describing, and defining destruction

events in the archaeological record. Thus, one archaeologist's ash next to an industrial installation is another's massive violent destruction by conflagration. Another problem is the over citation of certain books and articles which themselves have inaccuracies rather than the original excavation reports. The article by Bittel, which began the false destruction of Alaca Höyük, is the go-to article for those discussing destruction in Anatolia at the end of the LBA keeping this false destruction alive. Drews too is a key reference for most discussions of destruction ca. 1200 BCE, and the false destructions he brought into the scholarly world have gone on to become scholarly fact through his repeated citation.

Now, this should not give the impression that there was no destruction at the end of the LBA, as certainly sites like Ugarit, Emar, Hattusa, Mycenae, and Pylos did suffer destruction. However, even here, of the 59 destruction events that did occur ca. 1200 BCE, not all were equal as some were major events while others barely affected the site, but this is a discussion for another time.

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Please visit the site: <https://www.asor.org/anetoday/2022/12/fall-bronze-age> [Go there for pix, maps, charts,]

RARE DISCOVERY OF ROMAN DODECAHEDRON FRAGMENT ADDS TO ARCHAEOLOGICAL MYSTERY, BY DR. KATIE SPALDING

Hundreds have been found, but nobody knows what they were for.

A chance find by an amateur metal detectorist has added to a long-running mystery of archaeology, as a fragment of an Ancient Roman dodecahedron has been found in the small town of Kortesse, in Belgium.

The piece, originally part of a dodecahedron measuring 5-6 centimeters (2–2.36 inches) in size, shows signs of having been repaired in the past, with local archaeologists at the Flanders Heritage Agency suggesting that it may have been broken in some kind of ancient ritual.

Roman dodecahedra are something of a puzzle: more than 100 such artifacts have been found throughout Europe over the past few centuries, each of them meticulously cast in these perfect 12-sided polyhedra. Each face of the bronze dodecahedra has a small hole through the center, though no hole is the same size as another, and each vertex is decorated with a tiny bauble – though apart from that, the little doodads seem to have no distinctive markings at all.

We can infer that they must have been important, at least to some of their owners, since several have been found among coin hoards and – the new example notwithstanding – hardly any show signs of the kind of wear and tear you might expect over nearly two millennia of history.

And yet the simple fact is that nobody knows what Roman dodecahedra were actually used for. In fact, if it wasn't for the fact that hundreds of them have been discovered, you'd never know they existed at all, since no record of them has ever been found in contemporary art or writing.

That hasn't stopped people from theorizing. Perhaps the mysterious little objects were used as rangefinders or angle measurers, people have suggested, or maybe the Romans used them for astronomical predictions to aid in agriculture. Since the advent of YouTube, the idea that the dodecahedra were used as knitting aids has proved particularly popular – but since even knitting needles aren't known in the historical record until a good few centuries later, that hypothesis is likely not true.

Instead, archaeologists at the Flanders Heritage Agency favor a more esoteric explanation. "There is increasing evidence that dodecahedrons may not have been practical objects, such as measuring instruments," the statement says. "The known specimens are too different in dimensions and details for that."

“Their significance should probably be sought in the magico-religious sphere,” it continues. “This may explain why a significant number of dodecahedrons are linked to burial finds.”

The discovery isn’t just notable for its mystery – it’s also a surprisingly rare find, being only the third dodecahedron found in Belgium. Others have been found as far afield as Ireland, Britain, France, the Netherlands, and Germany – all places where local Celtic civilizations held sway. And yet, weirdly, despite being known as Roman dodecahedra, these little relics have never actually been found in the areas around the Mediterranean Sea, where the ancient Empire began.

With the newly found Platonic solid putting the tiny Kortesseem on the map, the Flanders Heritage Agency intends to work together with the detectorist to monitor the area for more archaeological finds in the future. As older and newer discoveries turn up, the hope is that the site’s 2,000-year-long history will one day be fully unearthed.

Katie Spalding has a PhD in maths, specializing in the intersection of dynamical systems and number theory.

Please visit the site: <https://www.iflscience.com/rare-discovery-of-roman-dodecahedron-fragment-adds-to-archaeological-mystery-67294> [Go there for pix]