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*Τους άδειους ασκούς τους φουσκώνει ο αέρας και τα άδεια
κεφάλια η έπαρση.
(Σωκράτης)*

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ΠΙΝΑΚΑΣ ΠΕΡΙΕΧΟΜΕΝΩΝ – TABLE OF CONTENTS

ΣΥΝΕΔΡΙΑ – CONFERENCES/WORKSHOPS

- Call for papers: The Future of the Past: From Amphipolis to Mosul, New Approaches to Cultural Heritage Preservation in the Eastern Mediterranean, Museum of Archaeology and Anthropology, University of Pennsylvania, April 10-11 2015 **page 5**
- Ground Stone Artifacts and Society - An international conference on ground-stone artifacts: Quarrying, production, function and exchange, July 5-9, 2015, University of Haifa, Haifa, Israel **page 6**
- 4th AIE ARCHAEOLOGICAL METALLURGY IN EUROPE IV. MADRID Edition 2015 International Conference, 3rd-6th June, CCHS-CSIC, Albasanz 26-28, 28037 Madrid, Spain **page 7**
- THE FUTURE OF THE PAST: FROM AMPHIPOLIS TO MOSUL New Approaches to Cultural Heritage Preservation in the Eastern Mediterranean, April 10-11, 2015, University of Pennsylvania, Museum of Archaeology and Anthropology (Philadelphia, PA), Call for papers **page 8**
- ISPRS / CIPA workshop on UNDERWATER 3D RECORDING AND MODELING **page 10**
- International Conference of Computational Methods in Sciences and Engineering 2015 (ICCMSE 2015), 20-23 March 2015, Athens, Greece **page 12**
- 10th Jubilee Conference+Workshop Digital Approaches to Cartographic Heritage, Corfu, 27-29 May 2015 **page 15**
- ΣΥΝΤΗΡΗΤΕΣ ΣΕ ΚΙΝΔΥΝΟ: Προστατεύοντας την Πολιτιστική Κληρονομιά, Προστατεύουμε τον Εαυτό μας; Σάββατο 6 Δεκεμβρίου 2014 Αμφιθέατρο Μουσείου Ακρόπολης **page 16**
- International Conference: First Textiles. The Beginnings of Textile Manufacture in Europe and the Mediterranean, 7th-8th May 2015, Copenhagen, Denmark **page 17**
- THE DIRECTOR OF THE BRITISH SCHOOL AT ATHENS INVITES YOU TO AN UPPER HOUSE SEMINAR MONDAY, 1ST DECEMBER 2014 AT 7.00 P.M. **page 19**
- ICONEA 2014, Oriental Institute, University of Oxford, 10-12 December, 2014 **page 20**
- UK Archaeological Sciences conference, Durham University, 8-11th April 2015, Call for Papers **page 24**
- 10^ο ΠΕΣΣΧΜ, Ειδική Συνεδρία: ΜΕΛΕΤΗ ΚΑΙ ΣΥΝΤΗΡΗΣΗ ΤΗΣ

ΠΟΛΙΤΙΣΜΙΚΗΣ ΚΛΗΡΟΝΟΜΙΑΣ page 25

Session “Ancient human diets in context”, International Open Workshop:
Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of
Landscapes IV, Kiel, Germany, 24-27 March 2015 page 26

Ημερίδα «Το έργο της Εφορείας Παλαιοανθρωπολογίας – Σπηλαιολογίας
Βόρειας Ελλάδος», Αίθουσα «Μανόλης Ανδρόνικος», Αρχαιολογικό Μουσείο
Θεσσαλονίκης, 4 Δεκεμβρίου 2014 page 27

Silent Participants II - The Uses of Terracotta Figurines in Non-Official
Ritual, 117th Annual Meeting of the Archaeological Institute of America (AIA)
and the Society for Classical Studies (SCS), San Francisco, CA, January 7-10,
2016, Call for Papers page 28

INQUA 2015 Congress, Session on Quaternary geochronology, 27th July-2nd
August 2015, Nagoya, Japan page 29

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ – JOB VACANCIES/FELLOWSHIPS

PhD opportunity York, Reliable, robust ecological isoscapes page 31

Doctoral scholarships are available at Oxford University in the area of
Environmental Research page 32

PhD scholarship: applications of cosmogenic isotopes to landscape and rock art
in Australia page 33

ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS

Excavation opportunity at Iklaina page 35

THE MEDITERRANEAN ARCHAEOLOGICAL TRUST - GRANTS TO
ASSIST PUBLICATION page 36

Scholarships for Advanced Masters in Structural Analysis of Monuments and
Historical Constructions page 37

ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS

Journal of Field Archaeology, Volume: 39, Number: 4 (November 2014) page 39

Cast gods - Metalworking and mass production in Ancient Egypt page 41

Remembering the Dead in the Ancient Near East - Recent Contributions from
Bioarchaeology and Mortuary Archaeology page 42

Exchange Networks and Local Transformations: Interaction and Local Change
in Europe and the Mediterranean from the Bronze Age to the Iron Age page 43

Pyla-Kokkinokremos. A late 13th century BC fortified settlement in Cyprus.
Excavations 2010–2011 page 47

Ancient and modern water reservoirs - An international workshop held in Pantelleria, Italy, 11th-14th of May 2011 page 48

EΙΔΗΣΕΙΣ - NEWS RELEASE

Divers Unearth a Piece of Roman Empire at 2,000-Year-Old Shipwreck, by Geetika Rudra page 49

Slandering Tutankhamun? The results of a virtual autopsy on the mummy of the boy king Tutankhamun have triggered the anger of Egyptian Egyptologists, by Nevine El-Aref page 50

Three Egyptian mummies receive CT scans - Washington University Medical Center welcomes unusual patients for unconventional screening, by Michael C. Purdy and Liam Otten page 54

RED SEA: ARCHAEOLOGISTS DISCOVER REMAINS OF EGYPTIAN ARMY FROM THE BIBLICAL EXODUS page 58

New mosaics unearthed in ancient city of Zeugma page 60

Unlooted tomb discovered in Aigai necropolis page 62

Cappadocia's 11,000-year-old settlement thrills experts, by Barçın Yinanç page 63

Turkey's immortal city gets new lease on life page 65

Vases in Pompeii Reveal Panic Before Eruption, by LAËTITIA CAVASSA ... page 67

Archaeologist leads the first detailed study of human remains at the ancient Egyptian site of Deir el-Medina, by Barbara Wilcox page 68

Climate change was not to blame for the collapse of the Bronze Age page 71

Ancient Egyptian Mummy Wearing Jewels Found, by Rossella Lorenzi page 73

Underwater Pompeii page 75

Tourists visit Rome's Colosseum on Nov. 7. A proposal to install a new floor over the ruins of the basement to allow for concerts and other events has the government's backing, By TOM KINGTON page 76

Well preserved 5,500 year-old hafted flint axe found in Denmark page 79

Ancient house with floor heating unearthed in southern Turkey page 80

Second Temple Era Military Outpost Discovered, Possibly Destroyed By Alexander the Great, by Tzvi Zucker page 81

ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

CALL FOR PAPERS: THE FUTURE OF THE PAST: FROM AMPHIPOLIS TO MOSUL, NEW APPROACHES TO CULTURAL HERITAGE PRESERVATION IN THE EASTERN MEDITERRANEAN, MUSEUM OF ARCHAEOLOGY AND ANTHROPOLOGY, UNIVERSITY OF PENNSYLVANIA, APRIL 10-11 2015

Call for papers: The Future of the Past: From Amphipolis to Mosul, New Approaches to Cultural Heritage Preservation in the Eastern Mediterranean, a graduate and postgraduate conference, organized by the University of Pennsylvania (Center for Ancient Studies), Bryn Mawr College (Department of Classical and Near Eastern Archaeology, Graduate School of Arts and Sciences, Graduate Group in Archaeology, Classics, and Art History), and Temple University (Tyler School of Art, Department of Art History), with additional support from the Penn Cultural Heritage Center, and the Museum of Archaeology and Anthropology (University of Pennsylvania).

The conference will take place at the Museum of Archaeology and Anthropology (University of Pennsylvania) on April 10-11 2015.

We invite young researchers (recent PhDs, post-docs, and PhD candidates at an advanced stage of their dissertation) in the fields of archaeology, art history, anthropology, classics, history, digital humanities, and cultural heritage studies, to submit an abstract of no more than 300 words to mbeeler@brynmawr.edu by December 21st 2014.

GROUND STONE ARTIFACTS AND SOCIETY
- AN INTERNATIONAL CONFERENCE ON
GROUND-STONE ARTIFACTS: QUARRYING,
PRODUCTION, FUNCTION AND EXCHANGE,
JULY 5-9, 2015, UNIVERSITY OF HAIFA,
HAIFA, ISRAEL

We are happy to inform you that the first AGSR meeting, (July 5-9, 2015 University of Haifa, Haifa, Israel), attracts much scholarly attention. Abstracts are already accumulating, ensuring an interesting and stimulating meeting.

Please note that conference registration is upon arrival. We would like to remind you that oral contributions are limited to 15 minutes and will be followed by 5 minutes dedicated to questions and discussion. Poster presentations are also welcome. Please visit the conference website at <http://agsr2015.haifa.ac.il/index.php?lang=en> for further themes and technical details).

Please send the abstracts (300 words) with the authors' institutional affiliation and email to Danny Rosenberg (drosenberg@research.haifa.ac.il) before January 31, 2015 (earlier submissions are appreciated). Please note if you prefer an oral or poster presentation.

The conference proceedings will be published in collaboration with Journal of Lithic Studies (JLS) as a special issue of the journal. JLS is a peer-reviewed journal based at the University of Edinburgh and runs by an international editorial board. It is a completely open access journal, absolutely free to both readers and authors. To ensure prompt publication of the conferences papers, we encourage all participants to send their contributions (up to 6000 words) before the 1st of July 2015 (earlier submissions are much appreciated). For further info and style requirements of JLS please see the journal's website at <http://journals.ed.ac.uk/lithicstudies/>.

Don't hesitate to contact us if you have any further questions.

Looking forward to seeing you in Haifa!

The organizing committee

**4TH AIE ARCHAEOMETALLURGY IN
EUROPE IV. MADRID EDITION 2015
INTERNATIONAL CONFERENCE, 3RD-
6TH JUNE, CCHS-CSIC, ALBASANZ 26-28,
28037 MADRID, SPAIN**

LATEST NEWS

On the occasion of the AIE 2015 Madrid Edition, **Historical Metallurgy Society (HMS)** is pleased to offer a **HMS Prize for the Best Student Oral Presentation**, and a **HMS Prize for the Best Student Poster**. The prizes will consist of a diploma, a free one-year subscription to HMS and a financial reward.

All posters and oral presentations with a student as lead author/presenter will be automatically considered for these awards, unless the authors express their wish to be excluded. The judging panel, made up of members of the HMS Council and the Archaeometallurgy in Europe International Scientific Committee, will base their decision on the combined merits of the originality, rigor and significance of the research presented, as well as the design and delivery of the poster or presentation.

The Society is also willing to consider applications **for a small number of grants** to assist with the costs of attending this conference. Further information on the HMS grants, and an application form, can be found on the HMS website (<http://hist-met.org/about-hms/hms-grants.html>)

Reminder

Deadline for submitting abstracts is drawing near surprisingly quick, so let us remind you the 15th November as an important reference in your agenda. If you have in mind coming to Madrid, please send your abstract for an oral or poster presentation as soon as possible (even better before the time-limit is completed).

All the information is available in <http://www.congresos.cchs.csic.es/aie4/call-for-papers>

**THE FUTURE OF THE PAST: FROM
AMPHIPOLIS TO MOSUL NEW
APPROACHES TO CULTURAL HERITAGE
PRESERVATION IN THE EASTERN
MEDITERRANEAN, APRIL 10-11, 2015,
UNIVERSITY OF PENNSYLVANIA, MUSEUM
OF ARCHAEOLOGY AND ANTHROPOLOGY
(PHILADELPHIA, PA), CALL FOR PAPERS**

Deadline December 21, 2014

see website for more details: <http://futureofthepast.wix.com/culturalheritage>

Interdisciplinary conference for young scholars (graduate and postgraduate) hosted by the University of Pennsylvania (Center for Ancient Studies), Bryn Mawr College (Dept. of Classical and Near Eastern Archaeology, Graduate School of Arts and Sciences, Graduate Group in Archaeology, Classics, and Art History), and Temple University (Tyler School of Art, Dept. of Art History), with additional support from the Penn Cultural Heritage Center and the Penn Museum of Archaeology and Anthropology.

The objective of this meeting is to bring together graduate students and emerging scholars from various academic disciplines to present new avenues in the field of cultural heritage. Many young scholars today have an interdisciplinary background in liberal arts studies that allows them to apply novel, innovative ways in the protection and preservation of our shared cultural property. For this conference we would like to focus on case studies from the eastern Mediterranean, including the Middle East and northern Africa. These regions are of particular interest because they have been recently affected by devastating wars, political turmoil, and economic hardship. We would like to address various issues of cultural heritage including the protection, preservation, and management of archaeological sites and cultural landscapes, the introduction of new technologies for the conservation and studying of cultural artifacts, and the use of digital media in educating and sharing our cultural treasures with a broader audience. We believe that participation in this conference will promote intellectual discourse among new scholars and inspire them to continue to seek collaborations across disciplines by employing a variety of new practices in the protection of our cultural heritage.

Keynote speaker: Dr. Morag M. Kersel, Assistant Professor, Dept. of Anthropology, DePaul University

ABSTRACT SUBMISSION:

Please submit an abstract of no more than 300 words to mbeeler@brynmawr.edu by December 21, 2014. Applicants will be informed about their submission status by January 25, 2015.

Conference proceedings will be published in digital format by December 2015.

EXPENSES

Participation and attendance in the conference is free. The organizers will not cover travel and accommodation expenses.

ORGANIZERS:

Konstantinos Chalikias, PhD, postdoctoral researcher, University of Athens, Maggie Beeler, PhD candidate, Bryn Mawr College Ariel Pearce, PhD candidate, Temple University Steve Renette, PhD candidate, University of Pennsylvania

ISPRS / CIPA WORKSHOP ON UNDERWATER 3D RECORDING AND MODELING

Dear colleagues,

water covers about 71% of our planet's surface and since remote time human activities have been relying to it. Many traces of these activities exist under the "zero level" therefore they need to be explored, documented and preserved. Measuring, mapping and positioning objects in underwater scenarios is a complex task with some unsolved problems.

The **ISPRS / CIPA workshop on UNDERWATER 3D RECORDING AND MODELING** aims at bringing together scientists, developers, companies and users in underwater 3D recording and related disciplines. The workshop will represent a meeting platform for various disciplines like Cultural Heritage, environmental monitoring, 3D surveying and modeling, biology, reverse engineering and industrial metrology. The event will feature 2-days of oral presentations and posters with an exhibition of underwater-related companies.

The **key topics** of the event include but are not limited to:

- underwater photogrammetry
- underwater platforms (ROV, robots, etc.)
- 3D bathymetry
- active and passive sensor integration and characterization
- data processing and 3D modelling
- underwater archaeology and heritage
- marine biology

The event will feature three excellent **invited speakers**:

- Pierre Drap (<http://www.lsis.org/cipa-uwpl/>)
- Mark Shortis (<http://www.rmit.edu.au/staff/mark-shortis>)
- Guido Gay (<http://www.gaymarine.it/gaymarine.htm>)

Important dates

- JANUARY 15th, 2015: Abstract submission (max 1000 words, possibly with figures)
- JANUARY 30th, 2015: Notification to authors
- MARCH 15th, 2015: Final paper submission (ISPRS format, max 8 pages)

The submitted articles will be published in the ISPRS Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences (<http://www.isprs.org/publications/archives.aspx>).

Registration fee

- EARLY (before January 30th, 2015): 180 Eur
- LATE (before April 9th, 2015): 210 Eur

- ON-SITE: 250 Eur

The fee includes the participation to the event, proceedings, coffee breaks, lunches and the social dinner.

Venue

The ISPRS / CIPA workshop will take place in Villa Fondi De Sangro, an historical villa in Piano di Sorrento (Naples, Italy). It can be easily reached by train from Naples (Italy) and it's located in the Sorrentine Peninsula. Close to the venue there are many hotels for accommodations with prices ranging from 40 to 75 Eur.

Looking forward meeting you in Piano di Sorrento in April 2015!

On behalf of the workshop committee,

Fabio Menna

INTERNATIONAL CONFERENCE OF COMPUTATIONAL METHODS IN SCIENCES AND ENGINEERING 2015 (ICCMSE 2015), 20- 23 MARCH 2015, ATHENS, GREECE

at Metropolitan Hotel: <http://www.chandris.gr/athens/>,
URL address: <http://www.iccmse.org>

SPECIAL SESSION

Within this World event a specialized Session is planned, entitled *Advanced Computational Methods in Archaeology*

Organizer: Prof. Ioannis Liritzis, Director Laboratory of Archaeometry, Dept of Mediterranean Studies, University of the Aegean, Rhodes, Greece (www.liritzis.gr)
E-mail: liritzis@rhodes.aegean.gr

Submission of extended abstracts: February 10, 2015

Notification of acceptance: March 1, 2015

Registration Deadlines: See, <http://www.iccmse.org/schedule.htm>

Abstract Format: see, <http://www.iccmse.org/abstract.htm>

PUBLICATION

Submission of the source files of camera ready extended abstracts to *American Institute of Physics (AIP Conference Proceedings)*: May 5, 2015 - Final Date.

Submission of full papers for consideration for publication in the journals: April 5, 2015 - September 20, 2015

Selected full papers of ICCMSE 2015 will be published in:

- Journal of Numerical Analysis, Industrial and Applied Mathematics (JNAIAM) (ESCMSET)*, which is the official journal of European Society of Computational Methods in Sciences and Engineering
- Journal of Mathematical Chemistry* (Springer)
- Journal of Computational Methods in Sciences and Engineering* (JCMSE)
- Applied Mathematics & Information Sciences* (AMIS). The Appl. Math. Inf. Sci. is reviewed and indexed in the Mathematical Reviews, MathSciNet, EBESCO, AMS, and Zentralblatt fur Mathematik databases. Appl. Math. Inf. Sci. Covered by ISI Journal Citation Report (Science Citation Index). Guest Editor: Prof. Dr. Theodore E. Simos, Chairman ICCMSE.

(For more on preparation of your paper see, <http://www.iccmse.org/proceeding.htm>)

Content of the Session

From the digital point of view one of the first outcome (of the archaeological processualism) was the use of statistical processing and quantitative methods in different domains, mathematics, geography, archaeometry, anthropology, archaeology and related disciplines. The critique of subjective methodologies pointed out the need of hypertaxonomies for interpreting the past and this computing archaeology seemed a tangible and sustainable way for the processualist dream: an objective “scientific” interpretation. The interaction between real ontologies, the empirical perception of material culture (objects), and their virtual ontologies (the digital representations), creates new perspectives in the domain of data analysis, data sharing, data contextualization and cultural transmission.

The Special Session will deal with such themes and on a variety of transdisciplinary and interdisciplinary topics of Computational *archaeology* (computer-based analytical methods for the study of longterm human behaviour and behavioural evolution).

It will include geographical information systems (GIS), especially when applied to spatial analyses such as viewshed analysis and least-cost path analysis, statistical and mathematical modelling, and the computer simulation of human behaviour and behavioural evolution, scientific age calculation, classification of artifacts from qualitative or quantitative data, the application of a variety of other forms of complex and bespoke software to solve archaeological problems, such as human perception and movement within built environments using developed softwares. For example, disciplines such as computer science (e.g. advanced algorithm and software design, database design and theory), geoinformation science (spatial statistics and modeling, geographic information systems), artificial intelligence research (supervised classification, fuzzy logic), ecology (point pattern analysis), applied mathematics (graph theory, probability theory), statistics, are relevant entities to the session’s essence.

The used tools, from natural sciences may include: algebra, statistics and computer algorithms, physical instrumentation, astronomical evaluations of ancient skies, mathematical geophysics, to a) process information too voluminous or complex for purely cognitive, informal inference, and, b) provide a looping feedback for progressive development of virtual simulation of the material culture and the scientific archaeometry methods used to decipher their internal clocks and contents (dating, characterization and provenancing, spatio-temporal simulation).

The ultimate purpose is of educational, social, museological, cultural, touristic, sustainable and scientific nature.

The session will also include relevant fields coined as archaeological informatics and artificial intelligence, virtual archaeology, cyberarchaeology.

We will welcome *Fundamental research* (theoretical ArchaeoInformatic science) on the structure, properties and possibilities of archaeological data, inference and knowledge building, that include modeling and managing fuzziness and uncertainty in archaeological data, scale effects, optimal sampling strategies and spatio-temporal effects, and, *Development of computer algorithms and software* (applied ArchaeoInformatics archaeoinformatics science) that make this theoretical knowledge available to the user.

Fundamental research topics, are included but not limited to:

- advanced statistics in archaeology, spatial and temporal archaeological data analysis*
- bayesian analysis and advanced probability models, fuzziness and uncertainty in archaeological data*
- scale-related phenomena and scale transgressions*
- intrasite analysis (representations of stratigraphy, 3D analysis, artefact distributions)*
- landscape analysis (territorial modeling, visibility analysis)*
- optimal survey and sampling strategies*
- process-based modeling and simulation models*
- archaeological predictive modeling and heritage management applications*
- supervised and unsupervised classification and typology, artificial intelligence applications*
- digital excavations and virtual reality*
- archaeological software development, electronic data sharing and publishing,*
- The phenomenology of cyberarchaeologies and related applications at epistemological, technological and methodological level through theoretical approaches and case studies*
- The virtual ontology of archaeological information (the cybernetics of archaeology) non-predetermined conditions in the evaluation of a cyber-process in a digital-cyber domain*
- Reconstruction of the past versus simulation of the past VRML*
- Virtual Reality Modeling Language in archaeology*

The aim of this Session is to introduce the range of computational methods available to archaeologists, museologists, scientists.

The objectives are to enable one to demonstrate knowledge and understanding of, and critically evaluate, the range of computational methods available to archaeologists, and their contribution to archaeological research.

The Session will present the range of computer-based approaches to archaeological work at a variety of scales introducing multimedia, ‘Virtual Reality’, Geographic Information Systems, forms of urban analysis, data capture technologies, simulation and issues relating to digital data management and restoration.

The session is addressed to archaeologists, scientists for archaeology, museologists, cultural heritage specialists, University students (certificate of attendance for their attendance).

10TH JUBILEE CONFERENCE+WORKSHOP **DIGITAL APPROACHES TO** **CARTOGRAPHIC HERITAGE, CORFU, 27-29** **MAY 2015**

The 10th Jubilee Conference+Workshop **Digital Approaches to Cartographic Heritage** organised by the [ICA Commission on Digital Technologies in Cartographic Heritage](#) will be held in Corfu, **27-29 May 2015** co-organised and hosted by the [History Department](#) of the Ionian University in cooperation with the Aristotle University of Thessaloniki [Cartoheritage Group](#) in association with the Commission [Supporting Institutions](#) and the partnership of the [Maps & Geoinformation Curators Group-MAGIC Group](#).

In the frame of the ICA Commission on Digital Technologies in Cartographic Heritage 10th Conference, the meeting of the [ICA Commission on Map Projections](#) will also take place, just after the works of the Conference, 29 May 2015 (see the Conference [Programme](#)).

Please visit the site: http://xeee.web.auth.gr/ICA-Heritage/Corfu_2015.htm

ΣΥΝΤΗΡΗΤΕΣ ΣΕ ΚΙΝΔΥΝΟ:
ΠΡΟΣΤΑΤΕΥΟΝΤΑΣ ΤΗΝ ΠΟΛΙΤΙΣΤΙΚΗ
ΚΛΗΡΟΝΟΜΙΑ, ΠΡΟΣΤΑΤΕΥΟΥΜΕ ΤΟΝ
ΕΑΥΤΟ ΜΑΣ; ΣΑΒΒΑΤΟ 6 ΔΕΚΕΜΒΡΙΟΥ
2014 ΑΜΦΙΘΕΑΤΡΟ ΜΟΥΣΕΙΟΥ
ΑΚΡΟΠΟΛΗΣ

Ωρα έναρξης: 10 π.μ.

Ο Σύλλογος Συντηρητών Αρχαιοτήτων και Έργων Τέχνης Τριτοβάθμιας Εκπαίδευσης (Σ.Σ.Α. & Ε.Τ.Τ.Ε) διοργανώνει επιστημονική ημερίδα με αντικείμενο την Υγεία και Ασφάλεια στο Χώρο Εργασίας.

Σκοπός της ημερίδας είναι η ενημέρωση των συντηρητών αρχαιοτήτων και έργων τέχνης, καθώς και των συναφών επαγγελματικών κλάδων, που απασχολούνται σε έργα συντήρησης, αναστήλωσης και ανασκαφής, σχετικά με την επικινδυνότητα και τα μέτρα προστασίας και ασφάλειας που απαιτούνται στους εργασιακούς χώρους. Για το λόγο αυτό ο Σ.Σ.Α.&Ε.Τ.Τ.Ε. έχει προσκαλέσει ομιλητές από αρμόδιους φορείς και σχετικά επιστημονικά πεδία (ιατρούς εργασίας, επιθεωρητές εργασίας, τεχνικούς ασφαλείας, τοξικολόγους, χημικούς, βιολόγους) να συνδράμουν στην πραγματοποίηση της ημερίδας.

Για εγγραφή επισκεφτείτε την ιστοσελίδα www.ssaette.gr

Η συμμετοχή στην ημερίδα είναι δωρεάν.

Η ημερίδα πραγματοποιείται με την υποστήριξη των φορέων: Διεύθυνση Συντήρησης Αρχαίων και Νεωτέρων Μνημείων , ΥΠ.ΠΟ.Α. Πανελλήνια Ομοσπονδία Εργαζομένων Ιδιωτικού Δικαίου στο Δημόσιο Πανελλήνιο Σωματείο Εκτάκτου Προσωπικού, ΥΠ.ΠΟ.Α. Πανελλήνια Ένωση Συντηρητών Αρχαιοτήτων , ΥΠ.ΠΟ.Α. Ελληνικό Ινστιτούτο Υγιεινής και Ασφάλειας της Εργασίας

Χορηγοί:

ΛΙΓΝΟΣ Α. & ΣΙΑ Ε.Ε. (www.e-lignos.com)

ΑΝΑΛΥΤΙΚΕΣ ΣΥΣΚΕΥΕΣ Α.Ε., ΔΡ. Κ.Ι. ΒΑΜΒΑΚΑΣ (www.analytical.gr)

ΟΡΦΕΥΣ ΒΕΪΝΟΓΛΟΥ ΔΙΕΘΝΕΙΣ ΜΕΤΑΦΟΡΕΣ (www.beinoglou.gr)

ΔΗΜΗΤΡΗΣ Α. ΚΟΛΑΡΟΣ (www.kollaros.gr)

ΚύΒΟΣnet (www.kyvosnet.gr)

ΕΞΑΙΡΕΤΟΝ (www.exaireton.gr)

PROTEK (www.protek-ppe.gr)

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INTERNATIONAL CONFERENCE: FIRST TEXTILES. THE BEGINNINGS OF TEXTILE MANUFACTURE IN EUROPE AND THE MEDITERRANEAN, 7TH-8TH MAY 2015, COPENHAGEN, DENMARK

Dear Colleagues,

It is a pleasure to announce that the two-day international conference **First Textiles. The Beginnings of Textile Manufacture in Europe and the Mediterranean** will take place on the 7th-8th May 2015 in Copenhagen. On the 9th May there will be a possibility to visit the Land of Legends and its experimental archaeological centre at Lejre (<http://www.sagnlandet.dk/English.425.0.html>).

The venue will be held at the National Museum of Denmark (<http://natmus.dk/en/>) and the Centre for Textile Research at the University of Copenhagen (<http://ctr.hum.ku.dk/>).

An abstract of minimum 500 words accompanied by a short list of your publications and research relevant to textile studies are to be sent to the organizers by the **15th December 2014**.

The aim of the conference is to present and discuss the recent achievements in the research field of the most ancient textiles and textile techniques in primarily Europe, Asia and North Africa in the Neolithic and the Early Bronze Age (ca. 8th-3rd millennia BC); the application of varied interdisciplinary methods of systematic analysis of textiles, such as studies on the most ancient textile remains, basketry, mat and textile imprints in clay; textile tools (e.g. spindle whorls, loom weights, needles, shuttles); experiments with copies of ancient textile implements; and recently developed scientific methods of analysing textiles and recognising the provenience of fibres. These all offer important insights into the oldest textile techniques, their beginnings and development throughout prehistory.

We therefore welcome papers on the following topics:

- The most ancient preserved textiles: archaeological material, microscopic analyses, raw materials (plant and animal fibres, skins and furs), provenience of the fibres, manufacture of fibres and textiles, woven and unwoven textiles.
- Raw materials: use of plant and animal fibres, skins and furs. Domestication of flax. Use of hairy and woolly wool. Introduction and spread of woolly sheep wool and ‘the textile revolution’.
- Scientific methods of analysing ancient textiles and recognising the provenience of fibres: strontium and isotope tracing, ancient DNA, protein analysis.
- Development and changes of textile techniques (spinning, twining, splicing, weaving, needle-work, etc.) during the Neolithic and Early Bronze Age.
- Studies of textile tools: the first appearance of spindle whorls, other spinning tools and techniques, loom weights, looms, tablets, frames, etc., and their changes and spread through distant regions and cultures.
- Basketry, mats and other techniques.

- Studies of imprints of textiles, basketry and mats in various materials. Methods and analyses.
- Experimental archaeology and its role in reconstructions of early textiles, tools and techniques.
- The social context of early textiles: textiles in society, household production, work organisation and specialisation, textiles in habitational and funerary context, social status, gender, exchange and trade of the raw materials and textiles.

The number of speakers will be limited, and priority will be given to presentations of new material, to new analyses of older finds, and to new analytical tools. The organizing committee will cover the hotel expenses of the participants (2 nights) and lunches (2 days). The travel expenses and the visit in Lejre will not be covered by the organisers. The conference proceedings will be published in the *Ancient Textile Series* by Oxbow Books in 2016. Deadline for submission of papers is the **31th October 2015**.

There will be no conference fee and all are welcome to attend the conference as listeners, however, we would like to ask you to register in advance by sending an email to the organising committee: zkv933@hum.ku.dk

Yours sincerely

The organising committee
Małgorzata Siennicka
Lorenz Rahmstorf

Dr. Małgorzata Siennicka
Associate Professor | Marie Curie Fellow

The Danish National Research Foundation's Centre for Textile Research
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THE DIRECTOR OF THE BRITISH SCHOOL
AT ATHENS INVITES YOU TO AN UPPER
HOUSE SEMINAR MONDAY, 1ST DECEMBER
2014 AT 7.00 P.M.

Dr Dimitra Kotoula
(Ministry of Culture & Sport)
“From death to new life”: Arts and Crafts perceptions of Byzantium.

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

Entrance from 52 Souedias str. Tel: 211 1022 800

ICONEA 2014, ORIENTAL INSTITUTE,
UNIVERSITY OF OXFORD, 10-12
DECEMBER, 2014

ICONEA 2014 will take place at the Oriental Institute of the University of Oxford on the 10-12 December.

Programme

Wednesday December 10, 2014

1400: Welcome speech by Abuna Shafiq AbuZayd Presentation of the Conference by Richard Dumbrill and Irving Finkel

14:30 - Leon Crickmore: The Ubiquity of the Diatonic Scale There are an infinite number of possible pitches within any octave. Why is it, then, that in so many different cultures and ages musicians have chosen to divide the octave into some kind of diatonic scale? This paper seeks to demonstrate the ubiquity of the diatonic scale, and also to reflect on some possible reasons why this should be so.

15:15 - Gilles de Rosny: Expression of the constitution of Aristoxenus' musical scales in terms of mathematical functions.

Aristoxenus, unlike the Pythagoreans, neither used numbers, to quantify pitches, nor ratios, to express their relationship. Nevertheless, on the basis of audition alone, he proposed a classification of pitches relative to each other implying that the set was fully ordered. He characterised relations between two pitches using 'intervals' delimited by these pitches. We interpret these intervals in terms of functions acting on pitches. It is shown that the set of functions involved in the construction of pitches, by the 'method of concords' constitutes a commutative group allowing for an easy determination of pitch sets able to be tuned with this method, from a given pitch. However, it is noticed, many pitches proposed by Aristoxenus cannot be tuned in this manner. A way to express Aristoxenus' scales in terms of sound frequencies is proposed.

16:00 - Coffee break

16:30 - Richard Heath: The Harmonically Numerical Form of Creation (and why it used to matter)

The Bible, Homer and other myths were largely written down long after their inception, as memorable oral narratives composed by a type of author who was not a writer. Though Plato's Republic argued for a replacement of oral cultural norms, by introducing childhood literacy, Plato also saved the number science implicit in oral works from extinction through including it in his own literary output. A number science can develop without arithmetic through using only geometric procedures and these are to be found in the terminal Stone Age, famous for its enduring megalithic monuments. The talk will illustrate the structure of this harmonic science as it is found within historical texts and monuments, whilst suggesting that the harmonic ratios between astronomical periods would most simply explain why our oldest myths were orally composed cosmographies,

skilfully woven around the invariant structure of numerical harmony and the sky, these being taken as responsible for creating the world.

17:15 - Tolga Zafer Özdemir: Harmonic Scale and Heptatonicism in Ancient Near Eastern Music This presentation focuses on the usage of the Circle of Fifths in a chosen set of Ancient Near Eastern music tablets. Numerology reveals the identical sequence of harmonic scale (flat-sharp order) which is the main note placement order of Circle of Fifths.

Thursday December 11, 2014

09:00 - Howard Barry Schatz: The Mathematical Foundation of Greek Humanism & the Religious Levant:

The Sefer Yetzirah; The Torah (Pentateuch); The Kabbalistic Tradition; Greek Humanism & the Religious Levant

09:45 - Rosy Azar Beyhom: Ibn at-Ṭaḥḥān's manuscript This treatise abounds with music theory, tales and wisdom stemming from many sources. Whenever Ṭaḥḥān was unsure of a provenance or if he did not know whence from it came, he would ascribe it to anyone. Oral tradition was still prominent in his times but did not constitute the only documental source for his writings. It is worth noting that collective knowledge about music theory and practice was common but that it seemed unconscious or pretended so to be at times, either for a purpose, or that it would be totally opened to suggestion. This presentation will discuss the status of musical knowledge and its many purposes according to Ṭaḥḥān.

10:30 - Coffee Break

11:00 - Bruno de Florence: Ignorance is a Passion Within a short historical timeline, Copernicus threw away the earth from the centre of the universe, Darwin showed that we are the mere product of chance genetic mutations, and Sigmund Freud taught that there is knowledge which is not known. We shall explore the consequences of such a position with respect to what it is possible to know within the fields of aesthetics and science.

11:45 - Antony Perrot: Indications of Sonic System in the Psalms' Headings?

While it is certain that the headings of certain Psalms gave musical indications, there is an ongoing heated debate about the value of these terms. Some of the Dead Sea scrolls seem to support the traditional Masoretic text. The expressions are nevertheless obscure and are real cruces interpretum. How should one interpret logia such as "For the director of music", "Lament", "The eighth" or "On soprano voice"? Where do they come from? Should they be linked to the Hurrian musical instructions such as those from Ugarit? Is it possible to recover the Sitz im Leben of these musical expressions through archaeomusicology?

12:30 - Lunch Break

14:00 - Pétur Halldórsson: The measure of the Cosmos

The programme introduced here is based on the research of the Icelandic scholar Einar Pálsson. (1925-1996) It examines the roots of Icelandic culture based on deciphering the philosophy of numbers in Icelandic parchments.

14:45 - Theo J.H. Krispijn: Sumero-Babylonian music philology

Some cuneiform documents play an essential role in the reconstruction of ancient Near-Eastern musical theory and its mathematical background such as the tuning text fragments: UET VII no. 74 (U.7/80) and UET 6/3 899; the lexical texts: the 32nd tablet of the lexical series SIG7-ALAN = Nabnītu (MSL 16, pp. 251-254); and the list of strings and string combinations CBS 10996 (Kilmer, OrNS 29 (1960), 273-308). In my paper I will present a philological discussion of these documents in order to invite the musicologists to give their view on the musicological meaning of these texts. After this discussion we will look once again at the famous 'Hymn of Ugarit' (RS 15.30+ Laroche, Ugaritica 5 (1968), 447-544). I include the PDF my article in Hickmann, E.; Kilmer, A.D.; Eichmann, R. (ed.), Studien zur Musikarchäologie III, Orient Archäologie Band 10, Raden (2002), 465-479, as an introduction to my paper.

15:30 - Amine Beyhom: A conscious forgery or an unconscious desire? The myth of diatonicism in medieval Byzantine chant.

16:15 - Coffee Break

16:45 - Margaux Bousquet: Shaping Music: an exploration of mathematical paradigms, from geometry to music in Ancient Near East

What can be said about proto-literate music systems in the Ancient Near East? Very little, almost nothing. Undoubtedly, sonic orders preceded literacy. This paper will consider geometrical shapes, as evidence of unconscious mathematical concepts, and attempt at exploring musical possibilities through mathematical schemes based on this cognitive framework.

17:30 - Pete Dello: An investigation of how man first began to seriously 'play' with numbers, and how, in third millennium Sumer, the results of King Shulgi's 'think tank' changed everything.

The discovery of the sexagesimal system with its floating place value system, so intuitively explored by Professor Ernest McClain's matrices, deeply influenced everything that followed, in music, geometry, astronomy, time keeping and mathematics; and how it had a such deep affect on surrounding cultures, including Plato and the Greeks.

2000: Lebanese Dinner at Aram House

Friday December 12

09:00 - Irving Finkel: Origins of list-making

10:00 - Coffee Break

10:30 - Richard Dumbrill: Isotonicism as forerunner of anhemitonicism and diatonicism in Ancient Mesopotamia

11:30 - Conclusions

Richard Dumbrill
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UK ARCHAEOLOGICAL SCIENCES CONFERENCE, DURHAM UNIVERSITY, 8- 11TH APRIL 2015, CALL FOR PAPERS

We would like to invite you to submit abstracts to the forthcoming UK Archaeological Sciences conference which will be held at Durham University 8-11th April 2015. The conference organisers are keen to encourage novel and exciting papers and posters from colleagues working in all areas of archaeological science from fundamental method development to case studies investigating humans, animals, plants, artefacts, sites and landscapes, materials analysis to aDNA, archaeobotany to proteomics, conservation to dating, imaging to isotopes, landscapes to archaeozoology.

Abstracts must be written in English and be submitted by email to ukas.2015@durham.ac.uk using the Abstract Template form which is available to download from the conference web page <https://www.dur.ac.uk/archaeology/conferences/current/ukas/> and following the instructions therein.

The deadline for abstract submission is 12th January 2015.

Conference registration will open next week, and early-bird prices will be available until 9 March.

For updates subscribe to our email list by sending an email message to majordomo@durham.ac.uk with the one line: subscribe ukas-conference-2015 or follow us on Twitter: @UKAS2015 or Facebook: <https://www.facebook.com/UKAS.2015>

Best wishes

Andrew

Dr. Andrew Millard

e: A.R.Millard@durham.ac.uk | t: +44 191 334 1147

w: <http://www.dur.ac.uk/archaeology/staff/?id=160>

Senior Lecturer in Archaeology, Durham University, UK

10^ο ΠΕΣΧΜ, ΕΙΔΙΚΗ ΣΥΝΕΔΡΙΑ: ΜΕΛΕΤΗ ΚΑΙ ΣΥΝΤΗΡΗΣΗ ΤΗΣ ΠΟΛΙΤΙΣΜΙΚΗΣ ΚΛΗΡΟΝΟΜΙΑΣ

Στα πλαίσια του 10^{ου} Πανελληνίου Επιστημονικού Συνεδρίου Χημικής Μηχανικής, που θα διεξαχθεί στην Πάτρα στις 4-6 Ιουνίου 2015, θα διοργανωθεί ειδική συνεδρία με θέμα ΜΕΛΕΤΗ ΚΑΙ ΣΥΝΤΗΡΗΣΗ ΤΗΣ ΠΟΛΙΤΙΣΜΙΚΗΣ ΚΛΗΡΟΝΟΜΙΑΣ.

Για περισσότερες πληροφορίες οι ενδιαφερόμενοι μπορούν να απευθύνονται:

☞ Στην ιστοσελίδα του συνεδρίου www.pesxm10.gr

μέσω της οποίας γίνεται η υποβολή περίληψης ηλεκτρονικά (καταληκτική ημ/νία 20/12/2014)

☞ Στους οργανωτές της Συνεδρίας

- Ι. Καραπαναγιώτη, αναπλ. καθηγητή, Ανώτατη Εκκλησιαστική Ακαδημία Θεσσαλονίκης, y.karapanagiotis@aeath.gr
 - Ν. Ζαχαριά, αναπλ. καθηγητή, Πανεπιστήμιο Πελοποννήσου, zacharias@uop.gr
-

**SESSION “ANCIENT HUMAN DIETS IN
CONTEXT”, INTERNATIONAL OPEN
WORKSHOP: SOCIO-ENVIRONMENTAL
DYNAMICS OVER THE LAST 12,000 YEARS:
THE CREATION OF LANDSCAPES IV, KIEL,
GERMANY, 24-27 MARCH 2015**

Dear colleagues,

I would like to inform you that abstract submissions are invited for the session “Ancient human diets in context” (session code 1-3) to be held during the International Open Workshop: Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes IV in Kiel (Germany) from 24 to 27 March 2015.

Keynote speakers:

Prof. Margaret J. Schoeninger (University of California at San Diego, USA)
Talk title: “Divergent human diets across different New World socioenvironmental systems”

Prof. Mike Richards (University of British Columbia, Canada & Max Planck Institute Leipzig, Germany)

Talk title: “Isotope analysis and diet reconstruction in archaeology; a review of the main achievements, current challenges and a look to the future”

For further details see attached flyer or visit the meeting's website (<http://www.workshop-gshdl.uni-kiel.de/>). Submission deadline is 15 January.

Best wishes,

Ricardo

Dr Ricardo Fernandes

Institute for Ecosystem Research (University of Kiel)

Leibniz-Laboratory for Radiometric Dating and Isotope Research (University of Kiel)

McDonald Institute for Archaeological Research (University of Cambridge)

Email: rfernandes@gshdl.uni-kiel.de & rf385@cam.ac.uk

Address:

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Max-Eyth-Str. 11-13, 24118 Kiel, Germany

Phone: +49 (0)431 880 5155

ΗΜΕΡΙΔΑ «ΤΟ ΕΡΓΟ ΤΗΣ ΕΦΟΡΕΙΑΣ
ΠΑΛΑΙΟΑΝΘΡΩΠΟΛΟΓΙΑΣ –
ΣΠΗΛΑΙΟΛΟΓΙΑΣ ΒΟΡΕΙΑΣ ΕΛΛΑΔΟΣ»,
ΑΙΘΟΥΣΑ «ΜΑΝΟΛΗΣ ΑΝΔΡΟΝΙΚΟΣ»,
ΑΡΧΑΙΟΛΟΓΙΚΟ ΜΟΥΣΕΙΟ
ΘΕΣΣΑΛΟΝΙΚΗΣ, 4 ΔΕΚΕΜΒΡΙΟΥ 2014

Διοργάνωση Ημερίδας στις 4 Δεκεμβρίου 2014 με θέμα «*Το έργο της Εφορείας Παλαιοανθρωπολογίας – Σπηλαιολογίας Βόρειας Ελλάδος*»

Η Εφορεία Παλαιοανθρωπολογίας – Σπηλαιολογίας Βόρειας Ελλάδος, συστήθηκε ως Ειδική Περιφερειακή Υπηρεσία του Υπουργείου Πολιτισμού με το Π.Δ.191/2003 και άρχισε να λειτουργεί από το 2004. Υπήρξε η αρμόδια εφορεία για τον εντοπισμό, την έρευνα, την ανασκαφή, τη μελέτη καθώς και την προστασία των σπηλαίων και των ευρημάτων που προέρχονται από αυτά στους 27 νομούς των Περιφερειών Κεντρικής Μακεδονίας, Δυτικής Μακεδονίας, Ανατολικής Μακεδονίας-Θράκης, Θεσσαλίας, Ηπείρου και Βόρειου Αιγαίου.

Το 2014 η εφορεία συμπλήρωσε δέκα χρόνια ζωής. Ο δέκατος χρόνος από τη σύστασή της, όμως, έμελλε να είναι και ο τελευταίος, αφού με το νέο Οργανισμό του Υπουργείου Πολιτισμού και Αθλητισμού (Π.Δ.104/2014), που τέθηκε πρόσφατα σε ισχύ, έπαυε να υφίσταται ως αυτοτελής υπηρεσία. Συνεχίζει, ωστόσο, την αποστολή της ως Γραφείο Βόρειας Ελλάδος της ενιαίας, πλέον, Εφορείας Παλαιοανθρωπολογίας-Σπηλαιολογίας.

Στα δέκα αυτά χρόνια της ύπαρξής της, ως αυτοτελούς υπηρεσίας, η εφορεία επιτέλεσε σημαντικότατο έργο στον τομέα της προστασίας, μελέτης και ανάδειξης των σπηλαίων. Για την παρουσίαση-απολογισμό αυτού του έργου, αλλά και για τη διερεύνηση των προοπτικών που ανοίγονται πλέον για την ίδια στο πλαίσιο της νέας δομής του Υπουργείου και της Αρχαιολογικής Υπηρεσίας, διοργανώνεται ημερίδα στην αίθουσα «Μανόλης Ανδρόνικος» του Αρχαιολογικού Μουσείου Θεσσαλονίκης, την Πέμπτη 4 Δεκεμβρίου 2014, στις 10:00.

Πληροφορίες: Φώτης Γεωργιάδης
τηλ.: 2310410185
e-mail: fgeorgiadis@culture.gr

**SILENT PARTICIPANTS II - THE USES OF
TERRACOTTA FIGURINES IN NON -
OFFICIAL RITUAL, 117TH ANNUAL
MEETING OF THE ARCHAEOLOGICAL
INSTITUTE OF AMERICA (AIA) AND THE
SOCIETY FOR CLASSICAL STUDIES (SCS),
SAN FRANCISCO, CA, JANUARY 7-10, 2016,
CALL FOR PAPERS**

Sponsored by the Coroplastic Studies Interest Group

Terracotta figurines reveal a great deal of information about the lives, beliefs, and practices of the people who once handled them. Their study has undergone a revolutionary change, thanks in large measure to the great numbers discovered at well-excavated archaeological sites. Within such a frame figurines are now analyzed from different perspectives, and one of these that has gained attention from scholars lately is a focus on the use of figurines in rituals in varied contexts: domestic, funerary, sacred, and production. This colloquium session aims to enhance our knowledge of terracotta figurines by exploring and discussing their use in rituals, a topic whose foundations were laid at the colloquium held at the AIA Annual Meeting in 2012 (Philadelphia, January 5-8).

Terracotta figurines were inexpensive items that could be used in a wide variety of rituals, both official and non-official, that is, practices that were not regulated and controlled by official institutions. Examples of such practices include, but are not limited to, those that occurred in domestic spaces, caves, graves, shrines, and even large sanctuaries, where, despite the strong presence of official control, opportunities to use figurines in non-official ritual existed. We are especially seeking papers that will deal with the use of terracotta figurines in “magical” ways and that will address methodologies on how to distinguish magic from official ritual. Abstracts on topics that cover the Mediterranean world and beyond (Greece, Rome, Egypt, Near East, Cyprus, etc.) between the pre-Bronze Age era and Late Antiquity are welcome, as are interdisciplinary approaches.

Abstracts should be no longer than 250 words and must follow AIA guidelines (http://aia.archaeological.org/pdfs/annualconference/AIA_Style_Guidelines.pdf)

Format: 20-minute papers and panel discussion

Contact Information - Erica Angliker: erica.morais.angliker@access.uzh.ch

Deadline: February 15, 2015

INQUA 2015 CONGRESS, SESSION ON QUATERNARY GEOCHRONOLOGY, 27TH JULY-2ND AUGUST 2015, NAGOYA, JAPAN

Submissions are invited to the following session at INQUA 2015 Congress (27th July-2nd August 2015, Nagoya, Japan).

This session will cover a wide range of topics on Innovative Development and Applications in Quaternary Geochronology. Publication of the Proceedings of the session is planned for a special QG issue (normal refereeing standards will apply).

The deadline for the abstract submission is the 20th December 2014, please visit <http://inqua2015.jp>.

S08: Innovations and Challenges in Quaternary Geochronology: methodological developments, applications and new horizons

Geochronology plays a key role in all the Quaternary studies. Many of the recent progresses in Quaternary research have been associated with the advances in geochronology through either development/extension of dating techniques or innovative applications of existing methods. This session will provide an interdisciplinary platform for sharing the most recent progress in both geochronological tools and their applications in Quaternary science and hence will serve as a forum for in-depth interaction between laboratory-based and field-based scientists.

We invite contributions on both technical innovations or methodological development in dating methods and their novel applications in the frontier of Quaternary research. All techniques based on physical and chemical principles and biological processes as dating tools or tracers, will belong to the scope of discussion, including paleomagnetism, cosmogenic nuclides such as ^{14}C (including e.g. the use of specific compounds, bomb radiocarbon; radiocarbon reservoir and ocean ventilation ages), ^{10}Be , ^{26}Al , ^{36}Cl , ^{21}Ne and ^{129}I , uranium-series, Ar/Ar, luminescence (OSL, IRSL, TL, etc.), electron spin resonance (ESR), amino acid racemization, and other recently developed methods. Records from all Quaternary materials, ranging from ice cores, lakes, oceans, loess, deserts, caves, tephra, evaporates and chemical precipitates, exposed rocks and of tectonic/seismic activities will be covered. Comparative studies involving multiple dating methods at varied time scales and different resolutions will be welcome. Also welcome will be integrated attempts to resolve key issues in stratigraphical correlations, evolution of landscape and hydrological regimes, and quantitative, process based studies on regional or global environmental change. Equally welcomed will be discussions on analytical procedures (e.g. small samples and sample phases), data processing and analysis methodologies using advanced statistical methods, and new instrumentation.

Co-convenors:

Liping Zhou, lpzhou@pku.edu.cn, Peking University, China

Rainer Grun, rainer.grun@anu.edu.au, Australian National University, Australia

Toshio Nakamura, nakamura@nendai.nagoya-u.ac.jp, Nagoya University, Japan

Ashok Singhvi, singhvi@prl.res.in, Physical Research Laboratory, India
Shin Toyoda, toyoda@dap.ous.ac.jp, Okayama University of Science, Japan

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

PHD OPPORTUNITY YORK, RELIABLE,
ROBUST ECOLOGICAL ISOSCAPES

Europe enjoys a vast diversity of foodstuffs and have developed labels make sure that you are getting a taste of real produce, one of these PGI (Protected Geographical Indication) covers agricultural products and foodstuffs closely linked to the geographical area. A large European project TRACE used multiple isotopes ($\delta^2\text{H}$, $\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O}$, $\delta^{34}\text{S}$, $^{87}/^{86}\text{Sr}$) to assess geographic origin of products such as sparkling water and meat, in order to police the PGI program. The old truism, you are what you eat certainly holds true for isotopes and your diet is recorded in the isotopic composition in your muscle, hair and bone.

Researchers at the Food and Environment Research Agency (FERA) have build a sophisticated prediction tool which uses the isotopic composition of meat to predict its geographical origin (to matching UK postcodes) in order to help police PGI status. Such a tool which predicts the isotopic landscape for each isotope (Isoscape) and intersects them to attempt to ‘post-code’ origin; it is useful not only for consumers but also for ecologists and archaeologists.

The CASE studentship with FERA will develop an open source version of this model using primarily the R statistical software, and after having established transfer functions for common isotopic sources (e.g. bone collagen, feather keratin) test how robust such isoscape prediction tools are using isotopic data from a wide variety of ecological sources (and data from ongoing research projects that use two new isotope instruments at York as well as FERA data). You will then use the vast body of archaeological and historical isotopic data to establish how stable isotopic signals have been in the past. You will gain vital skills in scripting and GIS, and then will have the opportunity working with ecologists, physiologists and archaeologists to data mine and explore the potential of the isotopic record to quantify recent changes in soils and vegetation.

We imagine that successive changes in land use will have altered carbon and nitrogen isoscapes (and Sr?), from the arrival of agriculture to intensification, enclosure, four field rotation, increased stocking densities, the introduction of modern crops (notably maize), and chemical fertilisers. More challenging will test to see if we can observe minor changes in climate (e.g. the Little Ice Age, Medieval Optimum) in hydrogen and oxygen isotopes against background variability, or do we need to travel back to the Pleistocene bone to see the effects on climate?

Please visit the site: <http://www.york.ac.uk/archaeology/postgraduate-study/research-postgrads/studentship-15/acce/acce-isotopes/>

DOCTORAL SCHOLARSHIPS ARE
AVAILABLE AT OXFORD UNIVERSITY IN
THE AREA OF ENVIRONMENTAL
RESEARCH

Dear All

Over 25 doctoral scholarships are available at Oxford University in the area of Environmental Research. These are fully funded (by NERC) for UK applicants, and provide full fees for EU candidates with the possibility of further scholarships for international students. The scholarships are awarded on a competitive basis and students then play a large part in formulating their own projects.

There is an open day for this course on 2nd December and further information on this and the doctoral scheme can be found at: <http://www.environmental-research.ox.ac.uk>

Please pass this message on to any interested prospective students, particularly those who might be interested in working on research involving the use of radiocarbon dating in conjunction with Christopher Ramsey, Tom Higham and other colleagues at Oxford.

Best wishes

Christopher Ramsey & colleagues

PhD position:

Landscape evolution and rock art dating of the Kimberley region, Australia, using in-situ cosmogenic nuclides ^{10}Be , ^{26}Al and ^{14}C

A PhD scholarship is available within an Australian Research Council (ARC) Linkage Project grant: ***Dating the Aboriginal rock art of the Kimberley region, WA – landscape geochemistry, surface processes and complementary dating techniques*** coordinated by the Universities of Melbourne, Wollongong (UOW) and Western Australia, the Australian Nuclear Science and Technology Organization (ANSTO) and the Kimberley Foundation of Australia. Member institutions are well positioned to provide world-class expertise and facilities in a variety of isotopic, radionuclide and biogeochemical methods of analyses to study the archaeological history, climate, and environmental and geomorphic evolution of the region.

Project

The Kimberley region of northwest Australia contains an extraordinarily rich record of rock art of various styles, providing an important window into the culture, beliefs and everyday life of the first Australians. Dating the rock art is complex and difficult to integrate with the emerging Late Quaternary and Holocene archaeological records. Even when dates are obtained, there often are inherent, technique-dependent ambiguities about their relationship to the art. This ARC project aims to produce a well-calibrated time scale for rock art sequences by undertaking a comprehensive study of the dynamic processes operating on the host rock surfaces, and then applying a battery of advanced dating techniques. This PhD project will focus on using in-situ cosmogenic radionuclides (^{10}Be , ^{26}Al , ^{14}C) to quantify rates of landscape evolution (i.e., bedrock weathering, slab falls associated with rock paintings, rock wall preservation, basin-wide denudation). These data will be integrated with information obtained from optically stimulated luminescence (OSL) dating of associated materials and with concurrent archaeological studies of rock art styles to provide a more robust evaluation of rock art evolution with time.

Location and funding

The PhD position is supported by the Institute of Environmental Research at ANSTO in Sydney (www.ansto.gov.au/ResearchHub/IER/) and the School of Earth and Environmental Sciences (SEES) at UOW (smah.uow.edu.au/sees/), under the supervision of Dr David Fink, Dr Alexandru T. Codilean and Prof Richard G. Roberts. In 2013, UOW was ranked in the top 2% of research universities in the world in the highly respected Times Higher Education and QS World University Rankings. SEES excels in Quaternary science, geomorphology and archaeological science research in Australia and is equipped with cosmogenic sample preparation and OSL dating laboratories. ANSTO is a world leader in Accelerator Mass Spectrometry (AMS), with emphasis on paleoclimate change and environmental applications using ^{14}C , ^{10}Be , ^{26}Al , ^{36}Cl , and actinides. ANSTO hosts 3 AMS accelerators operating at 1MV, 6 MV and 9MV and recently commissioned a multi-isotope cosmogenic chemistry laboratory building which includes plans for a new in-situ ^{14}C laboratory. Funding is available for fieldwork, analyses, and attendance at international and national conferences during the course of the PhD.

Qualifications

Applicants must have a BSc (Hons) or MSc, or equivalent qualifications in (isotope) geochemistry, geology, hydrology and/or geomorphology. Knowledge of quantitative geomorphology in Quaternary studies and application of cosmogenic radionuclides in the Earth sciences would be a distinct advantage. We prefer candidates with demonstrated proficiency and experience in basic inorganic chemistry laboratory procedures and who are comfortable with remote fieldwork for sample collection. International students are encouraged to apply; the PhD scholarship includes tuition fees and offers a living allowance for the 3-year duration of the project. Salary will be equivalent to the standard Australian Postgraduate Award stipend: AU\$25,849 tax-free, per annum.

Application

Your application will include a cover letter, a brief description of your research objectives in the Earth sciences aligned with the thematic direction of the PhD research topic, a CV, publication list (if applicable) and contact details for at most 3 referees combined into one PDF file. Applications should be sent to Dr David Fink (fink@ansto.gov.au) no later than Friday 16th January 2015. Candidates should feel free to contact both Dr David Fink and Dr Alexandru T. Codilean (codilean@uow.edu.au) for more details about the position. A starting date in March 2015 is preferred.

Dr David Fink
Principal Research Scientist
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ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS
EXCAVATION OPPORTUNITY AT IKLAINA

Dear colleagues,

If you could kindly pass the following information to your students, I would very much appreciate it.

With many thanks and best wishes,

Michael Cosmopoulos

The Iklaina Excavation is seeking students and volunteers for the 2015 field season (June 15-July 5). Iklaina is a Mycenaean town in the region of Pylos, identified in the Linear B tablets as a-pu2, one of the district capitals of the Hither Province (AJA 2006, pp. 205-228). The project includes excavation, travel to local sites and museums, and evening classes and seminars on Greek culture, history, and archaeology. Students can receive 6 credits through the department of Anthropology at the University of Missouri-St. Louis; volunteers on a non-credit basis are also welcome to apply. Applications will be accepted until the project is filled. All relevant information, including application forms and registration instructions, can be found at the project website, www.iklaina.org.

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THE MEDITERRANEAN ARCHAEOLOGICAL TRUST - GRANTS TO ASSIST PUBLICATION

Please note that, after trialling the process last year, applications / references this year will **only** be accepted in the format outlined below to the e-mail address indicated

The Mediterranean Archaeological Trust, set up in 1959 for the promotion of the study of archaeology, invites applications for grants, made on a competitive basis, for expenses in 2015-16, in the preparation for final publication of material from archaeological excavation or fieldwork in the Mediterranean world, excluding subventions to publishers or publication of material not from a specific excavation, or in symposia. Within the terms of the Trust, priority may be given to publication of Bronze Age sites. Grants for any amount, however small, will be considered, provided they expedite publication. The grants do not normally exceed GBP 2000.

Applicants should complete the application form (downloadable from the MAT web-site: <https://sites.google.com/site/medarchtrust/grants>), which should be sent no later than **31 January 2015** by e-mail attachment, to:

Professor John Bennet: medarchtr@gmail.com
(in case of difficulty, please contact him on: d.j.bennet@shef.ac.uk)

Please follow the instructions on the form, taking care to indicate the importance of the site, your qualifications, other sources of support, and the present or planned status and place of publication. Apply in good time to ensure that your case can be fully considered. The references (which are essential) should be sent directly by the referees to the same e-mail address and must meet the deadline of 31 January. Successful applicants will be informed in April 2015, when they will be asked to provide full bank details for payment. A report on the use of the grant must be submitted by **Dec. 1, 2015**. Failure to do so is likely to mean future grant applications from you will not be considered.

**ADVANCED MASTER COURSE IN STRUCTURAL
ANALYSIS OF EXISTING BUILDINGS,
MONUMENTS AND HISTORICAL
CONSTRUCTIONS**

Dear Colleague,

Please find below information about the Advanced Master Course in Structural Analysis of Existing Buildings, Monuments and Historical Constructions.

I kindly invite you to disseminate this information to anybody who could be interested in applying.

* * * * *

SCHOLARSHIPS FOR THE ADVANCED MASTERS IN STRUCTURAL ANALYSIS OF MONUMENTS AND HISTORICAL CONSTRUCTIONS

Applications for the **Advanced Masters in Structural Analysis of Monuments and Historical Constructions**, approved and financially sponsored by the European Commission within the framework of the Erasmus+ Programme, are opened up to January 20, 2015.

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

A significant number of **scholarships**, ranging from 4,000 to 25,000 Euro, are available to students of any nationality.

The Consortium is also available to provide **International Fellowships to outstanding non-European Scholars** for teaching and research activities for a period of up to three months.

Please find full details on the MSc programme, as well as electronic application procedure, on the website www.msc-sahc.org

* * * * *

Yours sincerely,

Paulo B. Lourenco
Course Coordinator

Editor of the International Journal of Architectural Heritage: Conservation, Analysis, and Restoration



ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS

JOURNAL OF FIELD ARCHAEOLOGY,
VOLUME: 39, NUMBER: 4 (NOVEMBER 2014)

The above issue is now available online at:

<http://www.maneyonline.com/toc/jfa/39/4?ai=yz&ui=1yc&af=T>

Munsell notations and color names: Recommendations for archaeological practice

Jonathan Ferguson

Journal of Field Archaeology, Vol. 39, No. 4: 327-335.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000097?ai=yz&ui=1yc&af=T>

Ancient urban life at the Early Horizon center of Caylán, Peru

David Chicoine, Hugo Ikehara

Journal of Field Archaeology, Vol. 39, No. 4: 336-352.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000094?ai=yz&ui=1yc&af=T>

Settlement networks and the organization of lithic tool production in

the Late Prehistoric period (a.d. 1000–1780), Lower Nueces River

Valley, South Texas

Robert P. Drolet

Journal of Field Archaeology, Vol. 39, No. 4: 353-369.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000095?ai=yz&ui=1yc&af=T>

Reconnaissance survey for Palaeolithic sites in the Debed River

Valley, northern Armenia

Charles P. Egeland, Boris Gasparian, Dmitri Arakelyan, Christopher M.

Nicholson, Artur Petrosyan, Robert Ghukasyan, Ryan Byerly

Journal of Field Archaeology, Vol. 39, No. 4: 370-386.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000096?ai=yz&ui=1yc&af=T>

Determining the settlement history of Hellenistic, Roman, and

Byzantine sites in the Galilee, Israel: Comparing surface, subsurface,

and stratified artifact assemblages

Uzi Leibner

Journal of Field Archaeology, Vol. 39, No. 4: 387-400.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000088?ai=yz&ui=1yc&af=T>

New evidence for the Mousterian and Gravettian at Rio Secco Cave,
Italy

Marco Peresani, Matteo Romandini, Rossella Duches, Camille Jéquier,
Nicola Nannini, Andreas Pastoors, Andrea Picin, Isabell Schmidt,
Manuel Vaquero, Gerd-Christian Weniger

Journal of Field Archaeology, Vol. 39, No. 4: 401-416.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000098?ai=yz&ui=1yc&af=T>

Evaluating background noise: Assessing off-site data from field
surveys around the Italic sanctuary of S. Giovanni in Galdo, Molise,
Italy

Jitte Waagen

Journal of Field Archaeology, Vol. 39, No. 4: 417-429.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.00000000099?ai=yz&ui=1yc&af=T>

Book Reviews

Journal of Field Archaeology, Vol. 39, No. 4: 430-433.

<http://www.maneyonline.com/doi/abs/10.1179/0093469014Z.000000000100?ai=yz&ui=1yc&af=T>

CAST GODS - METALWORKING AND MASS PRODUCTION IN ANCIENT EGYPT

Martin Fitzenreiter, Christian E. Loeben, Dietrich Raue and Uta Wallenstein (Eds.)
379 Seiten, 345 Abbildungen, 8 Tabellen, 1 Karte.
ISBN-13: 978-3-86757-456-3 Price: 24,80 €

For centuries, they have been well-known and sought-after collectable objects in Egyptian museums the world over: bronze figures from Egypt, mostly depicting gods. Their sheer quantity alone, coupled with their worldwide distribution, has so far discouraged their more detailed study. It is only recently that Egyptian bronzes have commanded more sustained scholarly attention, largely thanks to new research concerning both their ancient context and their mode of production. It was mainly the advances in and current possibilities of scientific techniques which have encouraged a multi-disciplinary approach to this topic. Groups of objects from the Egyptian collections at Bonn, Hanover, Leipzig and Gotha, unique in a global context, offered the unparalleled possibility to gain new insights regarding ancient Egyptian production methods [Bonn, Hanover], Egyptian bronzes in Nubia [Leipzig] and the early reception and collection history of these figures in Europe [Gotha]. The results are published for the first time in this handbook.

Contributions by Johannes Auenmüller, Christian Bayer, Martin Fitzenreiter, Norbert Franken, Tobias Gutmann, Dietrich Klemm, Rosemarie Klemm, Kristin Knebel, Katharina Krügel, Robert Lehmann, Christian E. Loeben, Ludwig D. Morenz, Margarete Oppel, Stephan Patscher, Britta Rabe, Dietrich Raue, Marie Schulze, Anne Viola Siebert, Uta Wallenstein and Joachim Werren.

Please visit the site: <http://www.vml.de/e/detail.php?ISBN=978-3-86757-456-3>

REMEMBERING THE DEAD IN THE
ANCIENT NEAR EAST - RECENT
CONTRIBUTIONS FROM
BIOARCHAEOLOGY AND MORTUARY
ARCHAEOLOGY

Edited by Benjamin W. Porter and Alexis T. Boutin

ISBN: 978-1-60732-324-2

Pages: 272

Illustrations: 26 figures

Cloth: \$70.00

Adobe Digital Edition Ebook: \$56.00

"This important and innovative volume presents an unusual confluence of bioarchaeological, mortuary, and historical data analyses in order to provide an integrated approach to the study of the dead in the ancient Near East. Included are creative reconsiderations of the nature of burial, both for humans and nonhumans, the recognition of ethnicity in ancient Mesopotamia and Egypt, and genetic relations in Early Bronze Age Jordan. Other new ideas and approaches include consideration of disabled persons in antiquity (and in the present day) and a reinterpretation of "grave robbing" in ancient Egypt. The volume stands apart in its insistent focus on the nonelite, in contrast to the attention usually devoted to royal and elite burials in places like Egypt and Mesopotamia. As a signpost toward the directions Near Eastern bioarchaeology is taking, Remembering the Dead in the Ancient Near East will be extremely valuable for all interested in the archaeological study of the dead." ---Glenn Schwartz, The Johns Hopkins University

"This well-timed volume brings much-needed theoretical and methodological rigor to ancient Near Eastern mortuary archaeology. Remembering the Dead in the Ancient Near East demonstrates the power of exploring the material remains of mortuary rituals and uses an interdisciplinary approach to present ancient mortuary practices as ongoing commemorative acts, rather than material tableaux frozen in time."

--Megan A. Perry, East Carolina University

Contributors:

Rachel Bichener, Alexis T. Boutin, Michele R. Buzon, Stuart Campbell, Meredith Chesson, Gretchen R. Dabbs, Blair M. Daverman, Lesley Gregoricka, Sarah Kansa, Hannah Lau, William J. Pestle, Benjamin W. Porter, Susan G. Sheridan, Stuart Tyson Smith, Christina Torres-Rouff, Jaime Ullinger, Melissa Zabecki

Please visit the site: <http://www.upcolorado.com/book/3242>

EXCHANGE NETWORKS AND LOCAL TRANSFORMATIONS: INTERACTION AND LOCAL CHANGE IN EUROPE AND THE MEDITERRANEAN FROM THE BRONZE AGE TO THE IRON AGE

Bryn Mawr Classical Review 2014.11.09

Maria Emanuela Alberti, Serena Sabatini (ed.), Exchange Networks and Local Transformations: Interaction and Local Change in Europe and the Mediterranean from the Bronze Age to the Iron Age. Oxford; Oakville, CT: Oxbow Books, 2013. Pp. x, 179. ISBN 9781842174852. \$76.00.

Reviewed by Estelle Gauthier, UMR CNRS 6249, Chrono-Environnement, Université de Franche-Comté (estelle.gauthier@univ-fcomte.fr)

Table of Contents: <http://www.oxbowbooks.com/oxbow/exchange-networks-and-local-transformations.html>

Le volume a été initié dans le cadre d'une session du 14^e congrès annuel de l'European Association of Archaeologists, tenu à Malte en 2008, et il a été clos début 2011. Les articles, rédigés en anglais, proposent d'explorer la question de l'influence des systèmes d'échanges sur les évolutions des sociétés de l'âge du Bronze et de l'âge du Fer de l'Europe continentale et de la Méditerranée, en portant une attention particulière aux effets des relations dynamiques entre transformations des traditions locales et développement des réseaux d'échanges interrégionaux, impliquant de fait des dialogues transculturels.

L'ouvrage débute par l'introduction de M. E. Alberti et S. Sabatini (p. 1-5) qui situent chaque contribution au sein de la structure de l'ouvrage et par rapport aux tendances actuelles de la recherche. Trois grands thèmes sont abordés au fil des articles : les rapports entre systèmes d'échanges et transformations des sociétés locales, les notions de transculturalité et d'hybridation, la possibilité d'établir des parallélismes entre Europe continentale et Méditerranée.

L'objectif principal du volume est de réunir des articles s'intéressant aux relations réciproques entre le développement de la culture matérielle et les réseaux d'échanges, étudiées ici à partir d'indices archéologiques régionaux contextualisés. Il s'agit en particulier de rechercher ces effets non seulement dans les objets directement issus des échanges à longues distances mais aussi et surtout dans les transformations sociales, culturelles, économiques ou technologiques. Ce thème est introduit par K. Kristiansen (p. 6-8) qui propose une réflexion théorique sur la notion d'échange et d'interaction durant l'âge du Bronze. Il présente ainsi la manière dont les autres contributions de l'ouvrage s'intègrent dans le cadre de ce modèle.

N. Papadimitriou et D. Demetra (p. 9-21) centrent leur attention sur la Méditerranée orientale et le Proche-Orient. Les auteurs dessinent l'évolution des échanges du Bronze

moyen à la fin du Bronze final. Ils montrent comment des communautés "périphériques" (Levant, Chypre, Mer Egée) ont adopté diverses stratégies (e.g. spécialisation) pour s'introduire au sein des vastes systèmes commerciaux dominés par de grands "centres" politiques et militaires de l'âge du Bronze (empire Hittite, Égypte, Assyrie, Babylonie) et en tirer bénéfice.

Après une introduction claire sur les formes particulières des systèmes commerciaux égéens, M. E. Alberti (p. 22-43) analyse les systèmes du Bronze ancien et surtout du Bronze moyen. Elle met ainsi en évidence des évolutions entre les deux phases ainsi qu'une complexité particulière au sein du Bronze moyen local, période cruciale pour la formation des cultures de l'âge du Bronze. Son travail, agrémenté d'une abondante bibliographie, fait ressortir l'influence mutuelle du développement des circuits commerciaux et des transformations de la société.

S. Vitale et T. Hancock (p. 44-59) étudient la situation de l'habitat de Serraglio à Kos durant le BF IA. Ils discutent de la possible présence de groupes minoens sur le site et proposent de reconsidérer la question d'une forme de colonisation ou de colonialisme. La céramique présente en effet un fort caractère local, tandis que les éléments minoïens peuvent être liés à une volonté des membres de l'élite locale de mettre en évidence leur statut et à une stratégie commerciale visant à garder une certaine compétitivité dans les échanges. Les auteurs émettent alors l'hypothèse que Serraglio puisse être identifiée comme le dernier "marche pied" reliant la Crète à la côte sud-ouest de la péninsule anatolienne au début du Bronze final.

F. Iacono (p. 60-69) analyse les éléments "occidentalisants" dans le monde égéen pendant l'Helladique récent IIIC. L'originalité de son approche réside dans la remise en question qu'il propose du schéma traditionnel d'une influence univoque des sociétés orientales "civilisées" sur des sociétés occidentales "non civilisées". Il met en effet en évidence des interactions entre le monde égéen et la Méditerranée centrale en analysant d'une part la distribution de la céramique égéenne (ou ses imitations) en Italie, et d'autre part celles de la "Hand Burnished Ware" et des objets en bronze des "Champs d'Urnes" dans le domaine égéen. L'adoption des éléments "occidentalisants" doit semble-t-il est rattachée à la circulation du métal, dans un contexte social et politique particulier.

La Méditerranée centrale est également au cœur des préoccupations de plusieurs auteurs : A. Cazzalla et G. Recchia (p. 80-91) présentent un tour d'horizon chronologique des transformations des réseaux de relations entre le Sud de l'Italie, Malte et la Sicile. L. Lai (p. 92-101) examine la région de Sàralla (Sardaigne), sous le prisme de l'influence réciproque entre la différenciation sociale et l'accès au métal et au basalte. C. Iaiia (p. 102-116) analyse l'expression de l'identité et du statut à la transition Bronze-Fer en Italie centrale, au travers d'assemblages funéraires masculins contenant des casques et de la vaisselle métallique similaires à des productions d'Europe continentale. F. Fulminante et S. Stoddart (p. 117-133) comparent le processus d'urbanisation en Étrurie et en Latium Vetus en soulignant notamment le rôle des facteurs économiques, sociaux et idéologiques. Ils font appel à une analyse de loi rang-taille particulièrement efficace pour comparer les deux régions et mettre en évidence les évolutions des formes du peuplement. Ils proposent enfin un modèle de l'organisation de l'Italie centrale à l'époque orientalisante au moyen de polygones de Thiessen (diagrammes de Voronoi) pondérés.

Plusieurs contributions concernent l'Europe continentale. Parmi celles-ci, deux d'entre elles peuvent être rapprochées car elles concernent le contexte funéraire et des types d'urnes spécifiques : S. Sabatini (p. 134-145) étudie la répartition des urnes maisons, décorées d'un visage, ou avec visage et porte, afin de montrer comment de nouveaux modes d'expression se répandent dans le domaine funéraire via des phénomènes d'hybridation, sous l'influence d'interactions interculturelles avec sélection et incorporation d'éléments extérieurs dans la culture matérielle. J. Kneisel (p. 156-158) est une experte des urnes décorées d'un visage de la culture poméranienne. Malheureusement suite au long processus qu'a suivi l'édition de ce volume, son article n'est pas à jour et est paru seulement après son étude synthétique sur le sujet. Après une présentation claire et synthétique de ces urnes, elle se penche sur la question de la distribution des motifs des couvercles à travers une analyse spatiale en cherchant des zones de contacts et des axes d'échanges. Par une étude des connections entre les sites, elle propose ainsi un ensemble de réseaux linéaires structurant sa zone d'étude. En fin d'article, elle tente de comparer les résultats de cette étude d'un système d'échanges à courte distance avec le commerce à longue distance de cyprées et de l'ambre mais la taille de la contribution se prête mal à l'élaboration de cette comparaison ambitieuse, qui apparaît ici seulement comme une annexe à l'étude.

S. Bergerbrant (p. 146-155) examine la distribution d'un type d'épée du bassin carpatique en Lolland (Danemark). Malgré le faible nombre d'exemplaires concernés, l'étude présente l'adoption et les modes d'utilisation spécifiques d'un type d'objet d'importation, par les sociétés danoises de l'âge du Bronze.

Le dernier article du volume par A. Kreiter et al. (p. 169-179) présente les résultats d'une analyse de la céramique graphitée de Dunaszentgyörgy (Hongrie). L'article se compose de trois parties pratiquement indépendantes : un récapitulatif général sur la céramique graphitée dans le monde celtique ; une présentation assez brève sur l'analyse des échantillons, dont les résultats ont déjà été publiés, leur permettant de conclure à une production locale, à l'aide de matières premières locales mais aussi de graphite importé via des échanges à longue distance, et une dernière partie sur les implications sociales de la production de ces céramiques avec des comparaisons portant sur des recherches archéologiques d'autres périodes ou des travaux ethno-archéologiques.

Il s'agit d'un bel ouvrage. Bien que les illustrations ne soient pas en couleur, elles sont généralement de bonne qualité. Les fonds de cartes sont parfois trop épurés, presque schématiques. Parfois l'absence des sources, de la flèche du Nord et des légendes est gênante. La figure 13.2 n'est, par exemple, pas digne du volume. Les contributions sont accompagnées d'une bibliographie riche mais qui n'inclue que partiellement les parutions après 2008.

Ce volume aborde les questions présentées dans l'introduction de divers points de vue. L'orientation commune de l'ouvrage, approcher les échanges via les transformations des sociétés, est résolument originale comme le soulignent les éditeurs dans l'introduction (p. 2). Les cas d'étude présentent des exemples précis et sont accompagnés d'une réflexion théorique sur les concepts. Les approches méthodologiques sont variées intégrant des études typologiques, iconographiques, des analyses physico-chimiques des objets, des comparaisons ethnographiques, de la cartographie. L'essentiel de l'approche spatiale se base sur des cartes de répartition traditionnelles. Il est un peu regrettable que les analyses

spatiales plus novatrices aient une place assez limitée dans l'ouvrage. Seules deux contributions proposent des méthodes plus originales de ce point de vue.

Plusieurs contributions ont montré une situation bien plus complexe à un niveau local que le traditionnel "système monde" (ou modèle centre-périphérie) : l'adoption plus ou moins forte des éléments provenant du centre, parfois leur adaptation selon les stratégies des communautés périphériques plus petites, l'influence mutuelle des systèmes locaux et interrégionaux sont des mécanismes complexes qui ont fortement influencé les transformations des sociétés tout comme la forme des réseaux d'échanges.

Il semble que l'objectif de regrouper des études concernant la Méditerranée et l'Europe non méditerranéenne soit partiellement atteint. La plupart des articles concernent en effet la Méditerranée ; les contributions sur l'Europe continentale trouvent difficilement leur place ici et risquent d'être peu visibles aux yeux des spécialistes de l'Europe non méditerranéenne. Un volume spécifique traitant des réseaux d'échanges dans l'Europe nord alpine et des transformations locales en relation avec la Méditerranée permettrait de compléter les contributions sur le sujet et de toucher un public élargi.

L'objectif de l'ouvrage était très ambitieux tant du point de vue chronologique que géographique. Il est difficile d'obtenir une telle variété de périodes et de régions au travers de seulement douze cas d'étude. Alors que beaucoup d'efforts sont déployés en début d'ouvrage pour lier les contributions entre elles, une synthèse plus complète en fin d'ouvrage, reprenant non seulement les conclusions des présentes études mais aussi des résultats publiés par ailleurs, aurait permis de conclure en menant une réflexion d'ensemble sur la question des relations entre échanges à longue distance et transformations des sociétés. Bien que cet exercice reste à faire, la variété et la qualité des exemples présentés font de cet ouvrage une publication à connaître pour les chercheurs travaillant sur la question des échanges à longues distances et des relations transculturelles.

Notes:

1. Havancsák, I. – Bajnóczi, B. – Tóth, M. – Kreiter, A. – Szöllősi, Sz., Kelta grafitos kerámia: elmélet és gyakorflat a dunaszentgyörgyi kerámiák ásványtani, petrográfiai és geokémiai vizsgálatának tükrében. Archeometriai Műhely 1 (2009) 39-52 ; Szöllősi, Sz.– Bajnóczi, B. – Havancsák, I. – Kreiter, A. – Szakmány, Gy. – Tóth, M. 2009. Archeometriai vizsgálatok szerepe a kelta grafitos kerámiák régészeti interpretációjában – The role of archaeometrical investigations in the archaeological interpretations of Celtic graphitic pottery. In Ilon, G. (Szerk.) Óskoros Kutatók VI. Összejövetelének konferenciakötete. Nyersanyagok és kereskedelem. Kőszeg, 2009 március 19-21. 385-400. (article en hongrois avec un résumé en anglais).

Please visit the site: <http://bmcr.brynmawr.edu/2014/2014-11-09.html>

PYLA-KOKKINOKREMOS. A LATE 13TH CENTURY BC FORTIFIED SETTLEMENT IN CYPRUS. EXCAVATIONS 2010–2011

by Vassos Karageorghis & Athanasia Kanta
Studies in Mediterranean Archaeology M141, Uppsala 2014
ISBN13: 978-91-981535-0-7

The volume presents a full report on excavations undertaken in 2010 and 2011 by Vassos Karageorghis and Athanasia Kanta at the C13th BC fortified settlement of *Pyla-Kokkinokremos* in the Larnaca Bay area of southern Cyprus; and an additional brief report on the 2012 excavations which uncovered two extremely important Cypro-Minoan clay tablets.

Chapters 1–3 discuss the stratigraphy and architecture of excavated rooms and complexes and present the site and its architecture in their historical setting. Chapter 4 includes an inventory of objects and diagnostic sherds and Chapter 5 presents a detailed commentary on the pottery, metal and other finds. The volume concludes with a discussion of *Pyla-Kokkinokremos* and the ‘Crisis Years’ in Cyprus and remarks on material culture and chronology. Nine appendices discuss Late Helladic IIIB and Late Minoan IIIB amphoroid craters (V. Karageorghis), pot marks (Hirschfeld), ‘Canaanite jars’ (Georgiou), a bronze plaque with a nude female figure (J. Karageorghis) and ground stone tools (McCaig) from the site, and report on the geology (Zomeni) and, variously, petrographic, chemical and Neutron Activation analyses of cooking pots and Minoan imports (Dikomitou-Eliadou, Kiriatzki and Vionis), a Late Helladic III bowl (Mommsen) and copper alloy artefacts (Charalambous and Kassianidou). The volume is richly illustrated, with over 200 in-text site photographs and architectural plans and line drawings and photographs of the finds arranged on nine colour and twenty-two black and white plates, and includes five large-scale plans and sections.

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**ANCIENT AND MODERN WATER
RESERVOIRS - AN INTERNATIONAL
WORKSHOP HELD IN PANTELLERIA,
ITALY, 11TH-14TH OF MAY 2011**

Thomas Schäfer, Frerich Schön, Andreas Gerdes and Jens Heinrichs (Eds.)

316 pages, 201 illustrations, 19 tables, 16 plates

ISBN: 978-389646-992-2

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Text: English, French, German, Italian, Spanish / Abstracts in English

Initiated by a recent research project on the most numerous ancient cisterns on the notoriously arid island of Pantelleria, conducted since 2000, a final colloquium was held which combined matters of archaeology, materials science, and modern management of potable water. This conference volume contains a foreword, 21 papers, and a list of authors. The contributions are classified into a first part on ancient water reservoirs and a second one on modern cisterns. The analyses related to antiquity deal with construction differences of tanks for drinking or domestic use, water management in Attic silver mining, cisterns in Jordan, Tunisia, and Italy as well as on Malta, Pantelleria, Linosa, Lampedusa, Sardinia, and the Iberian Peninsula, the coating systems of water reservoirs, water in Phoenician cults of Sardinia, and climatic change in antiquity. Papers on recent topics deal with mineral construction materials in drinking water supply, climatic change and water supply, sustainable water management as well as analyses of the structural condition of modern drinking water reservoirs, their mortar systems and their corrosion.

With contributions by Henning Fahlbusch, Kim Van Liefferinge, Patrick Keilholz, Habib Baklouti, Keith Buhagiar, Simone Mantellini, Frerich Schön, Janina Körper, Jens Heinrichs, Andreas Gerdes and Frerich Schön, Antonella Mezzolani Andreose, Emerenziana Usai, Stefano Cespa, Alejandro Egea, Mathias Döring, Janina Körper, Sebastian Wagner and Ulrich Cubasch, Andreas Gerdes and Matthias Schwotzer, Christina Endler and Hans Schipper, Heiko Gerdes, Kai Schütz, Sylvia Stürmer, Felix Wenk.

Please visit the site: <http://www.vml.de/d/detail.php?ISBN=978-389646-992-2&hl=Gerdes>

EΙΔΗΣΕΙΣ - NEWS RELEASE

DIVERS UNEARTH A PIECE OF ROMAN EMPIRE AT 2,000-YEAR-OLD SHIPWRECK, BY GEETIKA RUDRA

Divers off the coast of Italy were transported back in time when they descended to the skeleton of a ship with well-preserved artifacts that sailed over 2,000 years ago, at the height of the Roman Empire.

The shipwreck is thought to be of a Mediterranean trade ship that sailed between the ancient cities of Rome and Carthage sometime between 218 and 210 B.C.

The wreck is submerged 410 feet below sea level, too deep to be reached by robotic technology. So an expert team of technical divers from a Florida-based group called Global Underwater Explorers are helping Italian researchers. It was discovered in 2010 by sonar and a submersible operated remotely.

"It felt very much like a ghost ship awaiting the boarding of ancient mariners," Jarrod Jablonski, one of the divers with the exploration group based in the Florida community of High Springs, told The Associated Press.

Archaeologists working with the team have so far discovered terra cotta jars scattered across the ocean floors. The jars, called amphora, were used to carry wine, olive oil and other cargo.

Researchers told the AP they believe the ship was called the Panarea III, a wooden vessel about 50 feet long that was likely used as a cargo ship for a wealthy merchant or the Roman military.

It is unusual for shipwrecks this old to have survived thousands of years intact. The Panarea III was so far below sea level it was undetected by looters and fishermen.

"This shipwreck is a very important occasion to understand more about the daily life on the ancient ship, as well as the real dynamics of ancient trade," Sebastiano Tusa, an Italian archaeologist who is studying the site, told the AP.

"Of course, there are other similar shipwrecks that can offer similar study cases. But this has the peculiarity to be in a very good preservation condition."

Please visit the site: <http://abcnews.go.com/International/divers-unearth-piece-roman-empire-2000-year-shipwreck/story?id=26505641>

SLANDERING TUTANKHAMUN? THE RESULTS OF A VIRTUAL AUTOPSY ON THE MUMMY OF THE BOY KING TUTANKHAMUN HAVE TRIGGERED THE ANGER OF EGYPTIAN EGYPTOLOGISTS, **BY NEVINE EL-AREF**

Some 90 years after the British Egyptologist Howard Carter discovered his intact tomb in the Valley of the Kings on the west bank at Luxor, the ancient Egyptian boy king Tutankhamun continues to hold the world's attention.

This has not only been because of his intact funerary collection, unearthed inside his tomb despite his early death and short reign, but also because of the mystery that has surrounded his life, death, and lineage.

Archaeologists are still perplexed by questions like who the real Tutankhamun was. Was he the son or the brother of the monotheistic Pharaoh Akhenaten? Why did his tomb contain such treasures, despite his having died so young? How, in any case, did he die? Was he killed at 18 years of age, or did he suffer from some fatal disease?

Whenever Egyptologists succeed in deciphering some of the boy king's mysteries others appear to perplex them.

However, in 2005 some of these mysteries were resolved when Tutankhamun's mummy was subjected to a CT scan, an intense medical check-up and forensic analysis that was the most comprehensive since its discovery. The tests took five years, and in 2010 1,700 high-resolution CT-scan images were published.

At that time the Egyptian scientific team concluded that the boy king had died of natural causes at the age of 19 and had not been killed by a blow to the back of his head as had been traditionally believed. They discovered no indication of violence, discounting theories that he had received such a blow.

Instead, the team theorised that the open fracture at the back of the mummy's head had most likely been used as a second route through which embalming liquid was introduced to the lower cranial cavity and neck via the back of the upper neck.

At the same time, they noted a fracture above the left knee that may have occurred a day or two before the pharaoh's death, suggesting that this could have become fatally infected.

With the help of medical anthropologists from Germany, the Egyptian scientific team said that the real causes of Tutankhamun's death were malaria and other pathogens. The team concluded that a sudden leg fracture might have led to a life-threatening condition when the malaria infection occurred.

DNA tests also showed that Akhenaten was Tutankhamun's father, not his brother as some have claimed.

Palaeogeneticist Carsten Pusch from the University of Tübingen in Germany, who was part of the scientific team, described Tutankhamun as "not a proud Pharaoh or a strong leader as he was a young boy who was frail and weak."

"He couldn't walk by himself and needed other people or walking sticks because of bone necrosis," Pusch said.

Scientific tests on 11 other mummies carried out at the same time revealed that Tutankhamun's family was plagued by malformations and infections. Several pathologies, including Kohler Disease II, a bone disorder, have been diagnosed in Tutankhamun and four other mummies from his family.

The CT scans, said Cairo-Scan Centre Executive Director Ashraf Selim, revealed that Tutankhamun was also afflicted with vascular bone necrosis, a condition in which diminished blood supply to the bone leads to the serious weakening or destruction of tissue. "This might have rendered Tutankhamun particularly vulnerable to physical injuries and have been the cause of the altered structure of his left foot," Selim said.

"The findings provide an answer to why 130 walking sticks were found inside his tomb and why he is shown in several relief shooting arrows while sitting," added former minister of antiquities Zahi Hawass, who also led the 2005 scientific research on the golden king.

Three attempts made to reconstruct the Pharaoh's facial features using the latest forensic techniques by French, American and Egyptian teams, each working independently, reached surprisingly similar conclusions. The results revealed a face markedly different from the image on the golden mask, as well as from many of his statues in the Egyptian Museum.

But although the results solved some of Tutankhamun's mysteries, they did not suffice for some Egyptologists.

Now a new virtual autopsy carried on the boy king and shown on Sunday in a BBC documentary entitled "Tutankhamun: The Truth Uncovered" has given a new picture of the young king's life, death and physical appearance. Scientists in the documentary claim that they have recreated the first-ever life-size image of the 18th Dynasty king through 2,000 computerised tomography CT scans.

They have constructed a 3D computer model of what he would have looked like during his life. The result is shocking, with the scientists claiming that the boy king had a clubfoot and feminine hips. The research also claims that Tutankhamun's parents were probably brother and sister, which resulted in a son riddled with genetic disorders.

"It was important to look at his ability to ride a chariot, and we concluded it would not have been possible for him, especially with his partially clubbed foot, as he was unable to

stand unaided," head of the Italian Institute for Mummies Albert Zink told the British newspaper The Independent.

"We need further genetic analysis because that would give us more insight into his condition," he said, adding that the boy had also suffered from malaria and a fractured leg, which could have had a hand in his early death.

Ashraf Selim, a radiologist at the University of Cairo who was part of the scientific team, told the newspaper that "the scans show evidence to support the theory that Tutankhamun developed Kohler's Disease, or the death of the bones, during adolescence, which would have been incredibly painful."

He added that "popular theories relating to the murder of King Tut have been more or less put to rest in recent years, as a large fracture in his skull was more likely the result of the mummification process than any deliberate blow to the head."

Such claims have triggered the anger of Egyptian Egyptologists, who have described it as "a malicious slander on ancient Egyptian civilisation".

Hawass told the Weekly that such speculations were scientifically unfounded, pure fabrication and the result of a search for fame. "We know that this man had 130 walking sticks and that he used to shoot arrows while he was sitting, but this does not mean that he had a clubfoot," Zawass said.

Egyptologist Ahmed Saleh refused to accept Zink's results. He told the Weekly that Tutankhamun's mother, most probably a woman named Kia, was not Akhenaten's sister and was not even one of his relatives.

Saleh wondered how the research could have come up with the result that Tutankhamun's family had suffered from genetic disorders as not all the mummies had been discovered. "Only his mummy and those of his daughters and the owner of the KV 55 tomb have been discovered," he said, adding that archaeological and historical studies said only that the young pharaoh had come to the throne at a young age and his reign had lasted for nine years.

"Earlier research did not highlight any information concerning his figure or bodily features," Saleh said, pointing out that Tutankhamun appears on the walls of his tomb as well as in his statues in a classic form like any other ancient Egyptian king using the Amarna arts style, in other words with an elongated skull and large waist.

The 130 sticks found in his tomb could have had many uses, Saleh said, adding that British scientists had examined the spinal cord of Tutankhamun and found that it was a little twisted, which may have led to difficulty in movement. However, they had not mentioned any impairment or that he was suffering from a spinal disease.

Ahmed Said, professor of ancient Egyptian civilisation at the Faculty of Archaeology at Cairo University, said that research carried out from 2005 to 2010 had not mentioned any of the newly claimed results screened in the BBC documentary. He said that brother-sister marriage was not evidence of genetic disorders as it was a trend in the ancient Egyptians royal family and was intended to preserve the purity of royal blood.

"The scientific team is looking for fame as their results are only speculation without any archaeological or historical evidence," Said told the Weekly.

The large hips claimed for Tutankhamun and his supposedly feminine appearance were unfounded, he said, adding that this was an artistic style used to represent the Nile god Hapy.

According to Hawass, the stylised male/female physique characteristic of representations of Akhenaten was an iconographic convention that bore no relation to the pharaoh's actual appearance. "According to Amarna religious belief Aten was both male and female and therefore Akhenaten, as his representative, was depicted as having the form of both a man and a woman," he said.

Please visit the site: <http://weekly.ahram.org.eg/News/7610/47/Slandering-Tutankhamun.aspx>

THREE EGYPTIAN MUMMIES RECEIVE CT SCANS - WASHINGTON UNIVERSITY MEDICAL CENTER WELCOMES UNUSUAL PATIENTS FOR UNCONVENTIONAL SCREENING, BY MICHAEL C. PURDY AND LIAM OTTEN

Washington University School of Medicine recently teamed up with the Saint Louis Art Museum and the university's Mildred Lane Kemper Art Museum to scan some very unusual patients: three Egyptian mummies.

The scanning took place Sunday, Oct. 12, at the Center for Advanced Medicine on the Medical Campus. The mummies, two of which are on long-term loan to the Saint Louis Art Museum from the Kemper Art Museum, were carefully transported across Forest Park and scanned one by one in a state-of-the-art computerized tomography (CT) scanner.

Among the early findings: One of the mummies already was known to have a brain, but scans revealed she also still has lungs. In many mummies, lungs typically were removed prior to burial.

The scientists - radiologists with the university's Mallinckrodt Institute of Radiology - discovered that the same mummy also has an array of small objects around her head. It appears to be a headdress or embellished shroud, but other possibilities include packing material or debris.

The scientists were surprised to find that a second mummy appeared to be significantly shorter than his sarcophagus. Further scanning revealed that his head had been dislodged from his body, perhaps when grave robbers ransacked his tomb. They found an item on his chest that may have been a burial amulet missed by grave robbers. They hope to use the scanning data to reconstruct the item with a 3-D printer.

The researchers expect to have more detailed results ready to share in December.

Lisa Çakmak, PhD, assistant curator for ancient art at the Saint Louis Art Museum, initiated the project. The museum is preparing for an upcoming reinstallation of the mummies, and Çakmak thought scans might provide valuable information about the mummies and their societies that could be incorporated into the new exhibit.

The mummies' burial containers and wrappings identify each by name. The Saint Louis Art Museum's mummy is Amen-Nestawy-Nakht, a male; the Kemper Art Museum mummies are Pet-Menekh, also a male, and Henut-Wedjebu, a female.

Karen K. Butler, PhD, associate curator of the Kemper Art Museum, said Pet-Menekh and Henut-Wedjebu were donated to the university in 1896 by Charles Parsons, a St.

Louis banker and prominent art collector. Working with a curator from the Egyptian Museum in Cairo, Parsons acquired them shortly after excavation through the Antiquities Service of Egypt.

"The mummies have been part of Washington University for more than 100 years," Butler said. "Faculty from anthropology, classics, art history and archaeology all take students to see them. They are very much part of university life."

Mummy history

Henut-Wedjebu, the oldest of the mummies, was discovered in a cave-like tomb near the ruins of the Egyptian city of Thebes. Her name means "singer of Amun and lady of the house," and her elaborately gilded coffin, decorated with texts from the Book of the Dead, is one of only eight such objects to survive from the reign of Amenhotep III (1390-1353 B.C.).

Pet-Menekh - or "he whom the excellent one has given" - is thought to have been a priest of the god Chem during the Ptolemaic period (c. 300 B.C.). He died in his 30s or 40s, possibly of sudden trauma or acute disease. His coffin - likely found at the Necropolis of El-Hawawish in Akhmim - is richly decorated with hundreds of hieroglyphics as well as images of the goddesses Isis and Nut.

Amen-Nakht - or "Amun (Lord) of the Thrones of the Two Lands is Strong" - acquired by the Saint Louis Art Museum in 1980, was a priest of Amun during the 22nd Dynasty (945-712 B.C.). His coffin is thought to have been discovered in the Necropolis of Thebes. A painted cartonnage - a kind of funerary case made of linen and plaster - covers the body and illustrates the panoply of deities charged with escorting him into the afterlife.

This CT scan of Amen-Nestawy-Nakht shows that the mummy's skeletal remains are significantly shorter than the sarcophagus. For more images from the CT scans and from the mummies' journey to the medical center, follow this link.

"The technical sophistication of all three mummies suggests that these were well-off individuals," said Çakmak. "We would expect to see that reflected in the condition of their teeth and skeletons. The CT scan helps us to better understand their lifestyles."

Added Butler: "As a university museum, we're always looking for new ways to understand and research our collection. This collaboration has allowed us to bring together two different aspects of the university community: art historical scholarship and scientific research. It's really thrilling."

Mummies present art experts and scientists with a formidable challenge: They are incredible time capsules from human societies that vanished thousands of years ago, but opening the capsules would desecrate human remains and possibly destroy unique cultural treasures.

Modern medical imaging techniques offer ways to peer into these time capsules without physically opening them. Scientists scanned Amen-Nestaway-Nakht two decades ago, but imaging technology has advanced significantly since then.

Çakmak, Butler and others approached Gil Jost, MD, then director of the Mallinckrodt Institute, about the possibility of getting the mummies scanned. Jost enlisted Sanjeev Bhalla, MD, professor of radiology and chief of cardiothoracic imaging, to lead the research team.

Other investigators for the project included Pamela Woodard, MD, professor of radiology and director of the Center for Clinical Imaging Research; Vincent Mellnick, MD, assistant professor of radiology; and Michelle Miller-Thomas, MD, assistant professor of radiology. The team represented expertise in imaging of the brain, abdomen and coronary arteries.

"This has been Dr. Jost's specialty: bringing together the best technological resources and expertise necessary to do fascinating research, and then stepping away and letting them go to work," said Bhalla. "His attitude always is, 'Let's make it happen.'"

The researchers and other medical center staff volunteered their time, and the School of Medicine and Barnes-Jewish Hospital donated time on the scanner and the computing resources necessary to process the results. The Saint Louis Art Museum paid for transporting the mummies.

How best to scan a mummy

The scientists considered scanning the mummies with a magnetic resonance imaging (MRI) unit, but it was impossible to guarantee that the mummies were free of any metals. Metal is prohibited in MRIs because the strong magnets in the scanners can damage the equipment and the subject being scanned. More importantly, though, mummies are free of water as a result of the mummification process, and the images created with MRI scanning are dependent on the water content of tissue.

The researchers instead brought the mummies to a powerful and recently installed computerized tomography (CT) scanner. The unit uses X-rays to virtually slice a solid object, producing detailed 3-D images of its interior.

"This new CT scanner has higher spatial resolution and quickly can assemble slices in a variety of ways, providing more medical details about the mummies," Bhalla said.

In living patients, Bhalla and his colleagues often inject contrast agents that help make different types of cells and tissues stand out. This was not an option for the mummies, but researchers scanned them at two different energy levels to enhance details.

Among other goals, the researchers are analyzing the data for signs of artery hardening in the mummies. Indicators of heart disease have been detected in prior mummy scans, but it's not clear yet if this is reflective of the elite lifestyle of anyone rich enough to be mummified or if heart disease was a common problem in ancient Egyptian society.

The researchers also will take a close look at the mummies' teeth. The degree of wear on the teeth helps scientists more precisely estimate a mummy's age at the time of death. They also will search for evidence of what caused the mummies' deaths.

Logistically, the scans were complicated. The mummies had to be carefully removed from their display cases, packed and prepared for transport in custom-built boxes. The team took precise measurements to be sure each mummy would fit into the scanner.

But Bhalla viewed another aspect of the scans as the greatest challenge of the project. "It was very important for us to remember that these were human beings we were scanning," he said. "We had to do the scanning in an atmosphere of spiritual and physical respect, and with the help of museum staff who acted as a kind of surrogate family for the mummies, we did that."

Added Çakmak: "Mummification was a difficult and expensive process. It's really very poignant. Each of these people was beloved by someone."

Please visit the site: <http://news.wustl.edu/news/Pages/27569.aspx>

RED SEA: ARCHAEOLOGISTS DISCOVER REMAINS OF EGYPTIAN ARMY FROM THE BIBLICAL EXODUS

Egypt's Antiquities Ministry announced this morning that a team of underwater archaeologists had discovered that remains of a large Egyptian army from the 14th century BC, at the bottom of the Gulf of Suez, 1.5 kilometers offshore from the modern city of Ras Gharib. The team was searching for the remains of ancient ships and artefacts related to Stone Age and Bronze Age trade in the Red Sea area, when they stumbled upon a gigantic mass of human bones darkened by age.

The scientists lead by Professor Abdel Muhammad Gader and associated with Cairo University's Faculty of Archaeology, have already recovered a total of more than 400 different skeletons, as well as hundreds of weapons and pieces of armor, also the remains of two war chariots, scattered over an area of approximately 200 square meters. They estimate that more than 5000 other bodies could be dispersed over a wider area, suggesting that an army of large size who have perished on the site.

This magnificent blade from an egyptian khopesh, was certainly the weapon of an important character. It was discovered near the remains of a highly decorated war chariot, suggesting it could have belonged to a prince or nobleman.

This magnificent blade from an egyptian khopesh, was certainly the weapon of an important character. It was discovered near the remains of a richly decorated war chariot, suggesting it could have belonged to a prince or nobleman.

Many clues on the site have brought Professor Gader and his team to conclude that the bodies could be linked to the famous episode of the Exodus. First of all, the ancient soldiers seem to have died on dry ground, since no traces of boats or ships have been found in the area. The positions of the bodies and the fact that they were stuck in a vast quantity of clay and rock, implice that they could have died in a mudslide or a tidal wave.

The sheer number of bodies suggests that a large ancient army perished on the site and the dramatic way by which they were killed, both seem to corroborate the biblical version of the Red Sea Crossing, when the army of the Egyptian Pharaoh was destroyed by the returning waters that Moses had parted. This new find certainly proves that there was indeed an Egyptian army of large size that was destroyed by the waters of the Red Sea during the reign of King Akhenaten.

The famous biblical account of the "Red Sea Crossing" was dismissed by many scholars and historians as more symbolic than historical.

For centuries, the famous biblical account of the "Red Sea Crossing" was dismissed by most scholars and historians as more symbolic than historical.

This astounding discovery brings undeniable scientific proof that one the most famous episodes of the Old Testament was indeed, based on an historical event. It brings a brand

new perspective on a story that many historians have been considering for years as a work of fiction, and suggesting that other themes like the "Plagues of Egypt" could indeed have an historical base.

A lot more research and many more recovery operations are to be expected on the site over the next few years, as Professor Gader and his team have already announced their desire to retrieve the rest of the bodies and artefacts from what has turned out to be one of the richest archaeological underwater sites ever discovered.

Please visit the site: <http://worldnewsdailyreport.com/red-sea-archaeologists-discover-remains-of-egyptian-army-from-the-biblical-exodus/> [Go there (?) for pix]

NEW MOSAICS UNEARTHED IN ANCIENT CITY OF ZEUGMA

Three new mosaics have been unearthed during the Muzalar House excavations in the ancient city of Zeugma in Turkey's southern province of Gaziantep.

The uncovered mosaics were displayed at a press conference attended by Gaziantep Mayor Fatma Şahin and the head of the excavations, Professor Kutalmış Görkay.

Görkay said excavations at Zeugma, which was one of the most important centers in the Eastern Roman Empire, had started in 2007, adding that good progress had been made with the support of the Culture and Tourism Ministry, the Gaziantep Metropolitan Municipality and İş Bank.

"There are still unexcavated areas. There are rock-carved houses here. We have reached one of these houses and the house includes six spaces. We have also unearthed three new mosaics in this year's excavations," he said.

Görkay added that with the end of the excavation season, the most important stage had now started.

"From now on, we will work on restoration and conservation. We plan to establish a temporary roof for long-term protection. We estimate that the ancient city has 2,000-3,000 houses. Twenty-five of them remain under water. Excavations will be finished in the Muzalar House next year," he said.

The professor said the annual budget for the excavations changed every year, but a total of about 7 million Turkish Liras had been spent on the excavations since 2005.

Mayor Şahin said the region's history, which included empires such as the Romans, the Hittites, the Assyrians and the Byzantines, was "as old as the history of mankind."

"They did not think of roads, water and infrastructure only, but they attached importance to revealing cultural values. This is the city of industry and trade and also deserves to be a city of culture and tourism. This is our mission. I hope we will be able to unearth the whole civilization of Zeugma," she added.

İş Bank's Suat Sözen said his bank had provided the first support to uncovering Zeugma while it was still underwater in 2000. "We will continue to undertake this mission. After 2000, we became the sponsor for the work in the Muzalar House, and this contribution will continue until 2017," Sözen said.

Meanwhile, the media presentation event for the three newly uncovered mosaics drew the ire of Turkish social media users, after pictures emerged showing officials, including Şahin, stepping on the ancient works in their shoes.

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Please visit the site: <http://www.hurriyetdailynews.com/new-mosaics-unearthed-in-ancient-city-of-zeugma.aspx?pageID=238&nID=73808&NewsCatID=375> [Go there for pix]

UNLOOTED TOMB DISCOVERED IN AIGAI **NECROPOLIS**

An ancient tomb along with burial offerings, allegedly belonging to a man who died around the time of Alexander the Great, has been unearthed at the ancient city of Aigai, in northern Greece.

The archaeologist in charge of the excavation at Aigai, Aggeliki Kottaridi, reported the discovery with a message on her Facebook page. She said that the box-shaped Macedonian tomb had not been looted.

"[This is] a pleasant exception since the Aigai necropolis was brutally looted by Gallic mercenaries of Pyrrhus in 276 BC and we rarely have the chance to find undisturbed burials," she said.

Kottaridi also posted two images from the tomb, one of them depicting a decorated vessel used to mix wine and water at the symposia.

Please visit the site:

http://www.ekathimerini.com/4dcgi/_w_articles_wsit1_1_12/11/2014_544521

CAPPADOCIA'S 11,000-YEAR-OLD SETTLEMENT THRILLS EXPERTS, BY BARÇIN YINANÇ

After 25 years of excavations, Aşıklı Höyük continues to thrill archaeologists, who believe the number of things left to discover at the site would allow for at least another 25 years of work or more.

Professor Mihriban Özbaşaran from İstanbul University, the current head of the excavation and research project at Aşıklı Höyük, was a doctorate student when excavations at the site in the Cappadocia region of Central Anatolia began in 1989.

Her enthusiasm about Aşıklı Höyük appears to still be very strong, even after 25 years at the site, as the pleasure she takes from accompanying and briefing a group of journalists is very discernible. She hopes their visit will shine a spotlight on Aşıklı Höyük, which has been overshadowed by the popularity of archaeological sites such as Göbeklitepe and Çatalhöyük. Yet with its inhabited history dating back to 9000 B.C., Aşıklı Höyük is 1,000 years older than the Çatalhöyük settlement on the Konya plain and as the earliest village settlement founded in the Cappadocia region, the site is no less important.

Excavation studies undertaken at the site have yielded crucial conclusions about the history of the region. Aşıklı Höyük's importance stems from findings that shed further light on the transition by humans in the region from a nomadic to a sedentary lifestyle, according to Özbaşaran.

Nomadic communities, who survived by consuming what was available in nature by hunting and gathering, began to settle down in permanent villages and produce their own goods. "Before, they were in small groups on the move. Here is the first time they started to be together for 24 hours as a community," she said.

HDN In Turkey, Southeast Anatolia is where the first developments related to this transition took place. "What excites me the most about the site is that before the excavation studies started at Aşıklı it was thought that these developments have diffused from East to West," Özbaşaran said.

Studies at Aşıklı show that this lifestyle transition happened independently in the Central Anatolia region, and developments specific to local communities, such as animal domestication and construction technologies, occurred as a result of interaction with neighboring communities, she added.

The site welcomes visitors with replica houses. They are one-to-one scale replicas of their originals in terms of size, direction and plan. In terms of history of architecture, Aşıklı Höyük provides the earliest examples of the traditional mud-brick architecture of Anatolia and how these structures developed through time can be traced. The first inhabitants of Aşıklı built semi-subterranean oval-shaped huts.

Over time these huts were replaced by rectangular-shaped mud-brick buildings, and people began to live in clusters of buildings adjacent to each other, forming different neighborhoods. Streets separating the buildings are observable to visitors, as the site is designed as an open air museum or archaeological park.

Some 80 skeletons including a fetus were found during the excavations, suggesting that the mortality rate of children was high. The male population had individuals that lived up to the age of 50, while females died between the ages of 30-35.

HDN "Looking at the way they lived and burial rituals, we could not find any sign that would suggest the presence of a hierarchy in the community. We can't discern a ruling class for instance," said Özbaşaran.

There are two distinct areas at the site. The northern section comprises a residential area with rectangular mud-brick buildings, while the area to the south contains two special function buildings.

Analytical results have concluded these buildings were communal spaces related to the social life and ritual beliefs of the Aşıklı community, and were used during celebrations and feasts. Visitors can take a closer look at the remains of these buildings, which are now under a protective roof shelter.

Aşıklı Höyük harbors many firsts. It is the first settlement on the Central Anatolian Plateau where copper was mined. It was also the site where the earliest-known brain surgery and first autopsy were performed, as the skulls of two individuals recovered from the site provide crucial information about the history of medicine.

Please visit the site: <http://www.hurriyetdailynews.com/cappadocias-11000-year-old-settlement-thrills-experts--.aspx?PageID=238&NID=74152&NewsCatID=375>

TURKEY'S IMMORTAL CITY GETS NEW LEASE ON LIFE

Known as the immortal city, 7,000-year-old Misis in the southern province of Adana is coming to light with archaeological work that is revealing the ancient city's rich history

Misis (Mopsouestia) might be outshone by Rome, but the ancient city on the banks of the Ceyhan River in southern Turkey is just as old as the old imperial capital, while arguably trumping Rome's moniker of "the eternal city" with its own title, "the immortal city." Some 7,000 years after its founding, archaeological work at the site is now revealing the traces of antiquity.

The city is located right next to the Ceyhan River, 27 kilometers east of the center of the southern province of Adana on the historic Silk Road.

As part of a project titled "The Infinite City: Misis," made by Yüreğir Municipality, excavations have been continuing in the area, headed by Professor Anna Lucia of the National Research Council at the Institute for the Study of the Ancient Mediterranean and Professor Giovanni Salmeri of Pisa University.

Structures such as city walls, stadiums, caravanserais and theaters are being unearthed during the archaeological works in the ancient city, which was first settled seven millennia ago.

As well as the artifacts underground, unearthed mosaics, an ancient stone bridge, city walls, aqueducts, baths, ancient stone tombs and the Havraniye Caravanserai make the city unique and significant.

Salmeri said excavation work on the area was being carried out by expert teams from Italy.

The Pisa University professor said Misis was a very old city and that they had found remains from the Neolithic, Chalcolithic, early Hittite, Roman and Byzantine eras. "People and history are living together here. This place will become a culture and archaeological park in two or three years," he added.

Salmeri said the professional excavation teams were working to shed light on the history of the region with pieces unearthed in excavations. "We have found pieces from the Neolithic age. Our analyses show that they are from 7,000 years ago. The ancient city of Misis hosted various civilizations," he said, adding that the second stage of this year's works would end in the next few days.

Mosaic Museum and project

The archaeological work is helping augment the collection of the nearby Misis Mosaic Museum. In the museum various periods can be viewed in chronological order, and floor mosaics belonging to a basilica located within the boundaries of the Misis Ancient City are exhibited in situ.

The ancient city was discovered in 1956 and the mosaic area was revealed by Professor Dr. Theodor Bosset and Dr. Ludwig Budde from a German archaeology team who were carrying out excavations at that time on the Misis Mound.

The project, “The Infinite city: Misis,” includes the construction of a new housing project by The Housing Development Administration of Turkey (TOKİ). Agricultural activity will continue in the area, but not at the excavation site itself, and a set of incentives will be offered to local farmers by the Agriculture Ministry, permitting daily life to continue at Misis.

Please visit the site: <http://www.hurriyetdailynews.com/turkeys-immortal-city-gets-new-lease-on-life.aspx?PageID=238&NID=74276&NewsCatID=375>

VASES IN POMPEII REVEAL PANIC BEFORE ERUPTION, BY LAËTITIA CAVASSA

French and Italian archaeologists digging out a pottery workshop in Pompeii have brought to light 10 raw clay vases, revealing a frozen-in-time picture of the exact moment panicked potters realized they were facing an impending catastrophe.

The vases were found sealed under a layer of ash and pumice from Mount Vesuvius' devastating eruption of 79 A.D. and it appears they were just ready to be fired.

The star of a viral video that depicted his descent into an active volcano describes the closest thing to hell on Earth.

They were dropped and abandoned, along with the kilns, after frightened potters saw a pine tree-shaped column of smoke bursting from Vesuvius on Aug. 24, 79 A.D.

Reaching nine miles into the sky, the column began spewing a thick pumice rain. Like many Pompeii residents, the scared potters probably rushed in the streets, trying to leave the city.

"They abandoned the workshop and everything they were doing at that moment," dig director Laëtitia Cavassa of the Center Jean Bérard, told Discovery News.

The pottery workshop was found in the area just outside the Herculaneum Gate. It consists of at least three rooms and two kilns.

'Pompeii:' 10 Strange Facts About the Roman Empire "All the tools for the production of vases came to light with this excavation, including the pottery wheels," Fabio Galeandro, archaeologist at Pompeii superintendency, told Discovery News.

Decorated with small carvings, the newly unearthed vases were used to pour wine or water.

"They are really unique items. The potters made them with clay, embellished them with decorations, and were ready to place them into the kiln when the Vesuvius erupted," Cavassa said.

Eventually, over the centuries, the clay dried naturally, leaving a unique material for archaeologists to research.

"These vases are direct evidence that the workshop was fully active at the moment of the eruption. They represent a key element in the study of craft activities in the Roman town," Pompeii's archaeological superintendency said in a statement.

Please visit the site: <http://news.discovery.com/history/archaeology/vases-in-pompeii-reveal-panic-before-eruption-141117.htm>

ARCHAEOLOGIST LEADS THE FIRST DETAILED STUDY OF HUMAN REMAINS AT THE ANCIENT EGYPTIAN SITE OF DEIR EL- MEDINA, BY BARBARA WILCOX

Ancient Egyptian workers in a village that's now called Deir el-Medina were beneficiaries of what Stanford Egyptologist Anne Austin calls "the earliest documented governmental health care plan."

The craftsmen who built Egyptian pharaohs' royal tombs across the Nile from the modern city of Luxor worked under grueling conditions, but they could also take a paid sick day or visit a "clinic" for a free checkup.

For decades, Egyptologists have seen evidence of these health care benefits in the well preserved written records from the site, but Austin, a specialist in osteo-archaeology (the study of ancient bones), led the first detailed study of human remains at the site.

A postdoctoral scholar in the Department of History, Austin compared Deir el-Medina's well-known textual artifacts to physical evidence of health and disease to create a newly comprehensive picture of how Egyptian workers lived. Austin is continuing her research during her tenure as a fellow in the Andrew W. Mellon Fellowship of Scholars in the Humanities.

In skeletal remains that she found in the village's cemeteries, Austin saw "evidence for state-subsidized health care among these workers, but also significant occupational stress fueled by pressure from the state to work."

Daily work and payment records corroborate the physical evidence: Deir el-Medina's men had uniquely comprehensive health care, but sometimes could not take advantage of it.

For example, Austin saw in one mummy evidence of osteomyelitis – inflammation in the bone due to blood-borne infection; the man clearly had been working while this infection was ravaging his body. "The remains suggest that he would have been working during the development of this infection," Austin said. "Rather than take time off, for whatever reason, he kept going."

The workers received paid sick leave, as we know from the written records, but they "nonetheless felt pressure to work through illness, perhaps to fulfill tacit obligations to the state to which they owed so much."

"The more I learn about Egypt, the more similar I think ancient Egyptian society is to modern American society," Austin said. "Things we consider creations of the modern condition, such as health care and labor strikes, are also visible so far in the past."

Evidence in the bones

Deir el-Medina, an hour's climb across the mountainside that looms above Egypt's Valley of the Kings, housed workers primarily in the 19th and 20th dynasties (1292-1077 BCE). Its heyday is later than the valley's best-known occupant, Tutankhamun, but contemporaneous with the pharaoh who was arguably Egypt's greatest, Ramesses II, and his long line of successors.

In the skeletal remains Egyptologist Anne Austin found, she saw evidence of both health care and significant occupational stress. Credit: Anne Austin

Deir el-Medina's skilled workers had considerable engineering knowledge and an uncommon degree of literacy. They left tens of thousands of written records – bills, personal letters, lawsuits and prayers, on shards of clay, stone flakes and scraps of papyrus.

Burial sites at Deir el-Medina were excavated from 1922 to 1951 by the French Egyptologist Bernard Bruyère, but the science of osteology was then in its infancy, and Bruyère left many of the bodies unstudied in their tombs.

Austin visited these tombs in 2012 for her UCLA dissertation research, which was She found tombs "crowded with bats, rats and mummies." Many of the mummies were little more than skeletons, allowing Austin to clearly see the state of the people's health as evidenced in their bones.

In many bodies Austin saw evidence of stress from the hard climb – today it's a thousand stone steps – from Deir el-Medina to the Valley of the Kings and back again. As Austin found, incidence of arthritis in the knees and ankles of the men at Deir el-Medina was significantly higher than for working populations from other Egyptian cemeteries.

The bones also revealed clues that corroborate other scholars' findings that severely disabled Egyptians were well cared for.

"I found the remains of a man who died at the age of 19 or 20 and was born without a useful right leg, presumably because of polio or another neuromuscular disorder," Austin said.

"To work in the royal tombs, which was the entire purpose of the village, he would have had to climb," Austin said. But in examination of the young man's skeleton, she saw "no signs of other health issues, or of having lived a hard life. That suggests to me that they found a role for him in this community even though the predominant role, of working in the tombs, could not be met."

Relating to ancient ideas

Austin's research into the history of social health care invites larger discussion about how ancient peoples viewed health and disease, as well as the link between affluence and social responsibility.

"A woman named Naunakhte had eight children," Austin said. "In her will, she chastised and disinherited four of them for neglecting her in her old age."

"At Deir el-Medina, we see two health care networks happening," Austin said. "There's a professional, state-subsidized network so the state can get what it wants – a nice tomb for the king. Parallel to this, there's a private network of families and friends. And this

network has pressure to take care of its members, for fear of public shaming, such as being divorced for neglect or even disinherited."

Austin finds Egyptians' ideas about health care particularly compelling and fruitful for discussion because, she argues, their ideas about disease were much like ours.

While the Greeks believed that disease stemmed from an imbalance of bodily fluids, she said, "Egyptians thought about it as a kind of contamination of the body. To get better, instead of balancing yourself, you had to purge yourself of the contaminant."

For example, a doctor in the medical text known as the Edwin Smith Papyrus treats a patient with an open wound over a broken arm by placing ground ostrich-egg shell in the wound and pronouncing, "Repelled is the enemy that is in the wound; cast out is the evil that is in the blood."

"It's very similar to modern germ theory," Austin said. "It shows an awareness of disease as being external."

In March, she will return to Deir el-Medina in collaboration with Egyptologist Salima Ikram of the American University in Cairo to study more remains in hope of identifying specific diseases.

"Egypt has a complex civilization, a written tradition and a long history of study," Austin said. "The further away Egypt is and the more we learn, the more relatable it is and thus the more fascinating it is to me." Austin and her students will be exploring our broader fascination with Egypt in her winter quarter course, Egyptomania! The Allure of Egypt over the Past 3,500 years.

Please visit the site: <http://phys.org/news/2014-11-archaeologist-human-ancient-egyptian-site.html>

CLIMATE CHANGE WAS NOT TO BLAME FOR THE COLLAPSE OF THE BRONZE AGE

Scientists will have to find alternative explanations for a huge population collapse in Europe at the end of the Bronze Age as researchers prove definitively that climate change - commonly assumed to be responsible - could not have been the culprit.

Archaeologists and environmental scientists from the University of Bradford, University of Leeds, University College Cork, Ireland (UCC), and Queen's University Belfast have shown that the changes in climate that scientists believed to coincide with the fall in population in fact occurred at least two generations later.

Their results, published this week in Proceedings of the National Academy of Sciences, show that human activity starts to decline after 900BC, and falls rapidly after 800BC, indicating a population collapse. But the climate records show that colder, wetter conditions didn't occur until around two generations later.

Fluctuations in levels of human activity through time are reflected by the numbers of radiocarbon dates for a given period. The team used new statistical techniques to analyse more than 2000 radiocarbon dates, taken from hundreds of archaeological sites in Ireland, to pinpoint the precise dates that Europe's Bronze Age population collapse occurred.

The team then analysed past climate records from peat bogs in Ireland and compared the archaeological data to these climate records to see if the dates tallied. That information was then compared with evidence of climate change across NW Europe between 1200 and 500 BC.

"Our evidence shows definitively that the population decline in this period cannot have been caused by climate change," says Ian Armit, Professor of Archaeology at the University of Bradford, and lead author of the study.

Graeme Swindles, Associate Professor of Earth System Dynamics at the University of Leeds, added, "We found clear evidence for a rapid change in climate to much wetter conditions, which we were able to precisely pinpoint to 750BC using statistical methods."

According to Professor Armit, social and economic stress is more likely to be the cause of the sudden and widespread fall in numbers. Communities producing bronze needed to trade over very large distances to obtain copper and tin. Control of these networks enabled the growth of complex, hierarchical societies dominated by a warrior elite. As iron production took over, these networks collapsed, leading to widespread conflict and social collapse. It may be these unstable social conditions, rather than climate change, that led to the population collapse at the end of the Bronze Age.

According to Katharina Becker, Lecturer in the Department of Archaeology at UCC, the Late Bronze Age is usually seen as a time of plenty, in contrast to an impoverished Early

Iron Age. "Our results show that the rich Bronze Age artefact record does not provide the full picture and that crisis began earlier than previously thought," she says.

"Although climate change was not directly responsible for the collapse it is likely that the poor climatic conditions would have affected farming," adds Professor Armit. "This would have been particularly difficult for vulnerable communities, preventing population recovery for several centuries."

The findings have significance for modern day climate change debates which, argues Professor Armit, are often too quick to link historical climate events with changes in population.

"The impact of climate change on humans is a huge concern today as we monitor rising temperatures globally," says Professor Armit. "Often, in examining the past, we are inclined to link evidence of climate change with evidence of population change. Actually, if you have high quality data and apply modern analytical techniques, you get a much clearer picture and start to see the real complexity of human/environment relationships in the past."

Please visit the site: <http://www.bradford.ac.uk/mediacentre/news-releases/climate-change.php?bnr>

ANCIENT EGYPTIAN MUMMY WEARING JEWELS FOUND, BY ROSSELLA LORENZI

Spanish archaeologists digging in Egypt have unearthed a female mummy still wearing her jewels.

The mummy was discovered in the necropolis below the temple of Pharaoh Thutmose III (1490-1436 B.C.), on the west bank of the Nile in Luxor (southern Egypt). The find dates to the Middle Kingdom (2137-1781 B.C.).

For nearly four millennia, the “Lady of the Jewels,” as the mummy was nicknamed, eluded tomb raiders, her sarcophagus trapped under a collapsed roof.

Stonehenge Treasures Reveal Worshippers’ Sophistication

The archaeologists were cleaning and restoring several tombs in the necropolis that had been already looted in antiquity when they realized that in one of the chambers of tomb XIV, part of the roof had already collapsed before robbers entered it.

“A large boulder, which had fallen down before the tomb was looted, had crushed and buried a previously untouched coffin with all its content,” Egyptologists Myriam Seco, director of the Thutmose III Temple Project, said in a statement.

As Seco’s team removed the stone, they found a wooden sarcophagus and an utterly destroyed female mummy.

“She still wore the marvelous jewelry that was attached during the process of mummification,” Seco said.

Belonging to a higher social class, the woman, possibly in her 30s, was buried with a necklace in which semiprecious stones and gold plates alternate. A pendant in the form of a finely-wrought golden shell weighting over 20 grams was attached.

“Furthermore, she carried two golden bangles on her arms, each formed by two pieces of twisted wire, connected to each other and silver bracelets on both ankles,” Seco said.

While the golden shell and the two bangles were found in a perfect state of preservation, the silver ankle bracelets were very worn.

“These spectacular findings confirm that an elite necropolis is located under the mortuary temple of Thutmose III. Wealthy and important individuals of the Middle Kingdom and their families were buried there,” Seco said.

Archaeological work at the temple began in 2008. The seventh season started last October and will run until mid-January.

Photo: (Top) The mummy's jewels are collected together. The damaged female mummy (above) is seen wearing golden bracelets. Credit: Manuel González Bustos/Thutmosis III Temple Project

Please visit the site: <http://news.discovery.com/history/archaeology/ancient-egyptian-mummy-wearing-jewels-found-141121.htm> [Go there for pix]

UNDERWATER POMPEII

Remains of an ancient settlement, complete with a ruined pottery workshop, have been found on the bottom of the Aegean sea off the small island of Delos, the Greek ministry of culture has announced.

Dubbed by the Greek media “a small underwater Pompeii,” the structures lay at a depth of just 6 feet on the northeastern coast of Delos. “In the past these ruins were identified as port facilities,” the culture ministry said.

But a new investigation by the National Hellenic Research Foundation and the Ephorate of Undersea Archaeology, led to different conclusions. Rather than a dock, a pottery workshop and other buildings once stood at the site. Archaeologists found 16 terracotta pots and remains of a kiln embedded in the sea floor. “Similar workshops have been found in Pompeii and Herculaneum,” the ministry said. Large stones were found lined in front of the workshop remains.

According to the archaeologists, they were probably part of the settlement’s waterfront. Possibly related to commercial and crafting activities, the settlement somehow collapsed. The man-made ruins have remained hidden on the sea bed ever since.

Vases in Pompeii Reveal Panic Before Eruption Underwater archaeologists identified several structures, including fallen colonnades and the remains of walls which once extended along the shoreline. The findings add new intriguing details to one of Greece’s most important archaeological sites. Located in the center of the Cyclades archipelago near the island of Mykonos, Delos is where, according to Greek myth, the sun god Apollo was born.

As the site of the Apollo cult and one of the main centers of the Aegean slave trade (as many as 10,000 slaves were said to be sold in a single day) Delos flourished for 700 years, from the 8th until the 1st centuries B.C. ‘Titanic of the Ancient World’ Reveals Treasure Trove For much of antiquity people were not allowed to die or give birth on the sacred island, which nonetheless became a thriving commercial port, especially under the Romans in the 3rd and 2nd century BC.

Decline came as the troops of Mithridates VI of Pontus attacked the island in 88 BC, slaughtering 20,000 inhabitants. Raided by pirates and invaders, Delos was abandoned around the 5th century A.D., and many of its ancient marbles were used as building materials by the inhabitants of the nearby islands.

Please visit the site: <http://news.discovery.com/history/archaeology/small-underwater-pompeii-found-off-greek-island-141120.htm>

TOURISTS VISIT ROME'S COLOSSEUM ON NOV. 7. A PROPOSAL TO INSTALL A NEW FLOOR OVER THE RUINS OF THE BASEMENT TO ALLOW FOR CONCERTS AND OTHER EVENTS HAS THE GOVERNMENT'S BACKING, BY TOM KINGTON

Tweet by Italy's culture minister has Rome talking about bringing shows back to the Colosseum Rome's Colosseum could again host shows -- but first it needs a floor In a subterranean corridor of the Colosseum, a guide pointed to an innocuous-looking lead plate fixed to the floor.

"That once formed part of a pulley system, operated by 16 men, that hoisted wild animals in a cage up through a trapdoor in the arena above during gladiatorial shows," he said.

A few yards on, the guide stopped again by a dark, cavernous space where boats once lined up to enter the arena when it was flooded for mock naval battles.

In a city of iconic structures, the cylindrical Colosseum looms large, its arched tiers a symbol of ancient Rome. But only when you get up close do you appreciate the staggering efforts that went into keeping 35,000 bloodthirsty Romans entertained almost two millennia ago.

This month Rome has been talking about bringing regular, less bloody, shows back to the Colosseum, thanks to a tweet by Italy's culture minister, Dario Franceschini, in which he backed the idea of resurfacing the full surface of the ancient oval arena.

"All it will take is a bit of courage," he tweeted.

Franceschini was echoing the sentiments of Italian archaeologist Daniele Manacorda, who has urged construction of a new surface over the excavated remains of the two-story warren of corridors and chambers beneath the arena, from which animals and scenery could be raised through any one of 80 trapdoors dotted around the original wood floor.

That floor was removed in the 6th century after the last gladiator battles were staged, before the basement was filled in with earth.

Today, visitors look straight down into the excavated, labyrinthine basement area and struggle to get a feel for where the gruesome fighting took place.

Though not calling for the return of full-blown gladiators, Manacorda said "contemporary events" could be held, spurring U.S. investor James Pallotta, owner of pro soccer team AS Roma, to boast that he could draw millions of viewers for a pay-per-view soccer match in the arena.

Archaeologist Daniele Manacorda in Rome Archaeologist Daniele Manacorda, in front of the Colosseum in Rome, has urged construction of a new surface over the excavated remains of the interior arena. (Alessandra Tarantino / Associated Press) Franceschini scotched that idea last week, but did suggest plays and classical music concerts, which, with an "intelligent" reconstruction of the arena, could raise vital funds for upkeep of the monument.

Opened in AD 80, the Colosseum held its last gladiator battle in AD 508, according to the Colosseum's director, and it was later used as temporary housing, a fort, even a place of worship thanks to an in-house chapel — not to mention as a hangout for prostitutes who once loitered under the street-level arches.

The arches were so handy for liaisons that scholars believe the Latin word for "arch" — fornix — gave us the word "fornicate."

In the 1800s, archaeologists began to excavate the corridors under the arena, digging up half of it, though they left enough for fascist dictator Benito Mussolini to hold rallies in the Colosseum and for Roman waiters to stage races around it, dressed in white coats and holding laden trays.

"Let's say it's always been lived in," said Colosseum director Rossella Rea, who is overseeing an overdue scrubbing — with brushes as small as toothbrushes — of the pollution encrusted on the arches.

In the 1990s, a section of wooden floor was laid over the basement corridors, replicating a third of the original arena floor. The space has been used for a handful of small concerts, including one by Paul McCartney, who played for 400 people in 2003.

Now, if Franceschini gets his way, that floor will be extended to cover the entire arena, allowing larger events.

But one concern, Rea said, is how many visitors would then be able to see the old animal chambers, pulley systems and boat docks. Visitors would have to climb down steps underneath a new arena floor to get a look at them.

"We can only take groups of 25 down at a time, so of the 24,000 visitors we get a day in peak times, very few would be able to see the corridors if they are covered over," Rea said. "And that's a shame, because after being buried for centuries, they are the best-preserved part of the Colosseum, a monument within a monument."

Then there's the water. Gurgling its way through the underground corridors is a stream that emerges inside the bowels of the Colosseum before disappearing into an ancient drainage pipe. At least most of the time.

"The old Roman drainage pipe was wide, but was blocked by construction of the nearby subway line," Rea said. "A bypass pipe was installed, but it is much narrower."

The result is that heavy rains result in flooding of the Colosseum, with water rapidly rising 18 feet, right up to the level where Franceschini wants the new arena floor.

Fixing that, said Rea, would involve widening the water pipes, an expensive job at a time when the cash-strapped government is reduced to proposing crowd funding to pay for the upkeep of other historical sites.

Said Rea: "Tunneling down under the subway line to widen that drainage system would incur biblical costs."

Kington is a special correspondent.

Please visit the site: <http://www.latimes.com/world/europe/la-fg-italy-colosseum-20141125-story.html>

WELL PRESERVED 5,500 YEAR-OLD HAFTED FLINT AXE FOUND IN DENMARK

Following the recent discoveries of a flint knife with wooden hilt still intact and a series of footprints in the soft mud, an approx. 5,500-year-old flint axe has also emerged from the ground. Complete with its wooden haft, the axe, along with other well preserved artefacts, sheds light on ritual acts of the time.

As part of the archaeological survey ahead of the future [Fehmarn Belt Fixed Link](#), archaeologists from Museum Lolland-Falster observed that the thin-butted axe appears to have been deliberately jammed into what was the seabed off the southern coast of Lolland 5,500 years ago. Axes are among the typical finds from the Neolithic, but in hafted form, they are extremely rare.

A rare find

“Finding a hafted axe as well preserved as this one is quite amazing. Because of the unique preservation conditions, we have found a lot of organic material during the excavations, including a large number of worked and upright wooden stakes. But we have also found more special artefacts, such as a paddle, two bows and some 14 axe shafts that were uncovered standing upright in what was the water’s edge. When we suddenly realised that we had actually found most of a complete hafted axe, stuck 30 cm down into the seabed, we knew that this was a very special find,” says Søren Anker Sørensen, Archaeologist at Museum Lolland-Falster.

A different social structure

Axes were important tools, and they played a central role at the introduction of farming, when the majority of the land was covered by dense forests, which had to be cut down for agriculture. The introduction of agriculture was accompanied by a different and more hierarchical social structure where religious/cultic elements were a part of life and death. Cults spread throughout the Neolithic period, and from megalithic tombs, and in bogs and wetlands, you can see signs of extensive burial customs and offering rituals.

The upright items that have been found in the excavation areas east of Rødbyhavn clearly show that the population used the coast as an offering area. The artefacts were deliberately jammed into the natural clay layer as part of a ritual deposit.

The investigations in the area are still ongoing, and Museum Lolland-Falster’s archaeologists hope that in the long term, they will discover more about the ritual area, and perhaps some other interesting sacrificial items will emerge from the soil.

Please visit the site:

<http://www.pasthorizonspr.com/index.php/archives/11/2014/well-preserved-5500-year-old-hafted-flint-axe-found-in-denmark>

ANCIENT HOUSE WITH FLOOR HEATING UNEARTHED IN SOUTHERN TURKEY

The house with floor heating, water and sewage systems saw a number of different civilizations until the 11th century. DHA Photo

A Roman-era house that has been unearthed in the ancient city of Pisidia in the southern province of Isparta's Yalvaç district used the floor heating system, archaeologists have said, adding that the house also had water and sewage systems.

“We determined that it is a two-story house, with a bath, sauna and floor-heating system. The whole floor of the house was heated up with the furnace. We also unearthed a water system in the house,” said Süleyman Demirel University Archaeology Department Professor Mehmet Özhanlı, who is heading the excavations in Pisidia, an important center of early Christianity.

The house, which was discovered last year and covers an area of nearly 2,000 square meters, was built in 25 B.C. and resembled a typical Anatolian house.

The professor said the house had been used until the 11th century, adding that it was located on the avenue, which means that it was owned by a rich or notable Roman. “We don't have more concrete data about it, but we know the building was home to many different civilizations until the 11th century,” he said.

Özhanlı said traces showed that the house had been burned down. “Below the layer of fire we found Christian iconographic paintings on marble.

It shows that the house was mostly used in the fourth century. Most probably, it was burned down during Arab raids in the eighth century,” he said.

Excavations have been continuing at Pisidia for the past five years.

Please visit the site: <http://www.hurriyetdailynews.com/ancient-house-with-floor-heating-unearthed-in-southern-turkey.aspx?pageID=238&nid=74800&NewsCatID=375>

SECOND TEMPLE ERA MILITARY OUTPOST DISCOVERED, POSSIBLY DESTROYED BY ALEXANDER THE GREAT, BY TZVI ZUCKER

Archaeological excavations in Netiv Haasarah have uncovered a Persian era military installation.

Netiv Haasarah is a town in the "Gaza envelope" with a population of about 700. The dig, being headed by Dr. Yael Abadi Rice, found a fortified town and a military tower, from approximately 2,100 years ago. This time period was when the Second Temple was standing in Jerusalem. "It seems this was a military outpost", Dr. Rice told Tazpit News Agency.

"Besides for the army stationed there, people were sent there to work the area on the road from Ashkelon to Gaza."

The outpost had the military tower as well as residential buildings and warehouses. The tower, built of limestone and mud bricks, was found with a partially preserved staircase. Inside the warehouses, archaeologists were surprised to find intact pottery and stone utensils, as well as oil and wine jars.

"The site shows the military being pushed back. It seems they ran away in a hurry, as they left everything behind," Dr. Rice explained. "It may have been Alexander the Great, and it may have been a little earlier.

We are working to understand who it was that attacked the outpost."

Both the town and the tower were destroyed in a violent fashion. A layer of ash shows they were burnt.

The dig is being done to prepare a parcel of land for a new neighborhood in the town.

It was particularly hard hit by rocket fire during Operation Protective Edge. "It is truly nice to see that despite the wars here, people keep coming back here to rebuild, and to live," said Dr. Rice.

Please visit the site: <http://www.jewishpress.com/news/breaking-news/second-temple-era-military-outpost-discovered-possibly-destroyed-by-alexander-the-great/2014/11/23/>
