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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Νοέμβριος 2008 -**

# Newsletter of the Hellenic Society of Archaeometry

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## **ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS**

# **URBAN ARCHAEOMETALLURGY: HISTORICAL METALLURGY IN TOWNS AND CITIES, 21 FEBRUARY 2009, INSTITUTE OF ARCHAEOLOGY, UNIVERSITY COLLEGE LONDON**

A great number of archaeometallurgical remains are found in urban contexts. These include, among others, foundry remains, forges, goldsmith workshops, mints, assay offices or just stray finds of crucibles, slag or metal objects. Although these assemblages are increasingly studied by specialists, many remain unidentified or neglected in archaeological archives.

Urban metallurgists used skills and techniques quite different from those used by miners and smelters, and played an important technological and economic role in urban life. Their endeavours were closely related to those of other crafts, and their products were directly relevant to those living in the immediate vicinity. Thus, the documentation and study of urban metallurgical workshops and artefacts provides an interesting path to the functioning of historical towns and cities, as well as insights into relatively unexplored areas of historical metallurgy.

This workshop aims to provide a forum for the presentation of studies on metallurgical remains excavated in urban contexts. To provide a balance for the focus on ferrous metallurgy of previous HMS workshops, we particularly encourage presentations of research on non-ferrous and noble metals, and we welcome studies of both metalworking debris and finished artefacts. The chronological and geographical remit is purposefully broad, but we hope to showcase studies of materials recovered during rescue excavations in historical cities. The underlying intention is to provide examples of the use of such assemblages for research purposes, maximising their informative potential and saving them from neglect. By inviting urban archaeologists and finds specialists as well as archaeometallurgists, we also intend to create a network for the development of future projects.

If you would like to present a paper, please send a 200-250 word abstract to Marcos Martinon-Torres: [m.martinon-torres@ucl.ac.uk](mailto:m.martinon-torres@ucl.ac.uk)

Hopefully the event will be free and open to all, but please send me expressions of interest in attending so that I can estimate numbers.

Feel free to circulate this information to interested colleagues or mailing lists.

Best wishes,  
Marcos

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<http://hist-met.org/2009workshop.html>

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# UNIVERSITY OF LONDON SCHOOL OF ADVANCED STUDY

## INSTITUTE OF CLASSICAL STUDIES

### MYCENAEAN SEMINAR

Wednesdays throughout the year at 3.30 pm unless otherwise stated  
Senate House North Block Room 336

Organizers: John Bennet, Cyprian Broodbank, Olga Krzyszkowska

For further details please visit the Institute's website:

[http://icls.sas.ac.uk/institute/meetingslist/london\\_events.html](http://icls.sas.ac.uk/institute/meetingslist/london_events.html)

#### PROGRAMME 2008 – 09

**15 October** Borja Legarra Herrero *Cemeteries and the construction, deconstruction and non-construction of hierarchies in EBA Crete*

**12 November** Diamantis Panagiotopoulos *Lords of the Rings: an analytical approach to the & Yuval Goren riddle of the Knossian 'replica rings'*

**10 December** Silvia Ferrara *Writing without reading: the Cypro-Minoan script between the Linear and cuneiform traditions*

**14 January** Ioannis Galanakis *A monumental death: funerary architecture and social dynamics in the Late Bronze Age Aegean*

**18 February** Vasif Sahoglu *Izmir Region Excavations and Research Project: new perspectives on the EBA of western Anatolia*

**18 March** Sarah Morris *Prehistoric Torone and the Chalkidike: the northern Aegean in the Bronze Age*

**13 May** Irene Lemos (Oxford) *Title to be announced (Lefkandi)*

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**CLIMATE AND ANCIENT SOCIETIES,**  
**CAUSES AND HUMAN RESPONSES, THE**  
**STINE ROSSEL MEMORIAL**  
**CONFERENCE, 21- 23 OCTOBER 2009,**  
**DEPARTMENT OF CROSS CULTURAL &**  
**REGIONAL STUDIES FACULTY OF**  
**HUMANITIES UNIVERSITY OF**  
**COPENHAGEN**

[www.climate.ku.dk/CAS](http://www.climate.ku.dk/CAS) [www.humanities.ku.dk/](http://www.humanities.ku.dk/)

Climate, and human responses to it, plays an integral part in the formation of society. Thus when climate change occurs, the result of either natural or human causes, societies should react and adapt – but do they? If so, what is the nature of that change, and are the responses positive or negative for the long term survival of society and its peoples? Archaeology, steeped in interdisciplinary studies and dealing with a longue durée view of society, offers detailed and verifiable insights into climate changes in the past: causes, responses and consequences. This conference, held under the umbrella of the University of Copenhagen's Climate and Sustainability initiative (<http://climate.ku.dk/>), is held in memory of Stine Rossel, archaeozoologist and member of the Department of Cross Cultural & Regional Studies, who had a keen research interest in climate and past societies.

The conference has four major themes as outlined below, each dealing with understanding past climates, human impact, and sustainability. Fields range from general to specific Near East.

Interested participants may submit paper titles and abstracts (no more than 200 words) for consideration to the e-mail address [climateANE@hum.ku.dk](mailto:climateANE@hum.ku.dk) until January

31 2009, the selection of

papers will be made through blind review by members of the conference's Scientific Committee.

Accepted speakers will exchange their papers before the conference.

The conference fee will be 350 DKK for salaried participants and 250 DKK for students. Fees can be paid when the reviewing process has been finished.

Conference sessions

1. Holocene Climate Reconstruction

Keynote speaker and organiser: Neil Roberts, University of Plymouth This session adopts a holistic and global approach to reconstructing Holocene climates. Ways of measuring and assessing climatic variation are considered thematically and methodologically, drawing on material from a variety of sources such as ice core pollen,



deep sea sediment cores, lacustrine sediments, and faunal and floral studies. Methods and approaches to Holocene climate reconstruction will range from general, world-wide perspectives to more focussed studies on the Mediterranean area and the Near East. Papers that deal with new approaches in method and analysis as well as recent results of innovative field projects are especially encouraged.

2. Responses of Complex Societies to Climatic Variation Keynote speaker and organiser: Jason Ur, Harvard University The complex and continuing changing relationship between complex societies and the environment in which they exist is the focus of this session. With an emphasis on human response to climatic change, special attention will be paid to exploring social change, resilience and collapse in the face of climate change in the past. It is expected that this session will range from case studies to regional analyses with an unambiguous Mediterranean and Middle Eastern focus.

3. Archaeological Evidence for Pollution and its Ecological Implications Keynote speaker and organiser: Richard Meadow, Harvard University The subject of the direct or indirect impact of human behaviour on plant and animal communities is central to contemporary archaeological research. This session will explore this topic, notably the adverse effect of human activity on the environment, for example the depletion of game animals seen in shifts in the abundance of certain species. Special focus will be paid to investigating the severe and sometimes destructive pollution of the environment through human behaviour. It is expected that this session will have a clear Mediterranean and Middle Eastern focus.

4. Stable Isotope Analysis in the Middle East Keynote speaker and organiser: Nanna Noe-Nygaard, University of Copenhagen This session takes as its core subject new perspectives and possible problems in stable isotope analysis in the field of environmental studies. Papers will explore the potential of stable isotope analysis in archaeological research and the many new avenues of approach it offers, without disregarding the prospective problems associated with the application of the still emergent fields of ancient DNA and stable isotope analysis to archaeology.

**Scientific committee:**

Mette Marie Hald, Pernille Bangsgaard Jensen, Susanne Kerner, Alan Walmsley (CNA, ToRS, University of Copenhagen) and the keynote speakers.

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**CALLS FOR PAPERS: THE COLOR OF  
THINGS. DEBATING THE ROLE AND  
FUTURE OF COLOR IN ARCHAEOLOGY, AN  
INTERNATIONAL WORKSHOP,  
THEORETICAL ARCHAEOLOGY GROUP  
CONFERENCE STANFORD, ARCHAEOLOGY  
CENTER, 1<sup>ST</sup> - 3<sup>RD</sup> MAY 2009**

According to David Batchelor's "Chromophobia" color, though bound up with the fate of culture has been systematically marginalized and degraded in academic studies. Color would not easily fit into current intellectual debates on social constructs, has become increasingly anti-disciplinary. On the other hand, anthropologists, conservation specialists and archaeologists have increasingly realized that pigments and dyes constitute an integral part of the environment of both, early and modern societies (e.g. G. Jones and A. MacGregor, "Colouring the Past: the Significance of Colour in Archaeological Research". Oxford 2001).

The workshop and subsequent edited volume will gather scholars from various academic disciplines in order to discuss the need for theoretical frameworks when integrating color in material culture studies. How does our current thinking about color reflect and prejudice our understanding of the past and present? Is color a useful tool to reconstruct patterns of identity, interaction and influence?

How is color detectable in the material record and how far do colors and colored artifacts materialize voices? The workshop seeks to explore a wide range of current approaches to color, and demonstrate how results achieved through interdisciplinary research can form an integrative part of general science. Papers (c. 20 mins) illustrating research methodologies and considering the role of color in material culture are very welcome and are not limited to period or region.

Please send a title and abstracts (max. 400 words) by November 14th

2008 to Alexander Nagel, Kelsey Museum of Archaeology, University of Michigan, Ann Arbor - [aleos@umich.edu](mailto:aleos@umich.edu).

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## **THE THIRD DUTCH SYMPOSIUM OF THE ANCIENT NEAR EAST (DUSANE), 15<sup>TH</sup> NOVEMBER 2008, LEIDEN**

We would like to announce the launching of the new website and the opening of the registration for DUSANE III, the Dutch Symposium of the Ancient Near East. The symposium concerning the archaeology and history of the Ancient Near East will be held on the 15th of November 2008 in Leiden. The exact Location is the Lipsius-building of Leiden University, of which the address is: Cleveringaplaats 1 in Leiden. On the website: <http://www.nabunaid.nl/dusane> or by mail: [dusane.symp@gmail.com](mailto:dusane.symp@gmail.com) it is possible to register for this event. For further questions we refer to our website or otherwise you can mail us at [dusane.symp@gmail.com](mailto:dusane.symp@gmail.com).

The following scholars will give a lecture:

- dr. Olivier Nieuwenhuys (Leiden University) Abrupt Climate Change and Cultural Transformation: an introduction
- drs. Martine de Vries (VU University Amsterdam) Geoarchaeological research on Mesopotamian rocks: Hematite, Magnetite and Goethite
- dr. Alwin Kloekhorst (Leiden University) The Luwians within the history of Anatolia (2000-700 BC)
- dr. Gert Jan van Wijngaarden (University of Amsterdam) The Aegean and the Levant in the late Bronze Age: sharing material culture?
- dr. Caroline Waerzeggers (VU University Amsterdam) The Babylonian priest: prebends, purity and rank
- dr. Eveline van der Steen (Liverpool University) Tribal politics in the 19th century, a model?
- dr. Maarten Raven (National Museum of Antiquities) Dutch excavations at Saqqara 2007-2008: the tomb of Ptahemwia
- dr. Philip Bes (K.U. Leuven)  
Late Roman Red Slip Wares in the Eastern Mediterranean: mirroring Political and Economic Hegemony?

Concerning the registration fee, we kindly ask each participant to transfer the fee of € 15,00 (students € 7,50) to the following bank account: 43.01.82.732, of Nabu Naid, Leiden. Please add: 'subscription fee DUSANE.' At the subscription desk in the Lipsius building the 15th of November 2008 you'll receive your entrance-ticket, the program and some vouchers for free consumptions. Payment at the door will be € 17,50 (students € 10,-).

We hope to see many of you at the third DUSANE,

The DUSANE 2008-committee.

From Hannah Plug

Email: [dusane.symp@gmail.com](mailto:dusane.symp@gmail.com)

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## 7ICAANE LONDON APRIL 2010

The 7th International Congress on the Archaeology of the Ancient Near East (7ICAANE) will be held in London from the 12th to the 16th April 2010, organised by The British Museum and the Institute of Archaeology UCL, with the support of The British Academy. The 7ICAANE website is now active at <http://www.7icaane.org/> where much further information can be found.

Roger Matthews (UCL) and John Curtis (The British Museum)"

Thank you very much!  
Roger

\*\*\*\*\*

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**MINOAN SEMINAR**  
**THURSDAY 11 DECEMBER 2008, 18.30,**  
**ARCHAEOLOGICAL SOCIETY**

( [www.minoanseminar.gr](http://www.minoanseminar.gr) )

T. Brogan

The Late Prepalatial and Protopalatial period in the Mirabello region of East Crete;  
insights from recent fieldwork.

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**INTERNATIONAL METALLOGRAPHIC  
SOCIETY ARCHEOMETALLURGY  
SYMPOSIUM, MICROSCOPY &  
MICROANALYSIS MEETING,  
RICHMOND, VIRGINIA, JULY 26-30, 2009**

Dear All

The International Metallographic Society is organizing an archeometallurgy symposium at next year's Microscopy & Microanalysis meeting in Richmond, Virginia, July 26-30, 2009. Please circulate this message to other potential authors. Many thanks!

Further details can be found at: <http://www.microscopy.org/MSAMeetings/MM09/>

David Dungworth  
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On behalf of  
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**RESEARCH PROJECT SYMPOSIUM AT  
RIHN, 'INTERACTIONS BETWEEN MAN AND  
THE ENVIRONMENT IN MESOPOTAMIA'  
—SALINISATION IN THE CONTEXT OF  
ENVIRONMENTAL RECONSTRUCTION  
DURING THE SECOND HALF OF THE THIRD  
MILLENNIUM BC—, 27 OCTOBER 2008,  
SEMINAR ROOMS 3-4, RESEARCH  
INSTITUTE FOR HUMANITY AND NATURE**

[http://www.chikyu.ac.jp/index\\_e.html](http://www.chikyu.ac.jp/index_e.html)

By Chikako E. Watanabe  
(Research Institute for Humanity and Nature/Osaka Gakuin University)

We are holding the project's first public meeting on 27 October at the Research Institute for Humanity and Nature (RIHN) in Kyoto. The symposium is divided into two sessions: the first examines human impact on the Mesopotamian environment, in particular the issue of salinisation; the second is devoted to the study of clay tablets (material, manufacturing and written contents). To the best of our knowledge, this will be the first public meeting in the history of Assyriology in which the material aspects of clay tablets are discussed in relation to their written contents.

This research project examines salinisation within the context of a broader environmental reconstruction of the second half of the third millennium BC in Mesopotamia. In 1958 Jacobsen and Adams published their pioneering work, "Salt and Silt in Ancient Mesopotamian Agriculture" (Science vol. 128/3334, pp. 1251-1258), and since then several important studies have been presented, interpreting the decline of crop yields toward the end of the Ur III period in various ways. However, no further research has been carried out since 1985.

Our project takes a new interdisciplinary approach to this long-standing problem by uniting archaeology, philology, environmental analysis, soil studies and a wide range of scientific techniques in order to trace the extent of salinity in the soil as well as other environmental fluctuations.

Programme:

Session 1 Salinisation and Environmental Reconstruction  
(Facilitator: M. WIDELL)

13:30-13:35 Welcome/greetings (T. WATANABE)

13:35-13:45 Introduction (C. E. WATANABE)



13:45-13:55 Agriculture (M. WIDELL)  
13:55-14:05 The question of salinisation on the middle Euphrates (H. RECULEAU)  
14:05-14:15 Socio-political & cultural Spheres (G. SELZ)  
14:15-14:25 Palaeoenvironment (T. J. WILKINSON)  
14:25-14:35 North Mesopotamian environmental proxies: Tell Brak (A. M. MCMAHON)  
14:35-14:45 Tablet studies (J. TAYLOR)  
14:45-14:55 Biological indicator (A. TUJI)  
14:55-15:05 Computer modelling: Integrating human and natural processes (M. ALTAWEEL) 15:05-15:30 Q & A

15:30-15:50 Tea break

Session 2 The Study of Clay Tablets  
(Facilitator: J. TAYLOR)

Part One: Observations & Hypotheses on Manufacturing Method

15:50-16:00 Introduction (C. E. WATANABE) 16:00-16:10 The making and breaking of clay documents (J. TAYLOR) 16:10-16:20 The medium of the message: The physical features of Old Sumerian clay tablets (G. SELZ) 16:20-16:30 Reading between the lines - revealing geochemical information in clay tablets (M. BICHLER) 16:30-16:40 Q & A

Part Two: Methods of Analysis on Manufacturing and Materials

16:40-16:50 The influence of tempers on the chemical composition of Pottery (J. H. STERBA) 16:50-17:00 Observing clay tablets on a microscope (A. TUJI) 17:00-17:10 Non-destructive analysis of clay tablets by a portable XRF and a portable magnetic susceptibility meter (E. UCHIDA) 17:10-17:20 Q & A 17:20-17:40 Summary (M. CIVIL)

Closing Remarks: Y-I. SATO/T. WATANABE

C. E. WATANABE

Followed by drinks.

\*\*\*\*\*

C.E.Watanabe

Email: [chikako@ogu.ac.jp](mailto:chikako@ogu.ac.jp)

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# **WORLD OF IRON CONFERENCE 2009** **(WIC), NATURAL HISTORY MUSEUM,** **LONDON, UNITED KINGDOM FROM 16-** **20 FEBRUARY 2009**

## **3<sup>rd</sup> CALL FOR PAPERS**

We kindly invite you to submit an abstract for the upcoming  
**WORLD OF IRON CONFERENCE 2009 (WIC)**

Which will take place at the Natural History Museum, London, United Kingdom from 16-20 February 2009.

All information and details can be found on our website:

<http://www.ironsmelting.net/WIC2009/>

### **Scope of the conference**

The ‘World of Iron’ conference sets out to explore and celebrate the anthropological significance of the inception, adoption, expansion, and impact of prehistoric iron production outside Europe. Interlacing regional and themed sessions, it will relate archaeological and archaeometallurgical studies to wider anthropological issues such as technological style; technological variation, change and development; technical and social adaptation; and the evolving influences of iron on society and the physical environment.

This five day event is the first attempt to synthesise the latest research being conducted on iron and steel around the world, and to stimulate future research of the highest level. It creates a globally comparative perspective, integrating insights gained from established and emerging analytical techniques, Anthropology of Technology, and environmental history, highlighting nuances often obscured by Eurocentric perspectives. By bringing together established scholars and young researchers from four key regions, namely Africa, East Asia, the Indian Subcontinent, and Western and Central Asia, it will stimulate an international exchange of ideas and experiences.

### **Sessions**

The **Regional Sessions** bring together scholars and research from four key regions around the world and discuss the latest anthropological, archaeological and metallurgical research in the context of region-specific and wider anthropological themes and considerations:

- **Africa (Chair: Bertram Mapunda)**
- **East Asia (Chair: Han Rubin (to be confirmed))**
- **Indian Subcontinent (Chair: Sharada Srinivasan)**
- **Western and Central Asia (Chair: Ziad al-Saad (to be confirmed))**

The **Themed Sessions** incorporate the latest research being carried out in all regions, *including Europe*, on theoretical, technological, and environmental topics, to ensure

maximum coverage of all major anthropological considerations concerning the study of iron production:

- **Invention, Innovation and Inspiration (Chair: Gill Juleff)**
- **Theoretical Approaches to Technology (Chair: Bryan Pfaffenberger; Co-chair: Pierre Lemonnier)**
- **Scientific Approaches to Technology (Chair: Vincent Serneels)**
- **Environmental Considerations (Chair: Don Wagner)**

### **Abstracts**

Abstracts should have a maximum length of 500 words. They should contain a brief description of the paper's topic, how it relates to the core subjects of the conference, a description of the research goals, the techniques used and the results obtained so far, and its interpretations. Please submit using the form provided on the website or mail [WIC2009@ironsmelting.net](mailto:WIC2009@ironsmelting.net)

### **Organisers**

Xander Veldhuijzen, Jane Humphris, Thilo Rehren: [WIC2009@ironsmelting.net](mailto:WIC2009@ironsmelting.net)

### **Conference Travel Grants**

For details of financial support to attend the conference, please visit [http://www.ironsmelting.net/WIC2009/pay\\_grants.php](http://www.ironsmelting.net/WIC2009/pay_grants.php) If you would like to be considered for such support, please send a brief curriculum vitae and an application letter to: [WIC2009@ironsmelting.net](mailto:WIC2009@ironsmelting.net)

### **Key Dates**

Deadline for submission of abstracts:

**October 15th, 2008**

Notification of acceptance:

**November 15th, 2008**

Deadline for registration and payment of reduced registration fee:

**December 1st, 2008**

### **WIC 2009 is supported by**

**Tata Steel**

and

**The Wenner-Gren Foundation**

### **Registration Fees**

**Before December 1st 2008:**

Symposium Participants: £150

Students: £100

**On December 1st 2008 or later:**

Symposium Participants: £200

Students: £150

**Conference Dinner: £50**

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**Dr Xander Veldhuijzen**

Leverhulme Research Fellow - Archaeometallurgy / Ancient Iron Technology of the Near East

**WORLD of IRON CONFERENCE 2009 (WIC): please visit**

**<http://www.ironsmelting.net/WIC2009/>**

Institute of Archaeology  
University College London  
31-34 Gordon Square  
London WC1H 0PY  
United Kingdom

Office Tel +44 (0)20 7679 7510

*UCL Web* <http://www.ucl.ac.uk/archaeology/>

*My E-mail:* [h.veldhuijzen@ucl.ac.uk](mailto:h.veldhuijzen@ucl.ac.uk)

*My Website:* <http://www.ironsmelting.net/>

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**ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –**  
**JOB VACANCIES/FELLOWSHIPS**

**OFFRE D'EMPLOI TEMPORAIRE - UNE**  
**ANNONCE DU RÉSEAU "ARCHÉOLOGIE**  
**ILE-DE-FRANCE"**

Bonjour à tous !

Dans le cadre de ses activités de recherche, le Service archéologique départemental des Yvelines a besoin de procéder à l'analyse d'un ensemble de céramiques médiévales.

Le travail est évalué, à la louche, à 6 mois temps plein.

Pour l'instant, les modalités de rémunérations et d'organisation du travail ne sont pas arrêtées et restent donc ouvertes.

Auriez vous des personnes (disponibles) à nous conseiller ?!

Bien cordialement,

Marie~Laure Mangavel

\*\*\*\*\*

Service archéologique départemental des Yvelines

Le Pas du Lac

2, avenue de Lunca

78180 Montigny-le-Bretonneux

Tél. direct : 01 61 37 36 88

Secrétariat : 01 61 37 36 86

Fax : 01 30 43 58 95

Courriel : [mlmangavel@cg78.fr](mailto:mlmangavel@cg78.fr)

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## **STUDY IN GREECE, PROGRAMS & FELLOWSHIPS FOR 2009-2010, THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS**

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, 127 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 fields ranging from antiquity to modern Greece, thanks to its internationally renowned libraries, the Blegen, dedicated to classical antiquity, and the Gennadius, which concentrates on the Greek world after the end of antiquity.

Membership application to the School must be made online at <http://www.ascsa.edu.gr/>

### **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. Up to 13 predoctoral fellowships offered for Regular Members 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, 2009.**

**STUDENT ASSOCIATE MEMBERSHIP:** Advanced graduate students in the same fields as for Regular Membership who plan to pursue independent research projects, and who do not wish to commit to the full Regular Program.  
**DEADLINE: JANUARY 15, 2009.**

**SENIOR ASSOCIATE MEMBERSHIP:** Postdoctoral scholars with suitable research projects. Application should be made to the Director of the School in Athens.  
**NO APPLICATION DEADLINE.**

**SUMMER SESSIONS MEMBERSHIP:** Two six-week sessions explore the sites and museums in Greece. Open to graduate and undergraduate students and to high school and college teachers. The fee of \$3,675 includes tuition, travel within Greece, room, and partial board. Scholarships available.  
**DEADLINE: JANUARY 15, 2009.**

**MEDIEVAL GREEK SUMMER SESSION AT THE GENNADIUS LIBRARY:** Graduate students and professors in Byzantine studies from North American or European universities. Month-long program in intermediate level Medieval Greek language and philology at the Gennadius Library, with site and museum trips. The fee of \$3,000

includes tuition, travel within Greece, lodging but no meals. Scholarships available.  
DEADLINE: JANUARY 15, 2009.

ATHENIAN AGORA EXCAVATIONS VOLUNTEER PROGRAM: Volunteers wishing to participate in the archaeological excavations of the Athenian Agora during the summer of 2009, for eight weeks beginning early June and continuing until early August.  
DEADLINE: DECEMBER 15, 2008.

#### SCHOOL FELLOWSHIPS

ADVANCED FELLOWSHIPS: Several 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, 2009.

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, 2009.

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, 2009.

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, 2009.

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, 2009.

SOLOW DISSERTATION RESEARCH FELLOWSHIPS: Travel Fellowships for advanced Ph.D. candidates working on dissertations in Greece related to ancient art and architecture. Maximum amount of \$1,500 per month for up to two months.  
DEADLINE: JANUARY 15, 2009.

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, 2009.

WIENER LABORATORY RESEARCH ASSOCIATESHIPS: Funding up to \$7,000 for well-defined research projects at the laboratory.  
DEADLINES: APRIL 1, SEPTEMBER 1, DECEMBER 1, 2009.

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, 2009.

#### OTHER FELLOWSHIPS

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

THE OSCAR BRONEER TRAVELING FELLOWSHIP: Ph.D. candidate or recent Ph.D. Past Fellows of the American Academy in Rome planning to study at the ASCSA. Housing, travel, and living expenses up to \$30,000 for a minimum of three months. Send applications to ASCSA.

DEADLINE: JANUARY 31, 2009.

CAORC COULSON/CROSS AEGEAN EXCHANGE PROGRAM: 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. Send applications to ASCSA.

DEADLINE: MARCH 15, 2009.

CAORC MULTI-COUNTRY RESEARCH FELLOWSHIPS: Ph.D. candidates 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). Stipends up to \$9,000.

DEADLINE: JANUARY 16, 2009.

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

DEADLINE: OCTOBER 20, 2008.

#### SENIOR FELLOWSHIPS

GETTY RESEARCH EXCHANGE FELLOWSHIPS (CAORC): A stipend of up to \$3,000 for no less than one month for living expenses and up to \$1,000 for travel expenses. Open to scholars who are Greek citizens and who have already obtained a Ph.D. or have professional experience in the study or preservation of cultural heritage and who wish to undertake a specific research project at an American overseas research center in another country. Funded by the Getty Foundation, the fellowships require scholars to affiliate with one of the approved overseas research centers in the Mediterranean Basin and Middle East. Applications at CAORC's web site: [www.caorc.org](http://www.caorc.org).

DEADLINE: JANUARY 16, 2009.



**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, 2009.

**MELLON (EAST AND CENTRAL EUROPEAN) RESEARCH FELLOWSHIPS:** Three fellowships for scholars from Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia. Any field of classical studies or post-classical studies.

DEADLINE: JANUARY 15, 2009.

**NEH FELLOWSHIPS:** Two to four awards for postdoctoral scholars and professionals in the humanities. U.S. citizens or foreign nationals being U.S. residents for three years before application deadline. Applicants must hold their Ph.D. or equivalent terminal degree. Terms: Maximum stipend of \$40,000.

DEADLINE: DECEMBER 1, 2008.

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For MORE information and TO APPLY ONLINE:

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)

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

## **BULLETIN, NEH FELLOWSHIPS 2009-2010, AT THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS**

Founded in 1881, the American School of Classical Studies at Athens is the most significant resource in Greece for American scholars in the fields of ancient and post-classical studies in Greek language, literature, history, archaeology, philosophy, and art, from pre- Hellenic times to the present. It offers two major research libraries: the Blegen, with 90,000 volumes dedicated to the ancient Mediterranean world; and the Gennadius, with 113,000 volumes and archives devoted to post-classical Hellenic civilization and, more broadly, the Balkans and the eastern Mediterranean. The School also sponsors excavations and provides centers for advanced research in archaeological and related topics at its excavations in the Athenian Agora and Corinth, and it houses an archaeological laboratory at the main building complex in Athens. By agreement with the Greek government, the School is authorized to serve as liaison with the Greek Ministry of Culture on behalf of American students and scholars for the acquisition of permits to excavate and to study museum collections.

In the fourteen years since its inception, the NEH Fellowship program at the American School has demonstrated its effectiveness by supporting projects for twenty-seven scholars with distinguished research and teaching careers in the humanities.

Those Eligible: Postdoctoral scholars and professionals in relevant fields such as architecture or art who are U.S. citizens or foreign nationals who have lived in the U.S. for the three years immediately preceding the application deadline. Applicants must hold their Ph.D.

or equivalent terminal degree at the time of application.

Terms: Two to four fellowships, five to ten months in duration.

Maximum stipend for a five-month project, \$20,000; for a ten-month project, \$40,000. Term must coincide with American School's academic year, September to June. A final report is due at the end of the award period, and the ASCSA expects that copies of all publications that result from research conducted as a Fellow of the ASCSA be contributed to the relevant library of the School.

Application: Submit online on the ASCSA web site at [www.ascsa.edu.gr](http://www.ascsa.edu.gr):

a) Cover sheet at [http://www.ascsa.edu.gr/pdf/uploads/neh\\_application.pdf](http://www.ascsa.edu.gr/pdf/uploads/neh_application.pdf)

. b) A statement of the project (up to five pages), including desired number of months in Greece, a timetable, explicit goals, a selected bibliography, and the importance of the work, the methodologies involved, where applicable, and the reasons it should occur in Athens at the American School of Classical Studies. c) Curriculum vitae with list of publications. d) Three letters of reference from individuals familiar with the applicant's work and field of interest who can comment on the feasibility of the project and the applicant's ability to complete it successfully.

Full application information and requests for further information on the American School of Classical Studies or the Fellowship may be obtained from:

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NEH Fellowships  
American School of Classical Studies at Athens  
6-8 Charlton Street  
Princeton, NJ 08540-5232  
Tel: 609-683-0800 Fax: 609-924-0578  
E-mail: [application@ascsa.org](mailto:application@ascsa.org)  
Website: [www.ascsa.edu.gr](http://www.ascsa.edu.gr)

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DEADLINE: DECEMBER 1, 2008.  
The awards will be announced March 1, 2009; acceptance of the award required by  
March 15, 2009.

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**FACULTY POSITION IN**  
**EXPERIMENTAL ACCELERATOR MASS**  
**SPECTROMETRY (AMS),**  
**DEPARTMENTS OF PHYSICS AND**  
**EARTH AND ATMOSPHERIC SCIENCES**  
**AT PURDUE UNIVERSITY**

The Departments of Physics and Earth and Atmospheric Sciences at Purdue University seek applications for a faculty position in experimental Accelerator Mass Spectrometry (AMS) or the application of cosmogenic nuclides. This position would be associated with the Purdue Rare Isotope Measurement Laboratory (PRIME Lab). This is a national facility which supports researchers from Purdue and from around the world in studies of cosmogenic nuclides and biomedical applications of rare isotopes. The successful candidate is expected to have a scientific program that utilizes AMS. Expertise in developing AMS techniques would also be valuable but is not essential.

The level of the position will depend on the candidate's experience. The home department will be in either Physics, Earth and Atmospheric Sciences, or a joint appointment in these two departments, depending on the candidate's research program. Applicants must have a Ph.D. in an AMS related field, an outstanding record of research accomplishments, and evidence of potential excellence in teaching at both the undergraduate and graduate levels. Salary and benefits are highly competitive.

Candidates are expected to develop vigorous research programs, supervise graduate students, and to teach undergraduate and graduate courses.

Interested candidates should submit their curriculum vitae, publication list, and brief descriptions of their planned research program and teaching philosophy. Electronic submission is preferred:

<https://hiring.science.purdue.edu/hiring/login> . At least three letters of recommendation should be sent to AMS Search, Department of Physics, Purdue University, 5 25 Northwestern Ave., West Lafayette, Indiana 47907-2036, USA.

Applications completed by January 15, 2009 will be given full consideration, although the search will continue until the position is filled.

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer and is committed to building a diverse faculty of excellence.

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## **INTERNATIONAL PHD COURSE IN “NOVEL PHYSICS METHODOLOGIES FOR ENVIRONMENTAL RESEARCH”**

CIRCE (Center for Isotopic Research on Cultural and Environmental heritage) at the Environmental Sciences Department of the Second University of Naples, seeks

**PhD students in “Stable and Radioactive Isotopes Mass Spectrometry: applications to Environmental Sciences”**

**Research topics:**

Ultrasensitive Mass Spectrometry of  $^{10}\text{Be}$ ,  $^{14}\text{C}$ ,  $^{26}\text{Al}$ ,  $^{129}\text{I}$ ,  $^{236}\text{U}$ , .

**Requirements:**

Talented and motivated students with Master/Diploma in Physics. Expertise to speak, read and write in English.

**Benefits:**

We offer a stimulating position in an international research group in a nice University campus. Appointments are for 3 years starting in December 2008.

**Application:**

Please, send your CV (as well as name and contact detail of a referee) before November 10 to Prof. Filippo Terrasi ([filippo.terrasi@unina2.it](mailto:filippo.terrasi@unina2.it)). Instructions for complete application will follow, if selected at the first stage.

For further information, contact:

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**Prof. Filippo Terrasi**

**CIRCE, Dept. of Environmental Sciences and INNOVA**

**Via Vivaldi 43**

**81100 CASERTA**

**tel +39 0823 274412; fax +39 0823 274605**

**e-mail [filippo.terrasi@unina2.it](mailto:filippo.terrasi@unina2.it)**

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**UNIVERSITY OF CINCINNATI,**  
**DEPARTMENT OF CLASSICS, MARGO**  
**TYTUS VISITING SCHOLARS**  
**PROGRAM**

The University of Cincinnati Classics Department is pleased to announce the Margo Tytus Visiting Scholars Program. Tytus Fellows, in the fields of philology, history and archaeology will ordinarily be at least 5 years beyond receipt of the Ph. D. Apart from residence in Cincinnati during term, the only obligation of Tytus Fellows is to pursue their own research. Fellowships are tenable during the regular academic year (October 1 to June 10).

There are two categories of Tytus Fellowships, long-term and short-term.

**Long Term Fellows** will come to Cincinnati for a minimum of one academic quarter (two and a half months) and a maximum of three during the regular academic year. They will receive a monthly stipend of \$1000 plus housing and a transportation allowance.

**Short Term Fellows** will come to Cincinnati for a minimum of one month and a maximum of two during the regular academic year. They will receive housing and a transportation allowance.

Both Long Term and Short Term Fellows will also receive office space and enjoy the use of the University of Cincinnati and Hebrew Union College Libraries. While at Cincinnati Tytus Fellows will be free to pursue their own research.

The University of Cincinnati Burnam Classics Library is one of the world's premier collections in the field of Classical Studies. Comprising 235,000 volumes, the library covers all aspects of the Classics: the languages and literatures, history, civilization, art, and archaeology. Of special value for scholars is both the richness of the collection and its accessibility -- almost any avenue of research in the classics can be pursued deeply and broadly under a single roof. The unusually comprehensive core collection, which is maintained by three professional classicist librarians, is augmented by several special collections such as 15,000 nineteenth century German Programmschriften, extensive holdings in Palaeography, Byzantine and Modern Greek Studies. At neighboring Hebrew Union College, the Klau Library, with holdings in excess of 450,000 volumes, is rich in Judaica and Near Eastern Studies.

Application Deadline: January 15.

A description of the Tytus Program is available online at [http://classics.uc.edu/resources/tytus\\_scholars\\_program.html](http://classics.uc.edu/resources/tytus_scholars_program.html). There is an online application at <http://classics.uc.edu/resources/tytusap.lasso>. Questions can be directed to [secretary@classics.uc.edu](mailto:secretary@classics.uc.edu).

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Getzel M. Cohen  
Professor of Classics and History

Director, Tytus Visiting Scholars Program  
Phone: 513-556-1951; Fax: 513-631-1715  
Dept. of Classics, 410 Blegen Library, University of Cincinnati, Cincinnati, Ohio 45221-0226

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## CAARI FELLOWSHIPS IN CYPRUS

Fellowships in Cyprus:

The Cyprus American Archaeological Research Institute (CAARI) in Nicosia, Cyprus, welcomes scholars and students specializing in archaeology, history, and culture of Cyprus and the eastern Mediterranean. CAARI is located in central Nicosia close to the Cyprus Museum, major libraries, and the main business and commercial district. The institute has hostel accommodations and excellent research facilities. For information on CAARI see <http://www.caari.org>

The Cyprus American Archaeological Research Institute (CAARI) announces the following fellowships: THE DANIELLE PARKS MEMORIAL FELLOWSHIP One grant of US\$2,000 to a graduate student of any nationality who needs to work in Cyprus to further research on a subject of relevance to Cypriot archaeology and culture. The purpose of the fellowship is to help cover travel to and living expenses in Cyprus. Applications in 2009 are invited especially from students of antique Cyprus. While in Nicosia, Cyprus, the fellow will reside at CAARI. During his/her stay, the fellow is expected to give a presentation at CAARI on a subject related to his/her research. The fellow will periodically keep the Director of CAARI apprised of his/her research activities. The fellow will acknowledge CAARI and the Danielle Parks Memorial Fellowship in any publication that emerges from the research carried during the fellowship.

Application requirements: Please send project statement; expected schedule of work; budget; curriculum vitae; two letters of recommendation. DEADLINE: February 1, 2009.  
INFORMATION & SUBMISSION OF APPLICATIONS:

CAARI

656 Beacon Street (Fifth Floor)

Boston, MA 02215

Fax: 617-353-6575

Email: [caari@bu.edu](mailto:caari@bu.edu)

THE HELENA WYLDE SWINY AND STUART SWINY FELLOWSHIP: One grant of US\$1000 to a graduate student of any nationality in a U.S. college or university to pursue a research project relevant to an ongoing field project in Cyprus; to be used to fund research time in residence at CAARI and to help defray costs of travel. Residence at CAARI is required.

Application requirements: project statement; expected schedule of work; budget; curriculum vitae; two letters of recommendation.

DEADLINE: February 1, 2009.

INFORMATION & SUBMISSION OF APPLICATIONS:

CAARI

656 Beacon Street, Fifth Floor

Boston, MA 02215

Fax: 617-353-6575

Email: [caari@bu.edu](mailto:caari@bu.edu)

THE ANITA CECIL O'DONOVAN FELLOWSHIP: One grant of US\$1000 to a graduate student of any nationality, studying in any nation, to pursue a research project



relevant to an ongoing field project in Cyprus; to be used to fund research time in residence at CAARI and to help defray costs of travel. Residence at CAARI is required. Application requirements: project statement; expected schedule of work; budget; curriculum vitae; two letters of recommendation.

DEADLINE: February 1, 2009.

**INFORMATION & SUBMISSION OF APPLICATIONS:**

CAARI

656 Beacon Street, Fifth Floor

Boston, MA 02215

Fax: 617-353-6575

Email: [caari@bu.edu](mailto:caari@bu.edu)

**CAARI SENIOR SCHOLAR IN RESIDENCE:** An established scholar who commits to stay at least 30 days in succession at CAARI, ideally in the summer, and to be available in evenings and weekends to younger scholars working there, in return for 50% reduction in residency rate. Must have PhD in archaeology or ancillary field for at least 5 years prior to visit, be fluent in English (but may be of any nationality), and be committed to mentoring students. Travel, other expenses not covered.

**APPLICATION REQUIREMENTS:** Letter detailing the applicant's proposed schedule; summary curriculum vitae. **APPLICATION DEADLINE:** April 15, 2009

**INFORMATION AND SUBMISSION OF APPLICATIONS:**

Director, CAARI

11 Andreas Demetriou St.

1066 Nicosia, Cyprus.

Email: [director@caari.org.cy](mailto:director@caari.org.cy)

Further Fellowships for research in Cyprus:

**2008 GETTY RESEARCH EXCHANGE FELLOWSHIP PROGRAM FOR THE MEDITERRANEAN BASIN AND MIDDLE EAST:** This new fellowship program is open to scholars who are citizens of Afghanistan, Algeria, Cyprus, Egypt, Greece, Iraq, Israel, Italy, Jordan, Morocco, Palestine, Tunisia, Turkey, and Yemen, and who wish to undertake a specific research project at CAARI (or an American overseas research centers in another participating country). Period of residency is one to two months.

Applicants must have a Ph.D. degree or professional experience in the study or preservation of cultural heritage. Cypriot scholars must select a center other than CAARI. Applications are submitted to the American overseas research center in the scholar's home country.

**INFORMATION AND APPLICATION FORM:**

<http://www.caorc.org/programs/getty.htm> or e-mail:

[director@caari.org](mailto:director@caari.org) **APPLICATION DEADLINE:** January 15, 2009 **SUBMISSION OF APPLICATIONS:**

Director, CAARI

11 Andreas Demetriou St.

1066 Nicosia, Cyprus.

Email: [director@caari.org.cy](mailto:director@caari.org.cy)

**FELLOWSHIPS IN ART HISTORY AT FOREIGN INSTITUTIONS:** Four US\$22,500-per-year Kress Institutional Fellowships in the History of European Art for a two-year research appointment in association with one of a list of foreign institutes, among them CAARI. Restrictions:

Restricted to pre-doctoral candidates in the history of art. Nominees must be U.S. citizens or individuals matriculated at an American university. Dissertation research must focus on European art before 1900. Candidates must be nominated by their art history department.

INFORMATION: Samuel H. Kress Foundation

174 East 80th Street

New York, NY 10021

<http://www.kressfoundation.org/twoyearfell.html>

FULBRIGHT SCHOLARS PROGRAM for postdoctoral research in Cyprus.

INFORMATION:

Council for International Exchange of Scholars

3007 Tilden Street NW, Suite 5 M

Washington, DC 20008-3009;

Telephone: 202-686-7877

FULBRIGHT STUDENT PROGRAM for pre-doctoral research in Cyprus.

INFORMATION:

Fulbright Student Program

Institute of International Education

809 U.N. Plaza

New York, NY 10017-3580;

Telephone: 212-883-8200

## **JOB OPPORTUNITY, UNIVERSITY OF AMSTERDAM**

The University of Amsterdam (UvA) is a university with an internationally acclaimed profile, located at the heart of the Dutch capital. As well as a world centre for business and research, Amsterdam is a hub of cultural and media activities. The University of Amsterdam is a member of the League of European Research Universities. The Faculty of Humanities undertakes teaching and research with a strong international orientation in a large number of disciplines within the field of language and culture. The faculty is situated in the centre of Amsterdam and maintains close contacts with many cultural institutions in the city. It employs almost a thousand staff members and its courses are attended by approximately 6,500 students.

The Amsterdam Archaeological Centre (AAC), is one of the nine research groups within the Department of History, Archaeology and Area Studies. A scientific staff over 10 fte, about 50 employees in total and almost 30 first year students per year, makes the AAC a medium-sized department, which in the next years is planning to expand through innovation in education and obtaining new research projects. The team is widely oriented, with the accent on Classical Antiquity in the Mediterranean world and on the Northwest European Middle Ages. In its research and education an interdisciplinary approach, within and beyond archaeology, is stimulated and the interaction between different archaeological approaches is strengthening by debate and teamwork.

### *Project: New Perspectives on Ancient Pottery*

Recently the Mediterranean division has started a seven-year research project New Perspectives on Ancient Pottery. The project is planning to develop new standards for scientific processing and research of 'archaeological' pottery, while at the same time trying to answer research questions about production, use, appreciation and distribution of pottery. The starting point of this research is formed by some large collections of finds from fieldwork projects in Greece and Italy (or possibly related areas in the Mediterranean).

Central topics in the project are 1) 'does form follow function?': How is pottery quality related to the roles pots have had in various find contexts and periods? and 2) 'from far or from nearby', about the interaction between imported ceramics, 'imitation-imports' and locally produced ceramics. These two central topics and some closely related methodological issues will be explored starting from the finds in (at least) four Mediterranean field work projects with a significant Dutch input, at the locations mentioned. In order to make all this possible, a large, uniform database, partly connected to GIS-data, is being designed and set up; in addition various scientific methods of pottery-analysis will be employed. Exploring the latest possibilities offered by IT and scientific research methods are important aspects. Because the project crosses borders and has an innovative character, we expect the employees to have an interdisciplinary, flexible and open attitude with an open eye for the coherence of the project. The total project will comprise 1 Assistant Professor, 1 postdoc, 6 PhDs and several

supporting positions, which have been or will be contracted over the period 2007-2011. Over the next months, the following vacancy will be available:

**Research Scientist (Postdoc)**

**0.8 fte (32h per week)**

**vacancy number 08-3070**

**For both internal and external candidates**

Research of the candidate will take place within the framework of the project New Perspectives on Ancient Pottery. Specifically, the successful candidate will be assigned to formulate and complete research that focuses on the theory and methodology of processing large pottery assemblages from excavations and field surveys, and on the more general archaeological interpretations of such material. One part of this research should contribute to the theoretical foundations and the practical processing work of the NPAP-project as a whole, in the other part it should be put to practice, in the context of the project, with finds from one of more long-running field work projects in the Central Mediterranean. I.e., the candidate should supervise the processing and publication of a large, preferably unsorted body of Graeco-Italian or related pottery (ca. 1200-100 BCE) using the database, the GIS and methodology developed through NPAP, and thereby offer answers to the more general research questions on pottery production, distribution and use which are addressed by the project (see project description). It is welcomed if this on-site research would include some strictly focused excavation, in which students of the University of Amsterdam could take part.

As one of the senior researchers in the project, the candidate should be a team player with good research management skills, proven by relevant experience. Assistance in managing the project as a whole and its members will take a significant part of the working time. On the one hand, the candidate should closely cooperate with the other senior researchers in the project and the department and the it manager of the project in formulating and controlling the general aims of the project and the research in her or his site, on the other hand (s)he should control the general progress of the project in general and some of its components, and manage the junior researchers and students who will do much of the practical work, in the field and in Amsterdam. Especially important is the cooperation with the NPAP senior researcher specialized in technical pottery research; both positions should be more or less complementary and closely interacting. In addition, the candidate is expected to involve him/herself in raising funds for additional research related to NPAP, both personally and in cooperation with other members of the team. The candidate is also expected to share her or his expertise widely, not only within NPAP and the Amsterdam Archaeological Centre of the University of Amsterdam, or by publications in books, articles and conference proceedings, but also by establishing a network of relations with other institutions and persons active in the field. Assisting the supervision of one or more PhD-researchers in the project may be part of the tasks.

**Requirements**

- the candidate should have recently finished a PhD degree in Mediterranean archaeology, focusing on (part of) the period 1200-100 BCE. In case a dissertation has been submitted, but not yet accepted and/or defended, the candidate should be able to certify when it will be officially approved;

- the candidate should have ample demonstrable experience in the field of pottery research, including processing and interpreting large amounts of field data;
- a large body of excavation or survey finds relevant to the project should be available for research by the candidate within the organizational and methodological context of NPAP;
- a good publication record will be appreciated;
- as mentioned above, a team spirit, and demonstrable experience and skills in funding, organizing and running research projects, including general management capacities, are needed;
- the successful candidate should possess excellent skills in writing and speaking in English, or acquire them within a year (English is the working language of the project). If not fluent in Dutch already, he or she will have to be prepared to learn Dutch;
- the possession of a driver's license will be welcomed.

### **Further information**

Further information about this vacancy can be obtained from Prof. dr. Vladimir Stissi, telephone + 31 (0)20-525 2558, e-mail [v.v.stissi@uva.nl](mailto:v.v.stissi@uva.nl), or Kim van Winsen (project assistant), telephone + 31 (0)20-525 8775.

### **Appointment**

This is a temporary appointment for one year. Satisfactory performance is subject for an appointment for another four years. The gross monthly salary will range from € 2330,- to € 3670,- (scale 10), based on a full-time appointment (38 hours a week).

### **Job application**

Applications (cover letter and curriculum vitae) should be submitted before 9 November 2008 to the Universiteit van Amsterdam, Faculty of Humanities, attn. the Dean, Ms Prof dr J.F.T.M. van Dijck, Spuistraat 210, 1012 VT Amsterdam. In addition, the candidates are asked to offer a sketch of the research project they propose in the context of the NPAP-project (500-1000 words in English or Dutch).

Please state the vacancy number (08-3070) and 'strictly confidential' in the upper left corner of the envelope.

You may also submit your application by e-mail to 'solliciteren2008-fgw@uva.nl'. In that case, please state the vacancy number (08-3070) in the subject-field.

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## **ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS**

# **NEW ATLAS TO REVEAL LANDSCAPE AND UNDISCOVERED ARCHEOLOGICAL SITES IN 3-D**

(PhysOrg.com) -- New methods developed at the University of Arkansas will make decades-old satellite imagery readily available to archeologists and others who need to know what a landscape looked like before the spread of cities and agriculture. For the first time, archeologists can see three-dimensional views of the landscape of the Middle East from 40 years ago.

With a \$338,000 grant from the National Endowment for the Humanities and an award from the American Council of Learned Societies, Jesse Casana and Jackson Cothren will develop an archeological atlas of the Middle East that can easily be used with contemporary mapping applications to pinpoint locations.

In the current issue of *Antiquity*, Casana, an archeologist who focuses on the Middle East, and Cothren, a geoscientist specializing in geomatics, have published an account of the methods and examples of their work. Geomatics is the art, science and technologies related to the management of geographically referenced information including such areas as geographic information systems, remote sensing, cartography and surveying.

Using declassified images from a government satellite program called CORONA, the researchers are working with high-resolution digital scans distributed by the U.S. Geological Survey of film that was shot between 1967 and 1972. CORONA images from the final years of the program were taken with two cameras simultaneously.

"Our relatively straightforward methods produce robust results that offer powerful new perspectives on individual sites, larger archeological features and the landscapes in which they are situated," the researchers wrote.

Because Cothren and Casana correct the images so precisely, it is possible to use 3-D glasses for a particularly vivid view of features on the landscape.

What's more, they wrote, "The ease with which these methods can be applied and the low cost of doing so opens the possibility for the application of these techniques across large regions and in areas with little or no modern ground control."

Looking at the ground from above can be a powerful way of finding archeological sites and identifying ancient roads, fields and canals, but until now, there were drawbacks to using modern satellite images.

For one, while contemporary satellite images are of good quality, over the past 40 years in the Middle East in particular, expanding cities and agriculture have destroyed or obscured much of the archeological record. Casana estimates that there are hundreds, perhaps thousands, of unrecorded sites under reservoirs or beneath cities.

"The sites just appear much more clearly on the old imagery," Casana said. "You can look at this beautiful new imagery, but if a site is at the bottom of a reservoir, you're really not going to see it. This old imagery is an irreplaceable resource for archeologists because it preserves a picture of things that were visible 40 years ago."

Another drawback has been the distortion present in the old imagery. The original images were shot using a panoramic camera that produces a bowtie-shaped distortion that is not easily corrected and prevents the imagery from being used to accurately map sites or other features.

By modifying a mathematical model developed at The Ohio State University, Cothren developed an algorithm to correct the bowtie distortion so that each pixel now has a latitude and longitude associated with it, information that can be loaded into a GPS device.

The corrected images are accurate to within about 10 meters. Once corrected, the imagery will be accessible to researchers through an online atlas that will coordinate with contemporary map applications such as GoogleEarth, layering the old over the new.

"The idea behind this project was to take an incredible resource that everyone wants – but in its current format is virtually impossible to use – and to make it easily accessible," Casana said. "It's amazing for archeology in the Middle East. You can take your GPS, go directly to a site that is visible on the image, and map it accurately."

Casana will give the imagery a work out next year. He will use the imagery to locate and map archeological sites on his field project in western Syria. In a place that has been occupied as long as the Middle East, there will be many sites from many eras.

"There will be hundreds of sites within that area," Casana said. "The big sites, like Roman ruins or castles, we already know about. But most of the sites, the smaller ones, have never even been discovered."

Cothren estimates that there are several hundred gigabytes of CORONA data to work with, and it will all be corrected for both spatial and topographic distortions. According to Casana, the goal is to make "a perfect map" that presents accurate locations and heights within 10 meters for sites and features such as roads and canals. The resulting atlas will be available on a server hosted by the University of Arkansas' Center for Advanced Spatial Technologies (CAST).

"Our hope is that it becomes a central resource for archeologists and others, like geographers, for looking at the growth of towns and cities or the movement of rivers or changes in agricultural strategies," Casana said.

Casana is an assistant professor of anthropology and Cothren is an assistant professor of geography and researcher with CAST. CAST and the J. William Fulbright College of Arts and Sciences at the University of Arkansas provided additional funding for the research.



Their article, titled "Stereo Analysis, DEM Extraction and Orthorectification of CORONA Satellite Imagery: Archaeological Applications From the Near East," appeared in the September issue of Antiquity.

Provided by University of Arkansas

Please visit the site: <http://www.physorg.com/news142012612.html>  
[Go there for pix]

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## **JSTOR ANNOUNCES THE FOLLOWING** **NEW CONTENT**

The British Museum Quarterly (Arts & Sciences Complement) Release Content:

Vols. 1 – 37; 1926 - 1973

Publication of this title ceased in 1973.

Publisher: British Museum

ISSN: 0007-151X

Bulletin of the Fogg Art Museum [1931-1950] (Arts & Sciences V) Previous Title =  
Notes (Fogg Art Museum)[1921-1931] (1939053X) Release Content:

Vols. 1 – 2; 1921 - 1931

Vols. 1 – 11; 1931 - 1950

Publication of this title ceased in 1950.

Publisher: President and Fellows of Harvard College on behalf of Harvard Art Museum

ISSN: 1939-0394

Cahiers d'Études Africaines (Arts & Sciences Complement) Release Content:

Vols. 1 – 42; 1960 - 2002

Moving Wall: 5 years

Publisher: EHESS

ISSN: 0008-0055

Corinth: Results of Excavations Conducted by the American School of Classical Studies  
at Athens (Arts & Sciences Complement) Release Content:

Vols. 1 – 20; 1929 - 2004

Moving Wall: 3 years

Publisher: American School of Classical Studies at Athens

ISSN: 1558-7185

Please note: The first volume of Corinth appeared in 1929, and further parts appear  
irregularly as scholars finish their assigned topics.

Dead Sea Discoveries (Arts & Sciences Complement) Release Content:

Vols. 1 – 9; 1994 - 2002

Moving Wall: 5 years

Publisher: Brill

ISSN: 0929-0761

Please visit the site : <http://ancientworldbloggers.blogspot.com/2008/09/new-in-jstor.html>

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## ICOM-CC METALS WORKING GROUP

Dear Archaeo metallurgists,

The International Committee of Museums Conservation Committee Metals Working Group has set up a discussion group for members and interested parties at;

<http://tech.groups.yahoo.com/group/Metals-WG-ICOM-CC/>

This is a closed discussion group but please feel free to join. If you do join please list your institutional association when you send the request via the above link.

Thanks

David Hallam  
Coordinator ICOM-CC Metals Working Group

\*\*\*\*\*

David Hallam  
[d.hallam@NMA.GOV.AU](mailto:d.hallam@NMA.GOV.AU)  
Senior Conservator  
Collections and Research  
National Museum of Australia.  
0419019895 or 0262085245 in analytical laboratory

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## *INTERNET SITES*

# **BELGIAN SCHOOL AT ATHENS: WEBSITE AND CALENDAR**

Dear all,

Even though the lay-out of our website still demands a serious update and redesigning, in hyperlink below the URLs for general information and an updated calendar.

<http://www.ebsa.info>

<http://www.ebsa.info/calendar.html>

Dr. Steven Soetens

Director EBSA

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## ARCHIMEDES PALIMPSEST PROJECT

Ten years ago today, a private American collector purchased the Archimedes Palimpsest. Since that time he has guided and funded the project to conserve, image, and study the manuscript. After ten years of work, involving the expertise and goodwill of an extraordinary number of people working around the world, the Archimedes Palimpsest Project has released its data. It is a historic dataset, revealing new texts from the ancient world. It is an integrated product, weaving registered images in many wavebands of light with XML transcriptions of the Archimedes and Hyperides texts that are spatially mapped to those images. It has pushed boundaries for the imaging of documents, and relied almost exclusively on current international standards. We hope that this dataset will be a persistent digital resource for the decades to come. We also hope it will be helpful as an example for others who are conducting similar work. It published under a Creative Commons 3.0 attribution license, to ensure ease of access and the potential for widespread use. A complete facsimile of the revealed palimpsested texts is available on Googlebooks as <sup>3</sup>The Archimedes Palimpsest<sup>2</sup>. It is hoped that this is the first of many uses to which the data will be put.

For information on the Archimedes Palimpsest Project, please visit:  
[www.archimedespalimpsest.org](http://www.archimedespalimpsest.org) <<http://www.archimedespalimpsest.org>>

For the dataset, please visit:  
[www.archimedespalimpsest.net](http://www.archimedespalimpsest.net) <<http://www.archimedespalimpsest.net>>

We have set up a discussion forum on the Archimedes Palimpsest Project. Any member can invite anybody else to join. If you want to become a member, please email:  
[wnoel@thewalters.org](mailto:wnoel@thewalters.org)

I would be grateful if you would circulate this to your friends and colleagues.

Thank you very much.

Will Noel

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Email: [wnoel@thewalters.org](mailto:wnoel@thewalters.org)

The Walters Art Museum  
October 29th, 2008.

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## ANTIKYTHERA VIDEO ANNOUNCEMENT

Friends and colleagues: Improved technology increasingly is revealing unimagined facts about the impressive accomplishments of ancient societies.

To see a fascinating account of modern imaging techniques uncovering the complexities of an ancient machine, watch The Antikythera Mechanism:

Decoding an Ancient Greek Mystery, the latest video feature on our nonprofit streaming-media Web site, The Archaeology Channel (<http://www.archaeologychannel.org>).

In 1901, sponge divers found an extraordinary mechanism on the sea bottom near the island of Antikythera. It astonished the whole international community, stumping scientists for decades. Was it an astrolabe, an astronomical clock, or something else? More recent research is revealing its secrets. Dating from around the 1st century B.C., it is the most sophisticated mechanism known from the ancient world. The Antikythera Mechanism operated as a complex mechanical "computer" to track the cycles of the Solar System.

This and other programs are available on TAC for your use and enjoyment.

We urge you to support this public service by participating in our Membership (<http://www.archaeologychannel.org/member.html>) and Underwriting (<http://www.archaeologychannel.org/sponsor.shtml>) programs. Only with your help can we continue and enhance our nonprofit public-education and visitor-supported programming. We also welcome new content partners as we reach out to the world community.

Please forward this message to others who may be interested.

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Richard M. Pettigrew, Ph.D., RPA  
President and Executive Director  
Archaeological Legacy Institute  
<http://www.archaeologychannel.org>

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## ANCIENT EGYPTIAN ASTRONOMY

The constellations we are currently familiar with originate from "Ptolemy's 48 constellations" compiled from ancient Greek constellations by Claudius Ptolemaeus (from 90 A.D. to about 168 A.D.).

Jiro Kondo

Professor at Faculty of Letters, Arts, and Sciences, Waseda University Director of Institute of Egyptology, Waseda University

### General

The constellations we are currently familiar with originate from "Ptolemy's 48 constellations" compiled from ancient Greek constellations by Claudius Ptolemaeus (from 90 A.D. to about 168 A.D.). He was a Greek astronomer flourishing in Alexandria, Egypt in the second century A. D. Though it is believed these constellations originate from Mesopotamia or ancient Greece, there are still various views on the origin of constellations. Ancient Egypt had its own constellations.

### 1. Constellations specific to ancient Egypt

Ancient Egyptians called the northern stars around the circumpolar star "Ikhemw-sek" (imperishable stars) and the southern stars "Ikhemw-wredj" (unwearying stars). This naming (tireless stars) is probably because the southern stars especially on and about the celestial equator travel a very long distance after they rise above the East horizon before they sink below the West horizon, while the northern stars move counterclockwise around the celestial north pole.

### 2. Northern constellations, imperishable stars

On ancient Egyptian tombs and ceilings of temples, northern constellations were discovered. These stars are called "Ikhemw-sek" (imperishable stars) because they are generally assumed to be "northern circumpolar stars" never sinking below the horizon. The oldest existing northern constellation is a constellation named "Meskhetyw." It was drawn as a forefoot of a bull on the interior lid of the wooden coffin for the man named Idy which dated from the First Intermediate Period (from 2145 B.C. to about 2025 B.C.) and was excavated in Asyut. This constellation corresponds to our "Big Dipper." On the left of the foreleg, hieroglyph showing "Meskhetyw m pet mehetet" (Meskhetyw in the northern sky) was vertically written.

As for representation of the whole northern constellations, the tomb of Senenmut, an official for Hatshepsut (around 1460 B.C.) in the 18th Dynasty in New Kingdom, is widely known. On the top of the center pole, a bull having short legs was drawn together with Meskhety written in hieroglyph. We can see Selket, scorpion-goddess with a sun disk on her head, behind the bull, and a constellation named Anu, a falcon-headed man harpooning the bull, below the bull. Further on the right of the pole, there is a female hippopotamus carrying a crocodile on her back and the astronomical instrument called

Mereket as well as a crocodile in her hands. Also a lying lion, crocodile, and human beings were drawn on the left.

Northern constellations were also found on ceilings of tombs in the Valley of the Kings. Among them, the constellations drawn on the ceiling of the burial chamber in the tomb of Seti I in the 19th Dynasty are famous. Compared to the northern constellations in the tomb of Senenmut in the 18th Dynasty as described before, almost same figures were drawn, but all the figures were not located in the same positions. This implies it makes little sense to identify current constellations with the northern constellations in the tomb of Seti I.

This is why it is difficult to determine correspondence between ancient Egyptian constellations and our current constellations.

### 3. Southern constellations, unwearying stars

There are two famous constellations among the southern stars called Ikhemw-wredj (unwearying stars): a constellation called Sah corresponding to the current Orion's Belt and Sirius called Sepdet.

The name Sah was first found in the "Pyramid Text" engraved in the Pyramid of Unas, the last king of the 5th Dynasty, Old Kingdom (reign: from 2340 B.C. to 2320 B.C.). The figures of Sah and Sepdet were also drawn on lids of wooden coffins between the First Intermediate Period and Middle Kingdom. Since Sah represented in hieroglyph was positioned above the head, the Orion's Belt was assumed to be crown on the head of Sah. Further Sepdet (Sirius) opposed to Sah was drawn as goddess with was scepter in her hand.

The tomb of Senenmut as described before also shows a man on board as a figure representing Sah. This man holds Was scepter in his left hand and "Ankh", symbol of life, in his right hand. Due to his long beard, he is believed to be a god. In ancient Egypt, a male figure with a long beard represents either king or god. Around Sah in the tomb of Senenmut, a constellation composed of big three stars was drawn, which corresponds to the Orion's Belt. In the lower right position of these three stars, rather little nine stars were aligned vertically toward under Sah's boat. From this point, we can presume Sah was the constellation containing some stars in addition to the Orion's Belt.

Sah was also drawn on the uranometry in the Dendera temple constructed at the end of the Ptolemaic Dynasty (around first century B.C.).

Though this Sah figure is a man with Was scepter in his hand, he wears an elongate Upper Egyptian king's crown "white crown." From the fact that he holds a flail in his right hand and wears a bull's tail, we can determine this figure represents Osiris.

#### Jiro Kondo

Professor at Faculty of Letters, Arts, and Sciences, Waseda University, Director of Institute of Egyptology, Waseda University After graduation from School of Letters, Arts, and Sciences 1 at Waseda University, the author proceeded to Graduate School of Letters, Arts, and Sciences and left it due to expiration of the PhD course term. In 1976, he joined Waseda Egyptian Survey team for Egyptian archeological survey. From October in 1981 to September in 1983, he studied at Cairo University as a student overseas sent to Asian countries by the Ministry of Education. He specializes in Egyptology, archaeology, and cultural properties. His main works include "Beginning of

things, 50 stories" (Iwanami Shoten), "Egyptian archaeology" (Douseisha), "Enjoy Hieroglyph" (Shueisha, Inc.). He is currently a professor at Faculty of Letters, Arts, and Sciences, Waseda University, a director of Institute of Egyptology, Waseda University, and a standing director of the Society for Near Eastern Studies in Japan.

Jiro Kondo | Quelle: ResearchSEA

Weitere Informationen: [www.waseda.jp](http://www.waseda.jp)

[www.yomiuri.co.jp/adv/wol/dy/](http://www.yomiuri.co.jp/adv/wol/dy/)

[www.researchsea.com](http://www.researchsea.com)

**Please visit the site:**

[http://www.innovations-report.de/html/berichte/physik\\_astronomie/ancient\\_egyptian\\_astronomy\\_120456.html](http://www.innovations-report.de/html/berichte/physik_astronomie/ancient_egyptian_astronomy_120456.html)

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# DIGITAL KARNAK PROJECT WEBSITE LAUNCH

The Digital Karnak Project is pleased to announce the launch of its website: <<http://dlib.etc.ucla.edu/projects/Karnak/>>. The Digital Karnak Project, based at the University of California at Los Angeles (UCLA), aims to make the ancient Egyptian site of Karnak more accessible to students and instructors in the English-speaking world. The features of this website have been designed to provide college classrooms (and the interested public) with easily accessible, up-to-date, expert material relating to the famous temple of Amun-Ra at Karnak, located in modern day Luxor, Egypt.

The website features a geographically-referenced "time-map" highlighting the areas of the temple under construction during the reign of each Egyptian king, thematic videos of a 3D Virtual Reality model of the temple along with corresponding instructional texts, individual descriptions of each temple building recreated on the Virtual Reality model and a fully interactive Google Earth version of the model. We hope educators and students will use these free digital resources to more effectively teach and learn about the complex spatial and chronological changes that took place during the 1500 years of building activity at Karnak temple.

The Digital Karnak Project website is best viewed using Mozilla Firefox 2 (PC and Mac), Internet Explorer 7 (PC), and Safari 3 (Mac).

The Digital Karnak Project is funded by the National Endowment of the Humanities (NEH) and the Steinmetz Family Trust. The project was made possible through UCLA's Institute for Digital Research and Education (IDRE). For more information on IDRE's Humanities, Arts and Architecture, Social and Information Sciences Core (IDRE-HASIS) visit [www.idre.ucla.edu/hasis](http://www.idre.ucla.edu/hasis).

The Digital Karnak Project is directed by UCLA professors Dr. Diane Favro and Dr. Willeke Wendrich.

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From Elaine Sullivan  
Email: [elainesullivan@ucla.edu](mailto:elainesullivan@ucla.edu)

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***ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS***

**2006-7 ISSUE OF TΑΛΑΝΤΑ,  
PROCEEDINGS OF THE DUTCH  
ARCHAEOLOGICAL AND HISTORICAL  
SOCIETY (XXXVIII-XXXIX)**

The 2006-7 issue of TΑΛΑΝΤΑ, proceedings of the Dutch Archaeological and Historical Society (XXXVIII-XXXIX), has been released and includes the following contributions:

Brent Davis: THE LUNAR YEAR OF THE COLIGNY CALENDAR AS A PRECEDENT FOR THE INSULAR LUNAR YEAR and THE SOLAR YEAR OF THE COLIGNY CALENDAR AS AN ANALOGUE OF THE ROMAN SOLAR YEAR

Ruud de Zwarte: PYTHAGOREAN HARMONY MATHEMATICS AND BUILDING TECHNIQUES: THE SECOND TEMPLE OF HERA ('POSEIDON') AT PAESTUM

Jari Pakkanen: THE ERECHTHEION AND THE LENGTH OF THE 'DORIC-PHEIDONIC' FOOT

Evi Margaritis: ARCHAEOBOTANICAL INVESTIGATIONS AT THE GEOMETRIC SITE OF KRANIA, SOUTHERN PIERIA IN MACEDONIA, GREECE

David Govantes-Edwards: THE NEW INSTITUTIONALISM: A NEW THEORETICAL APPROACH TO THE STUDY OF CLASSICAL ECONOMICS

Frits Naerebout: GLOBAL ROMANS? IS GLOBALISATION A CONCEPT THAT IS GOING TO HELP US UNDERSTAND THE ROMAN EMPIRE?

Y. Selçuk Şener, Bekir Eskici, and Cengiz Çetin: THE ZEUGMAWALL PAINTINGS: STUDY AND RECOVERY OF THE ROMAN DECORATIONS

Wouter Kool: JUST ANOTHER CHANGING CITY? THE URBAN DEVELOPMENT OF ROME AD 400-900

Feyo Schuddeboom: ORGIA AND TELETE IN THE EPIGRAPHICAL EVIDENCE

Eka Avaliani: WHICH GODDESS COULD BE HIDDEN BEHIND THE TITLE "THE QUEEN OF HEAVEN" IN JEREMIAH'S PROPHETIC BOOKS?

Fred Woudhuizen: DIONYSOS AND HIS CULT IN ETRUSCAN TEXTS and TRACES OF ETHNIC IDENTITIES IN ETRUSCAN ONOMASTICS

Jan de Boer: PHANTOM-MYCENAEANS IN THE BLACK SEA

Irma Berdzenishvili: THE ANCIENT CHRISTIAN MONUMENTS OF THE BLACK  
SEA EASTERN LITTORAL – PITIUNT (BICHVINTA)

From Jorrit Kelder [jorritkelder@gmail.com](mailto:jorritkelder@gmail.com)

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## **PALMYRE AUSSI AVAIT « SON COLISÉE », ESTELLE VILLENEUVE, LE MONDE DE LA BIBLE, N° 186, SEPTEMBRE- OCTOBRE 2008, P. 48-49**

<http://www.mondedelabible.com> Pour commander: <[mondedelabible@bayard-presse.com](mailto:mondedelabible@bayard-presse.com)>

En examinant d'anciennes photos aériennes de Palmyre, un architecte franco-syrien a repéré, en mai 2008, un large tracé circulaire, passé jusqu'ici inaperçu ... la forme caractéristique d'un amphithéâtre ! Qui eût cru que l'antique Tadmor, perle de l'hellénisme oriental, hébergeait un monument si typiquement romain et plutôt rare en Orient ?

Combien de personnes ont consulté cette liasse des photographies aériennes de Palmyre, prises en mars 1930 par les Forces françaises du Levant? Un bon nombre sans doute, mais il fallait un regard très attentif pour repérer, sur les clichés n° 202 et 203, cette fine coloration de la surface à deux ellipses concentriques qui trahit un amphithéâtre enfoui. À dire vrai, ce n'est pas exactement ce que cherchait l'architecte Manar Hammad lorsque son il a capté la forme inattendue. Ce qu'il scrutait sur ces photos, c'est le réseau d'adduction d'eau de l'antique Tadmor, dont il avait entrepris l'inventaire systématique en vue de l'Atlas archéologique de Palmyre [1], un projet international sous l'égide de l'UNESCO et de la Direction des Antiquités de Syrie. Or dans la partie nord-est de la ville antique, deux canalisations étaient connues de longue date. C'est l'une d'elles qui l'a conduit tout droit jusqu'à cette « forme » qu'elle devait alimenter. « Avant tout, il fallait vérifier que les dimensions de l'édifice enfoui correspondent bien aux normes monumentales d'un amphithéâtre, explique M. Hammad. À l'échelle, la trace mesurait une centaine de mètres de long, ce qui est le calibre moyen de ces bâtiments destinés aux combats de gladiateurs, chasses aux fauves et batailles nautiques. La double ligne que l'on distingue sur la photo, avec ses contours bien parallèles et les traits rayonnants d'une architecture en caissons, servait à adosser les gradins où se répartissaient les spectateurs. L'arène centrale était souvent excavée en dessous du niveau du sol. Si tel est le cas ici, nous pourrions alors retrouver les aménagements, plus ou moins intacts, sous les vergers qui ont été plantés depuis les années 1930 ».

Des plaisirs très romains Ainsi, à l'instar de Rome et de son Colisée, de Nîmes, Lutèce et leurs Arènes, Tadmor aura vibré aux rugissements des jeux ! Une surprise pour cette ville de riches marchands, plus enclins aux plaisirs raffinés de l'Orient et de l'hellénisme, qu'aux divertissements brutaux des Romains. Mis au point en Campanie au Ier s. avant notre ère, ces vastes édifices ont essaimé au rythme de la conquête. Au point de devenir un fleuron de la romanisation et du pouvoir impérial. Mais si les jeux ont remporté un vif succès en Italie, en Gaule et en Afrique punique et jusqu'en Asie mineure, l'Orient sémitique leur a réservé un accueil plutôt glacial. Le nombre d'amphithéâtres s'y compte en effet sur les doigts de la main : Césarée, Gabala, Antioche, Bosra et Doura Europos. Bref, toutes des capitales provinciales ou d'importantes garnisons ! Or Palmyre n'était ni l'une ni l'autre. Une armée régulière était bien stationnée dans le cadre des guerres

parthiques et sassanides (IIe IIIe siècles), mais elle semblait peu intégrée à la vie des Palmyréniens. « Avec cette découverte, il faudra sans doute reconsidérer l'influence de la garnison romaine sur la cité, suppose Manar Hammad. Les troupes étaient cantonnées au nord-est de la ville, et c'est justement dans ce secteur-là que se trouve notre amphithéâtre ! ».

À quelle occasion cet imposant monument a-t-il pris sa place dans le tissu urbain ? Dans l'état actuel, les indices sont peu précis : l'édifice borde une rue tracée par Septime Sévère (193-211) à partir de la grande colonnade, et se trouve à l'intérieur de l'enceinte édifiée par Dioclétien vers 295. Espérons qu'une fouille en bonne et due forme apporte les informations nécessaires et, qui sait, quelques précieuses inscriptions. En attendant, les paris sont ouverts. François Villeneuve, professeur d'archéologie romaine à l'université de Paris I, verrait assez bien l'ambitieuse Zénobie doter sa cité d'un monument qui manifestait si bien le pouvoir impérial. N'avait-elle pas proclamé son fils Wahballat empereur de Rome en 270 et pris elle-même le titre d'Augusta ?

Voici donc un dossier archéologique de taille qui vient de s'ouvrir, tant pour l'histoire de Palmyre et que de la Syrie romaine. Clin d'oeil du hasard ? L'amphithéâtre est placé fort à propos... juste à côté du musée !

[1] Projet international, sous l'égide de l'UNESCO et de la Direction Générale des Antiquités et des Musées de Syrie, dont la partie française est dirigée par Jean-Marie Dentzer, professeur honoraire de l'université de ParisI-Sorbonne et membre de l'Institut.

**Please visit the site:**

<http://www.mondedelabible.com/article/index.jsp?docId=2352905>

**[Go there for pix]**

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One Long Argument (Cachel's Primate and Human Evolution) Todd C. Rae *Current Anthropology* October 2008, Vol. 49, No. 5: 948.

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[Citation](#) | [PDF Version \(68 KB\)](#)

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*Current Anthropology* October 2008, Vol. 49, No. 5: 770.

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# **HISTORICAL METALLURGY SOCIETY** **RESEARCH FRAMEWORK FOR** **ARCHAEOLOGICAL METALLURGY IN THE** **BRITISH ISLES**

Dear All

The Historical Metallurgy Society has just published its research framework for archaeometallurgy in the British Isles. It has three sections that describe the types of evidence that exist, the methods used in researching the history of metallurgy, and the present level of knowledge and understanding of a selection of topics dating from the Bronze Age to the 20th century. The final section sets an agenda for future research. There are 96 pages and 88 figures, most in full colour, a full bibliography and an index. Copies may be purchased for £6.50 (post free in Britain).

An order form can be downloaded from the HMS website

<http://www.hist-met.org/specpubs.html>

Thanks

David

\*\*\*\*\*

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## **EΙΔΗΣΕΙΣ - NEWS RELEASE**

# **MYCENAEAN WARRIOR USED 'IMPORTED SWORD'**

A Mycenaean warrior who died in western Greece over 3,000 years ago was the proud owner of a rare gold-wired sword imported from the Italian peninsula, a senior archaeologist said on Thursday.

"This is a very rare discovery, particularly because of the gold wire wrapped around the hilt," archaeologist Maria Gatsi told AFP.

"To my knowledge, no such sword has ever been found in Greece," said Gatsi, head of the regional archaeological department of Aetoloakarnania prefecture.

Tests in Austria have confirmed that the bronze used in the 12th century BCE, 94-centimetre (37-inch) sword came from the Italian peninsula, she said.

The Mycenaean remains were discovered in July 2007 near the town of Amphilochia, some 300 kilometres (186 miles) west of Athens during construction work on a new motorway, Ionia Odos.

Archeologists also discovered a second bronze sword with a bone handle, a bronze and iron dagger, a pair of greaves (armoured plates), an arrowhead, a spear point, a golden kylix or wine cup and a bronze boiler in the grave.

The finds confirm the Mycenaeans were trading with other civilisations in the Mediterranean basin.

The dagger is also considered a rare discovery because of the combination of metals used.

Conquerors of the Minoan civilisation, the Mycenaeans flourished between the 17th century BCE and the 12th century BCE, occupying much of the Greek mainland and establishing colonies in Asia Minor and on Cyprus.

**Please visit the site: [http://howrah.org/sci\\_tech\\_htm/32359.html](http://howrah.org/sci_tech_htm/32359.html)  
<http://phdiva.blogspot.com/2008/10/mycenaean-imported-sword.html>  
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[http://www.enet.gr/online/online\\_text/c=113,id=10273312](http://www.enet.gr/online/online_text/c=113,id=10273312)**

Dear all,

here's a bit larger version of the published photo (though the same one as in the Eleftherotypia article)

<http://www.epoxi.gr/News08/news8103.3.htm>

a photo of the tomb published in the Archaologia magazine online (contrary to the article it looks to me a nice example of a tholos tomb) <http://www.arxaiologia.gr/site/content.php?artid=3184> and to anyone interested here's a link to the program of the conference where the find was presented by the archaeologist Mrs Stavropoulou-Gatsi (in greek) <http://www.nafpaktia.com/agenda/1993/arxaiologiko-symposio>

Best regards,

**Dr. Vassiliki Pliatsika**

\*\*\*\*\*

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# **ARCHAEOLOGISTS UNVEIL MAJESTIC ROMAN RUINS THAT RIVAL RICHES OF POMPEII**

By **ELISABETTA POVOLEDO**

OSTIA ANTICA, Italy —The ruins of Ostia, an ancient Roman port, have never captured the public imagination in the same way as those of Pompeii, perhaps because Ostia met with a less cataclysmic fate.

Yet past archaeological digs here have yielded evidence of majestic public halls and even multistory apartment buildings that challenge Pompeii's primacy. Now officials hope that the decade-long restoration of four dwellings lavishly decorated with frescoes will focus new attention on this once-bustling port about 15 miles west of Rome.

Last week the second-century insulae, or housing complexes, were presented to the public through the European Heritage Days program, in which each member country of the Council of Europe promotes new cultural assets and sites that have mainly been closed to the public.

"Over all, this is the most important ensemble of second- and third-century frescoes in the world," Angelo Pellegrino, the director of excavations at the site, now called Ostia Antica, said in an interview.

At its peak in the second century, Ostia sat at the mouth of the Tiber and served as the main shipping point for goods traveling to and from Rome. (Over the centuries deposited sediment has caused the ancient town to recede several miles inland.) Prosperous Ostians liked to embellish their homes, and traces of art have emerged on crumbling walls around the site. But the frescoes in the insulae are among the best preserved, officials say.

Ethereal floating figures dance against a red backdrop in the House of Luceia Primitiva. (A graffito with that woman's name was recently uncovered in the dwelling.) The nine Muses hold court in a house that bears their names; a small, erotic panel decorates what experts say was probably a bedroom in the House of the Painted Vaults.

"They're exceptional indicators of the emerging merchant class and the economic and political well-being of the city in the second century," said Flora Panariti, an archaeologist who participated in the restoration.

Stella Falzone, an expert in mural painting at Sapienza University in Rome, described the dwellings and their decorations as "a reliable mirror of Rome" during that period, especially precious for archaeologists and art historians because so little from that era survives in Rome.

Popular colors of the time, red and yellow, dominate the House of the Yellow Walls, for example. "It's no coincidence that these are the colors of the Roma soccer team," Ms. Panariti said.

Unlike Rome, which cannibalized much of its heritage over the centuries, or Pompeii, which was buried in volcanic ash in A.D. 79 and was not systematically excavated until the 18th century, Ostia remained mostly untouched until the early 20th century.

The multistory dwellings were first excavated in the 1960s, but work stopped when the archaeologist leading the dig left for another job.

They remained largely unknown to the public and to many scholars until archaeological administrators at Ostia Antica resolved to recover them.

The buildings, in the western part of the ancient city, were built around A.D. 128 in a housing boom during Emperor Hadrian's reign. With demand for accommodations growing, new multilevel homes resolved issues of space and expansion. Although only the ground floors remain, evidence that buildings stood taller than one story has emerged from the rubble.

If it weren't for Ostia Antica and its multistory houses and apartments, "it would be difficult for people to imagine how people lived in that era," said Norbert Zimmermann, president of an international association for ancient mural painting.

Like Pompeii, Ostia Antica faces problems common to many of the sprawling archaeological sites in Italy. Money is scarce, the site is understaffed, and surveillance is spotty. But the biggest challenge here is high humidity resulting from the high groundwater level.

"We try to dig as little as possible nowadays, because we can barely deal with caring for what's emerged," said Mr. Pellegrino, the excavations director. It took nine years to restore the four buildings, he noted, in an effort that was possible only because of a private donation of about \$150,000.

In the House of the Painted Vaults Ms. Panariti pointed to a delicately painted human form high on a wall. "These figures are disappearing again even though they were only restored two years ago," she said sadly.

Humidity has forced conservators to detach many frescoes from walls and transfer them onto panels before returning them to their original locations. "It's necessary, but it causes immense sorrow whenever we have to do that," Mr. Pellegrino said.

Only a limited number of visitors will be allowed to tour the four dwellings, and reservations are required. (Officials have not worked out the details.)

Ostia Antica has not given up all its secrets. On Friday, in a different section of the ancient city, students were cleaning colorful frescoes in the House of Jupiter and Ganymede, named for the chief Roman god and the Trojan prince he anointed as cup bearer.

"We're constantly restoring the site," Mr. Pellegrino said, "as long as we can afford to."

**Please visit the site:**

[http://www.nytimes.com/2008/10/01/arts/design/01fres.html?\\_r=2&ref=design&oref=slogin&oref=slogin](http://www.nytimes.com/2008/10/01/arts/design/01fres.html?_r=2&ref=design&oref=slogin&oref=slogin)

[Go there for pix.]

## **FISH SAUCE USED TO DATE POMPEII ERUPTION, ROSSELLA LORENZI, DISCOVERY NEWS**

**Sept. 29, 2008** -- Remains of rotten fish entrails have helped establish the precise dating of [Pompeii's destruction](#), according to Italian researchers who have analyzed the town's last batch of garum, a pungent, fish-based seasoning.

Frozen in time by the catastrophic [eruption](#) that covered Pompeii and nearby towns nearly 2,000 years ago with nine to 20 feet of hot ash and pumice, the desiccated remains were found at the bottom of seven jars.

The find revealed that the last Pompeian garum was made entirely with bogues (known as boops boops), a Mediterranean fish species that abounded in the area in the summer months of July and early August.

"Analysis of their contents basically confirmed that [Mount Vesuvius](#) most likely erupted on 24 August 79 A.D., as reported by the Roman historian Pliny the Younger in his account on the eruption," Annamaria Ciarallo, director of Pompeii's Applied Research Laboratory told Discovery News.

The vessels were unearthed several years ago in the house of Aulus Umbricius Scaurus, Pompeii's most famous garum producer.

Garum, made from fermenting fish in saltwater, was basically the ketchup of the ancient Romans. It boasted a much appreciated sweet and sour taste, and was used on almost on every dish, often substituting expensive salt.

Most likely it was widely available at the numerous open air trattorias, known as thermopolia, where [Pompeian "fast food" was served](#). The sunken jars on the counter contained spiced wine, stews of meat or lentils as well as garum.

Producing garum was relatively simple. A garum maker such as Aulus Umbricius Scaurus would have first placed a layer of fish entrails on a bed of dried, aromatic herbs such as coriander, fennel, celery, mint and oregano.

Then he would have covered the fish entrails under a layer of salt about two fingers high. The layer sequence -- herbs, fish and salt -- was repeated until the container was filled. The concoction was then left in the sun to macerate for a week or so, and the sauce was mixed daily for about 20 days.

The process produced a smelly liquid -- a local delicacy to the Romans.

"Pompeii's last batch of garum was made with bogues, a fish that was cheap and easy to find on the market in those summer months. Still today, people living in this region make a modern version of garum, called "colatura di alici" or anchovy juice, in July when this fish abounds on the markets," Ciarallo said.

The eruption froze the sauce right at the moment when the fish was left to macerate. No batches of finished garum were found, since the liquid evaporated in the heat from the eruption.

"Since bogues abounded in July and early August and ancient Roman recipes recommend leaving the fish to macerate for no longer than a month, we can say that the eruption occurred in late August-early September, a date which is totally compatible with Pliny's account," Ciarallo said.

Doubts about the date of the eruption emerged a couple of years ago when archaeologists discovered a coin which seemed to refer to the 15th imperatorial acclamation of Titus, believed to have occurred on Sept. 7, 79 A.D.

"Unfortunately, that coin can't be taken as a dating evidence, since it is hardly readable. I myself agree with Ciarallo's dating of the eruption, even though I think that a bit of mystery remains. However, it is not so important whether the eruption occurred in August or in October," Teresa Giove, a coin expert at Naples' Archaeological Museum, told Discovery News.

According to Ciarallo, the date of the eruption on August 24th is also confirmed by biological data.

"All pollen found in Pompeii belong some 350 summer species. I think this is more strong evidence in favor of Pliny's account," Ciarallo said.

**Please visit the site:**

<http://dsc.discovery.com/news/2008/09/29/pompeii-fish-sauce.html>

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## **ANCIENT PHOENICIANS LEFT THEIR DNA IN THE MEDITERRANEAN GENE POOL**

The Phoenician culture vanished from the Mediterranean following the fall of Carthage in 146 BC, when the Romans razed the city and (according to legend) salted the earth, but the Phoenician people didn't fade away. A new genetic analysis shows that 1 in 17 men in the Mediterranean region have Phoenician DNA, and must be descended from those ancient seafarers.

The findings could fill a gap in the history of the Phoenician civilization, which originated two to three thousand years ago in the eastern Mediterranean—in what is now Lebanon and Syria—and included prominent traders, according to Chris Tyler-Smith, lead author.... "By the time of the Romans they more or less disappeared from history, and little has been known about them since" [National Geographic News].

For the study, published in the American Journal of Human Genetics, researchers used archaeological evidence and written accounts from the Greek and Romans to determine where the Phoenicians settled, and then took DNA samples from 1,330 men living in areas that were once Phoenician trading centers, including Syria, Tunisia, Morocco, Cyprus, Malta, and the West Bank. "When we started, we knew nothing about the genetics of the Phoenicians. All we had to guide us was history: We knew where they had and hadn't settled. But this simple information turned out to be enough, with the help of modern genetics, to trace a vanished people," Tyler-Smith said [AP].

The researchers examined genes on the men's Y chromosome which is passed down from father to son, and compared them to the genes of other men from areas that had no link to Phoenician settlements. From the research emerged a distinctive Phoenician genetic signature, in contrast to genetic traces spread by other migrations, like those of late Stone-Age farmers, Greek colonists and the Jewish Diaspora. The scientists thus concluded that, for example, one boy in each school class from Cyprus to Tunis may be a descendant of Phoenician traders [The New York Times].

**Please visit the site:**

**<http://blogs.discovermagazine.com/80beats/2008/10/31/ancient-phoenicians-left-their-dna-in-the-mediterranean-gene-pool/>**

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## **SENSATIONAL GOLD** **ARCHAEOLOGICAL FINDINGS IN THE** **SOUTH SAKAR, BULGARIA**

The entirely investigated burial mound is of size 31 meters in diameter and 2.9 meters in height. Two stages of heaping have been determined: the first one – in the first half of the second millennium BC (the Middle Bronze Age) and the second one – in the second century AD (the Roman period).

During the Bronze Age a funeral work was built over a place, made of gravel and rammer of clay. It is a burial mound, made of quartz stones. Its bedding is made of clay and of size 8 meters in diameter and 2 meters in height. A funeral with cremation was performed on the bedding. The remains were moved and placed in a richly decorated clay vessel. They were spread among the stones.

Exceptionally impressive finds for the epoch were discovered on the same level: a gold adornment: 1.5 meters in total length, made of 320 beads – alternating small spherical (2 mm) beads and large (7mm) barley-shaped beads; two gold objects with solar decoration in the form of spindle vertebrae; a gold and a silver plates (they are connected with a silver rivet); a silver ring; a bronze knife and a stone hone. Similar gold barley-shaped finds – a necklace with 24 beads- were discovered only on the Island of Crete. Dr. Borislavov supposes that the case in point is a funeral of a Ruler or of a High Priest.

In the second century AD a settlement originated around the burial mound, but the burial mound remained as a cult place. The embankment is surrounded by a circle (22 meters in diameter) of a large stone blocks. Red earth and three layers of stones were additionally banked up. It helped for the preservation of the burial mound up to the present day.

The finding is a unique one not only for Bulgaria. It will throw light upon one of the slightly known periods of the history of the Bulgarian lands and of the European continent.

The find will be shown in the constant exposition of the National Museum of History.

Via Morena Stefanova  
Email: [stefanova.morena@gmail.com](mailto:stefanova.morena@gmail.com)

**Please visit the site:**  
[http://www.historymuseum.org/news.php?id=109&PHPSESSID=02679af355aaade8257241756b9e9c67&lang\\_id=1](http://www.historymuseum.org/news.php?id=109&PHPSESSID=02679af355aaade8257241756b9e9c67&lang_id=1)

## **PERSEPOLIS STUDIES YIELD NEW FINDINGS**

Archeological studies near the ancient city of Persepolis in the southern Iranian province of Fars have resulted in new discoveries.

Iranian and Italian archaeologists have been excavating the areas surrounding the ancient city of Persepolis since mid October. The latest round of excavations led to the discovery of various ancient dwellings near Takht-e Jamshid.

"The discovery of five stages of dwellings from various eras was made possible by the scientific and archeological studies on Persepolis architecture," says Alireza Asgari of Iran's Parsa-Pasargadae Research Foundation (PPRF).

Archeologists also conducted geophysical studies based on the results of previous research carried out by Iranian experts.

Twenty five objects were also unearthed in the area as a result of the current studies. The discovery included jewels, ancient weapons, and pieces left over from broken statues, potteries and azure plates.

Headed by Alireza Asgari and Professor Pierfrancesco Callieri of the University of Bologna, the archeology team aimed to study the architecture of the areas surrounding the ceremonial Achaemenid capital.

The Achaemenid site of Persepolis was registered on UNESCO's World Heritage List in 1979.

**Please visit the site:** <http://www.presstv.ir/detail.aspx?id=73317&sectionid=351020105>

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## **ARCHAEOLOGISTS UNCOVER ANCIENT GOVERNOR'S PALACE IN TURKEY**

Discovery of a rare treasure trove of more than 20 bronze vessels under the paving stones in the courtyard. (Credit: Ziyaret Tepe Archaeological Project)

ScienceDaily (Oct. 21, 2008) — Within the scope of an international rescue excavation project, a team of four archaeologists specialized in Middle Eastern affairs headed by Dr. Dirk Wicke (Institute of Egyptology and Ancient Near Eastern Studies) have unearthed parts of a Neo-Assyrian governor's palace dating back to the 9th to 7th century BCE in a two-month excavation program amongst the ruins on Ziyaret Tepe. The discoveries were extraordinary.

The site in the south-east of Turkey (Diyarbakir province) is at risk from the construction of the Ilisu Dam. For several years now it has been investigated by teams from the universities of Akron (Ohio), Cambridge, Munich and Istanbul (Marmara University) in a joint excavation project. Sponsorship by the research funds of the Johannes Gutenberg University Mainz in 2007 and 2008 gave its archaeologists the opportunity to become involved in this international and multi-disciplinary project. There are plans to continue the project for another three years.

The Upper Tigris region came under the sway of the Assyrians in the middle of the second millennium BCE. They established their provincial capital in Tushan which is identified today as Ziyaret Tepe. According to historical inscriptions by the Assyrian ruler Assurnasirpal II it is certain that the construction of an administrative palace in Tushan dates back to the year 882 BCE. The excavation area of the Mainz team comprises the topmost parts of the acropolis, which must have been subsumed by the governor's palace. Parts of the private residential area and a courtyard have already been uncovered. The main rooms were well equipped - amongst the findings were colorful wall paintings and a facility for an oven on wheels.

But the most unusual discovery was the excavation of cremations in pits within the extensive courtyard area. Five installations have been found to date, two of which were undisturbed and contained opulent burial goods. In the rectangular graves of approximately 1.50 m x 2.00 m in size, for example, a considerable layer of ash and burned bones as well as numerous bronze vessels, sumptuous stone and ivory receptacles, carved ivory objects, seals, and beads were found. These items indicate the high status of the people buried here. They are believed to have been residents of the palace. These objects are very similar to those found in the Assyrian capitals of Assur and Kalhu/Nimrud in modern day Iraq.

In addition to the cremation remains found this year, a rare treasure trove of more than 20 bronze vessels was discovered under the paving stones in the courtyard. These include a jug, a wine ladle, a sieve, several bowls and cups, mostly made from embossed bronze, which are now waiting to be restored. This will reveal their elaborate ornamentation which can already be made out under the corrosion layer.

The archaeological research project at Ziyaret Tepe (Turkey) undertaken by the Institute of Ancient Near Eastern Studies of Mainz University, which was set up 10 years ago, adds a new field archaeological portfolio alongside the excavations in Haft Tappeh and Tchogha Zanbil (Iran). It enables its students to work in the region in which they specialize and makes them part of an international research project.

**Please visit the site:**

<http://www.sciencedaily.com/releases/2008/10/081021094216.htm>

See also: <http://www.uni-mainz.de/presse/25232.php>

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## **INBOX ROBOT A NEWS SERVICE FOR RESEARCH PROFESSIONALS**

**October 24, 2008**

PHOTO: <http://prn.newscom.com/cgi-bin/members/thumb/wmark?doc=PRN/prnphotos/docs/076/337&size=512&logo=logo>

**Boston-Area Firm's Multispectral Life Science Imaging Technology Used in Latest Dead Sea Scrolls Imaging Project**

WOBURN, Mass., Oct. 24 /PRNewswire/ -- Advanced imaging technology from Cambridge Research & Instrumentation, Inc. (CRi) was used in the most recent, ambitious Dead Sea Scrolls imaging project in Israel to reveal previously unseen text.

Dr. Gregory Bearman, retired Principal Scientist at the Jet Propulsion Laboratory (JPL) and current president of Snapshot Spectra in Pasadena, CA, travelled to the Israel Museum in August with one of CRi's Nuance (TM) multispectral imaging systems to take near-infrared pictures of the scrolls. The spectral data will be the key to a new conservation program to monitor the scrolls for changes. While some changes can be detected visually, the spectral data will quantify them and provide early warning before they are visible to the human eye.

CRi has developed sophisticated biomedical imaging systems that use wavelength-based information to reveal unseen details in specimens.

These systems are used to assist with research in disease diagnosis and therapy development. Now, the system has been used to uncover original writing hidden on the discolored parchment and papyrus of the Dead Sea Scrolls.

"Today, with the recent development of advanced biomedical imaging technology, we have access to much more sophisticated imaging algorithms and easier-to-use digital instruments such as CRi's Nuance system," points out Bearman. "CRi's core technology and integrated imaging solutions are among the best in the business."

Indeed, now that there are digital images of the Dead Sea Scrolls available in conventional color and as multispectral image data, Bearman's goal is to make the entire collection available to everyone via the Internet over the next one-to-two years.

Nuance microscopy systems are in use worldwide by biologists and pathologists to uncover molecular markers in cancer cells and other specimens. And the same technology is found in CRi's Maestro (TM) imaging system used to detect tumors and other features in-vivo for pharmaceutical research and development.

"We concentrate on the biomedical imaging market, but as evidenced by Dr. Bearman's work, CRi's systems have potential applications in many areas and over a wide range of disciplines," explains George Abe, CRi's President and CEO. "While we work to improve

health care on a daily basis, it is also rewarding to see our products being used to preserve antiquities for generations to come."

Cambridge Research & Instrumentation, Inc (CRi) is a Boston-based biomedical imaging company providing innovative optical imaging solutions for more than 20 years. CRi's multidisciplinary team is dedicated to providing comprehensive solutions that enable our customers to produce breakthroughs in research and medical care. CRi technology helps extract new disease-specific information from biological and clinical samples in the physiological, morphological, and biochemical context of intact tissues and organisms.

With over 80 patents pending and issued, CRi's award-winning innovations are being utilized around the world in a wide range of settings, ranging from academic researcher to pharmaceutical drug development to clinical medicine. CRi is headquartered in Woburn, Massachusetts, and operates a state-of-the-art manufacturing facility. We are able to rapidly design and manufacture system-level solutions for a variety of growing market applications.

Visit <http://www.cri-inc.com/nuance> to find out more about CRi's Nuance systems.

For more information visit our website at [www.cri-inc.com](http://www.cri-inc.com) or contact:

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<http://www.inboxrobot.com/article.php?nid=43530>>

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## **EGYPTIAN MUMMIES YIELD EARLIEST EVIDENCE OF MALARIA ROSSELLA LORENZI, DISCOVERY NEWS**

Oct. 23, 2008 -- Two Egyptian mummies who died more than 3,500 years ago have provided clear evidence for the earliest known cases of malaria, according to a study presented this week in Naples at an international conference on ancient DNA.

Pathologist Andreas Nerlich and colleagues at the Academic Teaching Hospital München-Bogenhausen in Munich, Germany, studied 91 bone tissue samples from ancient Egyptian mummies and skeletons dating from 3500 to 500 B.C.

Using special techniques from molecular biology, such as DNA amplification and gene sequencing, the researchers identified ancient DNA for the malaria parasite *Plasmodium falciparum* in tissues from two mummies.

"We now know for sure that malaria was endemic in ancient Egypt. This was only been speculated on the basis reports by [the 5th century B.C. Greek historian] Herodotus and some very faint evidence from ancient Egyptian papyri," Nerlich told Discovery News.

Caused by four different kinds of parasites belonging to the *Plasmodium* family -- *falciparum*, *malariae*, *ovale* and *vivax* -- malaria is transmitted to humans through a bite from an infected female *Anopheles* mosquito.

Of the four, *P. falciparum* is the most common and the most deadly. It produces the most severe form of malaria, characterized by symptoms that include undulating high fever, chills, anemia and an enlarged spleen.

Although it is believed that malaria widely affected humanity long before the Greek physician Hippocrates wrote the first clinical description of the disease in 400 B.C., until now only one study, which used molecular analysis, clearly identified *P. falciparum* from that period.

The ancient DNA for the parasite was found in a Roman infant dating back to the 5th century A.D.

"In our finding, both positive cases came from two different tomb complexes at Thebes-West, dating from the New Kingdom until Late Period (1500 to 500 B.C.)," Nerlich said.

The capital of Egypt around 1500 B.C., Thebes hosts a huge necropolis, which mostly contains the remains of upper class ancient Egyptians.

"Both infected mummies were adults and had some mild signs of chronic anemia. Unfortunately, no further information is available since they came from 'no name burials.' However, the location of their tombs in the necropolis strongly suggests that they were of high class local descent," Nerlich said.



The wealth of these people did not provide them with protection against diseases. In a previous study, Nerlich and colleagues discovered that most people buried at the site died between the ages of 20 and 30.

"Our discovery adds another infectious disease to the spectrum of paleomicrobiology in ancient Egypt, further explaining the influence of infectious diseases on such low life expectancy," Nerlich said.

The ancient scourge, which has shaped history by decimating invading armies and making villages in the grip of the fever hard to colonize, still plagues humanity. Today the disease kills between one and three million people, most of whom live in the world's poorest countries.

Nerlich and colleagues believe that their work in identifying one of the earliest forms of the disease may help develop new treatments.

"We are now hopeful we can identify the 'precursor' of malaria pathogens," Nerlich said.

According to anatomist and paleopathologist Frank Rühli, head of the Swiss Mummy Project at the University of Zurich, the discovery is important because it is "based on reliable molecular detection of pathogen ancient DNA."

"This study adds new insights into the evolutionary prevalence of a disease which still kills millions of people worldwide. It also highlights again the enormous importance of ancient mummy research for modern clinical medicine," Rühli told Discovery News.

**Please visit the site:**

<http://dsc.discovery.com/news/2008/10/23/mummies-malaria.html>

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## **GREEK STONE AGE HOUSEHOLD REMAINS FOUND INTACT: MINISTRY**

ATHENS (AFP) – Archaeologists in northern Greece have found the remains of a Stone Age homestead left intact for about 6,000 years, the culture ministry said on Thursday.

"This is a rare case where the antiquities remained undisturbed by farming or other activities for around 6,000 years," the ministry said in a statement.

The dwelling had been destroyed in a fire but its residents had time to flee taking most of their valuable stone tools with them, the ministry said.

Instead, archaeologists found a large number of clay vessels, millstones, some stone tools and two home furnaces.

The rectangular 58-square-metre structure was built in the fourth millennium BC. It stood on stilts, and its outer wooden frame was filled with a mixture of branches and reeds covered in clay, while straw mats lay on the floor.

The homestead had indoor areas dedicated to the preparation of cereals and the storage of farm produce.

It was discovered near the town of Aridaia in central Macedonia prefecture between March and July during works to upgrade the local water mains network.

**Please visit the site:**

[http://news.yahoo.com/s/afp/20081023/sc\\_afp/greecearchaeology](http://news.yahoo.com/s/afp/20081023/sc_afp/greecearchaeology)

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## **ROME WORKERS UNCOVER CITY OF DEAD**

ROME, Italy (AP) -- Workers renovating a rugby stadium have uncovered a vast complex of tombs beneath Rome that mimic the houses, blocks and streets of a real city, according to officials, who have unveiled a series of new finds.

Culture Ministry officials said Thursday that medieval pottery shards in the city of the dead, or necropolis, show the area may have been inhabited by the living during the Dark Ages after being used for centuries for burials during the Roman period.

It is not yet clear who was buried in the ancient cemetery, but archaeologists at the still partially excavated site believe at least some of the dead were freed slaves of Greek origin.

"It's a matter of a few weeks to discover what is down there," said archaeologist Marina Piranomonte. "But it's something big; it looks like a neighborhood."

A separate dig in the north of the city has turned up the tomb of a nobleman who led Rome's legions in the second century A.D.

The mausoleum was covered in mud during a flood of the river Tiber, which collapsed most of the monument but helped preserve exquisite decorations, marble columns and inscriptions from plunderers and the ravages of time.

Writings at the site led experts to identify the tomb as belonging to Marcus Nonius Macrinus, one of the closest aides and generals of the Emperor Marcus Aurelius during his campaigns against Germanic tribes in Northern Europe.

Other spectacular discoveries were also unveiled at the news conference at the Culture Ministry.

Archaeologists restoring the imperial residences on the Palatine Hill, in the heart of ancient Rome, believe they have discovered the underground passageway in which the despotic Emperor Caligula was murdered by his own guards.

The hill, which is honeycombed with ruins of palaces and villas, has also yielded frescoes and black-and-white mosaics in the first century B.C. home of a patrician, the ministry said in a statement.

Separately, experts working in Castel di Guido on the outskirts of Rome have enlarged their dig at a previously known complex of country villas owned by Rome's rich and powerful, uncovering fountains, baths and a cistern, the statement said.

Archaeologists will keep working at the digs to make them accessible to visitors. Officials plan to build a museum next to Macrinus' tomb, which will also offer a virtual reconstruction of the site.

**Please visit the site:**

<http://edition.cnn.com/2008/TECH/science/10/17/roman.ruins.ap/index.html>

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## **ARCHAEOLOGISTS DISCOVER AN ANCIENT EGYPTIAN TEMPLE NEAR POMORIE DIANA STOYKOVA**

Remains of a temple complex dedicated to the cult of Isis and Osiris were discovered in the Paleokastro region in Pomorie.

The temple dates back from the second century A.C., announced Burgasinfo

The building was built on the grounds of an ancient Thracian pagan temple, claim the archaeologists.

"There are many temples in Bulgaria, connected to Isis and Osiris, but this is the first temple complex, discovered through the means of archaeology", explains Sergey Torbanov, leader of the diggings.

During this season the main street in Anhialo was also discovered. The site of the diggings is put under security.

The artifacts, found during the working process, will be exhibited in Pomorie State Museum.

**Please visit the site:**

**[http://international.ibox.bg/news/id\\_1100761771](http://international.ibox.bg/news/id_1100761771)**

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## **ARCHAEOLOGISTS UNEARTH PLACE WHERE EMPEROR CALIGULA MET HIS END GAIUS CALIGULA**

Archeologists say that they have found the underground passage in which the Emperor Caligula was murdered by his own Praetorian Guard to put an end to his deranged reign of terror.

Gaius Julius Caesar Augustus Germanicus (AD12–AD41), known by his nickname Caligula (Little Boots), was the third emperor of the Roman Empire after Augustus and Tiberius, and like them a member of the Julio-Claudian dynasty.

His assassination was the result of a conspiracy by members of the Senate who hoped to restore the Roman Republic. However the Praetorian Guard declared Caligula's uncle Claudius emperor instead, thus preserving the monarchy.

Maria Antonietta Tomei, a Rome archeologist, said a cryptoportico or underground corridor discovered beneath the imperial palaces on the Palatine Hill matched exactly the description given by the Rome historian Suetonius, who says that the Emperor was stabbed to death after watching an entertainment. He left via the passageway, where the Praetorian Guard led by its commander, Cassius Chaerea, was lying in wait.

Professor Tomei said she was "absolutely convinced" that the cryptportico was the one in which Caligula met his end. Although it bore builders' stamps from the time of Claudius, it already existed at the time of Caligula, and had only been restructured by his uncle and successor.

"It is clear that it was Claudius and not Nero, as commonly thought, who gave shape to the imperial palace complex on the Palatine Hill," she said.

According to Suetonius and the Jewish historian Josephus, Caligula's assassins also stabbed to death his wife, Caesonia, and killed their infant daughter, Julia Drusilla, by smashing her head against a wall.

Caligula's body was burnt and the ashes interred at the Mausoleum of Augustus, which is still standing near the Tiber. Now a ruin, its tombs were ransacked during the Barbarian invasions of the fifth century.

Unlike his father Germanicus, a widely admired and upright Roman general, Caligula became a byword for cruelty, excess, insanity and sexual perversion. His nickname derived from the fact that as a small boy he dressed up in a miniature uniform while accompanying his father on military campaigns.

Some scholars maintain that Caligula murdered Tiberius to ensure the succession, or at least ordered his murder. On becoming emperor Caligula was at first hailed as the son of Germanicus, but his behaviour became increasingly psychopathic after he fell ill in AD37

and nearly died. He had all possible opponents, real and imagined — including members of his own family — banished or killed, and seized their properties.

He also proclaimed himself a living god. According to Suetonius, Caligula had incestuous sex with his sisters Agrippina, Drusilla and Julia Livilla. He also supposedly tried to confer the title of consul on his favourite horse, Incitatus, who had a stable of marble and a collar of precious stones, and had flakes of gold mixed into his oats. Some historians have suggested, however, that such stories were embellished or even invented by Caligula's many enemies.

**Please visit the site:**

<http://www.timesonline.co.uk/tol/news/world/europe/article4962109.ece>

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## **ANCIENT EGYPT HAD POWERFUL SUDAN RIVAL, BRITISH MUSEUM DIG SHOWS**

**By Stephen Adams, Arts Correspondent**

New evidence about the power of a Sudanese civilisation that once dominated ancient Egypt has come to light thanks to a British Museum expedition.

The Second Kushite Kingdom controlled the whole Nile valley from Khartoum to the Mediterranean from 720BC to 660BC.

Now archaeologists have discovered that a region of northern Sudan once considered a forgotten backwater once actually "a real power-base".

They discovered a ruined pyramid containing fine gold jewellery dating from about 700BC on a remote un-navigable 100-mile stretch of the Nile known as the Fourth Cataract, plus pottery from as far away as Turkey.

Other finds included numerous examples of ancient rock art and 'musical' rocks that were tapped to create a melodic sound.

They only made the discoveries after being invited by the Sudanese authorities to help excavate part of the Merowe region, which is soon to be flooded by a large hydro-electric dam. More than 10,000 sites were found.

Historians had written off the area as being of little archaeological interest.

Dr Derek Welsby, of the British Museum, said: "We had no idea how rich the area was."

Remarkably well-preserved bodies, naturally mummified in the desert air, and a cow buried complete with eye ointment were also unearthed.

Dr Welsby said the finds revolutionised the history and geography of the Kushite kingdoms.

The First Kushite Kingdom rivalled Egypt for power between 2500BC and 1500BC, when many of Egypt's largest pyramids were built, he said.

"All our preconceptions about this being a relatively poor, inhospitable area were completely wrong," he remarked. We thought the first kingdom gradually grew over 1,000 years; now we know it happened right at the beginning, very rapidly.

"During the second kingdom we thought it was an area everybody bypassed. But finding the pyramid meant it was a real power-base. This was not a backwater, it was partaking in the major trade routes in the world."



The team was able to excavate hundreds of heavy items, including large blocks adorned with rock art and 390 stones that comprised the pyramid, with the help of trucks and cranes lent by Iveco and New Holland.

The Sudanese authorities gave 20 such blocks and musical 'rock gongs', plus pottery and jewellery to the British Museum. A selection will be put on display early next year.

**Please visit the site:**

**<http://www.telegraph.co.uk/news/worldnews/africaandindianocean/sudan/3209644/Ancient-Egypt-had-powerful-Sudan-rival-British-Museum-dig-shows.html>**

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# **DETECTION AND MOLECULAR CHARACTERIZATION OF 9000-YEAR- OLD MYCOBACTERIUM TUBERCULOSIS FROM A NEOLITHIC SETTLEMENT IN THE EASTERN MEDITERRANEAN**

Israel HersHKovitz<sup>1#</sup>, Helen D. Donoghue<sup>2#\*</sup>, David E. Minnikin<sup>3</sup>, GurdyaL S. Besra<sup>3</sup>, Oona Y-C. Lee<sup>3</sup>, Angela M. Gernaey<sup>4□a</sup>, Ehud Galili<sup>5</sup>, Vered Eshed<sup>1</sup>, Charles L. Greenblatt<sup>6</sup>, Eshetu Lemma<sup>6□b</sup>, Gila Kahila Bar-Gal<sup>7</sup>, Mark Spigelman<sup>2,6</sup>

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Abstract

Background

*Mycobacterium tuberculosis* is the principal etiologic agent of human tuberculosis. It has no environmental reservoir and is believed to have co-evolved with its host over millennia. This is supported by skeletal evidence of the disease in early humans, and inferred from *M.*

*tuberculosis* genomic analysis. Direct examination of ancient human remains for *M. tuberculosis* biomarkers should aid our understanding of the nature of prehistoric tuberculosis and the host/pathogen relationship.

Methodology/Principal Findings

We used conventional PCR to examine bone samples with typical tuberculosis lesions from a woman and infant, who were buried together in the now submerged site of Atlit-Yam in the Eastern Mediterranean, dating from 9250-8160 years ago. Rigorous precautions were taken to prevent contamination, and independent centers were used to confirm authenticity of findings. DNA from five *M. tuberculosis* genetic loci was detected and had characteristics consistent with extant genetic lineages. High performance liquid chromatography was used as an independent method of verification and it directly detected mycolic acid lipid biomarkers, specific for the *M. tuberculosis* complex.

Conclusions/Significance

Human tuberculosis was confirmed by morphological and molecular methods in a population living in one of the first villages with evidence of agriculture and animal domestication. The widespread use of animals was not a source of infection but may have supported a denser human population that facilitated transmission of the tubercle bacillus. The similarity of the *M. tuberculosis* genetic signature with those of today gives support to the theory of a long-term co-existence of host and pathogen.

**Please visit the site:**

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0003426>

[Go there for full article]

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## **EPHESUS NECROPOLIS YIELDS RARE JEWELRY FIND**

Archeologists have been exploring a necropolis housing 55 bodies and 18 pieces of 1,700-year-old golden jewelry in the ancient city of Ephesus, located in the Aegean province of İzmir. The deputy leader of the excavation team, Austrian Sabine Ladstätter, spoke yesterday to the Anatolia news agency and said they had found important archeological remains during this year's Ephesus excavation season, which finished at the end of September, and added that the jewelry they found had been a surprise.

Ladstätter noted that they had found a necropolis this year with mosaics and pictures on its walls, saying there were 55 bodies inside the five graves in the necropolis, along with gold jewelry and silk fabrics with gold fibers. "The jewelry we found inside was sophisticated, and we think these graves belong to the elites of that age."

The biggest problem they have encountered in the region is illegal excavation, said Ladstätter, adding that other tombs in the area have a history of being looted and so the jewelry they found was a surprise. She said they have met people who have opened online bids for the artifacts they have illegally taken from Ephesus and added that the Ministry of Culture and Tourism had decided to accelerate excavations at the necropolis to prevent these illegal operations. Ladstätter also said 166 scientists from Germany, Austria and Turkey participated in this year's excavations.

**Please visit the site:**

**<http://www.todayszaman.com/tz-web/detaylar.do?load=detay&link=155539&bolum=101>**

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