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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Μάιος 2015 -**

Αρχή σοφίας η των ονομάτων επίσκεψις (Αντισθένης)

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## **ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS**

### **WORKSHOP ON ANCIENT MOLDING AND FIRING TECHNIQUES AND THE REPRODUCTION OF ANCIENT NEAR EASTERN FEMALE FIGURINES, UNIVERSITY OF STRASBOURG, FRANCE, APRIL 8 - MAY 13, 2015**

We are pleased to announce a workshop on ancient molding and firing techniques and the reproduction of Ancient Near Eastern female figurines hosted at the University of Strasbourg (France) from April 8 to May 13, 2015.

This French-German project has been realized by the Research Group EA 4378 (Protestant Theology) of Strasbourg University in close collaboration with the Department of Ancient Near Eastern Archaeology at Freiburg University (Germany), the Department of Ancient Near Eastern Archaeology and the Department of Visual Arts of Strasbourg University. It is funded by the IDEX program of the University of Strasbourg, the French-German University in Saarbruecken (Germany), EUCOR Freiburg (Germany) and the Friends of the Department of Protestant Theology at the University of Strasbourg.

#### **Atelier d'archéologie expérimentale.**

Stage d'initiation aux techniques primitives de moulage et de cuisson.

Reproduction de figurines féminines en terre cuite d'après des modèles antiques du Proche-Orient ancien (IIe et Ier millénaires avant J.-C).

#### **Programme :**

Dates de la manifestation :

8 avril au 13 mai 2015 (volume horaire correspondant à 4 jours étalé dans le temps en raison des contraintes du travail [repos de la terre, séchage], voir ci-dessous, A-B).

#### **Lieu de la manifestation :**

Atelier sculpture de la faculté des Arts Visuels et espace adjacent dans le parc du Palais Universitaire, Université de Strasbourg.

#### **Porteurs du projet:**

Régine Hunziker-Rodewald, Professeur d'Ancien Testament, Faculté de théologie protestante, EA 4378, Université de Strasbourg ; Marlies Heinz, chaire d'archéologie proche-orientale de l'Université de Freiburg (Allemagne) ; Isabelle Weygand, chercheur associé UMR 7044 Archimède, « Territoires et empires d'Orient ».

#### **Animatrices de l'atelier :**

Amélie Trahard, artiste intervenante, Catherine Remmy, céramiste, La Semencerie, Strasbourg/Maison des Artistes Paris ; Maria-Louise Sidoroff, spécialiste en céramique antique, Hobe Sound FL (EU).

**Objectifs :**

Comprendre les techniques de modelage et d'estampage, les gestes des potiers de l'antiquité, les contraintes de fabrication, dans un but pédagogique et scientifique. L'atelier a été conçu comme étant complémentaire au colloque international Figurines féminines nues, Proche-Orient, Egypte, Nubie, Méditerranée, du néolithique au IIIe siècle après J.-C., prévu à Strasbourg en juin 2015.

**Séances de travail, articulation des modules et calendrier :**

Séances 1-3 mercredi - vendredi 8 - 10 avril : Prép. de la terre. Fabrication des outils (9-13h) ; Malaxage de la terre. Fabr. du four (11-17h) ; Fabrication du four (11-17h) Séance 4 mardi 14 avril : Modelage des figurines (9-13h) Séance 4a jeudi 16 avril : Cuisson Séance 5 lundi 20 avril : Fabrication des moules (9-13h) Séance 5a jeudi 23 avril : Cuisson Séance 6 lundi 4 mai : Estampage des figurines (9-13h) Séance 6a mercredi 13 mai : Cuisson finale. Validation.

Les étapes de l'atelier seront filmées au fur et à mesure en vidéo, mise en valeur par une voix off. Cette vidéo sera réalisée par J.-Ch. Mougel, La Semencerie Strasbourg/Maison des Artistes Paris.

Contact : [rhunziker@unistra.fr](mailto:rhunziker@unistra.fr)

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**3<sup>RD</sup> LUMINESCENCE IN ARCHAEOLOGY**  
**INTERNATIONAL SYMPOSIUM (L.A.I.S.),**  
**PARIS, FRANCE, 2<sup>ND</sup> TO 4<sup>TH</sup> SEPTEMBRE,**  
**2015 - CALL FOR ABSTRACT AND TRAINING**  
**COURSE**

Dear Colleagues,

It is a great pleasure to invite you to the next luminescence in Archaeology International Symposium which is to be held in Paris, France from 2nd to 4th of septembre 2015.

The 3rd Luminescence in Archaeology International Symposium (L.A.I.S.) will be held in Paris, France, from the 2nd to the 4th of September, 2015. It will be hosted by the Dating Group, Centre de Recherche et Restauration des Musées de France (C2RMF), Palais du Louvre, Paris (France)

L.A.I.S. 2015 continues the series of symposia initiated in Delphi 2009 and Lisbon 2012. It is an international initiative focussing on the use of luminescence for the dating and analysis of materials and questions of archaeological significance; in addition it supports archaeological and archaeometrical communities of the World to further develop and expose luminescence issues.

[lais15@sciencesconf.org](mailto:lais15@sciencesconf.org)  
<http://lais15.sciencesconf.org>

Two important informations :

**\*Call for Abstracts\***

The conference web-site (<http://lais15.sciencesconf.org/>) is now open for submitting abstracts (1 page maximum, in English).

The deadline for submission of abstracts is April 30, 2015.

**\*Training course\***

A workshop on the new DosiVox software, developed at the IRAMAT-CRP2A laboratory (Bordeaux, France), will be held on:

tuesday, 1st September.

The training course will be for a limited number of participants.

(more information on the conference web-site) Please send expression of interest to:  
[lais15@sciencesconf.org](mailto:lais15@sciencesconf.org)

The L.A.I.S.2015 organizers would be grateful if you would communicate this announcement to your colleagues and students studying luminescence phenomena in archaeological and cultural heritage materials, or applying luminescence data to archaeological and cultural heritage problems.

We look forward to seeing you in Paris,

Best wishes,

on behalf of the organizing committee,

\*\*\*\*\*

Antoine Zink

Research Engineer  
luminescence Dating - Dating Group

Research Department  
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# Symposium international de luminescence en archéologie # # LAIS15 du 2 au 4  
septembre 2015 au C2RMF Carrousel # [lais15@sciencesconf.org](mailto:lais15@sciencesconf.org)

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**CALL FOR PAPERS: FROM ANTHROSPHERE  
TO LITHOSPHERE (AND BACK AGAIN): A  
CELEBRATION OF THE CAREER AND  
RESEARCH OF TERRY O'CONNOR (AEA  
ANNUAL CONFERENCE 2015), FRIDAY 6  
NOVEMBER, 5.00PM TO SUNDAY 8  
NOVEMBER 4.30PM**

**FINAL REMINDER!** The call for papers for AEA 2015 (From Anthrosphere to Lithosphere (and back again): A Celebration of the Career and Research of Terry O'Connor) is currently open but closes on 30th April.

Terry O'Connor, who retired earlier in 2015, has been an influential figure in the field of zooarchaeology and environmental archaeology for more than 30 years, not least as a founding member of the Association of Environmental Archaeology (AEA) and co-editor of its first journal, *Circaea*. Terry has had a considerable impact on students of environmental archaeology and zooarchaeology during the last two decades, as a writer of influential key articles and core textbooks, as well as directly through teaching at the University of York and, previously, Bradford.

Terry's belief in the capacity for all forms of environmental interaction to shed light on past human experience has fuelled his research across period and geographic boundaries. Major contributions have included the environmental archaeology of urban environments, beginning with work at the Environmental Archaeology Unit (EAU) in the 1980-90s on sites such as Coppergate in York, and the archaeological formation and use of cave sites. Fundamental to this has been an interest in taphonomic processes affecting assemblage formation, from the death of the animal to the analyst's bench.

Terry's work has also been characterised by a willingness to embrace and promote new techniques and methods, as well as advance existing ones, where they can provide answers to new questions or otherwise nuance our perception of the past. A number of influential publications have also reflected on the direction of environmental archaeology as a discipline, and his concern with the practice of environmental archaeology as archaeology, in order to understand interactions between humans, animals and the environment in the past.

We invite papers on the following themes, to bring together studies that further our understanding of these areas of research and so celebrate Terry's career.

- . **Taphonomic processes and assemblage formation: from the animal to the bench**
- . **The environmental archaeology of urban sites**
- . **The environmental archaeology of cave sites**

- . **Human-animal / animal-human relationships**
- . **New techniques to answer old questions**
- . **Directions in environmental archaeology**
- . **Teaching environmental archaeology**
- . **Environmental archaeology as field archaeology**

Papers can be submitted by following the instructions on the conference website

<https://www.york.ac.uk/archaeology/news-and-events/events/conferences/aea/>  
before 30th April.

Lee G. Broderick, Clare Rainsford, Eva Fairnell, Carol Lang, Julie Bond and Matthew Collins.

Please contact us on: [envarch2015@gmail.com](mailto:envarch2015@gmail.com)

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# **FIRST INTERNATIONAL CONFERENCE ON METROLOGY FOR ARCHAEOLOGY BENEVENTO, ITALY, OCTOBER 22 - 23, 2015, CALL FOR PAPERS**

The growing interest of archaeological sciences towards new technologies and analytical techniques, has recently improved the use of numerical approach to get more detailed archaeological purpose.

For example, advances in computer sciences, data acquisition and modeling, new spectrometric and analytics techniques and remote sensing have favoured the scientific interaction between those disciplines based on numerical determinations and archaeological interpretations. The advantages of the multidisciplinary approach have permitted to reduce the level of uncertainty in archaeological studies.

In particular, the Conference will involve researchers and operators interested in the valorisation, characterisation and preservation of archaeological heritage with the main objective of focusing the discussion on the production, interpretation and reliability of the measured data.

Moreover the meeting is designed to give to the archaeologists community a complete framework of knowledge of the “measurement” of archaeological heritage, generally faced up in different conferences with restricted areas of interest.

## **TOPICS**

- Computer Science and Geomatics applied to archaeology
- Archaeogeophysics
- Geoarchaeology
- Production and Food in the ancient Mediterranean
- Archaeobotany
- Archaeometry

## **IMPORTANT DATES**

- July 31, 2015 - Submission of Extended Abstract
  - September 1, 2015 - Notification of Acceptance
  - September 20, 2015 - Submission of Final Paper
-

## **TAG 2015, UNIVERSITY OF BRADFORD, 14-16<sup>TH</sup> DECEMBER 2015, CALL FOR SESSIONS**

Dear all

Just a quick reminder that the call for sessions for TAG 2015 will end on 22nd May so there is still time to submit. Details below:

TAG 2015

Call for sessions: [www.tag2015bradford.org](http://www.tag2015bradford.org)

The next TAG will be held at the University of Bradford, 14-16<sup>th</sup> December 2015.

The call for sessions is now open. We encourage sessions based on our broad theme of Diversity, however, we are happy to accept proposals outside of the theme.

### **Diversity:**

In our discipline & demographics: students, academics, professionals & community

In what we study: including food and drink, past genders, past identities

The diversity of archaeological practice: i.e. theory, science, lab, fieldwork

### **Deadline: 22<sup>nd</sup> May 2015**

In order to keep parallel sessions to a minimum, organisers of similar sessions may be requested to collaborate – all in the good spirit of TAG! Session organisers will be notified of the outcome in early June. A call for papers will then follow.

To submit a session proposal, please email [TAG-Bradford@bradford.ac.uk](mailto:TAG-Bradford@bradford.ac.uk) with a session abstract, as well as potential (or confirmed) speakers. Please note the TAG email address is staffed part-time, so there may be a delayed reply.

We look forward to hearing from you soon.

Best wishes

Claire Copper

Co-ordinator TAG 2015

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## **ENVIRA2015: NEW DEADLINE FOR ABSTRACT SUBMISSION**

Dear Colleagues,

We would like to thank all who have already submitted their abstract for **ENVIRA2015** conference. Following up the great number of requests received from many participants, the Organizing Committee are pleased to announce that the deadline for abstract submission has been extended to **April 30th, 2015**.

We encourage you to submit your abstract via [ENVIRA2015 Conference website](#).

Participants interested in presenting an oral or poster presentation to submit an abstract and they will be notified up to May 15, 2015 if their abstract has been accepted as oral communication or poster presentation.

The papers presented during the conference, which will pass a successful reviewing process, will be published in a Special Issue of the Journal of Environmental Radioactivity. The rest of the papers presented during the conference will be published in the Conference Proceedings.

### **Important dates**

New Deadline for Abstract Submission:  
**April 30, 2015**

Abstract Acceptance Notification:  
**May 15, 2015**

Early Registration Deadline:  
**May 15, 2015**

Submission Deadline for Papers  
**Oct 31, 2015**

Looking forward to welcoming you to Greece.

Best regards,

ENVIRA2015 Organizing Committee

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## **TECHNART 2015**

Dear Colleagues,

We kindly invite you to visit our website at the page:

<http://technart2015.lns.infn.it/index.php/programme>

You will find updated information on the scientific program of TECHNART 2015.

Social program is also included in the above webpage in a dedicated section.

Main social activities included in the fee of registered participants are:

- Welcome Reception, Sunday, 26 April 2015, at Museo Diocesano. We kindly invite you to participate to this events in order to register your participation to TECHNART 2015 the day before the beginning of the Conference. This will avoid any delay in the opening of the conference the day after.

- Guided visit of the "Monastero dei Benedettini". A guided visit of the Benedictine Monastery (hosting the TECHNART 2015) will be possible during the days of the TECHNART 2015 conference. The guided visit will be organized in group of 25 participants during April 28, 29 and 30. Please visit the website to know the modalities of the booking an the scheduled calendar.

- Social dinner, Wednesday, 29 April 2015. The social dinner of TECHNART 2015 will be held at "Palazzo Biscari", an historical building dated back to the XVII century, located in the center of Catania. See the web site for more details.

- Social tour, Friday, 1 May 2015. As previously announced. It is possible a choice between two options: 1) Siracusa and Noto and 2) Etna and Taormina. Your participation should be registered in advance at the following link:

<http://www.shougun.it/CongressiScheda.aspx?IdCongresso=89&lingua=en>

IMPORTANT: deadline for the Social tour registration is Friday, April 24, 2015. No registrations can be accepted after this date.

On behalf of the Organizing Committee  
Francesco Paolo Romano  
Giuseppe Spoto  
Austin Nevin

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**INTERNATIONAL CONFERENCE**  
**COLOURS2015: BRIDGING SCIENCE WITH**  
**ART, ÉVORA UNIVERSITY,**  
**24-26 SEPTEMBER**

Dear Colleagues,

2015 is the UNESCO International Year of Light and light- based Technologies. To celebrate this event, we are pleased to announce the second edition of the international conference **COLOURS2015: Bridging Science with Art**, to be held in Évora University from **24 to 26 September**.

The scope of COLOURS2015 is to:

- ▼ Promote a forum between the several disciplines that study colour in its wide perspectives in art: chemistry and physics, psychology, archaeology, geology, history, history of art, architecture and conservation-restoration
- ▼ Bringing together scientists from both analytical and conservation fields to discuss the most recent advances in technology applied to colour imaging, diagnosis and conservation-restoration of colour in cultural heritage

Conference topics:

- 1- Colour history and symbolism in cultural heritage
- 2- Colour materials and their origin
- 3- Colour deterioration: case studies in conservation and restoration
- 4- Science and technology applied to colour studies

Special issue in COLOUR RESEARCH and Application journal and e-Conservation journal. All details [here](#).

Please visit the site: <http://www.colours2015.uevora.pt/>

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**CYCLADIC SEMINAR, THURSDAY, 30 APRIL**  
**2015, 7:00 PM, THE ARCHAEOLOGICAL**  
**SOCIETY AT ATHENS,**  
**22 PANEPISTIMIΟΥ ST.**

*Peggy Sotirakopoulou*

**The Kastri group evidence from Dhaskalio, Keros and its implications for the late Early Bronze Age in the Cyclades**

The pioneering archaeological investigations of Christos Doumas at Dhaskalio, Keros in September 1963, followed by the 2006-2008 extensive surface survey and excavations of the University of Cambridge on the islet brought to light the remains of an important Early Cycladic settlement. The undisturbed stratigraphy of the site owing to the absence of later phases of occupation allows for safe inferences about its character and its chronology with wider implications for the late Early Bronze Age of the Cyclades.

Study of the Dhaskalio pottery on the basis of the stratigraphic sequence allowed for the distinction of three successive phases of occupation of the settlement spanning the Early Cycladic II and Early Cycladic III periods: Phase A corresponds to earlier Early Cycladic II, Phase B corresponds to late Early Cycladic II and an early phase of the Kastri group, while Phase C (**figs. 1-4**) is shown to be the later and main phase of the Kastri group corresponding to both the early and late phase of Early Cycladic III as evidenced elsewhere in the Cyclades. These chronological conclusions taken into account with the ceramic continuity between all three phases of Dhaskalio suggest unbroken occupation of the settlement from the moment of its foundation in earlier Early Cycladic II through to its abandonment at the end of the Early Bronze Age, thus countering the view that the Kastri group represents a time of dramatic change in the Cyclades and disruption of the Cycladic culture, and invalidating both the theory of a ‘gap’ in the Cycladic culture sequence during Early Cycladic III and the transposition of the Phylakopi phases I-ii and I-iii to Middle Cycladic I. Comparisons between Dhaskalio and other Cycladic settlement sites that have produced Kastri group pottery reveal both similarities with and differences from what appears to be the case at Dhaskalio, but it is not necessary that all the contemporary Early Cycladic settlements should have had the same history and the same fate.

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**UPPER HOUSE SEMINAR, THE BRITISH  
SCHOOL AT ATHENS, MONDAY,  
4<sup>TH</sup> MAY 2015, 7.00 P.M.**

THE DIRECTOR OF THE BRITISH SCHOOL AT ATHENS INVITES YOU TO AN  
UPPER HOUSE SEMINAR, MONDAY, 4<sup>TH</sup> MAY 2015 AT 7.00 P.M.

Professor Nena Galanidou  
(University of Crete)

Middle Pleistocene Hominids in Greece: a view from the Acheulean site of Rodafnidia  
on Lesbos

The UH seminar will take place in the saloni of the Director's residence, British School  
at Athens.

Entrance from 52 Souedias str. Tel: 211 1022 800

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**ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –**  
**JOB VACANCIES/FELLOWSHIPS**  
**ARCHAEOMETALLURGY TEACHING**  
**SPECIALIST, UNIVERSITY OF**  
**PENNSYLVANIA MUSEUM OF**  
**ARCHAEOLOGY AND ANTHROPOLOGY**  
**(PENN MUSEUM) AND THE SCHOOL OF**  
**ARTS AND SCIENCES**

The University of Pennsylvania Museum of Archaeology and Anthropology (Penn Museum) and the School of Arts and Sciences are seeking an Archaeometallurgy Teaching Specialist, with combined teaching and laboratory experience for its new Center for the Analysis of Archaeological Materials ([CAAM](#)). The appointment is at the rank of Lecturer A in the School of Arts and Sciences, and will report to the CAAM Director and Faculty Steering Committee or their delegates. The Teaching Specialist will teach or co-teach one to two courses per semester; train and supervise students in their respective technical area; support Penn Museum archaeological projects; publish and/or assist in publication of relevant research; and monitor and maintain their respective lab equipment. CAAM is a joint endeavor of the Penn Museum and the University of Pennsylvania's School of Arts and Sciences, and will support teaching and mentoring of students from their first steps to their becoming independent as researchers. CAAM is envisioned as consisting of teaching and research specialties in archaeobotany, archaeometallurgy, archaeozoology, ceramics, conservation, digital archaeology, human skeletal analysis, and lithics. Several of these specialties will have dedicated Teaching Specialists within CAAM.

**Qualifications** Minimum: BA/BS, with a PhD highly preferred, in archaeometallurgy, plus 3-5 years of related work experience or equivalent combination of education and experience; broad knowledge of archaeological material culture and a record of involvement in archaeological research projects; teaching and mentoring experience. Computer literacy, organizational skills, and attention to detail, multi-tasking, and collaborative abilities. Ability to travel as may be required.

Candidates should apply online at the [Penn Faculty Searches](#) website. The job posting can be found [here](#). No phone calls will be accepted for the position. Applications should include a cover letter, curriculum vitae, and the contact information for three individuals who will be asked by the University to submit a letter of recommendation. Review of applications will begin on May 1 and will continue until the position is filled.

Please visit the site: <http://www.penn.museum/jobs-and-opportunities.html>

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## **EDITOR IN CHIEF - AMERICAN JOURNAL OF ARCHAEOLOGY, POSITION ADVERTISEMENT**

For a three-year term beginning in November 2015

**General Description:** The *American Journal of Archaeology* (AJA) was founded in 1885 and is the distinguished, peer-reviewed scholarly journal of the Archaeological Institute of America (AIA). The AJA is published quarterly in print and electronic forms (see <http://www.ajaonline.org/>).

The Editor in Chief (EIC) of the AJA reads initial submissions, decides whether to assign them to peer reviewers, and determines whether the final version is publishable. The EIC develops an editorial vision and solicits manuscripts consonant with that vision. The EIC works closely with AIA's Vice-President for Research and Academic Affairs and the Executive Director, and the AJA's Director of Publishing and editorial staff.

The EIC appoints Review Editors and an Editorial Advisory Board, assists in raising funds in support of the journal, and provides an annual written report on the status of the journal to the AIA Governing Board.

The EIC serves at the pleasure of the AIA Governing Board for a term of three years, which may be renewed. Compensation is normally in the form of release time from the EIC's home institution; appropriate adjustments will be made in the case of independent scholars.

### **Required Qualifications**

An established scholar with a demonstrated record of publication.

Research and publication interests consonant with the mission of the AJA.

Strong writing skills and demonstrated editorial experience.

Administrative and managerial experience.

Strong interest in the future of academic publishing and the development of a vision for the AJA.

### **Preferred Qualifications**

Archaeological field experience in the Old World.

An academic appointment in an appropriate university/college department, museum, or other relevant unit.

Experience in publishing across print and digital platforms.

### **Send**

- Cover letter expressing interest in the position, outlining the vision for the journal, and summarizing qualifications.
- CV
- Copies of two peer-reviewed publications (no more than a total of 100 pages).
- Names and contact information of three recommenders to be contacted by phone.  
to: [ajacareers@aia.bu.edu](mailto:ajacareers@aia.bu.edu)

Review of application materials begins August 15, 2015 and will continue until the position is filled.

The AIA encourages applications from members of underrepresented groups. Federal and state statutes prohibit discrimination on the basis of race, religion, color, national origin, ancestry, gender, age, disability, and veteran status. In addition, AIA policies prohibit discrimination on the basis of sexual orientation, marital status, parental status, gender identity, and gender expression.

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## **LABORATORY COORDINATOR,** **M. H. WIENER LABORATORY FOR** **ARCHAEOLOGICAL SCIENCES, ASCSA**

The American School of Classical Studies at Athens (ASCSA) invites applications for the position of Laboratory Coordinator of the M. H. Wiener Laboratory for Archaeological Science in Athens. The American School of

Classical Studies at Athens (ASCSA) is one of the world's leading research and teaching institutions dedicated to the advanced study of all aspects of Greek culture, from antiquity to the present day. Founded in 1881, the ASCSA provides graduate students and scholars from 197 affiliated North American colleges, universities, and research institutions a base for research and study in Greece. The ASCSA operates two major research libraries in Athens (the Blegen Library and the Gennadius Library), supports archaeological research and excavations in the Ancient Agora of Athens, in Corinth, and elsewhere in Greece, leads in the advancement and integration of archaeological science in the research about the human past in Greece, and disseminates information about its research through an active publications program.

The Malcolm H. Wiener Laboratory is an active research laboratory dedicated to archaeological science in Greece. The lab provides both American and international scholars of archaeological science in the eastern Mediterranean and adjacent areas the tools and resources to answer a variety of scientifically-based questions, mainly in the fields of bioarchaeology, geoarchaeology, palaeobotany, and zooarchaeology.

**GENERAL RESPONSIBILITIES:** The Laboratory Coordinator is responsible for day-to-day activities in the laboratory and in support of the Director of the laboratory. Activities will include, but are not limited to scientific laboratory operations and administration, equipment training and maintenance, administration of budget and account management, overseeing activities of fellows and researchers, and developing and maintaining reference collections and records including coordinating with library staff.

**REPORTS TO:** Director of the Wiener Laboratory

**START DATE:** 1 July, 2015

**SPECIFIC RESPONSIBILITIES:** Responsible for organizing and supervising all of the administrative and research laboratory activities that facilitate the operation of the Wiener Laboratory. Provide training in use of laboratory equipment. Give technical support for fellows and other researchers. Ensure laboratory facilities and research equipment are used and maintained properly. Oversee the maintenance, repair and replacement of equipment. Facilitate safe and efficient operation of all laboratory functions.

Responsible for purchasing lab supplies and preparing ordering lists. Monitor budget and assist its preparation. Provide administrative support to members of the Lab and assist in the organization of Lab events. Responsible for the webpage and social media pages of the laboratory. Coordinate with Blegen Library staff in library management. Responsible for care and use of the laboratory's comparative collections. Instruct ASCSA members and visitors in the use of the laboratories, collections and library. Provide tours of the laboratory. Represent the laboratory in lieu of the director. Perform other duties as assigned.

QUALIFICATIONS:

- A postgraduate qualification in archaeological science or related disciplines at or above Master's level with written and oral fluency in both English and Modern Greek.
- Professional knowledge of concepts, principles, practice, methodology and instrumentation of disciplines of Archaeological Sciences or related fields.
- Knowledge of or ability to learn and understand instrument technology sufficient to monitor equipment mechanical and technical operations including assessments and corrections to maintain operations.
- Basic accounting and computer skills required: Microsoft Office Suite, basic Web design and maintenance. Evidence of competence in some graphical, statistical and scientific software.
- Demonstrated experience working in laboratory and on research projects.
- Strong organizational and communication skills and the ability to work both independently and as part of a team.

The position is full-time. Salary competitive. Generous benefits package. Successful candidate must live and work in Athens, Greece.

Send a letter of application, a *curriculum vitae*, and minimum of two confidential letters of reference to Dr. Panagiotis Karkanas, Director, Malcolm H. Wiener Laboratory for Archaeological Science, American School of Classical Studies at Athens, 54 Soudias Street, GR-106-76 Athens, Greece or email application [TKarkanas@ascsa.edu.gr](mailto:TKarkanas@ascsa.edu.gr).

Review of applications will begin immediately: deadline for submission of all materials is 20 May 2015

*The ASCSA is an EO/AA employer and does not discriminate on the basis of race, sex, color, religion, national origin, age, or disability in provision of employment opportunities*

\*\*\*\*\*

Dr. Panagiotis (Takis) Karkanas  
Director  
The Malcolm H. Wiener Laboratory for Archaeological Science  
American School of Classical Studies,  
54 Soudias Street  
106 76 Athens

Greece  
Email: [tkarkanas@ascsa.edu.gr](mailto:tkarkanas@ascsa.edu.gr)  
Tel: (+30) 213 000 2400X224  
Fax: (+30) 210 729 4047

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## **SOFJA KOVALEVSKAJA AWARD** **(DEADLINE 31 JULY)**

With the Sofja Kovalevskaja Award, the Alexander von Humboldt Foundation is offering promising young researchers from all over the world attractive career prospects in Germany. Junior research talents of all disciplines from abroad are given the opportunity to establish working groups of their own at German research institutions.

The Sofja Kovalevskaja Award recognises outstanding talent and creative research approaches with exceptional conditions: With an award amount of up to €1.65 million each winner receives valuable starting capital to spend five years pursuing an innovative research project at a research institute of his or her choice – untroubled by administrative constraints. In addition, the establishment of their own junior research team enables the award winners to lay an important foundation for a promising academic career at a very early stage. Eight awards are expected to be granted.

Outstandingly qualified junior academics of all disciplines from abroad who completed their doctorate less than six years ago are eligible to apply for the Sofja Kovalevskaja Award. It is also possible to submit applications immediately after finishing one's doctoral studies. Applications must be submitted by 31 July 2015.

Details of the application procedure for the Sofja Kovalevskaja Award can be found on our website at: [www.humboldt-foundation.de/skp\\_en](http://www.humboldt-foundation.de/skp_en). For individual questions, you are also welcome to contact [info@avh.de](mailto:info@avh.de).

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## **FITCH LABORATORY BURSARY AWARDS** **2015-2016**

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 2015-16 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). Preference may be given to research on bioarchaeology and soil micromorphology. 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. 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 (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. Applicants are also advised to contact the Laboratory Director if the use of analytical facilities is necessary for the proposed research.

Applications and reference letters should be submitted by Friday 5 June 2015 via e-mail to Mrs Tania Gerousi, the BSA administrator ([school.administrator@bsa.ac.uk](mailto:school.administrator@bsa.ac.uk)). Candidates will be informed on the selection outcome by the end of July.

Potential applicants may contact Mrs Gerousi ([school.administrator@bsa.ac.uk](mailto:school.administrator@bsa.ac.uk)), or Dr Evangelia Kiriatzi, the Laboratory Director ([fldirector@bsa.ac.uk](mailto:fldirector@bsa.ac.uk)), for further information.

**Please visit the site:**

**[http://www.bsa.ac.uk/index.php?option=com\\_content&view=article&id=164:fitch-laboratory-bursary-awards&catid=14&Itemid=101](http://www.bsa.ac.uk/index.php?option=com_content&view=article&id=164:fitch-laboratory-bursary-awards&catid=14&Itemid=101)**

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## **JOBS: 2, ARCHAEOBOTANY AND ARCHAEOMETALLURGY AT PENN**

The Penn Museum is hiring two Teaching Specialists, in Archaeobotany and Archaeometallurgy. See details below.

Jane

Jane Hickman, PhD  
Penn Museum  
(o) 215.898.4124  
(c) 443.253.7475

### **(1) CAAM/SAS Archaeobotany Teaching Specialist Position Description**

The University of Pennsylvania Museum of Archaeology and Anthropology (Penn Museum) and the School of Arts and Sciences are seeking an Archaeobotany Teaching Specialist, with combined teaching and laboratory experience for its new Center for the Analysis of Archaeological Materials (CAAM; <http://www.penn.museum/for-penn-instructors/caam.html>).

The appointment is at the rank of Lecturer A in the School of Arts and Sciences, and will report to the CAAM Director and Faculty Steering Committee or their delegates. The Teaching Specialist will teach or co-teach one to two courses per semester; train and supervise students in their respective technical area; support Penn Museum archaeological projects; publish and/or assist in publication of relevant research; and monitor and maintain their respective lab equipment.

CAAM is a joint endeavor of the Penn Museum and the University of Pennsylvania's School of Arts and Sciences, and will support teaching and mentoring of students from their first steps to their becoming independent as researchers. CAAM is envisioned as consisting of teaching and research specialties in archaeobotany, archaeometallurgy, archaeozoology, ceramics, conservation, digital archaeology, human skeletal analysis, and lithics. Several of these specialties will have dedicated Teaching Specialists within CAAM.

### **QUALIFICATIONS:**

Minimum: BA/BS, with a PhD highly preferred, in archaeobotany, plus 3-5 years of related work experience or equivalent combination of education and experience; broad knowledge of archaeological material culture and a record of involvement in archaeological research projects; teaching and mentoring experience. Computer literacy, >>organizational skills, and attention to detail, multi-tasking, and collaborative abilities. Ability to travel as may be required.

Candidates should apply online at <http://facultysearches.provost.upenn.edu/postings/543> .

Applications should include a cover letter, curriculum vitae, and the contact information for three individuals who will be asked by the University to submit a letter of recommendation. Review of applications will begin on May 1 and will continue until the position is filled.

The Museum and the School of Arts and Sciences are strongly committed to Penn's Action Plan for Faculty Diversity and Excellence and to establishing a diverse faculty (for more information see: <http://www.upenn.edu/almanac/volumes/v58/n02/diversityplan.html>). The University of Pennsylvania is an EOE. Minorities/Women/Individuals with disabilities/Protected Veterans are encouraged to apply.

## **(2) CAAM/SAS Archaeometallurgy Teaching Specialist Position Description**

The University of Pennsylvania Museum of Archaeology and Anthropology (Penn Museum) and the School of Arts and Sciences are seeking an Archaeometallurgy Teaching Specialist, with combined teaching and laboratory experience for its new Center for the Analysis of Archaeological Materials (CAAM; <http://www.penn.museum/for-penn-instructors/caam.html>).

The appointment is at the rank of Lecturer A in the School of Arts and Sciences, and will report to the CAAM Director and Faculty Steering Committee or their delegates. The Teaching Specialist will teach or co-teach one to two courses per semester; train and supervise students in their respective technical area; support Penn Museum archaeological projects; publish and/or assist in publication of relevant research; and monitor and maintain their respective lab equipment.

CAAM is a joint endeavor of the Penn Museum and the University of Pennsylvania's School of Arts and Sciences, and will support teaching and mentoring of students from their first steps to their becoming independent as researchers. CAAM is envisioned as consisting of teaching and research specialties in archaeobotany, archaeometallurgy, archaeozoology, ceramics, conservation, digital archaeology, human skeletal analysis, and lithics. Several of these specialties will have dedicated Teaching Specialists within CAAM.

### **QUALIFICATIONS:**

Minimum: BA/BS, with a PhD highly preferred, in archaeometallurgy, plus 3-5 years of related work experience or equivalent combination of education and experience; broad knowledge of archaeological material culture and a record of involvement in archaeological research projects; teaching and mentoring experience. Computer literacy, organizational skills, and attention to detail, multi-tasking, and collaborative abilities. Ability to travel as may be required.

Candidates should apply online at <http://facultysearches.provost.upenn.edu/postings/542>. Applications should include a cover letter, curriculum vitae, and the contact information for three individuals who will be asked by the University to submit a letter of recommendation. Review of applications will begin on May 1 and will continue until the position is filled.

The Penn Museum and the School of Arts and Sciences are strongly committed to Penn's Action Plan for Faculty Diversity and Excellence and to establishing a diverse faculty (for more information see: <http://www.upenn.edu/almanac/volumes/v58/n02/diversityplan.html>). The University of Pennsylvania is an EOE. Minorities/Women/Individuals with disabilities/Protected Veterans are encouraged to apply.

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**TEL AVIV UNIVERSITY INTERNATIONAL**  
**MA PROGRAM IN ANCIENT ISRAEL**  
**STUDIES OFFERS \$5,000 (US) SCIENCE IN**  
**ARCHAEOLOGY TUITION ASSISTANCE**  
**SCHOLARSHIPS**

The International MA Program in Ancient Israel Studies: Archaeology and History of the Land of the Bible at Tel Aviv University is pleased to announce a new and unique scholarship opportunity for the academic year 2015-2016.

The \$5,000 (US) tuition assistance scholarships in Science in Archaeology will be granted to a number of students with proven records of academic excellence in the fields of Life and Exact Sciences who wish to broaden their knowledge and understanding of Ancient Israel, and specialize in the field of Archaeological Science.

Scholarships for the academic year 2015-2016 will be granted by the academic committee of the Department of Archaeology and Near Eastern Cultures to students with a BSc in Life or Exact Sciences, who meet the program's application requirements, on the basis of their:

- \* Academic CV
- \* Final transcript from last academic establishment
- \* Abstract of final paper submitted to the last academic establishment
- \* Letters of recommendation

Successful applicants will be accepted to the program's one year (three semester) program, in which they will explore Israel's perplexing and complex past via classes in theory, field work experience, and study tours of some of the most exciting excavation sites in Israel (such as City of David, Megiddo, Hazor, Masada, and Caesarea).

Upon successfully completing the one year program in Ancient Israel Studies, students will be able to continue on to a second-year thesis track of Science in Archaeology, in which they will be able to conduct research in Archaeobotany, Archaeometallurgy, Archaeozoology, or Archaeomaterials.

Application deadline: July 15th, 2015.

For further information regarding the scholarships, application process and requirements, please contact the program's manager, Ms. Nadin Reshef, at [nadinres@tauex.tau.ac.il](mailto:nadinres@tauex.tau.ac.il)

**ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS**  
**SCHOLARSHIPS FOR THE ADVANCED**  
**MASTERS IN STRUCTURAL ANALYSIS OF**  
**MONUMENTS AND HISTORICAL**  
**CONSTRUCTIONS**

Applications for the **Advanced Masters in Structural Analysis of Monuments and Historical Constructions**, approved by the European Commission within the framework of the Erasmus Mundus Programme, are opened up to May 20, 2015 (call 2).

This Master Course is organized by a Consortium of leading European Universities/Research Institutions in the field, composed by **University of Minho** (coordinating institution, Portugal), the **Technical University of Catalonia** (Spain), the **Czech Technical University in Prague** (Czech Republic), the **University of Padua** (Italy) and the **Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences** (Czech Republic). The course combines the most recent advances in research and development with practical applications.

A significant number of **scholarships**, ranging from 4,000 to 13,000 Euro, are available to students of any nationality.

The SAHC leaflet can be downloaded at [www.msc-sahc.org/upload/docs/Leaflet\\_low.pdf](http://www.msc-sahc.org/upload/docs/Leaflet_low.pdf)

Please find full details on the MSc programme, as well as electronic application procedure, on the website [www.msc-sahc.org](http://www.msc-sahc.org)

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## **FITCH LABORATORY BURSARY AWARDS** **2015-16**

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 2015-16 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). Preference may be given to research on bioarchaeology and soil micromorphology. 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.

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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 (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. Applicants are also advised to contact the Laboratory Director if the use of analytical facilities is necessary for the proposed research.

Applications and reference letters should be submitted by Friday 5 June 2015 via e-mail to Mrs Tania Gerousi, the BSA administrator ([school.administrator@bsa.ac.uk](mailto:school.administrator@bsa.ac.uk)). Candidates will be informed on the selection outcome by the end of July.

Potential applicants may contact Mrs Gerousi ([school.administrator@bsa.ac.uk](mailto:school.administrator@bsa.ac.uk)), or Dr Evangelia Kiriatzi, the Laboratory Director ([fldirector@bsa.ac.uk](mailto:fldirector@bsa.ac.uk)), for further information. Additional details about the School and the Laboratory can be also found at <http://www.bsa.ac.uk/>.

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## **NEW SITE CONSERVATION GRANTS FROM THE INSTAP STUDY CENTER AND THE J.M. KAPLAN FUND**

The INSTAP Study Center for East Crete (INSTAP SCEC) in collaboration with the J.M. Kaplan Fund is happy to announce a grant program for site conservation projects in Greece focusing on remains from the Bronze Age to end of the Roman Era. The aim of our program is to support on-going site conservation projects, promote appropriate site conservation practices, and enable the development of conservation master plans for the long-term preservation of architectural remains. A limited number of grants will also be allocated for emergency treatments of newly excavated structures or features

Support will be given to three types of projects:

- A. Projects with an approved conservation permit are eligible to apply for a grant of up to \$20,000 to undertake site conservation work.
- B. Projects that wish to undertake condition surveys, evaluation, documentation, and strategic planning for the long-term preservation of sites (a conservation master plan) can submit requests of up to \$10,000.
- C. Grants of \$5,000 will be provided for emergency conservation needs that arise on excavations conducted in 2015.

The deadline for the first two grant categories is May 8, 2015. Applications for emergency grants will be accepted until September 15, 2015.

### **Applicants should submit the following information:**

#### **A. Applicant details**

Project title:

Title and name of the project director and applicant (if not the same person):

Institutional or organizational affiliation:

Institution/organization website:

Telephone number:

Fax number:

E-mail:

Address:

#### **B. Site details**

Name:

Location:

Chronological period:

Size of the excavated area:

Level/degree of public access to the site:

#### **C. Project description**



1. Provide a brief description of the site including the date of its construction and the major architectural developments and modifications at the site over time (200 word limit).
2. Provide a brief description of the context (rural or urban) and the physical features of the site (natural environment) and include a plan of the site (150 word limit).
3. Describe the significance of the site, including its historical, artistic, social, spiritual/religious, natural, and economic value. Explain the importance and the role of the site for the modern community (150 word limit).
4. Provide a brief description of the construction typology and materials used at the site, the condition of the architecture, and the major threats to the site (500 word limit).
5. Provide a summary of the proposed site conservation project including the short- and long-term work plan (500 word limit).
6. Provide an outline of the work schedule and the budget required to undertake the project.
7. If you are undertaking a site condition survey or developing a conservation master plan, how is this going to be used in the future? Are you planning to submit a proposal for approval or to apply for further funding?
8. Please describe how you plan to disseminate the work that will be accomplished with your grant. Will you present and/or publish your work?

#### D. Additional documents

1. A cover letter from the director of the project or the local archaeological authority stating their approval for the proposed conservation project.
2. A short CV of the applicant and of the head of the conservation project (if not the same individual).
3. A copy of the conservation permit or any other relevant permit that may be required in order to undertake the proposed project.

#### **Application Submission**

We will only accept applications and final reports submitted via e-mail in English. Please send one copy as an attachment, either as an MS WORD document or PDF file. Please combine the application into one file where possible, or as few files as can be managed. Please use the following address of the INSTAP SCEC: [tombrogan@instapstudycenter.net](mailto:tombrogan@instapstudycenter.net)

For further information or clarification about the application process, please contact Dr. Stefania Chlouveraki, Site Conservation Specialist of the INSTAP SCEC: [schlouve@teiath.gr](mailto:schlouve@teiath.gr)

You will be notified by email no later than May 15, 2015 that your application has arrived and been accepted for review. If you do not receive notification, please contact the INSTAP SCEC. Individual decisions will be mailed to the applicants in June.

Requests for funding must be in **US dollars**.

Consideration for grants is open to all candidates meeting the stated requirements. Awards are made irrespective of race, gender, religion, national origin, age, disability, marital status, sexual orientation, and actual or perceived medical conditions. It is possible that in the absence of qualified candidates with appropriate projects, grants will not be awarded.

This funding cannot be used support (1) students obtaining degrees, (2) travel or maintenance of children or spouses, (3) research expenses incurred before the date of a grant, (4) salaries for the project's principal researchers, (5) purchase of expensive individual items of equipment such as computers, cameras, and video recorders or (6) general activities of other institutions or entities including "overhead expenses."

**PLEASE NOTE:** Grant payments generally will be made in June, 2015. Payment of funds is by check or wire in US dollars or Euros.

Acceptance of this funding carries an obligation to provide a report on the work accomplished and an account of the expenditure of the grant funds. These reports should be sent in digital format. The research reports should be no more than 10 double-spaced pages and should briefly describe the work accomplished in the 2015 season. Financial accountings should show both the original budgeted amount and the actual cost spent for each budget category. Any substantial deviation must be explained. Reports are due no later than September 15, 2015.

If awarded one of the three types of Site Conservation Grants, I agree to abide by the terms of the award, including the submission of a report and financial accounting at the end of the grant period.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Reports should be emailed to:

Philip P. Betancourt, Executive Director, INSTAP Study Center for East Crete at [Pbetancour1@aol.com](mailto:Pbetancour1@aol.com)

Thomas Brogan, Director, INSTAP Study Center for East Crete at [tombrogan@instapstudycenter.net](mailto:tombrogan@instapstudycenter.net)

## **THE CHURCH MONUMENTS ESSAY PRIZE**

The Council of the Church Monuments Society offers a biennial prize of £250 called the Church Monuments Essay Prize, to be awarded with a certificate for the best essay submitted in the relevant year. The aim of the competition is to stimulate people, particularly those who may be writing on church monuments for the first time, to submit material for the peer-reviewed international CMS journal Church Monuments. Therefore, the competition is open only to those who have not previously published an article in Church Monuments.

The subject of the essay must be an aspect of church monuments of any period in Britain or abroad. The length (including endnotes) shall not exceed 10,000 words and a maximum of 10 illustrations, preferably in colour. The prize will only be awarded if the essay is considered by the judges to be of sufficiently high standard to merit publication in Church Monuments (which is a green open-access journal).

The closing date for new entries is 31 December 2015. For a copy of the rules and for the guidelines to contributors please see the Society's website [www.churchmonumentsociety.org](http://www.churchmonumentsociety.org), or contact the Hon. Journal Editors for more details and/or advice on the suitability of a particular topic.

Address for details and for submission of articles (before 31 December 2015):

Dr Rhianydd Biebrach FSA Email: [r.biebrach@btinternet.com](mailto:r.biebrach@btinternet.com)

Dr Paul Cockerham FSA Email: [pcockerham25@gmail.com](mailto:pcockerham25@gmail.com).

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## **AIA CALL FOR NOMINATIONS - SITE PRESERVATION AWARDS**

The AIA is seeking nominations for the Best Practices in Site Preservation and Conservation and Heritage Management Awards. Please forward this information to appropriate colleagues.

### **Best Practices in Site Preservation Award**

The Archaeological Institute of America's [Best Practices in Site Preservation Award](#) is presented to a group or project recognized by their peers for doing exemplary work in the field of site preservation and conservation. A \$5,000 grant will be awarded to the winners to further their best practices in site preservation. Award winners will be selected by a committee of professional archaeologists, conservators, and heritage specialists before the AIA's Annual Meeting in January 2016.

Please nominate deserving projects through the nomination form on the AIA's website at <http://www.archaeological.org/sitepreservation/award>. **The deadline for this award is May 1, 2015**; no nominations will be accepted after this date. Early submission is encouraged.

### **Conservation and Heritage Management Award**

The AIA's Conservation and Site Preservation Committee invites nominations for the [Conservation and Heritage Management Award](#). This award is made in recognition of an individual's or institution's exceptional achievement in any of the following areas:

- 1) Archaeological conservation
- 2) Archaeological conservation science
- 3) Archaeological heritage management
- 4) Education/public awareness of archaeological conservation through teaching, lecturing, and exhibition, or a publication.

Please send name(s), a CV, and a substantive statement about the nominee's qualifications for the award to: [awards@aia.bu.edu](mailto:awards@aia.bu.edu) no later than May 1, 2015.

### **Past Winners**

#### **Best Practices in Site Preservation**

2015 Temple of the Winged Lions Cultural Resource Management – Jordan  
2014 California Archaeological Site Stewardship Program - California, USA  
2013 George Bey - Kaxil Kiuc, Mexico  
Cristina Vidal Lorenzo and Gaspar Muñoz Cosme - La Blanca, Guatemala  
2012 Donald Haggis and Margaret Mook - Azoria, Crete  
2011 Giorgio Buccellati - Tell Mozan, Syria

#### **Conservation and Heritage Management Award**

2015 Elizabeth Pye  
2014 Staffordshire Hoard Conservation Project  
2013 Sudharshan Seneviratne  
2012 James R. McCredie

- 2011 Archaeological Conservancy
- 2010 Henry Cleere
- 2009 Heritage Watch
- 2008 Catherine Sease
- 2007 Pointe-à-Callière Musée d'Archéologie et d'Histoire de Montréal
- 2006 Hester A. Davis, Arkansas Archaeological Survey, William Lipe, Washington State University, and Charles R. McGimsey, III, Arkansas Archaeological Survey
- 2005 Parks Canada Agency, les Services d'Archéologie Subaquatique à Agence Parcs Canada, under the direction of its Chief Archaeologist, Robert Grenier
- 2004 Nicholas P. Stanley-Price
- 2002 Wet Organic Archaeological Materials Working Group
- 2001 Museum of London
- 1999 Lawrence J. Majewski
- 1998 Department of Conservation and Materials Science at the Institute of Archaeology, University of London

More information about AIA Awards can be found at: <http://archaeological.org/awards>. Please feel free to contact me with any questions.

Best wishes,

Samantha

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## *INTERNET SITES*

### **NEW WEBSITE FOR THE SARDIS EXPEDITION**

I would like to announce the new web site for the Sardis Expedition:  
<http://sardisexpedition.org>.

This is now in usable beta form with a limited data set; we will be adding artifacts and images to the database from our past and future publications.

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## **VIDEO: SETTING THE ARCHAEO- CHEMICAL RECORD STRAIGHT REGARDING TYRIAN PURPLE PIGMENTS AND DYES**

Abstract from the 2014 Annual Meeting Program book.

Setting the Archaeo-Chemical Record Straight Regarding Tyrian Purple Pigments and Dyes

Archaeological and chemical evidence associated with ancient vats used for textile dyeing with the purple pigment extracted from Muricidae sea snails have provided new perceptions regarding the various stages of this process. These steps were described two millennia ago by Pliny the Elder in his encyclopedic treatise, and also in a concise description of the dyeing of the related biblical blue-purple Tekhelet dye noted three centuries later by the Talmud. A critical reanalysis of Pliny's and the Talmud's writings, combined with the archaeological record and with modern laboratory experiments on all-natural dyeings that I have performed, have provided new insights into this craft.

My findings show that there have been significant misinterpretations of the biotechnological process associated with the molluskan purple pigment and of its uses in textile dyeing and stone painting. The major conclusions from recent investigations are: (a) a recognition of the exact fermentation method by which purple dyeing was performed; (b) a new understanding of Pliny's and the Talmud's purple-dyeing descriptions; (c) chromatic differences among pigments produced from different Muricidae snails and their uses in dyeing; (d) determination of the quantities of snails needed for a typical dye vat; (e) a revolutionary reevaluation of who discovered the purple colorant, the Aegeans or the Phoenicians.

In my talk, I will discuss the results of my analyses on the purple dyes on Roman-period textiles from Masada as well as the residual purple pigments found on potsherds from Phoenician dye vats from Tell Keisan, Tel Kabri, and Tel Dor.

Please visit the site: <http://asorblog.org/2015/04/24/setting-the-archaeo-chemical-record-straight-regarding-tyrian-purple-pigments-and-dyes/> is a video presentation by Zvi C. Koren, "Setting the Archaeo-Chemical Record Straight Regarding Tyrian Purple Pigments and Dyes."

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## ***ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS***

# **LATE HELLADIC TO MIDDLE GEOMETRIC AEGEAN AND CONTEMPORARY CYPRIOT CHRONOLOGIES: A RADIOCARBON VIEW FROM THE LEVANT**

Author(s): Alexander Fantalkin, Israel Finkelstein and Eli Piasetzky

Source: Bulletin of the American Schools of Oriental Research, pp. 25-48

Published by: [The American Schools of Oriental Research](#)

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Accessed: 04/04/2015 12:19

### **Abstract**

The article proposes a radiocarbon-based dating scheme for the entire Aegean ceramic sequence, from the Late Helladic IIIB2 to the Middle Geometric II, with implications for the Late Cypriot IIC to Cypro-Geometric III ceramic phases. It accomplishes this by exercising “chronology by proxy”—that is, turning to radiocarbon-dated strata in the Levant that produced Aegean, Aegean-related, and corresponding Cypriot pottery items that represent most of the Late Helladic IIIB–Middle Geometric sequence. The article describes these contexts in the Levant and the above-mentioned items found in them, and then reports the results of a radiocarbon Bayesian model for their dating. The dates presented here support, with a few adjustments, the Conventional Aegean Chronology (Low Chronology in Levantine terms), in line with a recent radiocarbon dating of the Sub-Mycenaean/Early Proto-Geometric transition according to samples from Greece, as well as other models for the Iron Age in the Levant.

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## **GO(A)T MILK?' NEW PERSPECTIVES ON THE ZOOARCHAEOLOGICAL EVIDENCE FOR THE EARLIEST INTENSIFICATION OF DAIRYING IN SOUTH EASTERN EUROPE**

World Archaeology 2015. DOI:10.1080/00438243.2015.1029076 By Haskel J. Greenfield & Elizabeth R. Arnold

The origins of secondary product exploitation for domestic livestock, in particular milking, is a long-standing debate in archaeology. This paper re-analyses zooarchaeological age-at-death data from the central Balkans of south eastern Europe to demonstrate that the earliest intensive milking in this region probably occurred through the exploitation of goats, and not cattle or sheep, and that they were exploited in this manner from the beginning of the Neolithic. The analyses also suggest that there is a change in cattle and sheep exploitation patterns beginning during the Eneolithic, when secondary product exploitation becomes visible in age-at-death patterns, which can be interpreted as an increased scale of secondary products exploitation. This proposal is congruent with the ceramic lipid and zooarchaeological data from the region and has larger implications for understanding and identifying the origins of milking throughout the Old World.

**Please visit the site:**

<http://www.tandfonline.com/doi/abs/10.1080/00438243.2015.1029076#.VTfkviFVikp>  
[Available there for subscribers or purchasers]

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## **THE TRANSITION FROM BRONZE TO IRON IN CANAAN: CHRONOLOGY, TECHNOLOGY AND CONTEXT**

Dear All,

I am pleased to let you know that a paper entitled "*The Transition from Bronze to Iron in Canaan: Chronology, Technology and Context*" was recently published in a new issue of the journal *Radiocarbon* (No. 57/2, 2015) and is now accessible on line at: <https://journals.uair.arizona.edu/index.php/radiocarbon/issue/current>

This issue is fully devoted to summaries of much of what was done in the European Research Council-funded project titled **Reconstructing Ancient Israel: The Exact and Life Sciences Perspective**, which operated in 2009-2014.

Both the individual articles and the entire booklet can be downloaded free of charge (the latter by clicking on the first PDF). See details of title and Table of Contents below.

In this paper we summarize the results of the Archeometallurgy Track, in which Dr. Naama Yahalom-Mack and I investigated the iron and bronze evidence in the Early Iron Age in Israel.

We hope you will find it interesting,  
With best regards,

Adi Eliyahu-Behar

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## **NEW ISSUE OF THE JOURNAL** **RADIOCARBON, NO. 57/2, 2015**

A new issue of the journal Radiocarbon (No. 57/2, 2015) is online at:  
<https://journals.uair.arizona.edu/index.php/radiocarbon/issue/current>.

This issue is fully devoted to summaries of much of what was done in the European Research Council-funded project titled Reconstructing Ancient Israel: The Exact and Life Sciences Perspective, which operated in 2009-2014.

Both the individual articles and the entire booklet can be downloaded free of charge (the latter by clicking on the first PDF). See details of title and Table of Contents below.

The project was directed by Israel Finkelstein and Steve Weiner, with the help of Shirly Ben-Dor Evian and Yuval Gadot. The project was carried out by ca. 40 researchers and operated in a large number of sites in Israel and abroad.

### THE IRON AGE IN ISRAEL: THE EXACT AND LIFE SCIENCES PERSPECTIVE

Editors: Israel Finkelstein, Steve Weiner and Elisabetta Boaretto

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## **SENSUAL SAPPHO, BY EDITH HALL**

Sappho: A New Translation of the Complete Works  
translated from the ancient Greek by Diane J. Rayor, with an introduction and notes  
by André Lardinois  
Cambridge University Press, 173 pp., \$70.00

In about 300 BC, a doctor was summoned to diagnose the illness afflicting Antiochus, crown prince of the Seleucid empire in Syria. The young man's symptoms included a faltering voice, burning sensations, a racing pulse, fainting, and pallor. In his biography of Antiochus' father, Seleucus I, Plutarch reports that the symptoms manifested themselves only when Antiochus' young stepmother Stratonice was in the room. The doctor was therefore able to diagnose the youth's malady as an infatuation with her. The cause of the illness was clearly erotic, because the symptoms were "as described by Sappho." The solution was simple: Antiochus' father divorced Stratonice and let his son marry her instead.

Plutarch's story invites us to wonder if the relationship between Sappho and erotic symptoms is entirely straightforward. Did Antiochus and his doctor learn to describe the sensations he was experiencing from their knowledge of Sappho's already "classic" love poetry? Did art shape life? Or are such sensations the universal experience of erotically fixated individuals, which would mean that lived experience had been recorded with uncanny realism in Sappho's art?

Sappho has probably had more words written about her in proportion to her own surviving output than any other writer. A couple of complete poems and about two hundred fragments are all that remain of the nine substantial books, in diverse genres and meters, that she produced on her home island of Lesbos in the northeastern Aegean around 600 BC. Her poems could be consulted, complete, in the ancient libraries, including the famous one at Egyptian Alexandria. But they did not survive the millennium between the triumph of Christianity and the frantic export to the West of Greek manuscripts from Constantinople before it fell in 1453. Some Renaissance scholars believed that in the eleventh century Pope Gregory VII had all the manuscripts of Sappho burned as dangerously salacious.

Yet Sappho, for all the meagerness of her extant poetry, is a founder in many more respects than in teaching us what love feels like. She is the first female poet and "learned woman" known to antiquity and to the "Western" literary tradition. Said to have been entitled "the tenth Muse" by Plato, she was the only woman whom ancient scholars included in the canon of significant lyric poets. Nor is it only her poems that have mattered: her life and loves have inspired plays, operas, and novels, skillfully documented in Margaret Reynolds's *The Sappho Companion* (2001). Until the nineteenth century, these biographical narratives mostly derived from Ovid's fictional letter in his *Heroides*, addressed by a suicidal heterosexual Sappho to her male lover Phaon. Although this tradition reached its acme in Charles Gounod's spectacular 1851 opera *Sappho*, it is still going strong-as in Erica Jong's raunchy novel *Sappho's Leap* (2003).

The change in attitudes toward Sappho's work and life came when self-conscious lesbian literary culture emerged in the nineteenth century, thanks to French decadence and

Baudelaire's poem "Lesbos" in *Les Fleurs du Mal* (1857); Sappho was crowned as the first explicit poet of female homoerotic love. Fin-de-siècle Prussian scholars then tried to resist the growing popularity of erotic Sapphos by insisting that her relationship with the young women, whose leisure hours on soft couches she celebrated, was that of the headmistress of a finishing school to debutantes entering the marriage market. But explicitly sexy verses by Sappho found soon afterward on papyrus made the task of these prudish academics impossible.

Although Sappho is unusual as a female poet, her homoerotic stance, in the ancient setting, was unremarkable. It is found in women's songs related to goddesses' cults, for example in the songs Alcman composed for Spartan girls to sing to Artemis. Homoeroticism is also a feature of symposium poetry written by men, and the age of tyrants and lyric poetry that produced Sappho was precisely the period when the fashion for symposia-drinking parties with musical and literary entertainment imitating Anatolian palace practice-swept across the Greek world. Women held banquets at festivals from which men were excluded. There is no reason to suppose that Sappho's songs were not sung at them.

Some more recent scholars have tried to tame Sappho by turning her into a priestess and claiming that the erotic behaviors she describes were part of formal ritual. Yet nothing has stopped Sappho from inspiring not only lesbians but heterosexual poets and poets of male homosexual love, especially C.P. Cavafy: like this gay Alexandrian proto-modernist, she seems to sing to us, as E.M. Forster described Cavafy, from a position "at a slight angle to the universe." With a single poem, which says that her beloved Anactoria is more valuable than the splendor of any cavalry, infantry, or fleet, she created a tradition of "love-not-war" lyrics whose future stretches from Propertius to Bob Dylan, John Lennon, and Bruce Springsteen. As the definitive ur-voice of lyric ecstasy, she is so consequential that poets of every generation, from Catullus to Sylvia Plath and Anne Carson, have used her to define their aesthetic manifestos: among the ancients, only Homer can claim an instrumental role in literary history equivalent to Sappho's.

The incomplete poem that allowed the diagnosis of the Seleucid Antiochus' symptoms is the most influential lyric poem of all time. It is usually known as "Sappho fragment 31," or "phainetai moi" (a transliteration of its first two words, which mean "he seems to me"). It describes a triangular scene. Sappho is transfixed by her physiological responses to watching a woman she loves laughing with a man. The brilliance of the poem-besides the luxuriant specification of the symptoms-lies in the paradox that the speaker, the only silent member of the triangle, in putting her thoughts into words nearly becomes silent in death.

"Phainetai moi" was imitated by Catullus, the premier Roman love poet. But the Greek original has survived only because it was quoted in *On the Sublime*, the treatise on literary transcendence attributed to Longinus, writing in Greek under the Roman Empire. *On the Sublime* was first printed in 1554, and translated into English as early as 1652 by John Hall, a supporter of Cromwell. Here is the second half of Sappho's "phainetai moi" in Hall's version, containing the famous lines describing her physical symptoms:

I'm speechless, feavrish, fires  
    assail  
My fainting flesh, my sight doth

fail  
Whilst to my restless mind my  
ears  
Still hum new fears.

Cold sweats and tremblings so  
invade  
That like a wither'd flower I fade  
So that my life being almost lost,  
I seem a Ghost.

Hall's unpretentious rhymed iambics convey well enough the force, freshness, and candor of Sappho's original. But Hall is bound by the heterosexist conventions of his contemporaries, whose picture of Sappho was derived mainly from Ovid's diva, infatuated not with the women she names in her poems-Anactoria, Gongyla-but with a man named Phaon. Hall therefore transfers to the male admirer the capacity to dart "languors" into Sappho's "ravish'd heart."

Public access to Sappho's poem was widened by Nicolas Boileau-Despréaux's French translation of Longinus (1674). Running through more than twenty editions by 1740, and published in English translation in 1711, Boileau's Longinus put sublimity at the center of literary debate and laid the foundation-stone of the invention of aesthetics as a discrete philosophical field by Burke and Kant. It also ensured that Sappho's "phainetai moi" would be encountered by every self-respecting writer. It has been translated or paraphrased, in English alone, by Addison, Smollett, Byron, Tennyson, William Carlos Williams, and Robert Lowell: it is the foremother of every representation of pent-up sexual desire in our cultural repertoire.

For readers who want a complete, up-to-date collection of all Sappho's extant oeuvre in faithful and cautious English translation, this new edition, by two acclaimed classical scholars, is currently the sole satisfactory option. It contains translations by Diane Rayor, a professor at Grand Valley State University in Michigan and author of reputable translations of other ancient poetry including the Homeric Hymns and Callimachus. Her Sappho translations, some of which she has been working on for more than thirty years, are presented along with carefully selected suggestions for further reading and André Lardinois's introduction and notes. Almost everything an undergraduate or interested lay reader requires to embark on a first voyage into Sappho's world can be found within this elegant volume.

Lardinois's contribution is exemplary-succinct, accessible, and erudite. The only dimension of Sappho's work that I miss is the hybrid "European/Anatolian" quality of her voice. In a world in which conservatives still claim the ancient Greeks as the cultural ancestors of a "superior" Western civilization, Sappho's oriental features can be helpfully disorienting.

The aristocrats of Lesbos were closely involved with the prosperous barbarian kingdoms on the mainland (now Turkey), ten nautical miles away. Sappho avers that she would not exchange her lovely child Cleis for "the whole of Lydia," i.e., the ancient kingdom that is now western Turkey; a poignant fragment describes her desolation when one girl leaves her, having contracted a marriage in Lydia. Moreover, since the decipherment of Hittite,



Sappho's poetry has promised to lead us even further back, into the mysteries of Bronze-Age Anatolia. Lesbos, known to the Hittites as Lazpas, was already sophisticated enough to provide the Hittite king with a cult image in the fourteenth century BC. Even the name "Sappho" may derive from the Hittite word meaning "numinous," or from a Hittite name for a holy mountain.

There are several translations and editions of Sappho available, some equipped with richer biographical and interpretive discussions than Rayor/Lardinois, as well as more precise documentation about the diverse sources of her surviving poems. For this kind of information, most classicists rely on David Campbell's authoritative Loeb Classical Library Greek Lyric Volume I (1982). What makes Rayor's new book indispensable is her timing. She has been able to include five full stanzas of a poem by Sappho that was made public for the first time since antiquity as recently as January 2014. Even in the twenty-first century we are sometimes treated to the publication of previously unavailable ancient texts preserved on papyrus, emanating from the sands of Egypt and passing, sometimes rather shadily, through sequences of anonymous hands. The two latest Sappho poems (or rather most of one poem and a single stanza of another) were discovered just in time to be included in this collection. Until other translators can publish supplemented versions of Sappho, Rayor's volume now renders all other editions outdated.

In the nearly complete "new" poem, "Brothers Song," Sappho explores her frustration at her brothers' inadequacies. The emotional tone is unexampled in the rest of her oeuvre since the poem explores anxiety about domestic responsibility rather than sexual desire, clothing, flowers, wedding rituals, gods, or mythology. Rather than sensual, it is practical and reflective. It looks toward the future rather than the remembered past. It casts Sappho in a new light, as a capable member of an eastern Greek island family with a shipping business. One brother, Charaxos, has not returned from a voyage with his anticipated cargo; her younger brother Larichos is slow to grow up and assume responsibilities.

Sappho, exasperated and slightly desperate, rebukes an unnamed interlocutor who assails her with unsubstantiated rumors that Charaxos's return is imminent. Sappho retorts that her only option is to pray to Hera (the goddess who oversaw women's social status). This fine poem, evoking a sustained psychological journey, is united by the image of the ship weighed down by freight and jeopardized by storms. The ship is both the vessel steered by Charaxos and a metaphor for the family's fortunes.

Rayor's translation of this poem is disappointing, even taking into account the speed with which she had to produce it. In the first line, the verb Sappho uses to describe her speech, *thrúleein*, implies incessant repetition, along with a shade of disparagement that evokes gossip or tittle-tattle. But Rayor opts for the safest, and dullest, phrase, "you keep saying."

In the fourth stanza, Sappho hopes that Zeus might solve her family's problems: she reinforces her mental picture of a divinity intervening to help a struggling ship at sea, with soft bouncy waves of alliterative b and p sounds. But Rayor's pedestrian version sacrifices Sappho's aural music, producing an almost banal religious platitude:

Whenever the king of Olympos wishes  
a helpful god to turn people away



from troubles, they are blessed  
and full of good fortune.

The Greek simply is much better than that.

Another substantial "new" poem of Sappho-fragment 58, put back together in 2004 from two separate papyri-fares much better. Perhaps the earliest surviving poem on what became a conventional theme-love viewed from a rueful, aging person's viewpoint-fragment 58 is nevertheless an unusual example. It does something difficult to achieve in Greek by giving no indication of the speaker's gender. Two and a half thousand years before Jeanette Winterson's exploration of the ungendered subject in *Written on the Body* (1992), Sappho's meditative poem explored love from the perspective of a poet of indeterminate sex. Rayor preserves this unique quality and succeeds in conveying something of the "dancing iambs" around which this poem is built, which are suggestive of its central image: "knees buckle/that once could dance light as fawns."

The translation of canonical lyric poetry raises fundamental questions about what the translator should aim to achieve. Rayor states in her "Note on Translation" that her dual goal is

accuracy, guided by the best textual editions and recent scholarship, and poetry. I believe that beauty and precision in language need not be mutually exclusive.

But where does that leave the important constituents of the poetic effect?

Form, rhythm, and aural impact, and metaphor and image, are inseparable from the information transmitted in the words of a poem and can be more significant. Lyric poets are not only describing their inner lives: they are synthesizing sound, rhythm, diction, and mental pictures in order to maximize sensory and emotional impact. As Emily Dickinson said to Thomas Wentworth Higginson in 1870, "If I feel physically as if the top of my head were taken off, I know that is poetry."

Regrettably, the top of my head always remains in position when I read Rayor's Sappho. Consider, for example, her scrupulously accurate translation of the "symptoms" section of Sappho's most delirious poem, "phainetai moi":

I can say nothing,

my tongue is broken. A delicate fire  
runs under my skin, my eyes  
see nothing, my ears roar,  
cold sweat

rushes down me, trembling seizes me,  
I am greener than grass.  
To myself I seem  
needing but little to die.

The final sentence here, while reproducing the diction in Sappho (although not the word order, in which the crucial word-"die"-comes first), offers neither idiomatic modern English nor inherent beauty.

The question is whether it is unrealistic of me to expect more. And there are some felicitous touches, such as the word describing the noise in the subject's ears-"roar." It is harsh on the ear, stronger than Hall's "hum," and less heavy-handed than the traditional translation, "thunder." But the root of the ancient Greek term, rhomb-, implies the sound made when a wheel or circular plate-like a top or a cymbal-whizzes around, while the prefix epi- suggests that the spinning sound and sensation are assaulting the speaker. Rayor's "roar" conveys Sappho's noise, but not her vertigo. Here, as often, the translator whose lexicographical homework produces the most thoughtful rendering is Josephine Balmer in her neglected *Sappho: Poems and Fragments* (1992): "my ears whistle like/the whirling of a top."

It is inevitable that Rayor has distinguished rivals, given the enormity of Sappho's cultural presence. Mary Barnard's incisive modernist renditions, first published in 1958, have never gone out of print. Other well-loved older translations, such as Willis Barnstone's, first published in 1965, have recently been revised and reissued: he excelled at conveying Sappho's most conversational idiom and her clean-cut, lapidary phrasing.

But the new millennium has already produced several new translations with something to recommend them. In *Sappho: Poems and Fragments* (2002), Stanley Lombardo harnesses authentic American speech rhythms to Sappho's powerful imagery, creating an eminently speakable modern verse idiom:

Like the sweet apple reddening on the topmost branch,  
the topmost apple on the tip of the branch,  
and the pickers forgot it, well, no, they didn't forget,  
they just couldn't reach it.  
(fragment 69)

For Penguin Classics, Aaron Pochigian's edition, *Stung with Love: Poems and Fragments* (2009), with a dazzling introductory essay by the British poet laureate Carol Ann Duffy, offers free and rather foxy versions geared toward rhythm and sound effects:

What farm girl, garbed in fashions from the farm  
And witless of the way A hiked hem  
would display Her ankles, captivates you with her charm?

But no amount of new translations can obscure the sad truth that the only complete poem by Sappho we could read, until the "Brothers" poem emerged, was fragment 1, the peerless hymn summoning Aphrodite to aid Sappho's erotic pursuit of an unnamed woman. Its seven perfect stanzas survived in entirety because an astute ancient literary critic, Dionysius of Halicarnassus, specified Sappho as the best exponent in verse of what he called the "polished and exuberant" style.

This essential characterization needs to be remembered by all translators of Sappho. Dionysius explains that the "euphony and charm of this passage lie in the cohesion and smoothness of the joinery." But then Dionysius specifies the techniques by which Sappho achieves her effects: "Words are juxtaposed and interwoven according to certain natural affinities and groupings of letters." There could be no sterner challenge to a translator.

Dionysius emphasizes the connections between sounds, the most testing thing to transfer from one language to another. The sound-journey of the Greek poem Dionysius quotes hurtles the listener through four breathless, enjambed stanzas in which Sappho entertains

Aphrodite for help. Aphrodite eventually responds in more measured rhythmic clusters, giving shrewd advice in sentences end-stopped simultaneously with the stanzas. What Dionysius called the "groupings of letters" are elaborate: Aphrodite favors alliterative p and d sounds (symphonious with the sound of her own name), while Sappho begins with dominant a sounds (there are five in the first line alone), requiring the poet, who sang her lyrics, to open her mouth wide to summon the deity from afar. But by the end of the poem, the a assonance has been replaced by short e sounds interwoven with s, suggesting a renewed, sibilant determination to catch the attention of Aphrodite.

This famous poem opens with an address to the love goddess, translated by Rayor as follows:

On the throne of many hues, Immortal Aphrodite, child of Zeus, weaving wiles: I beg you, do not break my spirit, O Queen, with pain or sorrow.

Rayor has succeeded in duplicating Sappho's word order, syntax, and even the alternation of long and short vowels. She has faintly suggested Sappho's alliteration with a different consonant ("weaving wiles"). But her Latinate vocabulary lets her down. Words with Latin roots-"immortal" and "spirit"-tend not to translate Greek as effectively as more earthy Anglo-Saxon terms. The word "immortal" does not convey as piquantly the idea of beings who do not die as either the ancient Greek *athanatos* ("without thanatos") or the English "deathless" do. The noun "spirit" has associations with Christianity and disembodiment that do not do justice to the grand Greek *thumos*-the seat of emotion and anger, felt bodily by the ancients in their lower ribcage, and better translated "heart" or "guts." But these are questions of taste: the big decision in this stanza comes with the long Greek compound adjective translated by Rayor as "on the throne of many hues."

The actual manuscript refers not to a throne (*thronos*) but an intellect (*phren* or similar), which suggests that the epithet of Aphrodite refers to her variegated mind rather than to her furniture. Although Rayor is following numerous scholars who have chosen to "correct" the transmitted text to what they feel is a linguistically more expected reading, they are ignoring the strangeness of Sappho's eastern Aeolic dialect and her capacity for adventurous neologisms.

The other problem relates to the first half of the epithet: Aphrodite's throne, or mind, is *poikilos*. The term is *synaesthetic*: it can mean dappled like a fawn's skin, or interthreaded like embroidery. But it also suggests oscillations or constant movement, so it can refer to the changes of note in a melody. This is where the irrepressible Anne Carson comes in. In 2002 she published her translations of Sappho, entitled for one of the poignant short fragments, *If Not, Winter*. Carson's Sappho is so powerful that it will make life difficult for any future translator. Compared with Rayor's "many hues," how much more exciting is Carson's rendition of this first address, "Deathless Aphrodite of the spangled mind"? "Spangled" really does convey the idea of patches of light and color shifting constantly.

The qualitative difference between the poetic power of Carson's versions and those of the other most recent translators is apparent just from her arresting version of the "symptoms" stanzas in fragment 31:

no speaking  
is left in me

no: tongue breaks and thin  
fire is racing under skin  
and in eyes no sight and drumming  
fills ears

and cold sweat holds me and shaking  
grips me all, greener than grass  
I am and dead-or almost  
I seem to me.

Carson refuses to accommodate English usage by expanding on Sappho's bare-boned words. Greek needs fewer pronouns and articles, and Carson adds none: the sensory overload and faltering syntax overwhelm the reader or listener. In this translation, a remarkable contemporary poet and expert in Greek magnificently rises to the challenge posed by the most celebrated woman poet of antiquity.

I would recommend Sappho novices to read Rayor/Lardinois and Carson in tandem. But even then they will not fully appreciate one crucial aspect of her status as a founder: that one of the most exquisite, and difficult, of all verse forms, the Sapphic stanza, is named after her. Sapphics consist of three eleven-syllable lines followed by a five-syllable line, with a circular movement in each line that uses long, strong sounds at both ends, framing short, fast syllables in the middle.

There can be no better introduction to the Sapphic stanza than Allen Ginsberg's nostalgic poem, in his late collection *White Shroud* (1986), celebrating the gay trysts of his youth. In a moment of genius, he pays delicate homage to his literary foremother by combining Sapphic form, sensuous diction, and pillow-talk content:

Red cheeked boyfriends tenderly  
kissed me sweet mouthed  
under Boulder coverlets winter  
springtime  
hug me naked laughing & telling girl friends gossip til autumn

A very few brave translators have attempted to use Sapphics in their modern-language versions of Sappho's own poems. The most successful are the work of the peerless metrician Richmond Lattimore in *Greek Lyrics* (1955).

Sappho, who still haunts and surprises us, already haunted the imagination of antiquity. The islanders of Lesbos imprinted her face on their coins. An exquisite statue of her stood in the town hall of Syracuse, Sicily. The limestone cliffs from which she was said to have plunged to her death on the island of Leukas (now Lefkada) were an ancient tourist attraction. And a poem in the Greek Anthology records the verses inscribed on her tomb, in the first-person voice of Sappho. She tells the visitor to her grave that she is not truly dead, since her nine books of poetry are as deathless as the nine Muses. We have lost 97 percent of those books, and yet the voice of Sappho still speaks to us with grace and authority: "You will know that I escaped the gloom of Hades, and no sun will ever rise on a world which does not know the name of the lyric poet, Sappho."

Please visit the site: <http://www.nybooks.com/articles/archives/2015/may/07/sensual-sappho/>

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## **EΙΔΗΣΕΙΣ - NEWS RELEASE**

# **NEW RADIOCARBON DATING TECHNIQUE** **WILL REVOLUTIONISE FIELD** **ARCHAEOLOGY**

Scientists from the University of Liverpool are developing a new carbon dating technology that could revolutionise field archaeology.

In partnership with Norton Priory Museum & Gardens and supported by funding from the Arts Council England, they will develop a new technique which will make it quicker and easier to date archaeological finds, according to the University of Liverpool.

Radiocarbon dating is used to determine the age of ancient objects by means of measuring the amount of carbon-14 remaining in a sample.

However it is an expensive process which takes place offsite and typically takes six weeks or more which means that an excavation is likely to be over before the important dating information can be obtained.

### **Mass spectrometer**

The new technology uses a quadrupole mass spectrometer (QMS) which will reduce the time it takes to obtain data for a bone sample to just two days.

Significantly the technology can also be utilised onsite, and this is the first time this has been attempted.

So far the technique has been used to analyse both medieval and post medieval bone samples provided by Norton Priory Museum & Gardens, the most excavated monastic site in Europe.

The initial results have been compared with the conventional methods and show encouraging levels of agreement.

### **Lifting the barriers**

Professor Steve Taylor, from the University's Department of Electrical Engineering and Electronics who is leading the project, said: "It will be a challenge to develop a portable instrument to achieve the required performance, but thanks to this funding we are in a strong position to make a real attempt."

Frank Hargrave, Director of Norton Priory said: "The potential of this new technique is incalculable. Archaeologists will, for the first time, be able to make decisions onsite and within days of sampling.

“The expense and time consuming nature of conventional methods will also no longer be a barrier and it’s likely that many more samples will be able to be taken with significant benefits to the archaeological record.”

It is anticipated that the first new QMS unit of its type is will be commercially available for field trials by archaeologists in 2016.

The development is funded by the Art Council for England’s Museum Resilience Fund which supports museums to become more financially sustainable.

Please visit the site: <http://finchannel.com/index.php/society/business-education/item/42359>

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## **SHOCKING DISCOVERY: EGYPT'S 'MONA LISA' MAY BE A FAKE, BY OWEN JARUS**

An ancient Egyptian masterpiece, hailed by some scholars as the "Mona Lisa" of Egyptian painting, is in fact a fake created in the 19th century, a researcher says. But the painting may conceal an authentic Pyramid Age piece underneath.

The "Meidum Geese," as modern-day Egyptologists and art historians call it, was supposedly found in 1871 in a tomb located near the Meidum Pyramid, which was built by the pharaoh Snefru (reign 2610-2590 B.C). The tomb belonged to the pharaoh's son, Nefermaat, and the painting itself was supposedly found in a chapel dedicated to Nefermaat's wife Atet (also spelled Itet). A man named Luigi Vassalli discovered and removed the painting, which is now located in the Egyptian Museum in Cairo. [Faux Real: See Photos of Amazing Art Forgeries]

"Some scholars compared it, with due respect, to 'The Gioconda' (Mona Lisa) for the Egyptian art," wrote Francesco Tiradritti, a professor at the Kore University of Enna and director of the Italian archaeological mission to Egypt, in a summary of his finds sent to Live Science. The painting's beauty and detail has helped it gain this level of fame.

Doubting the authenticity of a masterpiece seems almost impossible and it is a mentally painful process," he wrote. "After months of study, I came to the conclusion that there are few doubts on the falsification of the 'Meidum Geese.'"

But while Tiradritti's research suggests the painting is a fake, a real one may be hidden underneath. "The only thing that, in my opinion, still remains to ascertain is what was (or 'is') painted under them. But that can be only established through a noninvasive analysis," Tiradritti wrote.

Tiradritti is set to publish his findings on April 5 in the art specialty papers *Giornale dell'Arte* and *The Art Newspaper*, in Italian and English, respectively. He sent Live Science an advance summary of his finds. Tiradritti examined the painting in-person and used high-resolution photographs in his study.

### **Goosey finds**

The first clues that led Tiradritti to doubt the authenticity of the painting came from studying the birds depicted on it. Two of these birds were unlikely to have flown to Egypt.

Painted on plaster, "the painting depicts three different couple[s] of geese, three turned to the left and three to the right," Tiradritti wrote. Two of the geese were labeled as white-fronted geese (*Anser albifrons*), with the pair looking to the left identified as bean geese (*Anser fabalis*) and the pair turned to the right as red-breasted geese (*Branta ruficollis*), he wrote.



The bean goose breeds in tundra and taiga and winters as far south as the north of Spain, Greece and Turkey, he said, while the red-breasted goose breeds in tundra and rarely winters as far south as the Aegean coast of Greece and Turkey.

That species information in itself doesn't prove the painting is a fake, but it made Tiradritti take a more critical look at it. "After that, it was like to see a castle of cards collapsing."

### **Hints at forgery**

Tiradritti then found many other problems with the painting. For instance some of the colors are unique and were not used by other ancient Egyptian artists. "Some of the hues (especially beige and maroon) are unique in the Egyptian art. Even the shades of more common colors, like orange and red, are not even comparable with the same colors used in other fragments of painting coming from Atet's chapel," he wrote.

The way the geese are drawn, so that they appear to be the same size, is also unusual, Tiradritti pointed out. The ancient Egyptians tended to draw different features of a painting, such as animals and people, in different sizes, sometimes relating their size to their importance.

The artist of the "Meidum Geese" went so far as to have two geese leaning over so that the size of all the geese appears to be balanced. "It is a unique characteristic in Egyptian art, but it is a common feature in modern art," Tiradritti wrote.

Even the cracks on the painting don't seem right, as they "are not compatible with the supposed ripping of the painting from the wall," wrote Tiradritti.

The "Meidum Geese" painting also seems to be painted over another painting, parts of which can still be seen. "The background [of the Meidum Geese] is repainted in a blue hue of grey," he wrote. "The original had a more cream shade and it is still visible on some areas of the painting, especially on the right-top corner and at the two sides [of] the red-breasted goose to the right." [Gallery: Images Reveal Paintings Hidden Beneath Others]

### **Who did it?**

If the painting is a fake, and Tiradritti is convinced it is, then the question is who painted it?

The culprit was likely Vassalli, the person credited with discovering and removing the painting, Tiradritti said. Vassalli was a curator at the Museum Bulaq in Cairo and was an accomplished artist, having studied painting at the Accademia di Brera in Milan, said Tiradritti. [Gotcha! Tales of 8 Famous Art Forgers]

While he is credited with finding and removing the painting, Vassalli never published a word about it, which is unusual given that he loved to talk about his discoveries in Egypt, Tiradritti noted.

"In the manuscripts of Vassalli, there is not [any] mention of the 'Meidum Geese,' and that can be taken as a proof 'ab silentio,' given the fact that he used to mention his exploits even years after he made them. It is highly likely that Vassalli has to be considered the real author of 'the Geese,'" wrote Tiradritti.

### **A romantic clue**

The reason why Vassalli forged the painting is a mystery. Tiradritti said the man could have done it because a painting was needed at the Museum Bulaq, or he could have simply done it for fun.

Although Vassalli didn't write about the painting, he may have left behind a mark of his work.

While investigating remains from the Atet Chapel, Tiradritti noticed a fragment of painting that Vassalli supposedly found. It was painted with an image of a vulture and a basket. These two signs have meanings in Egypt's hieroglyphic language that spell the initials for Vassalli's second wife Gigliati Angiola.

Tiradritti wrote that the "basket can be read as a 'G,' while the vulture corresponds to an 'A,' giving room to the hypothesis that they have to be interpreted as a monogram."

### **A big revelation**

His finds will be shocking to Egyptologists and art historians, Tiradritti told Live Science in an email. After his work is published, he will be able to get more feedback.

"I already announced it to some of my colleagues, and their first reaction ranged from astonishment to disbelief. At the end, they had to admit that what I am affirming could be likely," he said.

Tiradritti said he hopes that his research will help scholars think more critically about ancient art, especially pieces being sold today on the art market. "I would like to alert my colleagues and invite them to look at the Egyptian art in a different way. We strongly need to revise it."

Please visit the site: <http://www.livescience.com/50309-egyptian-mona-lisa-may-be-fake.html> [Go there for pix]

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## **CONTROVERSY OVER THE MEIDUM GEESE** **- EGYPTIAN ARCHAEOLOGISTS HAVE** **REJECTED ALLEGATIONS THAT A** **CELEBRATED ANCIENT EGYPTIAN** **PAINTING MAY BE A 19TH-CENTURY FAKE,** **BY NEVINE EL-AREF**

Egyptian archaeologists have reacted with anger to claims that the "Meidum Geese" painting, on display in the Egyptian Museum in Tahrir Square, is a fake. According to a recent study, the scene was in fact created in the 19th century and painted over a real Pyramid Age painting.

Francesco Tiradritti of Kore University, director of an Italian archaeological mission to Egypt, published his findings in Live Science magazine and suggested that the painting may be a forgery.

The painting was discovered in 1871 by the Italian curator Luigi Vassalli in a chapel dedicated to Princess Atet, the wife of the vizier Nefermaat, the son of the Fourth Dynasty pharaoh Senefru, inside his mastaba tomb near the Meidum Pyramid in Fayoum. Vassalli took the painting off the wall and put it on display at the then Bulaq Museum. In 1902, the painting was transported with the rest of the Bulaq Museum collection to the Egyptian Museum in Tahrir Square where it has remained until today.

The painting depicts three kinds of geese -white-fronted, bean and red-breasted -and is considered to be a masterpiece of ancient Egyptian art.

Although Tiradritti believes that doubting the authenticity of the painting is a painful step, he spent months on its study and used high-resolution photographs as part of his research.

When he realised that the bean and red-breasted geese were unlikely to have been seen in ancient Egypt, being native to Greece and Turkey, he took a more critical look at the painting. He also found that some of the colours in the painting, especially the beige and mauve, were not used by other ancient Egyptian artists.

"Even the shades of more common colours, like orange and red, are not comparable with the same colours used in other fragments of paintings coming from Atet's chapel," Tiradritti told Live Science magazine.

He said that the way the geese were drawn, so that they appear to be the same size, was also unusual. The ancient Egyptians drew animals and people in different sizes, sometimes in order to convey their different importance, he said.

Tiradritti said the cracks in the painting "are not compatible with the supposed ripping of the painting from the wall." He said that in his opinion the geese were actually painted in the 19th century by Vassalli, a trained artist, over a real Pyramid Age painting.

"The only thing that in my opinion still remains to be ascertained is what was, or is, painted under them. But that can be established through non-invasive analysis," he told Live Science.

The claims have triggered the anger of many Egyptologists who see Tiradritti's research as being based on visual examination and not on proper scientific research and technical study.

"We cannot prove the painting is a forgery unless state-of-the-art scientific study is used, and this was totally absent from Tiradritti's research," Mahmoud Alhalwagi, director of the Egyptian Museum, told the Weekly.

Alhalwagi added that modern scientific technique could also decide the date when the painting was made. Such equipment and techniques are available at the Ministry of Antiquities and the required procedures will now be undertaken to respond to these "lies", he said.

Islam Ezzat, a restorer at the Egyptian Museum, said that magnetic and free electron equipment could be used to determine the date of the painting without taking a sample from it. "Electron spin resonance is the perfect technique to determine the age of the Meidum Geese painting," Ezzat said.

"There is no reason to doubt the authenticity of the Meidum Geese painting," Tarek Tawfik, director of the Grand Egyptian Museum overlooking the Giza Plateau, told the Weekly, adding that the painting was part of a larger scene inside the mastaba tomb of Nefermaat, who was known for his fondness for innovation.

The scenes were painted using the tempera painting technique, he said, which painted images on gesso before drying. This technique was pioneered by Nefermaat and was often used by ancient Egyptians artists, even though it could lead to cracks after drying.

What proves the authenticity of the painting, Tawfik said, is the fact that the upper limit of the painting bears the remains of the rest of the scene on the wall of the chapel, including the feet of hunters gathering birds, geese, and ducks with nets. Such hunting scenes were common in ancient Egyptian tombs from the Old Kingdom.

In response to Tiradritti's theory that the geese are not like those found in Egypt at the time, Tawfik said that the area of the Meidum necropolis was located in Fayoum, which is on the birds' migration path, and that they would have rested in the area during their annual trip from north to south and vice-versa.

"It is probable that the ancient Egyptian artists were inspired by the shapes, colours and sizes of the birds and then drew them in their paintings," Tawfik said .

"Nefermaat's mastaba tomb contains rare paintings as its owner was fond of innovations and applied new techniques in the decoration of his tomb," Tawfik said. He added that Nefermaat decorated his tomb using a technique known as coloured pasti, even though this was not always successful after drying.

"The technique leads to cracking after drying, meaning that the paintings cannot remain perfect for eternity," he said.

"Tiradritti's arguments are based on mere speculation about the scene and one of the discoverers of the tomb, Vassalli," Mohamed Megahed, a researcher at the Czech Institute of Egyptology at Charles University, told the Weekly.

He said that the bean and red-breasted geese depicted in the painting were not absent from ancient Egypt, but on the contrary archaeological excavations of the tombs and chapels of high officials from the Old Kingdom have brought to light the remains of bean geese, proving the existence of this species at the time.

Meanwhile, the red-breasted goose was depicted on wall decorations of the causeway of the pharaoh Sahure at the Abusir Necropolis from the beginning of the Fifth Dynasty onwards, indicating that it lived in or migrated through Egypt at that time.

As for the argument about the colours, Megahed said the same shades have been found in other tombs from the Fourth Dynasty and later from the Old Kingdom. For instance, the orange shade was used in the tomb of Queen Mersyankh III in the eastern cemetery on the Giza Plateau, he said.

Inside the offertory chapel of the queen's tomb a scene with a procession of geese was represented, he said, and one of them had an orange beak in the same style as one of the Meidum Geese.

Concerning the size of the geese and manner in which they were drawn, something which in Tiradritti's opinion was unusual, Megahed said that this was another false argument. "Comparing this feature to the cranes and geese depicted in the tomb of Mersyankh III, we can see the birds are the same size in this scene," Megahed said. He added that it was usual in Old Kingdom tombs for geese depicted in the same scene to be shown the same size.

Tiradritti had claimed that the scene was painted over another painting, which was why the background had different colours in some places, he said. However, no traces of the supposed older scene can be seen, Megahed said, and Tiradritti had not said what kind of scene the older one could be. A difference in background colour might also have been the result of older restoration.

"Not mentioning anything about the scene does not mean that Vassalli faked the Meidum Geese painting, as Tiradritti claims," Megahed told the Weekly, adding that notes of the discovery had also been kept by Vassalli's colleagues.

According to Albert Daninos, the deputy of Egyptologist Auguste Mariette at the time, Vassalli had moved the Meidum Geese painting from the tomb's corridor "with marvelous patience and care." Petrie, another contemporary who was not an admirer of his colleagues, claimed that Vassalli had "hacked away much of the fresco" to remove the painting.

It is known from Mariette's records of the Meidum excavation in 1871 that the work was not always carefully done, since much of his attention was given to the mastaba of Rehotep and Nefret where he found the two famous statues of the owners of the tomb that are today in the Egyptian Museum in Cairo.

Tiradritti also mentioned another painting, which in his view could have been done by Vassalli. This is a fragment depicting the remains of two hieroglyphic letters, a basket with a handle that represents the hieroglyph K and a vulture that represents the hieroglyph A. Tiradritti said that these two signs were intended as a reference to Vassalli's second wife Gigliati Angiola.

However, Megahed said that if the context of the tomb was studied it would be clear that these two signs were perhaps the remains of the names of Nefermaat and Atet's son Serfka. The names appear in the tomb a number of times.

"Moreover, the scene of the Meidum Geese and the hieroglyphs come from the north wall of the east corridor inside the chapel of Atet, where a large figure of Serfka was depicted standing and catching birds amid an agricultural scene," Megahed said.

It should also not be forgotten that when Vassalli removed the painting of the Meidum Geese from the north wall of the corridor, he cut into the scenes above and below the painting to make sure that the geese would not be damaged during this process, he said.

Therefore, traces of feet, a hand and the top of a hieroglyph were preserved on the outside edges of the panel. "The rest of the wall decoration was affected by this action," he said.

Megahed said that the tomb of Nefermaat, the son of the pharaoh Huni and his wife Atet, was the largest known tomb from the Old Kingdom, and Nefermaat was the earliest known Egyptian vizier to be attested.

As a result, scholars should be careful about doubting one of the most beautiful ancient Egyptian works of art and should take into consideration the wider context of the scene and its discovery, in order to do more than simply feed speculation, he said.

"We should not think about doing more studies to accept or refute the ideas of the Italian researcher because this way we would open the door to discrediting the great civilisation of ancient Egypt," Megahed concluded.

Former minister of antiquities Zahi Hawass described Tiradritti's claims as "unfounded," accusing him of breaking the antiquities law and the ministry's regulations which stipulate that any new discovery or research should first be presented to the ministry and its permanent committee for approval before being published. Tiradritti published his theory in Live Science without doing this, he said.

"He must be penalised for not following the rules, and the permanent committee could now stop his mission from resuming its archaeological work in Luxor," Hawass said, who added that during his tenure as minister he had taken action against several foreign missions for breaking the ministry's regulations.

**Please visit the site: <http://weekly.ahram.org.eg/News/10942/47/Controversy-over-the-Meidum-Geese.aspx>**

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## **ULTRAVIOLET LIGHT REVEALS ERASED POETRY IN 13<sup>TH</sup> CENTURY BLACK BOOK OF CARMARTHEN**

Dating from 1250, the *Black Book of Carmarthen* is the earliest surviving medieval manuscript written solely in Welsh, and contains some of the earliest references to Arthur and Merlin. The book is a collection of 9th-12th century poetry along both religious and secular lines, and draws on the traditions of the Welsh folk-heroes and legends of the Dark Ages.

However, despite its importance (the manuscript is designated ‘[MS Peniarth 1](#)’ in the National Library of Wales) and decades of scholarly research, the work of a PhD student from the University of Cambridge has illuminated tantalising new glimpses of verse from the 750-year-old book.

### **Centuries of verse, doodles and marginalia erased**

Myriah Williams and Professor Paul Russell from Cambridge’s Department of Anglo-Saxon, Norse and Celtic (ASNC), believe that a 16th century owner of the book, probably a man named Jasper Gryffyth, summarily erased centuries’ worth of additional verse, doodles and marginalia which had been added to the manuscript as it changed hands throughout the years.

However, using a combination of ultraviolet light and photo editing software, the 16th century owner’s penchant for erasure has been partly reversed to reveal snatches of poetry which are previously unrecorded in the canon of Welsh verse. Currently, the texts are very fragmentary and in need of much more analysis, although they seem to be the continuation of a poem on the preceding page with a new poem added at the foot of the page.

Williams said: “*It’s easy to think we know all we can know about a manuscript like the Black Book but to see these ghosts from the past brought back to life in front of our eyes has been incredibly exciting. The drawings and verse that we’re in the process of recovering demonstrate the value of giving these books another look.*

“*The margins of manuscripts often contain medieval and early modern reactions to the text, and these can cast light on what our ancestors thought about what they were reading. The Black Book was particularly heavily annotated before the end of the 16th century, and the recovery of erasure has much to tell us about what was already there and can change our understanding of it.*”

### **More to know**

“*What we have discovered may only be the tip of the iceberg in terms of what can be discovered as imaging techniques are enhanced,*” said Russell. “*The manuscript is extremely valuable and incredibly important – yet there may still be so much we don’t know about it.*”

Despite its value today, the *Black Book of Carmarthen* (so called because of the colour of its binding) was not an elaborate production, but rather the work of a single scribe who was probably collecting and recording over a long period of his life.

This is readily visible on the manuscript pages themselves; the first pages feature a large textura script copied on alternating ruled lines, while in other parts of the manuscript – perhaps when vellum was scarce – the hand is very much smaller and the lines per page tight and many.

### **A labour of love**

That the *Black Book* may have been something of a labour of love is also reflected in its content by the breadth of genres represented. These range from pieces of religious verse to praise poetry to story poetry.

An example of the latter is the earliest poem concerning the adventures of the legendary Arthur, which sees the famed hero seeking entrance to an unidentified court and expounding the virtues of his men in order to gain admittance.

Other heroes are praised and lamented in a lengthy text known as *Englynion y Beddau*, the *Stanzas of the Graves*, in which a narrator presents geographic lore by claiming to know the burial places of upwards of eighty warriors. Arthur makes an appearance here as well, but only insofar as to say that he cannot be found: *anoeth bid bet y arthur, ‘the grave of Arthur is a wonder’*.

Other famous figures also appear throughout, including Myrddin, perhaps more familiarly known by the English ‘Merlin’. There are two prophetic poems attributed to him during his ‘wild man’ phase located in the middle of the manuscript, but additionally the very first poem of the book is presented as a dialogue between him and the celebrated Welsh poet Taliesin.

Since the creation of Geoffrey of Monmouth’s *Historia Regum Britanniae* in the 12th century there has been a connection between Carmarthen and Merlin, and it may be no accident that the *Black Book* opens with this text.

Measuring approximately only 17 cm by 12.5 cm, the book is made up of 54 pages of vellum (animal hide) and came to the National Library of Wales in 1904 after being bought, alongside other manuscripts, by the Library’s founder, Sir John Williams.

**Please visit the site:**

<http://www.pasthorizonspr.com/index.php/archives/04/2015/ultraviolet-light-reveals-erased-poetry-in-13th-century-black-book-of-carmarthen>

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## ALTAMURA MAN YIELDS OLDEST NEANDERTHAL DNA SAMPLE, BY BOB YIRKA

A team of researchers working in Italy has confirmed that Altamura Man was a Neanderthal and dating of pieces of calcite which were on the remains has revealed that the bones are 128,000 to 187,000 years old. In their paper published in the *Journal of Human Evolution*, the team describes how they extracted a small bone sample and examined it and what they found by doing so.

Altamura Man was discovered in a cave in southern Italy in 1993 by cave explorers. The finding was reported to researchers at the University of Bari. The remains were embedded in rock and were covered in a thick layer of calcite (they lie in a karst borehole rich in limestone amid running water.) It was thought that excavating the remains would cause irreparable damage and thus, they have remained in situ for over twenty years, leaving researchers to rely on casual observation for their studies. For that reason, there was some debate initially about morphology and age. Subsequent study led to a consensus that the remains (only the head and part of a shoulder are visible) were that of an archaic Neanderthal, of a *Homo* genus believed to have been widespread in Europe 200,000 to 40,000 years ago.

The researchers with the current project began their work six years ago—a tiny part of shoulder bone (and stalactite fragments) was extracted and brought back to the lab for study. Analysis by Uranium-thorium dating revealed that the calcite was formed 172,000 to 130,000 years ago—during the penultimate quaternary glaciations period. The team also reports that samples of DNA have also been retrieved from the sample, and because of the age, represent the oldest such samples ever recovered from Neanderthal remains.

It is believed that Altamura Man wound up in such a peculiar spot after falling in a well and getting stuck—it is assumed he starved to death, or died from lack of water intake. The researchers next plan to test the DNA sample to see if it can be sequenced—if so, they are hopeful it might reveal new details about the evolution of hominids in general and perhaps more about the early history of the Neanderthal.

**More information:** The Neanderthal in the karst: First dating, morphometric, and paleogenetic data on the fossil skeleton from Altamura (Italy), *Journal of Human Evolution*, Available online 21 March 2015 [DOI: 10.1016/j.jhevol.2015.02.007](https://doi.org/10.1016/j.jhevol.2015.02.007)

### **Abstract**

In 1993, a fossil hominin skeleton was discovered in the karst caves of Lamalunga, near Altamura, in southern Italy. Despite the fact that this specimen represents one of the most extraordinary hominin specimens ever found in Europe, for the last two decades our knowledge of it has been based purely on the documented on-site observations. Recently, the retrieval from the cave of a fragment of bone (part of the right scapula) allowed the first dating of the individual, the quantitative analysis of a diagnostic morphological feature, and a preliminary paleogenetic characterization of this hominin skeleton from

Altamura. Overall, the results concur in indicating that it belongs to the hypodigm of Homo neanderthalensis, with some phenetic peculiarities that appear consistent with a chronology ranging from  $172 \pm 15$  ka to  $130.1 \pm 1.9$  ka. Thus, the skeleton from Altamura represents the most ancient Neanderthal from which endogenous DNA has ever been extracted.

**Journal reference:** [Journal of Human Evolution](#)

Please visit the site: <http://phys.org/news/2015-04-altamura-yields-oldest-neanderthal-dna.html>

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## **TOUCH-FREE ARCHAEOLOGY REVEALS HISTORY WITH LASERS, DRONES, BY KATHARINE GAMMON**

In Portugal and elsewhere, noninvasive research techniques are gently revealing the past, without the disruption of digging.

It seems counterintuitive, but sometimes archaeologists can learn more by *not* digging up the past. In fact, noninvasive methods—including lasers, ground-penetrating radar, and drone photography—are changing the way they do their work.

One of the latest examples: a project at [Ammaia](#), in southern Portugal, where researchers have been able to create detailed, three-dimensional illustrations of a now-underground Roman village in its heyday.

Data from the site show that the town flourished in the first century A.D.—at its peak it was home to more than 2,000 inhabitants—but gradually declined in the fourth century. By the Middle Ages it was abandoned.

Using a variety of noninvasive techniques, an international team of researchers has been able to identify different phases of the town’s construction, from Augustan times onward. The result? [A first-of-its-kind video](#) of what a walk through the town would have looked like, stitched together via different kinds of data.

Ammaia is one of the first projects in the world to fully integrate cutting-edge fieldwork techniques with visualization software in order to reveal an invisible heritage. But if the noninvasive trend continues apace, it certainly won’t be the last.

### **Looking Without Touching**

Not all noninvasive techniques are new. Aerial photography, for instance, has been a mainstay of archaeological research since the 1970s.

But over the past decade, techniques and technologies have advanced in both depth and breadth, letting archaeologists see more detail beneath the ground, over a wider area.

Keeping the past buried has its obvious benefits. Digging—even careful, scientific digging—can destroy some of the features that are underground. And artifacts that are exposed are vulnerable to a variety of environmental predations.

“The future of preservation is to refrain from excavation,” says Cristina Corsi, an archaeologist at the University of Cassino in Italy and coordinator of the Radio-Past Project, which broadcast the digital and traditional excavations at Ammaia.

Corsi says that when Pompeii’s House of the Gladiators collapsed in 2010, many of her colleagues felt a strange sensation—relief, because the incident could mean that other sites will be saved from the same fate.

Many people aren't aware that excavated archaeological structures need constant care, and that environmental conditions today—which are often very different from the climate in which relics were preserved—makes it likely that they'll crumble.

“For [every event like the House of Gladiators collapse] that's in the news, hundreds happen each day at archaeological sites,” Corsi told an audience last month at an [American Association for the Advancement of Science](#) meeting in San Jose, California.

Even in Rome, where cultural preservation is a well-funded priority, sites can be vulnerable. Pieces of the Colosseum recently tumbled free, for instance, and partial collapses have occurred in the plastering on Roman aqueducts, ceilings in the Domus Aurea, and several structures on the Palatine Hill.

### **A Closer Look**

Ammaia sits in a Portuguese nature reserve, which means it can't be dug up. So when the researchers—who hail from Portugal, Belgium, Slovenia, the Netherlands, the U.K., and Germany—began working in 2009, they had to do so in a noninvasive way.

Their first step was to create a topographic map, and then to use Helikites—helium balloons crossed with kites—to get a view of the area, including a quarry that Romans used for construction materials.

The next step was a geomagnetic survey. Covering more than 37 acres (15 hectares), it revealed almost the full plan of the town, plus many elements of Ammaia's suburbs, including roads, cemeteries, and industrial sectors. It also showed stone blocks used for heating—probably ovens, kilns, or objects to heat water for the town's baths.

Then the researchers turned to ground-penetrating radar, which shoots electromagnetic pulses into the earth and registers the signals reflected by underground structures. That makes it possible to create images of surfaces below street pavements and airport tarmacs, among other hard-to-reach locations.

At Ammaia, the radar survey of the forum and its adjacent baths revealed details like drains and columns within buildings.

### **Then and Now**

Noninvasive methods are being used more and more often these days, in more and more places. But they're hardly ubiquitous.

In fact, adoption of noninvasive methods varies widely, even within countries, says Axel Posluschny, an archaeologist and manager for ArcheoLandscape Europe. Some governments are reluctant to give researchers access to data-packed aerial photos—usually the starting place for noninvasive archeology—for fear that they could be used for other purposes.

Nevertheless, over the past several decades, noninvasive methods have begun making their way into archaeological training—meaning the next generation of archaeologists will likely know how to use these techniques.

At places like Leiden University in the Netherlands, which is implementing an intensive training program for noninvasive archaeology, students are being taught remote-sensing techniques.

“Usually,” says Posluschny, “these courses consist of both a theoretical [part] and a practical part—either hands-on experience or a field school—related to an ongoing research prospect.”

At the same time, existing technologies are improving. Lidar scans, for instance, are made using red-light lasers, which don’t work underwater because liquid absorbs red light. But NASA and an Austrian firm are developing a lidar green-light laser that will soon be able to see clearly in shallow water.

As for cost, digital methods are generally cheaper than traditional ones (provided the researchers using them have the right training). Software to stitch together data from diverse sources is usually free. And as drone technology continues to advance—the latest devices have more sensors than ever before—data collection will speed up and aerial photography will become even cheaper and easier.

Still, says Posluschny, traditional methods continue to play an important role. For one thing, it’s still not possible to date objects without digging them up. For another, because older objects are buried deeper than newer ones, it’s harder to create a digital chronology for a site than to use traditional digging methods.

“Excavating gives a different kind of information,” says Posluschny. “Aerial photos, lidar data visualizations, or geophysical surveys usually give information about the shape and the size of [buried] archaeological sites.”

Going forward, a combination of traditional and noninvasive techniques may be the best way to gather data. For instance, remote-sensing information—great for covering large areas and landscapes with minimal work—is now being used to pinpoint the best places to perform minimal, targeted excavations.

### **The Future of Seeing the Past**

In some ways, it’s becoming easier than ever to connect people to the past. Smartphones and tablets can already display compelling, three-dimensional explorations in real time. But for some people, there’s no replacing the real thing.

“Among tourists [looking at a site remotely], you have the impression that they feel robbed [of] the possibility to touch and see monuments,” said Corsi.

In some places, however, that’s not an option. Many cities, especially in Europe, have long histories of building on top of archaeological sites. In those cases, noninvasive research techniques may be the only way to dig into former times.

Cornelius Meyer, a geophysicist and managing director of the geo-prospecting firm Eastern Atlas, based in Berlin, says it’s now possible to see beneath many places—airports, roads, church floors, town squares—that were inaccessible in the past. And, he says, “we still have a lot of unexplored archeological sites” that are primed for a digital discovery.

As noninvasive research methods grow more prevalent, the expense and danger of disturbing ancient sites may itself become a relic of the past.

Please visit the site: <http://news.nationalgeographic.com/2015/04/150403-noninvasive-archaeology-ammaia-roman-lusitania-portugal-video/>

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## **EGYPTIAN CULTURE INFLUENCED ANCIENT ISRAEL AFTER EXODUS, UNEARTHED ANTIQUITIES REVEAL**

Egyptian culture pervaded ancient Israel years after Moses led the Exodus, artifacts recently unearthed during the excavation of a cave in the South reveal. The Antiquities Authority announced the find on Wednesday, two days before Passover.

While displaying the relics at Jerusalem's Rockefeller Museum, archeologists said that hundreds of pottery vessels and dozens of pieces of jewelry dating to the Late Bronze Age (1500 BCE) and Iron Age (1000 BCE) had been found during a looting investigation in the Tel Halif region.

“Inspectors from the Robbery Prevention Unit discovered that antiquity thieves had broken into the cave and begun looting pottery vessels from 3,000 years ago, and disturbing the ancient archeological strata,” Antiquities Authority spokeswoman Yoli Schwartz said. Authority officials “thwarted further damage to the cave and carried out a salvage excavation there, in order to save the artifacts and extremely valuable archeological information from the robbers’ pickaxes.”

Shwartz said more than 300 pottery vessels of differ-varieties, “fashioned from yellowish alabaster, seals, seal impressions and cosmetic vessels” had been found in the cave. Some were still intact. Dozens of pieces of jewelry made of bronze, shells and faience were also found nearby.

Amir Ganor, director of the Robbery Prevention Unit, said that many of the artifacts discovered attest to the existence of an Egyptian administrative center in the region 3,400 years ago.

“We found dozens of stone seals, some of which are shaped in the form of a winged beetle [scarabs] and bear carved symbols, and images typical of the Egyptian culture which prevailed in the country in the Late Bronze Age,” Ganor said.

“It is true the Israelites left Egypt, but the evidence from the excavation in the cave shows the Egyptians did not leave the Israelites and their descendants,” he added. “Some of the seals were fashioned on semiprecious stones that come from Egypt and the Sinai Peninsula.”

Dr. Daphna Ben-Tor, curator of Egyptian archeology at the Israel Museum, said most of the scarab seals found in the excavation date to the 15th and 14th centuries BCE, during which Canaan was ruled by Egypt.

“The names of kings appeared on some of the seals. Among other things, we can identify a sphinx lying opposite the name of the pharaoh Thutmose, who reigned from about 1504– 1450 BCE,” Ben-Tor said.

“Another scarab seal bears the name of Amenhotep, who reigned from about 1386–1349 BCE,” she continued.

“Still another scarab depicts Ptah, the principal god of the city of Memphis.”

Other artifacts discovered included seal rings made of faience, and a number of figurines and amulets in the image of gods sacred to the Egyptian culture.

“This has been attested to in archeological excavations where we uncovered evidence from many years after the Exodus, which reflects the influence of Egyptian culture on the Judahite residents of the country.”

An examination of the antiquities showed that some of the objects had been made in Egypt and were brought to Canaan by the Israelites or merchants, Ganor said. He added, however, that other artifacts had been made in ancient Israel using methods imitating Egyptian techniques and cultural motifs while utilizing indigenous raw materials.

According to the authority’s Dr. Amir Golani, during the Late Bronze Age, Egypt was an extremely powerful empire and imposed its far-reaching authority throughout the region.

“Egyptian authority was not only manifested in political and military control, but was a strong cultural influence that contributed to shaping society,” Golani said. “Along with an administration of Egyptian officials in Israel, a group of the local elite evolved in the country who adopted many of the Egyptian customs and their artistry.”

The artifacts have been transferred to Antiquities Authority laboratories for further treatment and analysis, Golani added.

“The investigation of the cave and the finds is still in its early stages, and upon completing the treatment of the hundreds of objects that were exposed, it will be possible to add important information regarding Egypt’s influence on the population of the Land of Israel in the biblical period,” he said.

Ganor expressed satisfaction that the attempted theft had been thwarted, saving hundreds of invaluable relics from being lost to the black market.

**Please visit the site: <http://www.jpost.com/Israel-News/Egyptian-culture-influenced-ancient-Israel-before-Exodus-unearthed-antiquities-reveal-395874> [Go there for pix]**

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## **MEDIEVAL PARASITE-FILLED POOP** **FOUND IN JERUSALEM LATRINE,** **BY LAURA GEGGEL**

The excavation of a roughly 500-year-old latrine in Jerusalem has uncovered thousands of eggs from human parasites, including some that may have come from Northern Europe, a new study finds.

The people who used the latrine may have been long-distance traders or on a pilgrimage, likely from Northern Europe, where these parasites were common, the researchers said. "While we will never know for sure why they made this journey, pilgrims and traders would be a plausible explanation," said the study's senior researcher, Piers Mitchell, a lecturer of biological anthropology at the University of Cambridge in England. [See Images of the 500-Year-Old Latrine and Parasites] Researchers originally found the latrine during an excavation in Jerusalem's Christian quarter in 1996. The latrine had stone walls, a vaulted roof, an earthen floor and two entry chutes on opposing sides, just in case nature called two people at once. A fragment of charcoal found in the cesspool helped the researchers to date the latrine to the late 1400s- early 1500s, when the city was under the jurisdiction of the viceroy of Damascus during the Mamluk Period (the Mamluks were a ruling military caste).

A ladder going into the approximately 500-year-old latrine in Jerusalem's historic Christian quarter ... Jerusalem is a unique city: It's important to Christians, Jews and Muslims, and also sits between Europe and Asia, making it a prime trading spot. But researchers continue to look for more clues about who actually visited the city. "We were keen to study the latrine, in case there was evidence for parasite species that shouldn't be in the region, which would indicate the presence of travelers," Mitchell said.

To investigate, the researchers sieved the sediment within the latrine, and found 12 lightly mineralized coprolites — or fossilized stool. Using a series of microsieves, they looked for parasite eggs within the coprolites and one sediment sample.

They found six types of intestinal parasite species. Four were intestinal worms (roundworm, whipworm, beef/pork tapeworm and fish tapeworm), and two were single-celled parasites that cause dysentery (*Entamoeba histolytica* and *Giardia duodenalis*), Mitchell said.

The most common parasites in Jerusalem at the time, whipworm and roundworm, were present in all 13 samples. But two of the parasites, fish tapeworm and *Entamoeba dysentery*, were common in Northern Europe, but rare in the Middle East.

Perhaps fish tapeworm was more prevalent in Northern Europe because of the way people prepared food there, the researchers speculated. Northern Europeans tend to eat raw, smoked or pickled fish, and none of these preparations kill intestinal parasites. In contrast, Arabic texts indicate that people in inland Syrian cities did not commonly eat fish, and when they did, they would cook it, effectively killing any parasites.

Inside the latrine, the researchers also found pieces of Italian pottery, reinforcing the idea that people in Europe and Jerusalem traded with each other during the late 1400s, Mitchell said. It's possible that the latrine was near a town house owned by Jerusalem merchants, who contracted the parasites during their travels, or by a hostel that housed European merchants or pilgrims, the researchers said. Nowadays, people can treat intestinal parasites with antibiotics, but treatments were vastly different 500 years ago.

"Medieval medical texts show they did not realize intestinal worms were live organisms," Mitchell said. Instead, illnesses were blamed on the body's attempt to restore the balance of the four humors, including blood, yellow bile, black bile and phlegm, he said.

The researchers "did an excellent job of combining archaeology and parasitology," said Karl Reinhard, a professor of natural resource sciences at the University of Nebraska, Lincoln, who was not involved in the study."

Parasites travel long distances within their hosts," Reinhard said. "Protozoa [single-celled organisms], as well as parasites, can be found in ancient contexts."

**Please visit the site: <http://news.yahoo.com/medieval-parasite-filled-poop-found-jerusalem-latrine-114618131.html>**

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## **PRE-ETRUSCAN GRAVE DISCOVERED NEAR VOLTERRA**

Southern Europe 10:00 PM Archaeologists investigating a potential building site near Volterra discovered a grave dating from pre-Etruscan times, the Tuscan city announced on Thursday.

Volterra Mayor Marco Buselli said "It is a remarkable discovery that opens new scenarios regarding pre-Etruscan Volterra". The grave, consisting of a large jar which is an estimated one meter in height and more than 80 cm in diameter, was found during survey archaeological investigations for the building of a nursery school. The jar was in good condition, and was found in a ditch with a stone slab covering the lid. It was taken to the Tuscany archaeological superintendency's conservation laboratory.

Please visit the site: <http://archaeologynewsnetwork.blogspot.com/2015/04/pre-etruscan-grave-discovered-near.html#.VSGIotJ4rpo>

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## **ARCHAEOLOGISTS UNCOVER ANCIENT 'SPOONING' COUPLE IN GREECE**

Almost 6,000 years ago, the man was placed behind the woman with his arms around her body, and their legs were intertwined. They were buried.

Why they were interred in this manner is not yet determined, but the international team that discovered them in Greece is still searching for answers, according to team member Michael Galaty, a Mississippi State University archaeologist.

"There've only been a couple of prehistoric examples of this behavior around the world, but even when couples are buried together, they're beside each other and not typically touching," he said. "This couple was actually spooning. We assume they were partners of some kind, and because of DNA analysis, we do know they are male and female." Not only does Galaty head MSU's anthropology and Middle Eastern cultures department, but he also serves as interim director of the university's Cobb Institute of Archeology.

Another question for the researchers to examine is how the couple died, which happened around 3800 B.C., Galaty said. While archaeologists are unsure whether the man or woman died first, they are sure the couple's times of death are close together.

"This is unique in Greece, and we're analyzing the skeletons and bones to find out more about what was going on, how they died and why they may have been placed there," he said.

The location of the couple's burial site -- Ksagounaki, a rocky promontory, or cliff, on Diros Bay near Greece's Mediterranean coast -- is adjacent to Alepotrypa Cave, one of the largest ancient settlements yet discovered in southern Europe, Galaty said. The cave, first explored in the 1950s, was excavated by Giorgos Papathanassopoulos. It was occupied during the late portion of the Neolithic Age, approximately 5000-3000 B.C. The bodies were discovered at Ksagounaki near a Neolithic house that was dated to the same time as the couple's death around 3800 B.C. The area adjacent to Alepotrypa Cave was discovered in 2011 after the archeological team surveyed the land around the cave.

"The cave was occupied for a limited period of time, around the time when people started farming. People became more sedentary and built houses at a site outside the cave. It became a pretty big village," he said. "People were buried within their homes. Keeping your ancestors close to you was important, and their remains served as a title to the land."

Galaty said one of the team's biggest discoveries was that 2,000 years after the Neolithic Age, the Mycenaeans -- who comprised the human cast in Homer's epic "Iliad" chronicling the Trojan War -- returned to Ksagounaki. They dug into the earlier village-mortuary complex to rebury their dead.

"The bones were gathered somewhere else and brought to this feature around 1200 B.C. The Mycenaeans dug down into the old village and filled the pit they dug with bones," Galaty explained. "There were a lot of wealthy objects -- ivory hair pins, lots of beads, a Mycenaean dagger made of bronze."

He hypothesized that knowledge of Alepotrypa Cave may have been passed down through the civilization's memory of tradition.

"It's not just a coincidence that these people chose to rebury their dead here. There are 2,000 years of memory in this place," Galaty said. "Mycenaeans chose to come here to rebury their dead. They may have come from far away to bury special people. "We're going to look at where they might have lived before they were buried and what kinds of interesting rituals related to death and burial may have been used."

In addition to Galaty, a University of Wisconsin doctoral graduate in anthropology, archaeologists on the team were Anastasia Papathanasiou, with the Ephorate for Speleology and Paleoanthropology in Athens, Greece, and Panagiotis Karkanas, of the American School of Classical Studies in Athens, Greece. Others included William A. Parkinson, with Chicago's Field Museum of Natural History, and Daniel J. Pullen, of Florida State University.

Funding was provided by the Institute for Aegean Prehistory, along with grants from the Archaeological Institute of America's Cotsen Excavation Fund, the National Geographic Society's Committee for Research and Exploration, and the Wenner-Gren Foundation for Anthropological Research's International Collaborative Research Grant program. The Field Museum Women's Board and private donors also supported the archaeologists' work.

Story Source:

The above story is based on materials provided by Mississippi State University. Note: Materials may be edited for content and length.

**Please visit the site:**

<http://www.sciencedaily.com/releases/2015/04/150407171540.htm> [Go there for pict]

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## **TECHNOLOGY CASTS NEW LIGHT ON OLD MANUSCRIPTS, BY TODD R. HANNEKEN**

Faith may be the oldest part of the human experience, but our understanding is always changing.

Technology helps us look back into a world of ideas from the beginning of Christianity that were later dismissed as heretical and nearly lost forever. In the 20th century, discoveries such as the Dead Sea Scrolls brought to light ideas on parchment from the time of the beginning of Rabbinic Judaism and Christianity.

In the 21st century, a new kind of discovery is taking place.

St. Mary's University is the home of a team of scholars, scientists and student researchers developing technologies to rediscover writing on ancient manuscripts that cannot be read by the human eye.

Two thousand years ago there were many ideas about the law, the Messiah and God that did not survive. Ideas were deemed heretical, and the books that preserved them were viewed as no more valuable than the parchment on which they were written. Fortunately, that parchment was valuable because of the difficulty of processing animal skin. Rather than being burned, books were often erased and reused to create other books.

Today, technology makes it possible to read erased text once invisible.

The eye has only three color receptors. Someone is deemed "colorblind" if only two of the receptors are functioning. None of us can see infrared or ultraviolet.

Today's imaging technology exponentially improves the color range and resolution of the eye. Advanced processing of spectral signatures allows us to distinguish visually similar but different materials, such as brownish traces of ink on brownish discolored parchment. We can also capture high-resolution texture that allows us to see the corrosion of parchment where mildly acidic ink had once been.

Now scholars can read whole books from antiquity, whereas before one could barely tell there was erased text behind the visible writing.

What will we learn when this technology makes ancient writings freely available to scholars and enthusiasts around the world? As with past discoveries, it might teach us oddities of Jewish and Christian history and about the development of ideas that we now take for granted.

The St. Mary's team is working on an erased manuscript, or palimpsest, of the book of Jubilees, originally written in Hebrew in the 150s BCE. It was eventually rejected by Judaism and most of Christianity, perhaps because of its fervent strictness.

The same erased manuscript also contains the only copy of what is likely the Testament of Moses, a Jewish text written around the time of Jesus describing some mysterious

other Messianic figure. A third hidden text contains part of a commentary on the Gospel of Luke written by Christians who were eradicated as heretics because they believed that God the Son was younger than God the Father.

Giving the world an easily readable digital copy of these ancient writings could lead to renewed understanding not only of the "heresies" of lost forms of Judaism and Christianity, but also their insights that might be enlightening today.

Faculty and student researchers at St. Mary's are in the early stages of the Jubilees Palimpsest Project with support from the National Endowment for the Humanities. Its website, [palimpsest.stmarytx.edu/](http://palimpsest.stmarytx.edu/), shows samples of new technological developments. Images of the Jubilees Palimpsest will be revealed in the next phase.

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<http://ww1.hdnux.com/photos/35/55/56/7789476/3/460x1240.jpg>

Todd Hanneken is a professor of theology at St. Mary's University.

Todd Hanneken is associate professor of Old Testament and theology at St. Mary's University and director of the Jubilees Palimpsest Project.

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**Please visit the site: <http://www.expressnews.com/news/religion/article/Technology-casts-new-light-on-old-manuscripts-6188244.php>**

## **RUINS OF EGYPT'S MOST ANCIENT CAPITAL OF MEMPHIS UNEARTHED, BY RANY MOSTAFA**

Ruins of the 5,200 year-old enclosure wall, once surrounded Egypt's most ancient capital city of Memphis, has been unearthed, Antiquities Minister Mamdouh al-Damaty said in a statement Saturday.

"Several white limestone fragments of the ancient capital's wall were discovered during excavation work carried out by an archaeology team of the Russian Institute of Egyptology at Kom Tuman, south of Giza Pyramids," said Damaty.

Memphis was founded from the end of the fourth millennium B.C. by the first Dynasty Pharaoh Menes, who was the first to unify Upper and Lower Egypt kingdoms into a unified state in ancient Egypt history, Director of the Russian archaeological team Galina A. Belova was quoted by the Antiquities Ministry Friday.

"A number of pottery making ovens and bronze tools were also found. The excavations will continue and we will be working to unearth the rest of the wall, as well as any archaeological elements which could help us to know more about this early period of Egyptian history," said Belova.

Occupying a strategic position at the mouth of the Nile Delta, Memphis was the capital of ancient Egypt during the Old Kingdom (2,680B.C.-2125B.C.) It once comprised the royal palaces of the Pharaohs alongside the state administrative buildings, Kamal Wahid, director of the central administration of Giza antiquities told The Cairo Post Saturday.

"Unlike royal tombs, pyramids, mortuary and cult-related temples and any other buildings related to the afterlife, ancient Egyptian royal palaces, administrative offices, houses and other life-related buildings were often made of mud brick," said Wahid, pointing out that the ancient Egyptian belief in life after death made the Egyptians keen to build durable tombs and pyramids.

Memphis is now an open air museum that houses artifacts spanning several periods of the ancient Egyptian civilization; a painted limestone colossus of Ramses II along with the alabaster Sphinx are the most preserved pieces in that museum.

In the 1950s, the Egyptian government decided to transfer a pink granite colossus of Ramses II to Cairo. It was placed before the Cairo's main train station named after the Pharaoh. However, in 2005, the statue was transferred to the under-construction Grand Egyptian Museum (GEM), nearby Giza Pyramids, scheduled to open in 2018. The move has been criticized for its costs and concerns about pollution in the Giza location.

**Please visit the site: <http://www.thecairopost.com/news/146654/culture/ruins-of-egypts-most-ancient-capital-of-memphis-unearthed>**

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## **UNLOCKING THE SECRETS OF ANCIENT ISRAELITE LETTERS**

What do 2,600-year-old administrative documents written on potsherds have to do with computer algorithms? And what can routine supply requisitions and urgent requests for reinforcements from a long-gone army tell us about the origins of the Bible?

A maverick team of mathematicians, physicists and archaeologists at Tel Aviv University is on a high-tech quest to answer those questions by unlocking the secrets of the few written documents from the First Temple period that have survived to this day.

The new techniques the researchers developed may not only revolutionize the way scholars study ancient inscriptions, but also paint a better picture of the level of sophistication and literacy in the ancient kingdoms of Israel and Judah. Ultimately, their work could help shed light on the tantalizing question of when biblical texts were first put in writing.

### **Hundreds of years before the Dead Sea Scrolls**

The project was started six years ago by archaeologist Israel Finkelstein and physicist Eli Piasefsky, two researchers already adept at enlisting the exact sciences to study the past. Finkelstein is one of the leading voices in biblical archaeology calling for a more scientific approach to the discipline, and tends to be critical of more classical views that, he feels, interpret discoveries in the field to fit and confirm the biblical narrative.

From new and more precise dating techniques, to extracting the DNA of ancient peoples from their bones, "archaeology is going through a dramatic revolution in recent years," Finkelstein says.

The two scholars set out to apply modern scientific methods to texts written before the destruction of the First Temple in 586 BCE, hundreds of years before the more famous Dead Sea Scrolls.

In the First Temple period, most documents were probably written on fragile papyrus, and are long gone. But over the last century, at sites across the Holy Land, archaeologists have unearthed at least four large troves of potsherds with writing in the Paleo-Hebrew alphabet used in ancient Judah and Israel.

Pieces of broken pottery were easily available throughout the ancient world and were often used in the military or civil bureaucracy: the messages were written on the hard ceramic using ink.

Such fragments are also known as ostraca (singular: ostrakon), from the name of the pottery shards on which ancient Athenians would inscribe the name of those they voted for to be exiled from the city - hence also the term ostracism.

### **Unknown text emerges**

The largest collection of First Temple ostraca was found in Samaria, the capital of the ancient Kingdom of Israel, and dates to the first half of the 8th century BCE, a few decades before the kingdom was conquered by the Assyrian empire. Three more groupings of potsherds come from Judahite strongholds and date to the late 7th century or early 6th century BCE, at a time when the Babylonians and their allies were starting to encroach on the borders of the Kingdom of Judah.

The first step in the study was to snap digital images of the collections to preserve the text. After the shards are excavated and exposed to the light, the ink deteriorates and fades away, Finkelstein explained.

The project was put in the hands of a trio of thirty-something PhD students in mathematics: Arie Shaus, Shira Faigenbaum-Golovin and Barak Sober. All three left promising careers in the high-tech and defense industries to immerse themselves in the study of First Temple period ostraca.

"It may sound strange, but it feels more significant than what I did before," said Faigenbaum-Golovin, who used to be a programmer for software giant Amdocs. "You feel that you are really making a small but important contribution to human knowledge."

The trio's first challenge was to build a camera that would take multi-spectral images of the ostraca, high quality pictures that capture frequencies of light that are invisible to the human eye, including in the infrared range of the spectrum. Researchers in Jerusalem have been using a similar method to digitize the Dead Sea Scrolls, partly with the support of Google and using state-of-the-art equipment. For the ostraca, the three mathematicians had to get a bit creative.

"We borrowed an expensive camera and discovered a way to reproduce it on the cheap," said Sober, one of the mathematicians. "We cannibalized a Canon camera and created a system that would have cost tens of thousands of dollars for a few thousands."

Still, the jury-rigged system yielded excellent results. Not only did the dark ink on the potsherds appear more clear and readable: in some cases, the images revealed texts that had gone unnoticed.

"Once, the technician mistakenly photographed the reverse side of an ostrakon, which was known to be blank, and the image revealed four clear lines of text there," Shaus, the third mathematician on the team said during a tour of their lab. "It had been sitting in a museum for 50 years and nobody ever noticed this."

### **The last days of Judah**

The new text is still being deciphered, but "of course now we are going back to photograph all the ostraca that could have writing on the reverse side," he said.

Using the images, the team also developed algorithms that allow software to recognize the handwritten characters of the Paleo-Hebrew alphabet and produce an automatic facsimile of the text, reducing the chance of scholars mistaking one letter for another.

"Before, epigraphists would manually transcribe inscriptions, which is a subjective, interpretative process," Shaus explained.

The documents themselves, translated by scholars over the past decades, have mostly rather mundane content.

The Samaria ostraca list produce brought into the city from the surrounding countryside.

Many of the potsherds found in the remote Judahite fortress of Arad, in the Negev desert, are addressed to the outpost's quartermaster, Eliashiv, and order him to distribute wine, oil and bread to mercenaries and soldiers stationed in the region.

But some of the ostraca strike a more dramatic tone, and bear witness to the final days of the Kingdom of Judah.

One of the potsherds from Arad, probably sent to one of Eliashiv's superior officers, is a panicked note from the king in Jerusalem with an order "incumbent upon your very life" to send reinforcements to nearby Ramat Negev to counter a threat from the neighboring Edomites.

We don't know what the response to the message was, but shortly after the order was received, the Edomites, who were allied with the Babylonians, overran the entire area and destroyed the Arad citadel.

### **Confirming Jeremiah?**

Even more gripping is the tale told by perhaps the most known ostrakon from the period, which was found in Lachish, the largest Judahite town after Jerusalem. In the dispatch, an official stationed outside the city reports to his commander on the fall of a nearby stronghold, saying that "we can see the signals from Lachish, but we no longer see Azekah."

Scholars have taken this as a confirmation of the biblical narrative of Jeremiah, which recounts that Azekah and Lachish were the last fortresses of Judah to fall before Jerusalem was besieged and destroyed by the Babylonian king Nebuchadnezzar II.

But the most significant part of the Tel Aviv University project goes beyond the content of the ostraca and seeks to learn more about the people who wrote them. This is done by a statistical analysis developed by our indefatigable trio of mathematicians.

For now, the experiment is being run on the Arad letters: it aims to determine how many different hands were behind the letters that reached the small outpost, which housed perhaps 50 soldiers.

The researchers selected 17 out of some 100 ostraca found there and wrote software that compares the handwriting on the most used letters of the alphabet.

"Was there a single scribe who took down all the orders for Eliashiv and the others in the fortress, or were there many people who knew how to read and write? Was writing widespread or was it just a tool for the elites?" wonders Finkelstein.

The results of the analysis are being kept under wraps ahead of publication in a scientific journal. But Finkelstein believes there is sufficient evidence to show that late 7th century Judah was a sophisticated kingdom with a relatively high level of literacy.

"The medium was so spread, that even a humble quartermaster in a small, remote desert outpost used it," Finkelstein said. "There must have been a large education system to support that."

More than just give us a picture of the structure of the late Judahite kingdom, the analysis is a clue that other kinds of literary work could have been going on, Finkelstein noted.

Scholars debate whether biblical texts were first put in writing before the destruction of Jerusalem or after Judahite deportees returned from their exile in Babylon, in the Persian or even the later Hellenistic period.

"The problem is that from 586 until the Hasmonean period we have a very low, almost non-existent amount of Hebrew inscriptions in Judah," Finkelstein told Haaretz. "On the other hand we see this strong literary activity before the exile, in the late monarchic period."

This suggests that at least some parts of the holy text may have been put in writing before the exile, Finkelstein said. He has long supported the theory that an early nucleus of biblical text may have been written down some time after the Assyrian conquest of the kingdom of Israel, around 720 BCE, as the small realm of Judah struggled to absorb the refugees from its once prosperous northern neighbor.

In this context, part of the biblical narrative would have served to combine the different traditions of the two peoples and create a common ground, Finkelstein said: "The aim was to create one entity, one people, one Israel."

**Please visit the site: <http://www.haaretz.com/life/archaeology/.premium-1.652843>**  
**[Go there for pix]**

## **4,600 YEAR-OLD TOMB OF PHARAOH** **UNEARTHED IN DELTA,** **BY RANY MOSTAFA**

A 4,600 year-old tomb belonging to the little-known 3rd Dynasty Pharaoh Khaa Ba, has been unearthed in Egypt's central Delta town of Quesna, Antiquities Minister Mamdouh el-Damaty announced Monday.

"The significance of the new discovery stems from the fact that the Memphis necropolis [located to the south of Giza Pyramids], but not Quesna, has been always known to be the burial city of 3rd Dynasty Pharaohs," Damaty said.

He added that the discovery of the Khaa Ba's tomb in Quesna, best known for its Late Period (664B.C.-332 B.C.) to Roman (30 B.C.-390 A.D.) remains, "raises several questions about provincial administration and burial customs during the Old Kingdom Period."

The tomb was unearthed during geophysical surveys carried out by the archaeology mission of the Egypt Exploration Society (EES.)

"In 2010, a mud brick mastaba (a flat-roofed, rectangular structure with outward sloping sides served as a tomb) was discovered in Quesna. Then the excavations continued until 2014 when a seal with the Pharaoh's name was discovered and confirmed it is his tomb," Dr. Joanne Rowland, director of the mission, stated Monday.

Very little is known about Khaa Ba, who is best known from his mastaba discovered in Zawyet el-Eryan, which lies between the Giza Pyramids and Abu Sir sites, archaeologist Sherif el-Sabban told The Cairo Post Tuesday.

His name, which means "radiant soul," was found inscribed on objects in the Mastaba, Sabban said, adding that Khaa Ba was the fourth Pharaoh of the 3rd Dynasty.

"the so called Layer Pyramid; an unfinished step pyramid also located in Zawyet el-Eryan, has been tentatively associated with the 3rd Dynasty Pharaoh although no remains of his burial were found," said Sabban.

Khaa Ba is believed to have reigned a relatively brief four years between 2603 BC to 2599 BC, although these dates are highly conjectural, based on scanty of evidence of this early Pharaoh, according to Sabban.

"The new discovery also raises historical debates regarding the identity of the ancient Egyptian individuals that were buried in the Quesna site," he added.

**Please visit the site: <http://www.thecairopost.com/news/147074/topnews/4600-year-old-tomb-of-pharaoh-unearthed-in-delta>**

## **THERMOLUMINESCENCE DATING** **REFINED**

Thermoluminescence is used extensively in archaeology and the earth sciences to date artefacts and rocks. When exposed to radiation quartz, a material found in nature, emits light proportional to the energy it absorbs. Replicating the very low dose of background radiation from natural sources present in quartz is a key precondition for precise and accurate dating results.

Italian scientists have now developed a method to control the accuracy of the dose calibrations delivered to the samples during laboratory irradiation with heavy particles, replicating natural radiation exposure.

These findings have just been published by Lara Palla from the National Institute of Nuclear Physics (INFN), Italy, and colleagues in a paper in EPJ Plus. Using oxygen and lithium ions from the Tandem accelerator at INFN LABEC in Florence, they found that their measurements were accurate to within 1%, despite large fluctuations in the irradiation beam. In this study, the authors greatly improve on previous calibration measurement techniques.

To do so, they employ a pulsed ion beam that produces ion bunches, and rely on a system combining an aluminum foil and an electron detector, dubbed the MicroChannelPlate (MCP). When the ion bunches pass through the aluminum foil some electrons are emitted and detected by the MCP. The MCP's energy resolution is not sufficient to count the number of ions constituting the bunch. However, Palla and colleagues have found they can perform the calibration by comparing the response of the MCP with that of a silicon detector, which offers extremely good energy resolution. They show that it is thus possible to precisely evaluate the number of ions within each bunch crossing the foil and reaching the target to be irradiated.

**Please visit the site:**

**<http://archaeologynewsnetwork.blogspot.com/2015/04/thermoluminescence-dating-refined.html#.VTXFciFVikp>**

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## **SHROUD OF TURIN BACK ON DISPLAY AGAIN, BY RAJENDER BHATIA**

The controversial Shroud of Turin will be put on display again after a five-year absence. Beginning April 19 through June 24, 2015, the shroud will be on display at its home at the Turin Cathedral of Saint John the Baptist. Although viewing is free, if you plan to travel to see it, a reservation is necessary to get in to see the display. When the Shroud was last on display in 2010, organizers say that 2.5 million people came to see the religious relic.

### **What is the Shroud of Turin?**

The Shroud of Turin is believed by the Christian faith to be the burial shroud of Jesus of Nazareth. It is a piece of linen cloth that is 4.4 meters (nearly 14.5 feet) long that is thought to show the image of Christ. The cloth appears to show the image of a man approximately 5 feet, 7 inches tall, with wounds that are consistent with those Christ received while being crucified. There are what Christians believe to be dried blood marking the areas of the hands, feet, and head that would have been from the wounds of crucifixion and a crown of thorns. In addition, close inspection shows a chest wound consistent with the one Christ received while on the cross.

The Shroud is housed inside an airtight, bulletproof, laminated, case that is humidity and temperature controlled. The case is filled with oxygen and argon gas to keep any chemical changes from taking happening. It is placed flat on an aluminum sliding support with runners. This is all in an effort to preserve the Shroud for posterity as it has suffered damage in the past, most notably a fire in 1532 while in a chapel in France. It travelled to Turin in 1578, where it has remained since.

### **Hundreds of Scientific Tests**

The Shroud of Turin has been through hundreds of scientific tests in an attempt to prove or disprove its authenticity, but the cloth still remains a mystery. Scientists from all over the world have travelled to Turin to try to solve this religious puzzle.

In 1988, scientists conducted carbon dating of the cloth and stated that it was made in the 1300s and that the Shroud was a forgery from medieval times. Ten years later the cardinal of Turin called the results a plot to discredit the Roman Catholic Church.

After another 10 years, scientists stated that the image on the Shroud of Turin was "supernatural." Their research showed that the characteristics of the image of the body on the Shroud were created by a short, intense burst of ultraviolet radiation; however, nothing is known to be able to produce such a burst. Scientists last year proposed that the magnitude 8.2 earthquake in Jerusalem that coincided with the death of Christ in 33 AD, is what caused the images to appear on the cloth. They theorize that neutron particles released by the crushed rock would have caused the x-ray like images that we see today.

Christians believe the image on the Shroud of Turin to be that of Jesus Christ based on the history of the cloth and how it has been held as a religious icon since it first became

known to exist. Information in the Bible describing the burial shroud of Jesus along with historical data gives the article validity. The markings on this shroud lead believers to see the face and wounds of Jesus Christ.

Despite all of our advanced techniques, science is still unable to determine what caused the images on the Shroud of Turin. Many debunk the claim that the cloth was made in medieval times, saying that the samples used were taken from areas that were repaired; and so the debate continues and the creation of the Shroud of Turin remains a mystery, let alone who the man is in the image.

Please visit the site: <http://clapway.com/2015/04/19/shroud-of-turin-back-on-display-again-234/>

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## **RESEARCH CASTS DOUBT ON SEA PEOPLES THEORY**

University of Tübingen doctoral candidate Jesse Millek has been honoured for his research, which questions the controversial theory of the "sea peoples".

Mr. Millek has been awarded the Sean W. Dever Memorial Prize by the William F. Albright Institute of Archaeological Research in Jerusalem for a paper presenting his findings on the topic. He has been studying the control of resources during the transition from the Bronze Age to the Iron Age in the Southern Levant. The research focuses on the fall in trade at the end of the Late Bronze Age in what is now Israel and Jordan.

The award winning work is entitled, "Sea Peoples, Philistines, and the Destruction of Cities: A Critical Examination of Destruction Layers 'Caused' by the 'Sea Peoples,'" and deepens the understanding of what caused the decline of the Southern Levant at the end of the Bronze Age.

More complex

Until now, an inscription in the Mortuary Temple of Ramses III - Medinet Habu - has been said to be evidence of an invasion by the "sea peoples". The engraving, dating back to 1180 BCE, became the basis for the much-discussed theory which blamed the invasion for the collapse of the neighbouring Levantine kingdoms and the collapse of interregional exchange. Mr. Millek's recent findings, however, indicate that the causes for a sharp decline in trade are much more complex and likely to have been related to internal, revolutionary processes of social change and an altered approach to handling resources.

Critical examination of 16 sites

Mr. Millek critically examined 16 sites in the Southern Levant said to have been destroyed by the "sea peoples" in a Collaborative Research Center (SFB) 1070 paper. One example is the city of Lachish. Located 44 kilometres southwest of Jerusalem, it is one of the largest and most significant archaeological sites in the Southern Levant.

During early excavations, archaeologists uncovered the charred remains of a temple and building in the Late Bronze Age Destruction of Level 7. Subsequent research interpreted these finds as evidence of a military conflict with the "sea peoples." However, a critical reassessment of the excavation reports indicates that several significant factors were missed in the initial interpretations.

Jesse Millek says that, "The Late Bronze Age building in Area S was most likely destroyed by a kitchen fire, as the area around the hearth showed the most destruction and was very likely the source of the fire. Even in the past, buildings could be destroyed and preserved in the archaeological record by a common place event like a kitchen fire. Moreover, the Fosse Temple appears to have been ritually terminated as all valuable or cultic items were removed from the temple before it was burned and there were no signs of vandalism. Additionally, the site remained sacred after it was burned as no later people built on top of it, or dug into its remains, which would again indicate the temple was ritually terminated." The orderly de-consecration of sacred sites points towards changed handling of spiritual resources and a cultural reorganization of values within the society.

Continuing research should determine in how far the fall in trade is linked to this change in values.

The head of project A06, Professor Jens Kamlah, emphasizes the significance of disproving the "sea peoples" theory. He says, "The goal of our research is to disprove the evidence supporting this old, extremely simplified, model. Mr. Millek's work represents a significant contribution to this effect. The time period we are investigating is crucial for the rise of the Israel we know from the Old Testament of the Bible. Demonstrating the different reasons and complex economic relationships behind the decline in trade can provide new insights into this key epoch."

**Please visit the site:**

<http://www.pasthorizonspr.com/index.php/archives/04/2015/researcher-casts-doubt-on-sea-peoples-theory>

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## **MORE NEANDERTHAL REMAINS FOUND IN KURDISTAN’S SHANIDAR CAVE**

Researchers have uncovered the remains of yet another Neanderthal inside Kurdistan’s Shanidar Cave north of Erbil. It is the third such Shanidar discovery for the British-led team, and just the latest set of ancient human remains found at the site dating back to discoveries in the 1950s.

British archaeologist Graeme Barker, whose team made the discovery Tuesday, told Rudaw the remains found in the Shanidar cave date as far back as 35,000 B.C., and his team is currently investigating why Neanderthals went extinct. The cave is located in the Zagros Mountains in the Kurdistan Region of Iraq near the Turkish border.

Modern excavations at Shanidar began under American archaeologist Ralph Solecki and his Columbia University colleagues from 1951 to 1960. The Solecki team recovered the fossilized remains of 10 individuals dating to between 65,000 and 35,000 years ago.

It was considered a grand discovery in the history of human evolution. Solecki’s finds showed evidence that the Neanderthals living in Shanidar may have practiced early medicine and ritual burial, signifying a belief in the afterlife. Another Neanderthal found by the Solecki team may have died due to a stab wound, signifying an early instance of inter-human conflict and weapons use.

Please visit the site: <http://rudaw.net/english/kurdistan/150420152>

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## **ANCIENT EGYPTIAN SHRINE, BUST UNEARTHED UNDER MODERN CAIRO**

A 2,400 year-old basalt shrine was unearthed from beneath Cairo's modern districts of Ain Shams and Mataria, Antiquities Minister Mamdouh el-Damaty announced Tuesday.

"The finds were discovered during the ongoing excavation work carried out by an Egyptian-German archaeology mission. The shrine belonged to the 30th Dynasty Pharaoh Nectanebo I (379 B.C.-360 B.C.)," said Damaty.

Nectanebo I was the founder of the 30th Dynasty: the last native Egyptian royal family to rule ancient Egypt before Alexander the Great conquered Egypt in 332 B.C., Archaeologist Sherif el-Sabban told The Cairo Post Tuesday.

"Historical evidence suggests the Pharaoh came to power by overthrowing Nephertites II, his predecessor and the last pharaoh of the 29th Dynasty," Sabban added.

The mission also unearthed a royal bust belonged to the New Kingdom (1580 B.C.-1080 B.C. ) Pharaoh Merenptah, Damaty said, adding that the statue represents the Pharaoh standing and making offerings to ancient Egyptian deities.

Archeology surveys carried out in Heliopolis have revealed prehistoric human settlements under this part of the modern city of Cairo, said Damaty.

Little remains of what was once one of the ancient Egyptians' most sacred cities, since much of the stones used in the construction of the temples were later plundered and reused in building modern buildings, according to Sabban.

Heliopolis, known in ancient Egypt as Iunu, was Egypt's most ancient capital city.

"The area was first excavated in the early 20th Century and most of the finds ended up in private collections. The obelisk of the Middle Kingdom Pharaoh Senusert I, probably the oldest standing obelisk in Egypt, is among the most significant excavations at the area," according to Sabban.

Please visit the site: <http://www.thecairopost.com/news/146170/culture/ancient-egyptian-shrine-bust-unearthed-under-modern-cairo> [Go there for pix]

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## **ANCIENT POTTERY SHARDS ANALYZED BY ISRAELI SCIENTISTS SEEM TO SUPPORT BIBLICAL NARRATIVE, BY SHARONA SCHWARTZ**

Israeli archaeologists, mathematicians and physicists are joining forces to uncover the meaning behind inscriptions found on pottery fragments believed to be more than 2,500 years old.

The Israeli newspaper Haaretz reported Wednesday that a Tel Aviv University team has been examining pieces of First Temple-era pots and vessels with ancient inscriptions scratched in. The ancient pot fragment is known as an ostrakon.

One of the inscriptions addressed events described in the biblical book of Jeremiah. Haaretz reported:

Even more gripping is the tale told by perhaps the most known ostrakon from the period, which was found in Lachish, the largest Judahite town after Jerusalem. In the dispatch, an official stationed outside the city reports to his commander on the fall of a nearby stronghold, saying that "we can see the signals from Lachish, but we no longer see Azekah."

Scholars have taken this as a confirmation of the biblical narrative of Jeremiah, which recounts that Azekah and Lachish were the last fortresses of Judah to fall before Jerusalem was besieged and destroyed by the Babylonian king Nebuchadnezzar II.

The Israeli foreign ministry has noted that more than 100 ostraca written in Paleo-Hebrew script have been found in Arad in southern Israel, calling it "the largest and richest collection of inscriptions from the biblical period ever discovered in Israel." Paleo-Hebrew was used in the ancient kingdoms of Judah and Israel.

Some of the inscriptions were addressed to the commander of the Citadel of Arad, Eliashiv ben Ashiyahu, and discussed getting bread, wine and oil to soldiers serving in the Negev Desert. Another excerpt discussed the security threats in the area, warning of an emergency and requesting reinforcements, the foreign ministry explained.

Haaretz reported:

One of the potsherds from Arad, probably sent to one of Eliashiv's superior officers, is a panicked note from the king in Jerusalem with an order "incumbent upon your very life" to send reinforcements to nearby Ramat Negev to counter a threat from the neighboring Edomites.

We don't know what the response to the message was, but shortly after the order was received, the Edomites, who were allied with the Babylonians, overran the entire area and destroyed the Arad citadel.

The effort to uncover the meaning behind the ancient inscriptions began six years ago by archaeologist Israel Finkelstein and physicist Eli Piasetsky.

The team constructed a special camera to capture highly refined photos of the ostraca to discover parts of the inscriptions invisible to the naked eye.

"Once, the technician mistakenly photographed the reverse side of an ostrakon, which was known to be blank, and the image revealed four clear lines of text there," mathematician Arie Shaus told Haaretz. "It had been sitting in a museum for 50 years and nobody ever noticed this."

Palestinians try to downplay any Jewish historical connection to Israel and often lambaste what they call the "Judaization of Jerusalem." The new discoveries which appear to support biblical texts provide new evidence of the Jewish connection to Israel, including Judea and Samaria.

**Please visit the site: <http://www.theblaze.com/stories/2015/04/22/ancient-pottery-shards-analyzed-by-israeli-scientists-seem-to-support-biblical-narrative/#038;%23038;%23038>**

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