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# Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

**- Μάιος 2008 -**

# Newsletter of the Hellenic Society of Archaeometry

**- May 2008 -**

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## **ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS**

# **HOUSEHOLD ARCHAEOLOGY IN THE MIDDLE EAST AND BEYOND: THEORY, METHOD AND PRACTICE, FEBRUARY 19-21, 2009, FORT DOUGLASS, UNIVERSITY OF UTAH CAMPUS SALT LAKE CITY, UT**

## **CALL FOR PAPERS**

DEADLINE: JUNE 1, 2008

The Middle East Center at the University of Utah, Bradley J. Parker (University of Utah) and Catherine P. Foster (University of California, Berkeley) are pleased to announce a conference entitled:

"Household Archaeology in the Middle East and Beyond: Theory, Method and Practice"

February 19-21, 2009

Fort Douglass, University of Utah campus Salt Lake City, UT

<http://www.mec.utah.edu/hap/>

The importance and basic tenets of household archaeology were laid out several decades ago by Flannery (1976) and Wilk and Rathje (1982). At this time, anthropological archaeologists were seeking ways to augment their approaches to the archaeological record by integrating various scales of analysis in their research designs (Redman 1973). As part of this trend scholars increasingly focused their attention on the inter-workings of societies by examining the variation within and between households and in doing so many scholars have come to believe that large scale social, economic and political change begins not at the societal or regional level, but through the everyday actions of individual people at the household level (Smith 1987; Roseberry 1988).

In spite of the fact that Household Archaeology has since become integral to archaeological practice and new analytical methodologies including (but not limited to) microdebris analysis, micromorphology and soil chemistry have been developed, Household Archaeology remains a defuse field with few unified theoretical or methodological approaches.

This conference aims to rectify this situation by bringing together scholars from around the world whose research interests focus on some aspect of the theory, method and practice of Household Archaeology.

This conference will examine the current state of Household Archaeology while looking to its future development and wider application. We encourage submissions that advance the theoretical foundations of Household Archaeology, consider new or developing

methodologies for studying the household archaeologically, and present the results of case studies with a household focus. The conference organizers plan to publish the conference proceedings.

The keynote address will be given by Ruth Tringham (University of California, Berkeley).

Other confirmed speakers include:

-Christine Hastorf (University of California, Berkeley) -Arlene Rosen (University College London) -James Hardin (Mississippi State University) -Wendy Matthews (University of Reading) -Rosemary Joyce (University of California, Berkeley) -Roger Matthews (University College London) -Patricia Wattenmaker (University of Virginia) -Stuart Campbell (University of Manchester) -Lynn Rainville (Sweet Briar College) - Ian Kuijt (University of Notre Dame) -Rana Ozbal (Bogazici University) -Helen Malko (SUNY Stony Brook) -Isaac Ullah (Arizona State University) -Yoko Nishimura (University of California, Los Angeles) -Marie Hopwood (SUNY Binghamton)

\*\*\*\*\*  
\*For more information concerning the conference schedule, confirmed speakers, accommodations, abstracts and submission guidelines please visit the conference website: <http://www.mec.utah.edu/hap/>

\*You may also contact the conference organizers directly:  
Bradley J. Parker ([Bradley.J.Parker@Utah.edu](mailto:Bradley.J.Parker@Utah.edu))  
Catherine P. Foster ([cpfoster@berkeley.edu](mailto:cpfoster@berkeley.edu))

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**MEETING OF THE IAE COMPUTER  
GROUP (INFORMATIQUE ET  
EGYPTOLOGIE, I&E),  
KUNSTHISTORISCHES MUSEUM,  
VIENNA, AUSTRIA, 8-11 JULY 2008**

It is our pleasure to announce that a date has been set for the next meeting of the IAE Computer Group (Informatique et Egyptologie, I&E), which last met in Oxford in 2006.

Thanks to the kindness of Dr Wilfried Seipel, the meeting will take place in the Kunsthistorisches Museum, Vienna, Austria, on 8-11 July 2008, with the sessions on 9-10 July.

The full announcement and first call for papers will be found on the Egyptology Resources web site. Interested persons should contact Regina Hölzl at the address below.

For any queries about the programme, papers etc, please contact Nigel Strudwick at the address below.

<<http://www.newton.cam.ac.uk/egypt/ie2008/index.html>>

We look forward to welcoming you to Vienna.

\*\*\*\*\*

Regina Hölzl <[info.aeos@khm.at](mailto:info.aeos@khm.at)>  
Nigel Strudwick <[ncs3@cam.ac.uk](mailto:ncs3@cam.ac.uk)>.

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**FREE ORIENTAL INSTITUTE PUBLIC  
LECTURE: EXCAVATING ASHKELON,  
SEAPORT OF THE PHILISTINES LARRY  
STAGER, HARVARD UNIVERSITY**

May 7, 2008  
7:00pm  
Breasted Hall  
Oriental Institute, Univ. of Chicago  
1155 E. 58th Street  
Chicago, IL 60637

We once knew about the mysterious Philistines mainly from the Hebrew Bible, as they were portrayed by their archenemies, the Israelites.

Through the recent archaeological discoveries at three of the five main cities of the Philistines--Ashdod, Ashkelon, and Ekron--the Philistines are beginning to speak for themselves. And their self-portrait is quite different from the stereotypical one. Their vernacular architecture and furnishings, pottery, eating and drinking preferences reflect those of the Aegean rather than the Semitic world.

Recent discoveries at Ashkelon reveal for the first time that some Philistines could read and write, using an Aegean script. Our excavations shed new light on Philistine relationships with Egyptians, Canaanites, and Israelites in the early Iron Age.

This event is free and open to the public. Reception to follow.

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For inquiries, contact the Oriental Institute Membership Office-  
773-834-9777 or [oi-membership@uchicago.edu](mailto:oi-membership@uchicago.edu)

Foy Scalf

Email: [scalffd@uchicago.edu](mailto:scalffd@uchicago.edu)

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## **I.A.K.A. 10 ΧΡΟΝΙΑ ΜΕΤΑ»**

**20-22 ΙΟΥΝΙΟΥ 2008**

(20-21.6 Αμφιθέατρο Σαράτση, 22.6 Μονή Πάου)

### **ΠΡΟΚΑΤΑΡΚΤΙΚΟ ΠΡΟΓΡΑΜΜΑ**

Η δημιουργία και η δεκάχρονη λειτουργία του τμήματος ΙΑΚΑ συνέπεσαν με μια περίοδο δυναμικών μετασχηματισμών της ίδιας της έννοιας και του ρόλου της τριτοβάθμιας εκπαίδευσης και των ανθρωπιστικών σπουδών ειδικότερα. Η φυσιογνωμία του τμήματος, τα ακαδημαϊκά του προτάγματα και οι προκλήσεις τις οποίες καλείται να αντιμετωπίσει αντανακλούν αλλά και συνδιαμορφώνουν ευρύτερες εξελίξεις τόσο στα επιστημονικά πεδία που το ΙΑΚΑ θεραπεύει όσο και στο χώρο της πανεπιστημιακής εκπαίδευσης και έρευνας γενικότερα.

Ο στόχος της συνάντησης είναι διττός. Αφενός, επιθυμούμε μια αποτίμηση της πορείας του τμήματος ΙΑΚΑ κατά τα πρώτα 10 χρόνια λειτουργίας του. Αφετέρου, μας ενδιαφέρει να προκαλέσουμε ένα γόνιμο διάλογο γύρω από τις πιθανές κατευθύνσεις και τους προσανατολισμούς του τμήματος στο μέλλον. Με βάση αυτά προτείνουμε τα εξής:

**Η συνάντηση θα οργανωθεί σε στρογγυλά τραπέζια που εντάσσονται στις εξής κατηγορίες:**

- A. ΙΣΤΟΡΙΑ, ΑΡΧΑΙΟΛΟΓΙΑ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΑΝΘΡΩΠΟΛΟΓΙΑ:  
ΖΗΤΗΜΑΤΑ ΣΤΟ ΕΣΩΤΕΡΙΚΟ ΤΩΝ ΕΠΙΜΕΡΟΥΣ ΕΠΙΣΤΗΜΟΝΙΚΩΝ  
ΠΕΔΙΩΝ**
- B. ΦΥΣΙΟΓΝΩΜΙΑ ΚΑΙ ΚΕΝΤΡΙΚΟΙ ΑΞΟΝΕΣ ΟΡΓΑΝΩΣΗΣ ΤΩΝ ΣΠΟΥΔΩΝ  
(ΠΡΟΠΤΥΧΙΑΚΟ ΚΑΙ ΜΕΤΑΠΤΥΧΙΑΚΟ)**
- Γ. ΤΟ ΕΥΡΩΠΑΪΚΟ ΕΚΠΑΙΔΕΥΤΙΚΟ ΠΕΡΙΒΑΛΛΟΝ**
- Δ. ΟΙ ΕΡΕΥΝΗΤΙΚΕΣ ΔΡΑΣΤΗΡΙΟΤΗΤΕΣ ΤΟΥ ΤΜΗΜΑΤΟΣ**

### **ΠΡΟΚΑΤΑΡΚΤΙΚΟ ΠΡΟΓΡΑΜΜΑ**

**ΠΑΡΑΣΚΕΥΗ 20 ΙΟΥΝΙΟΥ**  
**(Αμφιθέατρο Σαράτση)**

**18.00-20.00**

**Το εγχείρημα: η ιστορία συγκρότησης και οι αρχικές ιδέες που διαμόρφωσαν τη φυσιογνωμία του τμήματος και του προγράμματος σπουδών**

- Παντελής Λαζαρίδης (Πανεπιστήμιο Θεσσαλίας)
- Αντώνης Λιάκος (Πανεπιστήμιο Αθηνών)
- Αλέξανδρος Μαζαράκης Αινιάν (Πανεπιστήμιο Θεσσαλίας)

**20.00 Συναυλία**

**21.00 ΔΕΞΙΩΣΗ στην Πρυτανεία**

**ΣΑΒΒΑΤΟ 21 ΙΟΥΝΙΟΥ**  
**(Αμφιθέατρο Σαράτση)**

**Α. ΙΣΤΟΡΙΑ, ΑΡΧΑΙΟΛΟΓΙΑ ΚΑΙ ΚΟΙΝΩΝΙΚΗ ΑΝΘΡΩΠΟΛΟΓΙΑ:  
ΖΗΤΗΜΑΤΑ ΣΤΟ ΕΣΩΤΕΡΙΚΟ ΤΩΝ ΕΠΙΜΕΡΟΥΣ ΕΠΙΣΤΗΜΟΝΙΚΩΝ  
ΠΕΔΙΩΝ**

**09.00-10.15**

**1. Ιστορικές Σπουδές**

Συντονίστρια: Ιωάννα Λαλιώτου (Πανεπιστήμιο Θεσσαλίας)

- Έφη Αβδελά (Πανεπιστήμιο Κρήτης)
- Νίκος Καραπιδάκης (Ιόνιο Πανεπιστήμιο)
- Γιάννης Γιαννουλόπουλος (Πάντειο Πανεπιστήμιο)

**10.15-11.30**

**2. Αρχαιολογικές Σπουδές**

Συντονίστρια: Μαρία Βασιλάκη (Πανεπιστήμιο Θεσσαλίας)

- Κώστας Κωτσάκης (Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης)
- Πέτρος Θέμελης (Εταιρεία Μεσσηνιακών Αρχαιολογικών Σπουδών)
- Χαράλαμπος Μπακιρτζής (Εφορος Βυζαντινών Αρχαιοτήτων ε.τ.)

**11.30-12.00 ΔΙΑΛΕΙΜΜΑ**

**12.00-13.15**

**3. Ανθρωπολογικές Σπουδές**

Συντονίστρια: Σήλια Νικολαΐδου (Πανεπιστήμιο Θεσσαλίας)

- Ευάγγελος Αυδίκος (Πανεπιστήμιο Θεσσαλίας)
- Αθηνά Αθανασίου (Πάντειο Πανεπιστήμιο)
- Αλεξάνδρα Μπακαλάκη (Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης)

**13.15-14.30**

**4. Ιστορία, Αρχαιολογία και Κοινωνική Ανθρωπολογία στο ΙΑΚΑ**

- Δημήτρης Κυρτάτας (Πανεπιστήμιο Θεσσαλίας)
- Αλέξανδρος Μαζαράκης Αινιάν (Πανεπιστήμιο Θεσσαλίας)
- Ρίτσα Δέλτσου (Πανεπιστήμιο Θεσσαλίας)

**ΣΑΒΒΑΤΟ 21 ΙΟΥΝΙΟΥ**  
**(Αμφιθέατρο Σαράτση)**

**Β. ΦΥΣΙΟΓΝΩΜΙΑ ΚΑΙ ΚΕΝΤΡΙΚΟΙ ΑΞΟΝΕΣ ΟΡΓΑΝΩΣΗΣ ΤΩΝ ΣΠΟΥΔΩΝ**  
**(ΠΡΟΠΤΥΧΙΑΚΟ ΚΑΙ ΜΕΤΑΠΤΥΧΙΑΚΟ)**

**17.00-18.15**

**Η διεπιστημονικότητα ως διδακτικό και ερευνητικό ζητούμενο και εργαλείο**

Συντονίστρια: Ρίκη Βαν Μπούσχοτεν (Πανεπιστήμιο Θεσσαλίας)

- Ρίκα Μπενβενίστε (Πανεπιστήμιο Θεσσαλίας)
- Στέφανος Πεσμαζόγλου (Πάντειο Πανεπιστήμιο)
- Αντίκλεια Μουνδρέα Αγραφιώτη (Πανεπιστήμιο Θεσσαλίας)
- Μάρλεν Μούλιου (Πανεπιστήμιο Θεσσαλίας)
- Μιχάλης Φωτιάδης (Πανεπιστήμιο Ιωαννίνων)

**18.15-19.30**

**Νέες τεχνολογίες – Νέα αντικείμενα και ανθρωπιστικές σπουδές: η πρόκληση και η σύγχρονη δυναμική**

Συντονιστής: Μήτσος Μπιλάλης (Πανεπιστήμιο Θεσσαλίας)

- Αθηνά Πεγκλίδου (Πανεπιστήμιο Θεσσαλίας)
- Γιώργος Φακορέλλης (Πανεπιστήμιο Θεσσαλίας)
- Δημήτρης Κουρκουμέλης (Πανεπιστήμιο Θεσσαλίας)
- Πηνελόπη Παπαηλία (Πανεπιστήμιο Θεσσαλίας)
- Γρηγόρης Πασχαλίδης (Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης)

**Διάλειμμα 19.30-20.00**

**20.00-21.30**

**Μετά το ΙΑΚΑ, τι; Οι πτυχιούχοι και μεταπτυχιακοί μας φοιτητές μας μιλούν για την αγορά εργασίας, την έρευνα και τις μεταπτυχιακές σπουδές**

Συντονίστρια: Έφη Γαζή (Πανεπιστήμιο Θεσσαλίας)

- Βιβή Βασιλοπούλου (Προϊσταμένη της Γενικής Διεύθυνσης Αρχαιοτήτων και Πολιτιστικής Κληρονομιάς)
- Τριαντάφυλλος Σκλαβενίτης (ΕΙΕ)
- Μεταπτυχιακοί φοιτητές και απόφοιτοι ΙΑΚΑ
- Προπτυχιακοί φοιτητές ΙΑΚΑ

**ΔΕΙΠΝΟ**

**ΚΥΡΙΑΚΗ 22 ΙΟΥΝΙΟΥ**  
**(Μονή Πάου)**

**9.30-11.30**

**Γ. ΤΟ ΕΥΡΩΠΑΪΚΟ ΕΚΠΑΙΔΕΥΤΙΚΟ ΠΕΡΙΒΑΛΛΟΝ**

**Ανθρωπιστικές Σπουδές και Έρευνα σε Ευρωπαϊκό περιβάλλον και η πρόκληση του 7<sup>ου</sup> Επιχειρησιακού Προγράμματος για την Έρευνα - Συνεργασίες σε Διεθνή και Ευρωπαϊκά Προγράμματα**

Συντονίστρια: Χριστίνα Αγριαντώνη (Πανεπιστήμιο Θεσσαλίας)

- Tony Molho (European University Institute)
- Philippe Keraudren (Commission Européenne)
- Julie Scott (London Metropolitan University)
- Roland Etienne (Université Paris I, Sorbonne)

**ΔΙΑΛΕΙΜΜΑ 11.30-12.00**

**12.00-13.00**

**Δ. ΕΡΕΥΝΗΤΙΚΕΣ ΔΡΑΣΤΗΡΙΟΤΗΤΕΣ ΤΟΥ ΤΜΗΜΑΤΟΣ**

- **Ο ρόλος των Εργαστηρίων και η Έρευνα στο ΙΑΚΑ**

Στην ενότητα αυτή να μιλήσουν οι Διευθυντές των Εργαστηρίων, Πάρις Γουναρίδης (Εργαστήριο Ιστορίας), Αλέξανδρος Μαζαράκης Αινιάν (Εργαστήριο Αρχαιολογίας) και Ρίκη Βαν Μπούσχοτεν (Εργαστήριο Κοινωνικής Ανθρωπολογίας), καθώς και συνεργάτες των ερευνητικών προγραμμάτων.

**13.00-14.00**

**ΓΕΝΙΚΗ ΣΥΖΗΤΗΣΗ**

Συντονιστές: Ευάγγελος Αυδίκος, Πρόεδρος ΙΑΚΑ – Δημήτρης Κυρτάτας, Αναπλ. Πρόεδρος ΙΑΚΑ

**Παράλληλα με το συνέδριο θα λειτουργήσει έκθεση**

Η Οργανωτική Επιτροπή

Αλέξανδρος Μαζαράκης Αινιάν    Ιωάννα Λαλιώτου    Ρίτσα Δέλτσου

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# **WORKSHOPS, THE APPLICATION OF NON- AND MICRO-DESTRUCTIVE ANALYSIS TECHNIQUES IN ARCHAEOLOGY AND CONSERVATION**

## **23-28 MAY 2008**

A Leverhulme Trust funded research project was established in 2007 for three years to promote the application of laser-based techniques of analysis, in particular LIBS (Laser-induced Breakdown Spectroscopy), in archaeology and conservation. The project links the University of Glasgow (Drs Richard Jones & Brendan Derham, Department of Archaeology), Dr Demetrios Anglos' laboratory at the Institute of Electronic Structure & Laser, FORTH, Herakleion, and Dr Apostolos Sarris' laboratory at the Institute for Mediterranean Studies, Rethymnon, Crete.

LIBS (and related techniques) have already made a significant impact in their ability to give a rapid, virtually non-destructive chemical analysis of archaeological materials such as pottery, metals and pigments. The same technique has also been valuable in investigating the deterioration of metal and stone from a conservation point of view.

The project is organising two workshops in May 2008 to consider a number of important topics:

1. To assess the performance and applicability of LIBS (and related techniques); what kind and range of information has been obtained from the analyses? What materials have been analysed by LIBS? Is the data qualitative or semi-quantitative? How does LIBS compare with the more established technique of X-ray fluorescence (XRF)?

These issues will be discussed at a workshop generously hosted by the INSTAP East Crete Centre on **Friday May 23**. There will be short presentations by analysts, discussion and a demonstration of LIBS.

2. To consider the role of LIBS and other techniques in the analysis of soil as a means of geochemical survey. Geophysical survey is the traditionally used non-invasive survey approach in archaeology and is now well developed in Greece. However, the complementary approach of geochemical survey has received less attention, and yet it has the potential of yielding valuable information not only on the location but also the function of structures. The Leverhulme project is particularly interested in focusing on structures where ancient agricultural processes and craft activities have taken place.


The second workshop, kindly hosted by the Fitch Laboratory, British School at Athens on **Wednesday May 28**, will look at what geophysical survey has accomplished to date in Greece especially in relation to locating agricultural processes and craft activity sites; a review of archaeological geochemical survey generally in the Mediterranean; soil analysis comprising both inorganic (by LIBS) and organic components; *recent/current*

*archaeological field surveys in Greece and Cyprus which have located evidence for potential agricultural processing and craft activities.*

Please contact Richard Jones ([r.jones@archaeology.gla.ac.uk](mailto:r.jones@archaeology.gla.ac.uk)) or Brendan Derham ([b.derham@archaeology.gla.ac.uk](mailto:b.derham@archaeology.gla.ac.uk)) for further information.

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RER/1/006  
RER/1/006

**ΣΕΜΙΝΑΡΙΟ “Η ΧΡΗΣΗ ΤΩΝ ΠΥΡΗΝΙΚΩΝ  
ΤΕΧΝΙΚΩΝ ΣΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΗΣ  
ΠΟΛΙΤΙΣΤΙΚΗΣ ΚΛΗΡΟΝΟΜΙΑΣ”**

**20 – 22 Οκτωβρίου 2008**

**Κεντρικό Αμφιθέατρο ΕΚΕΦΕ «Δημόκριτος», Αθήνα**

**1η ΑΝΑΚΟΙΝΩΣΗ**

Το Τμήμα Εφαρμοσμένης Έρευνας της Διεύθυνσης Συντήρησης Αρχαίων και Νεότερων Μνημείων του Υπουργείου Πολιτισμού (ΥΠΠΟ), το Ινστιτούτο Πυρηνικής Φυσικής του ΕΚΕΦΕ «Δημόκριτος» και ο Διεθνής Οργανισμός Ατομικής Ενέργειας (ΔΟΑΕ) διοργανώνουν Σεμινάριο με θέμα: “Η χρήση των πυρηνικών τεχνικών στην προστασία της πολιτιστικής κληρονομιάς”. Το Σεμινάριο θα πραγματοποιηθεί στα πλαίσια του προγράμματος RER/1/006 του ΔΟΑΕ “Nuclear Techniques for the Protection of Cultural Heritage Artefacts in the Mediterranean Region”.

Το σεμινάριο απευθύνεται σε συντηρητές και άλλους επιστήμονες συντήρησης τόσο από το ΥΠΠΟ όσο και από άλλους εποπτευόμενους φορείς. Κύριος στόχος του είναι η προώθηση της χρήσης των πυρηνικών τεχνικών στους Έλληνες συντηρητές, η ενημέρωσή τους για τη σχετική υποδομή, επιστημονική γνώση και εμπειρία που υπάρχει στη χώρα και η προώθηση της συνεργασίας μεταξύ ερευνητικών εργαστηρίων και εργαστηρίων συντήρησης.

Προσκαλούνται να συμμετάσχουν με προφορικές παρουσιάσεις, οι δημόσιοι (υπηρεσίες του ΥΠΠΟ, ερευνητικά ινστιτούτα, τμήματα ΑΕΙ και ΤΕΙ) και ιδιωτικοί φορείς που διαθέτουν εργαστηριακή υποδομή και εμπειρία στην εφαρμογή πυρηνικών τεχνικών στο πεδίο της πολιτιστικής κληρονομιάς. Δεδομένου του στόχου του σεμιναρίου, οι παρουσιάσεις θα πρέπει να έχουν ενημερωτικό και εκπαιδευτικό χαρακτήρα. Τα θέματα που θα συζητηθούν είναι η μεθοδολογία των τεχνικών (χωρίς τεχνικές λεπτομέρειες), το είδος της πληροφορίας που παρέχουν σε σύγκριση με άλλες τεχνικές (χαρακτηρισμός, προέλευση πρώτης ύλης, διερεύνηση τεχνολογίας κατασκευής, διάγνωση φθοράς), η δυνατότητα εφαρμογής τους σε διαφορετικά υλικά, τα προβλήματα και η αξιολόγησή τους (αξιοπιστία, φορητότητα, κλπ).

Το σεμινάριο θα περιλαμβάνει επίσης δραστηριότητες επίδειξης και τράπεζες συζήτησης. Οι παρουσιάσεις θα γίνουν στην Ελληνική ή στην Αγγλική γλώσσα. Το πλήρες κείμενο των ομιλιών θα εκδοθεί σε ειδικό τόμο. Θα καταβληθεί κάθε προσπάθεια να καλυφθούν από το ΥΠΠΟ τα έξοδα μετακίνησης και διαμονής ενός έως δύο εργαζομένων από κάθε περιφερειακή υπηρεσία του υπουργείου. Ο αριθμός συμμετεχόντων εκτιμάται στους 120.

**Δικτυακός τόπος (από 25 Απριλίου): [http://www.yppo.gr/1/g1540.jsp?obj\\_id=2598](http://www.yppo.gr/1/g1540.jsp?obj_id=2598)**

**Εγγραφή:** Παρακαλούμε να αποστείλετε το Έντυπο Εγγραφής **μέχρι 15 Ιουνίου** στην ηλεκτρονική διεύθυνση [rer1006.dsa@culture.gr](mailto:rer1006.dsa@culture.gr).

**Υποβολή περιλήψεων:** Όσοι επιθυμούν να συμμετάσχουν με ομιλία παρακαλούνται να αποστείλουν περίληψη (περίπου 200 λέξεις) **μέχρι 15 Μαΐου** στην ηλεκτρονική διεύθυνση [rer1006.dsa@culture.gr](mailto:rer1006.dsa@culture.gr). Η οργανωτική επιτροπή διατηρεί το δικαίωμα της

επιλογής περιλήψεων, με γνώμονα τη συνάφειά τους με τη φύση και τους στόχους του σεμιναρίου.

### **Η οργανωτική επιτροπή**

Κ. Πολυκρέτη  
Υπουργείο Πολιτισμού

Α. Καρύδας  
ΕΚΕΦΕ «Δημόκριτος»

A. Markowicz  
ΔΟΑΕ



RER/1/006

RER/1/006

Συμπόσιο «Η χρήση των πυρηνικών τεχνικών στη  
συντήρηση της πολιτιστικής κληρονομιάς»

Κεντρικό Αμφιθέατρο ΕΚΕΦΕ «Δημόκριτος»

Αθήνα 20/10/2008 - 22/10/2008

**ΕΝΤΥΠΟ ΕΓΓΡΑΦΗΣ**

Παρακαλούμε να συμπληρώσετε και να στείλετε αυτό το έντυπο με e-mail, fax ή ταχυδρομείο **μέχρι 15 Ιουνίου 2008** στην ακόλουθη διεύθυνση. Για οποιαδήποτε διευκρίνιση μπορείτε να τηλεφωνείτε στο 210 3218475 (εσωτ: 223).

<b>Προς</b> Οργανωτική Επιτροπή Συμποσίου RER/1/006 Υπουργείο Πολιτισμού ΔΣΑΝΜ Τμήμα Εφαρμοσμένης Έρευνας Πειραιώς 81 105 53 Αθήνα Υπόψη: Κ. Πολυκρέτη	<b>Fax:</b> 210 3310342 <b>e-mail:</b> <a href="mailto:rer1006.dsa@culture.gr">rer1006.dsa@culture.gr</a>
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<b>Όνομα:</b>	
<b>Επώνυμο:</b>	
<b>Φορέας:</b>	
<b>Ιδιότητα και θέση στο φορέα:</b>	
<b>Διεύθυνση εργασίας:</b>	
<b>Τηλ:</b>	
<b>Fax:</b>	
<b>e-mail:</b>	

**INTERNATIONAL CONFERENCE ON:**  
**MEDICINE IN THE ANCIENT**  
**MEDITERRANEAN WORLD,**  
**SEPTEMBER 27-29 SEPTEMBER 2008,**  
**UNIVERSITY OF CYPRUS, NICOSIA**

**FIRST ANNOUNCEMENT**

The Archaeological Research Unit (University of Cyprus) and the Department of the History of Medicine (University of Crete) are organizing an International Conference on: **Medicine in the Ancient Mediterranean World**

The conference is addressed to the international scientific community of doctors, historians, archaeologists and researchers with a special interest in the history and archaeology of medicine, the history of diseases and palaeopathology. It aims to stress different aspects of ancient medical practice and contemporary knowledge on disease in the Egyptian, Greek, Roman and Byzantine worlds, up to AD 1204.

**Conference Topics :**

Ancient medical practitioners  
Schools of medicine  
Surgical instruments  
Medicaments and pharmaceutical preparations  
Healing deities and their sanctuaries  
Ex-votos  
History of diseases  
Palaeopathology

**Languages**

The languages of the Conference are English, French and Greek.

**Abstracts**

Extended abstracts for podium and poster presentations of about 300 words should be submitted by May 31st. The abstracts must detail the aim and the theme of the presentation.

**Presentations**

Presentations will be limited to 20 minutes, followed by a 10 minutes discussion.

**Conference Proceedings**

The conference proceedings will be published. Extended versions of papers accepted for presentation can be submitted for publication.

**Venue**

The Archaeological Research Unit of the University of Cyprus

### **Accommodation**

Complete information on recommended hotels will be sent in the second conference announcement. Participants will be responsible for making their own reservations and payments.

### **Important dates**

Submission of abstracts: 31st May 2008

Notification of acceptance: 1st July 2008

Conference: September 27-29 September 2008

### **Organizing Committee**

Presidents:

Demetrios Michaelides, CY

Constantinos Trompoukis, GR

Members:

Chatzouli Glyka, GR

Chhem Rethy, CA

Cobolet Guy, FR

Kassianidou Vasiliki, CY

Mina Maria, GR

Papantoniou Giorgos, CY

Papasavvas George, CY

Pierides Alkis, CY

Poulakou Efi, GR

Sidiropoulos George, GR

Vitas Dimitrios, CY

### **Scientific Committee**

Presidents:

Demetrios Michaelides, CY

Constantinos Trompoukis, GR

Members:

Askitopoulou Helen, GR

Chhem Rethy, CA

Diamantopoulos Athanasios, GR

Dimitriou Thespis, GR

Geroulanos Stefanos, GR

Jackson Ralph, GB

Lorentz Kirsii, FI

Lypourlis Demetrios, GR

Mussajo Somma Alfredo, IT

Touwaide Alain, USA

Zanchin Giorgio, IT

\*\*\*\*\*

### **Further Information**

For more information regarding the conference:

web: <http://hist-congress.med.uoc.gr>

Demetrios Michaelides

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University of Cyprus  
Kallipoleos 76  
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**INTERNATIONAL CONFERENCE ON:**  
**BIOMEDICAL SCIENCES AND**  
**METHODS IN ARCHAEOLOGY,**  
**HERAKLION (CRETE), 24- 26**  
**SEPTEMBER 2008**

**FIRST ANNOUNCEMENT**

The Department of the History of Medicine (University of Crete), and the Archaeological Research Unit (University of Cyprus) are organizing an International Conference on:  
**Biomedical Sciences and Methods in Archaeology**  
Heraklion (Crete), 24- 26 September 2008

The Conference aims to highlight the research possibilities offered by the application of biomedical techniques to the study of human skeletal remains retrieved from archaeological contexts. Such innovative techniques are expected to contribute to a more comprehensive reconstruction of health and disease patterns in past populations. Researchers in the fields of medicine, bioarchaeology, paleopathology, physical anthropology, archaeology, and related disciplines are invited to participate.

**Conference Topics**

Biomolecular methods in archaeology  
Paleoradiology  
Paleohistology  
Paleoepidemiology  
Reconstruction of dietary patterns  
Bioarchaeological studies  
Paleopathology

**Languages**

The languages of the Conference are English, French and Greek.

**Abstracts**

Abstracts for podium and poster presentations of about 300 words should be submitted by May 31st. The abstracts must detail the aim and the topic of the presentation.

**Presentations**

Presentations will be limited to 20 minutes, followed by a 10 minutes discussion.

**Conference Proceedings**

A volume of the conference proceedings will be published. Extended versions of papers accepted for presentation can be submitted for publication.

**Venue**

Albatros Spa & Resort Hotel, Hersonissos, Crete.

### **Accommodation**

Albatros Spa & Resort Hotel, Hersonissos, Crete

Complete information on recommended hotels will be sent in the second conference announcement. Participants will be responsible for making their own reservations and payments.

### **Important dates**

Submission of abstracts: 31st May 2008

Notification of acceptance: 1st July 2008

Conference: September 24-26 September 2008

### **Organizing Committee**

Presidents:

Trompoukis Constantinos, GR

Members:

Abaci-Kalfoglou Ersi, TR

Bourbou Chryssi, GR

Chhem Rethy, CA

Christopoulos Platon, GR

Chrysostomou Popi, CY

Kavoulaki Elisavet, GR

### **Scientific Committee**

Presidents:

Chhem Rethy, CA

Members:

Abaci-Kalfoglou Ersi, TR

Bourbou Chryssi, GR

Brothwell Don, UK

Bumbas Dimitrios, GR

Christodoulou Dimitrios, GR

David Rosalie, UK

Dutour Olivier, FR

Fox Sherry, US

Geroulanos Stefanos, GR

Michaelidis Dimitrios, CY

Kosmidis Hlias, GR

Limnopoulou Alik, GR

Maris Thomas, GR

Michaelides Demetrios, CY

Pedridis Gabriel, TR

Trompoukis Constantinos, GR

Gourtsogiannis Nikolas, GR

Greenblatt Charles, IL

Lorentz Kirsi, FI

Mitchell Piers, UK

O' Connor Terry, UK

Ortner Donald, US

Richards Mike, DE

Roberts Charlotte, UK  
White Chris, CA

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**Further Information**

For more information regarding the conference:

web: <http://hist-congress.med.uoc.gr>

E-mail: [emetaxa@eventmakers.gr](mailto:emetaxa@eventmakers.gr)

Tel: +30 210 9311004 Fax: +30-210-9370208

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**AUSTRALIAN EARLY MEDIEVAL  
ASSOCIATION 5<sup>TH</sup> ANNUAL  
CONFERENCE, WELCOMING THE  
STRANGER IN LATE ANTIQUITY AND  
EARLY THE MIDDLE AGES, 1-3  
OCTOBER 2008, BRISBANE,  
AUSTRALIAN CATHOLIC UNIVERSITY**

REGISTRATION OPEN; CALL FOR PAPERS CLOSING 30 JUNE

<http://home.vicnet.net.au/~medieval/>

AEMA's fifth annual conference will be held from 1-3 October 2008 at the Sebel Conference Suites, Charlotte Street, Brisbane, hosted by the Australian Catholic University.

Registration is now open and the registration form is available on the web site, together with details of the invited speakers and their abstracts. Abstracts of other papers will be placed on the web site progressively.

The period from late antiquity to the early middle ages was one of great social movement, of both individuals and people groups. How did people respond to demands made upon them for hospitality and charity by pilgrims, casualties of war, refugees, orphans, widows, those of other religions, the sick, the poor, itinerant monks and nuns, travelling traders and others?

Invited speakers:

Dr Anna Silvas, University of New England

Dr Wendy Mayer, Washington DC

Papers are invited on a broad range of topics related to the theme of 'Welcoming the Stranger', tapping various sources, including literature, archaeology, epigraphy and the arts. A title and a 250 word abstract should be sent by **30 June 2008** to the Conference Convenors. Please include affiliation and contact details with your abstract.

Download the call for papers: <http://home.vicnet.net.au/~medieval/>

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Conference convenors:

Dr Bronwen Neil [b.neil@mcauleyacu.edu.au](mailto:b.neil@mcauleyacu.edu.au)

Dr Geoffrey Dunn [g.dunn@mcauley.acu.edu.au](mailto:g.dunn@mcauley.acu.edu.au)

Centre for Early Christian Studies

Australian Catholic University

PO Box 456



Virginia  
Queensland 4014

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# **THE ARCHAEOLOGY OF THE WARRIOR: INTERPRETING MILITARY EQUIPMENT AND ICONOGRAPHY, 2009**

## **AIA ANNUAL MEETING**

### **Call for Papers**

Colloquium co-organizers: Jed Thorn (University of Cincinnati) and Andrew Connor (University of Cincinnati)

The realities of war were ubiquitous in the ancient world. From the small hamlet to the impregnable acropolis, the threat of armed conflict was never far removed from daily life in antiquity. While the ancient literary tradition tends to focus on epic clashes that shaped the balance of power, this panel will explore the various ways in which the ideologies and experiences of the individual warrior are reflected in the material record.

Virtually every ancient settlement housed citizens capable of defending it, lending the investigation of this topic a broad applicability across time and space. The unifying theme of this panel will be the use of archaeological evidence to reconstruct the role of the warrior-as conceived by a culture, a community, or an individual.

Analyses of military equipment might address issues of style versus functionality in the selection of arms and armor. For example: Was the adoption of foreign armor and weaponry types merely a technical expedient? Or did it have more to do with individual strategies of self-representation? Iconographic approaches may explore the various types of visual evidence that were designed to connote military status. How did individuals employ images of war-actual or mythical-to cast their identities and to convey them to others? Did the public iconographic programs of states emphasize warrior iconography with different intensities at different times?

We ultimately hope to assemble a set of papers that reflects a broad chronological, geographical, and methodological range. All abstracts should, however, focus on the ways in which objects served to define, cement, and broadcast the role of the warrior.

Please send a CV and an abstract of no more than 250 words by August 1, 2008 to both session organizers: Jed Thorn [/\(jedthorn@gmail.com\)/](mailto:jedthorn@gmail.com) and Andrew Connor [/\(connoraj@email.uc.edu\)/](mailto:connoraj@email.uc.edu). In keeping with the regulations of the AIA, we will accept only electronic submissions. All abstracts must conform to AIA guidelines: [http://www.archaeological.org/pdfs/annualconference/AIA\\_Style\\_Guidelines.pdf](http://www.archaeological.org/pdfs/annualconference/AIA_Style_Guidelines.pdf)

We would like to remind all interested submitters that it is possible for an individual to submit papers for both a colloquium session and an open paper session at the 2009 AIA Annual Meeting. The latter is automatically withdrawn from consideration if the former is accepted.

**ANCESTRAL LANDSCAPES: BURIAL  
MOUNDS IN THE COPPER AND BRONZE  
AGES (CENTRAL AND EASTERN  
EUROPE - BALKANS - ADRIATIC -  
AEGEAN, 4TH-2ND MILLENNIUM BC),  
INTERNATIONAL CONFERENCE,  
UDINE, MAY 15TH-18TH 2008**

<http://www.archeorient.mom.fr/Tumuli>

**Thursday 15th of May - Salone del Parlamento, Musei Civici, Castello di Udine**

8.30 Registration

9.15 Greetings

Università di Udine, CNRS Lyon, Musei Civici di Udine, Soprintendenza ai Beni Archeologici del Friuli-Venezia Giulia Regione Autonoma Friuli Venezia Giulia

9.45 Key-note lecture

The Tumulus in European Prehistory: Covering the Body, Housing the Soul  
Anthony F. Harding

10.15

Die Sakrale Symbolik des Kreises: zu den Ursprüngen der Hügelbestattungen  
Blagoje Govedarica

10.45

Eneolithic Burial Mounds in the Black Sea Steppe: Development of the Earliest Monumental Architecture  
Yuri Yakovlevič Rassamakin

11.00 COFFEE BREAK

11.30

Kurgan Tradition in the Copper Age of Eastern and Central Europe: Comparative Analysis  
Igor Vasilevič Manzura

11.45

New Investigations on Yamnaya-(Pitgrave) Culture in the Northern Pontic Region  
Elke Kaiser

12.00

Yamnaya Groups and Tumuli West of the Pontus  
Volker Heyd

12.15

Bronze Age barrow graves between Danube and Balkans. Stratigraphy and relative chronology

Stefan Alexandrov

12.30

The Arslantepe Royal Tomb. The Manipulation of the Kurgan Ideology in the Upper Euphrates Valley at the Beginning of the Third Millennium B. C.

Giulio Palumbi

12.45-13.30 Discussion

13.30 LUNCH

15.00

Neolithic Barrows with Round-Ditch in Central Europe: Origins and Meaning Janusz Czebreszuk,

Lukasz Pospieszny

15.15

Tumuli with a Round Ditch in the Ritual Scenario of the Corded Ware Culture Societies on the North European Lowland

Janusz Czebreszuk, Marzena Szmyt

15.30

Tumulus Culture Barrows in the Polish Lowlands. Geophysical Investigations and Archaeological Background

Mateusz Jaeger, Lukasz Pospieszny

15.45

Visible and Invisible Barrows. Late Eneolithic Burial Mounds in Forested Areas of Central Moravia

Jaroslav Peška, Jan Turek, Andrea Matějčková

16.00

Burial Mounds in West Bohemia: the Current State of Research

Ladislav Šmejda

16.15

Burial Mounds in the Baden Culture – Aspects of Local Development and External Influences

Claudia Sachsse

16.30

“Von Südosten nach Nordwesten?” – “Von Nordwesten nach Südosten?”.

Die “Ausbreitung” der mittelbronzezeitlichen Hügelgräberkultur entlang der Donau:  
Archäologischer Befund und Geschichte der historischen Interpretation eines Phänomens  
Wolfgang David

16.45 COFFEE BREAK

17.15

The Development of Burial Rites from Tumulus Culture to Urnfield Culture in Southern  
Germany  
Frank Falkenstein

17.30

The Late Bronze Age (13th-12th c. B.C.) Barrow Necropolis of Lăpuș, reg. Maramureș,  
Romania, New Research  
Carola Metzner-Nebelsick, Carol Kacsó, Louis D. Nebelsick

17.45

Dubene. Rituals and Burials  
Martin Hristov

18.00

Interpreting the Vertical Distribution of Bronze Age Barrows in Central Balkans  
Marko Porčić

18.15

Bronze Age Mortuary Practices in LBA Thrace: a Prelude for Studying the Long-Span  
Traditions  
Krassimir Leshtakov

18.30

Bronze Age-Iron Age: Continuity or Transition? The Mounds of Western Bosnia and  
Eastern Serbia  
Staša Babić

18.45-19.30 Discussion

20.00 DINNER

21.30 Visit to the exhibition “La scimmia nuda”, Museo di Storia Naturale, Udine

**Friday 16th of May - Villa Manin, Passariano (Codroipo, Udine)**

8.45 Transfer to Passariano

9.45 Greetings

Centro Regionale di Catalogazione e Restauro Consorzio Comuni del Medio Friuli

10.00

Mythical Voyages and Ancestral Monuments: Tales on Knowledge and Leadership in  
Prehistoric Europe

Philippe Della Casa

10.15

La scoperta della sepoltura a tumulo di Barbariga (Istria, Croazia). Novità e riscontri in relazione ai tumuli dell'età del bronzo rinvenuti nella penisola istriana e nell'Italia nord-orientale

Giulia Codacci Terlević

10.30

Burial Mounds at the Main Entrance of the Bronze Age Castelliere di Moncodonja. Their Social and Ideological Function

Bernhard Hänsel

10.45

Burial Mounds of the Bronze Age at Mušego near Moncodonja. Results of the Excavations 2006-2007

Kristina Mihovilić, Bernhard Hänsel, Damir Matošević, Biba Teržan

11.00 COFFEE BREAK

11.30

A Special Type of Tholos in Northern Adriatic

Biba Teržan

11.45

Tumulus or Cairn? The Case of Central Dalmatian Islands

Vedran Barbarić

12.00

New Data on Burial Mounds of Cetina Culture. Examples from Central Dalmatia

Ante Milošević

12.15

Burial Mounds in Croatia: Landscapes of Continuity and Transformation

Hrvoje Potrebica

12.30

The Princely Tumulus “Gruda Boljevica”, Podgorica,

Mile Baković, Lenka Bulatović

12.45-13.00 Discussion

13.00 LUNCH

15.00

The Topography of Tumuli in the Region of Korça and their Relation to Prehistoric Settlements

Petrika Lera

15.15

The Emergence and the Architectural Development of the Tumulus Burial Custom in NW Greece (Epirus, Ionian Islands) and Albania, and its Connections to the Settlement Organization

Stavros Oikonomidis, Aris Papayannis, Akis Tsonos

15.30

A Burial Tymbos in the Early Bronze Age at Kriaritsi, Sikia of Chalkidiki  
Sophia Asouhidou

15.45

Bronze Age Tumuli and Grave Circles in Central Greece and Thessaly  
Maria-Fotini Papakonstantinou

16.00

The Marmara Tumuli: Their Contribution to the Greek Protohistory  
Fanouria Dakoronia

16.15

Ampeion at Boeotian Thebes. Burial Practices and Ritual Performances in Early Helladic Greece  
Theodoros Spyropoulos

16.30

Tumuli over Dwellings. The Transformation of Domestic Spaces to Community Monuments at EH II Thebes, Greece  
Vassilis Aravantinos, Kyriaki Psaraki

16.45 COFFEE BREAK

17.15

Die beiden MH I Grabtumuli von Kastroulia in Messenien  
Joerg Rambach

17.30

The “Middle Helladic” Tumuli at Argos: a Re-Examination  
Kalliope Sarri, Sofia Voutsaki

17.45

Tumuli and Social Status: a Re-Examination of the Asine Tumulus  
Sofia Voutsaki, Søren Dietz, Anne Ingvarsson-Sundström, Eleni Milka

18.00

Why Graves Circles A and B at Mycenae Cannot Be Burial Tumuli  
Oliver Dickinson

18.15-19.00 Discussion

19.15 Transfer to Udine

20.30 DINNER

**Saturday 17th of May - Salone del Parlamento, Musei Civici, Castello di Udine**

9.00

Tombes respectables et majestueuses de l'Helladique Moyen. Conclusions ethnographiques  
Georgios Korrès

9.15

Monuments of the Past: Tumuli, Tholos Tombs and Landscape Associations  
Yannis Galanakis

9.30

La localizzazione topografica dei tumuli dell'età del bronzo nella Grecia continentale: metodologie di studio integrate  
Christina Merkouri

9.45

Burial Mounds of the Aegean Early Bronze Age: New Approaches to an Old Corpus  
Sylvie Müller Celka

10.00

The (possible) Tursi Tumulus (Matera) – Southern Italy and the Relationships between Southern Italy and the Aegean-Balkan Area in the First Half of the 3rd Millennium B.C.  
Alberto Cazzella

10.15

Tumuli e “specchie” funerarie nella Puglia dell'età del bronzo tra sviluppo locale e contatti transadriatici  
Giulia Recchia

10.30

Un impianto stabile della prima età del bronzo nell'Alta Murgia pugliese: il tumulo del sito di Le Chianche (Minervino Murge)  
Francesca Radina

10.45 COFFEE BREAK

11.15

The Torre S. Sabina Tumulus (Southern Puglia, Italy) in the Context of Transmarine Relations during the 14th Century B.C.  
Elisabetta Onnis

11.30

The Bell Beaker Mound in Via Bruschi - Sesto Fiorentino (Florence, Tuscany)  
Lucia Sarti

11.45

I tumuli funerari dell'età del rame di Sovizzo (Vicenza). Aspetti costruttivi e culturali  
Claudio Balista, Elodia Bianchin Citton



12.00

New Evidence of Ancestral Landscape in Trentino in the Copper and Bronze Ages: the Ritual Sites of La Vela di Trento and Cles Campi Neri

Lorenza Endrizzi, Elisabetta Mottes, Nicola Degasperi, Franco Nicolis

12.15

The Bronze Age Tumuli of Gardolo di Mezzo (Trento) in the Adige Valley

Elisabetta Mottes, Michele Bassetti, Elena Silvestri

12.30-13.00 Discussion

13.30 LUNCH

15.00

Tumuli e strutture abitative presso Flaibano nell'alta pianura friulana: vecchi e nuovi dati  
Serena Vitri, Alberto Balasso, Giulio Simeoni

15.15

Individual Burials and Communal Rites: the Manifold Uses of the Monumental Architecture in the North-Adriatic Early Bronze Age

Elisabetta Borgna, Susi Corazza

15.30

I tumuli del Friuli occidentale: un aggiornamento delle conoscenze

Armando D'Agnolo, Silvia Pettarin, Giovanni Tasca

15.45

The Early Bronze Age in North-Eastern Italy: the Making of a Monumental Landscape

Paola Càssola Guida

16.00 COFFEE BREAK

16.30-17.00 Closing lecture

Burial Mounds from the East : the Bahrein Phenomenon (2000-1800 B.C.)

Pierre Lombard

17.00-18.00

Discussion and concluding remarks

20.00 DINNER

**Sunday 18th of May - Excursion to Croatian Istria**

Day trip to Monkodonja and Maklavun (for the participants who registered)

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# **THEORETICAL ARCHAEOLOGY** **GROUP CONFERENCE AT COLUMBIA** **UNIVERSITY MAY 23<sup>RD</sup> TO 25<sup>TH</sup> 2008**

<http://www.columbia.edu/cu/archaeology/conference/tag/registration.htm> >

## **Registration deadline extended to May 7th!**

This event marks the first meeting of the Theoretical Archaeology Group in the USA. TAG has been running in Britain for 30 years and the Columbia meeting inaugurates a US branch of the Group– Next year it will go to Stanford and the year after that Brown will host the conference.

We have 22 sessions running over 2 and a half days, with around 170 speakers attending, of which 60% are from the US and 40% are international speakers coming from Europe, South America, Japan, India, and many other parts of the world.

Registration is \$50 for student/unwaged/part-time and \$100 for professionals. This includes the cost of the conference, the conference program and abstracts, plus three exhibits and two social events. You may also register after 7th May, online or at the conference, but an additional \$20 late registration fee will be added.

We look forward to seeing you in May. Further inquiries may be directed to [TAG-NYC@columbia.edu](mailto:TAG-NYC@columbia.edu)

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PROGRAM [Go there for links to abstracts]

<http://www.columbia.edu/cu/archaeology/conference/tag/callforpapers.htm>>:

The plenary session will be on the Friday evening, followed by a reception in the Low Library. The rest of the sessions will run over Saturday 24th and Sunday 25th, from approximately 9am - 6pm. A detailed timetable will be posted soon.

plenary session: (Friday evening)

geohistories of the city: spatial causality and urban revolution • Shannon Dawdy • Ian Hodder • Edward Soja •

sessions and paper abstracts: (Saturday & Sunday, approx. 9 - 6pm)

archaeology of destruction

Lila Rakoczy (University of York)

an archaeology of representation and visibility: interdisciplinary approaches to the study of material/visual culture Zainab Bahrani, Tally Kampen and Debbie Vischak (Columbia University)

beyond immediacy and the intimate: individuals and experience in the longue durée  
Tobias Richter (Institute of Archaeology, University College London) Steven Matthews  
(Groningen Institute of Archaeology, University of Groningen) Andrew Gardner  
(Institute of Archaeology, University College London)

beyond subsistence and paleoeconomy: post-processual approaches to faunal analysis  
Pam Crabtree (New York University)

breaking boundaries: archaeology at the edge UPDATED!

Hannah Cobb (University of Manchester)

Oliver Harris (University of Cambridge)

Phil Richardson (University of Newcastle)

centerings of modernity: seductive traps, enchanting fictions, and archaeological  
sensibilities Francois Richard (University of Chicago) and Mark Hauser (Notre Dame)

creating and contesting knowledge in antiquity: the genesis, authorship, and legitimation  
of novel ideas Terry D'Altroy and Darryl Wilkinson (Columbia University)

embodiment, material culture and identity in Near Eastern Prehistory Ellen Belcher  
(Columbia University and John Jay College/CUNY) and Karina Croucher (Liverpool  
University)

gossip, rumor, legend, and lore: informal, intimate, and important sites of knowledge  
Meredith Linn and Lindsay Weiss (Columbia University)

microcosms and macrocosms

Joanna Smith and Lee Ullmann (Columbia University)

mortuary landscapes UPDATED!

Katherine Marino (Brown University)

mundane ideals: constructing identities and maintaining worlds Paula Jones and  
Katherine Smith (University of Wales Lampeter)

museum trauma: recognizing and representing the past and present of the transatlantic  
slave trade Ross Wilson (University of York)

negative archaeology: much ado about nothing Severin Fowles (Barnard College), Anand  
Taneja and Seema Golestaneh (Columbia University)

object lessons from the archives and elsewhere Erin Hasinoff and Nan Rothschild  
(Columbia University)

ritual killing (humans, animals, objects) Ellen Morris (Columbia University)

sensing: touching: thinking: towards Peircean archaeologies Zoë Crossland (Columbia  
University) and Dan Pugh (Central Michigan University)

StoneWalls & queer sites: thinking outside the heterosexual matrix Brian Boyd and Kaet Heupel (Columbia University)

theoretical archaeology in India: a discussion and review Ajay Pratap (Department of History, Benaras Hindu University)

theorizing geometries: beyond space and place Matthew C. Sanger, Elliot Blair (American Museum of Natural History)

thing theory

The Thing Theory Seminar Group (Columbia University)

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

**THE ZAHİ HAWASS PRIZE IN**  
**EGYPTOLOGY**

From:

<<http://guardians.net/hawass/The%20Zahi%20Hawass%20Prize%20in%20Egyptology.htm>>:

The friends of Zahi Hawass have decided to establish a fellowship at the American University in Cairo (AUC) called "The Zahi Hawass Prize in Egyptology." The fellowship will be given to a student in the Egyptology department. A committee will be established to set the rules for the fellowship, which will be awarded to the most outstanding student of any nationality. The names of all the donors to the fellowship will be recognized.

This prize will be awarded to the best AUC student, Egyptian or foreigner, every year. The initial funding of this prize by Dr. Joseph Leone, a physician in the United States, began with \$ 5,000.

Additional contributors include:

Bruce and Carolyn Ludwig, AUC Board of Trustees; Supporters of Egypt	\$ 10,000
Margie Fisher, Margie Fisher Foundation, Egyptologist	\$ 25,000
Nancy Binz	\$ 10,000
Amr Badr, Abercrombie and Kent, Cairo	\$ 5,000
Timothy C. Collins, CIB Bank; Ripplewood Holdings	\$ 100,000

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In order to make a donation to the Zahi Hawass Prize in Egyptology at AUC, please send checks payable to the American University in Cairo directly to:

President David D. Arnold  
The American University in Cairo  
113 Kasr el Aini Street  
P.O. Box 2511  
Cairo 11511  
Egypt

Tel.: (202) 2-794-2964  
Fax: (202) 2-794-1830

In the United States, contributions can be sent to President David D. Arnold at:

The American University in Cairo  
420 Fifth Avenue  
3rd Floor

New York, N.Y. 10018

Tel.: (212) 730-8800

Fax: (212) 730-1600

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**SCIENTIST AND HEALTH & SAFETY  
SCIENCE SPECIALIST, DEPARTMENT  
OF CONSERVATION AND SCIENTIFIC  
RESEARCH, THE BRITISH MUSEUM,  
UKP 25,172 PA**

The British Museum is currently recruiting a scientist to work within the Department of Conservation, Documentation and Science. The post holder will have three principal areas of activity. First, to undertake scientific examination and analysis of materials within the British Museum collection, including research and other investigations into the raw materials, identification, provenancing, technology and the deterioration and conservation of the Museum's collection. The post holder will be expected to use a range of analytical techniques to tackle curatorial and conservation enquiries. Second, to undertake routine X-radiography of a range of object types, assist with the maintenance of the existing and future X-radiography equipment and develop skills in the interpretation of radiographic images. In addition the post holder will act as the scientific advisor and liaison point for chemical and other science safety matters, working alongside the Departmental Health & Safety (H&S) co-ordinator in the departmental office.

The ideal candidate will have a strong science background and experience in or familiarity with project design and the application of a range of analytical techniques such as microscopy, SEM-EDX, XRF, XRD, Raman, FT-IR, ICP-AES, ion chromatography, GC-MS and HPLC and X-radiography which you wish to apply to the study of the materials, technology and deterioration, preservation and conservation of museum objects. The post holder will work on a range of projects across the department but would be encouraged to develop a specialism and research interest in a particular material type or analytical technique. You will be expected to provide scientific services within the aims of the Museum, and disseminate results and information with the wider museum and conservation community through reports, publication and lecturing etc. In addition you will have experience, or a willingness to gain such experience, in all aspects of COSHH and expertise in the areas of H&S, chemical safety and other science-related issues and risk assessment.

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**For further information and an application pack, please go to:**

**[www.britishmuseum.org/the\\_museum/jobs.aspx](http://www.britishmuseum.org/the_museum/jobs.aspx)**

Job reference: 74564W

Contract: Permanent

Closing date for applications: 12 noon, 9 May 2008

The British Museum is an Equal Opportunities Employer

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## **SUERC AMS SCIENTIST VACANCY**

University of Glasgow  
Scottish Universities Environmental Research Centre

AMS Scientist  
Ref No: 14245/DPO/A1  
Salary: £30,013 - £33,780/£36,912 - £42,791 per annum

This post is available at either grade 7 or grade 8 depending upon knowledge and experience. Appointees to grade 8 are expected to take the initiative in programme development.

The SUERC AMS Laboratory for environmental science is well equipped with two modern accelerator mass spectrometers and the spectrometry of six species is established: [www.gla.ac.uk/suerc/ams](http://www.gla.ac.uk/suerc/ams) Working with the other AMS staff, and partner radiocarbon and cosmogenic isotope groups, you will develop and apply these tools in pursuit of Centre science, and your own. Although focusing on a single field you will share responsibilities for routine and experimental work, liaison and administrative duties as required. You will have expertise in the instrumentation and techniques, or be familiar with AMS data and be willing and able to develop these.

Further enquiries to Prof. Stewart Freeman at [s.freeman@suerc.gla.ac.uk](mailto:s.freeman@suerc.gla.ac.uk) or please visit [www.gla.ac.uk/jobs/vacancies](http://www.gla.ac.uk/jobs/vacancies)

This post has funding for 3 years in the first instance.

Applications should be submitted to Mrs Margaret Kerr, SUERC, Rankine Ave, Scottish Enterprise Technology Park, East Kilbride, UK.

Closing date: 23 May 2008

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## **JOB OPPORTUNITIES AT THE 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.

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, Italy and Syria.

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, will have to be 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 a interdisciplinary, flexible and open attitude with an open eye for the coherence of the project.

The total project will comprise 1 University Lecturer, 1 postdoc, 6 PhD's and several supporting positions, which have been or will be contracted over the period 2007-2011.

Over the next months, the following vacancies will be available:

**Research scientist (postdoc)**

**0,8 FTE**

**vacancy number 08-3042**

**For both internal and external candidates**

**Tasks**

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 or the Levantine coast. I.e., the candidate should supervise the processing and publication of a large body of preferably 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. On the one hand, the candidate should closely cooperate with the other senior researchers in the project and the department and the 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 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 (with no more than two years of experience), focusing on (part of) the period 1200-100 BCE. In case a dissertation has not yet been finished, the candidate should be able to certify when it will be submitted.
- 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 the project.
- a good publication record will be appreciated
- as mentioned above, a team spirit, and some skills in funding, organizing and running research projects 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 learning Dutch.

### **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 the 17th of May 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 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 in the subject-field.

### **PhD student (subproject 'Southern Thessaly')**

**1.0 FTE**

**vacancy number 08-3041**

#### **For both internal and external candidates**

##### **Material**

The excavations and surveys at Halos and its environs have yielded a large quantity of finds, representing all periods from the Neolithic until recent times. This sub-project concentrates on the pottery from the survey and excavations of (previously surveyed) grave mounds of the eleventh to sixth century bc, complemented by a smaller amount of finds (partly from surveys) of similar material from settlements and a possible sanctuary from the same period. The bulk of the material is local, but (very) small amounts of imported Mycenaean, Euboean, Corinthian, and Attic pottery are present as well.

##### **Research questions / themes**

The fieldwork in Halos comprises a very unique combination of extensive excavation of large parts of the urban environment as well as sites in the surrounding areas with an intensive survey of the area around the city. There is some prehistoric and late material that cannot be connected to the city of Halos, but the Geometric-Archaic period (eleventh to sixth century BC) and the Hellenistic period (third to second century BC), when occupation was flourishing, are best represented. The pottery of these two periods mostly belongs to a category that has had little research: central Greek, provincial variants of the dominant forms of ceramics that were made further south. A closer examination of this material is not only important to pottery specialists, but will also solve larger issues in the local archaeology, and above all, provide more general knowledge in the areas of the central questions of the project *New Perspectives on Ancient Pottery*.

##### **Structure of the research**

Due to the differences in nature between the material and the find locations this sub-project has been further divided into two separate projects that will cover one period each and supplement each other thematically. The research on Hellenistic Halos has already started; the position which is on offer now regards the Early Iron Age and the period just

after that. The finds from the Geometric-Archaic period, mostly material from the grave mounds, are ideal for an analysis concerning the second central question of the project: *'From far or from nearby?'*: Although the typical regional ceramics of Thessaly are (partly) stylistically dependent on examples from Athens and Euboea, and the graves in the grave mounds have been dug in an order that can mostly be reconstructed, the details of the typological and stylistic development are still completely unclear. Also intriguing is the question how clear influences from outside found their way to an area that is peripheral and not very rich, and where there are almost no valuables or imported ceramics in the graves. Precisely the pottery should offer good indications of the cultural development and the international connections of Southern Thessaly in the (Early) Iron Age, and the social-economic structures that go with that. Furthermore, on a more abstract level, attention can be paid to such questions regarding the functioning of that context: what is influence, how does it work? And more specifically, what were the relations with Euboea, the nearby international cultural 'superpower' during the Early Iron Age, and with Attica, which both provided strong stylistic influences, but are hardly present in imports, at least till sixth century black-figure appears. Looking to the other side, it may also be possible to find connections westwards, to areas which are even more culturally marginal from a 'traditional Greek' point of view. In short: what did it mean to be peripheral?

Part of this research will also be dedicated to a comparison with the results of the sub-project dealing with the Syrian coast. In the background of all this also the first central question: *'Does form follow function?'* will play a part. This will mostly concern the role of pottery in graves compared with the (lesser-known) contexts of the living.

#### Work plan

The research in Halos will consist of two phases, just like the other sub-projects: firstly, an inventory will be made of the finds and supplementary data, and secondly a thorough analysis of the data will take place. The inventory will consist of designing a database, collecting the data, and connecting all that to a GIS environment. Filling in the database will be done within the first year of the project, by a research assistant, in cooperation with some MA students.

In the second year the research assistant will be able to proceed more independently. The PhD researcher will have to dedicate himself to a more detailed typological and stylistical analysis of the material, thereby refining the existing classification, and fine-tuning dating and provenancing. In order to support the investigations into use, provenance, and production, targeted clay analysis will be applied to a selection of the material

The final year of the PhD research will be dedicated to the above mentioned research questions. In order to compare the results with the other sub-projects the PhD researcher will be supervised by one of the post-docs. This could lead to one or more joint publications, in addition to the PhD thesis.

In order to check and supplement the results some new fieldwork will probably be necessary (in the second or third year of the project, depending on the remaining problems). Due to the demands of the Greek government the fieldwork will be directed by one of the post-docs, together with the PhD researchers, under the responsibility of Professor Vladimir Stissi. Furthermore, during the whole course of the project a part of the supervision, the find processing and the research will be done by a member of the Greek Archaeological Service, who will be paid through the project.

#### Requirements

- the candidate should have finished a degree in Archaeology, preferably Mediterranean/Classical Archaeology with good/excellent grades

- the candidate should have demonstrable experience in the field of pottery research, preferably also with material from both excavations and field survey
- the candidate should have some expertise in Greek pottery of the relevant period (fine and coarse wares)
- it is recommendable to have some knowledge/experience with data systems
- the candidate should be willing to work in the dig house in Almyros, Greece for long periods
- some knowledge of the Greek language is highly recommendable.

### **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 appointment will start the 1st of September or 1st of October 2008; depending on satisfactory performance, after the first year an appointment for another two years follows. The salary is according to the 'CAO' regulations of Dutch Universities and PhD regulations of the Faculty of Humanities, and ranges from € 2.330 in the first year till € 2.558 in the final year (gross salary, based on a full-time appointment of 38 hours a week).

### **Job application**

Applications including a cover letter, curriculum vitae and research proposal (approx. 500 words, starting from the above and relevant publications, particularly H.R. Reinders ed., Prehistoric sites at the Almirós and Soúrpi Plains (Thessaly, Greece), Assen 2004 (Publications of the Netherlands Institute, pp. 91-124 en 143-156 (with references)) should be submitted before the 17th of May 2008, to the UvA, Faculty of Humanities, attn. the Dean, Ms Prof dr J.F.T.M. van Dijck, Spuistraat 210, 1012 VT Amsterdam. Please state the vacancy number 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](mailto:solliciteren2008-fgw@uva.nl). In that case please state the vacancy number in the subject-field.

## ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS



**ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΙΓΑΙΟΥ**  
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*Ρόδος 21 Μαρτίου 2008*

### ΠΡΟΣΚΛΗΣΗ ΥΠΟΒΟΛΗΣ ΑΡΘΡΩΝ

*Αγαπητά μέλη της ελληνικής ακαδημαϊκής και ερευνητικής κοινότητας των Γεωεπιστημών, Εφαρμοσμένων Επιστημών και Αρχαιολογίας,*

*Συμμετέχοντας στις Συντακτικές Επιτροπές των παρακάτω διεθνών επιστημονικών περιοδικών με κρίση (peer reviewed), σας κοινοποιώ την δυνατότητα να καταθέσετε σχετικά με το περιεχόμενο των περιοδικών άρθρα σας και μέσω εμού για την ταχύτερη διεκπεραίωση της διαδικασίας υποβολής- κρίσης- αποτελέσματος.*

*Για κάθε Περιοδικό ακολουθείτε τις οδηγίες στους συγγραφείς άρθρων όπως περιγράφονται στους αντίστοιχους ιστότοπους των περιοδικών.*

*Με φιλικούς χαιρετισμούς,*

*Ιωάννης Λυριτζής*  
*Καθηγητής Αρχαιολογίας Πανεπιστημίου Αιγαίου*

### ΠΕΡΙΟΔΙΚΑ ΓΙΑ ΥΠΟΒΟΛΗ ΕΠΙΣΤΗΜΟΝΙΚΩΝ ΑΡΘΡΩΝ

- **Journal of Coastal Research (USA)** (CERF/JCR Website: <http://www.CERF-JCR.com>). Member of the Editorial Board. Χ4/έτος.

*Σχόλια: Υποβολή μέσω της ηλεκτρονικής σελίδας του περιοδικού και ταυτόχρονα κοινοποίηση της υποβολής και ηλεκτρονική προώθηση του άρθρου σε εμένα.*

<sup>1</sup> Αντεπιστέλλον Μέλος Academie des Sciences, Arts et Belles Letters, Dijon- Διευθυντής Έκδοσης Διεθνούς Περιοδικού Μεσογειακής Αρχαιολογίας & Αρχαιολογίας (URL: [www.rhodes.aegean.gr/maa\\_journal](http://www.rhodes.aegean.gr/maa_journal)).

- **International Journal of Computer Interaction & Information Technology**  
([www.asiansmt.blogspot.com](http://www.asiansmt.blogspot.com), issued by Asian School of Management and Technology). Editor. χ2/έτος.  
Σχόλια: Ηλεκτρονική κατάθεση σε εμένα.
  - **Research Journal of Applied Sciences**  
(<http://www.medwelljournals.com/new/5/eb.php?id=5&theme=5&jid=rjas>).  
Editor. χ2/έτος.  
Σχόλια: Μέσω της ιστοσελίδας του περιοδικού και κοινοποίηση σε μένα.
  - **Mediterranean Archaeology & Archaeometry**  
([www.rhodes.aegean.gr/maa\\_journal](http://www.rhodes.aegean.gr/maa_journal)). Editor-in-Chief χ2/έτος.  
Σχόλια: Σε template στο ηλεκτρονικό ταχυδρομείο του περιοδικού.
  - **Online Journal of Earth Sciences.**  
(<http://www.medwelljournals.com/new/5/eb.php?id=5&theme=5&jid=ojes>.).  
Editor. χ2/έτος.  
Σχόλια: Μέσω της ιστοσελίδας του περιοδικού και κοινοποίηση σε εμένα.
  - **Archaeosciences (Revue d' Archaeometrie)(France).**  
(<http://gmpca.u-bordeaux3.fr>.) Editorial Board. χ1/έτος.  
Σχόλια: Ηλεκτρονική υποβολή στον Επιμελητή και ταυτόχρονα σε εμένα.
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## BYZANTINA SYMMEIKTA

The Institute for Byzantine Studies of the National Hellenic Research Foundation ([www.eie.gr](http://www.eie.gr)) is happy to announce the launch of *BYZANTINA SYMMEIKTA*, an international peer-reviewed open access journal on **22 April** at [www.byzsym.org](http://www.byzsym.org). Please open the attached documents to read about the journal in Greek or English. We will be grateful if you help spread the news about the journal that is available to the international scholarly community.

Starting **22 April** you may submit electronically papers for publication and books to be reviewed at [www.byzsym.org](http://www.byzsym.org). More information on *BYZANTINA SYMMEIKTA* and on *Open Access* in general can be found at <http://www.openaccess.gr>.

Sincerely yours,

Professor Taxiarchis Kolias  
Institute for Byzantine Research, Athens

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## *INTERNET SITES*

# **ΒΑΣΗ ΔΕΔΟΜΕΝΩΝ: ΤΟ ΠΕΡΙΒΑΛΛΟΝ ΤΗΣ ΠΡΟΪΣΤΟΡΙΚΗΣ ΕΛΛΑΔΟΣ**

<http://195.134.88.168/archaeology>  
[www.environmentalarchaeology.wordpress.com](http://www.environmentalarchaeology.wordpress.com)

### **ΠΕΡΙΒΑΛΛΟΝΤΙΚΗ ΑΡΧΑΙΟΛΟΓΙΑ**

Η Περιβαλλοντική Αρχαιολογία είναι ο κλάδος της Αρχαιολογίας, σύμφωνα με τον οποίο μελετάται η επίδραση του περιβάλλοντος στον άνθρωπο, σε όλες τις φάσεις της εμφάνισης και εξέλιξής του πάνω στη γη και στη συνέχεια η προσαρμογή και επίδραση του στο περιβάλλον καθ' όλη τη διάρκεια της ύπαρξής του με σκοπό την επίτευξη καλύτερων συνθηκών επιβίωσης. Αυτή η βάση δεδομένων αποτελεί την πρώτη συνθετική επιστημονική προσπάθεια παρουσίασης των καταλοίπων του ανθρώπου, των ζώων και των φυτών της Προϊστορίας του ελληνικού χώρου.

### **ΜΟΡΦΗ ΚΑΙ ΔΟΜΗ**

Εισαγωγικά και εν συντομία παρέχονται γενικές πληροφορίες για τα επιστημονικά πεδία της Γεωαρχαιολογίας, της Αρχαιοβοτανικής, της Αρχαιοζωολογίας, της Οικολογίας και της Ανθρωπολογίας. Η πλοήγηση επιτυγχάνεται μέσω διαδραστικού χάρτη του ελληνικού προϊστορικού χώρου όπου σημειώνονται οι σημαντικότερες δημοσιευμένες ανασκαφές. Έτσι, δίνεται η δυνατότητα άμεσης πρόσβασης σε αρχαιοπεριβαλλοντικό υλικό. Ανθρώπινες ταφές, οστά ζώων και φυτά παρουσιάζονται ανά ανασκαφή και κατά είδος καταλοίπων συνοδευόμενα από την αντίστοιχη βιβλιογραφική και χρονολογική αναφορά, όπως για παράδειγμα: κατηγορία (Αρχαιοβοτανική), υποκατηγορίες (Μικροσκοπικά, Μακροσκοπικά κατάλοιπα), λέξεις-κλειδιά (Φυτικά κατάλοιπα, Σπόροι, Καρποί κ.ά.).

Η δυνατότητα αναζήτησης που παρέχεται στον χρήστη, πραγματοποιείται χρησιμοποιώντας αρχικά την ονομασία της ανασκαφής και κατόπιν εξειδικεύοντας με το είδος του υλικού, τις λεπτομέρειες, τα σχόλια ή και διάφορες περαιτέρω λέξεις - κλειδιά.

### **ΣΤΟΧΟΙ ΚΑΙ ΣΗΜΑΣΙΑ**

Ο ψηφιακός χάρτης του παλαιοπεριβάλλοντος της Ελλάδος στοχεύει στη συγκέντρωση και παρουσίαση των δεδομένων τα οποία συμβάλλουν στην ανασύνθεση του οικολογικού και πολιτιστικού παρελθόντος. Με αυτόν τον τρόπο, καθίσταται εφικτή η κατανόηση αιτίων και επιπτώσεων των οικολογικών συνθηκών που επέδρασαν στη ζωή του ανθρώπου τόσο κατά το παρελθόν όσο και κατά το παρόν. Η έρευνα διευκολύνεται με την παροχή των απαραίτητων και συνοπτικών σε ορισμένα σημεία πληροφοριών καθώς και με τη χρήση της κοινώς αποδεκτής λατινικής ορολογίας. Τελικός στόχος είναι η αρτιότερη κατανόηση της αξίας του περιβάλλοντος και η διάδοση των γνώσεων αυτών στο ευρύτερο κοινό. Κάτι ιδιαίτερος σημαντικό στις ημέρες μας όπου το περιβάλλον βρίσκεται υπό διαρκή απειλή. Μέρимνά μας αποτελεί και θα αποτελεί ο διαρκής εμπλουτισμός της βάσεως με τις νεότερες δημοσιεύσεις.

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ΛΙΛΙΑΝ ΚΑΡΑΛΗ ΚΑΘΗΓΗΤΡΙΑ ΑΡΧΑΙΟΛΟΓΙΑΣ ΕΚΠΑ

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## **THE ANCIENT WORLD ONLINE**

As most here already know, starting in 2005, the Oriental Institute committed to digitizing all of its publications and making them available online, without charge. New publications appear online at or near the time they appear in print. Older publications will be processed as time and funding permits. More than one hundred volumes are now online.

In the second of a series, AWOL - The Ancient World Online, I have listed, on a single page, all of the volumes currently available in open access formats from the Oriental Institute:

AWOL - The Ancient World Online – 2

<http://ancientworldbloggers.blogspot.com/2008/04/awol-ancient-world-online-2.html>

or

<http://tinyurl.com/515n64>

The first in the series, AWOL - The Ancient World Online - 1, covered the more than 450 volumes currently accessible at CEFAEL: Collections de l'Ecole française d'Athènes en ligne.

<http://ancientworldbloggers.blogspot.com/2008/04/awol-ancient-world-online-1.html>

or

<http://tinyurl.com/5j9n26>

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## MUSEUM OF CYCLADIC ART WEBSITE

Dear colleagues and friends,

We invite you to visit the new web-site of the **Museum of Cycladic Art**, Athens, Greece at: [www.cycladic.gr](http://www.cycladic.gr) <<http://www.cycladic.gr/>>

The new site contains:

- detailed information about the history of the museum, the premises, exhibition galleries, opening-hours, admission fee etc;
- on-line presentation of a large number of Cycladic, Ancient Greek and Cypriot artifacts, accompanied with comprehensive introductions and thematic essays on the history and archaeology of the Aegean and Cyprus;
- a wide array of free educational resources that can be downloaded and used at home or in class;
- a full list of museum publications;
- a special section for kids;
- the on-line Museum Shop;
- and many other facilities.

We will be happy to receive any comments you may have.

Yours sincerely

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## MELAMMU WEBSITE UPDATE

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From Christina Tsouparopoulou & Erik van Dongen <[melammudatabase@yahoo.com](mailto:melammudatabase@yahoo.com)>:

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The Melammu Project concerns itself with the continuity, transformation and diffusion of Mesopotamian culture throughout the ancient world from the second millennium BC until Islamic times. This e-mail is to inform you that its website has been completely renewed. Updates include:

- PDFs of all the articles from the Melammu Symposia Proceedings (five volumes so far);
- bibliographies on Melammu-related themes;
- a new lay-out;
- many new entries;
- and a general revision.

The URL has remained the same: <http://www.aakkl.helsinki.fi/melammu/>

Of course, this update does not mean that the database and bibliography are now complete and feature all available Melammu-related material. So we would like to invite everyone to add entries and references to the database and the bibliographies, on any subject that is still missing. This can be done by (preferably) using the forms available in the 'Submit' section of the website, or if that does not work, by sending an e-mail to the following address: [melammu-db@helsinki.fi](mailto:melammu-db@helsinki.fi). The same goes for questions or feedback regarding the Melammu Project, its website and its contents. We also encourage everyone to send us pdfs of their published articles with relevance to the Melammu Project for inclusion in our Digital Library, where they can be made available for general download.

Finally, we would like to remind you that the next Melammu Symposium will be held in Sofia (Bulgaria), 1-3 September 2008. Its theme is 'Globalisation in the First Millennium' and although the deadline for submitting papers has now been passed, everyone is still invited to participate. For more information, follow the link on the bottom of the homepage of the Melammu website.

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# VIENNA INSTITUTE FOR ARCHAEOLOGICAL SCIENCE

Please visit the site: <http://www.univie.ac.at/vias/home.html>

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**ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS**

**SCIENCE AND CIVILISATION IN CHINA,**  
**VOL. 5, PART 11: FERROUS**  
**METALLURGY**

Dear all,

The latest volume of Joseph Needham's Science and Civilisation in China has now appeared: Volume 5, Part 11, Ferrous Metallurgy, by Donald B. Wagner.

The publisher's blurb is here:

<http://www.cambridge.org/catalogue/catalogue.asp?isbn=9780521875660>

and I have placed a copy of the Table of Contents and introductory matter here:

<http://www.staff.hum.ku.dk/dbwagner/SCC36c-prelims.pdf>

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Donald B Wagner

Nordic Institute of Asian Studies, Copenhagen

<http://staff.hum.ku.dk/dbwagner>

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# **A BRIEF INTRODUCTION TO ASTRONOMY IN THE MIDDLE EAST, JOHN M. STEELE**

From:

[http://www.saqibooks.com/saqi/display.asp?K=9780863564284&sf=KEYWORD&sort=sort\\_title&st1=astronomy&x=13&y=8&m=2&dc=2](http://www.saqibooks.com/saqi/display.asp?K=9780863564284&sf=KEYWORD&sort=sort_title&st1=astronomy&x=13&y=8&m=2&dc=2)

A Brief Introduction to Astronomy in the Middle East John M. Steele Saqi Books (March 2008)

ISBN-13: 978-0863564284

153 pp.

£7.99/\$11.95

The Middle East was both the birthplace of astronomy and the centre for its development during the medieval period. John M. Steele traces the development of the Late Babylonians' ingenious schemes for modelling planetary motion. He reveals how medieval Islamic advances in the study of the heavens, and the design of precise astronomical instruments, led to breakthroughs by Renaissance practitioners such as Copernicus and Kepler. Steele offers a fascinating insight into the history of astronomy in the Middle East and its profound influence on the rest of the world.

John M. Steele is a Royal Society University Research Fellow at the University of Durham.

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## **EΙΔΗΣΕΙΣ - NEWS RELEASE**

# **GATHERING 'CONCRETE' EVIDENCE, MIT CLASS EXPLORES CONTROVERSIAL PYRAMID THEORY WITH SCALE MODEL**

**David Chandler, MIT News Office, April 2, 2008**

Even though they are among the best-known structures on Earth, the pyramids of Egypt may still hold surprises. This spring, an MIT class is testing a controversial theory that some of the giant blocks that make up the great pyramids of Giza may have been cast in place from concrete, rather than quarried and moved into position.

In order to help identify blocks that were cast rather than quarried, students in the class, Materials in Human Experience (class 3.094), are assembling a small pyramid using a combination of both kinds of material. They will then use techniques such as microscopic imagery and chemical analysis to look for signs that might provide ways of telling the difference on samples from the Great Pyramid itself.

While many people think of concrete as a recent material, in fact the Romans used a version made from volcanic ash and lime extensively for most of their famous buildings, including the Pantheon. But although the idea that the Egyptians may have used a kind of concrete in building the pyramids was first suggested in the 1930s, with a specific material that could have been used proposed in 1988, so far there has been no proof and the idea has remained mired in controversy.

### **Contentious subject**

In fact, the very idea has been so controversial that "you can't get research funding, and it's difficult to get a paper through peer review," says Linn Hobbs, professor of materials science and engineering and professor of nuclear science and engineering at MIT and coteacher of the pyramid-building class.

Hobbs says that actually building a small-scale model of the pyramid using the materials and methods the Egyptians may have used is far more than just an educational exercise for the students. "Like any other investigation of ancient technologies, you can only get so far by speculating, and even only so far by looking at evidence. To go the rest of the way, you have to do the thing yourself. You have to get acquainted with the materials."

### **Speculating on materials**

The materials and know-how needed to cast the pyramids' giant 2-1/2 ton blocks in place, rather than quarrying and moving blocks of solid limestone, was definitely available to the Egyptians, Hobbs explains. At least 90 percent of the material would have consisted of powdered limestone, and Egyptian limestone is especially fragile and can easily be reduced to finely divided sludge simply by soaking it in water. The rest--the binder or cement--could have been made from materials they were known to have had and used for other purposes.

The binder, known as a geopolymer, could have been made from lime, kaolinite (a kind of clay), a fine silica (such as diatomaceous earth) and natron (sodium carbonate). The same ingredients were used by the Egyptians to make self-glazing pottery ornaments, a material called Egyptian faience, and well known to archeologists. When fired at high

temperature, the material produces a rich blue glaze on the surface. But if left for days or weeks at room temperature, it self-cures into a rock-hard material that could have provided a binder for cementing the disaggregated limestone together into cast blocks.

Hobbs suggests that some ancient craftsman may have inadvertently left some faience material unfired, and discovered by accident the hard material that resulted. In building pyramids, especially the higher layers as the structure grew, casting blocks in place would have been a far easier task than carving them to precise sizes and shapes and then moving them up long earthen ramps into their final positions -- a process that has never been described or pictured in any of the vast number of Egyptian texts and murals that have been found.

### **Like Silly Putty and Jell-O**

While wet, the consistency of the material is quite different from modern Portland cement, Hobbs says. "It's like something between mortar and Jell-O. When you try to pack it, it kind of ripples," he says. "It's rather like Silly Putty."

But the unusual material has a significant advantage: It doesn't shrink when it sets. "With most cements, you worry about shrinkage," Hobbs says, but not with this kind.

The class has been experimenting with different proportions and variations in ingredients for the geopolymer, to see which produces the strongest, most durable and limestone-like results. "This is not a cookbook class," Hobbs explains--he and the students are figuring things out as they go along.

### **An agnostic in search of answers**

Hobbs is not pushing the cast-block theory, which was first advanced by French materials chemist Joseph Davidovits, who invented (or perhaps reinvented) the geopolymer formula. Hobbs calls himself an agnostic on the matter, but thinks that it is a theory that deserves serious study and investigation.

"My own take is, they probably did both--cut some and cast some," he says.

"It's not science unless we formulate hypotheses that can be proved or disproved," he says. He hopes the class will produce a scientific paper detailing how the question could be resolved more definitively through microscopic and microchemical analysis. "It's good that the students can see a real scientific controversy being addressed in productive ways."

Please visit the site: <http://web.mit.edu/newsoffice/2008/pyramid-tt0402.html>

## **TREASURY OF ATREUS AT MYCENAE**

The Treasury of Atreus - also known as the Tomb of Agamemnon - is the largest and most impressive of the nine tholos tombs at Mycenae. The location of the Atreus Tomb has intrigued archaeologists for many years but by studying the landscape, the courses of the ancient roads and the various lines of sight at Mycenae, archaeologist David Mason believes he has found out why such an unusual and distinctive site was chosen for the tomb.

The Mycenaean tholos (the ancient Greek word for a round building) tomb consists of an entrance passage leading to a circular burial chamber roofed over with a corbel vault shaped like an old-fashioned beehive. The nine tholos tombs at Mycenae are divided into two groups by a long hill called the Panagi ridge. There are four tombs on the east side of the hill. Romantically named, they are, in order of construction, the Tomb of Aegisthus, the Lion Tomb, the Treasury of Atreus and the Tomb of Clytemnestra. (Incidentally, the travel writer Pausanias in the 2nd century AD called it the 'Treasury of Atreus', because at that time the structure was thought to have been the treasure house of Atreus, one of the legendary kings of Mycenae.) The other five tombs are located on the west side of the ridge. It has been observed that those on the east side are larger, more ornate and closer to the acropolis than those on the west side, and so are thought to have been built by rulers of Mycenae. The other five were most probably built by members of Mycenae's aristocracy.

Of the four 'royal' tholos tombs, three are set close together beside the acropolis hill. However, one - the Treasury of Atreus - stands by itself (No. 3 on the map, right). Approximately 500m away from the other three, this tomb is located halfway along the east slope of the Panagia ridge. This raises the question: why was the Atreus Tomb built on this particular spot and not next to the acropolis? We need to consider first the position of the tomb, as it would have been seen by travellers approaching Mycenae along certain roads; secondly, how the tomb would have been seen from the palace; and lastly, the view from the tomb itself.

### **Late Bronze age roads at Mycenae**

Mycenae was the focus of a network of well-built roads, a fact first realised in the early 1880s, when Captain Bernard Steffen located and surveyed some of the roads around the citadel. In the early 1990s, the roads were mapped again as part of the Mycenae survey (see the Archaeological Atlas of Mycenae published by the Archaeological Society at Athens). The roads were built for wheeled vehicles like chariots, and replaced unmetalled tracks, which followed natural routes through the landscape. The sections belong to a road known as M1, a highway that connected Mycenae with settlements and valleys to the east and north.

Between the Berbati valley and Mycenae, M1 ran along the north bank of the Chavos, a torrent bed that runs due west to Mycenae, where it becomes a great gorge separating the acropolis hill from Mt. Zara, one of the two peaks that loom above the archaeological site. Near the acropolis, M1 probably followed roughly the same course as the modern country road. Since this road is cut into the hillside, its construction would have certainly destroyed any remains of a Mycenaean predecessor. Walking along the line of the modern country road towards the citadel, you notice a wide U-shaped gap between Mt. Zara and the acropolis hill. This gap - the Chavos gorge - affords a view of the region to the west of the citadel. Looking through it, the Treasury of Atreus gradually appears from

behind Mt. Zara until it sits in the middle of the gorge (Map p.15: eye on M1). The tomb then disappears behind the piece of rising ground between the east end of the acropolis hill and the road.

The Atreus Tomb is also visible from the two roads that approached Mycenae from the south. In this direction lay the fertile Argive plain, the major Mycenaean sites of Tiryns, Midea and Argos and, beyond them, the sea. The two roads that ran to the south are called M4 and M7. M7 ran south-west from Mycenae to Argos, although it may even have stretched as far south as Lerna, on the shore of the Gulf of Argos. The other road, M4, ran south-east from Mycenae, linking the site with settlements on the east side of the Argive plain. It has been traced as far as Prosymna, but probably terminated at the citadel of Midea. At Mycenae M4 and M7 converged at a natural crossing over the Chavos where the remains of a bridge built in the Cyclopean technique were discovered (Map p.15: No. 6).

Walking along the line of either road towards the crossing point, the Treasury of Atreus can be seen in a prominent position to the north-west just before you reach the orchard of olive trees at the foot of Mount Zara (Map p.15: eye on Mt. Zara). Today the tomb is partially hidden from view by the trees and bushes that surround it. However, it is still a prominent landmark because it is situated immediately to the south of a bowl in the Panagia ridge: the bowl makes the tomb stand out from the rest of the ridge. Of course, the tomb would have been even more conspicuous in the Mycenaean period, when it was not covered in vegetation and its earthen mound, rubble-poros wall and terrace were all in their original condition. It seems clear to me, then, that the Atreus Tomb was sited so that it would be seen by anyone approaching Mycenae from the east (M1), south-east (M4) or south-west (M7).

### **The Pathway to the Palace**

But if the tomb was carefully placed for the visitor approaching Mycenae, its position was even more impressive when seen from the Palace itself. The heart of the palace at Mycenae was the megaron or great hall. It was furnished with a throne and a large circular hearth and was decorated with frescoes. When the Treasury of Atreus was built, the megaron was situated on the very top of the acropolis hill. With its entrance facing south, this rectangular building was approached by a path that climbed up to the north-west corner of the uppermost part of the acropolis hill and then proceeded south for a short distance along the western side of the hilltop before turning east onto the actual summit (Map p.15: inset).

From the western side of the upper acropolis, there is a magnificent view of the Argive plain (Map p.15: eye on acropolis, and see photo opposite). The west slope of Mt. Zara and the east face of the Panagia ridge, with the Chavos running between them, fill the foreground. Behind these slopes, there is a great swathe of the Argive plain itself. In the distance, the Artemision range rises above the plain, and the Gulf of Argos and the town of Argos itself lie to the south (left on photo). In the centre of the panorama and forming the focus of the view is the Atreus Tomb. Again, the bowl beside the Treasury of Atreus helps the tomb stand out from the rest of the ridge. Interestingly, the mound of the tomb sits directly below the gorge of the Charadros River, the only discernible break in the mountain range on the western side of the plain. The sides of the gorge seem to point to the tomb, and the hill nestling within the gorge echoes the shape of the mound. Given the route to the megaron in 1350 BC and the superb view of the Argive plain from the west side of the upper acropolis, I am convinced that the Atreus Tomb was set into the east slope of the Panagia ridge so that it would be seen by anyone entering the palace of Mycenae.

### **The Mound of the Atreus Tomb**

The view of the acropolis from the tomb is just as spectacular, for Mt. Profitis Ilias, which rises immediately north-east of Mycenae, serves as the backdrop (Map p.15: eye by Atreus Tomb). Interestingly, viewed from the mound above the tomb, the acropolis hill not only sits exactly in front of Mt. Profitis Ilias, but also has the same silhouette as the mountain. Consequently, the acropolis looks larger and more impressive, and appears to be protected by Mt. Profitis Ilias. This view is peculiar to this specific spot on the Panagia ridge, and so must have influenced the siting of the Treasury of Atreus.

### **The Symbolism of the Atreus Tomb Site**

So why was such a distinctive site chosen for the tomb? The answer, I believe, is connected to a major change in the political geography of the Argive plain in the 14th century BC. In this region in the early 14th century BC, besides Mycenae, there were tholos tombs in use at Berbati, Dendra (the cemetery of Midea), Kokla (near Argos) and Prosymna. By the middle of the century, however, these tombs had been abandoned, although tholos tomb construction continued at Mycenae. This suggests that by that time Mycenae had gained ascendancy over some of its rivals in the region.

In c.1350 BC the Treasury of Atreus was erected. Bigger, more elaborate and much better built than both the Tomb of Aegisthus and the Lion Tomb, the Atreus Tomb far surpassed its predecessors as an expression of wealth and power. It certainly appears that the king who constructed the Treasury of Atreus had at his disposal the human and material resources of a region considerably greater in extent than that controlled by his ancestors. In other words, the size, decoration and architectural quality of the Atreus Tomb support the suggestion that the territory of Mycenae expanded in the mid 14th century BC.

It appears that the builder of the Treasury of Atreus not only wanted to express his status as the greatest and most powerful ruler of Mycenae thus far through the architecture of the tomb, but also through its position in the landscape. The site chosen for the tomb was perfectly suited to convey this message. As stated above, the Atreus Tomb was sited so as to be visible from the trackways/roads that led to Mycenae from the east (M1), south-east (M4) and south-west (M7). I believe that the aim of this was to show that the ruler of Mycenae who built the tomb succeeded in acquiring control of settlements in these directions. It certainly seems significant that the tholos tombs abandoned by the middle of the 14th century BC lie to the east (Berbati), south-east (Dendra and Prosymna) and southwest (Kokla) of Mycenae.

We also noted that the palace/acropolis and tomb face each other and that the lines of sight from one to the other, continue to prominent natural features behind (Mt. Profitis Ilias) or in the distance (the Charadros gorge). This has the effect of tying the palace/acropolis and tomb together and also binding both to the landscape. It seems that the aim of placing the Treasury of Atreus in the centre of the panoramic view of the Argive plain from the west side of the upper acropolis, was to remind those who entered the palace of what the ruler achieved in his lifetime. By linking the tomb visually to the Charadros gorge and the hill within it, the viewer is made to survey the vast tract of farmland between the tholos tomb and the Artemision range. Thus, the view cleverly links the palace (the home of the king during his lifetime), the Atreus Tomb (the home of the king in death) and the Argive plain (the domain of the king) together.

**Please visit the site:**

[http://www.archaeology.co.uk/index.php?option=com\\_content&task=view&id=1588&Itemid=36](http://www.archaeology.co.uk/index.php?option=com_content&task=view&id=1588&Itemid=36)

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## **THE ANCIENT MECHANICS AND HOW THEY THOUGHT BY GUY GUGLIOTTA, APRIL 1, 2008**

CAMBRIDGE, Mass. — Consider the galley slave, clad in rags, chained to a hardwood bench and clinging to an oar as long as a three-story flagpole. A burly man with a whip walks back and forth shouting encouragement. You've seen the movie.

That galley slave would have known that the rowing stations in the middle of the ship were best, although he might not have known why. That took scholars to figure out. "Think of the oar as a lever," Prof. Mark Schiefsky of the Harvard classics department said. "Think of the oarlock as a fulcrum, and think of the sea as the weight."

The longer the lever arm on the rower's side of the fulcrum, the easier to move the weight. In the middle of the ship, as the rowers knew, the distance from hands to oarlock was longest.

This explanation is given in Problem 4 of the classical Greek treatise "Mechanical Problems," from the third century B.C., the first known text on the science of mechanics and the first to explain how a lever works. It preceded, by at least a generation, Archimedes' "On the Equilibrium of Plane Figures," which presented the first formal proof of the law of the lever.

Dr. Schiefsky teaches Greek and Latin as his day job and reads Thucydides and Sophocles in ancient Greek for fun. He also majored in astronomy as an undergraduate, and about nine years ago, feeling science-deprived, he joined a multinational research endeavor called the Archimedes Project, based at the Max Planck Institute for the History of Science in Berlin.

The Archimedes team studies the history of mechanics, how people thought about simple machines like the lever, the wheel and axle, the balance, the pulley, the wedge and the screw and how they turned their thoughts into theories and principles.

The textual record begins with "Mechanical Problems," moves to Rome and then through the medieval Islamic world to the Renaissance. It ends, finally, with Newton, who described many of the basic laws of mechanics in the 18th century.

There are a surprising number of old, and extremely old, scientific texts that have survived the ravages of time in one form or another. The Archimedes Web site lists far more than 100, including Euclid's geometry, Hero of Alexandria's Roman-era technical manual on crossbows and catapults, medieval treatises on algebra and mechanics by Jordanus de Nemore and Galileo's 17th-century defense of a heliocentric solar system.

The nice thing for Dr. Schiefsky is that hardly anyone reads the stuff. Scientists generally are not into ancient Greek or Latin, let alone Arabic, and most of Dr. Schiefsky's colleagues work on literature, philosophy, philology or archaeology. In fact, Dr. Schiefsky suggests "about 100 people" worldwide work on both science and the classics.

By following the historical record, the Archimedes researchers have discovered that the evolution of physics — or, at least, mechanics — is based on an interplay between practice and theory. The practical use comes first, theory second. Artisans build machines and use them but do not think about why they work. Theorists explain the machines and then derive principles that can be used to construct more complex machines.

The Archimedes researchers say that by studying this dialectic they can better understand what people knew about the natural world at a given time and how that knowledge may have affected their lives.

"What do you do when you want to weigh a 100-pound piece of meat and you don't have a 100-pound counterweight?" Dr. Schiefsky asked. "You use an unequal-armed balance, with a small weight on the long arm and the meat on the short arm."

The uneven balance, known as a steelyard, is a kind of lever, and Dr. Schiefsky notes that it has a cameo in Aristophanes' "Peace," a comic fantasy about ending the Peloponnesian War. When a furious arms dealer cannot figure out what to do with a surplus war trumpet, Trygaeus, the central character, suggests pouring lead in the bell to make a steelyard.

Referring to the mouthpiece, Trygaeus says, "Attach at this end a scale-pan hung on cords, and you'll have the very thing to weigh out figs to your servants out in the country."

One reason why Archimedes scholars find mechanics so attractive is that devices like the steelyard and lever have such long histories. "Practitioners knew about the lever long before the development of scientific theory, pretty much since the origin of civilization," Dr. Schiefsky said. At some point, theorists decided that the phenomena had to be explained. "It was an accident," Jurgen Renn, a lead investigator for the Archimedes Project, said in a telephone interview from Berlin. "In China and Greece, you get many urban centers with vigorous debate. In China, the tradition dies out with Confucianism and the formation of empires. It is legitimized in the West by Aristotle."

"Mechanical Problems" arrived in the modern world along with Aristotle's works. In fact, it was thought for centuries that Aristotle wrote it. "Most scholars discount that now," Dr. Schiefsky said. Aristotle cast wide theoretical nets, he added, while "Mechanical Problems" "is much more focused."

The author of "Mechanical Problems," Dr. Schiefsky said, clearly knew about Aristotle and adopted his matter-of-factness to describe a seemingly intractable dilemma in neat, practical terms. Problem 3 describes the lever's property.

"For it seems strange that a great weight is moved by a small force," the author wrote. "For the very same weight, which a man cannot move without a lever, he quickly moves by taking in addition the weight of the lever."

Problem 4 is the oarsmen, demonstrating the principle in a different context. The oarsmen sit in a row from stern to bow. The oars are the same length, but the distance between hands and oarlock, the lever arm, is longer amidships, because the ship is wider



there. The midships oarsmen exert less force than their bow or stern co-rowers to move the same weight of water. Conversely, if the midships oarsmen row as hard as the others, they will move a greater weight of water and contribute more to the ship's movement.

Although the author of "Mechanical Problems" certainly understood how a lever worked, it was Archimedes who described the precise relationship between the weights and their distances from the fulcrum.

"He made this into a fundamental principle of theoretical mechanical knowledge that could be used by practitioners," Dr. Schiefsky said. Classical tradition credits Archimedes as having said, "Give me a place to stand, and I will move the Earth."

"And the principle," Dr. Schiefsky added, "is that there is a proportionality between the force and the load, no matter how big the load. This is an intellectual transformation."

In the Middle Ages, the Arab world was a source for new scientific knowledge, as well as the custodian for much classical tradition, translated from Greek into Arabic beginning in the ninth century. By the 13th century, Western scholastics translated Aristotle from Arabic into Latin.

"Mechanical Problems" arrived later in the Renaissance, along with Greek copies of Aristotle's works, rediscovered in libraries, monasteries and other Middle East repositories. It inspired many commentaries by Renaissance scholars and was read by Galileo and other theorists. Indeed, "Mechanical Problems" is in many respects as useful today as it was 2,500 years ago, as anyone who has twiddled the weights on a health club scale can attest.

Or consider the New York Athletic Club rowing coach, Vincent Ventura, a close student of Problem 4, even though he has never read it: "It's different for our people, because the length of the oar to the oarlock is the same no matter where you sit in the boat. Everybody pulls the same weight," he said in a telephone interview. Still, "once in a while we might shorten oar for a guy who's not as big as the others."

**Please visit the site:**

[http://www.nytimes.com/2008/04/01/science/01clas.html?\\_r=1&scp=1&sq=mechanics&st=nyt&oref=slogin](http://www.nytimes.com/2008/04/01/science/01clas.html?_r=1&scp=1&sq=mechanics&st=nyt&oref=slogin)

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## CLAY TABLET IDENTIFIED AS ASTEROID THAT DESTROYED SODOM AND GOMORRAH



The clay tablet, which is 6cm in diameter

LEWIS SMITH, SCIENCE REPORTER

A clay tablet that has baffled scientists for 150 years has been identified as a witness's account of the asteroid suspected of being behind the destruction of Sodom and Gomorrah.

Researchers who cracked the cuneiform symbols on the Planisphere tablet believe that it recorded an asteroid thought to have been more than half a mile across.

The tablet, found by Henry Layard in the remains of the library in the royal place at Nineveh in the mid-19th century, is thought to be a 700BC copy of notes made by a Sumerian astronomer watching the night sky.

He referred to the asteroid as “white stone bowl approaching” and recorded it as it “vigorously swept along”.

Using computers to recreate the night sky thousands of years ago, scientists have pinpointed his sighting to shortly before dawn on June 29 in the year 3123BC.

About half the symbols on the tablet have survived and half of those refer to the asteroid. The other symbols record the positions of clouds and constellations. In the past 150 years scientists have made five unsuccessful attempts to translate the tablet.

Mark Hempsell, one of the researchers from Bristol University who cracked the tablet's code, said: “It's a wonderful piece of observation, an absolutely perfect piece of science.”

He said the size and route of the asteroid meant that it was likely to have crashed into the Austrian Alps at Kofels. As it travelled close to the ground it would have left a trail of destruction from supersonic shock waves and then slammed into the Earth with a cataclysmic impact.

Debris consisting of up to two thirds of the asteroid would have been hurled back along its route and a flash reaching temperatures of 400C (752F) would have been created, killing anyone in its path. About one million sq km (386,000 sq miles) would have been devastated and the impact would have been equivalent to more than 1,000 tonnes of TNT exploding.

Dr Hempsall said that at least 20 ancient myths record devastation of the type and on the scale of the asteroid's impact, including the Old Testament tale of the destruction of

Sodom and Gomorrah and the Ancient Greek myth of how Phaeton, son of Helios, fell into the River Eridanus after losing control of his father's sun chariot.

The findings of Dr Hemsall and Alan Bond, of Reaction Engines Ltd, are published in a book, A Sumerian Observation of the Köfels' Impact Event.

The researchers say that the asteroid's impact would explain why at Köfels there is evidence of an ancient landslide 5km wide and 500m thick.

### **Tale of devastation**

Then the Lord rained on Sodom and Gomorrah brimstone and fire from the Lord out of Heaven; and he overthrew those cities and all the valley, and all the inhabitants of the cities . . . [Abraham] looked down toward Sodom and Gomorrah and toward all the land of the valley, and beheld, and lo, the smoke of the land went up like the smoke of a furnace.

Source: Genesis 19:24-28

**Please visit the site:**

<http://www.timesonline.co.uk/tol/news/uk/science/article3649054.ece>

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## EGYPT'S ANCIENT GLASS

Egyptian glass is among the finest of the ancient world. Yet how did the ancient Egyptians make it? New work, at the world's earliest-excavated glass making factory in Tell el-Amarna, is unravelling the mysteries. Here Paul Nicholson delves into the archives of the late great Egyptologist, Flinders Petrie, who excavated at Tell el-Amarna in the 1890s; and then takes us to his own excavations, a century later, as field director of the Egypt Exploration Society's Amarna Glass Project. Here he tells of his excavations, how he undertook a host of fiery experiments, and why his team has shattered a raft of old interpretations.

Tell el-Amarna, some 360 miles south of Cairo, was the capital of the 'heretic pharaoh' Akhenaten (1352-1336 BC). Planned as a 'new town' by Akhenaten, Tell el-Amarna was abandoned soon after his death. His town, therefore, offers a rare and significant snapshot of urban Egyptian life and industry in the late 18th Dynasty of the New Kingdom (1550-1075 BC).

The site rose to prominence thanks in part to the work of Flinders Petrie who excavated at the site in 1891-2. Then, in 1912, a German expedition found the famous bust of Nefertiti, the chief wife of Akhenaten. This fixed the site in the public gaze. Following World War I, the archaeological concession passed to Britain's Egypt Exploration Society - or E.E.S. - who worked there in the 1920s and 1930s and resumed work under Professor Barry Kemp in the late 1970s.

My work, in conjunction with the E.E.S., focussed on glass. At the time of Akhenaten it was still a new material. But how did the Egyptians produce it? Did they make glass from its raw materials (silica, lime and soda) or did they simply import the raw glass from elsewhere?

Petrie's pioneering work was fundamental to understanding early glass production, not only in Egypt but throughout the Near East. However, on closer examination, I found that some of his seminal theories are difficult to reconcile with his finds, which raised questions as to whether or not they were correct. To explore his theories, we need to wind back the clock to 17 November 1891 when Flinders Petrie arrived at Tell el-Amarna.

**This article has been condensed. To see the whole feature, see *Current World Archaeology No.28***

**Please visit the site:**

**[http://www.archaeology.co.uk/index.php?option=com\\_content&task=view&id=1592&Itemid=36](http://www.archaeology.co.uk/index.php?option=com_content&task=view&id=1592&Itemid=36)**

## **PHARAOH SETI I'S TOMB BIGGER THAN THOUGHT ANDREW BOSSONE IN CAIRO, EGYPT FOR NATIONAL GEOGRAPHIC NEWS APRIL 17, 2008**

Egyptian archaeologists have discovered that the tomb of the powerful pharaoh Seti I—the largest tomb in the Valley of the Kings—is bigger than originally believed.

During a recent excavation, the team found that the crypt is actually 446 feet (136 meters) in length. Giovanni Battista Belzoni, who discovered the tomb in 1817, had noted the tomb at 328 feet (100 meters).

"[This is] the largest tomb and this is longest tunnel that's ever found in any place in the Valley of the Kings," said Zahi Hawass, secretary general of Egypt's Supreme Council of Antiquities (SCA).

"And we still did not find its end until now," said Hawass, who is also a National Geographic Explorer-In-Residence. (The National Geographic Society owns National Geographic News.)

Uncovering new parts of previously discovered tombs is rare, although not unprecedented.

In 1995, for example, U.S. archaeologist Kent Weeks opened the KV5 tomb that housed the sons of Ramses II—the son of Seti I—and found that it too was larger than expected, with multiple passageways and more than a hundred small chambers.

The tomb of Seti I, who ruled Egypt from 1313 to 1292 B.C. at the apex of its artistic accomplishments, is impressive not only for its size but also for the breadth of art on its walls, experts say. But its size could be expanded even farther by future expeditions.

"The ancient Egyptians never built something without a plan, without an aim or a target to do this, so I think this tunnel [in the tomb of Seti I] will lead to something important," said Mansour Boraik, director of Luxor Antiquities.

### Washed Away

Archaeologists also found clay vessels, fragments of the tomb's painted wall reliefs, and a quartzite ushabti figure—a funerary statue—during their search for artifacts and efforts to clear debris.

These objects could have washed into the tunnel during floods starting from the 21st dynasty, between 1090 and 945 B.C., according to archaeologist W. Raymond Johnson, director of the Epigraphic Survey of the Oriental Institute at the University of Chicago.

Pharaohs from the 21st dynasty onward quarried the tombs of their predecessors for their own royal burials, he pointed out.

During this process they rewrapped and reburied the royal dead in hidden cachette tombs, such as that of Amenhotep II, located near the tomb of Seti I.

They also filled in the deep shafts typically cut into the ground of the tomb after the second entry corridor. The shafts—known as wells—were filled in to make removing heavy objects from the tomb easier.

These shafts likely served the ceremonial purpose of establishing a direct connection with the underworld, but also had a practical advantage: flood protection.

"These shafts would catch the rainwater if it did get in the tomb," Johnson said.

"It would catch [rainwater] before it went to the burial chamber and divert it downward. But [many of] these [shafts] got filled in order to drag the sarcophagi out, and they didn't clear them out."

The filled-in shafts left tombs susceptible to flooding from rainwater. Other locations in the Valley of the Kings, such as KV5 and the tomb of Ramses II, show signs of such flooding, Johnson said.

(Related: Surprise Finds at Egypt Temple 'Change Everything'  
[December 17, 2007].)

After torrential rains in 1994, the SCA built protective raised edges on the front of all the royal tombs as protection from rainfall.

### An All-Egyptian Team

The objects found in the tomb of Seti I would have washed into the tunnel long before the side chamber to the tomb collapsed during excavations nearly 50 years ago by the Abdul Rasul family.

Until the current excavation, the tomb was deemed too dangerous to enter because a small section of the vaulted ceiling of the burial chamber had since collapsed.

The excavation is the first discovery by an all-Egyptian archaeological team in the Valley of Kings. Foreign archaeologists have traditionally led missions in the past two centuries.

The team of five archaeologists and one geologist is also looking for other tombs. They believe they could find the tomb of Ramses VIII (circa 1150 B.C.) near the tomb of Merenptah (1225-1215 B.C.) because ancient graffiti indicates a tomb in that location.

"The Valley of the Kings still has a lot of mysteries and a lot of tombs that need to be excavated," Boraik, of Luxor Antiquities, said.

"All of the scholarship has not been exhausted."

Please visit the site: <http://news.nationalgeographic.com/news/2008/04/080417-seti-tomb.html>

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# **GREEK TEMPLE DISCOVERED IN ALEXANDRIA**

**Sunday, April 13, 2008**

A team of archaeologists have unearthed a Greek temple in the Egyptian coastal city of Alexandria, showing that the Greeks worshipped Pharaonic deities more than 2,500 years ago.

An official of the expedition said that the temple was found during the renovation of an area of Alexandria with the relics of the temple unearthed evidence that Greeks were influenced by the ancient Egyptian civilization.

He added that the Greeks believed in the holy trinity of Isis, Osiris and the child Horus, developing these gods after Alexander the great conquered the city in 332 BC.

**Please visit the site:**

<http://www.sis.gov.eg/En/EgyptOnline/Culture/000001/0203000000000000000980.htm>



## **FSU PROFESSOR DESIGNS EGYPTIAN BOAT FOR DOCUMENTARY**

**By Gerald Ensley**

A filmmaker is re-creating a treasure-gathering voyage of Egypt's greatest female pharaoh, and a Florida State archaeology professor is designing the boat.

FSU's Cheryl Ward spent last week in Egypt as boat-builders laid the keel for a ship she and a documentary crew will sail 1,000 miles on the Red Sea in December. The trip will trace a journey made 4,000 years ago by Egyptians under Queen Hatshepsut to Punt (modern-day Ethiopia), to bring back gold, ivory, exotic animals, myrrh and live frankincense trees.

The project is the work of French documentary producer Valerie Abita, whose "Hatshepsut and the Land of Punt" is scheduled for broadcast next spring.

"(The queen) might have been the first feminist of ancient history," Abita wrote in an e-mail.

Ward is designing the boat with two other archaeologists, a naval engineer and a naval architect. Egyptian builders will construct a boat 70 feet long and 18 feet wide.

"We're doing our best as modern people to imitate something the Egyptians commonly did for 1,000 years," Ward said. "It's a great adventure and a huge challenge."

Ward, 47, has spent 25 years studying ancient ships and was hired at FSU in 2000. She has been on expeditions in search of Noah's Ark and Roman pirate ships. She travels regularly to Egypt, where archaeologists since the 1970s have discovered 22 boats that once plied the Nile River.

"I am the world's leading expert on Egyptian boat-building," said Ward, before laughing. "But it's a very small field."

Ward's recent focus has been on finding previously undiscovered ancient Egyptian seagoing boats. Unlike river boats found intact in river beds and tombs, she believes, seagoing boats were built to be dismantled and transported over land. In 2005, she was part of a team that found numerous ship planks buried in a cavern used by ancient shipbuilders. The cedar planks were filled with mollusk larvae holes, "which told me right away they came from sea-going ships."

The planks matched those on a ship Queen Hatshepsut had carved into a temple wall commemorating the trip to Punt. That allowed Ward's team to understand the scale and shape of the ship they're designing.

The project is getting an assist from FSU's Master Craftsman program, which is building a model of the boat so Ward's team can test how it carries weight.

Ward is giddy about December's launch.

"It's more than I ever hoped," she said, "to build a functioning boat and imitate the achievements of people in ancient times."

**Please visit the site:**

**<http://tallahassee.com/apps/pbcs.dll/article?AID=/20080407/NEWS01/804070311>**

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## A UNIQUE ANCHOR WITH HIEROGLYPHICS DISCOVERED IN CYPRUS

Friday april 11, 2008

Professional diver Tevfik Camgöz discovers an ancient stone anchor bearing hieroglyphic inscriptions off the shores of Kyrenia, a major port city in northern Cyprus. The anchor was sent to the British Museum, where it was discovered to be 3,000 years old. Camgöz notes that his research is on going and does not give information about the coordinates of the spot

Vercihan Ziflioğlu  
ISTANBUL - Turkish Daily News

Archaeology and anthropology are two sciences trying to shed light on the lives of ancient civilizations. The main aim of all the research is to find vestiges of lost cultures and civilizations, to decode the code of the universe, and hence, life.

Ancient Egypt, with its aura of mystery, is one of the most important civilizations among the cultures of Antiquity and continues to attract the attention of scientists. As the pharaohs refuse to give up their secrets, science takes a further step toward unveiling what has been hidden for millennia.

Last year, a stone anchor bearing hieroglyphic inscriptions was discovered, by chance, off the shores of Kyrenia, a significant port city in northern Cyprus. Examined by professional diver Tevfik Camgöz, the historic artifact was sent by authorities in northern Cyprus to the British Museum's Department of Ancient Egypt and Sudan. After a number of examinations, experts found the anchor to be 3,000 years old and that it has no equal in the world.

Camgöz refrained from giving concrete information about the coordinates of the spot where he found the anchor. Noting that research is ongoing, Camgöz said, "the main goal of the examinations conducted on the hieroglyphics inscribed on the stone anchor is to discover why the Pharaoh sailed the waters of Cyprus. That journey by the Pharaoh might change history fundamentally."

### **History of humanity hidden beneath northern Cypriot shores**

Camgöz's adventures in diving began when he was a 4-year-old. He performed his first dive when he was 15 and made many other dives in the waters of Turkey and northern Cyprus later in his life. He continued to search for the unknown under international waters as well. But it was the waters of northern Cyprus that attracted him the most. "North Cyprus is very rich in terms of underwater archaeology.

An unbelievable treasure of sunken cities, ships, amphorae, and sculptures is hidden beneath the shores of North Cyprus."

Camgöz founded the Nautilus Diving School, the only diving school in northern Cyprus, five years ago. It is the only dive center to be awarded a grant by the United Nations Development Programme and Office for Project Services (UNDP-UNOPS).

### **Behind a curtain of secrecy**

Camgöz found, by chance, the invaluable anchor that belonged to an erstwhile pharaoh. "One day, nine years ago, I was trying to discover diving spots in Kyrenia, a mile offshore." Exploring at a depth of 20 meters, an object caught his eye. After a few minutes, Camgöz decided that it was just an illusion and surfaced.

Last year, Camgöz made another dive at a spot near the location where he had made that dive nine years earlier. It was during that dive that he found the stone anchor. When he moved it slightly, he saw some hieroglyphics on its back surface.

"I immediately recognized the hieroglyphics. I was running low on air. That's why I had to surface," he said. A second dive to further examine the anchor resulted in the discovery of a few other historic artifacts located close to the anchor. He went on a third dive with students from the North Cyprus Campus of the Middle East Technical University to conduct scanning and inventory studies. A fourth dive was undertaken with a professional team, led by underwater archaeologist Enver Gürsoy, during which the coordinates of the site were recorded and photographs were taken. Camgöz said all the studies were undertaken under the supervision of northern Cyprus' Office of Historical Monuments.

### **Coordinates not revealed**

The anchor with the hieroglyphics was then sent to the British Museum to decipher the hieroglyphics. "After an initial examination, some of the hieroglyphics were decoded. The inscriptions included information about the pharaoh's Cyprus expedition," said Camgöz.

What that discovery could fully yield is unclear for now as examinations on the ancient anchor have not yet been completed.

"Studies have focused on the question of why the pharaoh conducted expeditions into the waters off Cyprus. Currently, we don't have adequate information, but experts have determined that this ancient anchor has no equal in all the world," said Camgöz.

### **Funds insufficient for underwater archaeology**

Camgöz said underwater archaeology is an evolving field, both in Turkey and northern Cyprus. "But funds are insufficient. There is a great need for financial support." Cyprus' waters are available for diving throughout the year. The water temperature ranges between 16 and 20 degrees centigrade while diving depths range between 30 and 40 meters. Camgöz also produces underwater documentaries. Two years ago, together with Turkish state broadcaster, TRT, he prepared a documentary called "Blue Depths of Green Island" about northern Cyprus' underwater life and diversity of fish. The Web page of Camgöz's diving school is: [www.nautilusdivingcyp.com](http://www.nautilusdivingcyp.com).

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# **ARTICLE PUBLISHED APR 21, 2008,** **TURKISH SITE A NEOLITHIC** **'SUPERNOVA'**

By Nicholas Birch, URFA, Turkey

As a child, Klaus Schmidt used to grub around in caves in his native Germany in the hope of finding prehistoric paintings. Thirty years later, as a member of the German Archaeological Institute, he found something infinitely more important: a temple complex almost twice as old as anything comparable.

"This place is a supernova," said Mr. Schmidt, standing under a lone tree on a windswept hilltop 35 miles north of the Syrian border.

"Within a minute of first seeing it, I knew I had two choices: go away and tell nobody, or spend the rest of my life working here."

Behind him are the first folds of the Anatolian Plateau. Ahead, the Mesopotamian plain, like a dust-colored sea, stretches south hundreds of miles to Baghdad and beyond. The stone circles of Gobekli Tepe, his workplace since 1994, are just in front, hidden under the brow of the hill.

Compared with Stonehenge, they are humble affairs. None of the circles that have been excavated, four out of an estimated 20, is more than 100 feet across. Two of the slender, T-shaped pillars tower at least three feet above their peers.

What makes them remarkable are the carved reliefs of boars, foxes, lions, birds, snakes and scorpions that cover them, and their age.

Dated at about 9500 B.C., these stones are 5,500 years older than the first cities of Mesopotamia and 7,000 years older than Stonehenge.

Never mind wheels or writing, the people who erected them did not even have pottery or domesticated wheat. They lived in villages, but were hunters, not farmers.

"Everybody used to think only complex, hierarchical civilizations could build such monumental sites and that they only came about with the invention of agriculture," said Ian Hodder, a Stanford University anthropology professor who has directed digs at Catalhoyuk, Turkey's most-famous Neolithic site, since 1993.

"Gobekli changes everything. It's elaborate, it's complex, and it is pre-agricultural. That fact alone makes the site one of the most important archaeological finds in a very long time."

With only a fraction of the site opened after a decade of excavation, Gobekli Tepe's significance to the people who built it remains unclear. Some think it was the center of a fertility rite, with the two tall stones at the center of each circle representing a man and woman.

Urfa's tourist board has taken that theory up with alacrity; visit the Garden of Eden, its brochures trumpet, see Adam and Eve.

Mr. Schmidt, however, is skeptical. He agreed the site could well have been "the last flowering of a semi-nomadic world that farming was just about to destroy" and pointed out that if it is in near-perfect condition today, it is because those who built it buried it soon after under tons of soil, as though its wild animal-rich world had lost all meaning.

However, the site is devoid of the fertility symbols that have been found at other Neolithic sites, and the T-shaped columns, while clearly semi-human, are sexless.

"I think here we are face to face with the earliest representation of gods," according to Mr. Schmidt.

"They have no eyes, no mouths, no faces. But they have arms, and they have hands. They are makers."

"In my opinion, the people who carved them were asking themselves the biggest questions of all. What is this universe? Why are we here?"

With no evidence of houses or graves near the stones, Mr. Schmidt thinks the hilltop was a site of pilgrimage for communities within a radius of roughly 100 miles. He notes how the tallest stones all face southeast, as if scanning plains that are scattered with contemporary sites in many ways no less remarkable than Gobekli Tepe.

Last year, for instance, French archaeologists working at Djade al-Mughara in northern Syria uncovered the oldest mural ever found — "two square meters of geometric shapes, in red, black and white — a bit like a Paul Klee painting," according to Eric Coqueugniot, the University of Lyon archaeologist who is leading the excavation.

Mr. Coqueugniot describes Mr. Schmidt's hypothesis that Gobekli Tepe was a meeting point for feasts, rituals and sharing ideas as "tempting," given the site's spectacular position. He warned, though, that surveys of the region are still in their infancy and that "tomorrow, somebody might find somewhere even more dramatic."

Vecihi Ozkaya, the director of a dig at Korpiktepe, on the Tigris River 120 miles east of Urfa, doubts that the thousands of stone pots he has found since 2001, in hundreds of 11,500-year-old graves, qualify as such.

Nevertheless, his excitement fills his austere office at Dicle University in Diyarbakir.

"Look at this," he said, pointing at a photo of an exquisitely carved sculpture showing an animal, half-human and half-lion. "It's a sphinx, thousands of years before Egypt. Southeastern Turkey, northern Syria — this region saw the wedding night of our civilization."

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<http://www.washingtontimes.com/apps/pbcs.dll/article?AID=/20080421/FOREIGN01/54504074/1003/FOREIGN>

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## **EGYPT: TOMB OF CLEOPATRA AND LOVER TO BE UNCOVERED**

Cairo, 24 April(AKI) - Archaeologists have revealed plans to uncover the 2000 year-old tomb of ancient Egypt's most famous lovers, Cleopatra and the Roman general Mark Antony later this year.

Zahi Hawass, prominent archaeologist and director of Egypt's superior council for antiquities announced a proposal to test the theory that the couple were buried together.

He discussed the project in Cairo at a media conference about the ancient pharaohs.

Hawass said that the remains of the legendary Egyptian queen and her Roman lover, Mark Antony, were inside a temple called Tabusiris Magna, 30 kilometres from the port city of Alexandria in northern Egypt.

Until recently access to the tomb has been hindered because it is under water, but archaeologists plan to drain the site so they can begin excavation in November.

Among the clues to suggest that the temple may contain Cleopatra's remains is the discovery of numerous coins with the face of the queen.

According to Hawass, Egyptologists have also uncovered a 120-metre-long underground tunnel with many rooms, some of which could contain more details about Cleopatra.

Born in Rome, Mark Antony was a military general and commander, as well as supporter of Julius Caesar. He was also Cleopatra's lover and bore him a son, called Caesarion.

After Julius Caesar's assassination in March 44 B.C., Antony formed a triumvirate with Octavian, also known as Augustus, and Marcus Lepidus.

Civil war ensued in Rome due to disagreements between Antony and Octavian, who was Julius Caesar's heir and who later became Rome's first emperor.

Antony was subsequently defeated by Octavian and he later committed suicide.

Cleopatra, who came to power at 18 years of age, was once the ruler of Egypt and considered the last of seven queens of the same name.

She was famous for her intelligence, her beauty and her political power.

Cleopatra who also bore Mark Antony twins, committed suicide after his death in August 30 B.C.

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**<http://www.adnkronos.com/AKI/English/CultureAndMedia/?id=1.0.2103859346>**

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## **EGYPT'S PYRAMIDS PACKED WITH SEASHELLS, JENNIFER VIEGAS, DISCOVERY NEWS**

April 25, 2008 -- Many of Egypt's most famous monuments, such as the Sphinx and Cheops, contain hundreds of thousands of marine fossils, most of which are fully intact and preserved in the walls of the structures, according to a new study.

The study's authors suggest that the stones that make up the examined monuments at Giza plateau, Fayum and Abydos must have been carved out of natural stone since they reveal what chunks of the sea floor must have looked like over 4,000 years ago, when the buildings were erected.

"The observed random emplacement and strictly homogenous distribution of the fossil shells within the whole rock is in harmony with their initial in situ setting in a fluidal sea bottom environment," wrote Ioannis Liritzis and his colleagues from the University of the Aegean and the University of Athens.

The researchers analyzed the mineralogy, as well as the chemical makeup and structure, of small material samples chiseled from the Sphinx Temple, the Osirion Shaft, the Valley Temple, Cheops, Khafren, Osirion at Abydos, the Temple of Seti I at Abydos and Qasr el-Sagha at Fayum.

X-ray diffraction and radioactivity measurements, which can penetrate solid materials to help illuminate their composition, were carried out on the samples.

The analysis determined the primary building materials were "pinky" granites, black and white granites, sandstones and various types of limestones. The latter was found to contain "numerous shell fossils of nummulites gen." At Cheops alone, "(they constituted) a proportion of up to 40 percent of the whole building stone rock."

The findings have been accepted for publication in the Journal of Cultural Heritage.

Nummulites, meaning "little coins," are simple marine organisms. Shells of those that lived during the Eocene period around 55.8 to 33.9 million years ago are most commonly found in Egyptian limestone. Fossils for the organisms have also been unearthed at other sites, such as in Turkey and throughout the Mediterranean.

When horizontally bisected, a nummulite appears as a perfect spiral. Since they were common in ancient Egypt, it's believed the shells were actually used as coins, perhaps explaining their name.

Fossils for ancient relatives to sand dollars, starfish and sea urchins were also detected in the Egyptian limestone.

Liritzis and his team argue that since the fossils are largely undamaged and are distributed in a random manner within the stone, in accordance with their typical

distribution at sea floors, the large building stones used to construct the monuments must have been carved out of natural stone instead of cast in molds.

To further their argument, the scientists say the X-ray patterns detected no presence of lime, which would be expected along with natron, a salt found in early cast materials. They also point out that no references about molds, buckets or other casting tools exist in early Egyptian paintings, sculptures or texts.

Joseph Davidovits, professor and director of France's Geopolymer Institute, formulated the theory that natural limestone was cast like concrete to build the pyramids of Egypt.

Davidovits told Discovery News that Liritzis and his team "should have taken into account the scientific analysis" conducted by himself and other researchers before backing the carved-not-cast theory.

Robert Temple, co-director of the Project for Historical Dating and a visiting research fellow at universities in America, Egypt and Greece, has also studied Egypt's monuments. He agrees with Davidovits about the casting.

"There is no evidence known that suggests the ancient Egyptians had cranes," he said. "Without cranes, it is difficult to imagine how they could have lifted giant stones, some as heavy as 200 tons."

Temple, however, agrees, "Egyptian pyramid blocks of limestone tend to contain fossil shells and nummulites, often huge quantities of them, many of them intact, and many of them of surprisingly large size."

He added, "Frankly, not many people pay attention to the shells, which I have always thought was a shame. 'Seashells in the Desert'-- a good story."

**Please visit the site: <http://dsc.discovery.com/news/2008/04/25/pyramids-fossils-egypt.html>**

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