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**ΟΙΚΗΤΙΚΟ
ΣΥΜΒΟΥΛΙΟ:**

Β. Κυλίκογλου (πρόεδρος),
Ι. Μπασιάκος (αντιπρόεδρος),
Ε. Φιλίππακη (γραμματέας),
Ι. Καρατάσιος (ταμίας),
Ν. Ζαχαριάς (μέλος),
Α. Hein (μέλος),
Γ. Φακορέλλης (μέλος)

Πληροφορίες:

Γ. Φακορέλλης (σύνταξη,
επιλογή ύλης)

E-mail: yfacorel@teiath.gr

Scientific Association, Year
of Establishment 1982,
Headquarters: Kaniggos 27,
106 82 Athens (Association
of Greek Chemists)

BOARD:

V. Kilikoglou (president),
J. Bassiakos (vice-president),
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I. Karatassios (treasurer),
N. Zacharias (member),
A. Hein (member),
Y. Facorellis (member)

Information: Y. Facorellis
(editor)

E-mail: yfacorel@teiath.gr

Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

- Ιούνιος 2015 -

“Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution; it represents the wise choice of many alternatives – choice, not chance, determines your destiny.”
(Aristotle)

Newsletter of the Hellenic Society of Archaeometry

- June 2015 -

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 using a novel Laser-Ablation (LA) interface coupled to an Accelerator Mass
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 Rose **page 40**

PhD candidate in European and Mediterranean Archaeology, Curt-Engelhorn-
 Centre for Archaeometry gGmbH, Mannheim, Germany **page 41**

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MSc Cultural Heritage Materials and Technologies, Department of History,
 Archaeology and Cultural Resources Management, University of the
 Peloponnese, Kalamata, Greece **page 44**

RSF Archaeological Trust archaeological field school 2015 **page 45**

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Radiocarbon, Vol 57, No 3 (2015), Proceedings of the 1st International
 "Radiocarbon in the Environment" Conference, 18–22 August 2014, Queen's
 University Belfast, Northern Ireland, UK **page 54**

The RESET project: constructing a European tephra lattice for refined
 synchronisation of environmental and archaeological events during the last
 c. 100 ka, Quaternary Science Reviews xxx (2015) 1-17 **page 57**

Revisiting Kokkinopilos: Middle Pleistocene radiometric dates for stratified archaeological remains in Greece, Journal of Archaeological Science, 03/2015, 57 **page 58**

Iron in the Homeric Epics & Homer, a Sensible Ecologist, by George Varoufakis **page 59**

New issue of the Journal of Eastern Mediterranean Archaeology and Heritage Studies, Volume 3, Issue 2 **page 62**

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Jordan Long before Petra, by Gail Simmon **page 64**

The Egyptian army headquarters in Sinai during the New Kingdom discovered **page 72**

New archaeological finds challenge ideas of prehistoric Israel - Neolithic fertility goddess figure found in rescue dig could change thinking about ancient cultures, by Nir Hasson **page 73**

South Africa: Early human skin found on 2 million-year-old fossils, by Yasmin Kaye **page 75**

Could this be the biggest find since the Dead Sea Scrolls? Seventy metal books found in cave in Jordan could change our view of Biblical history, by Fiona Macrae **page 77**

Unlocking the secrets of ancient Greek pottery, by Bret McCabe **page 80**

Mummies' Height Reveals Incest, by Rossella Lorenzi **page 83**

World's Oldest Leather Shoe, by Kate Ravilious **page 85**

New discovery: Gabal Al-Selsila quarries were a sacred area in ancient Egypt
The remains of an ancient Egyptian temple have been unearthed near Aswan in what Minister of Antiquities Mamdouh El-Damaty describes as a "very important" discovery, by Nevine El-Aref **page 88**

Archeologists discover ancient mounds in Iran's Kerman Province **page 90**

ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

FOURTH INTERNATIONAL CONFERENCE ON THE ARCHAEOLOGY OF PAROS AND THE CYCLADES, PAROS IV, PAROS AND ITS COLONIES, PAROS, JUNE 11-14 2015

The Fourth International Conference on the Archaeology of Paros and the Cyclades organized by the Institute for the Archaeology of Paros and the Cyclades (IAPK) in the framework of its international series of Conferences entitled *Paros*, will take place in Paroikia, the capital of the island of Paros from 11-14 June 2015. The Conference follows on the successful Third International Conference (Paros III) held in June 2010 dedicated to the great sculptor of ancient Paros, Skopas of the fourth century BC. The Conference Proceedings volume entitled *Skopas of Paros and his World* was published by the IAPK in 2013, edited by its President Prof. *Dora Katsonopoulou* and *Andrew Stewart* of Berkeley University. The volume was enthusiastically received by the international scientific community and was presented in 2014 during four successive book events as follows: in April in Paros, in June at the Third University of Rome, in October at the Hermitage Museum in St Petersburg, and finally in December in Athens.

The Fourth International Conference (Paros IV) entitled *Paros and its Colonies* is dedicated to the colonies that the island of Paros founded in the ancient world already in the last years of the 8th century/beginnings of the 7th century BC down to the fourth century BC. Forty colleagues from Greece and abroad will participate in the Conference to present papers relevant to the main Conference topics as follows:

Paros, the metropolis

Thasos, the colony in the North Aegean Sea

Pharos, the colony in the Adriatic Sea (modern Stari Grad on the island of Hvar in Croatia)

Parion, the colony in Propontis (modern Çanakkale in Turkey)

More specific Conference topics refer to the archaeology of Paros and its colonies, history and historical personalities, pottery, sculpture, architecture, coinage, epigraphy, cults and sanctuaries, marble quarries.

ΙΝΣΤΙΤΟΥΤΟ ΑΡΧΑΙΟΛΟΓΙΑΣ ΠΑΡΟΥ ΚΑΙ ΚΥΚΛΑΔΩΝ

THE INSTITUTE FOR ARCHAEOLOGY OF PAROS AND THE CYCLADES

Παρουκία, 84400 Πάρος

email: paros.iapk@gmail.com

Δ' ΔΙΕΘΝΕΣ ΣΥΝΕΔΡΙΟ ΑΡΧΑΙΟΛΟΓΙΑΣ ΠΑΡΟΥ ΚΑΙ ΚΥΚΛΑΔΩΝ

FOURTH INTERNATIONAL CONFERENCE
ON THE ARCHAEOLOGY OF PAROS AND THE CYCLADES

Η ΠΑΡΟΣ ΚΑΙ ΟΙ ΑΠΟΙΚΙΕΣ ΤΗΣ - PAROS AND ITS COLONIES

ΠΑΡΟΣ, 11-14 ΙΟΥΝΙΟΥ 2015 - PAROS, JUNE 11-14 2015

FINAL PROGRAM

Πέμπτη, 11 Ιουνίου - Thursday, June 11

Αίθουσα 'Αρχίλοχος' - Conference Hall 'Archilochos'

17.00 Εγγραφή - Registration

17.30 Χαιρετισμοί / Έναρξη Συνεδρίου - Greetings / Opening ceremony

Εναρκτήρια Συνεδρία – Opening Session

Προεδρείο - Chair: Prof. Alessandra Coppola, Δρ Δημήτρης Αθανασούλης

18.00 David Tandy

τίνες Παρίων; were archaic Parian ventures abroad corporate or private?

18.20 Φωτεινή Ζαφειροπούλου

Πάρος: πόλη «πολιτειακά» αναπτυγμένη από τον 8^ο αι. π. Χ. έως την ύστερη αρχαιότητα

18.40 Ντόρα Κατσωνοπούλου

On some new sculptures in Parian marble

19.00 Alla Bujiskikh

Ceramic imports from Paros in Olbia Pontica

Διάλειμμα - Coffee break 20'

19.40 Γιάννος Κουράγιος

Αρχαία Πάρος: στοιχεία για την εξέλιξη της τοπογραφίας από παλαιές και πρόσφατες ανασκαφές

20.00 Απόστολος Παπαδημητρίου

Εργαστήρια στην αρχαία Πάρο

20.20 Σοφία Δετοράτου

Θησαυρός και νομίσματα από το χώρο του αρχαίου εργαστηρίου γλυπτικής της Παροικιάς

Συζήτηση – Discussion 20'

21.30 *Δεξίωση του Δημάρχου Πάρου - Reception by the Mayor of Paros*

Παρασκευή, 12 Ιουνίου - Friday, June 12

Αίθουσα 'Αρχίλοχος' - Conference Hall 'Archilochos'

2η Συνεδρία - Session 2

Προεδρείο - Chair: Prof. *Michele Brunet*, Καθ. Ελένη Μανακίδου

09.10 *Alessandra Coppola*
From Paros to Pharos

09.30 *Άγγελος Ματθαίου*
Η αποικία της Φάρου. Νέα επιγραφική μαρτυρία

09.50 *Jelena Marohnić*
Greek onomastic evidence from Pharos

10.10 *Božidar Slapšak*,
How may we read history from the formal properties of the regular land division in the chora of the Parian colony of Pharos

10.30 *Sara Popović*
Flights for protection: Monitoring the Chora of Pharos

10.50 *Branko Kirigin*
Greek imported and locally made pottery from Pharos

Συζήτηση – Discussion 20'

Διάλειμμα - Coffee break 20'

12.30 Περιήγηση σε αρχαιολογικούς χώρους της Παροικίας - Tour to archaeological sites of Paroikia

3η Συνεδρία - Session 3

Προεδρείο - Chair: Prof. *David Tandy*, Δρ Ζήσης Μπόνιας

16.00 *Sara Popović*
New answers to old problems. Results of recent excavations at Pharos (2009-2014)

16.20 *Maja Bonačić Mandinić*
New numismatic evidence from recent excavations at Pharos

16.40 *Slobodan Čače*
Pharos and Iadasinoi

17.00 *Siniša Bilić Dujmušić*
Pharos: battles for survival

17.20 *Aldo Čavić*
Perception of Paros from 16th to 20th century in Croatian written sources

17.40 *Mario Denti*
Not only Archilochos in the desirable region of the streams of Siris.
Parian potters in the Ionian coast of South Italy in the 7th century BC

Συζήτηση – Discussion 20'

Διάλειμμα - Coffee break 20'

19.00 Αναμνηστική τελετή για την ίδρυση της Φάρου - Cultural event to commemorate the Parian foundation of Pharos

19.30 Επίσκεψη στην Εκατονταπυλιανή Πάρου - Visit to the Ekatontapyliani church of Paros

Δείπνο – Dinner

Σάββατο, 13 Ιουνίου – Saturday, June 13

Αίθουσα 'Αρχίλοχος' - Conference Hall 'Archilochos'

4η Συνεδρία - Session 4

Προεδρείο - Chair: Prof. *Siniša Bilić Dujmušić*, Δρ *Φωτεινή Ζαφειροπούλου*

09.10 *Antonio Corso*
Opera Nobilia at Parion

09.30 *Vedat Keles*
Some observations on the altar of Hermocreon in Parion

09.50 *Hasan Kasapoglu and Büşra Elif Kasapoglu*
The Southern Necropolis of Parion from Greek Colonization to Roman Colony

10.10 *Ertuğ Ergürer*
Roman pottery of Parion Necropolis

10.30 *Ersin Çelikbas*
Mining and metalware production activities in Parion

10.50 *Alper Yilmaz and Michael Deniz Yilmaz*
Roman bath and aqueduct system of Parion

Συζήτηση – Discussion 20'

Διάλειμμα - Coffee break 20'

12. 00 Επίσκεψη στα αρχαία λατομεία μαρμάρου - Visit to the ancient marble quarries of Paros

5η Συνεδρία - Session 5

Προεδρείο - Chair: Prof. *Slobodan Čače*, Καθ. *Αίλιαν Καραλή*

16.00 *Γιώργος Σανιδάς*
Η Πάρος, η Θάσος και το πρόβλημα της εκμετάλλευσης των μεταλλείων κατά τον αποικισμό

16.20 *Μαρία Κουτσουμπού*
Η Πάρος, η Θάσος και τα υπόλοιπα νησιά: κεραμικά εργαστήρια και δίκτυα επαφών στο αρχαϊκό Αιγαίο

16.40 *Petia Ilieva*
Thracians of Odonis, the first Parians on Thasos and the North Aegean neighbours: the case-study of a group of pre/para-colonial ceramic

17.00 *Martin Perron*
Archaic one-handled mugs from Thasos: a Parian origin?

17.20 *Ελένη Μανακίδου*
Διακίνηση και χρήσεις εισηγμένης γραπτής κεραμικής στις θασιακές αποικίες κατά την αρχαϊκή περίοδο

Συζήτηση – Discussion 20'
Διάλειμμα - Coffee break 20'

6η Συνεδρία - Session 6

Προεδρείο - Chair: Prof. *Mario Denti*, Καθ. *Γιάννης Πετρόπουλος*

18.20 *Natacha Trippe*
Gods and epiclesis in the colonial process: religious transfers between Paros and Thasos

18.40 *Arthur Muller*
Άρτεμις στην περιφέρεια της Θάσου

19.00 *Anne Tichit*
Οι χιλιάδες κύλικες του Αρτεμισίου της Θάσου: μια ερμηνευτική πρόταση

19.20 *Clarisse Pretre*
Η αμφιθυμία της Αρτέμιδος της Θάσου μέσω των αναθημάτων της

19.40 *Ζώζη Παπαδοπούλου*
Η λατρεία του Απόλλωνος και του Ηρακλέους στην Πάρο και οι δεσμοί με την Θάσο

Συζήτηση – Discussion 20'

20.30 Επίσκεψη στη γραφική Νάουσα - Visit to the picturesque village of Naoussa

Δείπνο - Dinner

Κυριακή, 14 Ιουνίου - Sunday, June 14

Αίθουσα 'Αρχίλοχος' - Conference Hall 'Archilochos'

7η Συνεδρία - Session 7

Προεδρείο - Chair: Prof. *Božidar Slapšak*, Δρ *Ζώζη Παπαδοπούλου*

09.10 *Tony and Manuela Kojelj*
Marble Quarrying marks on Thassos: the Parian technic

09.30 *Bernard Holtzmann*
Η πρόιμη γλυπτική της Θάσου

09.50 *Μαρία Νικολαΐδου-Πατέρα κ.ά.*
Αρχαίο θέατρο Θάσου - αποκατάσταση και ανάδειξη

10.10 *Michele Brunet*
About the Great List of Thasian Theoroi

10.30 Ζήσης Μπόνιας

Η χώρα της Θάσου: φάροι, πύργοι, αγροικίες

Συζήτηση – Discussion 20'

Διάλειμμα - Coffee break 20'

11.30 Τελικά Συμπεράσματα - Final Conclusions: Καθ. Ντόρα Κατσωνοπούλου, Assoc. Prof. Vedat Keles, Dr. Branko Kirigin, Prof. Arthur Muller

12.30 Επίσκεψη στο Αρχαιολογικό Μουσείο Πάρου και περιήγηση στο Κάστρο - Visit to the Archaeological Museum of Paros and Kastro of Paroikia

Αποχαιρετιστήριο γεύμα - Farewell lunch

Οργανωτική Επιτροπή - Organizing Committee

Πρόεδρος - President:

Καθ. Ντόρα Κατσωνοπούλου, Πρόεδρος Ινστιτούτου Αρχαιολογίας Πάρου και Κυκλάδων - Professor of Archaeology, President of the Institute for Archaeology of Paros and the Cyclades

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Ουρανία Ψηλού, Ειδ. Γραμματέας Ινστιτούτου Αρχαιολογίας Πάρου και Κυκλάδων - Assist. Secretary of the Institute for Archaeology of Paros and the Cyclades

Μέλη - Members:

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Άννα Κάγκανη, Δημ. Σύμβουλος Πάρου - Board member of the Municipality of Paros

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Κατερίνα Πατέλη, Δημ. Σύμβουλος Πάρου - Board member of the Municipality of Paros

Κωνσταντίνος Ρούσσος, Αρχαιολόγος, Ινστιτούτο Αρχαιολογίας Πάρου και Κυκλάδων - Archaeologist, The Institute for Archaeology of Paros and the Cyclades

Ελένη Τριπολιτσιώτη, Σύμβουλος Δημάρχου Πάρου - Counselor of the Mayor of Paros

Συντονιστές - Coordinators:

Assoc. Prof. Vedat Keles, Ondokuz Mayıs University, Turkey

Dr. Branko Kirigin, Former Director of the Archaeological Museum at Split

Prof. Arthur Muller, University of Lille, France

23RD INTERNATIONAL CONGRESS OF ADVANCED THERMAL PROCESSING, APRIL 18-22, 2016, SAVANNAH, GEORGIA, CALL FOR PAPERS SUBMISSION OPEN

The organizers of the 23rd International Congress of Advanced Thermal Processing sponsored by ASM Heat Treating Society and International Federation of Heat Treating and Surface Engineering Conference invite prospective authors wishing to present papers to submit a tentative title and an abstract of about 300 words (in English) by September 30, 2015.

This conference will be held April 18-22, 2016 in Savannah, Georgia next year and will once again bring together experts from around the globe to present the latest innovations and research in Thermal Processing and Surface Engineering. Now in its 23rd year, the conference will cover the overall development of technologies in Thermal Processing and Surface Engineering. Please submit your abstracts with particular focus on the following topics:

- Advances in Thermal Processing and Emerging Technologies
- Historical Metallurgy
- Thermo-chemical Treatment (Carburizing, Nitriding, Nitro-carburizing...), including vacuum applications of Low Pressure and High Pressure Carburizing
- Tribology and Wear of Engineered Surfaces, including the nano-mechanical properties/behavior of surface engineered system
- Computational Metallurgy and Materials for new alloy design or performance
- Finite Element Analysis (FEA) for prediction of stresses and microstructure in ferrous and non-ferrous materials
- Computational Fluid Dynamics as applied to thermal processing, such as furnace design or quench uniformity
- Thermal Processing of Ferrous and Non-Ferrous alloys, and Superalloys
- Thermo-Mechanical Simulation, Treatments and Implementation (Forging, Cutting, Forming, Shaping, Drawing), including Surface Engineering
- And much more. See full list of topics
[<http://www.asminternational.org/web/ifhtse/technical>]

SUBMIT ABSTRACT [<https://asm.confex.com/asm/ifhtse16/cfp.cgi>]

SUBMISSION DEADLINE: SEPTEMBER 30, 2015

D. Scott MacKenzie, PhD, FASM • Research Scientist – Metallurgy • Phone: +1 610.666.4007 • Mobile: +1 484.467.0285 • smackenzie@houghtonintl.com
Houghton International Inc. • 930 Madison and Van Buren Avenues • P O Box 930 • Valley Forge, PA USA • 19482

2015 WARSAW IIC STUDENT & EMERGING CONSERVATOR CONFERENCE "MAKING THE TRANSITION", 15-16 OCTOBER 2015, WARSAW

Dear Colleagues,

The third IIC Student & Emerging Conservator Conference will be held in Warsaw on 15th & 16th October 2015, in partnership with the Academy of Fine Arts in Warsaw - make sure you keep the date! We will be posting more details about this exciting event very soon.

Building on the success of the 2013 Copenhagen and 2011 London Student & Emerging Conservator Conferences, the conference's aim will be to offer an international perspective - and to facilitate communication - between student/emerging conservators and professionals active in the field of conservation, in national institutions and museums as well as in the private sector. One of our main objectives is to create a platform where the discussion of current needs in conservation and the relationship between expectations and reality can be addressed.

The discussions will be supported by organised visits to some of Warsaw's conservation studios, in both cultural institutions and conservation businesses.

As with the previous Student & Emerging Conservator Conferences, the presentations will be held at the Academy of Fine Arts in Warsaw and will also be available in the form of live web-streamed broadcasts, allowing an international community of speakers and participants to take part in the conference either in person or online.

More news shortly!

Graham Voce

Executive Secretary

International Institute for Conservation of Historic and Artistic Works 3, Birdcage Walk
London SW1H 9JJ UK

Tel: +44 (0)20 7799 5500

Fax: +44 (0)20 7799 4961

www.iiconservation.org

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COMMUNITIES, LANDSCAPES, AND
INTERACTION IN NEOLITHIC GREECE
INTERNATIONAL CONFERENCE,
RETHYMNO, CRETE, 29-30 MAY 2015

The last three decades has been a period of growing archaeological activities in Greece that enhanced our awareness of the diversity and variability of ancient communities. In the context of large-scale excavations and systematic surface research our knowledge of the Neolithic archaeological landscape has changed considerably. New sites offer rich datasets from many aspects of material culture that challenge traditional perceptions and suggest complex interpretations of the past. Various scientific techniques have improved our understanding on the range of community formations and lifeways in the Neolithic. As a result, recent developments have created a need to discuss old and new data on a synthetic level and to reconsider the dynamics of human habitation in the region.

Please visit the site: <http://igean.ims.forth.gr/conference/> Go there for links to all relevant information

**INTERNATIONAL CONGRESS: ROMAN
AMPHORA CONTENTS INTERNATIONAL
INTERACTIVE CONFERENCE (RACIIC),
CADIZ, SPAIN, 5-7 OCTOBER, 2015**

On behalf of the management team, I would like to inform you that we are organizing an International Congress regarding the contents of Roman Amphorae : Roman Amphora Contents International Interactive Conference (RACIIC).

This Conference will take place in Cadiz (Spain), from the 5th to the 7th of October 2015.

We welcome any poster proposition regarding this topic. More details about the Poster submission are given in the official website.

The registration procedure is also available on the same website.

Here is the link to the official website of the RACIIC:

<http://amphoraecontentsconference.es/>.

This conference is an important opportunity for the scientific and archaeological community, not just for those who carry out their studies on issues related to amphorae. The management team is aware of its responsibilities.

I would ask you to spread this information as widely as possible.

Max Luaces

Secretary of the RACIIC

Congreso Roman Amphorae Contents International Interactive Conference 2015
Universidad de Cádiz Facultad de Filosofía y Letras Avda. Dr. Gómez Ulla 1
11003 Cádiz (Spain)

**22ND INTERNATIONAL RADIOCARBON
CONFERENCE 2015, DAKAR, SÉNÉGAL,
NOVEMBER 16 - 20, 2015,
SESSION PROPOSALS**

Dear Colleagues,

Please find below a session proposed by Miyake and Dee.

Best regards,

Oumar

Fusa Miyake (Nagoya University and University of Arizona) and Michael Dee (University of Oxford)

Miyake *et al.*¹ reported a sudden increase in atmospheric radiocarbon levels between the years 774-775 AD. The 12‰ uplift was almost an order of magnitude greater than normal interannual variation. The anomaly, originally found in Japanese cedar tree-rings, has since been replicated using samples of German oak², New Zealand kauri³, North American bristlecone pine and Russian Larch⁴ confirming that the shift was both unambiguous and global. Furthermore, a second spike has now also been found between the years 993-994 AD⁵. The only plausible explanation for such data is a sudden burst in cosmic radiation, either from an extreme solar event, a near-Earth supernovae or a Gamma Ray Burst. Whilst a solar origin is the most favoured cause for the two events discovered so far, a whole new field is opening up in which the tree-ring archives are being seen as important repositories of past solar and astrophysical events. In addition, the spikes in radiocarbon concentration should be evident in all plant material that grew at the time - a scenario that presents new possibilities for high-precision dating. The object of this session is to explore both the astronomical and chronological potential of these newly discovered single-year anomalies.

¹Miyake, F. *et al.* (2012). A signature of cosmic-ray increase in AD 774–775 from tree rings in Japan. *Nature* **486**: 240-242.

²Usoskin, I G. *et al.* (2013). The AD 775 cosmic event revisited: the sun is to blame. *Astronomy & Astrophysics* **L3**: 1-4.

³Güttler, D. *et al.* (2015). Rapid increase in cosmogenic ¹⁴C in AD 775 measured in New Zealand kauri trees indicates short-lived increase in ¹⁴C production spanning both hemispheres. *Earth Planetary Sciences Letters* **411**: 290-297.

⁴Jull, A. J. T. *et al.* (2014) Excursions in the ¹⁴C record at A.D. 774-775 in tree rings from Russia and America . *Geophysical Research Letters* **41**(8): 3004-3010.

⁵Miyake, F. *et al.* (2014). Verification of the cosmic-ray event in AD 993–994 by using a Japanese Hinoki tree. *Radiocarbon* **56** (3): 1189–1194.

Please visit the site: <http://radiocarbone2015.ucad.sn/>

HISTORICAL METALLURGY SOCIETY
RESEARCH IN PROGRESS MEETING,
FRIDAY THE 13TH NOVEMBER, 2015,
EXPERIMENTAL TECHNIQUES CENTRE,
BRUNEL UNIVERSITY

Dear colleagues,

I am pleased to announce Historical Metallurgy Society Research in Progress Meeting, Friday the 13th November, 2015, Experimental Techniques Centre, Brunel University.

This meeting is aimed at a wide variety of contributors, from historical and archaeological metallurgists to excavators, historians and economists. If you are working, or have just finished working, on a project related to archaeological or historical metallurgy, we would like to hear from you. We are particularly interested in bringing together contract and public sector archaeologists with academic researchers, and in fostering links between the different disciplines studying metallurgy and related activities. Whether you are a student, a researcher, an interested non-specialist, or a professional excavator, we invite you to meet others working in this field and present your research to an interested community.

Proposals for 10-15 minute oral papers are welcomed from anyone undertaking work in any area of ancient, historical, or industrial metallurgy, and from other researchers whose focus is of relevance to this subject. Deadline 29th of June.

General enquiries and abstracts can be directed to hmsRinPconf@hist-met.org

The HMS prize for the Best Student Research is offered for the best presentation by a student (or recent graduate within 12 months of graduation) at the annual Research in Progress meeting as chosen by those members of HMS Council present at the meeting. So if you are eligible please indicate when you submit your abstract.

Further details and registration form <http://hist-met.org/meetings/25-new-articles/73-hms-research-in-progress-2015.html>

Dr Lorna Anguilano, BSc, MSc, MSc, PhD
Research Fellow

Connect with ETC on [Twitter](#)
T +44(0)1895 265253 | **E** lorna.anguilano@brunel.ac.uk

Brunel University London
Experimental Techniques Centre
Check our courses <http://www.brunel.ac.uk/etc/courses>
Brunel University London, Uxbridge, UB8 3PH, United Kingdom

T +44(0)1895 274000 | F +44 (0)1895 232806

www.brunel.ac.uk

www.brunel.ac.uk/etc

www.brunel.ac.uk/researchlife



41ST INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY (ISA2016), 15-20 MAY, 2016, KALAMATA, GREECE

Dear Colleagues,

We are happy to announce the launch of the web-page for the **41st International Symposium on Archaeology (ISA2016)** scheduled to take place in Kalamata, Greece from 15-20 May, 2016.

www.ISA2016.UOP.GR

ISA symposia are the well-established (since 1961) big scientific events in the field of the Archaeology, Archaeological Science and are attended by an international audience of several hundred scholars from diverse fields, such as archaeology, anthropology, art history, physics, chemistry, materials science, geology, biology, conservation science, computer science, etc.. Since the 1980s the symposium is taking place in an alternating mode at locations in Europe and in the Americas –also in Asia (2005)- organized by respective local organizing committees.

The sessions for ISA2016 are:

- REMOTE SENSING, GEOPHYSICAL PROSPECTION AND FIELD ARCHAEOLOGY
 - ARCHAEO-CHRONOMETRY
 - HUMAN-ENVIRONMENT INTERACTIONS AND BIOMATERIALS - BIOARCHAEOLOGY
 - STONE, PLASTER AND PIGMENTS
 - CERAMICS, GLAZES, GLASS AND VITREOUS MATERIALS
 - METALS AND METALLURGICAL CERAMICS
- Special Theme Session-1: ENVIRONMENTAL REMOTE MONITORING FOR ARCHAEOLOGY AND CULTURAL HERITAGE
- Special Theme Session-2: THE BEGINNING OF THE BRONZE AGE IN EASTERN MEDITERRANEAN
- Panel Discussion: HISTORY, ARCHAEOLOGY AND ARCHAEOLOGY DEFINING A RELATIONSHIP

What is really important is:

- to submit your ABSTRACT before **December 15, 2015**.
- to book for your accommodation as early as possible and ideally before end of **January 2015**
- and of course to keep the dates of **15-20 May, 2016**

Looking forward to welcoming you all in Kalamata!

Nikos Zacharias, Chair of ISA2016 Organisation

INTERNATIONAL SYMPOSIUM ON OSTEOARCHAEOLOGY AND FORENSIC ANTHROPOLOGY: WHAT BONES TELL US, 4TH AND 5TH OF SEPTEMBER, BARCELONA, SPAIN

Auditorium of the Centre Innova. 16, Torres Quevedo Road. 08397 Pineda de Mar (Barcelona)

Objectives

The main objective of the research symposium is to provide a platform to promote the dissemination and exchange of knowledge among researchers and scholars interested in research in forensic anthropology, palaeoanthropology and zooarchaeology. This symposium is also addressed to university and non-university students as well as to all people interested in these subjects. The Symposium will provide participants with a unique opportunity to interact with key players from different countries that are involved in key research topics on human and animal bones.

Organisation

Organized by: Innovation teaching group Biologia i Cultura and the Seminari d'Estudis i Recerques Prehistòriques (SERP) both from the University of Barcelona. Ajuntament de Pineda de Mar (Pineda de Mar City Hall) Suportred by: Associació Catalana de Bioarqueologia (ACBA) Asociación Española de Antropología y Odontología Forense (AEAOF)

Colaborators: Diputació de Barcelona, Beta Analytics, Herbes, Impremta Rodríguez, La Caixa. Organizing Scientific Committee Dr Carme Rissech; School of Archaeology and Ancient History, University of Leicester (UK) Dr Lluís Lloveras; Departament de Prehistòria, Història Antiga i Arqueologia, Universitat de Barcelona. Dr Jordi Nadal; Departament de Prehistòria, Història Antiga i Arqueologia, Universitat de Barcelona. Prof. Daniel Turbón; Departament de Biologia Animal, Universitat de Barcelona. Prof. Josep Maria Fullola; Departament de Prehistòria, Història Antiga i Arqueologia, Universitat de Barcelona. Volunteers Committee Aniol Pujol, Ph.D Student, Universitat de Barcelona. Marta San Millán, , Ph.D Student, Universitat de Barcelona. Nadihuska Rosado, , Ph.D Student, Universitat de Barcelona. Laia Font, , Ph.D Student, Universitat de Barcelona. Laura González, master student, Universitat de Barcelona. Núria Freixas, Degree in Archaeology, Universitat de Barcelona. Zoé Lloveras, Degree in Archaeology, Universitat de Barcelona. Anna Velasco, master Student, Universitat de Barcelona.

Registration

The registration will be done by the web page: <http://www.jioaf.pinedademar.org/>

Registration rates

Students and ACBA or AEAOF members: 30 € Regular rate: 40 €

Registration is required for all attendees. Symposium Registration includes access to 2 days of sessions, documentation, coffee breaks, certificate of attendance and electronic version of proceedings publication.

Deadline for registration is the July 31st of 2015.

Programme

The symposium will consist of two days, Friday and Saturday. Friday will be dedicated to the study of human remains (forensic anthropology and palaeoanthropology) and Saturday to the study of animal remains (zooarchaeology, animal palaeopathology and taphonomy). The official languages of the symposium will be Catalan, Spanish, French and English.

Friday, 4th of September

08:30-09:00 Welcoming, registration and document lending. 09:00-09:30 Opening Addresses with the presence of the local authorities

Session 1 Human remains: Forensic Anthropology

Chair: Carme Rissech

09:30-10:15 La Antropología Forense en el contexto de la osteoarqueología Dr. Antonio Sánchez Sánchez, Escuela de Medicina Legal y forense, Facultad de Medicina, Universidad Complutense de Madrid, Madrid. 10:15-11:00 La huellas tafonómicas y de manipulación en Antropología Forense Dr. Miguel Botella, Laboratorio de Antropología, Universidad de Granada, Granada.

11:00-11:30 Coffee break

11:30-12:15 La correlación en las lesiones de arma de fuego interpretadas desde la perspectiva de la Antropología Forense Dr. Francisco Etxeberria, Medicina Legal y Forense, Universidad de País Vasco, San Sebastián. 12:15-13:00 Fosas clandestinas de la dictadura franquista en territorio guerrillero y levante. Análisis antropológico forense Dr. Manuel Polo Cerdá. Institut de Medicina Legal de València, València.

13:00-13:30 Roundtable

Moderator: Daniel Turbón

13:30-15:30 LUNCH BREAK

Sessio 2 Human remains: Forensic Anthropology and Paleopathology

Chair: Miguel Botella

15:30-16:15 Les noves tecnologies d'imatge radiològica aplicades a l'antropologia física i l'antropologia forense Dr. Daniel Turbón, Facultat de Biologia, Universitat de Barcelona, Barcelona. 16:15-17:00 Mètodes per a l'estimació de l'edat de restes esquelètiques adultes i subadultes basats en col·leccions esquelètiques documentades d'Europa Occidental. Aplicació en paleoantropologia i antropologia forense. Dra. Carme Rissech, School of Archaeology and Ancient History, University of Leicester, Leicester, UK

17:00-17:45 Bodies, burials and funerary rites: the contribution of Bronze Age humanremains Dra. Jo Appleby, School of Archaeology and Ancient History, University of Leicester, Leicester, UK

17:45-18:15 Coffee break

18:15-19:00 Maternidad frustrada: una mirada desde la osteoarqueología MA. M^a Paz de Miguel, Departament de Prehistòria, Arqueologia, Historia Antiga, Filologia Grega i Filologia Llatina, Universitat d'Alacant

19:00-19:45 Els Isòtops estables aplicats a l'osteoarqueologia i antropologia forense Dra. Eulàlia Subirà, GRAPAC (Grup de Recerca Aplicada al Patrimoni Cultural), Unitat d'Antropologia Biològica, Dpt BABVE, Universitat Autònoma de Barcelona, Bellaterra.

19:45-20:15 Roundtable

Moderator: Francisco Etxeberria

21:30 SPEAKERS AND DELEGATES DINNER

Saturday, 5th of September

Session 3 Animal remains: Zooarchaeology and Animal Paleopathology

Chair: Lluís Lloveras

09:00 a 9:45 L'aplicació de l'anàlisi d'ADN i isòtops estables en arqueozoològia Dra. Maria Saña, Laboratori d'Arqueozoològia, Departament de Prehistòria, Universitat Autònoma de Barcelona, Bellaterra.

9:45 – 10:30 Estrategias de explotación animal en el pasado: aportaciones etnozoológicas Dra. Marta Moreno, GI Arqueobiología, Instituto de Historia, CCHS-CSIC, Madrid

10:30-11:00 Coffee break

11:00-11:45 Towards a metrical distinction between sheep and goat astragali Dr. Simon Davis, Secção de Arqueozoològia, Laboratorio de Arqueociências, DGPC (formalment IGESPAR) Lisboa, Portugal. 11:45-12:30 Animal Paleopathology matters: interpretative challenges in the identification of traction cattle Dr. Richard Thomas, Scholl of Archaeology and Ancient History, University of Leicester, Leicester, UK

12:30-13:15 La ictiofauna, importancia del estudio de los restos de peces en yacimientos arqueológicos Dr. Arturo Morales, Departamento de Biología, Universidad Autónoma de Madrid, Madrid.

13:15-13:45 Roundtable

Moderator: Arturo Morales

13:45-15:30 LUNCH BREAK

Session 4 Animal remains: Zooarchaeology and Taphonomy

Chair: Jordi Nadal

15:45-16:30 La Tafonomía una herramienta clave para interpretar la historia de las acumulaciones osteoarqueológicas Dr. Lluís Lloveras, Departament de Prehistòria, Història Antiga i Arqueologia, Universitat de Barcelona, Barcelona.

16:30-17:15 Reconstitution du régime alimentaire de l'hyène des cavernes (*Crocota c. spelaea*) à partir des études (néo)taphonomiques Dr. Philippe Fosse, Université Toulouse Jean Jaurès, UMR 5608 CNRS (TRACES), France

17:15-17:45 Coffee break

17:45-18:30 Pequeñas presas y dieta neandertal: las acumulaciones de tortuga y conejo en los yacimientos valencianos del Paleolítico medio. Dr. Alfred Sanchis, Museu de Prehistòria de València, València.

18:30-19:15 Els humans com a depredadors: estratègies de subsistència en grups de caçadors-recol·lectors i restes de fauna Dr. Jordi Nadal, Departament de Prehistòria, Història Antiga i Arqueologia, Universitat de Barcelona, Barcelona. 19:15-20:00 Roundtable

Moderator: Marta Moreno-García

20:00 Closing

Please visit the site: <http://www.jioaf.pinedademar.org/>

**IAQ 2016: HERITAGE RESEARCH TO
CONSERVATION PRACTICE INDOOR AIR
QUALITY - IN HERITAGE AND HISTORIC
ENVIRONMENTS, 12TH INTERNATIONAL
CONFERENCE, BIRMINGHAM (UK),
THINKTANK, 3-4 MARCH 2016**

Birmingham Museums Trust is pleased to announce it will be hosting the 12th International Conference held by IAQ. The conference will be held at Thinktank, the Trust's Science and Industry Museum.

Conference Theme:

Papers are encouraged on topics that include information on: new trends in pollution monitoring, understanding the levels of risk to collections, cross disciplinary projects, the application of shared knowledge for mitigation, material emissions, building/demolition projects, putting research into practice and projects that have highlighted Heritage Science to the wider sector.

Call for papers:

01 June - 31 August 2015

Please check the IAQ website for further details, including conference advert, and template for abstract submission: <http://iaq.dk/iap.htm>

Booking:

Early Bird conference fee (01 June - 31 October 2015): £164 Conference fee after 01 November 2015: £200 Booking is available on line via:

https://uk.patronbase.com/_BirminghamMuseums/Productions

ΠΑΝΕΛΛΗΝΙΟ ΣΥΝΕΔΡΙΟ ΨΗΦΙΟΠΟΙΗΣΗΣ **ΠΟΛΙΤΙΣΤΙΚΗΣ ΚΛΗΡΟΝΟΜΙΑΣ 2015,** **ΠΟΛΙΤΙΣΜΟΣ, ΠΑΙΔΕΙΑ, ΕΡΕΥΝΑ,** **ΚΑΙΝΟΤΟΜΙΑ, ΨΗΦΙΑΚΕΣ ΤΕΧΝΟΛΟΓΙΕΣ,** **ΤΟΥΡΙΣΜΟΣ, ΒΟΛΟΣ, 24-26 ΣΕΠΤΕΜΒΡΙΟΥ,** **2015, ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ,** **ΠΑΡΑΛΙΑΚΟ ΣΥΓΚΡΟΤΗΜΑ** **"ΠΑΠΑΣΤΡΑΤΟΥ"**

Αγαπητοί Συνάδελφοι,

Έχουμε την τιμή να σας προσκαλέσουμε στο " Πανελλήνιο Συνέδριο Ψηφιοποίησης Πολιτιστικής Κληρονομιάς - 2015 " ("Pan-Hellenic Conference on Digital Cultural Heritage-2015"), που θα γίνει στην Ελλάδα ,στην όμορφη πόλη του Βόλου κατά το χρονικό διάστημα από την Πέμπτη 24 έως και το Σάββατο 26 Σεπτεμβρίου 2015 .

Το Συνέδριο για την Ψηφιοποίηση της Πολιτιστικής Κληρονομιάς 2015 ,είναι αποτέλεσμα μιας μεγάλης συνεργασίας μεταξύ του ΤΕ.ΠΑ.Κ.(Κύπρος) και του Μη Κυβερνητικού Οργανισμού "Δίκτυο ΠΕΡΡΑΙΒΙΑ" (Ελλάδα) σε θέματα Επιστημών και συνδιοργανώνεται από:

- το Εργαστήριο Ψηφιακής Πολιτιστικής Κληρονομιάς του Τεχνολογικού Πανεπιστημίου Κύπρου (ΤΕ.ΠΑ.Κ.) ,
- το Εργαστήριο Μη Καταστροφικών Τεχνικών Σχολής Τεχνολογικών Εφαρμογών ΑΕΙ ΠΕΙΡΑΙΑ Τεχνολογικού Τομέα
- τον Δευτεροβάθμιο Μη Κυβερνητικό Οργανισμό "Δίκτυο Περραιβία"

με την υποστήριξη:

- πολλών Κρατικών Φορέων
- της Περιφέρειας Θεσσαλίας ,
- του Δήμου Βόλου ,
- του Πανεπιστημίου Θεσσαλίας
- της επιστημονικής κοινότητας από την Ελλάδα και την Κύπρο
- του Τεχνολογικού Πανεπιστημίου Κύπρου (ΤΕ.ΠΑ.Κ. - Λεμεσός) ,
- του Ανώτατου Επιστημονικού Ιδρύματος Πειραιά Τεχνολογικού Τομέα.,
- του Δικτύου Μη Κυβερνητικών Οργανώσεων Θεσσαλίας ,αλλά και
- πολλών άλλων συλλογικών Φορέων της Θεσσαλίας.

Στο τριήμερο του Συνεδρίου θα υπάρξουν πολλές ευκαιρίες να επιτευχθεί ανταλλαγή γνώσης και εμπειριών για τα αποτελέσματα της έρευνας στην πολιτιστική κληρονομιά και τις ψηφιακές τεχνολογίες και να συζητηθούν οι τρέχουσες και οι μελλοντικές εξελίξεις στον τομέα αυτό σε παγκόσμιο επίπεδο και να δημιουργήσουμε τις απαραίτητες συνέργειες μεταξύ Φορέων της Ελλάδας και της Κύπρου για την καλύτερη αξιοποίηση των ίσων ευκαιριών μέσα στην Ευρώπη και πρόσβαση σε ευρωπαϊκούς πόρους που προορίζονται για τον Πολιτισμό.

Επίσης, στο Συνέδριο αυτό θα συμμετέχουν ως εισηγητές εκπρόσωποι του Υπουργείου Πολιτισμού, αλλά και άλλων Υπουργείων, Ελληνικών και Κυπριακών Πανεπιστημίων, ερευνητικών κέντρων, αλλά και ανεξάρτητοι επιστήμονες και ερευνητές, που εμπλέκονται με κάθε τρόπο στο μεγάλο θέμα της μελέτης, έρευνας και διάσωσης της πολιτιστικής μας κληρονομιάς.

Το συνέδριο θα πραγματοποιηθεί, στο Βόλο, στους φιλόξενους χώρους του Παραλιακού Συγκροτήματος "Παπαστράτου" του Πανεπιστημίου Θεσσαλίας, στα αμφιθέατρα «Γ. Κορδάτος» και «Γ. Σαράτσης», που διαθέτουν σύγχρονα μέσα βιντεοπροβολών και τηλεπικοινωνίας (Wi-Fi κτλ.).

Φιλοδοξία του συνεδρίου είναι η συνάντηση και η αλληλογνωριμία επιστημόνων και επαγγελματιών που εργάζονται στον πολιτισμό, την παιδεία, την έρευνα, τις ψηφιακές τεχνολογίες και τον τουρισμό, τομείς που αποτελούν ζητήματα αιχμής για την Ελλάδα και την Ευρώπη στην παρούσα συγκυρία.

Ο ρόλος της έρευνας για την πολιτιστική κληρονομιά στο σύγχρονο κόσμο της διάχυσης της πληροφορίας είναι εξαιρετικά σημαντικός. Οι πολιτικές της Ευρωπαϊκής Ένωσης για την προστασία, την αποκατάσταση, τη συντήρηση και την ψηφιακή τεκμηρίωση της πολιτιστικής κληρονομιάς, καθώς και οι πηγές της χρηματοδότησης της έρευνας αυτής μπορούν και πρέπει να αποτιμηθούν ως προς τη συμβολή τους στη δημιουργία νέας γνώσης και νέων θέσεων εργασίας, μέσα από την αξιοποίηση Ευρωπαϊκών Προγραμμάτων και πόρων και είμαστε βέβαιοι ότι μέσα από το Συνέδριο θα προκύψουν μεγάλες συνέργειες, έτσι ώστε να μπορέσουμε να διεκδικήσουμε το μέλλον από καλύτερες θέσεις.

Η αξιολόγηση των υπάρχοντων ερευνητικών υποδομών και των αποτελεσμάτων τους, η παρουσίαση ιδεών και οραμάτων για νέες ψηφιακές μεθόδους, η συζήτηση για την καθιέρωση μοντέλων και προτύπων στον τομέα της πολιτιστικής κληρονομιάς, η εξέταση του σχετικού νομοθετικού πλαισίου που αφορά στην πολιτιστική κληρονομιά, την πολιτισμική διαχείριση και τη συντήρηση αρχαιοτήτων και έργων τέχνης, η διερεύνηση του ρόλου των τρεχόντων εξελίξεων στις διεθνείς δραστηριότητες, τις συμφωνίες και τις συνεργασίες σε θέματα πολιτιστικής κληρονομιάς και της ψηφιοποίησής της, η αναζήτηση των ηθικών διαστάσεων του τομέα των πληροφοριακών συστημάτων για την πολιτιστική κληρονομιά, είναι ορισμένοι μόνον από τους τομείς στους οποίους σκοπεύει να επικεντρωθεί το συνέδριο.

Οι ενδεικτικοί θεματικοί άξονες προβληματισμού είναι οι ακόλουθοι:

1. Νέες ψηφιακές τεχνολογίες στις ανθρωπιστικές επιστήμες
2. Η ψηφιοποίηση στην Αρχαιολογία και τον τουρισμό
3. Ψηφιακή Πολιτιστική κληρονομιά και η διαχείριση της
4. Συντήρηση, Προστασία και ανάδειξη της πολιτιστικής κληρονομιάς στο ψηφιακό πολυμεσικό περιβάλλον και διαδίκτυο (Εκπαίδευση, Τουρισμό, κτλ)
5. Νομικό πλαίσιο και ψηφιοποίηση της Πολιτιστικής Κληρονομιάς (συμβάσεις, προγράμματα, πνευματικά δικαιώματα)
6. Εμπειρίες, νέες προκλήσεις και προοπτικές για την ψηφιακή κοινωνία της Πολιτιστικής Κληρονομιάς.

Για συμπληρωματικές πληροφορίες, παρακαλούμε επισκεφτείτε τον αποκλειστικό ιστότοπο του συνεδρίου : www.euromed2015.eu μέσα από τον οποίο θα λαμβάνετε όλη την ενημέρωση για κάθε τι νεώτερο που θα αφορά τη Διοργάνωση του συνεδρίου και τους συνέδρους .

Στους συμμετέχοντες θα δοθεί Πιστοποιητικό Συμμετοχής.

Όσοι επιθυμούν να συμμετάσχουν στο συνέδριο με ανακοίνωση ή με ανακοίνωση τοίχου (poster) μπορούν να τα υποβάλλουν ηλεκτρονικά μέχρι τις **30 Ιουνίου 2015 και ώρα 15.00 μ.μ., μέσω της επίσημης ιστοσελίδας.**

Με Εκτίμηση

Η Οργανωτική Επιτροπή του Συνεδρίου

- **ΜΑΡΙΝΟΣ ΙΩΑΝΝΙΔΗΣ -ΚΥΠΡΟΣ**
- **ΙΩΑΝΝΗΣ ΒΑΡΑΛΗΣ, ΘΕΟΔ.ΓΚΑΝΕΤΣΟΣ, ΗΛΙΑΣ ΝΟΜΠΙΛΑΚΗΣ, ΚΩΝ/ΝΟΣ ΣΚΡΙΑΠΑΣ -ΕΛΛΑΔΑ**

ΣΤΟΙΧΕΙΑ ΟΡΓΑΝΩΤΙΚΗΣ ΕΠΙΤΡΟΠΗΣ

ΟΝΟΜΑΤΕΠΩΝΥΜΟ	ΦΟΡΕΑΣ	ΣΤΟΙΧΕΙΑ ΕΠΙΚΟΙΝΩΝΙΑΣ
	ΚΥΠΡΟΣ	
Dr Μαρίνος Ιωαννίδης	Διευθυντής Εργαστηρίου Ψηφιακής Πολιτιστικής Κληρονομιάς Τεχνολογικού Πανεπιστημίου Κύπρου - ΤΕΠΑΚ(Λεμεσός - ΚΥΠΡΟΣ)	E-Mail: marinos.ioannides@cut.ac.cy
	ΕΛΛΑΔΑ	
Dr Ιωάννης Βαραλής	Επικ. Καθηγητής Τμήματος Ιστορίας -Αρχαιολογίας Πανεπιστημίου Θεσσαλίας - ΒΟΛΟΣ-ΕΛΛΑΔΑ	E-Mail: iovaralis@uth.gr
Dr Θεόδωρος Γκανέτσος	Καθηγητής ΑΕΙ Πειραιά Τ.Τ.-Εργαστήριο Μη Καταστροφικών Τεχνικών Σχολής Τεχνολογικών Εφαρμογών ΑΕΙ ΠΕΙΡΑΙΑ Τ.Τ.-ΠΕΙΡΑΙΑΣ -ΕΛΛΑΔΑ	E-Mail: ganetsos@teipir.gr
Ηλίας Νομπιλάκης	τ. Καθηγητής Συντήρησης Λίθου ΤΕΙ ΑΘΗΝΩΝ .-ΑΘΗΝΑ-ΕΛΛΑΔΑ	E-Mail: elnobil@hotmail.com
Κων/νος Σκριάπας	Οικονομολόγος -Σύμβουλος Ανάπτυξης & Επιχειρηματικότητας- Πρόεδρος ΔΣ Δικτύου "ΠΕΡΡΑΙΒΙΑ"- Δευτεροβάθμια ΜΚΟ για τον Άνθρωπο και τον Πολιτισμό--ΕΛΛΑΔΑ	E-Mail: skriapask@gmail.com

**REGIONAL STORIES TOWARDS A NEW
PERCEPTION OF THE EARLY GREEK
WORLD, AN INTERNATIONAL SYMPOSIUM
IN THE HONOUR OF PROFESSOR JAN
BOUZEK, UNIVERSITY OF THESSALY, IAKA
DEPARTMENT, VOLOS, 18-21/6/2015**

THURSDAY 18.06.2015

18.00-19.00: **A. Mazarakis Ainian, G. Chiotis, Ch. Apostolou, T.G. Dallas**, The ARISTEIA project on ‘The Social archaeology of Early Iron Age and Early Archaic Greece’

19.00-20.00. KEYNOTE LECTURE: **Jan Bouzek**, From Bronze Age mythos to Iron Age logos

FRIDAY 19.06.2015

Euboea

9.30-10.00. **Xenia Charalampidou**, Viewing Euboea in relation to its colonies and relevant sites in Northern Greece and South Italy-Sicily

10.00-11.00. **Jan Paul Crielaard**, The Early Iron Age site of Karystos-Plakari (southern Euboea) and its wider context.

11.00-11.30. **Samuel Verdan**, Means of exchange in ‘Euboean’ networks: a supra-regional story.

11.30-12.00. **A. Mazarakis Ainian, M. Mazarakis Ainian**, The Oropos settlement in the early first millennium B.C. A new perception in 3D.

PAUSE 12.00-12.30

Attika

12.30-13.00. **Alexandra Alexandridou**, A burial anatomy of the Attic kinship groups. Social complexities and a rising polis.

13.00-13.30. **Floris van den Einjde**, The Areopagus oval building and Athenian ancestor worship.

Cyclades

13.30-14.00. **Olga Kaklamani**, Funerary rites in the Cyclades in the Early Iron and Early Archaic Age.

14.00-14.30. **Stavros Paspalas**, Zagora and the wider Aegean.

14.30-16.30. PAUSE

Peloponnese

16.30-17.00. **Afrodite Vlachou**, Ritual practices and social organization in Early Iron Age and Early Archaic Peloponnese.

17.00-17.30. **Anastasia Gadolou**, The formation of religious landscapes in Achaia during the early historical era (10th-7th c. B.C.): Political structures and social identities.

17.00-17.30. PAUSE

Bioarchaeology – Archaeometry

17.30-18.00. **Katerina Trantalidou**, Active responses of Early Iron Age Aegean communities to their natural and social environment; the evidence from the animal bone deposits

18.00-18.30. **Tatiana Theodoropoulou**, Regional stories, one sea: towards reconstructing the history/ies of fishing and marine animal exploitation in the Early Greek world

18.30-19.00. **Evi Margaritis**, Domestic and ritual use of plants in Early Iron Age Greece.

19.00-19.30. **Yorgos Fakorellis**, Radiocarbon dating of the Dark Ages in Greece: An overview.

SATURDAY 20.06.2015

Central Greece

9.30-10.00. **Zacharoula Papadopoulou**, Social organization in Central Greece during the Early Iron Age: the settlement and funerary evidence

10.00-10.30. **Wolf-Dietrich Niemeier**, The oracle sanctuary of Apollo at Abai (Kalapodi) from the Bronze to the Iron Age.

Thessaly

10.30-11.00. **Eleni Karouzou**, Thessaly from the Protogeometric to the Early Archaic Period

11.00-11.30. **Ioannis Georganas**, A tale of two 'Cities': Volos and Pherai in the Early Iron Age.

11.30-12.00. PAUSE

North Greece

12.00-12.30. **Stelios Andreou**, Settlements in Central Macedonia in the Early Iron Age.

12.30-13.00. **Anne-Zahra Chemsseddoha**, New perspectives on the burial customs in Macedonia during the Early Iron Age.

Western Greece

13.30-14.00. **Stelios Damigos**, Early Aetolia.

14.30-15.00. **Franziska Lang**, Early Akarnania.

15.00-18.00. PAUSE

Dodecanese

18.00-18.30. **Maria Koutsoumpou**, The Dodecanese in Early Iron Age: revisiting the evidence from sanctuaries and burials.

18.30-19.00. **Matteo D'Acunto**, The Protogeometric and Geometric necropolis of Ialysos: some aspects.

Asia Minor

19.00-19.30. **Michael Kerschner**, Spatial development of Ephesos from ca. 1000 – ca. 670 B.C. against the background of other Early Iron Age settlements in Ionia.

Sailing in the Mediterranean in the early first millenium

19.30-20.00. **Yannis Nakas**, From the 'black ships' to the trireme. Ships and shipbuilding in the Early Iron Age Mediterranean.

SUNDAY 21.06.2015

Crete

9.30-10.00. **Antonis Kotsonas**, Cretan and other Greek sanctuaries in the Early Iron Age: assessing regionalism in aspects of cult practice.

10.00-10.30. **Florence Gaignerot-Driessen**, The rise of the polis in the Mirabello region, Crete: sites and settlement patterns (10th - 7th c. B.C.).

Cyprus

10.30-11.00. **Anna Satraki**, Examining the imprint of Early Iron Age Cyprus: regional histories at the dawn of the first millennium B.C.

11.00-11.30. PAUSE

Magna Grecia/Sicily

11.30-12.00. **Sveva Savelli**, Travelling potters and pottery from Greece to Southern Italy in the 8th and 7th c. B.C.: the state of the question of imported Greek pottery and local productions of Greek type.

12.00-12.30. **Emanuele Greco**, Poleis of Magna Graecia and Sicily; some observations.

12.30-13.00. **Massimo Osanna**, Migration and mobility in the Iron Age Southern Italy: new approaches to cultural encounters on the Ionian coast.

13.00-14.30 PAUSE

North Africa

14.30-15.00. **Alexandra Villing**, Greece and Egypt - new research on early contact and exchange.

Spain-West Mediterranean

15.00-15.30. **Eleftheria Pappa**, Early Greek presence in the 'Far West': commodities, traders and their impact.

Thrace-Black Sea

15.30-16.00. **Elias Petropoulos**, The diffusion of early (7th century) Greek pottery in the Black Sea region.

16.00-17.00. CONCLUSIONS

A. Mazarakis Ainian

The symposium is part of the "ARISTEIA" Programme "Education and Lifelong Learning" and funded by the European Union (European Social Fund - ESF) and national funds

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

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

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

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

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

The SAHC leaflet can be downloaded at: www.msc-sahc.org/upload/docs/Leaflet_low.pdf

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

**1-YEAR POST DOCTORAL RESEARCH
POSITION, SEPTEMBER 1ST 2015 – AUGUST
31ST 2016, ISLAMETAL, A RESEARCH
PROGRAM ON IRANIAN METAL WARE,
DEPARTMENT OF ISLAMIC ART - LOUVRE
MUSEUM / CENTRE DE RECHERCHE ET DE
RESTAURATION DES MUSÉES DE FRANCE**

Scientific context

The Louvre hosts one of the most remarkable collections of metal ware from the Islamic world. Among this holding are 150 objects originating from Iran, in addition to 79 objects from the greater Iranian world. They are comprised of small vessels for food and drink; personal items for bathing, cosmetics and perfumes; decorative objects; and utility items such as candlesticks and incense burners.

While Near East metal ware production has been thoroughly studied, metal ware from the Persian and Indian worlds during the Islamic Period have until now been less investigated. Thus, with its 229 items, the analytical data from the Louvre collections will represent a large input in the field. New avenues of research may be brought to light such as the possibility to identify specific centers of productions.

The Islamic Art Department's collection dates from the 8th through the 19th centuries. The works of art that will be studied can be divided into the following groups:

- Medieval Persian World (11th-13th centuries): 93 objects
- Southwestern Iran (13th-14th centuries): 30 objects
- Western and Eastern Greater Iran (15th century): 19 objects
- Late Persian World (16th-19th centuries): 21 objects
- Iran or India (16th-19th centuries): 37 objects

The works of art in the Louvre's holding are often unique pieces and reveal the range of Persian craftsmanship. Several types of techniques, such as repoussé, inlay, engraving and relief, were used with extraordinary skill, and delicately written inscriptions and calligraphy decorate the pieces providing valuable information on their origin. However, to date, the study of these objects has been based on archaeological, historical and epigraphic data, and has exclusively focused on dating, attribution, inscription and style.

The Department of Islamic Art's project will focus on its collection of Persian metalwares from an archaeometallurgical perspective. The initiative will concentrate on the identification of the materials used to create these stunning objects – mainly copper alloys, often inlaid with silver, gold, and/or copper. This type of technical investigation has never been conducted on the collection and will be extremely valuable to the understanding of the elements and techniques used by artisans and workshops. A detailed examination of the metallurgical composition of certain pieces will also allow a more

precise identification of their origin. For example, many of the objects in the collection are currently classified as Iranian or Indian, as metal ware from both territories present similar characteristics in form and in decoration. A metallurgical analysis will discern the origin of the metals and thus help determine where the objects were created. The archaeometallurgical program will also focus on the manufacture and the ornament techniques. This shall represent the most time-consuming part of the project

The two first corpus (11-14th c) have been studied during 2014-2015, the 1-year postdoctorate position will focus on the three last corpus (15-19th c).

Skills required

Applicants shall have a PhD degree in archaeometallurgy or related field. They shall be experienced in archaeometallurgical investigations, including elemental analysis of metals and manufacture techniques. Most time will be spent in the close examination of the artifacts in order to find out the fabrication and decoration techniques. Therefore, the candidate shall be particularly interested and skilled in these technical aspects. Particular interest in medieval and Early modern Indo persan will be appreciated.

Appointment

The position for this post-doctoral fellow will be funded for an initial period of one year, with the possibility of being renewed for a further period. The net annual level of remuneration is 28,000 €

Contacts

The research will be led in collaboration with the Centre de Recherche et de Restauration des Musées de France (C2RMF). It will be managed by Annabelle Collinet, Ph. D, research associate in the Louvre's Department of Islamic Art Department, and David Bourgarit, Ph. D, archaeometallurgist at the C2RMF.

Applicants interested in this position should contact Annabelle Collinet (annabelle.collinet@louvre.fr) and David Bourgarit (david.bourgarit@culture.gouv.fr). Applicants should provide a statement of purpose regarding the proposed research of one page in length, together with a full CV, and the names and e-mail addresses of three academic referees. We aim to make an appointment to this position by June 30th 2015.

David Bourgarit
Métal

Centre de Recherche et de Restauration des Musées de France
Palais du Louvre, 14 quai François Mitterrand
75001 Paris, France
&
CNRS-UMR 7055 Préhistoire et Technologie
maison Archéologie & ethnologie, René-Ginouvès (MAE)
21 Allée de l'Université - 92 023, Nanterre cedex, France

PHD-SCHOLARSHIPS FOR RESEARCH ON THE URBAN PAST

The Danish National Research Foundation's Centre of Excellence Centre for Urban Network Evolutions (UrbNet) offers three fully financed PhD scholarships from 1 September 2015 focused on the archaeology, archaeoscience, geoscience and history of urban societies in the past.

The scholarships are an opportunity for eminent young researchers to set the agenda for research into the evolution of urban societies and networks from the Hellenistic Period to the Middle Ages, and to participate in one of Europe's most groundbreaking archaeological research initiatives of this decade.

The centre aims to develop research that will offer comparison of the archaeology of urbanism from Medieval Northern Europe to the Ancient Mediterranean and the Indian Ocean World and determine how, and to what extent, past urban networks catalyzed societal and environmental expansions and crises in the past. The newly-opened centre strives to embrace and connect the archaeological research clusters at Aarhus University with new and advanced analytical techniques in Geoscience and Physics for dating and characterizing archaeological sites, and creates a research-environment for cross-fertilizing approaches from the humanities and sciences.

We are looking to integrate projects into the centre's work, which intersect questions and problems concerning urban development and networks. Projects should align with one or more of the core agendas of the centre:

- How does the combination of multiple methods and approaches contribute to characterize the material and/or social biographies of urban sites in the past?
- How does contextual study of archaeological data, including scientific and historical analysis, clarify the structure, dynamics and agency of urban networks in different periods and regions?
- How do high-definition chronologies, site biographies and recorded history integrate as synthetic accounts of urban societies?

Proposals for PhD-projects may relate to existing projects within the centre, which focus on regions from Northern Europe over the Levant to the East Coast of Africa (please see <http://urbnet.au.dk/> for more information). They involve empirical material from a number of existing excavation projects as well as working on material already excavated and on theoretical and methodological issues. However, individual projects may also issue from other bodies of data.

Prospective PhD candidates should contact a member of the Centre Core Group as a potential supervisor. The Core Group consists of the following researchers:

- Rubina Raja (Professor, centre director, Classical and Near Eastern archaeology)
- Søren Sindbæk (Professor MSO, vice-director, Medieval archaeology)
- Gry Barfod (Assistant professor, isotope geochemistry, co-supervisor)
- Søren Munch Kristiansen (Associate Professor, soil chemistry and geomorphology)
- Charles Lesher (Niels Bohr Professor, earth materials and geochemistry)

- Peter Hambro Mikkelsen (director of the department for conservation and natural science, Moesgaard Museum)
- Jesper Olsen (Associate Professor, 14C AMS Dating Centre)
- Bjørn Poulsen (Professor, Medieval history)
- Stephanie Wynne-Jones (Associate Professor, African archaeology, co-supervisor)

We seek highly motivated persons with the following qualifications Essential criteria:

- A master's degree, typically in the field of Classical, Prehistoric, Near Eastern or Medieval archaeology, archaeoscience, history, geoscience, or other relevant education.
- A strong interest in the urban archaeology and the past development of urban societies and networks, and empirical research.
- Excellent verbal and written communication skills (in English).
- Experience of conducting empirical research.
- Confidence in dealing with participants and the wider research team.
- Strong collaborative skills as the successful candidates will join a large multidisciplinary research group.
- Excellent oral communication skills.

Desirable:

- Strong publication profile.
- Experience with and or interest in cross-disciplinary collaboration.
- Fluency also in other languages than Scandinavian and English.
- Experience with editorial assignments.

Application:

The application must consist of a statement of interest, highlighting your motivations for applying for the position (max 1 page), full CV, including proof of MA/MSc degree and grades. Furthermore a short proposal for a study within the research area of Centre for Urban Network Evolutions (maximum 2-3 pages) should also be included.

The application should be sent to Rubina Raja and Søren Sindbæk (rubina.raja@cas.au.dk and farksms@cas.au.dk) by 1 July 2015.

Additional information regarding these positions can be obtained by contacting: Rubina Raja (Professor, centre director, Classical and Near Eastern archaeology rubina.raja@cas.au.dk) or Søren Sindbæk (Professor MSO, vice-director, Medieval archaeology farksms@cas.au.dk)
<http://talent.au.dk/fileadmin/talent.au.dk/ARTS/Guideline-application.pdf>

The PhD student must complete the studies in accordance with the current regulations for the PhD degree programme, currently the Ministerial Order of 27 August 2013 on the PhD degree programme at the Universities:
<http://talent.au.dk/phd/arts/rulesandforms/thephddgreeprogramme/>
Description of the Graduate School's PhD degree programme (5+3):
<http://talent.au.dk/phd/arts/phdstudystructure/>

Rules and regulations for the PhD degree programme at the Graduate School at Arts:
<http://talent.au.dk/phd/arts/rulesandforms/thephddgreeprogramme/>

As a PhD student at UrbNet, you are affiliated with the research programmes: Materials, Culture and Heritage as well as The Ancient World at the Department of Culture and Society: <http://cas.au.dk/en/research/research-programmes/>

Candidates who are awarded a PhD scholarship/fellowship will be assigned a place of work in connection with Centre for Urban Network Evolutions at Aarhus University, Campus Moesgaard. The PhD student is expected to be present at the department on an everyday basis.

PhD students receive a regular salary. The terms of employment are in accordance with the agreement between the Danish Ministry of Finance and the Danish Confederation of Professional Associations (see section 6.1.4), as well as with the protocol to the agreement covering staff with university degrees in the state sector (see enclosure 5). The agreement and the protocol including amendments are available online:

<http://talent.au.dk/phd/arts/rulesandforms/thephddgreeprogramme/>

Application deadline: 1 July 2015.

The outcome of the application round will be announced by 1 August 2015. Candidates who are awarded the scholarship/fellowships are expected to commence their PhD degree programme 1 September 2015.

PHD PROJECT AT ETH ZÜRICH - DIRECT RADIOCARBON ANALYSIS OF CARBONATES USING A NOVEL LASER- ABLATION (LA) INTERFACE COUPLED TO AN ACCELERATOR MASS SPECTROMETER (AMS)

PhD PROJECT at ETH Zürich AIM: Optimizing the performance of the novel LA-AMS setup for radiocarbon analyses in carbonates and applying the method for highly resolved radiocarbon analyses in real samples **TASKS:**

- optimize the LA-AMS setup (hard- and software development)
- apply the setup to real samples (carbonaceous climate archives like stalagmites, corals, oysters)
- interpret the data in close collaboration with our international project partners
- explore further possible applications and sample materials (e.g. diamonds, organic materials)

TIME FRAME: start: May 2015 (or later) , duration: 3 years

LOCATION: “Laboratory of Ion Beam Physics”, ETH Hoenggerberg (Prof. Hans-Arno Synal) and “Group of Trace Element and Microanalysis” (Prof. Detlef Günther)

Contact: Marcus Christl (mchristl@phys.ethz.ch)

PHD OPPORTUNITY AT UCL ON CORROSION OF ARCHAEOLOGICAL IRON FROM THE MARY ROSE

This project takes advantage of the vast collection of Tudor iron artefacts recovered from Henry VIII's iconic flagship *Mary Rose*, which was excavated in 1982. Among these are approximately 900 examples of iron shot, which have undergone various treatments to remove Cl ions, and have also experienced varied storage conditions. They provide a unique opportunity to analyse the corrosion processes, products and treatment efficacy from a relatively uniform initial set. The overall aim of this project is to fully interrogate this set of shot as well as other iron from the *Mary Rose*, for example that which has been preserved in contact with wood. It will build on this crucial information to determine a future conservation strategy for the iron from the wreck.

The research will build upon the very large body of expertise The Mary Rose Trust has developed on archaeological iron from the marine environment, as well as the expertise and instrumentation available at Diamond Light Source, where the student will spend approximately 12 months of the four-year PhD. Using techniques including scanning electron microscopy, synchrotron X-ray diffraction and X-ray Absorption spectroscopy, the student will characterise the corrosion products on Mary Rose iron, and quantify their relative proportions and their short and long-range order. A custom cell will be designed and manufactured allowing direct measurement of the corrosion rates of iron from the ship, under varying conditions and in a range of media.

This is an exciting doctoral opportunity for candidates with a good degree in a physical science or engineering, including the scientific side of earth or environmental science, or those with a strong background in conservation or archaeological science. The project is funded by EPSRC and co-funded by Diamond Light Source.

For more details and how to apply: <http://www.seaha-cdt.ac.uk/wordpress/wp-content/uploads/2015/05/P28-Project-Advert-FINAL.pdf>

Ian C Freestone PhD FSA
Professor of Archaeological Materials and Technology
UCL Institute of Archaeology
31-34 Gordon Square
London WC1H 0PY
+44-207- 679-7498

PHD CANDIDATE IN EUROPEAN AND MEDITERRANEAN ARCHAEOLOGY, CURT- ENGELHORN-CENTRE FOR ARCHAEOMETRY GGBH, MANNHEIM, GERMANY

The Curt-Engelhorn-Centre for Archaeometry gGmbH, Mannheim (Germany) is seeking a PhD candidate in European and Mediterranean Archaeology (part time position, 37 months, temporary contract)

The Curt-Engelhorn-Centre Archaeometry gGmbH is a nationally and internationally operating research institute providing services in the field of archaeometry. Founded in 2004, the institute comprises the Laboratory for Material Analysis and the Klaus-Tschira-Archaeometry-Centre for Dating Methods and is associated with the University of Heidelberg.

We invite applications for a PhD candidate in European and Mediterranean Archaeology as part of a highly transdisciplinary research project (funded by the European Research Council, 7th Research Framework Programme) which focuses on archaeology, history, geochemistry and geology to decipher the enigma of the origin of a material that emerged in the third millennium BC and gave an entire cultural epoch its name, namely the alloy of copper and tin called bronze.

With the new possibility to measure the isotope ratios of tin that exhibit small but measurable variations in nature making different tin deposits identifiable so that bronze objects can in principle be related to specific ore deposits. It is the aim of this study to characterize all known tin deposits in the Old World and relate them to bronze and tin artefacts of the third and second millennia BC.

Responsibilities - Tasks

- preparing chemical and typological classification of EBA bronze artifacts in Central and Southeastern Europe
- chemical and isotopic characterization of tin ore deposits
- participating in field surveys related to these subjects
- assessing the possible supply of palace economies of the LBA in the Eastern Mediterranean with tin metal from Iberia and the British Isles
- studying the spread of bronze technology from the Aegean to southeastern Europe

Qualifications - Required Skills

Master's degree in geoscience or science-based archaeology Knowledge in clean-lab procedures and isotope measurements with MC-ICP-MS and/or TIMS Open-mindedness to new fields of work Computer skills related to data analysis, proficiency in Microsoft Office applications Sense of responsibility, team spirit, autonomous working, flexibility

How to Apply

Applicants shall submit an application package including a covering letter, CV, copies of degree certificates and salary expectation as a pdf file (other file formats will not be accepted) via email to elka.duberow@cez-archaeometrie.de (please include subject: "BronzeAgeTin") or via regular mail to Curt-Engelhorn-Centre for Archaeometry, HR department, C4,8, 68159 Mannheim, Germany. Open until filled.

Your contact person: Prof. Dr. Ernst Pernicka, ernst.pernicka@cez-archaeometrie.de

Application deadline: 15th of June 2015

ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS

JOHN EVANS DISSERTATION PRIZE – 2015 COMPETITION

John Evans (1941-2005) was an inspirational environmental archaeologist, responsible for advancing the discipline and fostering many of today's top researchers in the field. His many books continue to make a contribution to practical and theoretical aspects of environmental archaeology. To honour the memory of John and his achievements within environmental archaeology, the Association for Environmental Archaeology (AEA) has an annual competition for the best undergraduate and Masters dissertations in any aspect of environmental archaeology.

A choice of prizes of £75 (please note that international students may be liable for the transfer costs) or 3-year membership subscriptions to the AEA will be awarded to the best undergraduate and Masters dissertation, which may be on any aspect of environmental archaeology worldwide. Abstracts from the winning dissertations will be published in the AEA newsletter (this is a condition of entry that all entrants will be agreeing to on submission of their dissertation). The John Evans Dissertation Prize winners will also be encouraged to submit an abridged version of their dissertation for publication in the Association's journal, *Environmental Archaeology*, subject to the usual review process.

We invite each Department of Archaeology (or other relevant department) to submit the dissertation of their best candidate by **31st July 2015**. Submissions from individual students are not accepted. English is the preferred technical language of submission although the committee will also accept submissions in other languages, but these must be accompanied by an English summary (max. 2 pages) to conform to the submission rules. Departments wanting to submit in languages other than English should contact the prize administrator (Dr Alex Livarda) to determine whether the submission can be accommodated.

The results will be announced at the AEA autumn meeting in York, UK, 6-8 November 2015 (<https://www.york.ac.uk/archaeology/news-and-events/events/conferences/aea/>). Please note that only digital copies (pdf) of dissertations will be accepted, and these should be sent to Dr Alex Livarda, who should also be contacted for further information:

Alex Livarda
Department of Archaeology
University of Nottingham
University Park
Nottingham, NG7 2RD UK
Alexandra.Livarda@nottingham.ac.uk

**MSC CULTURAL HERITAGE MATERIALS
AND TECHNOLOGIES, DEPARTMENT OF
HISTORY, ARCHAEOLOGY AND CULTURAL
RESOURCES MANAGEMENT, UNIVERSITY
OF THE PELOPONNESE, KALAMATA,
GREECE**

Dear Colleagues,

Applications for the new MSc in Cultural Heritage Materials and Technologies
- CultTech will be accepted until 15th June 2015.

The programme is hosted at the Department of History, Archaeology and Cultural
Resources Management, University of the Peloponnese, Kalamata, Greece.

For further information and applications please visit CultTech.uop.gr or email
culttech@uop.gr

The CultTech MSc Administration

RSF ARCHAEOLOGICAL TRUST **ARCHAEOLOGICAL FIELD SCHOOL 2015**

The RSF Archaeological Trust is pleased to invite students to take a part in our **extended deadline sessions** which are open till the **end of June 2015**. We're glad to accept applications for the following projects:

[PHILIPPOPOLIS Archaeological Field School 2015](#)

Philippopolis is an ancient city in present-day Bulgaria founded in 6th c. B.C. later named after the Macedonian king Philip the Second. The modern town keeps numerous monuments dated back to the Hellenistic (5th – 4th c. B.C.) and Roman period (1st – 5th c. A.D.) including completely preserved Amphitheatre, attractive fortress and Great Basilica. The students involved will gain comprehensive knowledge on the ancient classical world through intensive field work at one remarkable archaeological site and well-structured program including 20 academic hours theory, 40 hours practicum and two educational trips in the region.

[MUSEUM STUDIES 2015 International Summer School](#)

The project aims to introduce you to the basic principles, methodology and marketing of museums as cultural, research & education institutions. It includes extensive theoretical knowledge in all aspects of museum organization, management and communications. Daily practical work will give you a hands-on experience on museum collections, tracing the artifacts from field to exhibition. The individual involvement through in depth research will lead you to final personalized course experience.

[East Christian Art | Byzantine Art International Summer University](#)

This is a unique project aiming to reveal the roots, meaning, and cultural impact of the South-Eastern European Christian architecture, painting, music, and manuscripts, from the late Antiquity to the post-Byzantine period. We analyze the importance of the East Christian | Byzantine art and its influences on the origins of Renaissance & other Western arts. In 14 days we will study & acquire practical knowledge of all forms of arts in churches, monasteries, museums, and scientific institutions.

With compliments,

Sarah Tatarova (field school secretary)

MASTERS COURSES ON CULTURAL HERITAGE MANAGEMENT AND CONSERVATION OF DECORATIVE ARCHITECTURAL SURFACES UNIVERSITY OF MALTA

The University of Malta, Department of Conservation and Built Heritage, is offering two full time Masters Courses starting in October 2015. The courses will be dealing with Cultural Heritage Management and the Conservation of Decorative Architectural Surfaces (Stone and Wall Paintings) respectively. The MA in Cultural Heritage Management should attract graduates with a first degree in history, archaeology, history of art, conservation, education or related disciplines, wishing to acquire and develop the specialized knowledge and skills to become practitioners in cultural heritage, especially in the Mediterranean region. The MSc in the Conservation of Decorative Architectural Surfaces will be of relevance to graduates in archaeology, history of art, chemistry, biology, physics, architecture or engineering wishing to specialise in conservation and to make it their career.

MSc in Conservation of Decorative Architectural Surfaces

A one-year Preparatory Programme, starting in October 2015, is designed specifically to prepare students to commence the MSc in Conservation of Decorative Architectural Surfaces opening the following year (October 2016). It will give students coming from a humanities background the opportunity to familiarise themselves with science-based topics, and conversely, students from a science background the opportunity to familiarise themselves with arts-based subjects. This is followed by a two-year multidisciplinary course dealing with the conservation of decorative architectural surfaces (including wall paintings, stone, and mosaics). The programme will contain an equal balance of theoretical and practical subjects, carried out both throughout the academic years and as summer placements. A dissertation will be researched and written in the final year of the course.

Anyone requiring further information on this course can access:
[URL: http://www.um.edu.mt/ben/builtheritage/courses/master_degree_programme_in_conservation](http://www.um.edu.mt/ben/builtheritage/courses/master_degree_programme_in_conservation)
[URL: http://www.um.edu.mt/ben/overview/UPPMSCCDAFT-2015-6-O](http://www.um.edu.mt/ben/overview/UPPMSCCDAFT-2015-6-O)
or contact Ms. Jennifer Porter on jennifer.porter@um.edu.mt

MA in Cultural Heritage Management

This is an interdisciplinary programme aimed at persons working as heritage managers, or wishing to enter this field. The course draws on expertise across the university and beyond to provide a sound formation in the mediation of contemporary issues concerning cultural heritage resources, and practical skills that will help participants become effective leaders in this field. The programme includes taught units, a dissertation and a

4-week summer work placement. Seminars and group discussions form an important component of the programme.

Anyone requiring further information on this course can access:
[URL: http://www.um.edu.mt/ben/builtheritage/courses/master_of_arts_in_cultural_heritage_management](http://www.um.edu.mt/ben/builtheritage/courses/master_of_arts_in_cultural_heritage_management)

[URL: http://www.um.edu.mt/ben/overview/PMACHMFTT2-2015-6-O](http://www.um.edu.mt/ben/overview/PMACHMFTT2-2015-6-O)

Or contact Dr Reuben Grima on reuben.grima@um.edu.mt

Information on the University of Malta can be found at:
[URL: http://www.um.edu.mt/about/study](http://www.um.edu.mt/about/study)

Prof. JoAnn Cassar BSc PhD CSci CChem FRSC FGS FIIC
Stone Conservation Scientist
Head
Department of Conservation and Built Heritage
Faculty for the Built Environment
University of Malta
Msida MSD 2080
Malta

INTERNET SITES

INTERNATIONAL NETWORK: UNLOCKING SACRED LANDSCAPES

Dear all,

We would like to announce the establishment of the international network *Unlocking Sacred Landscapes*. Please distribute as appropriate.

This inter-disciplinary Network is concerned with the diachronic study of the temporality, spatiality and materiality of Mediterranean sacred landscapes in general. The function of the Network is based on an agreement of collaboration between the Department of Classics of Trinity College Dublin, the Laboratory of Geophysical-Satellite Remote Sensing and Archaeo-environment of The Institute for Mediterranean Studies in Crete, and the Archaeological Research Unit of the University of Cyprus.

The Network encourages direct contact and research cooperation, such as joint research activities, exchange of faculty members, postdoctoral fellows and research associates for lectures and network meetings, exchange of graduate and undergraduate students for study and research, co-organisation and participation in lectures, seminars and conferences, and co-organisation of teaching activities and training courses.

More information can be found on Network's website:

<http://www.ucy.ac.cy/unsala/>

The first workshop of the *Unlocking Sacred Landscapes* Network is entitled *Spatial Analysis of Ritual and Cult in the Mediterranean* and is to be held at Trinity College Dublin from 15-17 May, 2015, with the support of the Irish Research Council, the Trinity Long Room Hub, the A.G. Leventis Foundation and the Society for the Promotion of Hellenic Studies.

This first workshop will focus on both inter- and intra-site spatial analysis of ritual and cult. The terms ritual and cult are used broadly to include sanctuaries, as well as domestic and funerary spheres of life. It includes papers with a strong methodological focus on spatial analysis and using case studies from across the Mediterranean. We are interested in investigating the interaction between political and religious structures, as expressed in sacred landscapes and space. In addition, moving beyond elite and political structures, focus will also be given to human experience of the numinous in the creation of personal spiritual identities.

In particular, the papers presented deal with:

- (1) The placement of ritual and cult in the broader landscape as revealed from inter-site analysis of cult places,
- (2) The expression of elite and non-elite religious identities as revealed from the intra-site spatial analysis of the material expression of ritual and cult,

- (3) The expression of personal and communal identities as revealed from the intra- and inter-, micro- and macro-site analysis of ritual and cult
- (4) The employment of textual evidence, iconography and art-historical approaches when investigating the spatial dimension of ritual and cult
- (5) Mythology and the spatial dimension of ritual and cult
- (6) Computational developments (e.g. Geographic Information Systems and Geomatics Digitisation, Space Syntax, 3D modelling) of sacred landscapes and ritual space
- (7) Phenomenological, performative and experiential analyses to sacred landscapes and ritual space, and
- (8) The transformation processes of sacred landscapes and ritual space.

Please download the Workshop's programme and abstracts here:

http://www.ucy.ac.cy/unsala/documents/Images/Programme_and_Abstracts_WEB.pdf

Participation is aimed at researchers and professionals actively engaged in related areas. There is no registration fee for attendance, but prior registration is compulsory.

For further information please contact:

Giorgos Papantoniou and Christine Morris
Department of Classics, Trinity College Dublin.

papantog@tcd.ie; cmorris@tcd.ie

Dr Giorgos Papantoniou
Irish Research Council/ Marie Curie Postdoctoral Fellow
Department of Classics
School of Histories and Humanities
Trinity College Dublin

<http://www.tcd.ie/Classics/staff/papantog.php>

Religion and Social Transformations in Cyprus:

<http://www.brill.com/religion-and-social-transformations-cyprus>

PARTHIAN SOURCES ONLINE

This website is a digital collection of texts from the Parthian empire, one of the biggest and longest-lasting empires of antiquity. Under the kings of the Arsacid dynasty (c. 247 BCE to 224 CE), the Parthians ruled a kingdom that stretched from central Asia in the east to the Euphrates river in the west. Their history is a crucial part of the legacy of ancient Iran, though in many respects it is still poorly understood.

Some of the texts here are in ancient Greek. Others are in Parthian, an Iranian language that outlasted the Arsacid empire and remained in use even after the overthrow of the dynasty. Coming soon are a few inscriptions in Latin composed by Parthians living in the territory of the Roman empire.

Site Introduction

If this is your first time using the site, start here.

Texts

A list of all currently available sources.

Bibliography

Editions, grammars, and further reading.

About

Author and acknowledgements.

Please visit the site: <http://ancientworldonline.blogspot.co.uk/2015/05/parthian-sources-online.html> [Go there for embedded links]

DIGITAL ATLAS OF EGYPTIAN ARCHAEOLOGY

<http://leadr.msu.edu/projects/fall-2014-3/daea/> is the website "Digital Atlas of Egyptian Archaeology". Go there for many links:

The Digital Atlas of Ancient Egypt is a digital cultural map of archaeological sites in Egypt (ranging from the Predynastic to the Roman period). Collaboratively produced at Michigan State University during the Fall 2014 semester by the students registered in the Archaeology of Ancient Egypt class (ANP 455), the Digital Atlas of Ancient Egypt represents an experiment in applied digital archaeology undergraduate learning.

ICONAEGEAN WEBSITE

Dear all,

I have just launched my Website

www.IconAegean.com

to comment on the seals, signets and sealings of the Bronze Age Aegean and to provide easy access to my research on this important body of material. It also provides direct links to my IconA Databases on the CMS Website and helpful hints on using these IconA Databases which list 1000 seals and describe their iconography in a defined vocabulary.

Do check it out when you have time. Comments, suggestions and questions are always welcome at: iconaegEAN@bigpond.com

Enjoy!

Best Wishes,

Janice Crowley

BLOG ΓΙΑ ΘΕΜΑΤΑ ΣΥΝΤΗΡΗΣΗΣ ΣΤΟ **ΤΜΗΜΑ ΣΥΝΤΗΡΗΣΗΣ ΤΟΥ ΜΟΥΣΕΙΟΥ** **ΜΠΕΝΑΚΗ**

Καλημέρα σας,

Στο Τμήμα Συντήρησης του Μουσείου Μπενάκη, δημιουργήσαμε ένα blog, όπου δημοσιεύονται τόσο επιλεγμένες δραστηριότητες του Τμήματος όσο και γενικότερα θέματα από το χώρο της συντήρησης.

Είναι προσβάσιμο στη διεύθυνση: benakiconservation.wordpress.com

Υπάρχει η δυνατότητα ενημέρωσης των ανακοινώσεων με την προσθήκη email.

Με εκτίμηση

Βασίλης Πασχάλης

Βασίλης Πασχάλης | Vassilis Paschalis

Υπεύθυνος Τμήματος Συντήρησης Έργων Τέχνης | Head of the Conservation dept.

ΜΟΥΣΕΙΟ ΜΠΕΝΑΚΗ | BENAKI MUSEUM

Ησιόδου 6, 106 74 Αθήνα | 6 Hesiodou str. GR 106 74 Athens, Greece

T: 210 7258790

F: 210 7258587

M: 697 8484009

E: paschalis@benaki.gr | vpaschalis@gmail.com

W: www.benaki.gr | www.benakishop.gr

B: benakiconservation.wordpress.com

ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS

RADIOCARBON, VOL 57, NO 3 (2015), PROCEEDINGS OF THE 1ST INTERNATIONAL "RADIOCARBON IN THE ENVIRONMENT" CONFERENCE, 18–22 AUGUST 2014, QUEEN'S UNIVERSITY BELFAST, NORTHERN IRELAND, UK

Hello all,

Thrilled to announce that the **Radiocarbon in the Environment** proceedings are published and available as open access [here](#). Stay tuned for upcoming announcements regarding the 2017 Radiocarbon and Environment conference in Hungary.

Our next issue is the proceedings of the “Radiocarbon and diet: aquatic food resources and reservoir effects” meeting. Corrected proofs will be available soon online.

Thank you,

Mark

Mark McClure
RADIOCARBON Managing Editor
Univ. of Arizona, Dept. of Geosciences
4717 E. Fort Lowell Rd, #104
Tucson, AZ USA 85712
+1 (520) 621-0641 phone | +1 (520) 621-0584 fax
www.radiocarbon.org | <https://journals.uair.arizona.edu/index.php/radiocarbon/index>

Follow us on Twitter: <https://twitter.com/14Cjournal>

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THE RESET PROJECT: CONSTRUCTING A EUROPEAN TEPHRA LATTICE FOR REFINED SYNCHRONISATION OF ENVIRONMENTAL AND ARCHAEOLOGICAL EVENTS DURING THE LAST C. 100 KA, QUATERNARY SCIENCE REVIEWS XXX (2015) 1-17

John Lowe, Christopher Bronk Ramsey, Rupert A. Housley, Christine S. Lane, Emma L. Tomlinson, RESET Team, RESET Associates

Keywords:

Last Glacial stage, Dansgaard-Oeschger and Heinrich events, Abrupt environmental transitions (AETs), Middle to Upper Palaeolithic, Volcanic ash isochrons, Tephra geochemistry, Tephra database

Abstract:

This paper introduces the aims and scope of the RESET project (REsponse of humans to abrupt Environmental Transitions), a programme of research funded by the Natural Environment Research Council (UK) between 2008 and 2013; it also provides the context and rationale for papers included in a special volume of Quaternary Science Reviews that report some of the project's findings. RESET examined the chronological and correlation methods employed to establish causal links between the timing of abrupt environmental transitions (AETs) on the one hand, and of human dispersal and development on the other, with a focus on the Middle and Upper Palaeolithic periods. The period of interest is the Last Glacial cycle and the early Holocene (c. 100e8 ka), during which time a number of pronounced AETs occurred. A long-running topic of debate is the degree to which human history in Europe and the Mediterranean region during the Palaeolithic was shaped by these AETs, but this has proved difficult to assess because of poor dating control. In an attempt to move the science forward, RESET examined the potential that tephra isochrons, and in particular non-visible ash layers (cryptotephra), might offer for synchronizing palaeo-records with a greater degree of finesse. New tephrostratigraphical data generated by the project augment previously-established tephra frameworks for the region, and underpin a more evolved tephra 'lattice' that links palaeo-records between Greenland, the European mainland, sub-marine sequences in the Mediterranean and North Africa. The paper also outlines the significance of other contributions to this special volume: collectively, these illustrate how the lattice was constructed, how it links with cognate tephra research in Europe and elsewhere, and how the evidence of tephra isochrons is beginning to challenge long-held views about the impacts of environmental change on humans during the Palaeolithic.

Please visit the site:

<http://www.sciencedirect.com/science/article/pii/S0277379115001481#>

REVISITING KOKKINOPILOS: MIDDLE PLEISTOCENE RADIOMETRIC DATES FOR STRATIFIED ARCHAEOLOGICAL REMAINS IN GREECE, JOURNAL OF ARCHAEOLOGICAL SCIENCE, 03/2015, 57

V. Tourloukis, P. Karkanis, J. Wallinga

Abstract:

The red-bed site of Kokkinopilos is an emblematic and yet also most enigmatic open-air Palaeolithic site in Greece, stimulating controversy ever since its discovery in 1962. While early research raised claims for stratigraphically in situ artifacts, later scholars considered the material reworked and of low archaeological value, a theory that was soon to be challenged again by the discovery of in situ lithics, including handaxes. Here we present results of a latest and long-term research that includes geoarchaeological assessments, geomorphological mapping and luminescence dating. We show that the site preserves an overall undisturbed sedimentary sequence related to an ephemeral lake, marked by palaeosols and stratigraphic units with Palaeolithic material that is geologically in situ and hence datable. Our study resolves the issues that have been the source of controversy: the depositional environment, stratigraphic integrity, chronological placement and archaeological potential of the site. Moreover, the minimum ages obtained through luminescence dating demonstrate that the lithic component with bifacial specimens considerably pre-dates the last interglacial and therefore comprises the earliest stratigraphically defined and radiometrically-assessed archaeological material in Greece. Kokkinopilos has served as a reference site for the interpretation of all other red-bed sites in north-west Greece, therefore our results have significantly wider implications: by analogy to Kokkinopilos, the open-air sites of Epirus should not anymore be considered 'by default' as inscrutable palimpsests with limited archaeological potential; rather, these sites can be excavated and chronologically constrained. This realization opens up new prospects for future research in Epirus, an area that is the most prolific in Palaeolithic remains in Greece.

Please visit the site:

https://www.researchgate.net/publication/273790524_Revisiting_Kokkinopilos_Middle_Pleistocene_radiometric_dates_for_stratified_archaeological_remains_in_Greece

IRON IN THE HOMERIC EPICS & HOMER, A SENSIBLE ECOLOGIST, BY GEORGE VAROUFAKIS

Professor at the University of Athens
Chairman of the Board of HALYVOURGIKI
e-mail: gvaroufakis@gmail.com

IRON, a poor, disdained and ugly metal

Iron is regarded as a poor, disdained and ugly metal. Actually, who amongst us would ever stop, while walking, just to collect a piece of a rusty iron metal? Certainly, no-one. However, it constitutes an important metal of our everyday life. Actually, iron dominates everywhere. Ships, cars, motorcycles, trains, cranes, factories, buildings, skyscrapers, bridges and so many other constructions; are all made of iron? Could we ever imagine our life without the existence of this ugly, but so necessary metal? Certainly, no one.

Iron, a metal with magical properties

Iron is the only metal that has the magical property to acquire high hardness, when transformed into steel followed by a heat treatment of quenching and tempering. Homer in the 8th century BC was influenced by these magical properties to such an extent, that he refers to it several times in his epics, though the Trojan War took place in an age when copper and bronze, rather than iron, were the main metals in use to manufacture tools and weapons.

In some cases, however, Homer becomes conscious that during the Trojan War iron was regarded as a valuable metal, and its possession an indication of wealth. It is worth mentioning that iron was well known in the 2nd millennium BC, but in the shape of expensive signet rings. Thus, Homer, sometimes mentions iron as a precious metal and sometimes as a hard metal, i.e. steel. It is very interesting to note that tablets found at Akkad, a region somewhere near Baghdad, Iraq, quote that at that remote time iron was six times more expensive than silver.

Iron used in exchange commodities

Now, Iron, as mentioned above, was always considered a valuable metal during the 2nd millennium BC. Thus, in Book VII of *Iliad* (v. 472-473), we note that, during the Trojan war, Achaeans obtained wine from Lemnos in exchange of copper and “shining iron”.

The possession of iron, an indication of wealth

It is always worth mentioning some cases, where the possession of iron during the Trojan war was considered as an indication of wealth. It is interesting to read the following examples from *Iliad*

Example 1: At a battle just outside the walls of Troy (Book VI, v. 44-48), after a hard pursuit, Menelaus and Agamemnon arrested a rich young Trojan, named Adrastus. The latter was in despair, and besought him: “Take me alive, thou son of Atreus, and accept a worthy ransom; treasures of copper, gold and hard to work iron; who are stored in my father’s palace, and thereof he would grant thee ransom... should he hear that I am alive at the ships of Achaeans.”

It is obvious, that in this case iron along with gold and copper was considered as an expensive metal.

Example 2: Dolon was sent by Hector to spy out the Achaeans' camp whether they would flee away after the great casualties they suffered during the last fierce battle. However, for the same reasons, Odysseus and Diomedes appeared in the darkness to spy out the intentions of the Trojans. When both realized that Dolon was there for the same reason, they followed him and after a harsh hunt they caught him, and interrogated him about the future aims of the Trojans. Dolon, pale with fear and bursting out in tears, told them: "Take me alive, and I will ransom myself; for at home my father's palace possesses bronze, gold, and hard to work iron ... my father will grant you ransom... should he hear that I am alive at the ships of the Achaeans." (Book X, v. 376-381)

Iron used as a weapon

However, Homer, influenced by his own era, refers to the use of iron as a hard steel in the manufacture of weapons and tools; he forgets that weapons during the Trojan War were made of copper and its alloys.

- 1) In Book IV of *Iliad*, Homer refers to the use of an iron arrow-head. He describes how the Trojan Pandarus aimed king Menelaus with his bow, with an arrow, bearing an iron head.
- 2) In Book IV, (v. 485-486), during one of those bloody conflicts between the Achaeans and the Trojans, Ajax son of Telamon killed a Trojan named Simoeisios, with a shining iron weapon: "The man on the chariot killed him with shining iron cutting tool..."

ODYSSEY

Now, Homer was so extremely influenced by the magical properties of iron to harden when transformed into steel, followed by the heat treatment of quenching and tempering, that he refers to this magical metal several times in his epics, especially in his *Odyssey*. It is worth mentioning the blinding of Polyphemus by the wily Odysseus described by Homer in his *Odyssey* (Book IX, v. 390-394). "...As a blacksmith plunges a hatchet into cold water to harden it – the latter makes a great hiss, giving strength to iron– even thus did the Cyclops' eye hiss round the beam of olive wood..." The poet is obviously deeply impressed by the discovery of this new metal. He could easily describe the terrible blinding scene by using any other metal. They all hiss similarly when heated to a high temperature, and then plunged into cold water. However, the power generated in steel through quenching, stirred the poet so deeply, that he refers to this magical transformation, transmitting us the message of his time: the great evolution of iron metallurgy during the 9th and 8th centuries BC.

Hesiod, who lived during the 8th century BC, was so deeply affected too, that he attributes the misery of his own time to iron:

"...I wish I did not live amongst people of the fifth generation,
but that I had died earlier or been born later,
because this generation is a generation of iron
and exhaustion and misery of the people never ceases..."

Actually, Hesiod feared not the iron itself, but the consequences its use would provoke as far as social relations of his time were concerned. And he was right. After the 8th century

the pace of history accelerated with imaginable rapidity and this provoked social unrest and extensible bloodshed.

Nevertheless, there is a positive point of view. From the 8th century BC onwards, a remarkable activity in all fields of civilization is to be noted: art, poetry, philosophy, science, pottery, metallurgy, metal crafts, and technology in general. And whilst during the Bronze Age history is written in millennia, from now on we notice a rapid evolution every two centuries. Thus, the Geometric Period is followed by the Archaic, Classical, Hellenistic and Roman periods. So many changes within only eight centuries.

Homer, a sensible ecologist of the 8th century BC

In Book XXI of *Iliad*. Achilles slaughters whoever came into his sight, furious because of the tragic death of his beloved friend Patroclus. Scamander, with the deep and rapid waters, got red and muddy by the blood of the slaughtered Trojans. Homer considers this as an inadmissible ecological catastrophe; an insult to a god, as ancient Greeks believed that each river was an autonomous deity, and Scamander itself was one of the sons of Zeus. He gets furious with the great disaster provoked by Achilles and seeks to take revenge, even to overwhelm him. Thus, he rushes on him with swollen waves and terrible whirlpools, “splashing out with foam, blood and dead people...”.

Achilles is in complete despair. His drowning seems almost unavoidable. In full despair, as the poet recalls, he begs Zeus to save him from the rage of Scamander. “I wish Hector had killed me (v. 279)”, “in that case a brave man would have killed another brave man (...), rather than to find a miserable death into the black waters of this wild river”.

Finally, the goddess Hera intervenes and with Hephaestus’ help she saves the hero. The god of metallurgy sets fire to the nearby woods, a fire that spreads out to the whole plain near the river. It burns everything, even the deceased Trojans. The waters of the river start boiling from the heat and now it is Scamander who finds himself in a difficult situation; he begs Hera to make Hephaestus stop the fire and promises that he will stop tantalizing Achilles. Finally, the water of the river calm down and Achilles is saved.

This scenery, as described by Homer, shows how sensitive he was towards environment. Regarding the great fire of the woods, certainly they were not provoked by Hephaestus, but by both the Achaeans and the Trojans who would try to create major problems to one another. In any case, the great ecological catastrophe that war caused to the river and the surrounding area had a profound effect upon Homer, who describes it in such an intense and human way, as well.

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ΕΙΔΗΣΕΙΣ - NEWS RELEASE

JORDAN LONG BEFORE PETRA, **BY GAIL SIMMON**

It is late afternoon in Wadi Faynan, an arid, tributary valley that opens into Wadi Araba, the long, broad segment of the Great Rift Valley that links the Dead Sea to the north with the Gulf of Aqaba to the south. I'm crouching inside an oval-shaped, mostly underground hut. It's a cozy place, one that would provide some shelter from rain, sun and cold—though add a few more people, and it would quickly feel cramped. It is roofed with mud-covered branches. Through window-like openings near the low ceiling, I can see the sun begin its descent behind the serrated silhouette of the surrounding Sharah Mountains as it rakes the sky with rose and apricot.

Outside I hear only wind and birdsong, but in my imagination I can travel back nearly 12,000 years to when this was a small but thriving community, occupied most likely for only parts of each year. Then, there would have been voices, people calling out to each other, the patter of children running about; perhaps the rasp of flint against bone as animal carcasses were cleaned; and—most significantly to archeologists today—the thumps and scrapes of pestles against mortars as cereals were ground into a rough flour.

It's not only my imagination that has conjured this scene. On this spot, one of just a few identified to date in southwestern Asia, archeologists have evidence of what were likely some of the first experiments in communal living and farming. Here, discoveries of plant remains indicate that Neolithic ("New Stone Age") people gathered and processed wild barley, and then they possibly began sowing, nurturing and harvesting it, a practice that in time domesticated the plant and transformed history.

The landscape near my shelter is littered with fragments of knapped flint—remnants of the former inhabitants' hand tools—as well as lumps of hollowed-out stone that were used to laboriously pulverize grain by the handful. A few meters away are the telltale bumps and contours of at least 30 round structures that may have been storage buildings, with floors aboveground and with multiple chambers, some like the one I am sitting in now.

Excavated remains of stone-wall structures dating to 8500-6250 bce—before the development of pottery—lie along Wadi Ghuwayr, uphill about 15 minutes' walk from the older site of WF16. These show evolution in architecture from WF16's mud walls, and here archeologists have also uncovered evidence of the cultivation of cereals. Excavated remains of stone-wall structures dating to 8500-6250 bce—before the development of pottery—lie along Wadi Ghuwayr, uphill about 15 minutes' walk from the older site of WF16. These show evolution in architecture from WF16's mud walls, and here archeologists have also uncovered evidence of the cultivation of cereals.

Although radiocarbon dating of charcoal deposits suggest that this place was inhabited first more than 100 centuries ago, my hut is a replica, constructed a few years back on the one-hectare (2-ac) site that archeologists have been excavating on and off for nearly 20 years.

It's beginning to grow dark outside. Mohammed Defallah, a local Bedouin goat herder turned travel guide, calls. I emerge from the shelter and my reverie. He's brought me here from nearby Faynan village. Earlier, he'd also baked some bread for lunch here, mixing a ball of flour with water, then kneading the lump of dough and forming it into a perfect flatbread on an ancient mortar stone he found nearby. Sweeping aside the embers of an acacia-wood fire, he placed the dough under the fire-hot sand, and minutes later it was some of the freshest bread I'd ever tasted. It struck me that I had just witnessed a scene that may have been little changed since bread was first baked here thousands of years ago.

This site at Faynan is just one of the dozens of Neolithic settlements discovered in the southern Levant, but it is proving one of the most significant. Faynan shows evidence that the great shift from hunting and gathering to crop-raising—the “agricultural revolution”—took place not only widely across the region, but also much farther south than previously believed, and it offers clues to how that change took place.

Dating to between 10,000 and 8500 bce, Faynan is one of the earliest of the Neolithic sites discovered in the entire Middle East, which in turn means “it's one of the earliest in the whole world,” says Steven Mithen, an archeologist from University of Reading, uk. An expert in the origins and spread of farming, Mithen first visited Faynan in 1996, and he has been working here since 1997 alongside both Bill Finlayson, regional director of the London-based Council for British Research in the Levant (cbrl), and Mohammed Najjar, former director of excavations at Jordan's Department of Antiquities. “It's an especially well-preserved site, probably used by people who were just experimenting with the cultivating of plants,” Mithen says.

In 2010, the team working at WF16 unearthed remains of what is now Wadi Faynan's most astonishing discovery: an amphitheater-like building that dates to 9700 bce, prior to known agriculture. It calls into question the assumption that agriculture brought on higher social organization: Was it the other way around? The structure has been covered over to protect it against weathering until it can be studied further.

BILL FINLAYSON / WADI FAYNAN PROJECT

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Beyond this, one particular discovery makes Faynan even more significant: In 2010, the archeological team, which included university students and local Bedouin, unearthed—to their astonishment—an amphitheater-like structure measuring 22 by 19 meters (70 x 61'), or roughly the size of two tennis courts. It dates to about 9700 bce—before any known agriculture. It is the largest known building of its era.

A meter-wide bench runs around about half its circumference, decorated with a wave pattern like that found on stone artifacts from the site and partly backed by another tier of seats. A 1.2-meter-deep (4') channel runs its length, flanked at one end by two stone platforms containing cup-shaped mortars. Close by, archeologists uncovered broken

pieces of stone bowls. There are also postholes in the floor that they say are likely to have held wooden pillars.

“Whether [the structure] was used for a functional activity like grinding grain, or some ceremonial purpose such as feasting or sacrifice, we don’t yet understand,” says Mithen. “But what is really striking is its age, representing the very earliest period of the Neolithic.” Although now backfilled for protection from the elements, the building is still discernible from the depressions just beneath the surface of the ground where I stand.

This artist’s depiction of the round, stone houses at Wadi Faynan in its Neolithic heyday appears on a sign at the site. “When we first came here hoping to find a prehistoric site, ideally of the Neolithic period, other archeologists told us there was no chance,” Mithen recalls. “They said this region of the Levant, at the very southern tip of the Fertile Crescent, was a backwater. They argued that it was all happening in the Mediterranean lands in the other side of the Jordan Valley near Jericho, or hundreds of kilometers north in Turkey where Göbekli Tepe had just been discovered.”

Jericho and Göbekli Tepe are two of the most important previously known early Neolithic sites in the wider region. Jericho, 125 kilometers (75 mi) north of Faynan in the West Bank, was excavated first in the 1950s by British archeologist Kathleen Kenyon. Discoveries there include an 8.5-meter (28') tower, a massive stone wall and a number of round structures similar to those now known at Wadi Faynan. Göbekli Tepe, in southeastern Turkey, is unique for its elaborately decorated, rectangular stone pillars—some standing three meters (10') tall—excavated beginning in the 1990s by the late German archeologist Klaus Schmidt.

“What we see now is that in the Levant, human development was not happening in just one place,” says Mithen. “There were contemporary developments in many different areas.”

Pink oleanders track the trickle of water in Wadi Faynan, which today runs much drier than in Neolithic and earlier times. Indeed, discoveries in the vicinity trace human history back a million years, almost without a break.

The early Neolithic site at Wadi Faynan now carries the prosaic name WF16, which distinguishes it by number from other nearby sites that together, along this mostly desiccated watercourse, comprise a million years of human records. It starts with the discovery of Lower Paleolithic (“early Old Stone Age”) hand axes, and it shows a nearly continuous progression to the present.

Half a kilometer east (1/3 mi) of WF16, at the entrance to Wadi Ghuwayr, is a site dating to 8500-6250 bce, a later Neolithic period, before the development of pottery. Five kilometers (3 mi) down Wadi Faynan, a large tell, or mounded former habitation site, shows signs both of farming and of copper mining and smelting. It dates to 5500 years ago—around the beginning of the Bronze Age.

And then there are Roman, Byzantine and Islamic sites: Faynan was the greatest copper mine in the Roman Empire, and later, during the Byzantine era, it was known as Phaenon, home to the bishopric of Palaestina Tertia. Islamic ruins include a Mamluk-era caravanserai. This immense timescale prompts archeologists working at Wadi Faynan to

contend that few, if any, places in the world can claim such a long record of continuous human activity.

A desert lark sits atop a stone at Wadi Faynan, where communal life may have set in motion the first steps toward the domestication of wild plants—and civilization as we know it.

But it is WF16, with its mysteriously ancient amphitheater and the questions it raises about the story of mankind's development, that excites Neolithic experts like Mithen. "It may not look as spectacular as Göbekli Tepe," he tells me, explaining that the postholes at WF16 "may well have held [wooden] totem poles which haven't survived," or maybe they held up a roof. "If there was ever a roof over that structure, it would have been a very spectacular one," he says.

Whatever the purpose of the building, it was apparently a focal point for the community. Archeologists still don't yet know how sedentary the people who gathered here actually were: They may have assembled only at certain times of the year, perhaps to process or celebrate the harvest of wild plants. And because the structure predates farming, which began around 8000 bce, some 10,000 years ago, it raises a compelling question of human social development: Did gathering for communal activity help people launch agriculture? To date, archeology generally has assumed that it worked the other way around: The rise of agriculture facilitated communal, sedentary living. But now, maybe not.

Before the discovery of WF16 in the mid-1990s, Beidha was the best-known Neolithic site in Jordan. It lies on the route of the Neolithic Heritage Trail, south of Wadi Faynan and just a few kilometers north of world-renowned Petra, the monumental Nabataean trading city built around the beginning of the fourth century bce.

The hypothesis that WF16 was a seasonal rather than a permanent meeting place has the support of Gary Rollefson, an archeologist from Whitman College in Washington state who has worked on Neolithic projects in Jordan's Eastern Desert for many years. WF16 appears to be a place "for temporary social activities centered around possible harvest and hunting," he says. Marriages, gift exchanges and communal work at those same times would have fostered "social identity and solidarity," he adds. This could have been helpful in organizing early plantings and harvests.

Similar questions of purpose have arisen from Göbekli Tepe, although no apparent storage or workshop structures have been located there. "Göbekli Tepe is not as representative of the 'normal' Neolithic world as somewhere like Faynan," Mithen says, adding that, in addition, Faynan's architectural remains are more precisely dated and better preserved than those at Jericho.

Map of the Neolithic Heritage Trail

WF16 is also currently among the region's most accessible Neolithic sites. Jerf el-Ahmar, in northern Syria, disappeared in 1999 under waters retained by the Tishrin Dam, says Finlayson, who discovered WF16 and has spent many seasons working in southern Jordan. He notes that political upheaval has curtailed access in northern Iraq, and that sites in Iran excavated in the 1950s and '60s have been hard to reach since the 1979 revolution.

Here in Wadi Faynan, the climate, too, favored its preservation. Situated at the southern tip of the area in which cereals could grow wild, it was always a marginal place subject

to less intensive agricultural and urban development than the better-watered areas to the north and west—activities that tend to degrade and erase delicate Neolithic remains.

Standing on a mound at WF16 today, it's hard to see how this waterless, rock-strewn terrain could have supported an otherwise unassuming community that happened to be on the cutting edge of an agricultural revolution. But then, the climate was wetter, and both hunter-gatherers and early farmers would have been within easy reach of the nearby upland plateau rich with woodlands of oak, fig and pistachio. Today, only a few patches of evergreen oak forest remain there, along with some protected woodland at the southern end of the Dead Sea, to hint at the far more verdant, Neolithic world.

For nearly a million years until relatively recent times, Wadi Faynan and environs were attractive places for making a living and trading. With several Neolithic sites, its importance as a commercial thoroughfare is shown by finds of seashells from the Mediterranean and the Red seas as well as bitumen, used to cover baskets, from the Dead Sea to the north.

A TRAIL RUNS THROUGH IT

With a million years of human history, Wadi Faynan today is home to Bedouin goat herders and farmers, and it is also a destination for visitors to the Faynan Ecolodge, who come mainly to enjoy rugged mountain scenery and profound desert silence.

“Local people, many of whom have worked on past excavations, have fragments of information about their particular dig,” explains Paul Burtenshaw, a research fellow at the Council for British Research in the Levant (cbri). “But they don't have any context for that information, or know about the lives of the people who lived here.”

“It's the same with the tourists,” he adds. “Although some have heard of the archeology, it's like a backdrop. People don't come specifically to visit the sites.”

This is something archeologists at the cbri are working to change by developing a 50-kilometer (31 mi) Neolithic Heritage Trail between Faynan and Beidha. The route largely follows the ancient road through Wadi Namla, and it takes in a handful of smaller sites as it winds through the majestic Sharah Mountains. While the trail has not yet been fully way-marked or signed for self-guided hikers, you can go on one of the guided hikes offered by local tour operators, or you can drive.

The first stop out of Faynan is Shkarat Msaied, set on a windswept hilltop 20 kilometers (12 mi) south. Unlike the scattered burial pits at Faynan, those discovered here are concentrated in a single building dating between 7300 and 5900 bce, which suggests a special role as a mausoleum, and thus a shift in ritual practice.

Farther south is Ba'ja, the hardest to reach of all the trail sites, accessible only by hiking for around an hour along the dramatic Siq' al-Ba'ja, where access is at times hampered by rocks washed down the gorge by flash floods. No other early community seems to have chosen such a hidden site, and the carved sandstone rings and pendants found here reveal Neolithic experimentation with art.

Beidha lies a few kilometers farther south. Situated next to the Nabataean caravanserai of Little Petra and fitted with new interpretive signs, Beidha is perhaps the best-presented site in the Neolithic story that Burtenshaw hopes the trail will begin to tell.

“The trail is more than the sum of its parts,” he says. “Taking it, you can follow the narrative through a variety of sites, and see the social experiment that was taking place in the Neolithic period. People might only spend a little time at each place, but the collective experience is that you see these sites, and the landscape they’re in, in a new way.”

Mithen hopes that new work at WF16, scheduled for 2017, may reveal evidence of “when it actually started, and whether we see a long-term transition from very mobile hunter-gatherers to more sedentary hunter-gatherers to completely sedentary farmers.”

What the archeologists do know is that WF16 was abandoned around 10,500 years ago. Its most likely successor site is the nearby, 1.2-hectare (3 ac) area on a steep hillside at the entrance to Wadi Ghuwayr, which was excavated in the 1980s. Its small, rectangular buildings, with interior plastered walls and adjacent passageways, date to the period when villages were known to be forming, and farming was well under way.

What impresses a visitor to Ghuwayr is the sense of shared purpose, visible even in the ruins, represented by the walls, stairs and windows visible in these more complex buildings. People were making big advances living together, forming long-lasting communities and organizing large-scale cooperative projects here, the archeologists explain. And they were probably cooperating not only internally, but also with others throughout this region and the wider Levant, in areas such as Jericho.

From Ghuwayr, I can see far down Wadi Faynan to the flat haze of Wadi Araba, which served as an obstacle-free, north-south thoroughfare enabling hardy people to share trade, technologies, ideas and discoveries. Finds at Wadi Faynan include seashells from the Mediterranean and Red Sea coasts (some made into beads) and raw materials such as bitumen from the Dead Sea (probably used to cover baskets). These and other finds help archeologists believe that there is now enough evidence to begin to piece together patterns of the region’s earliest commerce.

“There’s obviously contact—though not necessarily everyday contact,” says Finlayson. “We now realize this was a massively networked world, with no one place acting as the ‘origin point’ of agriculture. It’s as if people were all exploring the same idea, but expressing it differently.”

Or, as Rollefson puts it, “religion, ritual, and social interaction were not genetically programmed in these populations; instead, such activities were very different, locally developed variable solutions to problems that affected all human societies in that revolutionary period.”

In addition to Wadi Araba, there was also Wadi Namla, which links Faynan to the world-famous site of Petra, 50 kilometers (30 mi) to the south. That famous trading city was established by the Nabataeans around the fourth century bce, but millennia before Petra there was a road linking Neolithic sites along it, including Shkarat Msaied, Ba’ja and

Beidha, excavated in the 1950s and, until Faynan, the most prominent Neolithic site in southern Jordan.

I am heading to Beidha now, along the Wadi Namla road, which winds through the granite and sandstone of the Sharah Mountains. As it descends toward Beidha, the rugged scenery gives way to valleys planted with barley, temporarily lush after spring rains. Unlike at parched Faynan, here it's not hard to imagine the region as it may have been in the Neolithic period.

What's visible of Beidha dates mostly from the later pre-pottery Neolithic, after Faynan. I rendezvous with Finlayson and his colleagues Mohammed Najjar and Cheryl Makarewicz, an archeologist from Kiel University in Germany. Finlayson, who arrived at Beidha in 2000 and has been digging here intermittently ever since, shows me around its complex of circular and rectangular houses. Two buildings have been reconstructed nearby, partly so archeologists can test hypotheses about building techniques, and partly to give curious visitors from Petra, just a few kilometers to the south, something to see, much as with the reconstruction at WF16.

Posing amid the dig site in Beidha, from left, are archeologists Mohammed Najjar, former director of excavations at Jordan's Department of Antiquities, Cheryl Makarewicz of Kiel University in Germany, and Bill Finlayson, regional director of the Council for British Research in the Levant.

Unlike Wadi Faynan, where there is evidence stretching almost seamlessly back to the early Neolithic and before, here the archeological record shows that the immediate area lay abandoned from around 6500 bce until the early Nabataean period some 6000 years later.

"There's something that happens at the end of this early Neolithic period when people begin to gather together in a large scale," says Finlayson. "Beidha may have been too small to be part of that process, and may have been absorbed into a much bigger community. Or maybe they just exhausted the soil, or the local springs dried up."

Beidha and its great Nabataean neighbor Petra flourished in a far more water-rich environment than today. Indeed, much of what's known about Petra's extensive and sophisticated water-management system probably applied to Beidha. But Finlayson is wary of too many analogies to Petra.

Ba'ja, the second-to-last stop on the 50-kilometer (31 mi) Neolithic Heritage Trail, under development and linking Wadi Faynan to Beidha, is reached through the spectacular, rock-strewn obstacle course called Siq' al-Ba'ja. While drivers can traverse the trail in a single day, hikers can savor it over four or five days with a local guide.

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"Beidha is definitely not a 'pre-Petra,'" he says. "The problem is, every site around Petra tends to be seen through a Nabataean lens."

Now, as Finlayson resumes his work on the excavation beneath the unrelenting sun, I cast my mind back to Faynan, pondering how long it might be until people begin to see the rest of southern Jordan through a Neolithic lens, too.

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Historian and travel writer Gail Simmons (www.travelscribe.co.uk) surveyed historic buildings and led hikes in Italy and the Middle East before becoming a full-time travel writer for uk and international publications. She holds a master's degree in medieval history from the University of York and is currently earning her Ph.D. She lives in Oxford, England.

George Azar Photojournalist and filmmaker George Azar (george_azar@me.com) is co-author of Palestine: A Guide (Interlink, 2005), author of Palestine: A Photographic Journey (University of California, 1991) and director of the film Gaza Fixer (2007). He lives in Jordan.

Please visit the site:

<https://www.saudiaramcoworld.com/issue/201406/jordan.long.before.petra.htm> [Go there for great pix and better formatting]

THE EGYPTIAN ARMY HEADQUARTERS IN SINAI DURING THE NEW KINGDOM DISCOVERED

Dr. Mamdouh El Damaty announced the discovery of the remains of the eastern gate of Tharw fortress in Sinai which served as the Egyptian army headquarters in the New Kingdom.

The discovery was made by the Egyptian team working at Tell Habwa in the east bank of the Suez Canal.

The discovery also include mid brick royal warehouse belong to "Ramses II and Thotmoses III" and 26th Dynasty cemetery most of the graves are mud brick and group tombs of contains human remains showing battles injuries.

The discovered part of the eastern gate of Tharw fortress are 3 fragments of limestone with inscriptions of Ramses II of 3 meters length and 1 meter width. The fort is on the famous Horus military road which was the way to secure the eastern Egyptian borders.

Please visit the site: <http://luxortimesmagazine.blogspot.nl/2015/05/the-egyptian-army-headquarters-in-sinai.html> [Go there for pix]

NEW ARCHAEOLOGICAL FINDS **CHALLENGE IDEAS OF PREHISTORIC** **ISRAEL - NEOLITHIC FERTILITY GODDESS** **FIGURE FOUND IN RESCUE DIG COULD** **CHANGE THINKING ABOUT ANCIENT** **CULTURES, BY NIR HASSON**

A small statue most likely used as a ritual object could change the view of archaeologists about the beginnings of the period of human settlement in the Middle East. The statue, in the form of a fertility goddess, was found in a rescue dig being conducted before the Mekorot water company lays a new pipeline close to Moshav Beit Hilкия, near Gedera in south-central Israel.

Remains from three prehistoric periods were found in the dig. The oldest have been dated to about 7,000 years ago, during the Pottery Neolithic period. Archaeologists from the Israel Antiquities Authority also found a fired ceramic clay figurine of a full-figured woman.

Similar figures from the same period are well-known from other excavations, in particular from the Golan Heights region. At least 115 such figurines were found in digs at Sha'ar Hagolan – but only two such statues have been found outside the Golan, one in Lod and the other in the Horvat Ptora site near Kiryat Gat.

These figures are mostly attributed to what is known as the Yarmukian culture that flourished mostly in northern Israel about 7,500 years ago. This is a different culture than has been found in digs close to Beit Hilкия, such as at Revadim, known as “Jericho 9.”

The differences between the cultures are best seen in the pottery they made. If in the past, archaeologists thought Jericho 9 replaced the Yarmukian culture, the more accepted theory today is that the two cultures existed at the same time, but in different areas: the Yarmukian in the north and Jericho 9 in the south.

The discovery of the figurines – clearly Yarmukian – accompanied by the other two found in the region raises the question of the relationship between the two cultures.

“I think that in the end this is one culture with differences in the way pottery is made,” said Dr. Edwin van den Brink, who was in charge of the excavation along with Yitzhak Mermelstein. It is a big deal for the archaeologists, he said – but for the people who lived back then the differences were not so important. “It seems they had a single system of beliefs.”

“The question is whether the figurines represent a single ritual world in which there is an image with a bountiful chest, wide hips and maybe pregnancy,” said Mermelstein. “The most important question is whether the figures were made in the south or brought from the north.”

The archaeologists are now planning to conduct chemical tests of the statue to determine the source of the clay – whether it is from the north or south of Israel.

Please visit the site: <http://www.haaretz.com/life/archaeology/.premium-1.655240>
[Go there for pix]

SOUTH AFRICA: EARLY HUMAN SKIN FOUND **ON 2 MILLION-YEAR-OLD FOSSILS,** **BY YASMIN KAYE**

Anthropologists say they have discovered human skin belonging to 2 million year-old fossils in the remains of six ancient skeletons found in South Africa.

The tissue is thought to be from the species *Australopithecus sediba*, thought to be an early human ancestor that has a mix of primitive and more advanced features.

It is a transitional species between *Australopithecus* species – the first species to walk upright – and early *Homo* species, of which humankind is the latest form.

The discovery may be the oldest skin ever found, and could even hold the key to valuable details about early humans' lives. Organic materials including the remains of their last meals were found between their teeth, potentially giving an insight into their diet.

Experts made the discovery in a cave near Johannesburg, which has been excavated since a 4' 2" male skeleton was found in 2008.

Professor Lee Berger, an anthropologist at the University of Witwatersrand in Johannesburg, told the Naked Scientists radio show: "We found out this wasn't just a normal type of rock that they were contained in – it was a rock that was preserving organic material.

"Plant remains are captured in it – seeds, things like that – even food particulates that are captured in the teeth, so we can see what they were eating.

"Maybe more remarkably, we think we've found fossil skin here too."

The investigation started after the professor's then 9-year-old son spotted a fossilised bone at the Malapa Nature Reserve site in 2008 – the first discovery of the new species. They later excavated more bones, as well as an almost complete skull, before making the discovery public in 2010.

Scientists decided to build a laboratory on the spot in order to protect the "remarkable" fossils, including a platform that allows them to take off large pieces of the site to work on them in the laboratory.

Professor Berger says he has no idea how many more human fossils he may find.

"Every time we open up a little bit of rock here and move a little bit of dirt, we see someone new," he said. "We're introduced to another one of these people that died 2 million years ago."

The site will now be turned into a live laboratory, where members of the public can look down into the cave and see excavations in process.

According to research, the former "people" would have walked on two legs, but been "strikingly" short.

"Until they got closer, you probably wouldn't realise what's bothering you but something would bother you," Berger said. "They would probably only be standing about 1.3 metres tall. They also been more lightly built... They had longer arms than we do, more curved fingers. So, they're clearly climbing something. They also would've moved a little different.

"Their hips were slightly different than ours and their feet are slightly different. So, their gait would've probably been a more rolling type gait, slightly different from the more comfortable long distance stride we had.

"As they got closer to you, you'd be struck by for the most obvious thing which would be, their heads are tiny. If you imagine, you take a man's fist and curled it up, that's about the size of their brain and that would strike you. There'd be almost this pinhead on top of this small body. And that would immediately make you recognise that this is not a human."

Please visit the site: <http://www.ibtimes.co.uk/south-africa-early-human-skin-found-2-million-year-old-fossils-1500528>

COULD THIS BE THE BIGGEST FIND SINCE THE DEAD SEA SCROLLS? SEVENTY METAL BOOKS FOUND IN CAVE IN JORDAN COULD CHANGE OUR VIEW OF BIBLICAL HISTORY, BY FIONA MACRAE

For scholars of faith and history, it is a treasure trove too precious for price.

This ancient collection of 70 tiny books, their lead pages bound with wire, could unlock some of the secrets of the earliest days of Christianity.

Academics are divided as to their authenticity but say that if verified, they could prove as pivotal as the discovery of the Dead Sea Scrolls in 1947.

On pages not much bigger than a credit card, are images, symbols and words that appear to refer to the Messiah and, possibly even, to the Crucifixion and Resurrection.

Adding to the intrigue, many of the books are sealed, prompting academics to speculate they are actually the lost collection of codices mentioned in the Bible's Book Of Revelation.

The books were discovered five years ago in a cave in a remote part of Jordan to which Christian refugees are known to have fled after the fall of Jerusalem in 70AD. Important documents from the same period have previously been found there.

Initial metallurgical tests indicate that some of the books could date from the first century AD.

Revelation: Experts speculate that the tablets could be the lost collection of codices referred to in the Bible's Book Of Revelation

The Dead Sea Scrolls, counted among the most important archaeological finds of the modern era, were discovered in a cave (pictured) by a Bedouin shepherd in the West Bank.

The scrolls consist of 30,000 separate fragments making up 900 manuscripts of biblical texts and religious writings from the time of Jesus.

The fragile parchment and papyrus fragments have been the subject of intense study for more than half a century by an international team of scholars who are still trying to understand the significance of some 30 per cent of the texts which are not included in the Bible or any other previously known religious writings.

The scrolls include the earliest known copy of the Ten Commandments, an almost complete Book of Isaiah and many of the Psalms.

Some of the texts were damaged by well-intentioned restoration attempts since the 1950s that included the use of Sellotape, rice paper and perspex glue.

This estimate is based on the form of corrosion which has taken place, which experts believe would be impossible to achieve artificially.

If the dating is verified, the books would be among the earliest Christian documents, predating the writings of St Paul.

The prospect that they could contain contemporary accounts of the final years of Jesus's life has excited scholars – although their enthusiasm is tempered by the fact that experts have previously been fooled by sophisticated fakes.

David Elkington, a British scholar of ancient religious history and archeology, and one of the few to have examined the books, says they could be 'the major discovery of Christian history'.

'It is a breathtaking thought that we have held these objects that might have been held by the early saints of the Church,' he said.

But the mysteries between their ancient pages are not the books' only riddle. Today, their whereabouts are also something of a mystery. After their discovery by a Jordanian Bedouin, the hoard was subsequently acquired by an Israeli Bedouin, who is said to have illegally smuggled them across the border into Israel, where they remain.

However, the Jordanian Government is now working at the highest levels to repatriate and safeguard the collection. Philip Davies, emeritus professor of biblical studies at Sheffield University, said there was powerful evidence that the books have a Christian origin in plates cast into a picture map of the holy city of Jerusalem.

'As soon as I saw that, I was dumbstruck,' he said. 'That struck me as so obviously a Christian image. There is a cross in the foreground, and behind it is what has to be the tomb [of Jesus], a small building with an opening, and behind that the walls of the city.'

'There are walls depicted on other pages of these books too and they almost certainly refer to Jerusalem. It is a Christian crucifixion taking place outside the city walls.'

The British team leading the work on the discovery fears that the present Israeli 'keeper' may be looking to sell some of the books on to the black market, or worse – destroy them.

But the man who holds the books denies the charge and claims they have been in his family for 100 years.

Dr Margaret Barker, a former president of the Society for Old Testament Study, said: 'The Book of Revelation tells of a sealed book that was opened only by the Messiah.'

'Other texts from the period tell of sealed books of wisdom and of a secret tradition passed on by Jesus to his closest disciples. That is the context for this discovery.'

Professor Davies said: ‘The possibility of a Hebrew-Christian origin is certainly suggested by the imagery and, if so, these codices are likely to bring dramatic new light to our understanding of a very significant but so far little understood period of history.’

Mr Elkington, who is leading British efforts to have the books returned to Jordan, said: ‘It is vital that the collection can be recovered intact and secured in the best possible circumstances, both for the benefit of its owners and for a potentially fascinated international audience.’

*British scientists have uncovered up to eight million mummified dogs, thought to have been sacrificed to Anubis, the god of the dead, 2500 years ago after excavating tunnels in the ancient Egyptian city of Saqqara.

Please visit the site: <http://www.dailymail.co.uk/sciencetech/article-1371290/70-metal-books-Jordan-cave-change-view-Biblical-history.html> [Go there for pix and better format]

<http://www.dailymail.co.uk/sciencetech/article-1371290/70-metal-books-Jordan-cave-change-view-Biblical-history.html>

UNLOCKING THE SECRETS OF ANCIENT GREEK POTTERY, BY BRET MCCABE

Thirteen Johns Hopkins undergraduates divide themselves into four groups and huddle over tables at Baltimore Clayworks, the ceramic arts studio in Mount Washington. Every group is trying to paint lines on clay tiles; each student has a specific task. Some paint. Some write down what kinds of marks are being made. And some take photos of the process.

This course in the Krieger School of Arts and Sciences isn't a simple pottery class. For one, a documentary crew led by filmmaker Bernadette Wegenstein, a research professor in the Department of German and Romance Languages and Literatures, shadows the students as they work. For another, instead of using a commercial slip-the suspension of water and clay used as paint-the groups are using one handmade by Matthew Hyleck, a Clayworks ceramic artist, and their class instructor, Sanchita Balachandran. And the students are painting with individual animal hairs.

"I have horse hairs, hog hairs, and cat whiskers," Balachandran tells the class. "See what kinds of lines you can get with one hair versus a bundle of three."

Balachandran, the Johns Hopkins Archaeological Museum's curator/conservator, designed this course as an intensive, interdisciplinary research project in experiential archaeology. She's trained to figure out how things were made, and she's particularly interested in ancient technology. The museum has a collection of Attic red-figure vases that date from ca. 520-470 BCE, and a few are renowned for images created on them by famous painters. How did the ancients get such incredibly precise and shiny red figures and raised black lines on these two-handled drinking cups called kylixes?

A number of theories have been proposed. Classical art historian Joseph V. Noble's book *The Techniques of Painted Attic Pottery*, published in 1965, includes a two-page précis on pottery techniques that has become the prevailing theory for classical scholars; Noble, however, never threw a pot himself. Toby Schreiber, a potter, studied the Getty Museum's ancient pottery collection and proposed her own theory with *Athenian Vase Construction: A Potter's Analysis* (1999). And in the 1920s, Gisela Richter, a Metropolitan Museum of Art curator of Greek and Roman art, took ceramics classes to write *The Craft of Athenian Pottery* (1923).

Each author's pottery-making theory is shaped by his or her professional perspective. So when Elizabeth Rodini, the director of the Krieger School's Program in Museums and Society (which is supporting the class along with a grant from the Andrew W. Mellon Foundation), asked Balachandran what her dream course to teach would be, the conservator knew exactly what to try. "I want to know how these objects were made," Balachandran says. "I want it to bring together all these different specialists who have something to say about these technologies to talk to each other and to us."

Over the semester's 12 weeks, the students in *Re-creating Ancient Greek Ceramics* are immersed in three rigorous disciplines. Through readings and class speakers, and in subjects from art history to classics, to conservation, to materials science and

engineering, they're navigating the cultural history and techniques of Greek pottery. They're immersed in social science research techniques as they document, in journals and on the class's blog, the various scholarly ideas they're testing out in the Clayworks studio. And they're recording everything obsessively because Balachandran and Hyleck are having them, given the published information available, try to replicate the clay, slip, kiln, and firing techniques of the ancient Greek era.

During the university's winter break Hyleck and Balachandran built a kiln from scratch, starting with wet materials, mixing those together to make clay, shaping that clay to form bricks, and using those bricks to construct a beehive-style kiln. This raw materials-to-end product approach puts a number of theories into practice with an unknowable outcome, and there are no guarantees that any of it is going to produce the desired results: black marks on red clay.

Hyleck says the project's ambition was initially a bit overwhelming, when Balachandran called him about it last year. At that time, he points out, he knew nothing about Greek Attic ware, and he didn't work with the same materials (earthenware) or techniques (firing at low temperatures). But the vases themselves, those interested him. And when he and Balachandran met up at the museum to discuss the class, she asked if he wanted to handle one of the vases. "Absolutely I want to hold that," Hyleck says, referring to a kylix attributed to Phintias as painter. "It's every potter's dream to be able to hold those things."

In doing so, a potter today could admire the work of one 2,500 years ago. "At this point I can look at something and pretty quickly start to hypothesize how it would be done," Hyleck says. "And picking up and holding one of these pieces-when you look through a glass vitrine at a museum, all objects have visual weight that we as humans infer-and these are so remarkably light compared to what I inferred. When you pick these up, they just float."

Handling the vase, Hyleck could understand how the potter distributed its weight. "That control starts to tell you a lot about craftsmanship," he says. "Those are things that I wish there was a way to convey to everyone, but tactile is the only way to translate that."

That sense of intimacy, of transforming information to a human scale, is one of the experiences Balachandran hopes her students are gaining from the class. "These have become aesthetic objects, like paintings that happen to be on vases," she says. "But anytime I've given people a chance to work with the material, it's a very humbling experience. It forces you to look at [the vases] in a much more thoughtful way. And to me that's the whole point of art-it's storytelling, it's about recognizing the human genius in an object."

Each group is decorating a kylix, under the guidance of Hyleck, and each student is making a tile. Hyleck says the experiment, thus far, is proceeding as uncharted art endeavors often do: You learn something new every time you try something the first time. The first firing of the homemade kiln, for example, produced the iron conversion that predicted the formation of black lines. "We didn't get that beautiful, uniformly shiny black everywhere," Hyleck says, "but I think it's on the right path. Now you start to tinker and think about was it application, or was it firing, and then fire it again and see what you get."

This slow discovery makes the students participants in the trial-and-error process that produces new scholarship. "There was this moment in the class when a student asked, So you're telling me that we could do all this and none of it could work?" says Balachandran, who admitted that was entirely possible. "But I think knowing that has given them some power and agency. It means something because it's going to inform the next round of experiments. And they're doing the documentation and generating a new set of knowledge."

Please visit the site: <http://hub.jhu.edu/gazette/2015/may-june/datebook-ksas-archaeology-project>

MUMMIES' HEIGHT REVEALS INCEST, BY **ROSSELLA LORENZI**

The height of the pharaohs who ruled ancient Egypt supports historical records that they might have married their sisters and cousins, says new research into 259 mummies.

It's known from historical sources that incestuous marriages were common among the ancient Egyptian royalty. The pharaohs believed they descended from the gods so inbreeding was seen as a way to retain the sacred bloodline.

But it is hard to prove incest in royal marriages through genetic testings because of ethical consideration when destroying mummies' tissues.

Frank Rühli, director of the Institute of Evolutionary Medicine at the University of Zurich, and colleagues used a highly heritable character, body height, to look for evidence of incest in 259 mummies of both commoners and royals.

"It is actually one of the largest collections of body height of ancient Egyptians and spans all major periods of their history," Rühli told Discovery News.

The researchers tested the hypothesis of royal incest by studying variation (difference between individuals) of body heights of royals and comparing it with variations among commoners.

"Pharaohs varied less in height than men of the common population. This is one indicator of inbreeding," Rühli said.

Detailing their results in the American Journal of Physical Anthropology, Rühli and colleagues noted that the pharaohs were taller than non-royal males from the same time period, while there was little difference between the stature of queens and common Egyptian women.

Weird Facts About King Tut and His Mummy

The average height of the male population varied between 161 cm (5.28 feet) in the New Kingdom (about 1550-1070 BC) and 169.6 cm (5.56 feet) in the Early Dynastic period (about 2925-2575 BC), making an average of 165.7 cm (5.43 feet) for all time periods.

Females ranged between 155.6 cm (5.10 feet) in the Late Period (712-332 B.C) to 159.5 cm (5.23 feet) in the Early Dynastic period - an average stature of 157.8 cm (5.17 feet)

Overall, the average height of kings was a steady 166 cm (5.44 feet), featuring much less variations compared to the general population. Queens and princesses averaged 156.7 cm (5.14 feet).

The tallest pharaoh among those under investigation appears to be Ramses II (about 1303 - 1212 B.C.), who stood at least 173 cm (5.67 feet) and was married to Queen Nefertari-

merj-em-Mut. She too was an outstandingly tall woman for her time, at 165 cm (5.41 feet) -- taller than the average man in the New Kingdom.

The study also confirmed the highly incestuous levels in the rulers of the 17th and 18th Dynasty, with the 165 cm-tall King Amenhotep I scoring the highest on the incest scale.

He probably was the product of three generations of sibling marriages. In comparison, King Tutankhamun earned a half ranking point.

In the lower range of the scoring system, which researchers admit is rather rough, were pharaohs such as Thutmose III, whose grandparents were siblings, but not his parents.

Pharaohs who were married to their sisters, but whose parents were not siblings, were not considered since the incest effect would only affect their offspring.

"The study shows some evidence for consanguineous (incestuous) marriages in a reliable, non-invasive way," Barry Bogin, professor of biological anthropology at Loughborough University, U.K., told Discovery News.

He achieved similar results in a study carried out in Guatemala on living boys and girls between five and 14 years old.

"The height variation was reduced in the children from very wealthy families and very, very poor families compared with more middle-to-low income families," Bogin said.

The pattern of height variation indicated that both the wealthy and the poor lived in homogeneous environments -- very good for the wealthy and very bad for the poor. Those in the middle economic group lived in more variable environments.

"Average height and height variation reflect very nicely the quality of the environment. So, the very good environment of the royal men might be another reason why their height variation is reduced compared with commoners," Bogin said.

Please visit the site: <http://news.discovery.com/history/ancient-egypt/mummies-height-reveals-incest-150511.htm>

WORLD’S OLDEST LEATHER SHOE, **BY KATE RAVILIOUS**

The article below by Kate Ravilious, “[*World’s Oldest Leather Shoe Found—Stunningly Preserved*](#)“, was reported originally by the National Geographic Daily News on June 9, 2010. about the world’s oldest leather shoe discovered in Armenia. The discovery of the world’s oldest known leather shoe was funded by the National Geographic Society, the Chitjian Foundation (Los Angeles), and Joe Gfoeller of the Gfoeller Foundation, the Steinmetz Family Foundation, the Boochever Foundation, and the Cotsen Institute of Archaeology.

Kindly note that a number of photos and the video did not appear in the original National Geographic report.

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A Manolo Blahnik it isn’t.

Still, the world’s oldest known leather shoe, revealed Wednesday, struck one of the world’s best known shoe designers as shockingly au courant.
“It is astonishing,” Blahnik said via email, “how much this shoe resembles a modern shoe!”

Stuffed with grass, perhaps as an insulator or an early shoe tree, the 5,500-year-old moccasin-like shoe was found exceptionally well preserved—thanks to a surfeit of sheep dung—during a recent dig in an Armenian cave.

About as big as a current women’s size seven (U.S.), the shoe was likely tailor-made for the right foot of its owner, who could have been a man or a woman—not enough is known about Armenian feet of the era to say for sure.

Made from a single piece of cowhide—a technique that draws premium prices for modern shoes under the designation “whole cut”—the shoe is laced along seams at the front and back, with a leather cord.

Ron Pinhasi, co-director of the dig, from the University College Cork in Ireland, explains:
“The hide had been cut into two layers and tanned, which was probably quite a new technology”.

Yvette Worrall, a shoemaker for the Conker handmade-shoe company in the U.K., added:
“I’d imagine the leather was wetted first and then cut and fitted around the foot, using the foot as a last [mold] to stitch it up there and then.”

The end result looks surprisingly familiar for something so ancient—and not just to Blahnik.

“It immediately struck me as very similar to a traditional form of Balkan footwear known as the opanke, which is still worn as a part of regional dress at festivals today,” said Elizabeth Semmelhack, a curator at the Bata Shoe Museum in Toronto, Canada.
“I thought, Wow, not so much has changed.”

Oldest Leather Shoe Shows Stunning Preservation

Radiocarbon dated to about 3500 B.C., during Armenia’s Copper Age, the prehistoric shoe is compressed in the heel and toe area, likely due to miles upon miles of walking. But the shoe is by no means worn out.

Shoes of this age are incredibly rare, because leather and plant materials normally degrade very quickly.

But in this case the contents of a pit in the cave, dubbed Areni-1, had been sealed in by several layers of sheep dung, which accumulated in the cave after its Copper Age human inhabitants had gone.

“The cave environment kept it cool and dry, while the dung cemented the finds in,” said Pinhasi, lead author of the new study, published by the journal PLoS ONE Wednesday.

Why Was Oldest Leather Shoe Made?

Protecting the foot was probably one of the main reasons people started wearing shoes, and certainly this seems the case for the world’s oldest leather shoe.

Around the Armenian cave, *“the terrain is very rugged, and there are many sharp stones and prickly bushes,”* said University of California archaeologist and study co-author Gregory Areshian, who was partly funded by the National Geographic Society’s Committee for Research and Exploration. (The National Geographic Society owns National Geographic News.)

Furthermore, shoes like this would have enabled people to cope with extremes of temperature in the region—up to 113°F (45°C) in summer and below freezing in winter—and to travel farther.

“These people were walking long distances. We have found obsidian in the cave, which came from at least 75 miles [120 kilometers] away,” he said.

Blahnik, the shoe designer, speculates that even this simple design was worn for style as well as substance.

“The shoe’s function was obviously to protect the foot, but I am in no doubt that a certain appearance of a shoe meant belonging to a particular tribe,” said Blahnik, who knows a thing or two about expressing identity through attire. *“I am sure it was part of the outfit which a specific tribe wore to distinguish their identity from another.”*

Not the World’s Oldest Shoe

Previously, the oldest known closed-toe shoes were those belonging to Ötzi, the “Iceman” found in the Austrian Alps in 1991, who died around 5,300 years ago. (See “Iceman Wore Cattle, Sheep Hides; May Have Been a Herder.”)

Sandals meanwhile, have an even longer history, with the oldest specimens, dated to more than 7,000 years ago, discovered in the Arnold Research Cave in central Missouri. The wearing of shoes, though, is almost certainly older than the oldest known shoes. For example, a weakening of small toe bones found in 40,000-year-old human fossils has been cited as evidence of the advent of shoes.

Compared to Ötzi's shoes, the world's oldest leather shoe is strictly bare-bones, according to Jacqui Wood, an independent archaeologist based in the U.K., who studied Ötzi's shoes and who said the new study's science is sound.

"The Iceman's shoe was in another league altogether," Wood said. "Each base was made from brown bearskin; the side panels were deerskin; and inside was a bark-string net, which pulled tight around the foot...By contrast, the Armenian shoe is the most basic of shoes and was probably made worldwide once people decided not to walk about in bare feet." (See pictures of the Iceman.)

It's true that similar shoes have been found at other sites and from other times, but study co-authors Pinhasi and Areshian think it's plausible that the style originated in Armenia.

Pinhasi notes:

"Many other inventions, such as wheel-thrown pottery, cuneiform writing, and wool production evolved in the ancient Near East...And so Armenia may give us the earliest clues to a 'prototype' shoe, which later spread to Europe".

Rebecca Shawcross, a shoe historian at the Northampton Museums & Art Gallery in the U.K., said:

"You can certainly make a case for this shoe [design] being a forerunner to the North American moccasin, which has gone on to be a popular shoe style, whose influences can be seen in shoes of today—deck shoes; soft, slipper-style shoes for men; and so on."

The "Astonishingly modern" shoe has been preserved by sheep dung, dryness and stable temperatures of the Armenian cave in which it was discovered. This invention of the shoe allowed humans to better protect their feet over rough terrain, against extreme heat and cold and to travel over longer distances.

Beyond the World's Oldest Leather Shoe

With the moccasin mystery largely solved, the study team has plenty more puzzles to solve in Areni-1.

Along with the shoe, the ancient sheep dung had sealed in the horns of a wild goat, bones of red deer, and an upside-down broken pot.

Pinhasi said:

"It is a strange assortment of items...and I wouldn't be surprised if they have some symbolic meaning"—a meaning that could be revealed as summer, and a new dig season, dawns at Areni-1.

Please visit the site: <http://www.kavehfarrokhi.com/news/kate-ravilious-worlds-oldest-leather-shoe/>

**NEW DISCOVERY: GABAL AL-SELSILA
QUARRIES WERE A SACRED AREA IN
ANCIENT EGYPT THE REMAINS OF AN
ANCIENT EGYPTIAN TEMPLE HAVE BEEN
UNEARTHED NEAR ASWAN IN WHAT
MINISTER OF ANTIQUITIES MAMDOUH EL-
DAMATY DESCRIBES AS A "VERY
IMPORTANT" DISCOVERY,
BY NEVINE EL-AREF**

A Swedish archaeological mission from Lund University uncovered this week remains of an ancient Egyptian temple in the area of Gabal Al-Silsela quarries located 65 kilometres north of Aswan.

Minister of Antiquities Mamdouh El-Damaty described the discovery as "very important" because it highlights that the area of Gabal Al-Silsela was not only used by ancient Egyptians as a large source of sandstone blocks to built gigantic monuments, but also had a sacred religious importance.

"That is why they built a temple, whose remains were found," El-Damaty asserted.

He explained that the temple can be dated to the New Kingdom and early studies reveal that the temple was used across four historical epochs, from the Tuthmosis era, during the reigns of kings Amenhotep III and Ramses II, as well as in the Roman period.

Nasr Salama, director of Aswan antiquities, told Ahram Online that the location of the temple was determined with the help of maps published by German archaeologist Ludwig Borchardt. The foundation of the temple is located on the east bank of the Nile, north west of King Amenhotep IV's stelae (religious relief).

The remains of the temple, Salama pointed out, are 35.2 x 18.2 metres large and include four layers, column bases, and internal and external walls. Traces of five gigantic columns were found on the grounds of the western side of the temple.

Maria Nelson, head of the Swedish mission, said that excavation work at Gabal Al-Silsela started in 2012 when the mission discovered several parts of the cartouches of kings Amenhotep III and Ramses II, as well as sandstone fragments painted with scenes of dark skies with sparkling stars. She said excavation would continue in order to reveal more blocks of the temple.

Please visit the site:

<http://english.ahram.org.eg/NewsContent/9/40/130463/Heritage/Ancient-Egypt/New-discovery-Gabal-AlSelsila-quarries-were-a-sacr.aspx> [Go there for many pix]

ARCHEOLOGISTS DISCOVER ANCIENT MOUNDS IN IRAN'S KERMAN PROVINCE

Archeologists have found over 40 ancient mounds in Iran's southeastern province of Kerman.

Archeologists from Germany's Tübingen University and the Iranian Research Center for Cultural Heritage and Tourism discovered 42 ancient mounds near the city of Faryab.

"The mounds are scattered in an area of 8,000 kilometers and date back to the period of time between the pre-Neolithic and Islamic eras," said head of the Iranian archeology team Nader Alidad-Soleimani.

The mounds were discovered during the first phase of archeological excavations in the area. The project was conducted over the past three months with the aim of studying the cultural exchange between Mesopotamia and the southeastern areas of ancient Persia during the Bronze Age.

Archeologists used drones to take aerial photos, three dimensional pictures and topographic maps of the excavation site.

The next phase of archeological excavations in the area will begin in March 2016.

Germany's Tübingen University and the Iranian Research Center for Cultural Heritage and Tourism signed a Memorandum of Understanding (MoU) in January 2015 to strengthen cooperation on archeology and research.

The two sides also agreed to cooperate in preservation and restoration of archeological sites, holding joint workshops and exhibitions for the next five years.

Iran's Kerman Province is has a great archeological significance, as it is home to Jiroft archeological site, which once housed one of the most important civilizations in the region.

Excavations have shown that the Jiroft civilization interacted with societies in Mesopotamia, the Indus valley and Central Asia in Early Bronze Age.

Archeological finds show that different civilizations lived in the area during different periods of time in history. Experts say the archeological remains from these civilizations may be traced up to 11 meters under the ground.

Please visit the site: <http://www.presstv.ir/Detail/2015/05/27/413138/Iran-Kerman-mounds-Bronze-Age-Faryab-Tubingen-University-Jiroft-Mesopotamia>