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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Νοέμβριος 2012 -**

**"Self conquest is the greatest of victories"**

*(Plato)*

## Newsletter of the Hellenic Society of Archaeometry

**- November 2012 -**

**Nr. 140**

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## **ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS**

# **"THE ARTIFACT, ITS CONTEXT AND THEIR NARRATIVE" ICOM-DEMIST AND ICOM- CC JOINT CONFERENCE THE GETTY CENTER, LOS ANGELES NOVEMBER 6-9, 2012**

Preliminary List of Speakers

Last Chance to Register:

<https://www.uscarchitecture.com/demhist>

ICOM-DEMIST, the international committee for historic house museums, and three ICOM-CC working groups Sculpture, Polychromy, and Architectural Decoration; Textiles; and Wood, Furniture, and Lacquer are presenting a conference from November 6-9, 2012 in Los Angeles.

This four day conference will be co-hosted by the Getty Conservation Institute, the Getty Research Institute, the University of Southern California School of Architecture/Heritage Conservation Programs, and The Gamble House.

Schedule: The conference will feature both the presentation of papers and the opportunity to go behind the scenes at a unique variety of local historic house museums, from Pasadena to Malibu.

The schedule below is preliminary and may be subject to last minute changes.

Tuesday, November 6, 2012

Keynote Lectures:

Historical and Current Perspectives on the Care, Presentation, Interpretation and Use of Collections in Historic Houses

Sarah Staniforth  
National Trust, United Kingdom

Collaboration and Preservation: Historic New England and the Proactive Preservation Interpretation and Planning Process (PIIP)

Julie Solz (with Carl R. Nold and Benjamin Haavik) Historic New England, Boston

Papers:

Conservation for Access Redux: narrative, Visitor Flow and Conservation

Helen Lloyd (with Katy Lithgow, Siobhan Barratt, Emma Slocombe, Matthew Tyler-Jones) National Trust, United Kingdom

Three Historic Houses, Three Conservation Approaches: Three Decades in the National Trust for Scotland.

Clare Meredith (with Ian Gow) National Trust for Scotland

Keeping it Real: The Relationship Between Curator and Conservator in Furnishing a Historic Interior

Michele Phillips (with Deborah Lee Trupin, David Bayne, Eric Jackson-Forsberg)  
New York State Office of Parks, Recreation and Historic Preservation, Bureau of Historic Sites Darwin Martin House, Buffalo, New York

In Private Between Consenting Adults? Conservation, Curatorship and Creativity in Nine House Museums

Kate Clark Historic Houses Trust of New South Wales

Conserving and Presenting Brodsworth Hall: New Approaches for a Sustainable Future.

Martin Allfrey (with Amber Xavier-Rowe) English Heritage, York

"Inspired by Knole"

Siobhan Barratt National Trust, United Kingdom, Knole

Balancing the Preservation Needs of Historic House Museums and Their Collections Through Risk Management

Irene Karsten (with Stefan Michalski, Maggie Case, and John Ward) Canadian Conservation Institute, Ottawa

Environmental Management Challenges and Strategies in Historic Houses

David Thickett (with Naomi Luxford and Paul Lankester) English Heritage

The Huntington Gallery Rehabilitation Case Study

Stephen Farneth (with Catherine Hess) Architectural Resources Group, San Francisco, and Huntington Art Gallery, San Marino, California

Revealing Huntington's Japanese House: Cultural Authenticity and Historic Integrity: Conservation as the Foundation for Revitalization

Kelly Sutherlin McLeod (with John Griswold) KSM Architects, Long Beach, and Griswold Conservation Associates, Los Angeles The Huntington, San Marino, California

The Gamble House: Conservation, Preservation, and Interpretation of a Historic House Collection

Anne Mallek (with John Griswold) The Gamble House, Pasadena, and Griswold Conservation Associates, Los Angeles

Architecture as Artifact: Integrated Approach to Conservation of Finishes at the Gamble House

Kelly Sutherlin McLeod (with John Griswold and Peyton Hall) KSM Architects, Griswold Conservation Associates, and Historic Resources Group, Pasadena

Wednesday, November 7, 2012

Tour Day 1 will include visits to:

Gamble House

Fenyés Mansion (now the Pasadena Museum of History)

Huntington Mansion (now the Huntington Art Gallery) and the Japanese House at The Huntington Library, Art Collections, and Botanical Gardens.

Thursday, November 8, 2012

Keynote Lectures:

The Narrative in Context: Building an Effective Decision-Making Model for Conservation Treatment for the Acton Collection at Villa La Pietra

Deborah Lee Trupin (with Aimee Ducey-Gessner, Jean Dommermuth, Michele D. Marincola)

Villa La Pietra, New York University in Florence

House Museums Are Not All the Same: Understanding Motivation to Guide Conservation

Linda Young Deakin University, Burwood Campus, Melbourne

Papers:

The Walls Can Speak: Understanding the Narrative of the Historic Interior As an Architectural Artifact

Elsbeth Geldhof (with Roos Keppler) Keukenhof Castle, The Netherlands

Glitter and Grunge: Preserving the Future of JW Evans, A Family Silverware Business



Bethan Stanley (with Amber Xavier-Rowe, Nick Hill, Dr Sara Lunt, and Nick Molyneux) English Heritage, Atcham, Shropshire

Lacquer Art of Martin Schnell's Workshop in the Collection of the Wilanaw Palace Museum

Eryk Bunsch (with Anna Guzowska, Robert Sitnik) Wilanaw Palace Museum, Warsaw

Lacquer in the Laundry: Behind the Scenes at "The Elms"

Jeff Moore (with Maria Joao Petisca, Melissa H. Carr)

Newport Mansions, Newport, Rhode Island

Preserving and Maintaining a Fire- Damaged 18th Century Chinoiserie Interior by Adapting its Use and Function

Edwin Verweij (with Henny Brouwer) Norwegian Institute for Cultural Heritage Research (NIKU), Oslo, and The Government Buildings Agency (Rgd), The Hague

Johann de Witt Huis, The Hague

Conservation of a Collection of Eighteenth Century Lighting Fixtures in The Metropolitan Museum of Art

Janis Mandrus (with Lisa Pilosi, Linda Borsch, Julia Day, Karen Abend) Metropolitan Museum of Art and The Frick Collection, New York; Karen Abend: Conservator, Catania, Italy

Conservation Problems of Some Objects in the House Museum Francisco de Paula Santander, Colombia

Maria Alejandra Garcia Fernandez, Bogota Museum Francisco de Paula Santander, Bogota

Mrs. Gardner's Tapestry Room: A Floor to Ceiling Conservation Project

Jessica Chloros (with Valentine Talland and Holly Salmon) Isabella Stewart Gardner Museum, Boston

Kamaraj Memorial House in Virudhunagar, India: Journey of a House Museum of National Significance Back to its Historical Context

Vinod Daniel (with Roger Beeston and Anthony Hemingway RBA Architects and Conservation Consultants) Wattle Grove, New South Wales; St.Kilda, Victoria

Amerongen Castle: The House a Phoenix

Nico H. van der Woude, Conservator, SRAL Maastricht Amerongen, The Netherlands

The Winterthur Museum and Gardens, From Inside to Outside: Interpretation and Conservation Challenges

Stephanie Auffret (with Gregory Landrey and Maggie Lidz) Winterthur Museum, Delaware

Conservation and Environmental Monitoring Program of the Eames House by Charles and Raye Eames.

Kyle Normandin Getty Conservation Institute, Los Angeles

Will Rogers Ranch House: A Conservation Assessment

Andrew Todd, Bowen Island, Canada and Rochelle Nicholas-Booth, Will Rogers California State Park, Los Angeles

(presentation onsite Friday Nov 9, 2012)

Friday, November 9, 2012

Tour Day 2 will offer a choice of visits:

Option A:

Eames House/Case Study House 8

Adamson House

The Getty Villa and Conservation laboratories

Option B:

Will Rogers Ranch (Will Rogers State Historic Park)

Villa Aurora

The Getty Villa and Conservation laboratories

Closing reception at the Marion Davies Guest House (now the Annenberg Community Beach Club)

Please visit the website for a more detailed conference schedule including a list of speakers and papers to be presented.

Registration fees: Conference registration will be limited to 120.  
Register early to avoid disappointment.

Full event registration will include conference materials, tours (site admission, transportation, and lunch), and the opening and closing receptions. Lunch will be on your own for the two days at the Getty Center. Special thanks to ICOM for helping to defray the translation expenses.

Invited Speakers, ICOM members: \$400  
Non-Members: \$ 450  
Students: \$ 200

#### Single Day Registration

Invited Speakers, DEMHIST, or ICOM-CC-members \$125  
Non-members \$ 200  
Students \$ 60

We encourage you to join ICOM to qualify for the lower members' registration fee. For example, US nationals and residents may join ICOM-US at \$125 and select ICOM-DEMHIST or ICOM-CC as your committee affiliation. For information about ICOM-US, visit: [URL:http://network.icom.museum/icom-us/](http://network.icom.museum/icom-us/)

For general information on ICOM membership see: [URL:http://icom.museum/](http://icom.museum/)

Accommodations: We urge conference attendees arrange to stay in the recommended hotels in Westwood. Due to major construction on the 405 Freeway, access to the conference location at the Getty Center can be challenging and unpredictable. The Getty Center has graciously agreed to provide shuttle transportation for conference attendees from the Palomar Hotel, which is within walking distance of Hilgard House. Limited public transportation is available but is subject to change and delay by the freeway closures.

Westwood, which is home to the University of California, Los Angeles, has many restaurants and cafes within walking distance of the hotels, providing alternatives that are less expensive than hotel dining. Conference rate rooms are available at:

Hotel Palomar [URL:http://www.hotelpalomar-lawestwood.com](http://www.hotelpalomar-lawestwood.com) (\$179/night + tax)

Hilgard House [URL:http://www.hilgardhouse.com](http://www.hilgardhouse.com) (\$154/single or \$159/double + tax)

Shuttle busses will transport attendees from these hotels to the Getty Center and to the tour locations. Guests who choose to stay at alternate locations will be responsible for securing their own transportation to the Getty Center (parking fee is \$15/day) and for picking up the tour bus at the hotel on tour days.

To access the conference rate, please mention the USC/The Artifact, its Context and Their Narrative.

**Please visit the site: <https://www.uscarchitecture.com/demhist>**

## **7TH UK EXPERIMENTAL ARCHAEOLOGY CONFERENCE, 11-12 JAN 2013**

Dear All,

We are pleased to confirm that the 7th Experimental Archaeology Conference is scheduled for Friday 11th to Saturday 12th January 2013, to be held jointly between Cardiff University and St Fagans National History Museum. Details can be found on our website: <http://experimentalarchaeologyuk.wordpress.com/>

Proposals for 20 minute oral papers and posters on any aspect of experimental archaeology are welcome, and there is special interest in research which touches on the relationship between experimental and experiential approaches.

Details of the call for papers, as well as abstracts from past conferences, can be found here:

<http://experimentalarchaeologyuk.wordpress.com/2012/08/14/call-for-papers-7th-experimental-archaeology-conference-uk/>

Your sincerely,

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Ruth Fillery-Travis  
PhD Candidate  
Institute of Archaeology, UCL

Dr Roeland Paardekooper  
EXARC Director  
[r.p.paardekooper@exarc.net](mailto:r.p.paardekooper@exarc.net)

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On behalf of the organizers.

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## **BRITISH SCHOOL AT ATHENS - FITCH –** **WIENER LABS SEMINARS**

**WEDNESDAY, 28TH NOVEMBER,  
2012  
AT 5.00 P.M.**

*"Seeds from a distant past: an  
archaeobotanical narrative on the early  
stages of plant exploitation and the  
incipience of agriculture in Greece"*

Dr Georgia Kotzamani ((Ephoreia of  
Palaioanthropology and Speleology, Fitch  
Bursary Holder)

Location: Fitch Laboratory

Fitch-Wiener Labs Seminar Series

**WEDNESDAY, 12TH DECEMBER,  
2012  
AT 5.00 P.M.**

*"Title to be confirmed"*

Dr Maaïke Groot (University of Amsterdam  
& Fitch Laboratory Senior Visiting Fellow)

Location: Fitch Laboratory

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## **WORKSHOP: HIGH RESOLUTION** **SATELLITE IMAGERY - THE MAGNIFYING** **GLASS FOR SCIENCE**

The workshop will be held at the University of Bern (Switzerland) from 8th to 10th of November 2012.

Registration for participation without presentation until 26th of October: <http://www.hi-res.unibe.ch/fees-registration>

THURSDAY, 8th NOVEMBER

19.00 Public opening lecture by Jesse Casana (University of Arkansas), Lost Landscapes Revealed: Declassified CORONA Satellite Imagery in Archaeological and Geosciences Research

FRIDAY, 9th NOVEMBER

09.15 - 09.55 Karsten Jacobsen (Leibniz University Hannover), DEM Generation from high resolution satellite imagery

10.00 - 10.20 Martina L. Hobi (WSL / ETH Zuerich), Christian Ginzler (WSL), Accuracy assessment of WorldView-2 digital surface models over three different land cover types

10.20 - 10.40 Martin Sauerbier (MFB-GeoConsulting), Glacial Lake Monitoring at the Kyagar Glacier

10.40 - 11.00 Haris Papasaika (ETH Zurich), Integration and validation of Digital Elevation Models for archaeological prospection

11.30 - 12.10 Thomas Busche (German Aerospace Center, DLR), Benefits of Spaceborne High Resolution SAR: Examples from the TerraSAR-X and TanDEM-X Mission

12.10 - 12.30 Roland Linck (Bavarian State Dept. for Monuments and Sites), Estimation for the penetration depth of TerraSAR-X radar waves at the example of the Roman fortress Qreiyeh in Syria

12.30 - 12.50 Simon Hennig (Astrium Services), Ground Control Point generation using TerraSAR-X data

14.30 - 15.10 Björn H. Menze (ETH Zurich), Multi-temporal classification of multispectral images for mapping settlement sites in the Near East

15.10 - 15.30 Graham Philip, Dan Lawrence (Durham University), Rob Dunford (University of Oxford.), Issues of Confidence around Site Recognition and Definition as

Addressed through High Resolution Remote-Sensing: Results from the Fragile Crescent Project.

15.30 - 15.50 Nikolaos Galiatsatos, Louise Rayne, Emma Cunliffe, Tony Wilkinson (Durham University), High Resolution Remote-Sensing and Landscape Interpretation in the Northern Fertile Crescent: Results from the Fragile Crescent Project.

16.30 - 16.50 Dan Lawrence, Tony J. Wilkinson, Kristen Hopper, Nikolaos Galiatsatos, Hamid Omrani Rekavandi (Durham University), Imaging the Sasanian Frontiers: the role of high resolution imagery

16.50 - 17.10 Simone Mantellini (Sapienza University of Rome), Nikolaos Galiatsatos (Durham University), The archaeological landscape of the Eblaite Chora: a first assessment by using high- resolution satellite imagery

17.10 - 17.30 Luciano Giliberto (University of Tübingen), From remote sensing to the detection of the rural settlements

#### SATURDAY, 10th NOVEMBER

09.30 - 10.30 Simon Hennig (Astrium Services), High Resolution satellite data: SAR vs. optic and its synergy

10.45 - 12.00 Livedemo with „hands-on“: Stefan Erasmi (University of Göttingen), Processing high resolution satellite data with ArcGIS 10

13.30 - 14.30 Jan Böttger (GAF), High Resolution Satellite Data: availability and market review

14.45 -16.00 Livedemo: Thomas Bahr (Exelis), ENVI & SARscape for Extracting Information from High Resolution Geospatial Imagery AND Martin Sauerbier (MFB GeoConsulting), DEM generation with ERDAS software

\*\*\*\*\*

Fabia Hüsler  
Matthias Fries  
Dirk Rieke-Zapp  
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Please visit the site: [www.hi-res.unibe.ch](http://www.hi-res.unibe.ch)

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**50TH ANNIVERSARY CONFERENCE, 14TH-  
16TH JUNE 2013, FRIENDS HOUSE, 173-177  
EUSTON ROAD, LONDON, NW1 2BJ SECOND  
CALL FOR PAPERS**

This international academic conference is the culmination of a series of events marking the 50th Anniversary of the Historical Metallurgy Society and will provide a high-level 'state of the art' profile of current and future developments in the various disciplines which HMS represents.

The four themes of this meeting are:

- Origins of metallurgy. Chairs Paul Craddock & Thilo Rehren.
- Innovation and change. Chairs David Bourgarit & Justine Bayley.
- Society and metalworkers. Chairs Marcos Martín-Torres & Vincent Serneels.
- The future of historical and archaeological metallurgy. Chairs David Killick & David Dungworth.

Offers of papers or posters are welcome on any of these themes, from academics and students, archaeologists, historians, and independent researchers including local study groups and community archaeology programmes.

There will be facilities available for posters and time will be allocated for a poster session. The maximum size for posters is A0 (841 x 1189mm – upright/portrait format).

Abstracts for papers and posters should be submitted by November 22nd 2012.

Please indicate which session you think would be most appropriate. For more information or to submit an abstract please contact [Eleanor.Blakelock@archaeomaterials.co.uk](mailto:Eleanor.Blakelock@archaeomaterials.co.uk) or post to Eleanor Blakelock, Studio Flat, 616 Green Lanes, London, N8 0SD, United Kingdom.

Abstracts should be no longer than 250 words. Please include the name and affiliation of all authors and indicate the presenting author in bold letters.

Booking forms will be available on the 5th of November.

For more information and for the booking forms visit [www.hist-met.org.uk](http://www.hist-met.org.uk)

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## **BANEA 2013, CAMBRIDGE, 3-5 JANUARY** **2013, CONFERENCE THEMES, METALS AND** **COLOURS, FIRST CIRCULAR**

The 2013 BANEА conference will take place at the University of Cambridge 3-5 January 2013. The venue is the “Sidgwick Site”, off Sidgwick Avenue, opposite Newnham College, based in the Faculty of Asian and Middle Eastern Studies.

Postcode: CB3 9DA

Map: <http://map.cam.ac.uk>

There will be a keynote talk on Thursday evening, 3rd January; general and theme sessions 9-5 on Friday and Saturday the 4th and 5th; workshops on Saturday the 5th.

The BANEА AGM will take place on Friday; there will be a venue for poster presentations.

### **Call for Contributions**

Offers are invited for papers, posters and workshops. Please fill in the attached form and return by post or email to the BANEА organisers before 13 November.

Papers: Fieldwork reports and papers related to one (or both) of the conference themes are especially welcome, but any topic within Near Eastern archaeology may be proposed.

Workshops: Saturday afternoon is earmarked for workshops on specific topics. One of these will be the CuneiForum, open to contributions on all aspects of cuneiform studies.

### **Registration**

Details of registration payment, meals and accommodation will be forwarded in the second circular.

Registration fees before 13 November 2012: £45; after 13 November 2012: £60; concessions before 13 November 2012: £20; after 13 November 2012: £30

### **Student Grants**

Student members of BANEА may apply to BANEА for financial support towards travel, accommodation and the conference fee. Details and application forms will be available in the second circular and will be available on the BANEА website [www.BANEА.org](http://www.BANEА.org).

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**THE 1ST VIRTUAL INTERNATIONAL  
CONFERENCE ON ADVANCED RESEARCH  
IN SCIENTIFIC FIELDS (ARSA-2012),  
DECEMBER 3 - 7, 2012 CALL FOR PAPERS**

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IMPORTANT DATES

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Paper Submission Deadline: November 9, 2012  
Author Notification: November 23, 2012  
Final Manuscript Due: December 1, 2012  
ARSA 2012: December 3 - 7, 2012

ARSA-conference 2012 (virtual conference) gives you a great opportunity to participate in the fully fledged, scientific and professional conference without personal participation. The ARSA Virtual Conference will run continuously during December 3 to 7, 2012 at [www.arsa-conf.com](http://www.arsa-conf.com).

ARSA Virtual Conference is designed for all scientific groups.

The conference will bring the scientific debate among the scientists.

At the virtual conference, you have access to all articles in the conference at any time and can use virtual discussion with the author of any article at any time.

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PAPERS

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All conference articles will be reviewed.

Accepted articles will be published in the conference proceedings "Proceedings of the Virtual International Conference on Advanced Research in Scientific Fields 2012 with ISBN and ISSN."

Top rated papers will be sent for indexing in SCOPUS database.

Technical and scientific papers describing original, previously unpublished work are solicited in the areas of all scientific fields. Prospective authors are invited to submit papers in any of the following areas (not limited to):

- Business Management
- Marketing
- Economy and Business Economics
- Public service, Law
- Financing and Accounting
- Psychology, Sociology and Pedagogy, Social Science
- Art, Religion, History, Philosophy
- Linguistics
- Ecology
- Natural science (mathematics, chemistry, biology, physics)
- Electronics, Electrical Systems, Electrical Engineering
- Industrial and Civil Engineering

- Informatics
- Information Technology

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FURTHER INFORMATION

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For further information, Please contact us for more information at [info@arsa-conf.com](mailto:info@arsa-conf.com).

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**‘FIRST INTERNATIONAL CONFERENCE ON  
REMOTE SENSING AND GEO-  
INFORMATION OF ENVIRONMENT’,  
RSCY2013, PAFOS, CYPRUS, 8-10 APRIL 2013,  
FIRST CIRCULAR - CALL FOR ABSTRACTS**

Organised by: Cyprus University of Technology and CRS Co-Organised by: ESA-European Space Agency, ETEK-Cyprus Scientific and Technical Chamber, Cyprus Meteorological Service, Department of Electronic Communications of the Ministry of Communications and Works

The First International Conference on Remote Sensing and Geo-information of Environment invites scientists, researchers, students, and other professionals in order to address and discuss emerging issues in remote sensing and geo-information of environment. The Keynote Speakers and thought-provoking technical program will encourage the exchange of ideas and provide the foundation for future collaboration and innovation. The Technical Program is open to all topics in Remote Sensing and Geo-information of Environment and related techniques and applications. The success of this conference reflects the critical topics that are discussed as well as the quality of the presented papers. All the papers that are selected undergo a review process.

The RSCY2013 scientific program will accommodate sessions and workshops on a wide range of themes. These include:

Applications of remote sensing and geo-information Remote Sensing & Geo-information in Education and training in school, university and public life Environmental monitoring and protection, Risk assessment Field Spectroscopy Atmospheric Correction methods in pre-processing of satellite imagery Cultural heritage Remote sensing for archaeology Land use and land cover, land-cover changes degradation and desertification Satellite Sensors Classification of remotely sensed images Artificial neural networks Urban remote sensing Oceans, coastal zones and inland waters Natural and man-made disasters, Natural Hazards Forestry and forest fires, burned areas Land survey, Real Estate, Cartography, Mapping Remote sensing in climate changes, meteorology, atmospheric chemistry Air pollution, Water Quality, floods, Water leakages Water resources, management, underground water sources 3D remote sensing, Radar, Lidar, Thermal Remote Sensing New instruments and methods Laser Scanning Agriculture, evapotranspiration GIS Integration of Micro-sensor technology with Remote Sensing Remote sensing for petroleum exploration Geophysics Remote Sensing Analysis of earthquakes/ seismic activity Applied Meteorology and Climatology Atmospheric Physics and Chemistry, Aerosols Remote Sensing- Satellite Meteorology and Climatology Weather Analysis and Forecasting

**REGISTRATION - ABSTRACT SUBMISSION**

Delegates can register and submit their abstracts at the RSCy2013 at the conference website <http://www.cyprusremotesensing.com/rscy2013/papers>

**KEY DATES**

Date for abstract submission:

30 November 2012

Notification of authors for abstract acceptance:

15 December 2012

Submission due date for full papers:

28th February 2013

Please go to the RSCy2013 website for registration and submission guidelines

<http://www.cyprusremotesensing.com/rscy2013/>

#### JOURNAL PUBLICATIONS

A number of presented papers will be considered for inclusion in several journals after the normal peer review process of the journals (special issues).

#### VENUE

RSCy2013 will be held at Coral Beach Hotel in Pafos, the European Capital of Culture 2017.

#### CONFERENCE SECRETARIAT

"First International Conference on Remote Sensing and Geo-information"

(RSCy2013) - Cyprus University of Technology

Σύνδεσμος Κυπρίων Αρχαιολόγων

Association of Cypriot Archaeologists

[www.cypriotarchaeologists.org.cy](http://www.cypriotarchaeologists.org.cy)

## **SHORT COURSE IN 14C DATING, 19-20** **MARCH 2013, OXFORD**

This course is aimed at improving the general understanding of radiocarbon dating within the UK. It will cover key aspects of radiocarbon dating from sample selection, through laboratory analyses and finally to interpretation and Bayesian analyses of radiocarbon dates.

Please click the link below for more information: <http://www.conted.ox.ac.uk/V400-217>

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**“A MAN DOTHT NOT LIVE BY BREAD ONLY”,**  
**FOOD, KITCHEN AND CUISINE IN**  
**ANTIQUITY, WROCLAW, POLAND, 13-15TH**  
**JUNE 2013**

Scientific committee:

- prof. Petr Charvat (West Bohemian University Plzen)
- prof. Karel van Lerberghe (Catholic University Leuven).
- prof. Gościwit Malinowski (University of Wrocław)
- prof. Jakub Pigoń (University of Wrocław)

Organizers:

Institute of Classical, Mediterranean and Oriental Studies, University of Wrocław.  
Confucius Institute in the University of Wrocław, Poland

Food is essential for live. But one must admit, that from the beginning of human civilization the cuisine was invented and developed to make food also essential for the good mood as well as for the standard of living. Concerning this obviousness some questions could be asked: Where should we look for the beginning of cuisine? How people developed their food and dishes? What and why was found as the particular delicacy? What spices were used and was there another purpose of it apart from the taste? How were the similarities and differences between the food of different nations? Are there any loan-dishes among the ancient civilizations?

The most important topics of the conference should be as follows:

- The food as the element of social and cultural life · Holy and tabooed food, and food offerings · Food, kitchen and cuisine in the ancient literature · Food, kitchen and cuisine in the historical and archaeological analysis · Habits and customs related to food, cuisine and eating · Kitchenware and kitchen equipment in antiquity · Techniques of food processing
- The names of the foodstuff, kitchenware, kitchen equipment and activities related to food and eating in the light of linguistics and anthropolinguistics

This conference will take a comparative approach, taking a wide geographical and chronological sweep. We warmly invite all scholars whose subject of study is the ancient Greece and Rome as well as the ancient Near and Far East.

The conference is hosted by the Institute of Classical, Mediterranean and Oriental Studies and Confucius Institute, University of Wrocław, Poland on June 13th-15th, 2013. The language of the conference is English.

Proposals are now invited for individual papers. Proposals of no longer than 300 words (in English) can be submitted by 31st December 2012 to the conference e-mail: [food.and.cuisine@uni.wroc.pl](mailto:food.and.cuisine@uni.wroc.pl).



The proposals will be accepted after the revision by the scientific committee by 28th February 2013. The final programme of the conference will be released by 31st of March 2013.

Papers will be grouped in different sessions dedicated to the different regions of the ancient world.

The conference fee is €100 and should be paid until 15th of March 2013. The number of the bank account will be send in the first circular.

Should you have any additional questions please do not hesitate to contact the organizers, Stefan Nowicki and Małgorzata Zadka, Institute of Classical, Mediterranean and Oriental Studies, University of Wrocław, sending your e-mail to the conference address:  
[food.and.cuisine@uni.wroc.pl](mailto:food.and.cuisine@uni.wroc.pl).

dr Stefan Nowicki  
Pracownia Starożytnego Bliskiego Wschodu i Tradycji Biblijnej Instytut Studiów Klasycznych, Śródziemnomorskich i Orientalnych Uniwersytet Wrocławski ul. Szewska 49  
50-137 Wrocław

Section of Ancient Near East and Biblical Tradition Institute of Classical, Mediterranean and Oriental Studies University of Wrocław Szewska 49 street  
PL-50-137 Wrocław  
[www.ifkika.uni.wroc.pl](http://www.ifkika.uni.wroc.pl)

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**RADIO-PAST COLLOQUIUM "NON-DESTRUCTIVE APPROACHES TO COMPLEX ARCHAEOLOGICAL SITES IN EUROPE: A ROUND UP", GHENT / JANUARY 15-17, 2013**

Dear Colleagues,

We are pleased to announce that the deadline for the submission of abstracts (posters) to the **Radio-Past Colloquium "Non-destructive approaches to complex archaeological sites in Europe: a round up"** (Ghent / January 15-17, 2013) has been extended to November 9, 2012.

For more details, please visit: [www.radiopast.eu](http://www.radiopast.eu).

We also would like to call your attention to a conference entitled PEOPLE 2012 - "Marie Curie Actions in Horizon 2020. Contributing to the Europe 2020 objectives" – 5-6 November 2012, University of Cyprus, Nicosia, Cyprus (see: [www.marie-curie2012.eu/index.php?id=4](http://www.marie-curie2012.eu/index.php?id=4)).

To our great satisfaction, the Radio-Past Project has once again been selected as exemplary Marie Curie success story.

We hope you can join us in Ghent for a fruitful exchange of ideas and experiences.

Best regards,

The Radio-Past Team

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**14<sup>E</sup> RENCONTRE ÉGÉENNE**  
**INTERNATIONALE, PHYSIS,**  
**L'ENVIRONNEMENT NATUREL ET LA**  
**RELATION HOMME-MILIEU DANS LE**  
**MONDE EGÉEN PROTOHISTORIQUE,**  
**INSTITUT NATIONAL D'HISTOIRE DE**  
**L'ART (INHA), 2, RUE VIVIENNE, 75002**  
**PARIS, 11-14/12/2012**

**PROGRAMME**

**Mardi 11 décembre**

8:45-9:00 Ouverture

**Section A : Cadre naturel**

9:00-9:20 **KOURTESSI-PHILIPPAKIS Georgia**, *Local vs exogène ? L'impact du milieu naturel sur la composition des assemblages lithiques néolithiques en Grèce*

9:20-9:40 **STRATOULI Georgia, SARPAKI Anaya, NTINOI Maria, KOTJABOPOULOU E, THEODOROPOULOU Tatiana, MELFOS Vassilis, ANDREASEN N.H. et KARKANAS Pavlos**, *Culture encapsulated in environmental data: approaches to understanding the Neolithic use of Drakaina Cave at Kefalonia Island, western Greece*

9:40-10:00 **WEIBERG Erika**, *Eroding life styles? A survey of erosion and sedimentation in the Greek Bronze Age*

10:00-10:20 Discussion

10:20-10:50 Pause

10:50-11:10 **STEFANI Evangelia et MEROUSIS Nikolaos**, *Living on the edge. People and Physis in Prehistoric Imathia, Macedonia, Greece*

11:10-11:30 **SIDIROPOULOU MIMOZA, FOUACHE Eric, PAVLOPOULOS Kosmas, TRIANTAPHYLLOU M., VOVALIDIS K., SYRIDES G. et GRECO Emanuele**, *Geomorphological evolution and paleoenvironment reconstruction in the northeastern part of Lemnos Island (North Aegean Sea) Greece*

11:30-11:50 **STRASSER Thomas F. et CHAPIN Anne P.**, *Geological Formations in the Flotilla Fresco from Akrotiri, Thera*

11:50-12:10 Discussion

Déjeuner

**Section B : Ressources naturelles**

- 14:00-14:20 **VITALE Salvatore, FOX Sherry, ILIOPOULOS Ioannis, MANTELLO Cinzia, MORRISON Jerolyn E., PASSA Kalliopi-Sofia** et **TRECARICHI Arianna**, *Natural Resources and Human Impact on Kos during the Early Bronze Age Period. A Multidisciplinary Investigation of the Evidence from the Prehistoric Site of the Asklopis*
- 14:20-14:40 **ATHANASAKI Katerina**, *Minoan quarries in Central Crete. From stone deposits to commodities*
- 14:40-15:00 **BOLETI Athina, MORERO Élise** et **PROCOPIOU Hara**, *Physis et technai : le cas des matières minérales en Crète minoenne*
- 15:00-15:20 Discussion
- 15:20-15:50 Pause
- 15:50-16:10 **CADOGAN Gerald**, *Water worries and water works in Bronze Age Southern Crete*
- 16:10-16:30 **FLOOD Jonathan** et **SOLES Jeffrey**, *Water Management in Neopalatial Crete and the Development of the Mediterranean Dry-Season*
- 16:30-16:50 **POLYCHRONAKOU-SGOURITSA Nagia** et **SALAVOURA Eleni**, *The exploitation of inland natural resources on an island environment: The case of the Mycenaean settlement at Lazarides and the south/southeast Aegina*
- 16:50-17:10 **PALAIMA Thomas G.**, *Harnessing physis: The ideology of control and exploitation of the natural world as reflected in terminology in the Linear B texts derived from Indo-European \*bheh2u- 'grow, arise, be' and \*h2eg-ro- 'the uncultivated wild field' and other roots related to the natural world*
- 17:10-17:30 Discussion
- 18 :30 Keynote :  
**ANDREOU Stelios**, *Aegean Prehistory and the Study of the Natural Environment: A Late Beginner, but a Quick Learner*
- Cocktail d'ouverture

**Mercredi 12 décembre**

**Section C : Paysage et climat**

- 9:00-9:20 **KAPSIMALIS Vasilios, PANAGIOTOPOULOS I., PAVLOPOULOS K.** et **ANAGNOSTOU C.**, *Middle-Upper Palaeolithic landscapes of the Cyclades plateau*
- 9:20-9:40 **CLINTON Miriam G., MURRAY Sarah C.** et **TARTARON Thomas F.**, *GIS in action: Analyzing an Early Bronze Age coastal landscape on the Saronic Gulf*
- 9:40-10:00 **PAVUK Peter, PIENIAZEK Magda** et **RIEHL Simone**, *Troy and the Troad in the 2nd Millennium: Changing patterns of landscape use*
- 10:00-10:20 Discussion

- 10:20-10:50 Pause
- 10:50-11:10 **BLAKOLMER Fritz**, Minoan “Landscape Rooms” and Peak Sanctuaries  
11:10-11:30 **BREDAKI Maria, GRECO Emanuele, LONGO Fausto, AMATO Vincenzo, ROSSI Amedeo, GHILARDI Matthieu, PSOMIADIS David, SINIBALDI Laetitia** et **COLLEU Maxime**, *Researches for the Reconstruction of the Ancient Landscape at Phaistós (Crete)*
- 11:30-11:50 **DOUMAS Christos**, *Le paysage côtier à la région d'Akrotiri, Théra, avant l'éruption volcanique du Bronze Récent*
- 11:50-12:10 **CHAPIN Ann P., DAVIS Brent, HITCHCOCK Louise A.** et **BANOU Emilia**, *The Vapheio Tholos Tomb and the Construction of a Symbolic Landscape in Laconia, Greece*
- 12:10-12:30 Discussion
- Déplacement des congressistes au Musée d'Archéologie Nationale de Saint-Germain-en-Laye, où se tiendra la session de l'après-midi (RER ligne A, à 20 mn de Charles De Gaulle-Étoile).
- 14:00-14:20 **KRAHTOPOULOU Athanasia** et **VEROPOULIDOU Rena**, *Linking inland and coastal records: landscape and human histories in Pieria, Macedonia, Greece*
- 14:20-14:40 **YASUR-LANDAU Assaf** et **GOSHEN Nurith**, *The Reformed Mountains: Political and Religious landscapes in the Aegean and the Levant*
- 14:40-15:00 **FERENTINOS Georgios, GERAGA Maria, GKIONI Maria** et **PAPATHEODOROU Georgios**, *The study of climatic changes and their importance on delineating the human cultural evolution: a case study from southern Balkan peninsula*
- 15:00-15:20 Discussion
- 15:20-15:50 Pause  
**Section D : Iconographie**
- 15:50-16:10 **GEORMA Fragoula, KARNAVA Artemis** et **NIKOLAKOPOULOU Irene**, *The natural world and its representations: a view from Akrotiri, Thera*
- 16:10-16:30 **VLACHOPOULOS Andreas** et **ZORZOS Lefteris**, *Physis and Techne on Thera: Reconstructing Bronze Age environment and land-use based on new evidence from phytoliths and the Akrotiri wall-paintings.*
- 16:30-16:50 **PAPATSAROUCHELSA**, *Minoan landscapes and their artistic representations*
- 16:50-17:10 **YOUNGER John G.**, *The “World of People”: Landscape and narrative in Minoan Art*
- 17:10-17:30 Discussion
- 18 :00 Visite du Musée d'Archéologie Nationale de Saint-Germain-en-Laye
- Buffet dînatoire dans la chapelle du château de Saint-Germain-en-Laye

Jeudi 13 décembre

**Section E : Agriculture**

- 9:00-9:20 **KOTZAMANI Georgia** et **LIVARDA Alexandra**, *Investigating aspects of plant resource availability and use: an archaeobotanical database for the Palaeolithic and Mesolithic of Greece*
- 9:20-9:40 **BLITZER Harriet**, *Olive Domestication and Cultivation in the Prehistoric Aegean*
- 9:40-10:00 **DECAVALLAS Oreste**, *Huiles végétales dans des poteries néolithiques égéennes: preuves chimiques de l'exploitation de plantes oléagineuses et la question des productions "précoces" d'huiles*
- 10:00-10:20 Discussion
- 10:20-10:50 Pause
- 10:50-11:10 **VALAMOTI Sultana Maria**, *Space through time in Neolithic Northern Greece: an archaeobotanical approach*
- 11:10-11:30 **VOKOTOPOULOS Leonidas**, **PLATH Gerhard** et **McCOY Floyd W.**, *The yield of the land: Soil conservation and the exploitation of arable land at Choiromandres, Zakros in the New Palace period*
- 11:30-11:50 **SMITH Robert Angus K.**, **DABNEY Mary K.**, **KOTZAMANI Georgia**, **LIVARDA Alexandra**, **TSARTSIDOU G.** et **WRIGHT James C.**, *Plant Use in Mycenaean Mortuary Practice*
- 11:50-12:10 **DEMAKOPOULOU Katie**, **MARGARITIS Evi** et **SCHALLIN Anne-Louise**, *Diet and agricultural production – The Economic choices of the LH Inhabitants at Midea*
- 12:10-12:30 Discussion
- Déjeuner
- 14:00-14:20 **MARGARITIS Evi**, **ZURBACH Julien**, **KOUROU Nota**, **MAGGIDIS Christofilis**, **STRATOULI Georgia**, **TOUCHAIS Gilles** et **PHILIPPA-TOUCHAIS Anna**, *Plants in the ritual landscape of Prehistoric and Early Iron Age Greece*
- 14:20-14:40 **WEILHARTNER Jörg**, *On the influence of Aegean iconography on the design of the Linear B logograms for animals, plants, and agricultural products*
- 14:40-15:00 **VAIGLOVA Petra**, **BOGAARD Amy**, **GARDEISEN Armelle**, **RIVALS Florent**, **CAVANAGH William**, **MEE Christofer** et **RENARD Josette**, *Interpreting Crop and Animal Management Strategies at Neolithic Kouphovouno, Sparta, Greece: integrating information from plant and animal isotopes, microwear analysis and archaeo-botanical and -zoological studies*
- 15:00-15:20 **GKOTSINAS Angelos**, **KARATHANOU Angeliki**, **PAPAKONSTANTINOY Maria-Fotini** et **VOUVALIDIS Konstantinos**, *Approaching human activity and interaction with the natural environment through the archaeobotanical and zooarchaeological*

- remains from the Middle Helladic settlement at Agia Paraskevi, Lamia, Central Greece*
- 15:20-15:40 Discussion
- 15:40-16:10 Pause
- Section F : Ressources animales**
- 16:10-16:30 **NIKOLAIDOU Marianna** et **ELSTER Ernestine S.**, *Hunting, fishing and gathering at Sitagroi and beyond: strategies of wild resource use in the Neolithic and Early Bronze Age*
- 16:30-16:50 **MILITELLO Pietro**, *Wool production, linen exploitation in Neolithic and Early Bronze Age Aegean*
- 16:50-17:10 **APOSTOLAKOU Stavroula**, **BETANCOURT Philip**, **BROGAN Thomas**, **MYLONA Dimitra** et **SOFIANOU Chrysa**, *Tritons Revisited. The transformation of nature into food, tool and symbol in Minoan Crete*
- 17:10-17:30 **KARETSOU Alexandra** et **KOEHL Robert B.**, *The Cretan canines of Juktas*
- 17:30-17:50 **KRZYSZKOWSKA Olga**, *Cutting to the chase: hunting in Minoan Crete*
- 17:50-18:10 Discussion

**Vendredi 14 décembre**

- Section F : Ressources animales (suite)**
- 8:40-9:00 **D'AGATA Anna Lucia** et **DE ANGELIS Sara**, *Minoan Beehives: Reconstructing the practice of bee-keeping in Bronze Age Crete*
- 9:00-9:20 **THEODOROPOULOU Tatiana**, *Excavating the Sea: Recent advances in Marine Zooarchaeology of Bronze Age Aegean*
- 9:20-9:40 **THOMAS Nancy R.**, *A Lion's Eye View of the Greek Bronze Age*
- 9:40-10:00 **PALMER Ruth**, *Managing the wild: deer and agrimia in the Late Bronze Age Aegean*
- 10:00-10:20 Discussion
- 10:20-10:50 Pause
- 10:50-11:10 **RIEAU Cyrille**, **GARDEISEN Armelle** et **RIVALS Florent**, *Herd management during the Bronze Age through tooth microwear, the examples of Angelochori and Archontiko (Macedonia, Greece)*
- 11:10-11:30 **CREUZIEUX Aurélien**, **GARDEISEN Armelle** et **STEFANI Evangelia**, *L'exploitation du monde animal en Grèce septentrionale au cours du Bronze Récent : l'exemple du site Angelohori Imathias (Macédoine, Grèce)*
- 11:30-11:50 **VEROPOULIDOU Rena**, *Molluscan exploitation and consumption practices in the Neolithic and Bronze Age communities of the Thermaic Gulf, Central Greek Macedonia*
- 11:50-12:10 **FOSTER Karen P.**, *Fur and Feathers in Aegean Art*
- 12:10-12:30 Discussion

Déjeuner

**Section G : Peuplement et population**

- 14:00-14:20 **BINTLIFF John**, *Population dynamics and the sustainability of prehistoric societies in the Aegean*
- 14:20-14:40 **DARCQUE Pascal, KOUKOULI-CHRYSSANTHAKI Haïdo, MALAMIDOU Dimitra, TSIRTSONI Zoi, LESPEZ Laurent** et **GERMAIN-VALLÉE Cécile**, *L'impact des changements environnementaux sur le peuplement néolithique : le cas de Dikili Tash (Grèce du Nord)*
- 14:40-15:00 **MÜLLER-CELKA Sylvie, PUGLISI Dario** et **BENDALI Frédéric**, *Dynamiques de peuplement et exploitation des ressources en Crète entre le Minoen moyen et le Minoen récent I : le cas de Malia*
- 15:00-15:20 Discussion
- 15:20-15:50 Pause
- 15:50-16:10 **VAN WIJNGAARDEN Gert**, *Dealing with extreme dynamics. Bronze Age habitation on Zakynthos, Greece*
- 16:10-16:30 **WRIGHT James C.**, *The longue durée: The piedmont of the Corinthia and cycles of regional occupation*
- 16:30-16:50 **GALATY Michael, PARKINSON William** et **PULLEN Daniel**, *Mycenaean -scapes: Geography, Political Economy, and the Eastern Mediterranean World-System*
- 16:50-17:10 **FOUFOPOULOS Johannes** et **MARGOMENOU Despina**, *Exotic Encounters in the Aegean: Elucidating the impact of human agency on species distributions and habitats since prehistoric times*
- 17:10-17:30 Discussion
- 17:30-17:50 **TREUIL René**, Conclusions

Dîner de clôture

**LISTE DES POSTERS**

**BAJEMA Marcus**,

*Mycenaean Murals With Repetitive Designs of Natural Motifs : Decoration, Representation or Something Else ?*

**CONSTANTINIDIS Dora**,

*Physis and Space: Aegean Bronze Age depictions and their architectural context*

**CROWLEY Janice L.**,

*Images of the Earth in Aegean Art*

**DABNEY Mary K.**,



*Representations of Fig Cultivation in Aegean Art*

**FEUER Bryan,**

*Environmental Aspects of the Northern Mycenaean Border in Thessaly*

**FRIEDRICH Walter Ludwig, SØRENSEN Annette Højen et KATSIPIIS Samson,**

*Santorini Before the Minoan Eruption. Geological, Botanical and Archaeological Evidence*

**GEMI-IORDANOU Effie,**

*The Secret Language of Flowers: Floral Motifs in Minoan Iconography*

**GEORGIADIS Mercourios et TSARAVOPOULOS Aris,**

*The Physical Environment and the Beliefs at Leska, a New Peak Sanctuary on Kythera*

**GKIONI Maria, FERENTINOS Georgios, GERAGA Maria et  
PAPATHEODOROU Georgios,**

*Stone Age Seafaring in the Aegean Sea*

**JONES Bernice R.,**

*Revisiting and Reconstructing the Figural Landscape Fresco in Room 14 at Hagia Triada*

**KRIGA Dimitra,**

*Flora and Fauna Iconography on Strainers and Kymbes at Akrotiri: Thera Ceramic Vessels of Special Use and Special Iconography*

**LENUZZA Valeria,**

*Waterfalls, Rivers and Streams in the Aegean Art: Hints to the Luxuriant Beauty of Bronze Age Nature or Evocative Glimpses of Divine Landscapes?*

**LIARD Florence,**

*De l'exploitation des argiles à l'organisation sociétale en Crète minoenne : un seul phénomène, diverses interprétations ? Analyse pétrographique de 40 coupelles coniques du Bronze Récent du site de Sissi (plaine de Malia)*

**LIGKOVANLIS Stefanos,**

*The Exploitation of the Thesprotian Wetlands (NW Greece) during the Middle and the Early Upper Palaeolithic; Different Hominins yet "Similar" Strategies? Reflections from the Material World*

**MURPHY Joanne,**

*The Wealth of Nature and the Nature of Wealth: Aspects of Pylian Ideologies*

**OBERWEILER Cécile, TOUCHAIS Gilles, LERA Petrika, FOUACHE Éric,  
DESRUELLES Stéphane et MAGNY Michel,**

*L'impact des facteurs environnementaux sur la dynamique d'implantation des habitats protohistoriques dans le bassin de Korçë (Albanie)*

**PALAIOLOGOU Heleni,**

*Water Management, Climatic and Social Changes and Agriculture in the Plain of Mycenae during the 13th C. B.C. and Later: The Case of Chania*

**PAPOULIA Christina,**

*Confronting the Sea: Navigation Skills in Pre-Modern Human Societies*

**PETRAKIS Vassilis P.,**

*The Cultural Significances of Insects in the Aegean Bronze Age*

**PHILIPPA-TOUCHAIS Anna, TOUCHAIS Gilles, DECAVALLAS Oreste, GARDEISEN Armelle, GHILARDI Matthieu, MARGARITIS Evi, TRIANTAPHYLLOU Sevi et TSIOLAKI Efi,**

*Environnement, alimentation, hygiène et mode de vie dans la Grèce mésohelladique : le cas de l'Aspis d'Argos*

**PRUCKNER Katharina,**

*Leaves and Blossoms. On the Occurrence and Distribution of Plant Motifs in Middle and Early Late Helladic Pottery Production*

**ROUSAKI Maria,**

*New Evidence in Minoan Pictorial Wall-Painting. A Fresco with Swallow Depictions from the Knossos Area*

**SANAVIA Alessandro,**

*How to Improve on Nature: Some Middle Minoan Triton Shells from Phaistos*

**SCHON Robert,**

*The Political Ecology of the Pylian State*

**SHAPLAND Andrew,**

*After Naturalism: Human-Animal Relations in LMII-III Crete*

**TRIMMIS Prokopios Konstantinos, GAZMEND Elezi et KONSTANTINIDOU Eleni,**

*Hidden Lives in Strange Environments. The Interaction Between Human Communities and the Cave Environments in the Late Neolithic Aegean Islands*

**VAVOURANAKIS Giorgos,**

*The changing Significance of Nature within Minoan Society*

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Chargée de recherche  
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**HELLENISTIC AND ROMAN**  
**TERRACOTTAS: MEDITERRANEAN**  
**NETWORKS AND CYPRUS,**  
**ARCHAEOLOGICAL RESEARCH UNIT,**  
**UNIVERSITY OF CYPRUS, 3-5 JUNE, 2013,**  
**(UNDER THE AUSPICES OF THE**  
**COROPLASTIC STUDIES INTEREST**  
**GROUP), CALL FOR PAPERS**

The Archaeological Research Unit of the University of Cyprus invites the submission of papers for a conference dedicated to the study of Hellenistic and Roman terracottas from the Mediterranean region. The workshop will be held at the University of Cyprus, in Nicosia, during 3-5 June 2013.

Terracotta figurines embody ancient tangible and intangible cultural evidence and meanings. In addition to the artistic, technological and economic aspects involved in their study, they also objectify socio-cultural (i.e. religious and ideological) expressions; they become invaluable testimonies to everyday life, encoding important cognitive elements, expressing human self-awareness and reflecting meanings and ideas of the societies that produced and used them. The multifaceted significance of Cypriot terracottas has been acknowledged by a large corpus of published data that addresses a series of interlinked issues, related to their typological, stylistic and chronological classification, the technology and techniques employed in their manufacture, their provenance, the mode of their production, the scale of their distribution, and their role as cultural artefacts in differing social contexts. Despite the substantial studies on earlier Cypriot terracottas, the Hellenistic and Roman production remains – with very few exceptions – highly neglected and outside recent theoretical and scientific developments.

This conference is organised in the framework of a research project currently funded by the Anastasios G. Leventis Foundation via the University of Cyprus. The project aims at establishing a more concrete scholarly discussion on the study of Hellenistic and Roman terracottas. In particular, by integrating different approaches of analysis, it aims to study the terracotta figurines from the “House of Orpheus” at Nea Paphos, tackling simultaneously the aforementioned issues for these later periods of Cypriot Antiquity. Additionally, through comparative studies with other Cypriot and Mediterranean sites, this project proposes to examine continuing and changing patterns of production, distribution and function of Cypriot terracottas, as a result of the interplay between local structures and incoming Ptolemaic and Roman socio-political and socio-cultural impositions.

In the context of this on-going project we organise this conference in order on one hand to present some of the material and preliminary results, and on the other in an attempt to introduce the “House of Orpheus’ figurines, within their broader socio-cultural and socio-political Cypriot and Mediterranean contexts. We, thus, welcome contributions related to material (both large and small scale terracottas) not only from Cyprus, but also from the wider Mediterranean region. Building on the International Symposium ‘Figurines in Context: Iconography and Function(s)’, held in December 7-8, 2011 in

Lille, the purpose of a meeting with such a wide perspective is to gather reliable evidence from well-known archaeological contexts (e.g. sanctuaries, burials, houses) that will shed light on the function of Hellenistic and Roman terracotta figurines and their associated technology and iconography.

The conference will focus on: (1) The typological and iconographic analysis of terracottas; (2) Technological studies focusing on fabrics, slips and pigments; (3) Issues of chronology, technology of manufacture, provenance and distribution; and (4) The contextualisation of terracottas within their individual depositional intra-site and extra-site contexts.

Proposals for presentations could focus on one or more of the following research questions:

- What are the similarities/differences between the deposition of Hellenistic and Roman terracottas in different contexts (i.e. sacred, funeral and domestic)?
  
- Do the meanings of the object change according to the context and/or the period?
  
- How can spatial analysis (both intra-site and across a wider range) of terracottas contribute to the identification of their distribution and function?
  
- What is the relationship between Hellenistic/Roman technological and iconographic traditions with the earlier (Archaic and Classical) local traditions?
  
- What is the impact of local traditions and what are the levels of cultural transmissions and transformations?
  
- Can we determine and distinguish between locally produced and imported terracotta figurines?
  
- Can we notice any differences in the function of locally produced and imported terracotta figurines?
  
- What is the impact of comparative studies when studying Hellenistic and Roman terracotta figurines?
  
- How do the disciplines of anthropology, natural and computer sciences (e.g. archaeometry, digital humanities etc.) help in the better understanding of both the function and the manufacture/distribution of Hellenistic and Roman terracotta figurines?

### **Abstract Submission**

Abstracts of a maximum of 300 words should be submitted by **31 January 2013** to [papantoniou.giorgos@ucy.ac.cy](mailto:papantoniou.giorgos@ucy.ac.cy) in Word format including:

Surname

First Name

Position

Affiliation

Phone number

Email address

Title of the paper

You should be informed of the outcome of your abstract submission by **17 February 2013**.

### **Presentations**

The official language of the workshop is English. Presentations should not exceed 20 minutes. A draft version of the paper should be submitted by **30 April 2013**. The papers will be read in advance of the meeting by a specialist who has undertaken the role of discussant. It is hoped that, in this way, there will be a meaningful discussion and contextualisation of the terracottas presented.

### **Conference Expenses**

Participants are responsible for their travel and accommodation expenses. There will be no registration fee and, during the conference, lunch and coffee will be offered by the Archaeological Research Unit of the University of Cyprus.

### **Publication**

For the consistency of the volume we would advise you to address in the best possible way at least some of the research questions posed above. The peer-reviewed papers will be published in the form of an edited collection of studies and not as the proceedings of a conference. Acceptance for presentation of a paper, therefore, does not guarantee acceptance for publication.

### **Convenors**

Prof. Demetrios Michaelides  
Dr Giorgos Papantoniou  
Dr Maria Dikomitou-Eliadou

### **Contact**

Dr Giorgos Papantoniou: [papantoniou.giorgos@ucy.ac.cy](mailto:papantoniou.giorgos@ucy.ac.cy)

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**ΜΥΚΗΝΑΪΚΟ ΣΕΜΙΝΑΡΙΟ, ΠΕΜΠΤΗ, 1**  
**ΝΟΕΜΒΡΙΟΥ 2012, ΩΡΑ 19.00, ΑΜΦΙΘΕΑΤΡΟ**  
**ΎΔΑΛΗ ΑΡΓΥΡΙΑΔΗ (ΚΕΝΤΡΙΚΟ ΚΤΗΡΙΟ**  
**ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΑΘΗΝΩΝ -**  
**ΠΑΝΕΠΙΣΤΗΜΙΟΥ 30, «ΑΝΑΚΤΟΡΙΚΗ ΚΑΙ**  
**ΜΕΤΑΝΑΚΤΟΡΙΚΗ ΘΗΒΑ» ΜΙΑ ΜΑΤΙΑ**  
**ΜΕΣΑ ΑΠΟ ΤΗΝ ΑΝΑΣΚΑΦΗ ΤΟΥ ΑΡΧΕΙΟΥ**  
**ΤΩΝ ΠΙΝΑΚΙΔΩΝ ΓΡΑΜΜΙΚΗΣ Β΄ ΣΤΗΝ ΟΔΟ**  
**ΠΕΛΟΠΙΔΟΥ**

ομιλήτρια: Δρ. Ελένη Ανδρίκου, Αναπληρώτρια Προϊσταμένη Β'ΕΚΠΑ

**ΠΕΡΙΛΗΨΗ**

Η μυκηναϊκή ακρόπολη των Θηβών, η Καδμεία, έντονα φορτισμένη από το μύθο, αναζητεί την έξοδό της στο φως κάτω από τη νεώτερη πόλη. Σημαντικοί αρχαιολόγοι ανέσκαψαν στην Θήβα από τις πρώτες δεκαετίες του 20ου αι. και εξής και αποκάλυψαν αρχιτεκτονικά κατάλοιπα και εντυπωσιακά κινητά ευρήματα. Οι ανασκαφές αυτές διεξήχθησαν με αφορμή την εκτέλεση ιδιωτικών και δημοτικών τεχνικών έργων με συνέπεια η αποκαλυπτόμενη εικόνα να είναι ασυνεχής. Η αποσπασματικότητα της επιτείνεται από το γεγονός ότι στην πλειονότητά τους τα ευρήματα δεν έχουν μελετηθεί και δημοσιευθεί. Αναπόφευκτα, η σύνθεση των αποτελεσμάτων με σκοπό την εξαγωγή ιστορικών συμπερασμάτων τόσο για τη Μυκηναϊκή, όσο και για την Πρώιμη και Μέση Εποχή του Χαλκού, συνοδεύεται από αβεβαιότητα και αμφιβολίες, οι οποίες θα είχαν αρθεί κατά μεγάλο μέρος εάν το ήδη ανασκαμμένο υλικό ήταν γνωστό. Ειδικά όσον αφορά στη μυκηναϊκή πόλη, τα προβλήματα αφορούν σε καίρια ζητήματα, όπως, ενδεικτικά, πότε ιδρύθηκε, πότε καταστράφηκε, ποια έκταση είχαν οι διαπιστούμενες σε διάφορες θέσεις καταστροφές και ποια η επίπτωσή τους, ποια η έκταση και η οργάνωση του ανακτορικού συγκροτήματος, ποια η έκταση και η οργάνωση του οικισμού γύρω από αυτό, ποια η σχέση μεταξύ ανακτόρου και οικισμού.

Το μυκηναϊκό ανάκτορο, η οικία του Κάδμου, όπως ονομάστηκε, τοποθετείται στο κέντρο της πόλης. ωστόσο, σημαντικοί χώροι ανακτορικού χαρακτήρα, όπως αρχεία πινακίδων Γραμμικής Β' γραφής και εργαστήρια παραγωγής πολυτελών αντικειμένων, αποκαλύφθηκαν γύρω από αυτό σε ικανή απόσταση. Αντικείμενο της παρούσας ομιλίας αποτελεί μια τέτοια «περιφερειακή» θέση, στην οποία βρέθηκε αρχείο πινακίδων της Γραμμικής Β' γραφής (ανασκαφή Β. Αραβαντινού 1993 - 4). Έμφαση θα δοθεί στην παρουσίαση της κεραμεικής, η οποία αποδεικνύει τη συνέχιση της κατοικήσεως από τα ανακτορικά στα μετανακτορικά χρόνια. Σημειώνεται ότι πρόκειται για το πρώτο γνωστό οικιστικό σύνολο της μετανακτορικής περιόδου, η ύπαρξη της οποίας τεκμηριωνόταν μόνον από ευρήματα των θαλαμωτών τάφων στο λόφο Κολωνάκι.

**Οργανωτική Επιτροπή:** Νάγια Πολυχρονάκου-Σγουρίτσα, Ιφιγένεια Τουρναβίτου, Αιμιλία Μπάνου, Χαρίκλεια Μπρεκουλάκη.

**MYCENAEAN SEMINAR, THURSDAY, 1TH**  
**NOVEMBER 2012, 19.00, ALKI ARGYRIADI**  
**AMPHITHEATRE (CENTRAL BUILDING OF**  
**THE UNIVERSITY OF ATHENS,**  
**PANEPISTIMIΟΥ 30), “PALATIAL AND POST-**  
**PALATIAL THEBES” A LOOK THROUGH THE**  
**EXCAVATION OF THE LINEAR B ARCHIVE**  
**AT PELOPIDOU ST.**

speaker: **Dr Helen Andrikou**

Vice-Director, Second Ephorate of Prehistoric and Classical Antiquities

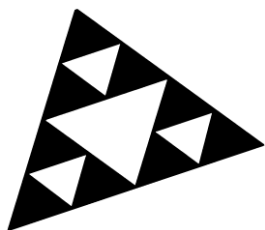
**ABSTRACT**

Kadmeia, the myth-laden Mycenaean acropolis of Thebes, seeks its exit into the light, out from under the modern town. Prominent archaeologists have been excavating at Thebes from the first decades of the 20th century onwards, and revealing architectural remains and significant portable findings. As these excavations were conducted in the context of private and municipal works the emerging picture is rather discontinuous. Furthermore, the fragmentary nature of this picture is intensified by the fact that the majority of the material has yet to be studied and published. Unavoidably, the synthesis of the results, that would have led to historical conclusions, both for the Mycenaean period and for the Early and Middle Bronze Ages, is plagued by uncertainties and doubts, elements which would have been partly eliminated, had the excavated material been widely known. For the Mycenaean town specifically, the existing problems revolve around pivotal issues: for example, the question of when the town was founded and when it was destroyed, the extent of the destructions noted in various areas and their effect, the extent and the organisation of the palatial complex and of its surrounding settlement, as well as the relationship between the palace and the settlement.

The Mycenaean palace, called the House of Kadmos, is located in the centre of the town. Nevertheless, important buildings of palatial character, such as buildings housing archives of Linear B tablets and workshops used for the production of luxury goods, have been discovered at a considerable distance around it. The subject of this lecture is one of those ‘peripheral’ sites in which a Linear B archive was discovered (V. Aravantinos excavations 1993-4). Emphasis will be placed on the pottery sequence, which confirms the continuous habitation of the area during the palatial and post-palatial periods. It ought to be emphasised that this is the first known settlement complex of the post-palatial period, the existence of which had, up until now, been substantiated only through the findings in the Kolonaki hill chamber tombs.

**The Organising Committee:** Nagia Polychronakou-Sgouritsa, Iphiyenia Tournavitou, Emilia Banou, Harikleia Brekoulaki





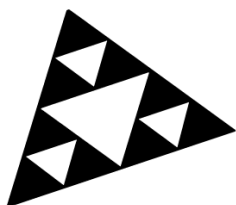
**INSTITUTE OF ARCHAEOLOGY,**  
**UNIVERSITY OF WROCLAW**  
**INTERNATIONAL CONFERENCE:**  
**MENE, TEKEL, PERES – THE**  
**DEVELOPMENT OF METROLOGY AND SPACE**  
**PERCEPTION IN PREHISTORY, WROCLAW,**  
**8TH-10TH MAY 2013**

Mene, Tekel, Peres (numbered, weighed, divided) – the words known from the biblical Book of Daniel, written by an unknown hand on the wall of the palace of the Babylonian king Belshazzar - are an excellent illustration of the conference's subject. Reflection on metrology is an important part of the intellectual development of mankind. This concerns both practical issues as well as ideas related to the development of religion and ideology. This conference will address issues of counting and weighing skills' development as well as various ways of space measuring and division. It seems that these issues were crucial for arrangement of buildings and settlements, but also for decoration of, for example, ceramic vessels. This problem also concerns the emergence of concepts of borders and division of economically exploited areas. For pre-industrial communities it determined access to the basic means of production – arable land. Hence, the ways of space division affect very strongly the social structure. Also the development of metallurgy required a reflection on weight of an individual product. The same problem and counting skills were also linked with the beginning of trade and commerce. It seems that the gradual expansion of the metrological knowledge influenced ways of perceiving and describing the world. This is perceptible in the visual arts, but also in music and literature. Moreover, it seems it had a significant impact on the ideology of traditional societies. To participate in the conference we would like to invite not only archaeologists, but also representatives of other sciences: historians, art historians, cultural theorists, ethnologists, musicologists, architects ....

The conference languages are English, German and Polish. The conference fee is 150 zł. If interested, please register by sending the registration form to the following address: [mene.tekel.peres.2013@gmail.com](mailto:mene.tekel.peres.2013@gmail.com) Applications and abstracts in English should be submitted by 03/01/2013. The program also includes a get-together dinner and a sightseeing tour of historical parts of Wrocław University as well as Wrocław's Old Town.

Accommodation in Wrocław: [www.wroclaw-info.pl](http://www.wroclaw-info.pl)

Tomasz Gralak and Dagmara Łaciak



***MENE, TEKEL, PERES***  
***THE DEVELOPMENT OF METROLOGY AND***  
***SPACE PERCEPTION IN PREHISTORY***

**REGISTRATION FORM**

<b>Name</b>	
<b>Surname</b>	
<b>Academic title</b>	
<b>Institutional affiliation</b>	
<b>E-mail</b>	
<b>Form of presentation</b>	<input type="checkbox"/> a paper (duration of speech up to 20 min.) <input type="checkbox"/> a poster <input type="checkbox"/> I will only be attending
<b>Title of presentation</b>	
<b>Abstract in English (up to 1800 words)</b>	

The conference fee is 150 zł (the payment should be made in cash at the registration desk upon arrival). If interested, please register by sending the registration form to the following address: [mene.tekel.peres.2013@gmail.com](mailto:mene.tekel.peres.2013@gmail.com) Applications and abstracts in English should be submitted by 03/01/2013. To 03/31/2013 the organizers will carry out an internal review of abstracts and will send to the authors confirmations of acceptance of the presentations' subjects. The abstracts will be published in the conference script.

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**ΣΠΕΙΡΑ - ΕΠΙΣΤΗΜΟΝΙΚΗ ΣΥΝΑΝΤΗΣΗ**  
**ΠΡΟΣ ΤΙΜΗΝ ΤΗΣ ΑΓΓΕΛΙΚΑΣ**  
**ΝΤΟΥΖΟΥΓΛΗ ΚΑΙ ΤΟΥ ΚΩΝΣΤΑΝΤΙΝΟΥ**  
**ΖΑΧΟΥ, ΙΩΑΝΝΙΝΑ, 1-3 ΝΟΕΜΒΡΙΟΥ 2012,**  
**ΑΙΘΟΥΣΑ ΑΡΧΙΕΠΙΣΚΟΠΟΥ ΣΠΥΡΙΔΩΝΟΣ -**  
**ΖΩΣΙΜΑΙΑ ΠΑΙΔΑΓΩΓΙΚΗ ΑΚΑΔΗΜΙΑ**  
**SCIENTIFIC MEETING IN HONOUR OF**  
**ANGELIKA DOUSOUGLI AND**  
**KONSTANTINOS ZACHOS, IOANNINA,**  
**NOVEMBER 1-3, 2012**

**Πέμπτη 1 Νοεμβρίου Thursday November 1st**

17:00 Εγγραφή συνέδρων - Registration

17:30 Χαιρετισμοί - Keynote Addresses

18:00 Παρουσίαση των τιμωμένων - Presentation of Honourees

18:30 Δεξίωση - Μουσική εκδήλωση - Reception - Concert

**ΑΠΟΓΕΥΜΑΤΙΝΗ ΣΥΝΕΔΡΙΑ - AFTERNOON SESSION**

**Προεδρείο**

J. Papadopoulos, K. Σουέρεφ

**Panel**

J. Papadopoulos, K. Soueref

19:15 **Halstead Paul:** *Neolithic Greece beyond the village (στα ελληνικά-in greek)*

19:30 **Barber Robin:** *Μέσο- και Υστερο-κυκλαδική κεραμική από το σπήλαιο του Ζα*

19:45 **Φιλανιώτου Όλγα:** *Θερμή και σπήλαιο του Ζα: χρονολογικοί συσχετισμοί*

20:00 **Μαρθάρη Μαρίζα:** *Καστρί Σύρου: Η ακρόπολη της Χαλανδριανής υπό το φώς των ερευνών της περιόδου 2006-2012*

20:15 **Πανάτση Αγγελική, Πυλαρινού Νικολέττα:** *Η Μύρινα των προϊστορικών χρόνων: Δέπας αμφικύπελλον*

20:30 **Θέμελης Πέτρος:** *Ο Δαμοφών στη Μήλο*

20:45 ΣΥΖΗΤΗΣΗ - DISCUSSION

21:00 ΛΗΞΗ ΑΠΟΓΕΥΜΑΤΙΝΗΣ ΣΥΝΕΔΡΙΑΣ - SESSION ADJOURNS

21:00 ΜΟΥΣΙΚΗ ΕΚΔΗΛΩΣΗ - CONCERT

**Παρασκευή 2 Νοεμβρίου Friday November 2nd**

**ΠΡΩΙΝΗ ΣΥΝΕΔΡΙΑ - MORNING SESSION**

**Προεδρείο**

R. Barber, N. Κατσικούδης, Γ. Πλιάκου

**Panel**

R. Barber, N. Katsikoudis, G. Pliakou

09:00 Forsén **J.**, Mommsen **H.**, Shriner **C.**: *Some preliminary remarks concerning an NAA and fabric correlation of ceramic samples from Asea in Arcadia, Greece*

09:15 Παλαιολόγου **Ελένη**: *Λίθινα αγγεία και λιθοτεχνία στις Μυκήνες*

09:30 Μπανάκα **Άννα**: *Αργεΐτικη κοροπλαστική*

09:45 Μπολέτης **Κωνσταντίνος**: *Επισκόπηση της αναστήλωσης της δυτικής κερκίδας του Επιθεάτρου στο Θέατρο της Επιδαύρου*

10:00 Στρατούλη **Γεωργία**: *Η βελτίωση της γεωργικής παραγωγής και οι κοινωνικές μεταβολές στη Νεότερη Νεολιθική της Β. Ελλάδος*

10:15 Alram-Stern **Eva**: *Visviki Magoula near Velestino – The Late Neolithic finds in Context*

10:30 Τζιφόπουλος **Ιωάννης**: *Αιακίδες στην Πιερία*

10:45 Στόγιας **Ιωάννης**: *Wheat ears and owls: Remarks on Thessalian coins with countermarks*

11:00 ΣΥΖΗΤΗΣΗ - DISCUSSION

ΔΙΑΛΕΙΜΜΑ COFFEE BREAK

#### Προεδρείο

J. Forsén, K. Λιάμπη, E. Αδάμ

#### Panel

J. Forsén, K. Liambi, E. Adam **Panel**

11:45 Γαλανίδου **Νένα**: *Για μία αρχαιολογία του θαλάσσιου μεσογειακού τοπίου: Αρχαιολογικές έρευνες στο νησιωτικό σύμπλεγμα Μεγανησίου Λευκάδας*

12:00 Κοτζαμποπούλου **Ελένη**: *Νεολιθικά γεύματα στη σπηλιά της Δράκαινας (Κεφαλλονιά): η μαρτυρία από τα οστά της χερσαίας πανίδας θηλαστικών*

12:15 Βικάτου **Ολυμπία**: *Νέα αρχαιολογικά δεδομένα για την ύστερη εποχή του Χαλκού και τους Σκοτεινούς Αιώνες από το Μεγανήσι*

12:30 Γκιζά **Βαρβάρα**: *Πήλινα ανάγλυφα πλακίδια από τη Λευκάδα και το Μεγανήσι*

12:45 Μπονέλου **Έλενα**: *"Θησαυρός" διδράχμων του Αιτωλικού Κοινού από τη Λευκάδα*

13:00 Ντίνου **Μαρία**, Κοντογιώργος **Δημήτρης**, Αδάμ **Ευγενία**, Γιούνη **Παρασκευή**: *Έρευνες πεδίου για αρχαιολογικές μαρτυρίες στα τοπία της Ύστερης Πλειστόκαινης - Πρώιμης Ολόκαινης στο Νομό Ιωαννίνων*

13:15 Tartaron **Thomas**: *Fragments of a maritime small world: Glykys Limin and trans – Ionian trade in the Mycenaean period*

13:30 Βασιλείου **Ελένη**: *Κεραμική παραγωγή και μόνιμη κατοίκηση στο τέλος της εποχής του Χαλκού. Η περίπτωση της Ηπείρου*

13:45 Γιούνη **Παρασκευή**: *Πετρογραφική ανάλυση κεραμικής από το Λιατοβούνι και την Κρύα του Νομού Ιωαννίνων*

14:00 Κλείτσας **Χρήστος**: *Δύο νέοι τάφοι «πολεμιστών» της Ύστερης Χαλκοκρατίας από την Ήπειρο*

14:15 ΣΥΖΗΤΗΣΗ - DISCUSSION

14:30 ΛΗΞΗ ΣΥΝΕΔΡΙΑΣ - SESSION ADJOURNS

ΑΠΟΓΕΥΜΑΤΙΝΗ ΣΥΝΕΔΡΙΑ - AFTERNOON SESSION

#### Προεδρείο

E. Alram-Stern, E. Κοτζαμποπούλου

**Panel**

E. Alram-Stern, E. Kotjabopoulou

17:00 **Paradopoulos John:** *An Epirote Pastoral: Wind Instruments in Tombs in Epirus*

17:15 **Λιάμπη Κατερίνη:** *Άπειρος*

17:30 **Πλιάκου Γεωργία:** *Μολύβδινα σταθμιά από υστεροελληνιστική αγροικία στην "Επισκοπή" Ιωαννίνων*

17:45 ΣΥΖΗΤΗΣΗ - DISCUSSION

ΔΙΑΛΕΙΜΜΑ - COFFEE BREAK

**Προεδρείο**

W. Murray, Π. Θέμελης, I. Κατσαδήμα

**Panel**

W. Murray, P. Themelis, I. Katsadima

18:30 **Γεωργούλας Γιώργος, Σκαλιστή Ελένη:** *Ιερό της Δωδώνης. Παρουσίαση νεότερων στοιχείων από τις εργασίες ανάδειξης του αρχαιολογικού χώρου*

18:45 **Σμύρης Γεώργιος:** *Οι "θυρώνες" των παρόδων στο αρχαίο θέατρο της Δωδώνης*

19:00 **Σκαλιστή Ελένη, Γεωργούλας Γιώργος:** *Αρχαίο θέατρο Δωδώνης. Καταγραφή στοιχείων από τις εργασίες αποκατάστασης των τελευταίων ετών*

19:15 **Κατσούδας Πέτρος:** *Τεκμηρίωση αρχιτεκτονικών και γεωμετρικών στοιχείων του θεάτρου της Δωδώνης με τη χρήση νέων τεχνολογιών*

19:30 **Χόινας Νίκος:** *Χάλκινος γρύπας από τη Δωδώνη*

19:45 **Χαρίσης Χαράλαμπος:** *Ένας χάλκινος τροχίσκος από τη Δωδώνη. Η ίντζ, ο λέβης και η μουσική των θεών.*

20:00 ΣΥΖΗΤΗΣΗ - DISCUSSION

20:15 ΛΗΞΗ ΣΥΝΕΔΡΙΑΣ - SESSION ADJOURNS

**Σάββατο 3 Νοεμβρίου Saturday November 3rd**

ΠΡΩΙΝΗ ΣΥΝΕΔΡΙΑ - MORNING SESSION

**Προεδρείο**

Θ. Τιβερίου, Χ. Μερκούρη

**Panel**

Th. Tiveriou, Ch. Merkouri

09:00 **Condi Dhimiter:** *Οι νέες ανασκαφές στην Αντιγόνηα*

09:15 **Fiedler Manuel:** *Fenster in Apollonia*

09:30 **Καρατζένη Παρασκευή:** *Επιβίωση αρχαίων μύθων στην περιοχή της Άρτας*

09:45 **Αγγέλη Ανθή, Κοντογιάννη Θεοδώρα:** *Κεραμική γεωμετρικών χρόνων από την Άρτα*

10:00 **Κύρκου Θάλεια:** *Χρυσά νεκρικά κοσμήματα από το Δυτικό νεκροταφείο της Αμβρακίας (οικόπεδο I. Θεοδώρου, οδός Κομμένων)*

10:15 **Γιαννάκη Βασιλική:** *Το ρωμαϊκό ελαιοτριβείο της Στρογγυλής του Νομού Άρτας*

10:30 ΣΥΖΗΤΗΣΗ - DISCUSSION

**Προεδρείο**

Γ. Τζιφόπουλος, Ε. Χαλκιά

**Panel**

G. Tzifopoulos, E. Chalkia

10:45 **Murray William:** *Augustus's Victory Monument Inspires New Directions for Warship Research*

11:00 **Γιοβαννοπούλου Αναστασία:** *Actiaque in Sacra currere rostra via (Propertius 2.1.35). Μαρμάρινο ανάγλυφο με παράσταση πλοίου από το βωμό του Μνημείου του Αυγούστου στη Νικόπολη*

11:15 **Τσακούμης Χρήστος:** *Τα κιονόκρανα στο Μνημείο του Οκταβιανού Αυγούστου της Νικόπολης*

11:30 **Θεουλάκης Παναγιώτης:** *Μελέτη καθαρισμού των λίθινων θραυσμάτων του Μνημείου του Αυγούστου στη Νικόπολη*

11:45 **Κατσαδήμα Ιουλία:** *Μαρμάρινη εικονιστική κεφαλή από τη Νικόπολη*

12:00 ΣΥΖΗΤΗΣΗ - DISCUSSION

ΔΙΑΛΕΙΜΜΑ - COFFEE BREAK

**Προεδρείο**

M. Fiedler, Β. Παπαδοπούλου, Π. Γιούνη

**Panel**

M. Fiedler, Β. Papadopoulou, P. Giouni

12:45 **Μερκούρη Χριστίνα:** *Ρωμαϊκό Υδραγωγείο Νικόπολης*

13:00 **Παυλίδης Ευάγγελος, Κλειδάς Εμμανουήλ, Παπαβασιλείου Κωνσταντίνος:** *Το μικρό Νυμφαίο της Νικόπολης*

13:15 **Γεωργίου Αναστασία:** *Βόρεια νεκρόπολη της Νικόπολης: Το Μανσωλείο 4 και τα κτερίσματα των ταφών*

13:30 **Λεοντάρης Λεωνίδας:** *Το Μανσωλείο 2 από τη βόρεια Νεκρόπολη της αρχαίας Νικόπολης*

13:45 **Τιβερίου Θεοδοσία:** *Ο Ηρακλής, παράδειγμα ενάρτου βίου. Μια νέα σαρκοφάγος από τη Νικόπολη*

14:00 **Κατσοκούδης Νικόλαος:** *Άγαλμα Αφροδίτης στηριζόμενης επί αρχαϊστικού ειδωλίου του Μουσείου Νικόπολης*

14:15 ΣΥΖΗΤΗΣΗ - DISCUSSION

14:30 ΛΗΞΗ ΣΥΝΕΔΡΙΑΣ - SESSION ADJOURNS

ΑΠΟΓΕΥΜΑΤΙΝΗ ΣΥΝΕΔΡΙΑ AFTERNOON SESSION

**Προεδρείο**

N. Γαλανίδου, M. Μαρθάρη, Π. Καρατζένη

**Panel**

N. Galanidou, M. Marthari, P. Karatzeni

17:30 **Καπά Χαρά:** *Δύο σύνολα πήλινων ειδωλίων από τα νεκροταφεία της Νικόπολης*

17:45 **Reynolds Paul, Παυλίδης Ευάγγελος:** *A 5th century AD pottery deposit from a cloaca cleaning shaft of the cardo next to Vasilika A, Nikopolis (Greece)*

18:00 **Φάκλαρη Υπατία:** *Ονοματολογικές παρατηρήσεις σε επιγραφές της Νικόπολης*

18:15 **Χαλκιά Ευγενία:** *Ο επίσκοπος Νικοπόλεως Δουμέτιος ως χορηγός*

18:30 **Τρανουλίδης Αχιλλέας:** *Η κύρια Πύλη των παλαιοχριστιανικών τειχών της Νικόπολης. Θεώρηση της μορφής και λειτουργίας με γνώμονα την πλήρη αποκατάσταση του θυρώματος*

18:45 ΣΥΖΗΤΗΣΗ - DISCUSSION

ΔΙΑΛΕΙΜΜΑ - COFFEE BREAK

#### **Προεδρείο**

Dh. Condi, Γ. Σμύρης, Ο. Φιλανιώτου

#### **Panel**

Dh. Condi, G. Smyris, O. Filaniotou\_\_

19:30 **Παπαδοπούλου Βαρβάρα:** *Αυτοκρατορικό σταθμίο από την Καστρίτσα Ιωαννίνων*

19:45 **Κατσανίκα Ελένη:** *Μια συνεργασία με το Αρχαιολογικό Μουσείο Ιωαννίνων*

20:00 **Σουέρεφ Κωνσταντίνος:** *ΠΥΡΡΟΣ 2013: υλικό για μια έκθεση*

20:15 **Ντούζουγλη Αγγέλικα, Ζάχος Κωνσταντίνος:** *Αντιφώνηση*

20:30 **Κατσικούδης Νικόλαος:** *Αποτίμηση των εργασιών της Επιστημονικής Συνάντησης - Meeting conclusions*

20:45 ΛΗΞΗ ΣΥΝΑΝΤΗΣΗΣ - MEETING ADJOURNS

#### **Άλλες εκδηλώσεις - Parallel events**

**Πέμπτη, 01.11.2012 Thursday, 11.01.2012**

**ώρα 21:00 hours**

Μουσική εκδήλωση του Πνευματικού Κέντρου Δήμου Ιωαννιτών στην αίθουσα "Αρχιεπισκόπου Σπυρίδωνος" της Ζωσιμαίας Παιδαγωγικής Ακαδημίας.  
*Concert organised by the Cultural Centre of the City of Ioannina at the amphitheatre "Archbishop Spyridon" of the Zosimaia Academy of Studies.*

Φωτογραφικά ενθυμήματα, Π. Τσιγκούλης: "Για την Αγγέλικα και τον Κώστα: Εικόνες μιάς γόνιμης πορείας".

*Photographic journal, P. Tsigoulis: "To Angelika and Kostas: Moments of a life-long journey".*

**Παρασκευή, 02.11.2012 Friday, 11.02.2012**

**ώρα 15:30 hours**

Ξενάγηση των συνέδρων στο Αρχαιολογικό Μουσείο Ιωαννίνων.

*Guided tour to the Archaeological Museum of Ioannina.*

**ώρα 21:00 hours**

Δείπνο για τους συνέδρους.

*Dinner for the participants.*

**Σάββατο, 03.11.2012 Saturday, 11.03.2012**

**ώρα 20:45 hours**

Μουσική εκδήλωση του Πνευματικού Κέντρου Δήμου Ιωαννιτών στην αίθουσα "Αρχιεπισκόπου Σπυρίδωνος" της Ζωσιμαίας Παιδαγωγικής Ακαδημίας.

*Concert organised by the Cultural Centre of the City of Ioannina at the amphitheatre "Archbishop Spyridon" of the Zosimaia Academy of Studies.*

*Παράλληλα με τις εργασίες του Συνεδρίου θα φιλοξενηθεί στο φουαγιέ της αίθουσας "Αρχιεπισκόπου Σπυρίδωνος" της Ζωσιμαίας Παιδαγωγικής Ακαδημίας έκθεση φωτογραφίας του Κωνσταντίνου Ιγνατιάδη.*

*Photo exhibit of Konstantinos Ignatiadis at the foyer of the amphitheatre "Archbishop Spyridon" of the Zosimaia Academy of Studies, in honour of Angelika Dousougli and Konstantinos Zachos.*

#### **ΕΠΙΣΤΗΜΟΝΙΚΗ ΕΠΙΤΡΟΠΗ**

Δρ Κωνσταντίνος Σουέρεφ

*Προϊστάμενος, ΙΒ' Εφορεία Προϊστορικών και Κλασικών Αρχαιοτήτων*

Δρ Ελένη Κοτζαμποπούλου

*Αναπληρώτρια Προϊσταμένη, Αρχαιολογικό Ινστιτούτο Ηπειρωτικών Σπουδών*

Καθ. Κατερίνη Λιάμπη

*Πρόεδρος, Εταιρεία Φίλων Αρχαιολογικού Μουσείου Ιωαννίνων*

Prof. Sarah P. Morris

*Department of Classics and Cotsen Institute of Archaeology - UCLA*

Prof. John K. Papadopoulos

*Archaeology Interdepartmental Program, UCLA*

#### **ΟΡΓΑΝΩΤΙΚΗ ΕΠΙΤΡΟΠΗ**

ΠΡΟΕΔΡΟΣ

Νικόλαος Κατσικούδης

ΑΝΤΙΠΡΟΕΔΡΟΣ

Γεωργία Πλιάκου

ΓΡΑΜΜΑΤΕΑΣ

Θάλεια Κύρκου

ΤΑΜΙΕΣ

Ελένη Βασιλείου, Χαρά Καππά

ΜΕΛΗ

Ευγενία Αδάμ, Παρασκευή Γιούνη, Δημήτρης Καλπάκης, Ιουλία Κατσαδήμα,

Χρήστος Κλείτσας, Ευάγγελος Παυλίδης, Υπατία Φάκλαρη, Νίκος Χόινας

ΜΕΛΗ - ΓΡΑΜΜΑΤΕΙΑ

Βασιλική Γιαννάκη, Αναστασία Γιοβαννοπούλου

*Επιμέλεια εντύπων: Δ. Καλπάκης*

Σπείρα - Επιστημονική συνάντηση προς τιμήν της ΑΓΓΕΛΙΚΑΣ ΝΤΟΥΖΟΥΓΛΗ και του ΚΩΝΣΤΑΝΤΙΝΟΥ ΖΑΧΟΥ

*Scientific Meeting in honour of ANGELIKA DOUSOUGLI and KONSTANTINOS ZACHOS*

με την ευγενική υποστήριξη του ΠΝΕΥΜΑΤΙΚΟΥ ΚΕΝΤΡΟΥ ΔΗΜΟΥ ΙΩΑΝΝΙΝΩΝ και των ΑΓΑΘΟΕΡΓΩΝ ΚΑΤΑΣΤΗΜΑΤΩΝ ΙΩΑΝΝΙΝΩΝ

Υπουργείο Παιδείας και Θρησκευμάτων, Πολιτισμού και Αθλητισμού

Γ Ε Ν Ι Κ Η Γ Ρ Α Μ Μ Α Τ Ε Ι Α Π Ο Λ Ι Τ Ι Σ Μ Ο Υ

ΙΒ' ΕΦΟΡΕΙΑ ΠΡΟΪΣΤΟΡΙΚΩΝ και ΚΛΑΣΙΚΩΝ ΑΡΧΑΙΟΤΗΤΩΝ

ΑΡΧΑΙΟΛΟΓΙΚΟ ΙΝΣΤΙΤΟΥΤΟ ΗΠΕΙΡΩΤΙΚΩΝ ΣΠΟΥΔΩΝ

ΕΤΑΙΡΕΙΑ ΦΙΛΩΝ ΑΡΧΑΙΟΛΟΓΙΚΟΥ ΜΟΥΣΕΙΟΥ ΙΩΑΝΝΙΝΩΝ\_\_



**ISLAND, MAINLAND, COASTLAND &  
HINTERLAND: CERAMIC PERSPECTIVES  
ON CONNECTIVITY IN THE ANCIENT  
MEDITERRANEAN, NETHERLANDS,  
UNIVERSITY OF AMSTERDAM, 1-2ND  
FEBRUARY 2013**

**Conference abstract**

The geographical or topographical setting of archaeological sites is often acknowledged as an important factor in their significance or role within the cultural landscape. But to what extent do categories such as 'island', 'coastland', 'mainland' or 'hinterland' influence our ideas on the dynamics of ancient communities? Are communities on islands inherently more connected than those with mainland settings? Does geographical isolation equate to cultural insularity? Although we acknowledge that multiple categories of evidence play major roles in creating networks of interactions, this conference will explore the relationship between physical setting and connectivity by primarily focusing on the study of ceramic assemblages.

We propose that characterizing ceramic assemblages with respect to activities such as production, distribution and consumption, provides us with a unique insight to the behaviours and interactions of particular communities across multiple scales. For example, the identification of ceramic imports has long been the primary indicator for identifying connections between different sites and regions. Yet this has fostered a presence/absence diagnosis for contact between different communities. We argue that the nature of connections - the number, length, strength and direction of interactions - has rarely been used for characterising past connectivity, though a few recent approaches, such as the study of ceramic 'hybrids', post-colonial perspectives and network analysis, are now beginning to offer more powerful and complex means of considering past interactions.

**Conference themes**

This conference welcomes PhD, early career and established scholars working on dynamic interactions within the ancient Mediterranean, from prehistory to the Roman Imperial period. We invite theoretically informed papers embracing the following themes (but not restricted to):

- the relationship between geographical setting, ceramic assemblages and degree of connectivity between different communities;
- the role geographical and/or socio-political entities such as 'hinterland' or 'colony' play in interpreting ceramic assemblages;
- how can we interpret stylistic or technological ceramic 'hybrids' with respect to the movement of people, artefacts and ideas?
- can we identify in the ceramic record deliberate participation within or rejection/resistance to wider socio-cultural phenomena?

**Please email abstracts (up to 250 words) to [NPAP@uva.nl](mailto:NPAP@uva.nl) by 30 November 2012**

For registration and more information, please go to <http://npap.nl>

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Dr. Antonis Kotsonas  
NPAP project (New Perspectives on Ancient Pottery)  
Amsterdam Archaeological Centre  
University of Amsterdam  
Turfdraagsterpad 9, 1012 XT  
Amsterdam  
The Netherlands

\*\*\*\*\*



**SAW PROJECT (MATHEMATICAL  
SCIENCES IN THE ANCIENT WORLD)  
CONFERENCE 'CULTURES OF  
COMPUTATION AND QUANTIFICATION IN  
THE ANCIENT WORLD', 25-29 MARCH 2013,  
PARIS**

The SAW project (Mathematical Sciences in the Ancient World) organises a conference 'Cultures of computation and quantification in the ancient world', which will take place 25-29 March 2013 in Paris.

We now invite proposals for papers on the conference topics. Information and the call for papers are available at <http://sawerc.hypotheses.org/291>

The deadline for proposals is 7 December 2012. Authors will be notified of paper acceptance or rejection no later than 30 December 2012.

Christine Proust, on behalf of the conference organisers  
[christine.proust@wanadoo.fr](mailto:christine.proust@wanadoo.fr)

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## **BRITISH SCHOOL AT ATHENS NEXT** **EVENTS**

Dear Friends,

Please note our next events:

**November 7<sup>th</sup> Wednesday at 19:00 at the Upper House:** a lecture by Professor Emeritus of Classical Archaeology, Lila Marangou on *“The ancient Tower at Horio – Aghia Triada, Arkesini on Amorgos”*. The lecture will be accompanied by slides. An informal reception will follow. Please inform the office of the Friends by Nov. 5<sup>th</sup> if you wish to attend this interesting lecture.

**December 10<sup>th</sup> Monday at 19:00 at the Upper House:** Presentation of two Books on the Life and Works of Lord Byron and Percy Bysshe Shelley.  
**The Place of Lord Byron in World History and P. B. Shelley's Poetic Science: New Perspectives in Romanticism.** Presented by Prof. Nic Panagopoulos and Dr. Argyros Protopapas. An informal reception will follow. Please inform the office of the Friends by December 7<sup>th</sup> if you wish to attend this interesting presentation.

**December 13<sup>th</sup> Thursday at 21:00:** An informal evening at a taverna to exchange season's greetings. Please inform the office of the Friends by Dec. 10<sup>th</sup> in order to make reservations.

Sincerely yours,

Maria Nikolaidis  
For the Friends of the B.S.A.

\*\*\*\*\*  
Vicki Tzavara  
Assistant Secretary  
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Fax +30 211 102 2803

[www.bsa.ac.uk](http://www.bsa.ac.uk)

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**MINOAN SEMINAR - FRIDAY 2 DECEMBER**  
**IN LOWER GARDEN OF ASCSA AT 18.30 -**  
**MORRISON, BROGAN, ALYOUNIS**

An Anthropological Approach to Ancient Cooking Techniques: Experimenting with  
Replicas of Late Minoan Cook-pots and Food  
Jerolyn Morrison, Tom Brogan and Jad Alyounis.

In the Lower Garden of the American School of Classical Studies

The abstract has been sent out to the mailing list and uploaded to both the Minoan Seminar website ([www.minoanseminar.gr](http://www.minoanseminar.gr)) and Facebook: Minoan Seminar

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Colin Macdonald  
British School at Athens  
Athens, GR 106 76

Chersiphronos 8  
Gouva  
Athens GR 116 31

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**ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –**  
**JOB VACANCIES/FELLOWSHIPS**  
**GRANTS TO ASSIST PUBLICATION**

The Mediterranean Archaeological Trust, set up in 1959 for the promotion of the study of archaeology, invites applications for grants, made on a competitive basis, for expenses in 2013-14, in the preparation for final publication of material from archaeological **excavation or fieldwork** in the Mediterranean world, **excluding** subventions to publishers or publication of material not from a specific excavation, or in symposia. Within the terms of the Trust, priority may be given to publication of Bronze Age sites. Grants for any amount, however small, will be considered, provided they expedite publication. The grants do not normally exceed £ 2000.

Applications comprising a 1500-word (**maximum**) description of the proposed work and an outline budget (avoiding unnecessary photography or 'inking-in'), together with two referees' names, and an indication of means of payment (full bank details) if successful, your address and e-mail, should be sent no later than 31 January 2013, to:

\*\*\*\*\*

Professor Sir John Boardman  
(Mediterranean Archaeological Trust)  
Classics Centre  
66 St. Giles  
Oxford OX1 3LU  
G.B.  
[or **also** by fax to [01865 610237](tel:01865610237); **NOT** by email]

\*\*\*\*\*

Please indicate the importance of the site, your qualifications, other sources of support, and the present or planned status of publication. Apply in good time. The references (which are **essential**) should be sent directly by the referees and must meet the deadline of 31 January, or accompany the application in a sealed envelope. Successful applicants will be informed in April 2013.

Additional information at: <https://sites.google.com/site/medarchtrust/mediterranean-archaeological-trust-home>

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## **[ZOOARCH] JOB ADVERT**

**Research Associate, - Ref:1287038**

**UCL Department / Division**

Institute of Archaeology

**Grade**

7

**Hours**

Full Time

**Salary**

**(inclusive of London allowance)**

£32,055 to £38,744 per annum

### **Duties and Responsibilities**

The Institute of Archaeology at University College London is seeking to appoint a Research Associate on an ERC-funded project, named 'EUROFARM, Transmission of innovations: comparison and modelling of early farming and associated technologies in Europe', led by Dr. Marc Vander Linden. The project is concerned with the introduction of farming and associated technologies in Europe, with a focus on the western Balkans (Bosnia & Herzegovina, Croatia, Montenegro).

This post is concerned with the study of faunal assemblages and the identification of farming practices. The researcher will be expected to conduct overseas fieldwork as a member of the EUROFARM team.

The appointment is for 4 years in the first instance.

### **Key Requirements**

Applicants should have a PhD in Archaeology or Anthropology, or in a relevant field of knowledge, and extensive experience of zooarchaeological practice and analysis. The ability to learn and/or undertake basic GIS map work and experience of working on museum collections would also be desirable.

**Please visit the site:**

[https://atsv7.wcn.co.uk/search\\_engine/jobs.cgi?SID=amNvZGU9MTI4NzAzOCZ2dF90ZW1wbGF0ZT05NjUmb3duZXI9NTA0MTE3OCZvd25lcnR5cGU9ZmFpciZicmFuZF9pZD0wJnBvc3RpbmdfY29kZT0yMjQmcmVxc2lnPTEzNDk5NTg3OTUtZTgzZjAyN2MwZmUyODY0YjA5NjcyMjczOWNjNjMyZGJhYjk2ZjgyZA](https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=amNvZGU9MTI4NzAzOCZ2dF90ZW1wbGF0ZT05NjUmb3duZXI9NTA0MTE3OCZvd25lcnR5cGU9ZmFpciZicmFuZF9pZD0wJnBvc3RpbmdfY29kZT0yMjQmcmVxc2lnPTEzNDk5NTg3OTUtZTgzZjAyN2MwZmUyODY0YjA5NjcyMjczOWNjNjMyZGJhYjk2ZjgyZA)

## **STUDY IN GREECE, PROGRAMS & FELLOWSHIPS FOR 2013-2014**

The American School of Classical Studies at Athens, one of America's most distinguished centers devoted to advanced teaching and research, was founded in 1881 to provide American graduate students and scholars a base for their studies in the history and civilization of the Greek world. Today, over 130 years later, it is still a teaching institution, providing graduate students a unique opportunity to study firsthand the sites and monuments of Greece. The School is also a superb resource for senior scholars pursuing research in many fields ranging from prehistoric to modern Greece, thanks to its two internationally renowned libraries: the Blegen, focusing on all aspects of Greece from its earliest prehistory to late antiquity, and the Gennadius, which concentrates on the Greek world after the end of antiquity.

### **PROGRAMS**

**REGULAR MEMBERSHIP:** Graduate students in classical and ancient Mediterranean studies or related fields (e.g., history of art, anthropology, prehistory, studies in post-classical Greece), who, preferably, have completed at least one year of graduate work. Competition is on the basis of transcripts, recommendations, and examinations. **DEADLINE:** JANUARY 15, 2013. (application fee: \$50)

**STUDENT ASSOCIATE MEMBERSHIP:** Advanced graduate students in the same fields as above who plan to pursue independent research projects, and who do not wish to commit to the full Regular Program. **DEADLINE:** JANUARY 15, 2013.

**SENIOR ASSOCIATE MEMBERSHIP:** Postdoctoral scholars with suitable research projects. Application should be made online at [www.ascsa.edu.gr](http://www.ascsa.edu.gr). **NO APPLICATION DEADLINE.**

**SUMMER SESSIONS MEMBERSHIP:** Two six-week sessions exploring the sites and museums in Greece. Open to graduate and undergraduate students and to secondary school and college teachers. The fee of \$4,500 includes tuition, travel within Greece, room, and partial board. Scholarships available. **DEADLINE:** JANUARY 15, 2013. (application fee: \$25)

**MEDIEVAL GREEK SUMMER SESSION AT THE GENNADIUS LIBRARY:** Graduate students and professors in any field of late antique, post-antique, Byzantine or medieval studies from any university worldwide. Month-long program in intermediate level Medieval Greek language and philology at the Gennadius Library, with site and museum trips. The Leventis scholarships cover tuition, travel within Greece, lodging but no meals. **DEADLINE:** JANUARY 15, 2013. (application fee: \$25)

**ATHENIAN AGORA EXCAVATIONS VOLUNTEER PROGRAM:** Volunteers wishing to participate in the archaeological excavations of the Athenian Agora during the summer of 2013, for eight weeks beginning early June and continuing until early August. **DEADLINE:** DECEMBER 15, 2012.



Membership application to the School must be made online at [www.ascsa.edu.gr](http://www.ascsa.edu.gr) at the same time you apply to any outside funding organization for work at the School.

FELLOWSHIPS AND GRANTS: <http://www.ascsa.edu.gr/index.php/admission-membership/grants>

FUNDING FOR GRADUATE STUDENTS FOR STUDY AT THE ASCSA FOR THE FULL ACADEMIC YEAR

REGULAR MEMBERSHIP FELLOWSHIPS: Up to 13 predoctoral fellowships offered for Regular Members for the nine-month program with a stipend of \$11,500 plus room and board at Loring Hall on the School grounds, and waiver of School fees. DEADLINE: JANUARY 15, 2013. (application fee: \$50)

ADVANCED FELLOWSHIPS: Several School fellowships with a stipend of \$11,500 plus room, board, and waiver of School fees are available to students who have completed the Regular Program or one year as a Student Associate Member. DEADLINE: FEBRUARY 19, 2013.

FULBRIGHT FELLOWSHIPS: Contact the Institute of International Education, at 809 United Nations Plaza, NY 10017 ([www.iiepassport.org](http://www.iiepassport.org)) for application and stipend information. Candidates must submit ASCSA application for Regular or Student Associate Membership by due date for Fulbright application. DEADLINE: OCTOBER 17, 2012.

FUNDING FOR GRADUATE STUDENTS AND POSTGRADUATES FOR THE STUDY AT THE ASCSA FOR THE FULL ACADEMIC YEAR

THE M. ALISON FRANTZ FELLOWSHIP: Ph.D. candidates and recent Ph.D.'s for work in the Gennadius Library. A stipend of \$11,500 plus room, board, and waiver of School fees. DEADLINE: JANUARY 15, 2013.

THE JACOB HIRSCH FELLOWSHIP: For projects carried out in Greece, Ph.D. candidate from U.S. or Israel writing a dissertation or recent Ph.D. revising a dissertation for publication. A stipend of \$11,500 plus room, board, and waiver of School fees. DEADLINE: JANUARY 15, 2013.

WIENER LABORATORY FELLOWSHIPS: Fellowships awarded annually to graduate students or postdoctoral scholars working on well-defined projects in skeletal, faunal, geoarchaeological, or environmental studies. Stipends of \$15,500 to \$27,000. DEADLINE: JANUARY 15, 2013.

FUNDING FOR GRADUATE STUDENTS AND POSTGRADUATES FOR THE STUDY AT THE ASCSA (SHORT-TERM FELLOWSHIPS)

THE HARRY BIKAKIS FELLOWSHIP: North American or Greek graduate students researching ancient Greek law or Greek graduate students working on a School excavation. The \$1,875 fellowship is awarded periodically. DEADLINE: JANUARY 15, 2013.

COTSEN TRAVELING FELLOWSHIP FOR RESEARCH IN GREECE: Short-term travel-to-collections award of \$2,000 for senior scholars and graduate students for projects and research at the Gennadius Library. At least one month of residency required. DEADLINE: JANUARY 15, 2013.

THE GEORGE PAPAIOANNOU FELLOWSHIP: Ph.D. candidates or recent Ph.D.'s writing on the Greek Civil War, Fellows are required to make use of and refer to the George Papaioannou Papers housed at the Archives of the Gennadius Library. Open to all nationalities. Stipend of €1,000. DEADLINE: JANUARY 15, 2013.

HENRY S. ROBINSON CORINTH RESEARCH FELLOWSHIPS: Ph.D. candidates or recent Ph.D.'s for research on a doctoral dissertation or primary publication, requiring the use of the resources, archaeological site, and collections at Corinth. Open to all nationalities. One or more grants for up to three months, maximum amount of stipend is \$4,500. DEADLINE: JANUARY 15, 2013.

WIENER LABORATORY RESEARCH ASSOCIATESHIPS: Funding up to \$7,000 for well-defined research projects at the Wiener Laboratory. DEADLINES: APRIL 1, SEPTEMBER 1, DECEMBER 1, ANNUALLY.

#### TRAVELING AND EXCHANGE FELLOWSHIPS FOR GRADUATE STUDENTS AND POSTGRADUATES

THE OSCAR BRONEER TRAVELING FELLOWSHIP: Ph.D. candidate or recent Ph.D. for study in Athens and Rome in alternate years, using either the American Academy in Rome or the American School of Classical Studies at Athens as a base from which to pursue research through trips. For 2013-2014, application information at [www.aarome.org](http://www.aarome.org). DEADLINE: JANUARY 15, 2013.

COULSON/CROSS AEGEAN EXCHANGE PROGRAM (CAORC): Short-term fellowships for Greek nationals and scholars to pursue research in Turkey under the auspices of the American Research Institute in Turkey (ARIT). Stipend of \$250 per week plus round-trip airfare. Associate Member application to ASCSA. DEADLINE: MARCH 15, 2013.

MULTI-COUNTRY RESEARCH FELLOWSHIPS (CAORC): Predoctoral and postdoctoral scholars with research requiring travel to several countries with an American overseas research center. Applications at CAORC's web site: [www.caorc.org](http://www.caorc.org). Associate Member application to ASCSA. DEADLINE: JANUARY 15, 2013.

WIENER LABORATORY TRAVEL GRANTS FOR ARCHAEOLOGICAL SCIENCE RESEARCH IN GREECE: Travel grants of \$2,000 for graduate students or postdoctoral scholars from North American institutions working on projects in archaeological science in Greece. DEADLINES: APRIL 1, SEPTEMBER 1, DECEMBER 1, ANNUALLY.

#### FUNDING FOR SENIOR SCHOLARS FOR STUDY AT THE ASCSA

KRESS PUBLICATIONS FELLOWSHIPS: Postdoctoral scholars working on a Corinth or Agora publication. Grants for at least three months (up to \$10,000) to a maximum of nine months (up to \$30,000). DEADLINE: JANUARY 15, 2013.

NEH FELLOWSHIPS: Awards for postdoctoral scholars and professionals in the humanities. Terms: Two to four fellowships, five to ten months in duration. Maximum stipend for a five-month project, \$21,000; for a ten-month project, \$42,000. U.S. citizens or foreign nationals being U.S. residents for three years before application deadline. Candidates must hold their Ph.D. or equivalent terminal degree at time of application. DEADLINE: OCTOBER 31, 2012.

For MORE information and TO APPLY ONLINE:

<http://www.ascsa.edu.gr/index.php/admission-membership/>

Visit our web site at [www.ascsa.edu.gr](http://www.ascsa.edu.gr) or contact: ASCSA, 6-8 Charlton Street, Princeton, NJ 08540

Tel: 609-683-0800 • E-mail: [ascsa@ascsa.org](mailto:ascsa@ascsa.org)

School programs are generally open to qualified students and scholars at colleges or universities in the U.S. or Canada; restrictions may apply for specific fellowships and programs. The American School of Classical Studies at Athens does not discriminate on the basis of race, age, sex, sexual orientation, color, religion, ethnic origin, or disability when considering admission to any form of membership.

\*\*\*\*\*

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## **“MAX PLANCK-WEIZMANN INSTITUTE CENTER IN THE FIELD OF INTEGRATIVE ARCHAEOLOGY AND ANTHROPOLOGY”**

The Max Planck Society offers the position of **Track Leader in Physical Anthropology** to lead a group dedicated to **Bone and Tooth Structure-Function studies**

The new group will be established in Leipzig and will work in close contact with the Department of Human Evolution of the Max Planck Institute for Evolutionary Anthropology (Director: Jean-Jacques Hublin) <http://www.eva.mpg.de/evolution/> and with the Kimmel Center for Archaeological Science of the Weizmann Institute of Science (Director: Steve Weiner) <http://www.weizmann.ac.il/kimmel-arch/>.

Applicants should have demonstrated outstanding research potential, leadership and clear evidence of achievement. The candidate should have expertise in modern bone and/or tooth biology, development or biomechanics. Experimental approaches and/or modelling capability are encouraged. However, envisioned research should address issues of interest in an evolutionary perspective, including hominid evolution. Supplementary information on the scope of the project can be obtained by contacting J.J. Hublin ([hublin@eva.mpg.de](mailto:hublin@eva.mpg.de)).

This is a fulltime research position. The salary will be at the W2 level on the German university scale, equivalent to an Associate Professor. Funds for conducting research, including salaries for post-doctoral scientists, PhD candidates and an administrative assistant, are available. The appointment will be for a term of 5 years.

The Max Planck Society is committed to employing more handicapped individuals and to increasing the share of women in areas where they are underrepresented, and therefore expressly encourages applications from such qualified individuals.

Applications should include a recent CV, a detailed research plan, and the names of three referees. Documents should be sent in pdf form to Diana Carstens ([carstens@eva.mpg.de](mailto:carstens@eva.mpg.de)), and a hard copy must be received at the address below by December 31, 2012. The identities of applicants will be known only to those participating directly in the decision making process.

Max Planck Institute for Evolutionary Anthropology  
Department of Human Evolution  
Deutscher Platz 6  
04103 Leipzig  
Germany

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## **INTERNATIONAL DOCTORATE IN QUATERNARY AND PREHISTORY**

The International Doctorate in Quaternary and Prehistory (IDQP)'s objective is to train young researchers at a high scientific level, opened, with a naturalistic approach to multi-and inter-disciplinary to the major scientific debates that animate the international scientific community in terms of human evolution.



IDQP partnership constituted by the Università di Ferrara (UNIFE) (Coordinator), the Muséum National d'Histoire Naturelle in Paris (MNHN), the Universitat Rovira i Virgili (URV) and the Universidade of Tras-os-Montes e Alto Douro (UTAD), with the support of the Instituto Politecnico de Tomar (IPT), meet the requirement for postgraduate training for intersectoral and interdisciplinary study of the factors (climatic, geological, cultural) that interacts with the evolution of our species.



The IDQP open to students an integrated set of research topics, scientific equipment, prehistoric sites and heritage collections, accompanied by a high level scientific support. A feature of the IDQP be structuring his training at three levels: a basic uniform, specific training and cross training. Student mobility is designed at different levels: 1) mobility of 12 months in a partner institution, 2) mobility of medium duration (3 months) within private or public companies outside the partnership; 3) mobility short-term (1 month), in a second institution partner or associate.



These mobilities are many beneficial experiences for the establishment of a CV of excellence for students, which will be added disclosure requirements, participation in international scientific meetings and making direct contact with potential employers. The Consortium deliver a multiple title (double or triple) as follows: 1) if students do their mobility within one of the partner institutions, they will get the title of Doctor of the first institution and the one of the second institution, 2) if students do their mobility within two partner institutions, they will get the title of Doctor of the first institution of enrollment and the one of the others two institutions.



The participation fees will be € 6,000 for three years (2000 € per year). No difference is made between EU candidates and Third Countries, scholarship or non-scholarship holders. Many facilities (language courses, constant tutoring, free access to all university facilities, full support for the excavations, Wifi, computer rooms, etc ... ) are provided for the IDQP students, they aims is to create a comfortable environment where PhD students can work to the best of their ability.

Please visit the site: <https://sites.google.com/a/unife.it/idqp/>

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## **LECTURER, MUSEUMS AND HERITAGE -** **UCL QATAR, UNIVERSITY COLLEGE** **LONDON**

UCL REFERENCE 1288193

Full Time

The appointment will be on UCL Grade 8. The salary range will be Salary £37,012 - £44,166 per annum (depending on qualifications and experience) plus a generous support package , exclusive of London Allowance.

The role holder will deliver teaching for the MA in Museum and Gallery Practice, and contribute to teaching of relevance to the other Masters' programmes taught at UCL Qatar, the MA in Arab and Islamic Archaeology and the MSc in Conservation Studies.

The post-holder will also contribute to short course teaching (continuing professional development and public courses), to UCL Qatar's public engagement programme, and will be expected to work closely with colleagues at Qatar Museums Authority.

The successful candidate will have a PhD in Museum studies or in a relevant subject.

Applicants will have demonstrable experience of developing, co-ordinating and delivering teaching at MA level in the area of museum studies and/or heritage studies, as well as experience of dissertation and research supervision at MA/PhD level.

The appointed candidate will be able to demonstrate familiarity with the recent museum and heritage developments in the Gulf region and/or wider Arab/Islamic world, and have first-hand research or work-related experience in this region and will ideally have a specialisation in one or more of the following areas:

Critical heritage studies, Digital heritage, Intangible heritage, Museum education, Art curation.

To apply for the vacancy please click "Apply" below.

For general enquiries about this post, please email Simona Duranti (PA to Director) at [s.duranti@ucl.ac.uk](mailto:s.duranti@ucl.ac.uk)

**Closing Date: 5/11/2012**

**Interview Date: TBC**

Any offer of employment will be subject to a Criminal Record Bureau check.

UCL Taking Action for Equality

**Please visit the site: <http://www.jobs.ac.uk/job/AFI842/lecturer-museums-and-heritage/>**

**ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS**  
**ARTEFACTS: SCIENTIFIC ILLUSTRATION & ARCHAEOLOGICAL RECONSTRUCTION**

We are a Berlin-based conceptual design agency specialised in the visualisation of archaeological and scientific content. Our main focus lies in creating informative graphics and animations for exhibitions, conferences and research projects. Being archaeologists ourselves, the scientific reconstruction and 3D visualisation of ancient architecture is our main area of expertise.

Finally our new website is online under <[artefacts-berlin.de](http://artefacts-berlin.de)>

It shows our most recent projects in archaeological 3D reconstruction, scientific illustration and exhibition design.

Any feedback is welcome!

\*\*\*\*\*

Sandra Grabowski, M.A.  
Graphic design, 3D visualisation,  
Near Eastern Archaeology and Philology, Prehistoric Archaeology [grabowski@artefacts-berlin.de](mailto:grabowski@artefacts-berlin.de)

Sebastian Hageneuer, M.A.  
3D visualisation, IT,  
Near Eastern Archaeology and Philology, Prehistoric Archaeology [hageneuer@artefacts-berlin.de](mailto:hageneuer@artefacts-berlin.de)

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## **EXCAVATIONS IN THE ATHENIAN AGORA** **VOLUNTEER PROGRAM SUMMER 2013**

**Deadline: December 15, 2012**

The American School of Classical Studies at Athens announces a program for volunteers wishing to participate in the archaeological excavations of the Athenian Agora during the summer of 2013. Approximately thirty-five volunteers are chosen on the basis of academic qualifications and previous archaeological field experience. Undergraduate applications are welcome, though priority is given to graduate students preparing for professional careers in classical archaeology and those willing to work the entire season.

### **Work of the Volunteer Staff**

The Volunteer Staff will participate in all aspects of the archaeological fieldwork under the supervision of a staff of field archaeologists and technical experts, all of whom have extensive field experience and advanced academic training in classical archaeology. Volunteers will be trained in the basic techniques of excavation: working with pick, trowel, shovel, and wheelbarrow; cleaning and investigating stratigraphy; delicate cleaning of artifacts in the ground; sifting of excavated earth and techniques of flotation; washing and basic conservation of pottery and other objects; clerical work involved in the keeping of excavation records. Tasks will be assigned in rotation, and volunteers are expected to participate in all of them. Room and a modest allowance for board are provided for the time volunteers are working at the excavations.

Travel arrangements to and from Greece are the responsibility of each volunteer.

### **The 2013 Season**

The excavations of 2013 are planned for eight weeks beginning early June and continuing until early August. Fieldwork is in progress five days a week, Monday through Friday, from 7 a.m. to 3 p.m. with a 30-minute break at midmorning. Volunteers are expected to be on the site during these hours and to work at the excavations for a minimum of six weeks. As noted above, preference is given to those applicants who can work the full eight weeks.

Information and application for the Agora Volunteer Program is located on the ASCSA web site at <http://www.ascsa.edu.gr/index.php/excavationagora/>.

Applicants can expect to receive notification after February 15, 2013.

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## *INTERNET SITES*

# **ANNOUNCING METPUBLICATIONS**

The Metropolitan Museum of Art is proud to announce the launch of MetPublications, a new online resource that offers in-depth access to the Museum's publications. Beginning with nearly 650 titles published from 1964 to the present, each offering a variety of features and functions, this unique portal is established to provide scholarly information and enjoyment to a broad audience.

Press release: <http://www.metmuseum.org/about-the-museum/press-room/news/2012/metpublications-launch>

MetPublications: <http://www.metmuseum.org/metpublications>

Please explore this site, and forward this information to your friends and colleagues.

[A handy way to explore the contents is to go to <http://ancientworldonline.blogspot.com/2012/10/metropolitan-museum-of-art-publications.html>.]

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## **MASADA'S 2K OLD DATE PALM**

Yishai Fleisher heads south to visit the Arava Institute and the date palm they are growing from a 2,000 year old seed. The growth of this ancient seed against all odds surprised the scientists who nurtured it....

**Please visit the site:**

**[http://www.youtube.com/watch?feature=endscreen&NR=1&v=2NY3rG\\_0tIA](http://www.youtube.com/watch?feature=endscreen&NR=1&v=2NY3rG_0tIA)** [Go there for link to video]

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***ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS***

**OXFORD JOURNAL OF ARCHAEOLOGY - ©**  
**BLACKWELL PUBLISHING LTD.**

Volume 31, Issue 4 Pages 339 - 441, November 2012 The latest issue of Oxford Journal of Archaeology is available on Wiley Online Library Original Articles

PERILOUS WATERS: EARLY MARITIME TRADE ALONG THE WESTERN COAST OF THE BLACK SEA (FIFTH MILLENNIUM BC) (pages 339–365) MARIYA IVANOVA Article first published online: 9 OCT 2012 | DOI:

10.1111/j.1468-0092.2012.00392.x

NEW EVIDENCE FOR IRON AGE BURIAL AND PROPITIATION PRACTICES IN SOUTHERN BRITAIN (pages 367–379) JUSTINE TRACEY Article first published online: 9 OCT 2012 | DOI:

10.1111/j.1468-0092.2012.00393.x

THE ASTRONOMICAL ORIENTATION OF THE URBAN PLAN OF ALEXANDRIA (pages 381–389) LUISA FERRO and GIULIO MAGLI Article first published online: 9 OCT 2012 | DOI:

10.1111/j.1468-0092.2012.00394.x

BEYOND THE OPPIDA: POLYFOCAL COMPLEXES AND LATE IRON AGE SOCIETIES IN SOUTHERN BRITAIN (pages 391–417) TOM MOORE Article first published online: 9 OCT 2012 | DOI:

10.1111/j.1468-0092.2012.00395.x

THE ATLANTIC ROMAN TRADE DURING THE PRINCIPATE: NEW EVIDENCE FROM THE WESTERN FA[c CEDILLA]ADE (pages 419–441) CÈSAR CARRERAS and RUI MORAIS Article first published online: 9 OCT 2012 | DOI:

10.1111/j.1468-0092.2012.00396.x

Please visit the site: <http://onlinelibrary.wiley.com/doi/10.1111/ojoa.2012.31.issue-4/issuetoc>

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## **ZERO PRODUCTION LTD. / EGE** **PUBLICATIONS**

1.  
Between Continents. Proceedings of the Twelfth Symposium on Boat and Ship Archaeology Istanbul 2009  
Editor: Gunsenin, Nergis  
Publisher: Ege Yayinlari  
ISBN: 9786054701025  
Publication Date & Place: 2012, Istanbul  
342 pp, b/w and color figures, hb, articles in English.  
[http://www.zerobooksonline.com/eng/product\\_details.asp?cat=12&subcat=&product=7519](http://www.zerobooksonline.com/eng/product_details.asp?cat=12&subcat=&product=7519)
  
2.  
Byzas 15 - Byzantine Small Finds in Archaeological Contexts  
Editors: Bohlendorf-Arslan, Beate - Alessandra Ricci  
Publisher: Ege Yayinlari  
ISBN: 9786055607821  
Publication Date & Place: 2012, Istanbul  
491 pp, color and b/w figures, articles in English, German and Turkish.  
[http://www.zerobooksonline.com/eng/product\\_details.asp?cat=6&subcat=21&product=7518](http://www.zerobooksonline.com/eng/product_details.asp?cat=6&subcat=21&product=7518)
  
3.  
Sylloge Nummorum Graecorum Turkey 7. Odemis Museum Volume 1  
Author: Tekin, Oguz - Sencan Altinoluk  
Publisher: Türk Eskiçag Bilimleri Enstitüsü Yayinlari  
ISBN: 9786055607937  
Publication Date & Place: 2012, Istanbul  
[http://www.zerobooksonline.com/eng/product\\_details.asp?cat=6&subcat=33&product=7493](http://www.zerobooksonline.com/eng/product_details.asp?cat=6&subcat=33&product=7493)
  
4.  
Mosaics of Turkey and Parallel Developments in the Rest of the Ancient and Medieval World: Questions of Iconography, Style and Technique from the Beginnings of Mosaic until the Late Byzantine Era  
Editor: Sahin, Mustafa  
Publisher: Ege Yayinlari  
ISBN: 9786055607814  
Publication Date & Place: 2012, Istanbul 11th International Colloquium on Ancient Mosaics October 16th - 20th 2009 Bursa xxvi + 974 pp, color and b/w figures, hb, articles in Turkish, English, German and French.  
[http://www.zerobooksonline.com/eng/product\\_details.asp?cat=12&subcat=&product=6998](http://www.zerobooksonline.com/eng/product_details.asp?cat=12&subcat=&product=6998)

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## **VOLUME II OF THE ANCIENT METALLOGRAPHY SERIES**

The second volume of my Metallography and Metallurgy Series Volumes has just been published. ISBN 978-0-9829338-4-8. This deals with the Metallurgy of Ancient Colombia and Ecuador. 500 pages, full colour throughout, an extensive catalogue of fragments of goldwork from Colombia, their analyses by EPMA and AAS and some metallography. The major concentration is on the alloys of gold, gold-platinum and gold-silver-copper. For further details contact the author, or your bookseller.

David Scott  
[dascott@UCLA.EDU](mailto:dascott@UCLA.EDU)

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## **INTERNATIONAL JOURNAL OF NAUTICAL ARCHAEOLOGY 41(2)**

Vol. 41 Issue 2 International Journal of Nautical Archaeology © The Nautical Archaeology Society

Early View (Online Version of Record published before inclusion in an issue) These Early View articles are now available on Wiley Online Library:

### **Original Article**

Maritime Site Protection and the Fetch Method: an example from Rogaland, Norway  
Marianne Nitter, Endre Elvestad and Lotte Selsing Article first published online: 18 OCT 2012 | DOI:  
10.1111/j.1095-9270.2012.00365.x

### **Original Articles**

A Late-18th-Century Merchantman Wrecked in the South Edinburgh Channel, Thames Estuary, England  
David Parham, Elizabeth Rundell and Pieter van der Merwe Article first published online: 16 OCT 2012 | DOI:  
10.1111/j.1095-9270.2012.00364.x

The Roman Shipwreck of Antirhodos Island in the Portus Magnus of Alexandria, Egypt  
Patrice Sandrin, Alexander Belov and David Fabre Article first published online: 16 OCT 2012 | DOI:  
10.1111/j.1095-9270.2012.00363.x

Please visit the site: <http://onlinelibrary.wiley.com/doi/10.1111/ijna.2012.41.issue-2/issuetoc>

## **KOSMOS. JEWELLERY, ADORNMENT AND TEXTILES IN THE AEGEAN BRONZE AGE**

Kosmos. Jewellery, Adornment and Textiles in the Aegean Bronze Age Proceedings of the 13th International Aegean Conference/13e Rencontre égéenne internationale, University of Copenhagen, Danish National Research Foundation's Centre for Textile Research, 21-26 April 2010 Aegaeum (Annales d'archéologie égéenne de l'Université de Liège et UT-PASP), 33

Editors: Nosch M.-L., Laffineur R.

Year: 2012

ISBN: 978-90-429-2665-3

Pages: X-810 p.

Price: 140 EURO \$189.00

[\$150.00 at <http://www.isdistribution.com/BookDetail.aspx?aId=14475> with Promotional code 024-12]

The subject of KOSMOS in the Aegean Bronze Age includes jewellery, costume, aesthetics, body adornment, colours, pigments, and textiles.

The reason for this choice of subject was our wish to merge the textile research carried out currently at the Danish National Research Foundation's Centre for Textile Research, with the major research topic of Robert Laffineur, jewellery. This KOSMOS volume addresses the issues of textile production, costumes, dyes and pigments, colours, jewellery, aesthetics, body adornment, luxury and exotic items, gender and femininity/masculinity, as well as their social, religious, ideological, economic, technological, administrative and philological connections. In the Bronze Age, men, women and children would dress in garments, wear jewellery and adorn themselves to express their gender, age and status.

Table of Contents

<http://www.isdistribution.com/DocumentRender.aspx?aId=14475&asId=1>.

Please visit the site: [http://www.peeters-leuven.be/boekoverz\\_print.asp?nr=9174](http://www.peeters-leuven.be/boekoverz_print.asp?nr=9174)

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## **EΙΔΗΣΕΙΣ - NEWS RELEASE**

# **CULTURAL HERITAGE: TECHNIQUE COULD HELP RESEARCHERS SPOT ANCIENT BONES THAT HAVE INTACT DNA, BY SARAH EVERTS**

When archeologists find a pile of ancient bones or fossils, they sometimes try to extract DNA from the bones to learn more about human predecessors or animals that are now extinct. But most of these artifacts contain degraded DNA, and only intact DNA can provide useful information from DNA sequencing, an expensive process. Now a mass spectrometry-based technique could help archeologists triage old bones quickly and cheaply for DNA analysis (Anal. Chem., DOI: 10.1021/ac301333t).

Julie Wilson, a mathematician at the University of York, in the U.K., developed the technique with York researchers Nienke L. van Doorn and Matthew J. Collins. Their method works by assessing the molecular integrity of the bone protein collagen and uses that measurement as a proxy for DNA integrity.

In particular, researchers compare levels in collagen of the amino acids glutamine and glutamic acid. Over time, glutamine degrades into glutamic acid through a deamidation reaction. Since collagen and DNA both degrade through hydrolytic reactions (deamidation and deamination, respectively), the researchers speculate that a bone or fossil with high amounts of degraded collagen is unlikely to have intact DNA.

“Sometimes bone can look quite intact but be actually quite damaged on the microscopic scale,” comments Tim Wess, at Cardiff University, who was not involved in the work. The degradation’s cause may be groundwater or microbes, he says.

To measure levels of each amino acid, the researchers took 87 samples from bones and fossils found at a variety of sites dating to the Roman era and Neolithic period, and they analyzed them with mass spectrometry. To determine the extent of deamidation, the team compared peaks for glutamine and glutamic acid in the data. The team then modeled the extent of collagen damage.

The new technique complements and costs less than other methods that provide hints about the molecular integrity of a bone or other collagen-based artifacts, Wess says. Those other methods include his technique for studying the bone mineral apatite using small angle X-ray scattering.

What’s really exciting, Wess says, is the possibility, hinted at in the York group’s paper, that researchers could use glutamine deamidation to date collagen-based artifacts, such as bone or parchment.

Carbon dating can measure the age of collagen artifacts as old as about 60,000 years. Measuring the extent of glutamine deamidation could enable researchers to date artifacts

back 1,000,000 years, well beyond carbon dating's horizon, Wess says. It could work because collagen can last for 1,000,000 years, Collins says.

The dating application is still speculative, Wilson adds, but the research team is working to validate it.

**Please visit the site: <http://cen.acs.org/articles/90/web/2012/10/Method-Detects-Damage-Fossil-Bones.html>**

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## **LEGO® HELPS SAVE ANCIENT EGYPTIAN MUMMY CASE**

Thanks to an ambitious conservation project, the ancient Egyptian cartonnage mummy case of Hor, a little-known treasure of the Fitzwilliam Museum, is now on display after years in obscurity.

The conservation of the mummy case was undertaken with the assistance of the University's Department of Engineering, who helped construct clever frames to support the delicate case during conservation and a new display mount with internal supports using LEGO®.

The mummy case was found in the Ramesseum at Thebes by Quibell in the Ramesseum in 1896. The gilded wooden face had been torn out by robbers and the mummy removed.

Cartonnage is a uniquely Egyptian material, often only a few millimetres thick, consisting of layers of plaster, linen and glue. It is remarkably rigid but also very sensitive to humidity. At some point the Hor cartonnage had been exposed to damp conditions and had sagged dramatically around the chest and face. This caused structural problems and serious cracking and instability in the painted decoration. There had been some attempts at repair and restoration, most probably in the cartonnage's early years in the Museum with some of the gaps filled in with a blue-green paint.

The cartonnage is decorated with scenes from the underworld books, which can be seen on the walls of the royal tombs in the Valley of the Kings at Luxor; the colour scheme is also unusual.

In the recent project, the conservators wanted to reshape the cartonnage by using humidity to soften it and allow it to be manipulated. But introducing water into this material was risky because the painted surface is very easily damaged by moisture, and furthermore, if the whole cartonnage were softened at once there was a real danger it would collapse. Introducing water in a controlled way to the distorted area could only really be done if the cartonnage was face-down – but the fragile state of the chest and face made this almost impossible.

Luckily, help was available from the University's Department of Engineering. In the latest of a series of collaborations with the Museum's conservators, the Department offered the problem as a project for a final year student. The challenge was taken up by David Knowles.

In close consultation with the Fitzwilliam, David devised and made a frame to suspend Hor face-down while the reshaping was carried out.

Using a combination of traditional wooden frames and mouldable materials designed for medical use, Hor could be completely supported for weeks at a time, allowing conservator Sophie Rowe to reshape the cartonnage very gradually.

Once Sophie had successfully reshaped the chest and face and stabilised the surface, David designed and built a display mount for the mummy case. An essential part of this is the internal support which ensures that the structure cannot collapse again in the future.

Six light, ingenious little structures made from LEGO® have been placed inside the chest cavity. They are adjustable using screw threads, and are padded with archival foam where they are in contact with the ancient surface.

A great result for Hor, who can now be displayed safely and for David, who was awarded a prize by the Department of Engineering for his final presentation on the project!

**Please visit the site:**

<http://www.pasthorizonspr.com/index.php/archives/09/2012/lego-helps-save-ancient-egyptian-mummy-case> [Go there for pix] [VIDEO at:

<http://www.itv.com/news/anglia/update/2012-09-08/museum-restores-mummy-using-lego/>

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## **ARCHAEOLOGISTS EXPLORE ANCIENT MARKET**

ARCHAEOLOGISTS exploring the Agora (market) of ancient Paphos have found a small tablet with the name of an official in Greek and a plethora of other artefacts including a golden pendant, it was announced this week.

“The most spectacular finds are a golden earring or pendant, ending in an ivy leaf, bronze objects such as a jug, a ladle with an iron handle, bronze ring, numerous coins, pins and other artefacts,” the department of antiquities said. “The most notable artefact among the lead objects – apart from a ladle with an iron handle, similar to the one uncovered last year, and weights – is a small tablet with Greek inscription mentioning the official – Seleukos, son of Agoranomos (market administrator) Ioulios Bathylos.

Paphos was the capital of Cyprus in the Hellenistic and Roman periods.

The research took place between August 17 and the end of September.

The archaeologists from the Institute of Archaeology of the Jagiellonian University in Kraków, Poland, also unearthed numerous other objects including fine wares, plain wares, cooking pottery, transport amphorae, storage vessels, dated to the Hellenistic, early and late Roman, as well as Byzantine periods.

One section of the Agora, contained material – mostly pottery -- of a purely Hellenistic origin, as well as walls, floors and habitation levels, which means that this area had certainly been in use during the Hellenistic period,” the department said.

Architectural remains dating back to the Roman period were also uncovered in the same area.

In 2011, five rooms were uncovered and partly explored and during the current excavations more rooms were found, bringing the number up to 12. “Most of them possibly functioned as shops (tabernae) in the early Roman period,” the department said, adding that they were probably destroyed in an earthquake.

Beneath a collapsed wall in one room, archaeologists found a bronze jug and broken vessels on the floor, including a finely preserved mortarium – a large bowl with two producer stamps and writing with the owner’s name.

**Please visit the site: <http://www.cyprus-mail.com/paphos/archaeologists-explore-ancient-market/20121014>**

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## **MODERN STONE + FLINT TOOLS, BY AMI DRACH + DOV GANCHROW**

Presented at the 2012 budapest design week, tel aviv-based design studio, ami drach and dov ganchrow have developed a series of tools that revisit humanity's oldest artifacts in a modern context.

by looking at the mastery of tool-making and its driving force in human advancement, the new iteration of stone objects condenses time into singular pieces.

the set is a result of an experimental exploration of the realm of tool making. where stone and flint tools have been the means of our ancestors' survival for over a million years, they magnify our bodily (teeth, fingernails, fists etc.) capabilities of cutting and chopping, sawing and pounding. through a method of three-dimensionally scanning and printing, the ancient artifacts are digitally outfitted with custom-designed handles, encapsulating the rugged forms in a perfectly enclosed case. by juxtaposing the polarities of the manufacturing processes in computer generated forms, an intersection of material technologies and functionality coincide on a tangible scale.

you can see designboom's coverage of ami drach and dov ganchrow's previous 3D iteration here.

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Please visit the site: <http://www.designboom.com/weblog/cat/8/view/24124/modern-stone-flint-tools-by-ami-drach-dov-ganchrow.html> [Go there for very nice pix]

## **ZEUGMA AFTER THE FLOOD, VOLUME 65** **NUMBER 6, NOVEMBER/DECEMBER 2012,** **BY MATTHEW BRUNWASSER**

New excavations continue to tell the story of an ancient city at the crossroads between east and west

It wasn't good policy that saved ancient Zeugma. It was a good story. In 2000, the construction of the massive Birecik Dam on the Euphrates River, less than a mile from the site, began to flood the entire area in southern Turkey. Immediately, a ticking time-bomb narrative of the waters, which were rising an average of four inches per day for six months, brought Zeugma and its plight global fame. The water, which soon would engulf the archaeological remains, also brought increasing urgency to salvage efforts and emergency excavations that had already been taking place at the site, located about 500 miles from Istanbul, for almost a year. The media attention Zeugma received attracted generous aid from both private and government sources. Of particular concern was the removal of Zeugma's mosaics, some of the most extraordinary examples to survive from the ancient world. Soon the world's top restorers arrived from Italy to rescue them from the floodwaters. The focus on Zeugma also brought great numbers of international tourists—and even more money—a trend that continues today with the opening in September 2011 of the ultramodern \$30 million Zeugma Mosaic Museum in the nearby city of Gaziantep.

But Zeugma's story begins millennia before the dam was constructed. In the third century B.C., Seleucus I Nicator ("the Victor"), one of Alexander the Great's commanders, established a settlement he called Seleucia, probably a katoikia, or military colony, on the western side of the river. On its eastern bank, he founded another town he called Apamea after his Persian-born wife. The two cities were physically connected by a pontoon bridge, but it is not known whether they were administered by separate municipal governments, and nothing of ancient Apamea, nor the bridge, survives. In 64 B.C., the Romans conquered Seleucia, renaming the town Zeugma, which means "bridge" or "crossing" in ancient Greek. After the collapse of the Seleucid Empire, the Romans added Zeugma to the lands of Antiochus I Theos of Commagene as a reward for his support of General Pompey during the conquest.

Throughout the imperial period, two Roman legions were based at Zeugma, increasing its strategic value and adding to its cosmopolitan culture. Due to the high volume of road traffic and its geographic position, Zeugma became a collection point for road tolls. Political and trade routes converged here and the city was the last stop in the Greco-Roman world before crossing over to the Persian Empire. For hundreds of years Zeugma prospered as a major commercial city as well as a military and religious center, eventually reaching its peak population of about 20,000-30,000 inhabitants. During the imperial period, Zeugma became the empire's largest, and most strategically and economically important, eastern border city.

However, the good times in Zeugma declined along with the fortunes of the Roman Empire. After the Sassanids from Persia attacked the city in A.D. 253, its luxurious villas



were reduced to ruins and used as shelters for animals. The city's new inhabitants were mainly rural people who employed only simple building materials that did not survive. Zeugma's grandeur and importance would remain forgotten for more than 1,700 years.

This may sound difficult to believe, considering that at least 25 percent of the western bank of the ancient town now sits below almost 200 feet of water and the city's eastern bank is completely submerged, but there is still much left to see—and to excavate—in Zeugma. With the imminent threat of the rising water having abated, archaeologists including Kutalmis Gorkay of Ankara University, who has directed work at Zeugma since 2005, have focused their attention on new projects as well as on conservation and preservation of what remains above the water. Fortunately, these excavations are still relatively well funded, Gorkay says, although the budget is not comparable with the monies that came in during the salvage excavation.

Gorkay is now looking for more evidence of how this multicultural city functioned as the transition between east and west, and the Persian and Greco-Roman worlds. He is also seeking to understand how the shift from the Hellenistic Greek world to the domination of the Roman Empire affected the city. "We don't know of any other big cities in this area that changed from a Hellenistic city into a Roman garrison city in such an important geopolitical location, making it an ideal place to study the cultural changes between the two," says Gorkay.

Just 50 yards from the shore of the large reservoir created by the dam sits a shiny \$1.5-million steel-textile and polycarbonate structure that contrasts boldly with the desolate landscape. Constructed to protect the remains of five Roman houses, it has multilevel viewing platforms that allow visitors to see the carefully excavated buildings and streets. Most of the structures under the shelter were built in the first and second centuries A.D., during the Roman imperial period. The residents of this once upscale neighborhood were likely high-ranking civil and military officials and merchants grown wealthy from trade. There is ample evidence of a sophisticated sewage and water supply system. Grooves cut into the stone streets once held pipes that delivered water from at least four reservoirs and cisterns on the Belkis Tepe, the city's highest point, through spouts capped with bronze lion heads. Sunny courtyards in the center of the houses allowed fresh air to circulate inside. Some had shallow pools, called impluvia, to collect rainwater and cool the air before it entered the house. These courtyards also once contained some of Zeugma's most famous mosaics, many of which have water themes: Eros riding a dolphin; Danae and Perseus being rescued by fishermen on the shores of Seriphos; Poseidon, the god of the sea; and other water deities and sea creatures.

Now only geometric mosaics remain visible at the site. Although archaeologists prefer to restore and leave mosaics in situ so that visitors can understand their original setting, protection from the elements is difficult and expensive. Theft is also a great challenge in Zeugma, where looting has long been considered a legitimate source of income for an impoverished local population. One night in 1998 all the figures were stolen from a mosaic depicting the wedding of Dionysus and Ariadne that archaeologists were working on. In response to this incident, the Gaziantep museum removed all the previously excavated figural mosaics, and the site now has armed guards around the clock.

According to Gorkay, the mosaics were an important part of a house's mood, and their function went far beyond the strictly decorative. Many of the mosaics were selected

according to a room's function. For example, bedrooms sometimes featured lovers' stories, such as that of Eros and Telete. The choice of images in the mosaics also reflected the owner's taste and intellectual interests. "They were a product of the patron's imagination. It wasn't like simply choosing from a catalog. They thought of specific scenes in order to make a specific impression," he explains. "For example, if you were of the intellectual level to discuss literature, then you might select a scene like the three muses," Gorkay says. The muses were thought to be the inspirations for literature, science, and the arts. "They are also a personification of good times. When people drank near this mosaic, the muses were always there, accompanying them for atmosphere," he says. Other popular themes in these reception and dining areas were love, wine, and the god Dionysus.

However, it was not only subject matter that was important in choosing the mosaics. It was also their placement. "In a dining room off a courtyard, the couches on which people were sitting or lying, drinking, and having parties were positioned around the mosaics so people could see them, as well as the courtyard and pool," Gorkay says. He also explains that there was an order in which the mosaics were intended to be viewed. When guests first entered the house, there was a salutary mosaic positioned to make an impression on people coming through the doorway. This mosaic might give introductory hints to the guests about the favorite subjects, taste, or themes of the host. In the next room, they were invited to recline on couches in order to view other mosaics. After the guests were seated, the convivium, or feast, would begin.

Currently Gorkay and his team of 25 students are excavating two first-century A.D. houses about 300 feet from the area under the shelter, where work has been completed. Here the team will learn more about the private lives of Zeugma's former residents. For every room of each house being excavated, there is always the hope of a fantastic mosaic waiting for them when they reach the floor level. The team also hopes to find examples of graffiti, a term archaeologists use to mean any images or text written on a building's wall. Graffiti can be an important type of evidence in determining the religion, profession, or ethnicity of a house's inhabitants. For example, in Zeugma, a painted or scratched-on name could determine whether an inhabitant was Semitic, Persian, Greek, or Roman.

Gorkay has also supervised preliminary studies in the Hellenistic agora, the commercial and administrative center of the city, some 100 yards away from the shelter. As yet there has been little excavation there, but Gorkay hopes that future digging will reveal more about Zeugma's civic identity. In 2000, a team excavating a market building in the agora uncovered an archive room containing tens of thousands of official seals, giving previously unknown details about the administration of the military and trading center. Other excavations across the site have yielded several bronze statues, thousands of coins, and hundreds of pounds of ceramics. When they are catalogued and studied, these too will reveal valuable information about the city's residents, their customs, and the types of goods being used and traded there.

There is also much yet to learn about the practice of religion in Zeugma. Through further excavation, Gorkay wants to examine the place of politics and nationality in the practice of religion during the transformative periods in Zeugma's history. In 2008, atop the Belkis Tepe, archaeologists excavated a temple and sanctuary where three colossal cult statues of Zeus, Athena, and probably Hera, were found, marking it as one of the city's

most important religious sites. But there are still many questions left to answer about the ways in which the traditional Greco-Roman gods were worshipped alongside the Persian deities who were also honored in the city. Similarly, says Gorkay, "In the time of the Commagene rulers, Antiochus I consecrated many sanctuaries and depicted himself in all of them," including stelae on which the king is shown shaking hands with gods. But during the Roman period, these temples were stripped of their political character and the gods were portrayed alone, signifying a change in the cult dedicated to the worship of the ruler.

In the future, Gorkay hopes to continue to explore the civic, sacred, and private identities of the city, and to focus his excavations on the sanctuaries, civic buildings, houses, and necropolises that give Zeugma its cosmopolitan character. While many of the mysteries of this ancient city will remain forever sealed under the waters of the Euphrates, Gorkay is convinced that Zeugma has only started to tell its story.

Matthew Brunwasser is a freelance writer living in Istanbul.

**Please visit the site:**

[http://www.archaeology.org/1211/features/zeugma\\_turkey\\_belkis\\_roman\\_mosaics.html](http://www.archaeology.org/1211/features/zeugma_turkey_belkis_roman_mosaics.html) [Go there for pix]

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## **Η ΠΑΛΑΙΟΤΕΡΗ ΘΕΣΗ ΣΤΟ ΑΙΓΑΙΟ** **ΑΝΑΚΑΛΥΦΘΗΚΕ ΑΠΟ ΕΡΕΥΝΗΤΕΣ**

Σημαντικά ευρήματα ανασκαφών στο Λισβόρι Λέσβου

Σημαντικά ευρήματα που χρονολογούνται στη Μέση Πλειστόκαινη Εποχή (780.000-125.000 χρόνια πριν από σήμερα) ανακαλύφθηκαν στα Ροδαφνίδια Λισβορίου Λέσβου κατά τις ανασκαφές της ερευνητικής ομάδας του Πανεπιστημίου Κρήτης.

Πρόκειται για την παλαιότερη θέση στο Αιγαίο, με πλούσιο αρχαιολογικό υλικό, που όμοιά του δεν υπάρχει πουθενά στην Ελλάδα.

«Πρόκειται για την πρώτη θέση της Κατώτερης Παλαιολιθικής στην Ελλάδα που ανασκάπτεται συστηματικά από ελληνικό πανεπιστήμιο. Η ατζέντα μας είναι πρωτίστως ερευνητική αλλά και εκπαιδευτική, καθώς εκπαιδούμε φοιτητές αρχαιολογίας στις μεθόδους πεδίου. Ταυτόχρονα διαμορφώνουμε όλοι μαζί –συνάδελφοι και φοιτητές από άλλα πανεπιστήμια και ερευνητικά κέντρα της Ευρώπης- μια νέας μορφής συλλογική έκφραση και εργασία, αναζητώντας με πάθος και μεράκι έναν κοινό στόχο: τους πρώτους κατοίκους του Ελλαδικού χώρου» δηλώνει στο ΑΜΠΕ η Νένα Γαλανίδου, αναπληρώτρια καθηγήτρια προϊστορικής αρχαιολογίας του Πανεπιστημίου Κρήτης, υπό την επιστημονική διεύθυνση της οποίας διεξάγονται οι ανασκαφές.

Στην πρώτη φάση της πενταετούς έρευνας, που ολοκληρώθηκε με επιτυχία, ανακαλύφθηκαν πολυάριθμα και σημαντικά ευρήματα, στην πλειονότητά τους λίθινα εργαλεία (χειροπελέκεις και κοπείς). Τα αντικείμενα αυτά, που έχουν μεταφερθεί προς ασφαλή φύλαξη στο Αρχαιολογικό Μουσείο Μυτιλήνης, επιβεβαιώνουν τη σημασία της αρχαιολογικής αυτής θέσης, που θεωρείται κλειδί για την κατανόηση των μετακινήσεων και των προσαρμογών των προγονικών μας ειδών στο ανατολικότερο άκρο της Ευρώπης, το οποίο είναι ταυτόχρονα και το δυτικότερο της Ασίας.

Στο Λισβόρι της Λέσβου ανασκάφτηκαν περισσότερες από μία φάση κατοίκησης, όσο δε για τη χρονολόγηση των εργαλείων ή των ανθρωπιδών που τα χρησιμοποιούσαν είναι πολύ νωρίς να μιλήσει κανείς με ακρίβεια. «Τα αρχαιολογικά ευρήματα ανήκουν στην Αχελαία πολιτισμική φάση και τοποθετούνται στη Μέση Πλειστόκαινη Εποχή, δηλαδή πριν από 780.000 ως 125.000 χρόνια από σήμερα. Σε ποια ακριβώς σημεία του τεράστιου αυτού χρονικού διανύσματος ανήκουν θα προσδιοριστεί στο επόμενο διάστημα με τον υπολογισμό της ηλικίας των στρωμάτων που σκάσαμε με μεθόδους απόλυτης χρονολόγησης. Το σίγουρο είναι ότι πρόκειται για είδος που προηγήθηκε χρονικά του ανθρώπου του Νεάντερταλ, αν όμως είναι Homo erectus, Homo heidelbergensis ή κάποιο άλλο είδος παραμένει προς το παρόν άγνωστο. Πρέπει ωστόσο να σημειωθεί ότι και τα δύο αυτά είδη κατασκεύαζαν και χρησιμοποιούσαν χειροπελέκεις και κοπείς, τα εργαλεία δηλαδή που βρίσκουμε στην ανασκαφή και τα οποία εντοπίζονται και σε θέσεις της Κατώτερης Παλαιολιθικής στην Ευρώπη και την Ασία», εξηγεί η κ. Γαλανίδου.

Η αρχαιολογική θέση βρίσκεται κοντά στις Θερμοπηγές Λισβορίου, στη Λέσβο, είναι υπαίθρια και καταλαμβάνει αρκετά στρέμματα σε χαμηλό λόφο που ορίζεται από δυο ρέματα τα οποία εκβάλλουν στον κόλπο της Καλλονής. Τα προϊστορικά εργαλεία

βρέθηκαν σε ποτάμια και λιμναίες αποθέσεις σε περιοχή όπου αφθονούν λίθινες πρώτες ύλες.

«Η υπόθεση εργασίας που διερευνούμε είναι εάν και πότε κατά τη διάρκεια των παγετωδών της Κατώτερης Παλαιολιθικής η λεκάνη του σημερινού κόλπου της Καλλονής μετατρεπόταν σε μια μεγάλη λίμνη που προσέλκυε θηράματα και ανθρωπίδες. Η ποσότητα και η πυκνότητα των ευρημάτων υποδηλώνει ότι οι ανθρωπίδες επέστρεφαν συχνά και ζούσαν στις παρυφές της. Στη Λέσβο έφταναν μέσω γέφυρας ξηράς στο ανατολικό τμήμα της (στο στενό της Μυτιλήνης η απόσταση από την Ασία είναι σήμερα μικρότερη των 20 χλμ.) κατά τις παγετώδεις περιόδους όταν το νερό των ωκεανών μετατρεπόταν σε πάγο των παγετώνων και κατά συνέπεια ταπεινωνόταν η θαλάσσια στάθμη. Η μελέτη των βαθυμετρικών χαρτών στο στενό αυτό πέρασμα μάς δείχνει ότι μια υποχώρηση κατά 60 μ. της θαλάσσιας στάθμης αρκούσε για να ενωθεί η Λέσβος με τη Δυτική Ασία. Με αφορμή τις ανθρώπινες αποκρίσεις στις αλλαγές του τοπίου και των ακτογραμμών ανοίγουμε ένα παράθυρο στην πανάρχαια ιστορία της κλιματικής αλλαγής» τονίζει.

Η ανασκαφή φέρνει στο φως την πρώτη σε τέτοια έκταση αρχαιολογική θέση με ευρήματα που συνδέουν την πρώιμη αρχαιολογία της Ελλάδας με την παγκόσμια και πανανθρώπινη αναζήτηση και αφήγηση της καταγωγής κι εξέλιξης του ανθρώπου, αλλά και της πορείας του από την Αφρική προς την Ευρώπη και τον υπόλοιπο κόσμο. Τα πλέον ενδιαφέροντα ευρήματα, οι κοπέις, είναι οι πρώτοι μέχρι στιγμής που βρίσκονται στον Ελλαδικό χώρο κι αποτελούν το συνδεδετικό νήμα με την Παλαιολιθική αρχαιολογία της Αφρικής και της Δυτικής Ασίας. Η έρευνα χρηματοδοτήθηκε από το Πανεπιστήμιο Κρήτης, τη Διεύθυνση Πολιτισμού της Γ.Γ. Αιγαίου και Νησιωτικής Πολιτικής και την Περιφέρεια Βορείου Αιγαίου. Η επόμενη φάση των ερευνών στο πεδίο θα ξεκινήσει την άνοιξη του 2013.

**Please visit the site: <http://www.newsbeast.gr/greece/arthro/426429/i-palaioteri-thesi-sto-aigaio-anakalufthike-apo-ereunites/>**

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## WHERE HE FELL

They have found a concrete structure that the adoptive son of the General, killed in 44 BC, placed inside the Curia of Pompey to condemn his death

A concrete structure of three meters wide and over two meters high, placed by order of Augustus (adoptive son and successor of Julius Caesar) to condemn the assassination of his father, has given the key to the scientists. This finding confirms that the General was stabbed right at the bottom of the Curia of Pompey while he was presiding, sitting on a chair, over a meeting of the Senate. Currently, the remains of this building are located in the archaeological area of Torre Argentina, right in the historic centre of the Roman capital.

Antonio Monterroso, CSIC researcher from the Institute of History of the Center for Humanities and Social Sciences (CCHS-CSIC), states: “We always knew that Julius Caesar was killed in the Curia of Pompey on March 15th 44 BC because the classical texts pass on so, but so far no material evidence of this fact, so often depicted in historicist painting and cinema, had been recovered”.

Classical sources refer to the closure (years after the murder) of the Curia, a place that would become a chapel-memory. CSIC researcher explains:

“We know for sure that the place where Julius Caesar presided over that session of the Senate, and where he fell stabbed, was closed with a rectangular structure organized under four walls delimiting a Roman concrete filling. However, we don’t know if this closure also involved that the building ceased to be totally accessible”.

Spaces of the assassination of Caesar

In Torre Argentina, in addition to the Curia of Pompey, researchers have started to study the remains of the Portico of the Hundred Columns (Hecatostylon). The aim is to identify what connecting links can be established between archaeology, art history, and cinema in these spaces of the death of Julius Caesar. Monterroso adds:

“We also aim to better understand that sense of closure and dismal place described in classical texts”.

The two buildings are part of the monumental complex (about 54.000 square meters) that Pompey the Great, one of the greatest military in the history of Rome, built in the capital to commemorate his military successes in the East around the year 55 BC.

Monterroso also states: “It is very attractive, in a civic and citizen sense, that thousands of people today take the bus and the tram right next to the place where Julius Caesar was stabbed 2056 years ago or even that they go to a theatre, since the main theatre of the capital is the Teatro Argentina, which is equally close”.

Background:

The project, with duration of three years, relies on the approval and cooperation of the Sovraintendenza ai Beni Culturali of Rome City Council, on the financial support of the Plan Nacional 2008-2011 of the Spanish Ministry of Economy and Competitiveness, and on the backing of the CSIC Spanish School of History and Archaeology in Rome.

Please visit the site: <http://tinyurl.com/8c9mv2y>

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## **TOMB NEAR SERRES WIFE, SON OF ALEXANDER? BY STELLA TSOLAKIDOU**

Archaeologists from the 28th Ephorate of Antiquities unearthed a tomb in the city of Amphipolis, near Serres, northern Greece, which they believe could belong to the wife and son of Alexander the Great, Roxane and Alexander IV.

The circular precinct is three meters, or nearly 10 feet high and its perimeter is about 500 meters, or 1,640 feet surrounding the tomb located in an urban area close to the small city of Amphipolis. The head of the team, Katerina Peristeri noted that it is too soon to talk with certainty about the identities of the discovery.

"Of course this precinct is one we have never seen before, neither in Vergina nor anywhere else in Greece. There is no doubt about this.

However, any further associations with historic figures or presumptions cannot be yet made because of the severe lack of evidence and finances that will not allow to continue the excavations at least for the time being," she added.

The area has since 1965 been known as Kasta Tom, but these are the first excavations to take place there. The project began without any secured funds, which resulted in only parts of the impressive site coming to light. Analysts suggested that conclusions about the owners of the tomb cannot be drawn without first unearthing the tombs and discovering evidence about their identities.

Nevertheless, local authorities and media rushed into claiming and believing that the tomb belongs to Alexander's wife and son, who, according to legend, had been ostracized to Macedonia after Alexander's death. There the 12-year-old Alexander the IV and his mother Roxane were murdered. Tradition has it that the two victims were buried in Amphipolis but no evidence so far has proved this.

**Please visit the site: <http://greece.greekreporter.com/2012/10/06/tomb-near-serres-wife-son-of-alexander/>**

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## **SAUDI EASES ACCESS TO LONG-HIDDEN ANCIENT RUINS, BY ASSAAD ABOUD**

Fully draped in a black veil, Irish blonde Angela Miskelly stares out in awe as she strolls through Al-Hijr, the ancient Saudi city of tombs carved into rose-coloured sandstone mountains.

"Spectacular... wonderful... breathtaking," she says. "But where are the tourists? If we had a site like this in my country, we would have millions of tourists!"

Dating back to the second century BC, the Nabataean archaeological site, also known as Madain Saleh, has long been hidden from foreign visitors in this ultra-conservative kingdom that rarely opens up to tourists.

Saudi Arabia is thought to have been wary of archaeologists and scientists seeking to study its ancient ruins for fear their findings could shine the spotlight on pre-Islamic civilisations that once thrived there.

In recent years, however, Saudis have increasingly ventured to these sites and the authorities are more tolerant of their curiosity.

Described as the largest and best preserved site of the Nabataean civilisation south of Petra in Jordan, Madain Saleh is the first Saudi archaeological site to be inscribed on UNESCO's World Heritage List.

It lies 320 kilometres (200 miles) north of Medina, the Islamic holy city of western Saudi Arabia, and extends for some 15 square kilometres (six sq miles).

According to UNESCO, it includes 111 tombs, most of which boast a decorated facade, cave drawings and even some pre-Nabataean inscriptions.

It also boasts intricately designed water wells that serve as a prime example of the Nabataeans' architectural and hydraulic genius.

The Nabataeans first inhabited the area in the second century BC, but their ancient civilisation existed as far back as the eighth or seventh century BC in the countries of the Levant, including Lebanon, Syria and Jordan, and at times even extending into the Sinai peninsula in Egypt.

Originally nomads from the Arabian peninsula, the Nabataeans were masters of trade, dominating the incense and spice routes in the pre-Islamic period. Their civilisation collapsed in 106 AD at the hands of the Roman empire.

After decades of prohibiting visitors, Saudi authorities are now increasingly allowing entry into pre-Islamic archaeological sites in the kingdom, though Western tourists are still a rare site.

In February 2007, four French citizens were murdered while returning from an outing to Madain Saleh. The victims were in a party of nine French people from three families living in the Saudi capital Riyadh.

They were killed when two people opened fire on them with machineguns after they lost their way 90 kilometres from Medina.

No group ever formally claimed responsibility but authorities at the time said that the mastermind behind the attack was a 23-year-old suspected Qaeda militant who held Saudi citizenship.

Officials at Madain Saleh say that the number of visitors to the site reached 40,000 last year, most of them Saudis and foreign residents of the kingdom.

They hold hopes that figure will double in 2012 with the government relaxing entry restrictions.

Though prior consent is required for access to Madain Saleh, it can now be obtained more easily from the nearby town of Al-Ola, or from Riyadh.

The highest volume of visitors is between December and March, given the lower temperatures in the otherwise scorching desert heat.

Two museums also exist on site, including one devoted to the famous Hejaz railway built by the Ottomans in the early 20th century that ran from Damascus to Medina and passed through Al-Hijr.

The second museum, which opened its doors to visitors just two months ago, traces the pilgrimage route to Islam's holiest city of Mecca.

On his first visit to the ancient site, Saudi national Tareq al-Adawi from the northwestern city of Tabuk says he was "overwhelmed."

"I encourage all Saudis to come visit this place," he says of Madain Saleh.

Another Saudi tourist, Ahmed al-Moghrabi, says he was "shocked by the majesty of the place."

A small team of French archaeologists in partnership with their Saudi colleagues are now carrying out excavations on the site in an effort to preserve and better understand its ancient history.

Madain Saleh, though likely one of Saudi's most famous archaeological sites, is not its only one.

The area bears evidence of other ancient civilisations.

Just 22 kilometres from Madain Saleh is Al-Ola, located on the ancient incense route. The city served as the capital of Lihyan, an ancient Arab kingdom.

It is home to archaeological remnants that date back thousands of years, including its citadel which is some 8,000 years old.

Please visit the site: <http://tinyurl.com/8bnuecj>

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# **THE SECRETS OF ANCIENT ROME’S BUILDINGS - WHAT IS IT ABOUT ROMAN CONCRETE THAT KEEPS THE PANTHEON AND THE COLOSSEUM STILL STANDING?**

## **BY ERIN WAYMAN**

The Romans started making concrete more than 2,000 years ago, but it wasn’t quite like today’s concrete. They had a different formula, which resulted in a substance that was not as strong as the modern product. Yet structures like the Pantheon and the Colosseum have survived for centuries, often with little to no maintenance. Geologists, archaeologists and engineers are studying the properties of ancient Roman concrete to solve the mystery of its longevity.

“Roman concrete is . . . Considerably weaker than modern concretes. It’s approximately ten times weaker,” says Renato Perucchio, a mechanical engineer at the University of Rochester in New York. “What this material is assumed to have is phenomenal resistance over time.”

That resistance, or durability against the elements, may be due to one of the concrete’s key ingredients: volcanic ash. Modern concrete is a mix of a lime-based cement, water, sand and so-called aggregates such as fine gravel.

The formula for Roman concrete also starts with limestone: builders burned it to produce quicklime and then added water to create a paste. Next they mixed in volcanic ash—usually three parts volcanic ash to one part lime, according to the writings of Vitruvius, a first-century B.C. Architect and engineer. The volcanic ash reacted with the lime paste to create a durable mortar that was combined with fist-size chunks of bricks or volcanic rocks called tuff, and then packed into place to form structures like walls or vaults.

By the beginning of the second century B.C., the Romans were already using this concrete in large-scale construction projects, suggesting their experimentation with the building material began even earlier. Other ancient societies such as the Greeks probably also used lime-based mortars (in ancient China, sticky rice was added for increased strength). But combining a mortar with an aggregate like brick to make concrete was likely a Roman invention, Perucchio says.

In the earliest concretes, Romans mined ash from a variety of ancient volcanic deposits. But builders got picky around the time Augustus became the first Roman emperor, in 27 B.C. At that time, Augustus initiated an extensive citywide program to repair old monuments and erect new ones, and builders exclusively used volcanic ash from a deposit called Pozzolane Rosse, an ash flow that erupted 456,000 years ago from the Alban Hills volcano, 12 miles southeast of Rome.

“Emperor Augustus was the driving force behind the systemization, standardization of mortar mixes with Pozzolane Rosse,” says Marie Jackson, a geologist and research engineer at the University of California at Berkeley.

Roman builders likely favored the ash deposit because of the durability of concrete made with it, she adds. “This was the secret to concretes that were very well bonded, coherent, robust materials.”

Jackson and her colleagues have been studying the chemical composition of concretes made with Pozzolane Rosse. The ash’s unique mix of minerals appears to have helped the concrete withstand chemical decay and damage.

The Romans favored another specific volcanic ash when making concrete harbor structures that were submerged in the salty waters of the Mediterranean.

Pulvis Puteolanus was mined from deposits near the Bay of Naples. “The Romans shipped thousands and thousands of tons of that volcanic ash around the Mediterranean to build harbors from the coast of Italy to Israel to Alexandria in Egypt to Pompeiopolis in Turkey,” Jackson says.

Seawater is very damaging to modern concrete. But in Roman concrete, the Pulvis Puteolanus “actually plays a role in mitigating deterioration when water percolates through it,” Jackson says. Although the exact mechanism is unknown, it appears that chemical reactions among the lime paste, volcanic ash and seawater created microscopic structures within the concrete that trapped molecules like chlorides and sulfates that harm concrete today.

Despite the success of Roman concrete, the use of the material disappeared along with the Roman Empire. Concrete structures were seldom built during the Middle Ages, suggesting volcanic ash wasn’t the only secret to the durability of Roman concrete, Perucchio says. “These really large projects could only be done with the appropriate bureaucracy, with the proper organization that the Roman Empire would provide.”

Erin Wayman is an assistant editor at Smithsonian and writes the Hominid Hunting blog.

**Please visit the site: <http://www.smithsonianmag.com/history-archaeology/The-Secrets-of-Ancient-Romes-Buildings.html>**

## **ACADEMICS GATHER TO DISCUSS** **GÖBEKLITEPE**

Göbeklitepe ancient site is believed to be the world's oldest place of worship. Scientists from Turkey and around the world gathered Oct. 2 in the southeastern province of Şanlıurfa to evaluate new data from recently conducted archaeological excavations at the ancient site of Göbeklitepe, which contains some of the oldest traces of human existence.

The head of the Göbeklitepe excavations, archaeologist Professor Klaus Schmidt of the German Archaeology Institute, said they had found many flint stones, animal bones and bird figures holding human heads during this season's excavations.

Schmidt said they had launched new excavation work in September and would continue working until November.

“The main purpose of this year's works is to make research for a roof that will be set up here. After that we will start preparations.”

Visiting academic Dr. Walter Cruells of Barcelona Autonomous University said the site was an extraordinary place. “I have read about Göbeklitepe but it is very moving to be here physically.”

### **Analysing results**

After visiting the ancient site, the workshop kicked off at the Şabi Nair Culture Center.

Schmidt said excavations in the region had been continuing for 17 years and that they had encountered objects that had shaped subsequent generations of humans. “Discoveries in the excavation area should be evaluated from many sides. We have gathered very important data and we are making analyses.”

Dr. Marion Bena, who is a member of the excavation team at the southeastern province of Diyarbakır's Kortik Tepe, said the discoveries at Göbeklitete were enough to change the history of human beings, adding that they were very excited to see the results of the analyses.

Göbeklitepe is believed by some archaeologists to be the world's oldest place of worship. The hilltop sanctuary of Göbeklitepe, a temple complex that dates back to Neolithic times, has been added by UNESCO to its tentative list of World Heritage Sites.

The workshop was organized with contributions from the German Archaeology Institute and the Tempelton Foundation.

**Please visit the site: <http://www.hurriyetdailynews.com/academics-gather-to-discuss-gobeklitepe.aspx?pageID=238&nID=31587&NewsCatID=375>**

## **MAZOTOS WRECK COULD SHED LIGHT ON ANCIENT SHIPBUILDING**

LATEST underwater excavations on the 2,350-year-old Mazotos shipwreck have established that the keel, and at least 15 metres of the ancient vessel's planking has been preserved, the Antiquities Department said yesterday.

“This is of prime importance, as it places this wreck among the very few in the Mediterranean that can provide information on shipbuilding during the Classical period,” an announcement said. It also said that during this year's excavations archaeologists were also able to shed some new light on trade in antiquity, another important domain of maritime archaeology.

“Together with the Chian wine amphorae, the ship's main cargo, a secondary type was also transported on the Mazotos ship: wine jugs, which were stowed among the amphorae found in the aft part of the hold. Furthermore, small fine ware pottery was recovered from the stern cabin, which was also partly excavated,” the department said.

It added that the vessels must have belonged to the crew or the passengers. One of them bears two inscribed letters, most probably the initials of someone's name, it said.

The Mazotos shipwreck, some 14 nautical miles southwest of Larnaca, is possibly the largest ancient commercial shipwreck located in open Cypriot waters. It sank in 350 BC en route from the Greek island of Chios carrying around 1,000 urns filled with wine said to have been the most expensive Greek wine of the Classical period. Today the wreck is buried 45 metres below sea level and is the oldest shipwreck found off the coast of the island to date. The Kyrenia II shipwreck, found 50 years ago, dates back to 300 BC.

Underwater excavations on the wreck began in November 2007 after the ship was discovered by divers a year earlier. This year's excavations were conducted by the Archaeological Research Unit of the University of Cyprus, under the direction of Dr Stella Demesticha, in collaboration with the Department of Antiquities of Cyprus and the THETIS Foundation.

All materials recovered were transported to the dedicated lab for underwater finds in the Archaeological Museum of Larnaca, where they will remain for desalination and conservation, both undertaken by the Department of Antiquities.

Fifteen graduate and postgraduate students from the University of Cyprus took part in the project, together with 45 maritime archaeologists and divers from Cyprus and 11 other countries: Greece, Germany, Austria, France, Belgium, Spain, Poland, Croatia, Finland, Australia and USA.

**Please visit the site: <http://www.cyprus-mail.com/cyprus/mazotos-wreck-could-shed-light-ancient-shipbuilding/20121006>**

## **ARCHAEOLOGY: CRETE, 3500-YEAR-OLD MINOAN BUILDING FOUND FROM SAME PERIOD AS KNOSSOS PALACE, OVER 1,300 SQUARE METRES**

An accidental meeting in 1982 between a well-known Greek archaeologist, Yannis Sakellarakis, and a shepherd from Crete has led to an archaeological discovery of great importance: Zominthos, a settlement from the Minoan era on the plain by the same name, 1.187 metres above the sea. The settlement is at the feet of the highest mountain in Crete, Mount Psiloritis, eight kilometres from the village of Anogia along the road which led from Knossos to Ideon Andron, the cave where Zeus was born according to Greek mythology.

The shepherd, who lived in Anogia, invited the archaeologist who was working at an excavation site nearby to visit the area of Zominthos.

The name was enough for an expert like Sakellarakis to suspect that something could be found in that area. Once he travelled to Zominthos the following day, he realized he was standing in front of a settlement from the Minoan era hiding behind the thick vegetation. A year later, in the summer of 1983, Sakellaris with colleague and partner Efi Sapouna Sakellaraki started excavations until 1990. They resumed them in 2004 and they are ongoing.

In the past few years, the remains of an impressive and luxurious building from 3,500 years ago has seen the light. The building has two or three floors and some 80 rooms including workshops and storage rooms over a surface of 1,360 square metres and it is in excellent state. Sapouna-Sakellaraki told To Vima weekly that it is the first Minoan mountain settlement built in the same period as the Palace of Knossos. The archaeologist also said this is the largest summer residence found so far from the Minoan era.

The structure of the building shows that it was not a seasonal house for shepherds but a luxury residence for local leaders. The building was a great administrative centre and was built with large, elongated stones while walls had been painted in different colours as shown by the building's remains. Experts believe the palace was destroyed by a violent earthquake.

Research so far has shown that three time periods emerge from the remains of the Palace of Zominthos; its first construction in 1900 BC, the second around 1600 BC at the height of its prosperity, when it was presumably destroyed by an earthquake and around 1400 BC when another building was built nearby.

Archaeological findings in Zominthos are several including signets with scorpions or birds and ornamental objects in copper and ivory.

Two copper statues were also found, "among the most beautiful from the most prosperous Minoan period", said the archaeologist, who believes these prove the area was also a place of worship. Excavations have in fact unearthed among other things a metallic cylinder with snakes which could have been the sceptre of a priest and a copper cup.



**Please visit the site:**

**[http://www.ansamed.info/ansamed/en/news/nations/greece/2012/10/04/Archaeology-Crete-3500-year-old-Minoan-building-found\\_7576073.html](http://www.ansamed.info/ansamed/en/news/nations/greece/2012/10/04/Archaeology-Crete-3500-year-old-Minoan-building-found_7576073.html)**

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## **NEOLITHIC DENTISTS?**

A 6,500-year-old tooth packed with beeswax could represent the earliest evidence of a dental filling, newly-published research has announced.

Found in part of a human jaw excavated in a cave near Lonche, Slovenia, the tooth is a left canine, thought to have belonged to a man aged between 24 and 30.

Research led by Federico Bernardini and Claudio Tuniz of the Abdus Salam Centre for Theoretical Physics in Italy examined a vertical crack in the tooth, which had been filled with a resinous substance.

Now analysis published in the journal PLOS ONE has revealed this to be beeswax, possibly used to alleviate pain and sensitivity when chewing on the broken tooth.

The team used a range of scientific techniques including 3-D high-resolution x-rays, radiocarbon dating, and infrared spectroscopy, to determine the age and composition of the filling. They suggested that the wax may have had a therapeutic purpose, though they could not rule out it being applied after the individual's death.

‘This finding is perhaps the most ancient evidence of prehistoric dentistry in Europe, and the earliest known direct example of therapeutic-palliative dental filling so far,’ said Federico Bernardini. ‘Bee products were used by prehistoric communities for technological, artistic, and medical purposes, but it is thanks to the Lonche finding that we can now imagine people doing dentistry in Neolithic Europe.’

**Please visit the site: <http://www.world-archaeology.com/news/neolithic-dentists/>**

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## **EGYPTIAN TOE TESTS SHOW THEY'RE LIKELY TO BE THE WORLD'S OLDEST PROSTHETICS**

The results of scientific tests using replicas of two ancient Egyptian artificial toes, including one that was found on the foot of a mummy, suggest that they're likely to be the world's first prosthetic body parts.

The University of Manchester researcher Dr Jacky Finch wanted to find out if a three part wood and leather toe dating from between 950 to 710 BC found on a female mummy buried near Luxor in Egypt, and the Greville Chester artificial toe from before 600 BC and made of cartonnage (a sort of papier maché mixture made using linen, glue and plaster), could be used as practical tools to help their owners to walk. Both display significant signs of wear and their design features also suggest they may have been more than cosmetic additions.

Dr Finch says: "Several experts have examined these objects and had suggested that they were the earliest prosthetic devices in existence.

There are many instances of the ancient Egyptians creating false body parts for burial but the wear plus their design both suggest they were used by people to help them to walk. To try to prove this has been a complex and challenging process involving experts in not only Egyptian burial practices but also in prosthetic design and in computerized gait assessment."

Dr Finch, who is based in the Faculty of Life Sciences' KNH Centre for Biomedical Egyptology, recruited two volunteers who were both missing their right big toe. Design replicas of the ancient toes were made to fit each volunteer along with replica leather ancient Egyptian style sandals.

The tests were carried out at the Gait Laboratory at Salford University's Centre for Rehabilitation and Human Performance Research.

Each volunteer was asked to walk on a 10 metre walkway bare foot, in their own shoes and wearing the replicas with and without the sandals.

Their movement was tracked using 10 special cameras and the pressure of their footsteps was measured using a special mat. The 10 best walking trials were recorded for each foot, using their normal left foot as the control.

It was surprising how well both volunteers were able to walk using these devices although one volunteer performed much better than the other. The camera footage revealed that when wearing the sandals with the cartonnage replica, one of the volunteers achieved 87% of the flexion achieved by their normal left toe. The three part wood and leather design producing nearly 78%. Interestingly the ability to push off using the prosthetic toe was not as good when this volunteer wasn't wearing the sandals. The second volunteer was still able to produce between 60-63% flexion wearing the replicas with or without the sandals.

When wearing the replicas the pressure measurements showed that for both volunteers there were no overly high pressure points. This indicated that the false toes were not causing any undue discomfort or possible tissue damage. However, when the volunteers wore just the replica sandals without the false toes the pressure being applied under the foot rose sharply.

Dr Finch says: "The pressure data tells us that it would have been very difficult for an ancient Egyptian missing a big toe to walk normally wearing traditional sandals. They could of course remained bare foot or perhaps have worn some sort of sock or boot over the false toe, but our research suggests that wearing these false toes made walking in a sandal more comfortable."

Alongside the test data Dr Finch also asked her volunteers to fill in a questionnaire about how they felt when doing the trials in the gait laboratory. Despite it having performed well the comfort scores for the cartonnage replica were disappointing although it was felt to be an excellent cosmetic replacement. Describing the performance of the three part wooden and leather toe both volunteers found this one to be extremely comfortable, scoring it highly, one volunteer commenting that with time he could get used to walking in it.

Assessing the volunteers' experience Dr Finch said: "It was very encouraging that both volunteers were able to walk wearing the replicas. Now that we have the gait analysis data and volunteer feedback alongside the obvious signs of wear we can provide a more convincing argument that the original artefacts had some intended prosthetic function.

The findings from this study, which have been published in full in the Journal of Prosthetics and Orthotics, means the earliest known prosthetic is now more likely to come from ancient Egypt. The three part example pre-dates by some 400 years what is currently thought to be the oldest, although untested, prosthetic device. This is a bronze and wooden leg that was found in a Roman burial in Capua, Southern Italy. That has been dated to 300 BC although only a replica now remains as the original was destroyed in a bombing raid over London during the war.

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Please visit the site: [http://www.eurekalert.org/pub\\_releases/2012-10/uom-ett100212.php](http://www.eurekalert.org/pub_releases/2012-10/uom-ett100212.php)

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## **UW-MADISON ARCHAEOLOGISTS TO MOUNT NEW EXPEDITION TO TROY, BY TERRY DEVITT**

The ruins of ancient Troy will be examined by a cross-disciplinary team of scientists in an expedition led by UW-Madison classics professor William Aylward.

Troy, the palatial city of prehistory, sacked by the Greeks through trickery and a fabled wooden horse, will be excavated anew beginning in 2013 by a cross-disciplinary team of archaeologists and other scientists.

The new expedition will be led by University of Wisconsin-Madison classics Professor William Aylward, an archaeologist with long experience digging in the ruins of classical antiquity, including Troy itself. The new international project at Troy, to be conducted under the auspices of and in cooperation with Turkey's Çanakkale Onsekiz Mart University, will begin a series of summer-time expeditions beginning in 2013.

"Troy is a touchstone of Western civilization," says Aylward.

"Although the site has been excavated in the past, there is much yet to be discovered. Our plan is to extend work to unexplored areas of the site and to systematically employ new technologies to extract even more information about the people who lived here thousands of years ago."

Troy and the Trojan War were immortalized in Homer's epic poem the Iliad centuries after the supposed events of the conflict. The site was occupied almost continuously for about 4,500 years, from the beginning of the Bronze Age to the 13th century A.D., when it was abandoned and consigned to myth. It was rediscovered in the 1870s by the wealthy German businessman and pioneering archaeologist Heinrich Schliemann whose work at Troy laid the foundations for modern archaeology.

"Our goal is to add a new layer of information to what we already know about Troy," says Aylward, who is contributing an international team of archaeologists and scientists to conduct what promises to be the most comprehensive dig since Troy's discovery over 140 years ago. "The archaeological record is rich. If we take a closer look with new scientific tools for study of ancient biological and cultural environments, there is much to be found for telling the story of this world heritage site."

The site of Troy is in modern Turkey and is situated on the Dardanelles, a crossroads between East and West and a flashpoint for conflict in both ancient and modern times. The archaeological site is a complex layer cake of history and prehistory, with 10 cities superimposed one atop the other, some with clear evidence for violent destruction.

Following the demise of Troy at the end of the Bronze Age, the site was re-settled by Greeks, Romans and others, who all claimed Homer's Troy and its cast of characters — Achilles, Helen, Patroclus, Priam and Ajax — as their own cultural heritage. The ancient city was visited by the Persian general Xerxes, Alexander the Great, and Roman emperors, including Augustus and Hadrian. Homer's epic poems about a lost age of

heroes and the legendary Trojan War have endured as sources of inspiration for art and literature ever since.

Although archaeologists have been digging at Troy for almost 140 years, with the exception of a 50-year hiatus between 1938 and 1988, less than one-fifth of the site has been scientifically excavated.

With about 4,500 years of nearly uninterrupted settlement at a crossroads between Europe and Asia, Troy is fundamental for questions about the development of civilization in Europe and the Near East.

"Troy deserves a world-class archaeological program," says Aylward.

In its heyday, Troy's citadel, with walls 12 feet thick and more than 30 feet high, was about 6 acres in size. A walled lower town covered an expanse of 50 acres, much of which is unexplored. Mysteries abound.

Ancient Troy's royal cemetery, for example, has yet to be discovered and archaeologists are eager to add to the single example of prehistoric writing known from Troy, a small bronze seal from the Bronze Age.

"Major gaps in our knowledge involve the identity of the prehistoric Trojans, the location of their principal cemeteries and the nature of their writing system," says Aylward. "The enduring question of the historicity of the Trojan War is also worthy of further exploration."

In future work at Troy, Aylward plans an array of collaborations in order to deploy powerful new scientific techniques to reveal the hidden record of the ancient city and its inhabitants. New methods to examine chemical residues on pottery from ancient kitchens and banquet halls, for example, may reveal secrets of ancient Trojan culinary proclivities, and genomic analyses of human and animal remains may shed light on diseases and afflictions at a crossroads of civilization.

Much of the new work in the area of "molecular archaeology," which includes DNA sequencing and protein analysis, will be conducted in collaboration with the UW-Madison Biotechnology Center, which has become an active partner in the new Troy project. This past summer, researchers from the center participated in reconnaissance for future studies.

The new Wisconsin expedition to Troy builds on years of existing work and international collaboration at the site. The new program to be inaugurated in 2013 will be conducted under the auspices of Çanakkale Onsekiz Mart University, which is situated near the site of Troy.

**Please visit the site: <http://www.news.wisc.edu/21160>**

## **ARCHAEOLOGISTS UNCOVER ROMAN MOSAIC IN DOWNTOWN SOFIA**

Archaeologists Uncover Roman Mosaic in Downtown Sofia: Archaeologists Uncover Roman Mosaic in Downtown Sofia Sofia Mayor, Yordanka Fandakova, visited archaeological works in the center of the city; the St. Joseph catholic cathedral is seen behind.

Archaeologists have discovered colorful floor mosaic from the Roman era near the so-called West Gate of Serdica in downtown Sofia.

The news was announced Monday by the Mayor of Sofia, Yordanka Fandakova, who visited the archaeological excavations in the company of her Deputy in charge of Culture, Todor Chobanov.

The mosaic has an area of 40 square meters and is located in the ruins of a Roman building discovered for the first time between 1975 and 1980 when archaeologists began exploring the site. The works were later abandoned and remained unfinished.

Serdica's West Wall followed the current "Washington" and "Lavelle" streets to the Central Court building. Fragments of it can be seen in the yard of the largest catholic cathedral in Bulgaria "Saint Joseph."

Fandakova said there is likelihood the mosaic is part of a large basilica, which continues under "Washington" street, adding it means archaeologists are to continue their work there to fully uncover "the wealth of Sofia." She stressed the key importance of preserving this wealth and displaying it in the urban environment in order make the city an even more attractive destination.

"The basilica shows the standing of Serdica during the rule of Roman Emperor Constantine the Great (274-337)," the Mayor concluded.

**Please visit the site: [http://www.novinite.com/view\\_news.php?id=144160](http://www.novinite.com/view_news.php?id=144160) [Go there for pix]**

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## **BREAKTHROUGH IN WORLD'S OLDEST UNDECIPHERED WRITING, BY SEAN COUGHLAN**

Proto-Elamite script Experts working on proto-Elamite hope they are on the point of 'a breakthrough'

The world's oldest undeciphered writing system, which has so far defied attempts to uncover its 5,000-year-old secrets, could be about to be decoded by Oxford University academics.

This international research project is already casting light on a lost bronze age middle eastern society where enslaved workers lived on rations close to the starvation level.

"I think we are finally on the point of making a breakthrough," says Jacob Dahl, fellow of Wolfson College, Oxford and director of the Ancient World Research Cluster.

Dr Dahl's secret weapon is being able to see this writing more clearly than ever before.

In a room high up in the Ashmolean Museum in Oxford, above the Egyptian mummies and fragments of early civilisations, a big black dome is clicking away and flashing out light.

This device, part sci-fi, part-DIY, is providing the most detailed and high quality images ever taken of these elusive symbols cut into clay tablets. This is Indiana Jones with software.

It's being used to help decode a writing system called proto-Elamite, used between around 3200BC and 2900BC in a region now in the south west of modern Iran.

And the Oxford team think that they could be on the brink of understanding this last great remaining cache of undeciphered texts from the ancient world.

Dr Dahl, from the Oriental Studies Faculty, shipped his image-making device on the Eurostar to the Louvre Museum in Paris, which holds the most important collection of this writing.

The clay tablets were put inside this machine, the Reflectance Transformation Imaging System, which uses a combination of 76 separate photographic lights and computer processing to capture every groove and notch on the surface of the clay tablets.

It allows a virtual image to be turned around, as though being held up to the light at every possible angle.

These images will be publicly available online, with the aim of using a kind of academic crowdsourcing.



He says it's misleading to think that codebreaking is about some lonely genius suddenly understanding the meaning of a word. What works more often is patient teamwork and the sharing of theories. Putting the images online should accelerate this process.

But this is painstaking work. So far Dr Dahl has deciphered 1,200 separate signs, but he says that after more than 10 years study much remains unknown, even such basic words as "cow" or "cattle".

He admits to being "bitten" by this challenge. "It's an unknown, uncharted territory of human history," he says.  
Extinct language

But why has this writing proved so difficult to interpret?

Dr Dahl suspects he might have part of the answer. He's discovered that the original texts seem to contain many mistakes - and this makes it extremely tricky for anyone trying to find consistent patterns.

He believes this was not just a case of the scribes having a bad day at the office. There seems to have been an unusual absence of scholarship, with no evidence of any lists of symbols or learning exercises for scribes to preserve the accuracy of the writing.

This first case of educational underinvestment proved fatal for the writing system, which was corrupted and then completely disappeared after only a couple of hundred years. "It's an early example of a technology being lost," he says.

"The lack of a scholarly tradition meant that a lot of mistakes were made and the writing system may eventually have become useless."

Making it even harder to decode is the fact that it's unlike any other ancient writing style. There are no bi-lingual texts and few helpful overlaps to provide a key to these otherwise arbitrary looking dashes and circles and symbols.

This is a writing system - and not a spoken language - so there's no way of knowing how words sounded, which might have provided some phonetic clues.

Dr Dahl says that one of the really important historical significances of this proto-Elamite writing is that it was the first ever recorded case of one society adopting writing from another neighbouring group.

But infuriatingly for the codebreakers, when these proto-Elamites borrowed the concept of writing from the Mesopotamians, they made up an entirely different set of symbols.

Why they should make the intellectual leap to embrace writing and then at the same time re-invent it in a different local form remains a puzzle.

But it provides a fascinating snapshot of how ideas can both spread and change.  
Mr One Hundred

In terms of written history, this is the very remote past. But there is also something very direct and almost intimate about it too.

You can see fingernail marks in the clay. These neat little symbols and drawings are clearly the work of an intelligent mind.

Inside dome of imaging device A set of 76 lights are used in the capturing of images of surface marks in the ancient tablets

These were among the first attempts by our human ancestors to try to make a permanent record of their surroundings. What we're doing now - my writing and your reading - is a direct continuation.

But there are glimpses of their lives to suggest that these were tough times. It wasn't so much a land of milk and honey, but porridge and weak beer.

Even without knowing all the symbols, Dr Dahl says it's possible to work out the context of many of the messages on these tablets.

The numbering system is also understood, making it possible to see that much of this information is about accounts of the ownership and yields from land and people. They are about property and status, not poetry.

This was a simple agricultural society, with a ruling household. Below them was a tier of powerful middle-ranking figures and further below were the majority of workers, who were treated like "cattle with names".

Their rulers have titles or names which reflect this status - the equivalent of being called "Mr One Hundred", he says - to show the number of people below him.

It's possible to work out the rations given to these farm labourers.

Dr Dahl says they had a diet of barley, which might have been crushed into a form of porridge, and they drank weak beer.

The amount of food received by these farm workers hovered barely above the starvation level.

However the higher status people might have enjoyed yoghurt, cheese and honey. They also kept goats, sheep and cattle.

For the "upper echelons, life expectancy for some might have been as long as now", he says. For the poor, he says it might have been as low as in today's poorest countries.

The tablets also have surprises. Even though there are plenty of pictures of animals and mythical creatures, Dr Dahl says there are no representations of the human form of any kind. Not even a hand or an eye.

Was this some kind of cultural or religious taboo?

Dr Dahl remains passionate about what this work says about such societies, digging into the deepest roots of civilisation. This is about where so much begins. For instance, proto-Elamite was the first writing ever to use syllables.

If Macbeth talked about the "last syllable of recorded time", the proto-Elamites were there for the first.

And with sufficient support, Dr Dahl says that within two years this last great lost writing could be fully understood.

Proto-Elamite is the name given to a writing system developed in an area that is now in south-western Iran

It was adopted about 3200BC and was borrowed from neighbouring Mesopotamia

It was written from right to left in wet clay tablets

There are more than a thousand surviving tablets in this writing

The biggest group of such texts was collected by 19th Century French archaeologists and brought back to the Louvre

While other ancient writing, such as Egyptian hieroglyphics, Sumerian and Mesopotamian, have been deciphered - attempts with proto-Elamite have proved unsuccessful]

**Please visit the site: <http://www.bbc.co.uk/news/business-19964786>**

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## **BLUE THROUGH THE CENTURIES: SACRED AND SOUGHT AFTER, BY NATALIE ANGIER**

However inspired they may have been by the immaculate beauty of the sky and water they saw every day, prehistoric artists had no way to render the color blue with paint. As Heinz Berke of the University of Zurich has pointed out, the famous cave paintings at Lascaux and surrounding sites, which date back some 20,000 years, are notably lacking in blue.

“Early mankind had no access to blue, because blue is not what you call an earth color,” said Dr. Berke, a chemist who has studied the history of blue pigment. “You don’t find it in the soil.” Only with the advent of mining, he said, could sources of blue pigment be extracted.

The first stable blue colorant used in the ancient world came from lapis lazuli, a semiprecious stone mined in Afghanistan beginning about 6,000 years ago. The Egyptians prized all things lapis, combining it with gold to adorn the tombs of the pharaohs, or powdering it into eye shadow for Cleopatra.

But the scarcity of the mineral drove the Egyptians to seek new blues through chemistry. By heating together limestone, sand and copper into the chemical compound calcium copper silicate, they invented the richly saturated royal-turquoise pigment called Egyptian blue.

Variants of the recipe were taken up by the Mesopotamians, the Persians, the Greeks and the Romans, who built factories devoted to blue’s production.

In ancient China, chemists created blue pigments by blending copper with heavy elements like barium, lead and mercury. Unfortunately, those same heavy elements were often brewed into popular — and ultimately toxic — elixirs. “It’s said that 40 percent of the Chinese emperors suffered from heavy-element poisoning,” Dr. Berke said.

The Mesoamericans invented the third of the three great blues of ancient civilization, a vivid and durable pigment called Mayan blue that scientists recently suggested could be a mix of indigo plant extract, a clay mineral called palygorskite, and resin from the Maya’s sacred incense, copal.

Whatever its origin, the blue pigment remained rare and expensive until the dawn of the industrial age, which probably explains blue’s longstanding association with royalty and divinity, and possibly why it is a widely favored color today. According to Steven Bleicher, a professor of visual arts at Coastal Carolina University, blue got a big endorsement in the year 431, when the Catholic church decided to “color code” the saints.

“Mary was given a blue robe,” he said, “a dark, wonderful and expensive blue befitting the queen of heaven.”

Over time, Mary blue became navy blue, the color of trustworthiness and authority, of bankers and the police. At this point, navy blue is so tightly linked to the notions of

authority, Dr. Bleicher said, that the United Nations specifically avoided the color in designing the uniform of its peacekeeping troops and instead opted for a softer robin's-egg blue.

As for the color-coding of the sexes, the idea that blue is for boys and pink means girls didn't really gain traction in this country until the postwar baby boom, according to Jo B. Paoletti, a historian of dress at the University of Maryland and the author of the new book "Pink and Blue: Telling the Boys From the Girls in America." Even then, some parts of the South lagged in adopting the strict rules of childhood attire. "I found examples of pink clothing for boys way up through the 1970s," Dr. Paoletti said.

So, too, should we recall in today's bitter blue-red, donkey-pachyderm dialectic that just a few years ago, red stood for Marx.

**Please visit the site: <http://www.nytimes.com/2012/10/23/science/blue-through-the-centuries-sacred-and-sought-after.html?ref=science>**

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## **PENN MUSEUM UNWRAPS MYSTERY OF MUMMY CONSERVATION**

The Penn Museum is unwrapping the mystery of mummy conservation, giving the public an unusual close-up of researchers' efforts to preserve relics from ancient Egypt.

Human and animal mummies, as well as an intricately inscribed coffin, are among the items undergoing treatment and repair at the Philadelphia institution's newly installed Artifact Lab.

Housed in a special gallery, the glass-enclosed workspace lets visitors share in "the thrill of discovery," museum director Julian Siggers said.

"It demonstrates to you the work that's actually being done behind the walls of these galleries," Siggers said.

Visitors can watch staff members use microscopes, brushes and other tools of the trade to inspect, study and preserve items including the mummy of a 5-year-old girl, several human heads, a colorful but damaged sarcophagus, and a painting from a tomb wall.

Flat-screen monitors display magnified views of the relics as they are being examined. Conservators will also set aside time twice a day to answer questions from the public.

The archaeology and anthropology museum has identified 30 objects from its 42,000-piece Egyptian collection to be conserved during the evolving project. Many of the lab items have not been exhibited before because of their poor condition, said conservator Molly Gleeson.

Among Gleeson's first projects are preserving the mummies of a cat, falcon and ibis. She described the falcon's linen wrappings as frayed and powdery, and noted its precariously attached head would need to be stabilized before the mummy could be displayed.

Also undergoing study are hieroglyphic-inscribed slabs of wood that comprised the coffin of an Egyptian named Ahanakht, circa 2000 B.C.

Conservation efforts led researchers to discover hidden inscriptions on the seams, said David Silverman, curator-in-charge of the Egyptian section.

Head conservator Lynn Grant said staff members continuously experience a sense of wonder as they work with historical artifacts. "It is a delight, with this new space, to be able to share that with our visitors and give people an idea of what's going on behind the scenes," Grant said.

**Please visit the site:**

**[http://www.cnbc.com/id/49502431/Penn Museum unwraps mystery of mummy conservation](http://www.cnbc.com/id/49502431/Penn_Museum_unwraps_mystery_of_mummy_conservation)**

## **REPAIRING THE STEP PYRAMID, BY PETER JAMES**

My first introduction to working in Egypt was a project in Cairo's historic old quarter, following the 1992 earthquake that caused widespread and devastating damage. Cintec International won the contract to repair and reinforce a number of badly affected structures, with work commencing in 1998.

The project consisted of some 15 notable mosques and maqaads, successfully strengthened using Cintec's patented anchoring systems. Most of the essential work was completed by early 2005, with ongoing localised repairs still being undertaken as and when required.

### **Reinforcing the Temple of Hibis**

Following the success of the project in the old quarter, Cintec was requested to provide internal reinforcement to the Temple of Hibis in the El-Kharga Oasis, 700 kilometres due south of Cairo. Construction on the Temple began in 672 BC, with additions and improvements made by various Pharaohs until 68 AD. Due to poor soil conditions, the temple had differential settlement problems. This was unusual for pharaonic structures, as the Egyptians had by this time been building very large constructions for many centuries without any foundation problems.

Work on the temple needed to solve two main problems. One was to isolate the structure from the existing water table, a project undertaken very efficiently by Arab Contractors and the Antiquity Consultants. Secondly, having successfully isolated the structure from the prevailing water, the temple needed to be secured internally without any intervention being visible. This was a particularly difficult operation, due to the extensive wall paintings and hieroglyphic carvings on both internal and external walls. Innovative diamond drilling and reinforcing techniques, developed and patented by Cintec, were required to solve these problems, and were successfully implemented with no damage to the splendour and history of the monument.

### **First pyramid restoration project**

Immediately after this Cintec took on its first pyramid restoration project, strengthening parts of the connecting corridors of the Red Pyramid's burial chamber. The Red Pyramid is the third-largest of Egypt's pyramids, and was the first "true" pyramid built by Pharaoh Sneferu. Sneferu had built two previous pyramids, but these were not of a true triangular shape, and for structural reasons were not chosen by the Pharaoh as his final resting place.

The work on the Red Pyramid was confined to strengthening the granite slabs immediately above the burial chamber's corridor.

### **Next – the Step Pyramid**

Cintec's next project, the Step Pyramid, required careful planning and execution due to the very dangerous condition of the burial chamber ceiling. Again due to the 1992 earthquake, a large portion of the burial chamber ceiling had collapsed, depositing many tons of stone on to the base of the shaft 29 metres below. The resultant dome-shaped void exposed a ragged hanging inverted group of large and small stones, set in mud, measuring 8 metres by 8 metres. This was liable to collapse at any time.

The problem was that standard solid propping of the ceiling using scaffolding could not be used, due to the haphazard interlocking of the fallen stones. Any upward point loading on a key locking stone could be the mechanism to release another 50 tons of stone on to an unsuspecting technician. However, Cintec had another product available that could be used to support the ceiling: water-filled blast mitigation devices known as WaterWall. The internally-reinforced PVC product can be inflated with air and then filled with water, and was originally developed by Cintec to produce shapes that are able to suppress improvised explosive devices. It was this product that was used to support the inverted dome of stone.

As the WaterWall air bags are made to expand to specific dimensions, Cintec were able to design and fit the units in strategic positions around the chamber, to merely kiss the hanging stones without any upward thrust. The temporary support of the ceiling has now been finished, with the final pointing, grouting and anchoring processes approximately half way to completion.

### **Considering the Bent Pyramid**

It was on one of my visits to the Step Pyramid that I was asked my opinion on securing the remaining outer cladding of the Bent Pyramid, another construction by Pharaoh Sneferu, located 40 kilometres south of Cairo.

The Bent pyramid's top section sits at a slightly different angle to the main body, giving the structure its "bent" appearance.

The Bent pyramid's top section sits at a slightly different angle to the main body, giving the structure its "bent" appearance.

Before any structural restoration work is reconsidered, the exact nature of the pyramid's defects must be established, so that the correct intervention can be carried out. From a visual inspection, the structure shows distress along all the extremities. What are the clues? The pyramid does not appear to have any foundation movement.

All the missing cladding appears at interfaces or change of direction at the angles and between the ground and the cladding.

A popular theory is that the missing cladding was removed by local opportunist thieves. At the lowest levels that could be the answer, but at high level and in such random manner, with no sign of indentations of temporary scaffolding or of any symmetrical cutting of the blocks to aid removal, it does not seem likely or possible. It would have been extremely dangerous work. To dismantle a structure you normally need as much scaffolding as you would to build it, and opportunist thieves would hardly have sufficient resources. Indeed, if they merely wanted rough stones they could have found them in the hills adjacent to the centre of Cairo, without the trouble of removing and transporting them 30 miles out of town. The damage here appears to be caused by a giant whose hand



has swept across the face of the pyramid with enormous energy, sucking out the facing leaving the ragged empty sockets.

### **Thermal movement**

In the case of the Bent Pyramid, and I believe in the case of all pyramids, the outer casing has been affected by thermal movement.

Fortunately, the Bent Pyramid is the only pyramid with any degree of stone casing still attached, making the mechanism of failure apparent.

The failure of all the perimeter edges show that the outer casing has expanded from the centre outwards, and movement has taken place on all of the extremities.

During the day the temperature rises to 40 degrees across the face of the outer casing, then at night cools to 3 degrees because of the lack of cover and exposure to the prevailing winds. This gives on average a temperature fluctuation of 37 degrees. Obviously, this varies through the seasons, but to illustrate my point I will build these into the following calculations.

The photographs of the Bent Pyramid (see below), show how thermal expansion has caused the blocks to move to the edges, where they have detached. It also shows how individual stones, unsupported, can cantilever and snap off and subsequently fall to the ground.

Limestone has a coefficient of thermal expansion of  $8 \times 10^{-6}$ , proportional to the change of temperature and to the original dimensions. Many natural stones, including limestone, retain a minute proportion of the expansion when they cool down and do not return to their original size.

Let us work on the calculation that of  $8 \times 10^{-6} \times (40-3) \times 100\text{m run} = 0.0296\text{m}$  of movement per 100 metres run in all directions. However, this is also dependant on the size of the gaps between each stone. All movement from the thermal expansion of the casing would be taken up initially in the joints, but significantly the limestone does not go back to its original position. The expansion would create dust and stone particles that would detach from the stones, filling the voids and gaps between them. This would reduce the amount of contraction possible at night, in addition to the stones' natural propensity not to return to their original dimensions and position, and so the cycle would start again. Multiply this endless movement by the number of days the pyramid has been erected and you have the reason why all the outer casing has moved to the extremities, where it has buckled or displaced against blocks moving in the opposite direction, and then fallen off. It may then have been picked up by opportunists and removed from the site. I believe that this process is the mechanism of failure on this and all the other pyramids.

I have read that the original dimensions recorded by Flinders Petrie were inaccurate, and that the dimension taken in 2004 was larger by a small degree. This is what I would expect of a structure that is still moving and increasing in size. Furthermore, the convex shape of the pyramid's outer casing could be caused by the stones arching between fixed points. The transit of the sun across the region will vary over the seasons, heating one side more than another, giving rise to disproportionate movement particularly at the extremities.

Another important question to consider is this: why does the Bent Pyramid still have half of its outer casing attached, when the Red Pyramid and the Great Pyramids at Giza plateau have virtually none? I believe this was due to the increased skills of the craftsmen, who developed more knowledge and precision as the process of pyramid construction developed. They became able to provide better accuracy, build quality and jointing of the slabs. Probably, the Bent Pyramid was built with less care and with more voids between the stones that acted like expansion joints. The casing blocks being included inwards at the base of the pyramid may have limited the expansion.

Finally, could the sight of the progressive damage to the outer edges of the pyramids – that would have taken place relatively soon after their construction – be the reason that having spent so much time and energy constructing these wonderful monuments the Egyptians changed their burial method to the Valley of the Kings?

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Peter James, MD of Cintec International, has worked on projects around the globe, strengthening and restoring historically significant structures from Windsor Castle to the parliament buildings in Canada.

After fourteen years working on Egypt's historic buildings, temples and most recently, the Step Pyramid, he draws on his experience to dispel some of the more common theories surrounding Egypt's 'collapsing' pyramids. Peter goes on to suggest that the gradual crumbling of the pyramids' outer casings as the structures became unsound may have been the trigger behind moving Pharaohs' burials from the pyramids to the Valley of the Kings.

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**Please visit the site:**

**<http://www.pasthorizonspr.com/index.php/archives/10/2012/egypts-collapsing-pyramids>**



## **İZMİR PRESENTS MOSAIC CITY OF WESTERN REGION**

A new ancient city considered to be the Zeugma of the West and thought to be one of the lost cities of Anatolia has been unearthed in İzmir.

There are unique mosaics with figures in the city

An archaeological city dating back 1,700 years has been unearthed during excavations in İzmir's Kemalpaşa neighborhood, raising officials' hopes the area will draw tourists' attention.

The Cultural Beings and Museums' General Director Osman Murat Süslü held a press conference Oct. 21 regarding the discovery of the archaeological city, which Culture and Tourism Minister Ertuğrul Günay has defined as "good news that will draw the world's attention."

Drilling work had started in the area, which is now categorized as a third degree archaeological site, before the construction of a warehouse company was scheduled to begin. Excavations were begun due to an abundance of signs the area may be a hotspot for archaeological treasures, Süslü said. "Scientific excavations started Oct. 1 and a layer from the 4th Century B.C. has been unearthed," he said.

The newly-unearthed city is believed to date back to around the late Roman or Byzantium period, Süslü said. It was home to a 550-square-meter villa complex with 105-centimeter-thick walls, water channels and 11 rooms.

Precious mosaics were found in six of the villa complex's rooms. "The mosaics are decorated with animal and plant figures that you cannot see anywhere today. They created the Anatolian panther, the Anatolian tiger as well as a partridge and a rabbit [in mosaics]. They are decorated with completely natural stones. You can see various shades of red, blue and green. There is a rich archaeological structuring in the region," he said.

According to Süslü, the historic structure in the city could be defined as the "Zeugma of the West," but the most sorrowful thing was the illegal excavations. Zeugma is the ancient city known for its rich mosaics in the southeastern province of Gaziantep.

Artifacts unearthed during illegal excavations from Zeugma were sold abroad at trifling prices and later major efforts were put underway to bring those artifacts back, Süslü said.

Süslü warned those involved in illegal excavations that there would be repercussions to their actions. "These people should know that we pay for artifacts when they inform us [of their discovery]. Citizens should prevent illegal excavations when they see [them happening]."

Further, more detailed information about the name and estimated size of the newly-discovered city in İzmir would be given as a result of detailed excavation works, Süslü said. "It is known that there are lost cities in Anatolia. Works will tell us which lost city this is."

Please visit the site: <http://www.hurriyetailynews.com/izmir-presents-mosaic-city-of-western-region.aspx?pageID=238&nID=32979&NewsCatID=375>

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## **UT TEAM MAKES ARCHAEOLOGICAL FINDS IN JORDAN**

Two professors at the University of Tennessee, Knoxville — Erin Darby, an assistant professor of religious studies, and Robert Darby, a lecturer in art history and classics — have spent the past three years excavating an archaeological site in southern Jordan. What they've found there, Robert Darby said, is "remarkable."

Finds at the site include a Roman fort, bathhouse and aqueduct system. They are probably from the late Roman or Byzantine period — roughly between the 3rd and 6th centuries C.E.

What makes the findings even more intriguing is the ancient writing found at the site. The Darbys have been working with an epigrapher — an expert on ancient inscriptions — to learn more about the writing.

The epigrapher for the excavation — Chris Rollston, associate professor at Emmanuel Christian Seminary in Johnson City, Tenn. — will be at UT on Tuesday, Oct. 30, to talk about his work on a variety of archaeological projects with biblical ties. His lecture, at 7:30 p.m.

in the McClung Museum Auditorium, is free and open to the public. He also will be speaking to a class at 2:10 p.m. that day in Humanities and Social Sciences Building Room 115 on the literacy of the ancient Israelites, and anyone is invited to attend.

Robert Darby said the epigraphic remains at the Jordan site, 'Ayn Gharandal, are quite significant, because it is rare to find writing in bathhouses and small forts from the Roman Near East.

"There's very little in terms of written evidence from these sites," he said.

In the bathhouse, the archaeological team found numerous charcoal inscriptions and drawings decorating its walls, essentially ancient Roman graffiti. The fort, however, contained an official painted inscription, possibly a dedication to soldiers stationed at the site.

The inscription, painted in ancient Greek using bright red letters, had fallen off a wall and was in pieces. It was sent to the conservation lab at the American Center of Oriental Research in Amman to be put back together.

"It's sort of like piecing back together a puzzle," Robert Darby said.

Several pieces of the puzzle are still missing, and the team likely won't have a translation of what remains until December.

One piece of graffiti from the bathhouse contained an early Christian symbol known as a Chi Rho. The Chi Rho uses the first two letters of the Greek word for Christ to form a cross-like shape. The fort inscription includes a list of names that are Nabataean in origin, which tells the archaeologists that the soldiers stationed there may have been local, not sent from Rome. Some of the individuals are named after Nabataean deities.

Combined with the Chi Rho symbol, this suggests that people in the area may have been transitioning from traditional to Christian beliefs.

The team has also found a number of pots, tiles and other objects of daily life at the site. These discoveries tell them much about the lives of the people who lived there.

The site has been disturbed in the recent past by looters and also could be completely destroyed by a proposed canal between the Dead Sea and the Red Sea.

Erin and Robert Darby will be leading a UT study abroad program to 'Ayn Gharandal next summer to continue the excavation.

**C O N T A C T :**

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**Please visit the site:** <http://www.utk.edu/tntoday/2012/10/26/professors-archaeological-finds-jordan/>

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