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Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

- Αύγουστος 2014 -

**Όλοι είμαστε στο έργο της ζωής... Αν μείνουμε θεατές, θα
πληρώσουμε!! Αν πάρουμε μέρος στον θίασο, θα
πληρωθούμε! (Αισχύλος)**

Newsletter of the Hellenic Society of Archaeometry

- August 2014 -

Nr. 161

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Hydrophobe VII, International Conference on the Water Repellent Treatment of Building Materials 11-12 September, 2014, Laboratório Nacional de Engenharia Civil (LNEC), Lisbon, Portugal **page 16**

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Research Associate/Senior Research Associate: Archaeometallurgist, - Ref:1424247 **page 25**

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Postdoctoral Fellow / Research Fellow (A318-14TO) - Nuclear Physics Department, Research School of Physics and Engineering, ANU College of Physical and Mathematical Sciences **page 28**

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Crisis and Ambition: Tombs and Burial Customs in Third-Century CE Rome, Barbara E. Borg **page 36**

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ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

CRETAN GRAPHIC & BABYLONIAN ASTRO- CHRONOLOGICAL SYSTEMS IN GEORGIAN ALPHABET AND MONUMENTS, 9-11 OCTOBER, 2014, GEORGIA'S TECHNICAL UNIVERSITY, TBILISI, GEORGIA

Journal “Kartvelology”

PKF Georgian (Audit Company)

Venue: Georgia's Technical University, 77 Kostava St., 0175 Tbilisi, Georgia

The Conference aims to discuss the Georgian Asomtavruli Alphabet as a highly complex system of mathematical, geometric, astronomical, chronological and religious systems concealed in the interpenetrating layers of the alphabetic mechanism. Presenters will also focus on the analysis of various artifacts concerning ancient scholarship, and the scope of their geographical spread.

It is also the purpose of the Conference to direct the attention of world scholars towards the necessity of carrying out a systemic examination of the knowledge encoded in the alphabet. The latter embraces not only the Georgian writing scrip, but also the world's writing systems and huge scientific lore accumulated in the history of mankind.

The topics of the conference include, but are not limited to the following:

Georgian Asomtavruli as a complex writing system; Georgian Asomtavruli and astronomy; Georgian Asomtavruli and exact sciences (mathematics, geometry, chronology); Georgian Asomtavruli and ancient writing systems (Sumerian, Egyptian, Cretan, Phoenician, etc.); Georgian Asomtavruli – its origin and dating; Georgian Asomtavruli and archaeology.

Working languages Georgian, English, Russian

Members of the Organizing Committee

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**Please visit the site: http://gtu.ge/alphabetconference/kontaqti_eng.html [Go there
for many links]**

'MIDDLE PALAEOOLITHIC IN THE DESERT II', UNIVERSITY OF BORDEAUX, FRANCE, 11-12 DECEMBER 2014, CALL FOR PAPERS

We are pleased to announce a call for papers for the conference 'Middle Palaeolithic in the Desert II', which will be held at the University of Bordeaux on the 11th and 12th of December 2014. We also invite application for a small number of bursaries to assist delegates from less economically developed regions to present their research at the conference. Submission deadline is 15th September. Please see [Abstracts and Bursaries](#) for further information.

All conference participants are required to register by the 15th November. Conference Fees include registration, conference refreshments and a wine reception (11th December). Optional conference activities include the conference dinner (€25 - 12th December) and the excursion to Les Eyzies and two near-by Palaeolithic sites including Grotte de Rouffignac (€40 - 13th December). [Please follow this link to reach the registration system.](#)

We are gratefully acknowledge our sponsors:

[UMR5199 PACEA: De la Préhistoire à l'Actuel: Culture, Environnement, Anthropologie](#)
[LaScArBX Cluster of Excellence: Bordeaux Archaeological Sciences](#)

Fédération des Sciences Archéologiques de Bordeaux
[Université de Bordeaux](#)
[Le Centre national de la recherche scientifique \(CNRS\)](#)

Please visit the site : <https://sites.google.com/site/middlepalaeolithicdesert/home>

**RADIOCARBON AND DIET: AQUATIC FOOD
RESOURCES AND RESERVOIR EFFECTS,
INTERNATIONAL SCIENTIFIC MEETING:
24-26 SEPTEMBER 2014, KIEL - GERMANY**

Dear colleagues and friends,

We are happy to announce that the preliminary programme and timetable for "Radiocarbon and diet: aquatic food resources and reservoir effects" are now available online (<http://www.rre-conference.uni-kiel.de/programme.html>).

We would like to thank all those who have contributed with their abstracts. We received abstracts from five continents on a rich variety of topics related with aquatic resources, isotopic proxies, and radiocarbon reservoir effects.

Submissions for oral presentations are no longer possible. However, it is still possible to submit abstracts for a poster presentation until 31 July.

By imposition of the financial services of the University of Kiel it is only possible to pay the registration fees through bank transfer. Given that this may introduce additional administrative steps resulting in some delays we decided to postpone the registration deadline until 31 July.

We are very much looking forward to seeing you all in Kiel this September.

All the best,

Radiocarbon & Diet organizing committee

Preliminary Programme

Wednesday (24 September 2014)

12:00 **Registration**

14:00 **Welcome**

14:10 **Opening Keynote (S00K): Isotopes, diet and aquatic reservoir corrections in radiocarbon dating – selected developments and examples from Greenland and Northern Europe**
Heinemeier, Jan

15:10 **Coffee Break & Poster Session**

Session 1 “Detecting, quantifying, and modelling dietary reservoir effects”
Beavan, Nancy & Yoneda, Minoru

15:40 Keynote (S01K): **You're as old as what you eat (plus a few thousand years): Problems and prospects dealing with radiocarbon reservoir effects in archaeology**

Ascough, Philippa

16:20 (S01T01): **Maritime adaptation of Jomon hunter-gatherer-fishers of prehistoric Japan**

Yoneda, Minoru; Kusaka, Soichiro

16:40 (S01T02): **An archaeological mystery revealed by radiocarbon dating of cross-flow nanofiltrated amino acids derived from bone collagen, silk and hair: The case study of the bishops Baldwin I and Radbod II from Noyon-Tournai**

Boudin, Mathieu; Boeckx, Pascal; Vandenabeele, Peter; van Strydonck, Mark

17:00 (S01T03): **Detection of human dietary radiocarbon reservoir effects through the radiocarbon dating of multiple bone fractions (collagen, bioapatite, single amino acids)**

Fernandes, Ricardo; Dreves, Alexander; Nadeau, Marie-Josée; Grootes, Pieter; Penduff, Pierre

17:20 (S01T04): **Modelling freshwater reservoir effects at Lake Baikal, Siberia, through paired dates on Neolithic and Bronze Age human and faunal remains**

Schulting, Rick; Ramsey, Christopher Bronk; Bazaliiskii, Vladimir; Goriunova, Olga; Weber, Andrzej

17:40 **End of session**

18:00 **Ice Breaker**

Thursday (25 September 2014)

Session 2 “Pottery and aquatic foods: radiocarbon and isotopic signatures”

Meadows, John & Kennett, Douglas

09:00 Keynote (S02K): **Aquatic resources in 'food crusts': Identification and implication**

Heron, Carl

09:40 (S02T01): **Building a reference collection of charred food residues**

Philippesen, Bente; Meadows, John

10:00 (S02T02): **Do freshwater fish always live in water with abundant ancient carbon? Are fish always cooked in ceramic vessels? Perspectives from northeastern North America**

Lovis, William; Hart, John

10:20 (S02T03): **On the potential of reservoir effect in the archaeological radiocarbon dates in the eastern Fennoscandia**

Pesonen, Petro; Oinonen, Markku

10:40 **Coffee Break & Poster Session**

11:10 (S02T04): **Aquatic resources use in Early Neolithic of Eastern Europe (Dnepr-Dvina and Low Don)**

Dolbunova, Ekaterina; Craig, Oliver; Mazurkevich, Andrey; Kulkova, Marianna

11:30 (S02T05): **Isotopic Signals in Charred Food Crusts from Zamostje 2, Russia, and their Chronological Implications**

Meadows, John; Lübke, Harald; Schmöcke, Ulrich; Lozovskaya, Olga; Lozovski, Vladimir

11:50 (S02T06): **Palaeo diet and aquatic radiocarbon reservoir effects in the light of research on food crusts in Lithuania**

Piličiauskas, Gytis; Heron, Carl; Piličiauskienė, Giedrė

12:10 **Lunch Break and Visit to Leibniz Labor**

13:50 (S02T07): **Pottery chronology and the problem of ‘fishy’ food crusts: dating hunter-gatherer ceramics from the Russian forest zone**

Piezonka, Henny; Meadows, John; Craig, Oliver

14:10 (S02T08): **Reconstruction of paleo diets in potteries using radiocarbon dating, stable isotope analysis and lipid analysis from Late to Final Jomon Periods, Mikawa Bay, Japan**

Miyata, Yoshiki; Horiuchi, Akiko; Nakamura, Kentaro; Kuronuma, Yasuko; Masuyama, Takayuki; Minami, Masayo; Nakamura, Toshio; Evershed, Richard P.

Session 3 “Human reservoir effects in archaeology”

Heinemeier, Jan & Wild, Eva Maria

14:30 Keynote (S03K): **Revisiting the Freshwater Reservoir Effect in the Iron Gates of the River Danube**

Bonsall, Clive; Sayle, Kerry; Hamilton, Derek; Cook, Gordon; Boroneanț, Adina

15:10 (S03T01): **Diet and Radiocarbon Ages of Stone-Age Human Remains from Lake Burtnieks, Latvia**

Lübke, Harald; Meadows, John; Schmölcke, Ulrich; Bērziņš, Valdis; Zagorska, Ilga; Zarina, Gunita

15:30 (S03T02): **Prehistoric and early historic diet in the Russian Far East and the reservoir effect: a review of the current evidence**

Kuzmin, Yaroslav

15:50 **Coffee Break & Poster Session**

16:20 (S03T03): **Factors influencing the radiocarbon dating of human skeletal remains from the Dnieper river system: Archaeological and stable isotope evidence of diet from the Epipalaeolithic to Eneolithic periods**

Lillie, Malcolm

16:40 (S03T04): **Reservoir effect and radiocarbon chronology of the late Neolithic cemetery in Żąbie, North-Eastern Poland**

Pospieszny, Łukasz

17:00 (S03T05): **The Early Bronze Age graveyard of Preobrazhenka 6 in south of Western Siberia: first data on palaeodiet, radiocarbon chronology, and the problem of freshwater reservoir effect (evidence from palaeozoology, stable isotope analysis and dental palaeopathology)**

Marchenko, Zhanna; Orlova, Lyubov; Panov, Vsevolod; Zubova, Alisa; Molodin, Vyacheslav; Pozdnyakova, Olga; Grishin, Artem; Uslamin, Evgeniy

17:20 (S03T06): **Radiocarbon dating inconsistencies of a late Mesolithic burial site at Gard, Ukraine**

Nikitin, Alexey; Tovkajlo, Mykola; Potekhina, Inna

17:40 (S03T07): **The local reservoir effects in Kyushu area using terrestrial and marine resources**

Mihara, Shozo; Miyamoto, Kazuo; Nakamura, Toshio; Koike, Hiroko

18:00 (S03T08): **Radiocarbon dating of burials from the Teouma Lapita cemetery, Efate, Vanuatu**

Petchey, Fiona; Spriggs, Matthew; Bedford, Stuart; Valentin, Frédérique; Buckley, Hallie

18:20 **End of session**

19:00 **Meeting dinner**

Friday (26 September 2014)

Session 4 “Variability of aquatic reservoir effects”

Boaretto, Elisabetta & Rethemeyer, Janet

09:00 Keynote (S04K): **Freshwater reservoir offsets: a case study from the Caspian Sea**

Reimer, Paula J.; Leroy, Suzanne A.G.

09:40 (S04T01): **The green Oman around 8,200 years ago**

Fohlmeister, Jens; Schröder-Ritzrau, Andrea; Kromer, Bernd; Frank, Norbert

10:00 (S04T02): **Temporal variations of radiocarbon reservoir ages in lakes and the ocean during the Holocene**

Burr, George

10:20 (S04T03): **Radiocarbon reservoir ages in the Eastern Adriatic Sea based on recent and pre-bomb marine organisms from the intertidal zone and shallow sea**

Faivre, Sanja; Bakran-Petricioli, Tatjana; Barešić, Jadranka; Horvatinčić, Nada

10:40 **Coffee Break & Poster Session**

11:10 (S04T04): **The dangers of ΔR : A cautionary tale of using changes in the Marine Radiocarbon Reservoir Effect as a proxy for large scale oceanographic shifts**

Russell, Nicola; Cook, Gordon; Ascough, Philippa; Scott, Marian; Tripney, Brian

11:30 (S04T05): **Marine reservoir effects in the Baltic proper during the Littorina stage – cross-dating of human and faunal skeletal remains from Pitted Ware Culture burials**

Eriksson, Gunilla

11:50 (S04T06): **Radiocarbon reservoir variability in coastal southern California**

Kennett, Douglas

12:10 **Lunch Break**

Session 5 “Diet reconstruction: isotopic and radiocarbon proxies”

O’Connell, Tamsin & Craig, Oliver

13:30 Keynote (S05K): **We are what we eat, but what we eat also has a history. Stable isotope history and dietary reconstruction**

Lidén, Kerstin

14:10 (S05T01): **Seal exploitation in the Baltic Sea during the mid- and late Holocene**

Glykou, Aikaterini; Eriksson, Gunilla; Lidén, Kerstin

14:30 (S05T02): **Reassessing the Scottish Mesolithic-Neolithic transition: Questions of resource use and chronology**

Bownes, Jessica; Ascough, Philippa; Cook, Gordon; Murray, Iona; Bonsall, Clive

14:50 (S05T03): **Fishing around: exploring diversity in modern and archaeological fish from the Turkish Lake District using stable isotope analysis**

Fahy, Geraldine; Fuller, Benjamin T.; Richards, Michael P.; Van Neer, Wim

15:10 (S05T04): **Levänluhta water burial in the light of bone collagen isotopic ratios**
Oinonen, Markku; Alenius, Teija; Arppe, Laura; Bocherens, Hervé; Etu-Sihvola, Heli;
Mannermaa, Kristiina; Onkamo, Päivi; Palo, Jukka; Sajantila, Antti; Sundell, Tarja;
Uusitalo, Joonas; Wessman, Anna

15:30 (S05T05): **Challenges in dating the human remains and establishing a
chronology of the Stone Age cemetery in Tamula, south eastern Estonia**
Tõrv, Mari

15:50 Coffee Break & Poster Session

16:20 (S05T06): **Stable isotope composition of archaeological samples from the
Eastern Europe Meshera Lake Forest Zone: identification of the diet system and
verification of radiocarbon dates**

Zazovskaya, Elya; Shishlina Nataliya; Kavarsneva, Elena; Sevastyanov, Vyacheslav;
Safina, Anna; Fernandes, Ricardo; Bobrov, Anatoliy

16:40 (S05T07): **Freshwater resource consumption of the ancient dwellers in today's
Gobi desert habitat - evidence from collagen stable isotopes**

Dong, Weimiao

17:00 (S05T08): **Subsistence continuity linked to consumption of marine protein in
the Formative Period in the interfluvic coast of northern Chile: Reassessing contacts
with agropastoral groups from highlands**

Andrade, Pedro; Codjambassis, Katia; Olguin, Laura; Aravena, Christian; Urrea,
Josefina; Rebolledo, Sandra; Berrios, Mauricio; Lira, Francisca

17:20 (S05T09): **Reconstructing the diets of the prehistoric individuals from Ostorf
(Germany) using multiple dietary proxies and the mixing model FRUITS**

Fernandes, Ricardo; Nadeau, Marie-Josée; Grootes, Pieter; Nehlich, Olaf

17:40 (S05T10): **Stable Isotopes in Archaeology: the role of $\delta^{34}\text{S}$ in the
interpretation of diet and migration in ancient populations**

Caldeira, Claudia

18:00 Closing of Radiocarbon & Diet

Saturday (27 September 2014)

09:00 Visit to Schloss Gottorf and Haithabu

Posters

P01: **First AMS Radiocarbon dates from Eastern Ukraine and their implications for
existing chronologies**

Motuzaitė, Matuzevičiūtė Giedrė; Lillie, Malcolm; Telizhenko, Sergey

P02: **The reservoir effect in the perspective of pottery radiocarbon dating**

Kulkova, Marianna; Vibornov, Alexander

P03: **Reservoir effect in the south eastern coast of Brazil: results from shellmound
paired samples**

Macario, Kita; Souza, Rosa; Aguilera, Orangel; Carvalho, Carla; Oliveira, Fabiana;
Alves, Eduardo; Chanca, Ingrid; Silva, Edson; Douka, Katerina; Marques, Aguinaldo;
Decco, Juber; Trindade, Denise; Lima, Tania; Anjos, Roberto; Pamplona, Fabio

P04: **Radiocarbon reservoir corrections on the Brazilian coast from pre-bomb
marine shells**

Alves, Eduardo; Macario, Kita; Souza, Rosa; Pimenta, Alexandre; Douka, Katerina; Oliveira, Fabiana; Chanca, Ingrid; Angulo, Rodolfo

P05: Freshwater reservoir effect on re-dating of Eurasian Steppe cultures

Svyatko, Svetlana; Reimer, Paula

P06: Intra-individual childhood dietary changes and radiocarbon ages

van der Sluis, Laura; Reimer, Paula

P07: Comparison of mollusk shells from an archaeological shellmound in Cabo Frio: an upwelling region in the coast of Brazil

Oliveira, Fabiana; Macario, Kita; Souza, Rosa; Aguilera, Orangel; Silva, Edson; Marques Jr, Aguinaldo; Tenório, Maria Cristina; Rapagnã, Luciano Carvalho; Carvalho, Carla; Alves, Eduardo; Chanca, Ingrid; Douka, Katerina

P08: Fish otolith from Holocene Brazilian shellmound: climate and upwelling anomalies

Aguilera, Orangel; Ghosh, Prosenjit; Angelica, Rómulo; Kita, Macario; Carvalho, Carla; Nepomuceno, Aguinaldo; Souza, Rosa; Moteiro, Cassiano; Crapez, Mirian; Rapagna, Luciano; Paes, Eduardo; Dias, Fábio; Lima, Tania; Chaca, Ingrid; Silva, Edson P.; Oliveira, Fabiana; Alves, Eduardo

P09: Legacy data and marine offsets; a case study from Neolithic Orkney

Griffiths, Seren; Richards, Colin

P10: Changes in radiocarbon reservoir age in Lake Xingyun, Southwestern China during the Holocene

Zhou, Aifeng

P11: A dietary study of the people of Kamegaoka Culture during Final Jomon period, Japan, based on the compound-specific stable isotopes and lipid analyses of ceramic residues

Horiuchi, Akiko; Miyata, Yoshiki; Kamijo, Nobuhiko; Evershed, Richard

P12: Radiocarbon dating of carbonized material adhering to pottery: implication of chemical component of inner and outer surfaces on potsherds

Miyata, Yoshiki; Onbe, Shin; Sakamoto, Minoru; Matsuzaki, Hiroyuki; Imamura, Mineo

P13: ΔR variations in Senegal and Mauritania the coastal waters

Ndeye, Maurice

P14: Dating the Mesolithic-Neolithic transition at coastal sites in Schleswig-Holstein: the impact of reservoir effects on food-crust radiocarbon ages

Glykou, Aikaterini; Meadows, John; Hartz, Sönke; Philippsen, Bente

Please visit the site: <http://www.rre-conference.uni-kiel.de/index.html>

TECHNART 2015, NON-DESTRUCTIVE AND MICROANALYTICAL TECHNIQUES IN ART AND CULTURAL HERITAGE, CATANIA, APRIL 27 - 30, 2015

Welcome to the website of the international conference TECHNART 2015.

The aim of TECHNART 2015 is to provide a scientific forum to present and promote the use of analytical spectroscopy techniques in the field of cultural heritage. The conference builds on the momentum of TECHNART 2013 offering an outstanding and unique opportunity for exchanging knowledge on leading edge developments. Cultural heritage studies are interpreted in a broad sense, including pigments, stones, metals, glass, ceramics, chemometrics on artwork studies, resins, fibers, forensic applications in art history, archaeology and conservation science.

Conference topics

- X-ray microanalysis (XRF, PIXE, XRD, SEM-EDX)
- Confocal X-ray microscopy (3D Micro-XRF, 3D Micro-PIXE)
- Synchrotron, ion beam and neutron based techniques/instrumentation
- FT-IR and raman microscopy
- UV-Vis and NIR absorption/reflectance and fluorescence
- Laser-based analytical techniques
- Magnetic resonance techniques
- Chromatography (GC, HPLC) and mass spectrometry
- Optical imaging and coherence techniques
- Mobile spectrometry and remote sensing

Special Issue in Microchemical Journal

We would like to invite you to contribute to a special issue in the context of the TECHNART 2015. The special issue will appear in [Microchemical Journal](#). Manuscripts need to be critical reviews or full research papers and present original, unpublished work focussing on analytical and bioanalytical themes presented at the conference.

Detailed information are reported [here](#).

Organized by

TECHNART 2015 is organised by [LNS-INFN](#), [IBAM-CNR](#), University of Catania ([Dipartimento di Scienze Chimiche](#)) jointly with the Scientific Research Working Group of [ICOM-CC](#) and the Italian Association of Archeometry ([AIAr](#)). It will take place from 27 to 30 April 2015 in Catania, Italy, at the main conference room of the LNS-INFN.

Please visit the site: <http://technart2015.lns.infn.it/>

SYMPOSIUM TECHNICAL DRAWINGS AND THEIR REPRODUCTIONS 2014, 6TH AND 7TH OCTOBER 2014, THE HAGUE

Restauratoren Nederland has taken the initiative to organize a symposium on 6th and 7th October 2014 in The Hague with the purpose to create more understanding of and gain insight into the subject of Technical Drawings and their Reproductions.

The term Technical Drawings embraces a large range of works. They include architectural drawings, construction drawings, drawings of installations, designs of vehicles, etc. The carrier materials can be paper, cloth and even synthetic. Also a wide variety of reproduction processes were used of which cyanotype (blueprint) and diazotype are best known.

Technical drawings present specific challenges as they are often produced in large quantities and poorly stored. They were treated with low regard as they were considered to be utilitarian objects.

Many cultural institutions have collections of large numbers of technical drawings, but the drawings are often left untouched. Where to start? What plans can be made? Hence this symposium.

Our intended audience consists of conservators, conservation technicians, collection managers and curators. The symposium will feature identification training classes and presentations providing invaluable information on the following aspects: use and value, manufacture, methodology and survey, and conservation techniques.

In addition to the symposium a course on Tracing Paper will take place for a small group of participants on 8th and 9th October in Nijmegen.

Please visit the site: <http://www.restauratoren.nl/actueel/tr14/item683>

**HYDROPHOBE VII, INTERNATIONAL
CONFERENCE ON THE WATER REPELLENT
TREATMENT OF BUILDING MATERIALS 11-
12 SEPTEMBER, 2014, LABORATORIO
NACIONAL DE ENGENHARIA CIVIL (LNEC),
LISBON, PORTUGAL**

Invitation and Conference Aims

Following the success of the first six Hydrophobe Conferences on the Water Repellent Treatment of Building Materials held in Delft, Zürich, Hannover, Stockholm, Brussels and Rome, you are cordially invited to the 7th issue to be held at the Laboratório Nacional de Engenharia Civil (LNEC) in Lisbon, Portugal on the 11th and 12th September 2014.

The aim of the Hydrophobe conferences is to promote research and development of water repellent treatments in order to study their performance, improve their durability and promote their appropriate use in buildings and other civil engineering structures. The conference will provide a forum for scientists, technicians and experts in the area of water repellent treatments to present their work and exchange ideas and experiences.

Communications Submission

Prospective authors are invited to submit abstracts in English (maximum length = 500 words) of previously unpublished work or of new developments of results already published. The main topics are listed in a separate page. A printed Book of Proceedings will be produced. Important dates:

- January 31, 2014 - last day for the submission of abstracts (the results of their revision will be communicated no later than March 01);
- May 01, 2014 - last day for the submission of the full text of communications (the results of their revision including corrections and suggestions will be communicated to the corresponding author at most 30 days after reception and no later than June 01 - [TEMPLATE HERE](#));
- June 15, 2014 - last day to deliver the final versions [templated](#) and ready to print after the authors consider the suggestions of the scientific panel.

Please visit the site: http://www-ext.lnec.pt/hydrophobe_vii/index.html

**AGU 2014 SESSION "ADVANCED
TECHNIQUES ON DETERMINATION OF
BULK AND MICRO-DOMAIN ELEMENT
CONTENT AND ISOTOPE RATIO IN
GEOSCIENCES", 15-19 DECEMBER, 2014,
SAN FRANCISCO**

Dear Colleagues,

We would like to draw your attention to the following session at the upcoming 2014 AGU Fall Meeting (15-19 December, San Francisco). We sincerely invite you to submit an abstract to this session (deadline Aug. 6): <https://agu.confex.com/agu/fm14/webprogrampreliminary/Session2485.html>

Session V (2485): Advanced techniques on determination of bulk and micro-domain element content and isotope ratio in Geosciences

Session Description: Recent progress in bulk- and micro-analytic technologies has offered new possibilities in exploring earth and planetary sciences. Isotopic technologies on AMS, TIMS, MC-ICPMS, Noble Gas MS, High-resolution Gas-source MS and Optical IR MS, and others have spawned new applications. Advanced micro-domain elemental and isotopic techniques, including low kV electron probe microanalysis with field emission guns, femto-second lasers, more versatile CL detectors, FIB, charge-contrast imaging, EBSD, PIXE, SIMS, and others have been developed. There is an increasing need for development of well-characterized reference materials/standards. We particularly invite contributions that emphasize new developments and document unresolved problems.

Confirmed Invited Speakers to date include:

Chi Ma, California Institute of Technology
Claudia Bouman, Thermo Fisher Scientific
Matthieu Clog, California Institute of Technology

Please feel free to contact us with any questions. We look forward to your contributions.

Yours Sincerely,

Session conveners:

Chuan-Chou Shen (National Taiwan University, Taiwan, river@ntu.edu.tw)
John Fournelle (University of Wisconsin, Madison, johnf@geology.wisc.edu)
Xiaomei Xu (University of California, USA, xxu@uci.edu)
Anette von der Handt (University of Minnesota, Minneapolis, avdhandt@umn.edu)

Xiaomei Xu, Ph.D.
Project Scientist

Keck Carbon Cycle AMS Facility
University of California, Irvine
Earth System Science
2222 Croul Hall
Irvine, CA 92697-3100

(949) 824 3444 Office/Lab
(949) 824 3874 Fax
xxu@uci.edu

EMAC 2015 - 13TH EUROPEAN MEETING ON ANCIENT CERAMICS, 24-26 SEPTEMBER 2015, ATHENS, GREECE, 1ST ANNOUNCEMENT

The 13th European Meeting on Ancient Ceramics will be co-organised by:
Laboratory of Archaeological Materials, N.C.S.R. “Demokritos”
Fitch Laboratory, British School at Athens

The European Meeting on Ancient Ceramics is a biennial conference convening scholars and young researchers with diverse academic backgrounds both from humanities and science.

Scope of the meeting is to promote interdisciplinary and integrated studies of ancient ceramics covering various aspects from the production over the dissemination and use up to post-depositional alteration and conservation. Methodological developments, new approaches and scientific progress are presented in terms of analytical and measuring techniques, data processing and interpretation.

The main topics, but not exclusive, are:

- Methodological developments
- Dating of ceramics
- Production, dissemination and consumption
- Slips and glazes
- Technical ceramics
- Ceramics as building materials
- Vessel function and vessel use
- Raw material studies
- Pottery kilns
- Alteration and conservation

The conference will be held at the auditorium of the **New Acropolis Museum**, which is situated in the ancient centre of **Athens**. Arrangements for accommodation in hotels or at the foreign archaeological institutes in Athens will be announced very soon, in next circular.

Participants are invited to submit abstracts for oral presentations as well as for poster presentations until **13th of February 2015** via the conference webpage. Language of the conference will be exclusively English. The submitted abstracts will be reviewed by the Scientific Committee, which also will decide eventually about the form of presentation.

Notification of acceptance or rejection of abstracts will be made by 10th of April 2015.

For further information, please visit the EMAC2015 website (www.emac2015.gr), which will be updated regularly, or contact us by e-mail: info@emac2015.gr.

The Organization committee:

Vassilis Kilikoglou,
Vangelio Kiriati,
Anno Hein,
Ioannis Karatasios,
Noemi Müller,
John Gait

ARCHAEOMETALLURGY IN EUROPE **INTERNATIONAL CONFERENCE, 3-6TH OF** **JUNE, 2015, FIRST CIRCULAR**

Archaeometallurgy in Europe International Conference is being organized every four years since 2003, in Milan (2003), Grado-Aquileia (2007) and Bochum (2011). The Madrid Edition to be held in June 2015 represents the consolidation of the most important forum for scientific discussion on early metalworking in Europe and far abroad. All this has been possible thanks to the support and generosity of many researchers and institutions, but most of all we have to thank every participant who attended the last three conferences.

Our main purpose this year is putting together all the interdisciplinary knowledge and regional studies we have been accumulating and negotiate a historical picture that will permit us to face future challenges. We are in the best position to set up the agenda for the next decade on condition that we are able to mark a start, and run together... in different directions. Research must be diverse and discussion welcome, but we are responsible for setting the rules of the game. This is our compromise.

The scientific meeting will take place in Madrid from the 3rd to the 6th of June 2015 and it is organised by the Institute of History of the Spanish National Research Council (CSIC) in collaboration with the National Center for Metallurgical Research (CENIM-CSIC), the Autonomous University of Madrid (UAM) and the German Archaeological Institute (DAI-Madrid).

This conference hopes to bring together specialists interested in this topic, to exchange knowledge and update the different notions about metallurgical activity in Europe from a global archaeometallurgical perspective.

There will be 6 sessions covering the following main themes under which fall a wide range of possible topics:

1. Early metallurgy: technological innovation and social negotiation
2. Developments: new materials, alloys and processes
3. Technological transmission, change and persistence
4. Mines, mining and the miner
5. Archaeometallurgy *versus* Archaeometry: you first
6. Comparative studies

Due to space and administrative restrictions we are limited to a **maximum of 90 oral papers and 60 posters**. Proposals will be selected by the Scientific Committee.

Abstracts should be sent as text documents (preferably in Word format) by November **15th, 2014** to: aie4@cchs.csic.es. Please follow the attached template that includes title, authors' complete name and affiliation, full postal address and email address. Abstract should not exceed a maximum of 300 WORDS and must contain a clear description of the main paper's topic.

Language of the conference:

The official language will be English.

Organizers

Standing Committee: Organizing Committee:

Yannis Bassiakos, Greece Emilio Cano (CENIM, CSIC)
Gian Luca Garagnani, Italy Aurelio Climent-Font (UAM)
Alessandra Giunlia-Mair, Italy Dirce Marzoli (DAI-Madrid)
Andreas Hauptmann, Germany Ignacio Montero (IH-CSIC)
Ivelin Kuleff, Bulgaria Almudena Orejas (IH-CSIC)
Ignacio Montero, Spain Alicia Perea (IH-CSIC)
Susan La Niece, UK Javier Sánchez-Palencia (IH-CSIC)
Alessandro Zucchiatti (UAM)

Secretary:

Oscar García Vuelta (IH)
Pau Sureda Torres (IH)

Scientific Committee:

Gilberto Artioli, Italy
Martin Bartleheim, Germany
Lina Kassianidou, Cyprus
Maria Filomena Guerra, France
Duncan Hook, UK
Marcos Martín-Torres, UK
Marianne Mödlinger, Austria
Salvador Rovira, Spain
Sariel Shalev, Israel

Contact:

aie4@cchs.csic.es

Instituto de Historia

Centro de Ciencias Humanas y Sociales. CSIC
C/ Albasanz 26-28
28037-MADRID

REGISTRATION FEES

Payment before 30th April

Payment after 30th April

All Conference participants **175 € 200 €**

Not graduated, master and/or Ph.D students;
bachelors and Ph-D unemployed **100 € 125 €**

METHOD OF PAYMENT:

The fees have to be deposited on the bank account IBAN: ES88 0049 5134 35
2317224221

SWIFT: BSCHEMXXX, “Banco Santander Central Hispano” and made payable to
CCHSCSIC.

All receipts must clearly state “**4AIE CONFERENCE**” and the subscriber’s information.

CONFERENCE VENUE:

Centro de Ciencias Humanas y Sociales, CSIC

C/ Albasanz 26-28. Madrid

(Metro station: “Ciudad Lineal” or “Suanzes”, green line n.5).

DEADLINES AND KEY DATES:

Proposal submission (Title and Abstract): November **15th, 2014**

Acceptance of the abstracts: January **31st, 2015**

Information: <http://www.congresos.cchs.csic.es/aie4/conference>

PLASMA EU-PANNA PROJECT - WORKSHOP AND CONFERENCE, 2-4 SEPTEMBER, 2014, BERLIN

Final Conference of the PANNA project

The EU project 'Plasma And Nano for New Age soft conservation' is arriving with success to its end after three years of research and in field activity. In order to share our progresses and the final results of fruitful work we are glad to invite you at our final conference which will take place at the Sammlung Scharf-Gerstenberg in Berlin, on 4th September 2014.

The participation is free and for registration, program and other informations please follow the [link](#).

Training Course in Berlin

On 2nd and 3rd September, a workshop on the use of atmospheric plasma and self-diagnostic coatings in restoration will be held in the Sammlung Scharf-Gerstenberg (Museum Scharf-Gerstenberg Collection), Berlin, Germany.

The workshop is addressed to conservators, architects, restorers, researchers, policy makers and museum staff.

During the 2-day training course, the participants will learn what the “Full-life protocol” is and how it is applied in practice in the conservation and restoration and conservation of cultural property. They will also take part in a demonstration of atmospheric plasma cleaning using the portable plasma system developed within the PANNA project.

Day 1 (2 September) will be focused on the cleaning possibilities of atmospheric plasma, while in day 2 (3 September) the new self-diagnostic coatings will be presented.

To register mail to S.Tesche@smb.spk-berlin.de stating your name and the day/s you would like to attend. [Here](#) you can download the brochure for the event with the tentative schedule. Certificates of participation will be given to the attendees upon request. The workshop in Sofia is hosted by the German partner [Rathgen Research Laboratory](#).

Please visit the site: <http://www.panna-project.eu/>

ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

RESEARCH ASSOCIATE/SENIOR RESEARCH
ASSOCIATE: ARCHAEOLOGICAL METALLURGY, -
REF:1424247

UCL Department / Division

UCL Qatar

Grades

7-8

Hours

Full Time

Salary

Grade 7: QR176,038 - QR216,296 per annum/ Grade 8: QR222,760 - QR265,817 per annum + generous package

Duties and Responsibilities

UCL Qatar wishes to appoint a Research Associate/Senior Research Associate to be a key member of the UCL Qatar research team working in Sudan. The role is based at UCL's campus in Doha, Qatar, and requires fieldwork in Sudan for an estimated two to four months per year.

The UCL Qatar Sudan project focuses on the ancient industries that supported the growth and power of the Kingdom of Kush, namely iron production, mining and quarrying. Over the coming years the number of sites, periods of time and types of industries that are studied as part of this research is expected to grow. Currently excavations are focusing on the extensive remains of iron production at the Royal City of Meroe and its surrounding landscape. Techniques being used include geophysics, excavation and extensive systematic sampling, and macroscopic, microscopic and chemical analysis of metallurgical and associated archaeological samples. A strong capacity building programme especially through links with the conservation department at UCL Qatar, as well as community engagement, form key components of this project.

The successful candidate will be expected to join the annual fieldwork seasons in Sudan and supervise excavations including documentation and sampling. They will have significant responsibilities while in the field for both the archaeological research and for various aspects of the daily running of the project. While at UCL Qatar the post holder is expected to manage the samples collected during fieldwork and develop and implement a system to prepare and analyse samples promptly and produce written reports frequently as results become available. The successful candidate is expected to liaise closely with other members of the team to ensure all work carried out is done so in a systematic and cohesive manner.

The post is available for four years commencing Autumn/Winter 2014 in the first instance.

Key Requirements

The successful candidate will have a PhD in Archaeometallurgy and preferably experience in the archaeometallurgy of iron, or African or Mediterranean prehistory. They should be able to demonstrate fieldwork experience on excavations dealing with metal production sites including having responsibility for overseeing and supervising diverse teams in the field in challenging conditions. They should have extensive experience in preparing and analysing a variety of different sample types using various analytical equipment and reporting on the results. A good publication record reflecting the qualification level is also essential, as well as commitment to high quality research.

The candidate should be fluent in English and capable of using a host of IT software. They should be confident at presenting findings to various audiences.

They should be able to demonstrate highly developed interpersonal skills and intercultural diplomacy, as well as a desire to work collaboratively as part of a team.

Candidates seeking appointment at Grade 8 will need to meet the additional criteria specified in the attached job description.

Further Details

To apply for the vacancy please e-mail your CV to jobapplications.qatar@ucl.ac.uk. Please provide a standardised cover letter with your CV which should include details of your background/experience, explaining your suitability for this position together with the completed additional document described below.

UCL Qatar requires applicants applying with a CV to provide standardised monitoring information. Please download the “Information to be provided by CV applicants” document attached to the advert and return the completed document with your e-mail and cover letter submission.

For any general enquiries about this post please contact Dr Jane Humphris, Head of UCL Qatar Research in Sudan. Email: j.humphris@ucl.ac.uk

We particularly welcome female applicants and those from an ethnic minority, as they are under-represented within UCL at this level.

UCL Taking Action for Equality

Closing Date

31 Jul 2014

Latest time for the submission of applications

5 pm (GMT)

Interview date

Interviews are expected to be held mid-August 2014

Any offer of employment will be subject to a Disclosure and Barring Service (DBS) check.

ANALYSIS OF ANIMAL REMAINS FROM ARCHAEOLOGICAL SITES

Our department will be hiring a junior faculty member beginning in the fall of 2015. This is not a classic archaeozoology position, but if you have colleagues or students who are interested, please let them know.

NEW YORK UNIVERSITY

Tenure-Track Position in Anthropological Archaeology

Department of Anthropology
Arts and Science

The Department of Anthropology invites applications from outstanding scholars for a tenure-track position, at the Assistant Professor level, to start September 1, 2015, pending administrative and budgetary approval. The department is looking for scholars with exceptional records in teaching and research in anthropological archaeology, specializing in landscape and environmental archaeology, archaeobotany, and/or geoarchaeology. Regional and chronological expertise is open. All candidates are expected to teach undergraduate and graduate courses. The successful candidate will be affiliated with the Center for the Study of Human Origins.

Application deadline is November 15, 2014. To apply, see the NYU Department of Anthropology web site at <http://anthropology.as.nyu.edu/page/home>. Instructions can be found under the homepage link "Employment".

NYU is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL FELLOW / RESEARCH
FELLOW (A318-14TO) - NUCLEAR PHYSICS
DEPARTMENT, RESEARCH SCHOOL OF
PHYSICS AND ENGINEERING, ANU
COLLEGE OF PHYSICAL AND
MATHEMATICAL SCIENCES**

An exciting opportunity for research in nuclear astrophysics combined with Accelerator Mass Spectrometry at the Department of Nuclear Physics at the Australian National University exists with funding from the Australian Research Council.

Location Canberra/ACT

Term of Contract Fixed Term of 2 Years

Grade Level A-B

Salary Package \$62,511 - \$98,269 pa plus 17% superannuation

Closing Date 11 August 2014

Position Overview We seek an outstanding early-career researcher to join the Accelerator Mass Spectrometry (AMS) group of the Department of Nuclear Physics. The successful candidate will work closely with the academic staff of the AMS group and collaboration with overseas laboratories will be a key component of this project funded by the Australian Research Council. Main focus of this full-time research position will be laboratory studies of stellar nucleosynthesis applying ultra-sensitive AMS measurements.

The involvement with additional research programs of the AMS group is encouraged and you will participate in the AMS measurements and will assist in overseas experiments. Thus, some experience in AMS is advantageous.

This is a position funded by an external source. The initial appointment is for a duration of 2 years; however with the possibility of extension, depending on the funding available. If you would like to enquire more about this position, please contact Petra Rickman; petra.rickman@anu.edu.au or Dr Anton Wallner; anton.wallner@anu.edu.au

Additional Information [PEWER_Wallner.pdf](#)

Position description

Responsible to Senior fellow, Dr. Anton Wallner

Role statement PURPOSE STATEMENT:

The Postdoctoral Fellow / Research Fellow position is located in the AMS (Accelerator Mass Spectrometry) group of the Department of Nuclear Physics. The incumbent will assist and contribute to the new research area of 'Nuclear Astrophysics and Accelerator Mass Spectrometry(AMS). The Postdoctoral or Research Fellow. The Postdoctoral Fellow / Research Fellow may also participate in collaborative experiments overseas by combining external facilities with AMS for nuclear reaction studies.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position will be held in the Department of Nuclear Physics, Research School of Physics and Engineering at the ANU. The successful candidate will work on research under the supervision of the Head of Department with day-to-day supervision provided by Dr. Anton Wallner.

Role Statement:

Under the broad direction of the AMS group leader, Dr. Anton Wallner, the Postdoctoral Fellow/Research Fellow will

1. Conduct research either as a member of a team or independently and produce conference and seminar papers and publications from that research.
2. Explore and improve isobaric suppression with the 14UD accelerator and a gas-filled magnet in particular for heavier isotopes.
3. Participate in AMS measurements and operate the accelerator.
4. Interpret experimental results in terms of stellar nucleosynthesis processes in collaboration with astrophysicists.
5. Co-supervise, or where appropriate supervise major honours or postgraduate research projects within the field of the staff member's area of research.
6. Participate in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
7. Comply with all ANU policies and procedures and in particular those relating to work health and safety and equal opportunity.
8. Carry out other duties consistent with the classification of the position.

Skill Base:

Level A: A Level A research academic will typically conduct research/scholarly activities under limited supervision either independently or as a member of a team and will normally hold a relevant higher degree. A Level A research academic will normally work under the supervision of academic staff at Level B or above, with an increasing degree of autonomy as the research academic gains skills and experience. A Level A research academic may undertake limited teaching, may supervise at undergraduate levels and may publish the results of the research conducted as sole author or in collaboration. He or she will undertake administration primarily relating to his or her activities at the institution.

Level B: Level B research academic will normally have experience in research or scholarly activities, which have resulted in publications in refereed journals or other demonstrated scholarly activities. A Level B research academic will carry out independent and/or team research. A Level B research academic may supervise postgraduate research students or projects and be involved in research training

Selection criteria

SELECTION CRITERIA: Postdoctoral Fellow, Academic Level A

1. PhD (or PhD expected to be awarded in 2014) in Physics relevant to the proposed area of research.
2. An ability to carry out internationally significant independent research in the area of experimental nuclear physics, accelerator mass spectrometry or related areas as evidenced by published works in refereed journals and/or conference proceedings.
3. Demonstrated research experience, preferably in one or more of the following:
 - a. experience in accelerator mass spectrometry measurements

- b. heavy ion detection and detector development
- c. nuclear reactions or nuclear astrophysics
- 4. An ability to supervise students and to contribute to undergraduate teaching activities.
- 5. Demonstrated high level of motivation, and the ability to work collaboratively in a team as well as independently, with excellent written and oral communication skills in English.
- 6. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

SELECTION CRITERIA: Research Fellow, Academic Level B

- 1. A PhD in Physics relevant to the proposed area of research.
- 2. Proven record of internationally significant independent research in the area of experimental nuclear physics, accelerator mass spectrometry or related areas as evidenced by published works in refereed journals and/or conference proceedings.
- 3. Demonstrated research experience, preferably in one or more of the following:
 - a. experience in measurements and applications of accelerator mass spectrometry
 - b. heavy ion detection and particle detector development
 - c. nuclear reactions or nuclear astrophysics
- 4. Experience in student supervision, and a proven ability to contribute to undergraduate teaching activities.
- 5. Demonstrated high level of motivation, and the ability to work collaboratively in a team as well as independently, with excellent written and oral communication skills in English.
- 6. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

ANU - Current Vacancies at The Australian National University

<http://jobs.anu.edu.au/PositionDetail.aspx?p=4042>

PHD POSITIONS AVAILABLE IN KIEL

The Graduate School "Human Development in Landscapes" is advertising 15 doctoral positions, with a deadline of 31 August 2014, to start work in November 2014.

<http://www.uni-kiel.de/landscapes/allgemein/jobs/phd.shtml>

There is a relatively new but extensive zooarchaeological laboratory at Kiel, headed by Professor Cheryl Makarewicz. <http://www.zooarchaeology.uni-kiel.de/>

The lab has close links to other scientific facilities at the university, for example radiocarbon and stable isotope laboratories and a very well established archaeobotanical working group.

Get in touch NOW to develop a project proposal to work with us!

c.makarewicz@ufg.uni-kiel.de

Dr Isabella von Holstein

Postdoctoral Researcher

Institut für Ur- und Frühgeschichte der Christian-Albrechts-Universität zu Kiel

Tel: (+49) (0) 431 880 4379. Email: i.vonholstein@ufg.uni-kiel.de.

Skype: isabellavonholstein

<http://sites.google.com/a/palaeo.eu/xtnl-bioarch/Home/staff/Isabella-von-Holstein>

ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS

CONSERVATION OF CULTURAL HERITAGE

– CHALLENGES AND REVIEWS

The Directorate of Conservation of Ancient and Modern Monuments - Hellenic Ministry of Culture and Sports and the Department of Conservation of Antiquities and Works of Art -Technological Educational Institute of Athens co-organize a conference on conservation of cultural heritage in Greece, as in 2015 we celebrate 50 years from the establishment of the central Conservation Department in the Greek Archaeological Service, as well as 30 years from the establishment of the Department of Conservation of Antiquities and Works of Art, the first department for conservation studies at a higher education level in Greece.

The conference will take place in Athens on May 2015. The theme will cover all aspects of conservation of cultural heritage and the profession of the conservator, including theory, ethics, research, education, and conservation practice.

Thematic Areas

- History – theory – ethics
- Education
- Research
- Conservation projects
- Conservation and the public

Attendance and participation to the conference is free of charge.

The conference official languages will be greek and english.

Η ΣΥΝΤΗΡΗΣΗ ΤΗΣ ΠΟΛΙΤΙΣΤΙΚΗΣ

ΚΛΗΡΟΝΟΜΙΑΣ – ΠΡΟΚΛΗΣΕΙΣ ΚΑΙ

ΕΠΑΝΑΠΡΟΣΔΙΟΡΙΣΜΟΙ

Με αφορμή τη συμπλήρωση 50 χρόνων από τη θέσπιση του τομέα συντήρησης στην Αρχαιολογική Υπηρεσία, καθώς και 30 χρόνων από την ίδρυση και τη λειτουργία του τμήματος Συντήρησης Αρχαιοτήτων και Έργων Τέχνης στο ΤΕΙ Αθήνας, οι δύο φορείς συνδιοργανώνουν συνέδριο για τη συντήρηση στην Ελλάδα, το οποίο θα πραγματοποιηθεί τον Μάιο του 2015 στην Αθήνα.

Το συνέδριο θα καλύπτει θέματα που αφορούν την προστασία της πολιτιστικής κληρονομιάς και το επάγγελμα του συντηρητή, την έρευνα, την εκπαίδευση, την εφαρμογή, τη θεωρία και τη δεοντολογία της συντήρησης, όπως αυτά διαμορφώνονται και επαναπροσδιορίζονται σήμερα.

Θεματικές ενότητες

- Ιστορία - Θεωρία - Δεοντολογία
- Εκπαίδευση
- Έρευνα
- Συντήρηση
- Η συντήρηση και το ευρύ κοινό

Η συμμετοχή και η παρακολούθηση στο συνέδριο είναι δωρεάν.

Οι γλώσσες του συνεδρίου είναι η Ελληνική και η Αγγλική.

Please visit the site: <http://www.conservationconf.gr/index.php?page=programme>

INTERNET SITES

TOPBIB - THE NEW DIGITAL TOPOGRAPHICAL BIBLIOGRAPHY FOR ANCIENT EGYPTIAN MONUMENTS

The Griffith Institute, Faculty of Oriental Studies, University of Oxford, is pleased to announce that test cases for the new Digital Topographical Bibliography for ancient Egyptian monuments have been launched. Alongside searchable PDFs of the current print version, vols. 1-7, the new website presents the digital framework of the project and samples of new data focusing on three case-studies, namely Tuna el-Gebel, Tell el-Far'un (both formerly in PM IV) and royal statues of provenance not known (formerly in PM VIII, Part 1).

We would welcome feedback from users on the general appearance and style, ease of access and navigation within the case-studies, as well as thoughts and comments on any aspect of the presentation and content.

See <http://topbib.griffith.ox.ac.uk>

'One Connected Vision of Ancient Egypt', a presentation by Prof. R. B. Parkinson launching the new Digital Topographical Bibliography, can be viewed at <http://podcasts.ox.ac.uk/one-connected-vision-ancient-egypt-launch-digitised-topographical-bibliography>

Vincent Razanajao, Editor of the Topographical Bibliography, assisted by Francisco Bosch-Puche & Elizabeth Fleming

ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS

NEW ISSUE OF THE JOURNAL OF EASTERN MEDITERRANEAN ARCHAEOLOGY AND HERITAGE STUDIES, VOLUME 2, ISSUE 2

Announcing a new issue of the Journal of Eastern Mediterranean Archaeology and Heritage Studies.

In Volume 2, Issue 2:

“The Leon Levy Dead Sea Scrolls Digital Library: The Digitization Project of the Dead Sea Scrolls” by Pnina Shor, Marcello Manfredi, Greg H. Bearman, Emilio Marengo, Ken Boydston, and William A. Christens-Barry.

NOTE: This article will be open access in JSTOR until early September.

“Contamination in Organic Residue Analysis: A Cautionary Tale” by Laura Mazow, Susanne Grieve, and Anthony Kennedy.

“Image-Based Modeling Approaches to 2D and 3D Digital Drafting in Archaeology at Tel Akko and Qasrin: Two Case Studies” by Jamie Quartermaine, Brandon R. Olson, and Ann E. Killebrew.

NOTE: This article includes several interactive 3D images.

A special Notes on a Disappearing Past, entitled “Satellite-Based Monitoring of Looting and Damage to Archaeological Sites in Syria” by Jesse Casana and Mitra Panahipour.

Museum Review of the Heaven and Earth: Art of Byzantium from Greek Collections exhibition by Sandra A. Scham.

JEMAHS is a peer-reviewed journal devoted to traditional, anthropological, social, and applied archaeologies of the Eastern Mediterranean, encompassing both prehistoric and historic periods. The journal’s geographic range spans three continents and brings together the archaeologies of Greece and the Aegean, Anatolia, the Levant, Cyprus, Egypt, and North Africa. JEMAHS is co-edited by Dr. Ann E. Killebrew (ae11@psu.edu) and Dr. Sandra Scham (sandrasscham@gmail.com).

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CRISIS AND AMBITION: TOMBS AND BURIAL CUSTOMS IN THIRD-CENTURY CE ROME, BARBARA E. BORG

Bryn Mawr Classical Review 2014.07.05

Barbara E. Borg, *Crisis and Ambition: Tombs and Burial Customs in Third-Century CE Rome*. Oxford studies in ancient culture and representation. Oxford; New York: Oxford University Press, 2013. Pp. xx, 308. ISBN 9780199672738. \$185.00.

Reviewed by Dorian Borbonus, University of Dayton (dborbonus1@udayton.edu)

This ambitious and daring monograph on a deserving subject is likely to stimulate discussion among specialists in Roman funerary culture and imperial history, but it also provides a welcome synthesis for graduate students and scholars who look for an immersion in the funerary monuments and artistic conventions of the time period. Both the main question and the approach to answer it are refreshingly novel: the venture is to raise the third century as a topic of its own and to dispel some of the misconceptions that are used to prove its alleged main characteristic, namely crisis. This reinterpretation is supported by a detailed description of tomb monuments, objects, and painted decoration. The focus is decidedly on the latter: while the characterization of the third century provides the logical framework, the bulk of the discussion describes and characterizes physical remains. The resulting survey of tomb contexts and iconography successfully rehabilitates the third century as a vibrant time period in Roman history with an innovative and original funerary culture that mirrors the particular historical conditions of the time.

The argument is roughly divided into two halves. The first four thematic chapters (2-5) treat the “structure and organization of burial space” (161) whereas the following three chapters (6-8) discuss “the image decoration of these establishments” (161).

After briefly articulating the main questions of the book, its relationship to previous scholarship, and the major methodological problems (especially dating) in the introduction, the first substantial chapter of the book covers “traditional cemeteries and tombs” (chapter 2). The chapter summarizes excavation reports and surveys inscriptions, but it also advances the theories that tomb construction boomed in the Severan period and that tomb complexes and “large tombs” were increasingly built by investors or by “generous” (40) patrons and associations. The third chapter identifies two novelties in the funerary landscape of the third century: the open-air display of sarcophagi and “refined” (41) temple tombs. Chapter Four presents a reassessment of hypogea. Following Rebillard and Bodel, the author questions the idea that catacombs were an inherently Christian form of burial.¹ Instead, catacombs and other hypogea emerge as pragmatic burial structures that were commissioned and used by various groups, ranging from families, private associations, and potentially commercial developers to aristocratic, imperial, and Christian patrons. The fifth chapter deals with the continued use and modification of tombs during the third century. The author questions the dismissive

assumptions that guide the interpretation of re-use, but acknowledges that necessities sometimes constrained available choices. The main thesis is that burials and tombs were respected as sacred and any re-use or destruction to make room for more burials or for newly built monuments must have been officially sanctioned.

Chapter six presents a comprehensive reinterpretation of the imagery on third century sarcophagi. It counters previous views that interpret the gradual disappearance of mythological narratives as a sign of decline and instead proposes that the concurrent increasing isolation of the mythical protagonists is a celebration of the deceased. The same is evident in images from the life of the deceased that signal a desire to showcase concrete status symbols and virtues and associate them with the deceased who are now represented with portraits. Chapter 7 places the sarcophagi of the previous chapter back in their original context in order to assess their visibility and relationship to the surrounding decoration. A basic distinction is drawn between sarcophagi as “primary features” (i. e. part of the original design) and as “secondary features” (i. e. not anticipated, either at all or in the magnitude in which it was eventually carried out). It is not clear to me that this distinction strictly holds true, nor is its significance clarified. However, the conclusion is sensible: there was a range of attitudes towards the display of sarcophagi, and even sarcophagi with standardized decoration or those that were visible only temporarily (for example, to display the body of the deceased) were consciously used to convey a message. Chapter 8 presents the painted decoration of third century tombs, focusing on a number of case studies. One of the main conclusions is that both Christian and non-Christian imagery communicate similar concepts. The concluding chapter 9 presents the main argument that characterizes the third century as a vibrant time period. Overall, the emphasis is on continuity (e. g. of iconographic conventions, of associations, etc.), but the peculiarities of the third century (e. g. space restrictions, increased circulation of biblical references, economic challenges) are highlighted as well.

The apparatus includes an extensive bibliography with well over 600 entries and an index that is subdivided into a directory of (ancient) personal names and a register of general terms.

The greatest strength of the book is undoubtedly its critical reassessment that challenges one-dimensional interpretations of the past and invariably replaces them with much more nuanced historical reconstructions that account for the complexity of the evidence. For example, the author’s caution regarding the attribution of burials, imagery, and inscriptions to Christian patrons is surely justified and replaces the simple Christian/non-Christian dichotomy with a scenario in which patrons of various religious backgrounds drew on similar iconographic references. Another major benefit of the book is that it compiles and synthesizes a massive amount of archaeological data from publications that are typically written in languages other than English and otherwise difficult to obtain outside of major research libraries. This is complemented by 140 superb black and white images and ten color plates that illustrate the major cemeteries and individual tomb monuments through maps and the most famous sarcophagi and tomb interiors through clear photographs, line drawings, and lithographs. The book does not only cover an ambitiously extensive range of questions and evidence, but this is apparently only the beginning since a closely related monograph on funerary commemoration in the second century CE is currently “in preparation” (xix, 281) and numerous other follow-up projects are announced throughout (e. g. 48, n. 36; 80; 132, n. 47; 146, n. 110; 161; 170, n. 51; 177; 177, n. 76; 205, n. 205; 237, n. 111).

The sheer amount of information covered in this book creates the dilemma of how to organize the argument. Most chapters contain lengthy sequences in which individual monuments, objects, or scenes are described, which works well for readers interested in the minutiae of dating and interpreting concrete remains. It also makes it difficult to track the major historical claims of the book, which may be frustrating to those who are interested in this book for its reinterpretation of the time period. For this reason, it is sensible that the author included conclusions at the end of each chapter that are clearly separated from the technical discussion through subheadings. Another challenge related to organization is that discussions of the same context are often spread over various chapters in the book, which covers the architectural setup, ownership structure, sarcophagi and interior decoration separately. For example, Mausoleum Phi is discussed in three different chapters (p. 11, 135, and 222, similarly Isola Sacra tomb 34: p. 23, 155, 232), which neatly integrates the evidence with the subjects of those chapters but complicates an appreciation of specific contexts and results in a fair amount of repetition.

The argument itself is convincing but a book that ambitiously challenges the status quo will inevitably also provide grounds for disagreement. My own points of disagreement are minor and they do not undermine the overall argument. For example, there are some ghosts of older scholarship that have been treated more critically elsewhere, such as the determination of legal status through single names, Greek cognomina, or “good Roman names” (32). A second example relates to sarcophagi with multiple portraits. The author’s suggestion that these probably held multiple burials is plausible, but there is probably no systematic correlation that would allow inferences about the number of burials based on the imagery (as implied on pp. 203-206). In several cases, there is a discrepancy between imagery and inscriptions (203-4) or imagery and human remains (231-2). The author’s way out of this dilemma is the reasonable suggestion that text and image are complementary (perhaps following a similar proposal by Feraudi-Gruénais 2 which is not cited, however), but that does not answer the question of how portraits and inscriptions relate to actual burials. A final example relates to early imperial columbarium tombs: contrary to the author’s assertion (95) the location of inscriptions inside the columbaria of Livia and of the Statilii has not been documented and the claims made about the order in which people were buried (or rather the lack thereof) are unsupported by evidence. In table 3, “Columbarium Vigna Codini I” (92) is incorrectly attributed to the familia Marcellae and the date of 10 CE in the footnote suggests that the intended reference is to Vigna Codini II. In the same table, “Columbarium Vigna Codini II” should then be Vigna Codini I and cannot be attributed to a “voluntary association” (92). This is problematic because the latter tomb is the only example of a “voluntary association” and its alleged population size is contrasted with that of burial complexes related to imperial slaves and freedmen.

Typographical errors are mostly harmless (e. g. “nimeenth” (72), “heads” (186) instead of head), but some could affect understanding (e. g. “pls 4a-6” (103) instead of 4a-b, “see below pp. 124-5” (128, n. 34) instead of 224-5, “pp. 286-88” (205, n. 209) instead of 186-8, “above p. 90” (223, n. 44) instead of 101, “fig. 18” (159) and “fig. 3” (181) which refer to the wrong image). Some of the reproduced plans are missing scales (fig. 4, 15, 16, 18, 81) or north arrows (fig. 1, 4, 13, 15, 16, 18, 27, 74, 81, 85, but cf. p. 128, n. 28), but the new plans that the author provides to isolate the earliest nuclei of hypogea are quite clear and instructive.

Notes:

1. É. Rebillard, *The Care of the Dead in Late Antiquity* (Ithaca: Cornell University Press, 2009), J. Bodel: “From columbaria to catacombs: collective burial in pagan and Christian Rome,” in L. Brink, D. Greens (eds.) *Commemorating the Dead: Texts and Artifacts in Context: Studies of Roman, Jewish, and Christian Burials* (Berlin and New York: de Gruyter, 2008) 177-242.
2. F. Feraudi-Gruénais, “Grabinschriften im archäologischen Kontext. Komplementarität von Schrift und Bild?,” in M. Heinzelmann, J. Ortalli, P. Fasold, and M. Witteyer (eds.) *Römischer Bestattungsbrauch und Beigabensitten in Rom, Norditalien und den Nordwestprovinzen von der späten Republik bis in die Kaiserzeit* (Wiesbaden, Germany: Reichert) 203-13.

Please visit the site: <http://bmcr.brynmawr.edu/2014/2014-07-05.html>

ANCIENT EGYPTIAN BEADS, XIA NAI

2014, XIII, 173 p. 20 illus.

\$99.00

ISBN 978-3-642-54868-0

Presents a detailed analysis and thorough study of the unique collection of ancient Egyptian beads in the Petrie Museum of Egyptian Archaeology in London

Based on the Ph.D dissertation written by pioneering Chinese archaeologist Xia Nai when he studied in London College University some 70 years ago

Proposes a new classification system, which affords a better basis for the further advancement of the study of this subject Represents a crucial and long-awaited advance in archaeology, not only for Egypt but for the study of the past across Africa and beyond

This book presents a detailed analysis and thorough study of the unique collection of Ancient Egyptian beads in the Petrie Museum of Egyptian Archaeology in London.

The book first discusses the archaeological value of beads and the method employed in the study of them, especially emphasizing the importance of the technique of bead-making for dating purposes. It then examines and evaluates various schemes for the classification of beads. The book goes on to propose a new classification system and works out a comprehensive corpus of beads with the aid of sixteen plates

Next, the book features a chronological survey that details the material, typology (including the technical peculiarities), use, arrangement and pictorial representation of beads throughout the nine divisions or periods of Ancient Egyptian history. This survey points out the characteristics of each period as well any contact Egypt may have experienced with foreign countries as shown by the beads. It also corrects many wrong identifications of materials and mistaken datings.

This book is based on the Ph.D dissertation written by pioneering Chinese archaeologist Xia Nai when he studied in London College University some 70 years ago, and who had direct access to considerable firsthand resources at the forefront of Egyptology research. It represents a crucial and long-awaited advance in archaeology, not only for Egypt but for the study of the past across Africa and beyond.

Please visit the site: <http://tinyurl.com/pe7zeaq>

JOURNAL OF FIELD ARCHAEOLOGY: **VOLUME 39, NUMBER 3**

Greetings All,

We are pleased to announce the latest issue of the Journal of Field Archaeology: Volume 39, Number 3, July 2014. The table of contents is below, and the articles may be accessed at: <http://www.maneyonline.com/toc/jfa/39/3>

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Thank you!

EΙΔΗΣΕΙΣ - NEWS RELEASE

CLUE TO DISEASE'S SPREAD IN A 6,200- YEAR-OLD GRAVE, BY DONALD G. MCNEIL JR.

The oldest *Schistosoma* egg ever found was unearthed recently in an archaeological dig in Syria, and its surroundings suggest that ancient Mesopotamians may have contributed to the spread of schistosomiasis, a parasitic disease.

Also called bilharzia or snail fever, schistosomiasis is caused by *Schistosoma* flatworms that live in freshwater snails, which they leave to burrow into humans wading or swimming. They migrate to blood vessels in the bladders, bowels or sexual organs of their hosts.

Infestation can cause bloody urine, anemia, kidney failure and bladder cancer. More than 700 million people in the world — mostly the rural poor — live in areas at risk for it.

The egg was discovered in a 6,200-year-old grave in Tell Zeidan, an ancient farming village near the Euphrates River, and was sifted out of dirt from the corpse's pelvic region. Control samples from the head and foot areas had no eggs, so the soil was presumably not contaminated later, according to the study, which was published June 19 by *Lancet Infectious Diseases*.

Although the village is too arid for wheat or barley, both were grown there, suggesting that it had irrigation ditches, which were first dug in that part of Mesopotamia 7,500 years ago. That suggests that human intervention helped spread the disease in one of the cradles of civilization, said Dr. Piers D. Mitchell, a Cambridge University paleopathologist and a co-author of the study.

Previously, the oldest egg was found in a 5,200-year-old Egyptian mummy.

Please visit the site: <http://www.nytimes.com/2014/07/01/science/clue-to-diseases-spread-in-a-6200-year-old-grave.html>

NERO'S REVOLVING RESTAURANT **REALLY EXISTED, ARCHAEOLOGISTS** **PROVE, BY ARIEL DAVID**

Dormice drenched in honey and poppy seeds as an appetizer.

Roast boar stuffed with live thrush for the main course, focaccia with cheese and Spanish honey for dessert, and a finale of fresh oysters and grilled snails. All washed down with wine aged for a century.

That's only part of the decadent menu that the satirical writer Petronius reports could be sampled at a typical banquet hosted by first-century Roman elites.

It's easy to imagine even more exotic delicacies gracing the table of an emperor when visiting the remains of what archaeologists believe was one of the most peculiar and sophisticated structures of antiquity: the revolving dining room built by the infamous Nero. First uncovered in 2009 by a team of French and Italian archaeologists, the building is now undergoing excavations and will be visible to the public after October, when the dig ends.

Haaretz got an exclusive tour of the site last month, as well as insight into the archaeological detective work that went into identifying the building.

Mystery: The platform that should have collapsed

When they started digging on an artificial terrace created by Nero's successors on the northeast corner of Rome's Palatine Hill, researchers certainly hadn't been looking for a precursor to the modern revolving restaurant.

The platform was built after 70 C.E., shortly after Nero was toppled in a revolt. His successors, the Flavian dynasty, were moving to consolidate their rule by building a new palace on the Palatine, the traditional seat of imperial power in Rome.

Modern researchers had puzzled over the area because surveys showed the retaining wall was too thin to hold the artificial terrace: the whole thing should have collapsed.

"It was a mystery that needed to be solved," says Francois Villedieu, the French archaeologist who leads the dig. "There had to be something big underground holding it all in place."

What they found was a huge puzzle: a round, 12-meter-tall tower, with a massive central pillar of four meters in diameter and 8 pairs of arches supporting two floors.

"There was no other ancient building like it, nothing to compare it to," Villedieu recalls. The strata it occupied and the building technique dated the tower to Nero's time. But whatever it was built to support had been razed to make way for the new palace and erase the memory of the previous ruler, reviled as a cruel, corrupt despot and megalomaniacal builder who allegedly fiddled while Rome burned down in 64 C.E.

The only clues to the tower's function, along the top of the upper arches, were lines of semi-spherical holes, filled with slippery clay.

Primitive ball bearings and water power

Archaeologists were reminded of cavities, filled with similar lubricants, that were used on large ships and harbor structures to contain primitive ball bearings, on which moveable platforms were mounted to transport heavy loads.

But what was such industrial equipment doing in what would have been part of Nero's elegant palace, the fabled *Domus Aurea* – the Golden House?

It was then that researchers recalled a description of the emperor's palace by the Roman historian Suetonius, who wrote that Nero's "main dining room was round, and revolved continuously on itself, day and night, like the world."

Historians had long thought that Suetonius had exaggerated his description and that the *coenatio rotunda* was the round, frescoed hall located in another part of the immense palace, on the opposite Esquiline Hill.

But the discovery by Villedieu's team is set to change that view. The mysterious cavities in the structure are believed to have housed metal spheres that supported a revolving floor.

At the bottom of the tower, archaeologists also found indications that a mechanism had been built into the wall. The metal parts had been ripped out to be reused, but calcite deposits on the surrounding stones suggest that the floor's constant movement may have been powered by water channeled through a system of gears.

The Sibylline inscription

Further evidence comes from a coin minted by Nero, which shows a tower similar to the one uncovered with two smaller structures on the side, and a Sibylline inscription that describes it as "MAC AUG."

That second word refers to Augustus, the title that all Caesars took. As for the first abbreviation, some scholars think it refers to the *macellum* or market of Augustus. But others, including Villedieu, believe the tall and narrow building on the coin does not look like a market, and the writing should be read as celebrating the "machina" – the machine of Augustus.

The discovery generated much debate and skepticism among archeologists, so much that it took years for Villedieu to gather funding to continue the dig.

"We don't have definitive proof, but we have many convincing clues," Villedieu told Haaretz.

Now, thanks to a prize that the project won in France and with the support of Italian officials, she hopes to find the building's facade and the other structures depicted on the coin.

Maria Antonietta Tomei, an archeologist and former official for the Culture Ministry's Archaeological Superintendency, which supervises the dig on the Palatine, said the discovery of the dining room somewhat changes our view of Nero.

The emperor is known mostly through the writings of historians who belonged to the aristocracy and opposed him for his populist economic policies in favor of the poor and the expropriation of lands that belonged to the upper class to build his golden palace, she points out.

"Nero has a terrible reputation but he was a very complex character," Tomei told Haaretz. "He was not just a negative figure." And now, in her view, the mechanical and architectural sophistication of his revolving dining room highlight his passion for science and technology as well as for the arts and culture.

Please visit the site: <http://www.haaretz.com/archaeology/premium-1.602316>

DNA OF FIRST NEAR EASTERN FARMERS SEQUENCED

The mitochondrial DNA of the first Near Eastern farmers has been sequenced for the first time. Experts analysed samples from three sites in the birthplace of Neolithic agricultural practices - the Middle Euphrates basin, and the oasis of Damascus, in present-day Syria - dating to about 8,000 BCE.

Agricultural and husbandry practices originated around 12,000 years ago in a region of the Near East known as the Fertile Crescent - a profound social, cultural and economic transformation. Whether it was a population migration or a cultural adoption has been widely debated for the past fifty years.

The genetic composition of first Neolithic populations has remained a mystery, although some advances in the genetics of European Neolithic populations were made during the past decade. Professor and co-author Daniel Turbón points out that the results "are the first ones regarding first Near Eastern farmers... the genetic stock of original Neolithic", however other data have been published about European first farmers - in Catalonia, the Basque Country, and Germany.

The study provides a new framework to interpret the results of other studies about European Neolithic populations. Genetic affinities have been observed between the mitochondrial DNA of first Neolithic populations and the DNA of first Catalan and German farmers. This suggests that Neolithic expansion probably took place through pioneer migrations of small groups. Moreover, the two main migration routes - Mediterranean and European - might have been genetically linked.

According to co-author Eva Fernández, "The most significant conclusion is that the degree of genetic similarity between the populations of the Fertile Crescent and those of Cyprus and Crete supports the hypothesis that Neolithic spread in Europe took place through pioneer seafaring colonisation, not through a land-mediated expansion through Anatolia, as it was thought until now".

Other studies had already provided signs of an alternative scenario. According to Turbón, "recent archaeological finds have proved that the Neolithic arrived to Cyprus around 10,600 years ago, some years after the first documentation of agricultural practices in the Near East." Architecture and burial models found on Cyprus are similar to those in the Middle Euphrates basin.

"That indicates a direct colonisation of these territories", Turbón stresses, adding that "radiocarbon dates from different Neolithic sites in the Near East and Europe also suggests a first seafaring expansion through Cyprus."

Please visit the site:

http://www.ub.edu/web/ub/en/menu_eines/noticies/2014/06/007.html

NEW MOSAICS DISCOVERED IN SYNAGOGUE EXCAVATIONS IN GALILEE

Excavations led by a University of North Carolina at Chapel Hill faculty member revealed stunning new mosaics decorating the floor of the Late Roman (fifth century) synagogue at Huqoq, an ancient Jewish village in Israel's Lower Galilee.

Since 2012, three well-preserved mosaics have been discovered in the same location in excavations directed by Jodi Magness, Kenan Distinguished Professor for Teaching Excellence in Early Judaism in the College of Arts and Sciences, and co-directed by Shua Kisilevitz of the Israel Antiquities Authority. Sponsors are UNC, Brigham Young University in Utah, Trinity University in Texas, the University of Toronto in Canada and the University of Wyoming. Students and staff from UNC and the consortium schools participated in the dig.

In 2012, a mosaic showing Samson and the foxes (as related in the Bible's Judges 15:4) was discovered in the synagogue's east aisle. Last summer (2013), a second mosaic was found which shows Samson carrying the gate of Gaza on his shoulders (Judges 16:3).

A third mosaic discovered in the synagogue's east aisle is divided into three horizontal registers (strips), and differs in style, quality and content from the Samson scenes. It is the first time a non-biblical story has been found decorating any ancient synagogue. Portions of this mosaic were uncovered in 2013, and the rest was revealed this summer.

The lowest register shows a bull pierced by spears, with blood gushing from his wounds, and a dying or dead soldier holding a shield. The middle register depicts an arcade, with the arches framing young men arranged around a seated elderly man holding a scroll, and lighted oil lamps above each arch. The uppermost register depicts a meeting between two large male figures. A bearded, diademed soldier wearing elaborate battle dress and a purple cloak is leading a large bull by the horns, accompanied by a phalanx of soldiers and elephants with shields tied to their sides. He is meeting with a grey-haired, bearded elderly man wearing a ceremonial white tunic and mantle, accompanied by young men with sheathed swords, also wearing ceremonial white tunics and mantles.

The identification of the figures in this mosaic is unclear because there are no stories in the Hebrew Bible involving elephants, Magness said.

"Battle elephants were associated with Greek armies beginning with Alexander the Great, so this might be a depiction of a Jewish legend about the meeting between Alexander and the Jewish high priest," Magness suggested. "Different versions of this story appear in the writings of Flavius Josephus and in rabbinic literature."

The mosaics have been removed from the site for conservation, and the excavated areas have been backfilled. Excavations are scheduled to continue in summer 2015.

ote: Magness can be reached at magness@email.unc.edu or by phone in Israel until July 11.

Please visit the site: <http://uncnews.unc.edu/2014/07/02/new-mosaics-discovered-synagogue-excavations-galilee/> [Go there for Samson pict]

À BAALBECK, LA COLLINE CHEIKH ABDALLAH LIVRE SON TROISIEME MONOLITHE

Les sondages réalisés par une équipe de l'Université libanaise ont livré un monolithe de 19,6 mètres de long, six mètres de large et 5,5 mètres d'épaisseur, à 800 mètres des ruines romaines de Baalbeck. Baalbeck est un chantier archéologique en permanente évolution. Les sondages réalisés récemment par Janine Abdel Massih et son équipe de l'UL sur la colline Cheikh Abdallah, à 800 mètres des ruines romaines, ont livré un monolithe plus large et plus massif que la Hajar al-Hibla. Il mesure 19,6 mètres de long, six mètres de large et 5,5 mètres d'épaisseur. « Jusque-là. Car nous n'avons pas encore atteint le fond du roc pour le dégager entièrement », a-t-elle déclaré, ajoutant que les travaux reprendront après la fête du Fitr.

Située à l'entrée sud de Baalbeck, la colline Cheikh Abdallah abrite une carrière antique de pierre calcaire conglomérée, qui a approvisionné le chantier de construction du complexe romain. Et selon l'archéologue, il ne serait pas improbable que le bloc monolithique découvert ait été taillé pour les soubassements du temple de Jupiter, dont le plan initial devait être plus large, comme l'ont relevé des études antérieures. Le mégalithe a été trouvé légèrement en contre-bas de celui connu sous le nom de Hajar al-Hibla (21,50 m de long, 4 m de large et 4,20 m de hauteur). Un deuxième bloc avait été mis au jour dans les années quatre-vingt-dix. Ses couches archéologiques parfaitement conservées avaient permis aux spécialistes d'étudier la manière d'extraire les monolithes.

L'opération se faisait par le creusement de tranchées verticales isolant la masse sur ses côtés, avait expliqué Janine Abdel Massih, lors d'une conférence donnée au musée de l'AUB, en décembre 2005. Ces tranchées, qui font entre 10 et 20 cm de largeur pour les blocs de moins d'un mètre de haut, peuvent atteindre les 40 à 60 cm pour les blocs de plus grande dimension. La hauteur des pierres extraites est délimitée par l'épaisseur naturelle de strates géologiques de la roche.

Si les tonnes de pierres utilisées dans la construction des temples de Baalbeck proviennent essentiellement de la carrière située sur la colline Cheikh Abdallah, dans le secteur nord de la ville antique et sur un rayon de plus de deux kilomètres, les archéologues ont relevé la présence d'exploitations ponctuelles. À l'ouest, non loin du complexe romain, la carrière de Kyales a donné une pierre de meilleure qualité : une roche tendre à grains fins qui a vraisemblablement fourni le support de toutes les sculptures et décorations des temples.

Please visit the site: <http://www.lorientlejour.com/article/874527/a-baalbeck-la-colline-cheikh-abdallah-livre-son-troisieme-monolithe.html> [Go there for pix on the Lebanese University excavation in collaboration with the German mission at Baalbek]

COMPLETING THE TREATMENT OF TAWAHIBRE'S COFFIN

Things have been pretty busy around here lately, and I almost forgot to post some updates about several projects. One project in particular is the treatment of Tawahibre's coffin. We have been working on this 2-part painted wooden coffin in the lab for the last year, and we recently completed its treatment.

As you may remember, when the coffin first came up here, it was covered with a thick layer of dust and grime, the paint was badly flaking in areas, several large pieces of painted gesso were pulling away from the wood support, and there were large cracks throughout.

Before treatment photos (clockwise from left): upper half of coffin showing layer of dust and large cracks and losses; large piece of painted gesso partially detached from top of head; large loss on wig, showing old, shiny animal glue adhesive from a previous restoration

After cleaning the surface with a brush and vacuum, followed by cosmetic sponges, I consolidated the paint with a methyl cellulose solution, filled in cracks and gaps using Japanese tissue paper and a mixture of methyl cellulose bulked with cellulose powder and glass microballoons, and then toned the fills with acrylic paint. This work is explained in further detail in previous posts, which you can find by clicking on the links included in blue above.

A detail shot of the wig showing an area with several large open cracks before and after filling with Japanese tissue paper and methyl cellulose/cellulose powder/glass microballoons mixture

Based on a discussion with our Egyptian section curators, I also made some aesthetic fills to mask some large losses, including 2 losses on the wig. We chose not to fill the losses on the nose and chin because filling these losses would require too much guess-work as to the original contours of these features.

Large loss on wig before (left), after application of Japanese tissue paper layer (middle), and during application of fill mixture (right)

Detail of the head and wig before (left) and after (right) conservation treatment, with losses on the wig outlined in red. The larger loss on the right is the featured in the previous series of images.

I carried out similar work on the base of the coffin, and now both are complete:

Tawahibre's coffin lid before (left) and after (right) conservation treatment

The coffin base before (left) and after (right) conservation treatment

As you can see, we chose not to fill many of the losses, focusing instead on stabilization.

This work will enable future exhibition of the coffin, and just as importantly, it will make further study of the coffin possible. All along there have been some discrepancies between the name that has always been associated with the coffin (Tawahibre, a woman's name) and a previous translation in 1946 of the hieroglyphic text on the coffin (which identified the name of a male court official, the son of J-se(t)-N-Ese). There has also been some confusion about the remains once housed in the coffin, which were previously identified as male, but in a 1975 autopsy the remains were confirmed as belonging to a female in her mid-30s. A bit confusing, but hopefully we're now one step closer to getting this all straightened out!

Please visit the site: <http://www.penn.museum/sites/artifactlab/2014/06/> [Go there for links to many pix]

WHAT LIES BENEATH: NEW DISCOVERIES **ABOUT THE JERICHO SKULL,** **BY ALEXANDRA FLETCHER**

It's always a problem for museum curators to find ways of learning more about the objects in their care without damaging them. For human remains, it's even more complicated because there are additional questions of care and respect for the dead that have to be carefully considered before any research can be done. However, by studying their remains we can find out an enormous amount about the people of the past; about their health, their diet and about the religious practices they carried out.

The so-called Jericho skull is among the oldest human remains in the British Museum collection. Thought to be between 8,500 and 9,300 years old, it is one of seven Neolithic plastered human skulls found together by Kathleen Kenyon during excavations at Jericho in 1953. The site is now located in the modern State of Palestine.

Plastered skulls are thought to have been an important part of Neolithic rituals involving the removal, decoration and collecting of skulls. There has been a lot of debate about why particular skulls were chosen for this. Some archaeologists link them to the worship of elder males. Others suggest they were selected according to their shape or the status of the person in society. Some argue that they are portraits of revered members of the community. None of these theories are completely convincing, but a general agreement has emerged that the worship of ancestors may be involved.

This 'skull' is actually a cranium because the lower jaw has been removed. There is also a section of bone missing on the left side towards the back where the soil filling inside can be seen. The cranium was decorated with a thick layer of plaster, shaped to look like a human face, which covers all of the upper jaw and finishes at the eye sockets and temples. Plaster has also been used on the base, so the skull sits upright on its own. Frustratingly, the plaster covers the parts of the skull which provide clues about who the person was and what happened to them. Therefore, over 50 years after it had been found, we still knew very little about the person whose skull this was. Physical anthropologists (experts in the human body) Theya Molleson (Scientific Associate, Natural History Museum) and Jessica Pearson, looked at how much the sutures (the joins between the skull's bones) had closed and were able to suggest that it was a mature adult, but we needed to see beneath the plaster to find out more.

The Museum has equipment for taking X-rays (radiographs) and my colleague Janet Ambers was able to X-ray the Jericho skull, but the soil filling the skull made it difficult to see everything inside clearly. We were therefore very lucky to be offered the chance to use a micro-CT scanner and its associated software by the Imaging and Analysis Centre, at the Natural History Museum, and the Department of Surgery and Cancer at Imperial College, and to work with two of their experts, Richard Able and Crispin Wiles.

The images created by the CT scans allowed us to look beneath the surface, revealing new details about the person that died so long ago.

The scans confirmed that the skull had belonged to a mature adult who was more likely to have been male than female. We were also able to look at his upper jaw, where we found broken teeth, tooth decay and damage done to the bone by abscesses; all of which fitted well with the person being a mature adult. The back teeth (second and third molars) never developed and the second incisor on the right side is also missing. It is difficult to be sure without other examples to look at, but these teeth may have failed to grow because of inherited traits that are relatively rare.

The scans also allowed us see that the shape of the person's head had been changed during their lifetime. It is possible to alter the shape of a skull by binding or bandaging the head during childhood. When we looked at the outside of the Jericho Skull we could see a slight dip in the surface running over the top of the head from ear to ear which suggested that something like this had been carried out. The X-rays and the CT scans, showed changes in the thickness of the skull bone and, as such alterations can only be made while bone is forming and growing, this must have happened from an early age.

This work has also revealed new details about how the skull was prepared for plastering. The CT scans showed concentric rings of grits within the soil and a ball of finer clay sealing the access hole at the back. This suggests that the soil was deliberately put inside the skull to support the surface as the plaster face was being added. It is possible that the round piece of bone cut away to form the access hole was originally put back after the cranium had been filled.

Although it was subsequently lost, its earlier presence may explain why the soft soil filling has survived so well.

The work has significantly changed our knowledge of how this person's skull was treated both during life and after death, making clear the benefits of the long-term care for human remains offered by museums.

This previously enigmatic individual is now known to be a old man who suffered badly from toothache. The deliberate re-shaping of the skull also suggests that for this individual, physical change and social status may have been linked, something seen across the history of humankind. The use of imaging techniques has provided us with new areas of investigation and suggested new ways to view plastered skulls; as a reflection of an individual's life rather than just a treatment for the dead.

The Jericho skull can be seen in the British Museum in Room 59, Ancient Levant, The Raymond and Beverly Sackler Gallery.

Alexandra Fletcher is co-editor of a recent book, *Regarding the Dead: Human Remains in the British Museum* published by British Museum Press, which discusses the ethical and practical issues associated with caring for human remains and presents some of the solutions the British Museum has sought to curation, storage, access and display.

The book also discusses some of the research that has developed our understanding of these individuals' past lives.

Please visit the site: <http://blog.britishmuseum.org/2014/07/03/what-lies-beneath-new-discoveries-about-the-jericho-skull/> [Go there for pix]

NOUVELLES MOMIES DE L'ÉPOQUE TARDIVE

Une équipe d'archéologues espagnols de Qobbet Al-Hawa, à Assouan, a découvert une chambre funéraire intacte renfermant neuf cercueils avec leurs momies.

La mission espagnole de l'Université de Jaén, dirigée par Alejandro Jiménez, professeur d'histoire à l'UJA, et qui mène des travaux sur le site de la nécropole Qobbet Al-Hawa à Assouan depuis 6 ans, a mis au jour une chambre funéraire dans laquelle ont été trouvés neuf cercueils avec leurs momies datant tous de l'époque tardive (650-525 av. J.-C.). « Il y a un seul sarcophage en bois qui renferme la momie d'un Nubien en bon état. A l'intérieur des bandages qui entouraient la momie, les archéologues ont découvert un magnifique sabre de style nubien. Bien qu'il n'y ait aucune inscription sur le sarcophage indiquant l'identité de son propriétaire, il est très probable qu'il appartienne au gouverneur de cette province d'Égypte », explique Nasser Salama, directeur des antiquités à Assouan. Il ajoute que le reste des sarcophages a été trouvé en mauvais état à cause des fourmis blanches qui les ont rongés. Parmi les neuf sarcophages découverts, seuls deux portent le nom de leurs propriétaires. Les décorations inscrites sur l'un d'entre eux montrent qu'il est destiné à une femme membre de la famille de l'inhumé nubien. La fille du gouverneur dénommée Ja wt Ankoket a été enterrée avec un splendide appui-tête. Sur un autre sarcophage est inscrit le nom Sarenpout qui est probablement un frère du défunt.

L'appui-tête découvert.

Outre les neuf sarcophages, l'équipe multidisciplinaire (archéologues, anthropologues, historiens, experts espagnols en épigraphie égyptienne) a également découvert dans cette chambre funéraire des offrandes funéraires, des poteries, des ouchebtis et d'autres outils.

La mission a fait cette découverte dans le grand complexe funéraire du grand cimetière QH33 appartenant aux familles de deux gouverneurs de la fin de la XIIe dynastie du Moyen Empire, Haka Ip III et Ameny-Seneb. Selon Alejandro Jiménez, « pendant cette saison de fouilles, la mission a établi une documentation complète sur la momie de Haka Ip III découverte il y a quelques mois. Il était l'un des gouverneurs d'Éléphantine, mort à l'âge de 26 ans environ et enterré dans deux cercueils emboîtés l'un à l'intérieur de l'autre. Le deuxième cercueil était à l'origine pour sa femme. Sa mort soudaine est la raison pour laquelle son sarcophage n'a pas été achevé ». Il ajoute que la documentation complète sur la momie a permis d'approfondir certaines connaissances sur la noblesse de l'Égypte Ancienne.

Tombes des nobles et des dignitaires

Qobbet Al-Hawa ou « la coupole des vents », aussi appelée la « vallée des princes », est une nécropole pharaonique sur une colline rocheuse, à 130 m d'altitude, face à la ville d'Assouan, sur la rive ouest du Nil. Dans cette nécropole se trouvent les tombes des nobles et des dignitaires qui ont régné sur l'Éléphantine, la province du sud de l'Égypte. Ces tombes fournissent des détails importants de la vie des hauts fonctionnaires. Il y a aussi des tombes du Moyen Empire (2040-1640 av. J.-C.), sous le règne d'Amenemhat

III du 1853 à 1806 av. J.-C., réutilisées à l'époque tardive (712-332 av. J.-C.). Les tombes sont disposées sur trois rangées sur la coupole de Qobbet Al-Hawa. Près de quatre-vingt ont été fouillées. L'entrée de toutes les tombes de Qobbet Al-Hawa se fait dans le centre de la salle principale, dont le plafond est soutenu par des piliers. Certaines tombes renferment de petites pièces auxiliaires accessibles à partir de la pièce principale. Les tombes ont été creusées dans la roche, les fissures et autres imperfections ont été fixées avec du mortier de chaux et de sable mélangé à du plâtre. Les murs de certaines tombes possèdent des restes du panneau de décoration.

Please visit the site: <http://hebdo.ahram.org.eg/News/6200.aspx>

PARASITE FOUND AT ANCIENT MIDDLE EASTERN BURIAL SITE STILL INFECTS HUMANS TODAY, BY TIA GHOSE

Some of the earliest evidence of a human parasite infection has been unearthed in an ancient burial site in Syria.

The egg of a parasite that still infects people today was found in the burial plot of a child who lived 6,200 years ago in an ancient farming community.

"We found the earliest evidence for a parasite [that causes] Schistosomiasis in humans," said study co-author Dr. Piers Mitchell, a biological anthropologist at the University of Cambridge in England. The oldest Schistosoma egg found previously, in Egyptian mummies, was dated to 5,200 years ago.

The parasite egg hails from the Fertile Crescent, a region around the Tigris and Euphrates Rivers in the Middle East, where some of the first irrigation techniques were invented about 7,500 years ago.

That suggests that advances in farming technologies caused the rise of human infections with the water-borne worm, Mitchell told Live Science.

Bloody worms

Schistosoma parasites live in freshwater snails and burrow into human skin when people wade into warm, fresh water. In the Middle East, the parasite typically infects the blood vessels in the kidneys and can lead to blood in the urine, anemia and eventually bladder cancer, while in Africa, the flatworm typically infects the bowels, where it causes bleeding and anemia as well. The parasite can spread when eggs are shed in the feces or urine of infected people.

Agricultural technologies are tied to the parasite's prevalence, experts say.

"Studies in Africa in modern times have shown that farming, irrigation and dams are by far the most common reasons why people get Schistosomiasis," Mitchell told Live Science.

Ancient site

The egg was uncovered in a cemetery with 26 skeletons at a site called Tell Zeidan in Syria. The site was occupied by people from about 7,800 to 5,800 years ago, and may have housed a few thousand people, said study co-author Gil Stein, the director of excavations at the site and an archaeologist at the Oriental Institute of the University of Chicago.

The team collected samples of soil from around the skeletons'

abdomens, where the parasite would be expected to be found, and also from around the feet and heads, which served as a control (eggs found there would suggest the soil at the site was contaminated with the parasite more recently). The researchers sifted through the soil, looking for particles that were the right size to be the parasite's egg — just 0.003 inches (0.1 millimeter) in diameter, Mitchell said.

They then mixed those particles with water and placed them under a microscope.

The researchers found one egg in the soil around the abdomen and pelvis of a child's skeleton. By contrast, they didn't find any around the head or the feet — suggesting that it came from the person in the burial site, and not from some later person who urinated or defecated at the same site.

Human-caused disease

Although the centuries have wiped away any traces of irrigation technology at Tell Zeidan, remnants of wheat and barley were found at the site.

"There was not enough rainfall for barley to grow by itself, but it would have flourished with irrigation," Stein told Live Science.

The site also lies on a floodplain where the Euphrates and Balikh Rivers meet.

When the rivers overflowed their banks, water would have spread across the adjacent plains, and inhabitants may have built little mud retaining walls to keep the water on the fields for longer. (Even today, farmers along Egypt's Nile River use similar irrigation methods).

The farmers could have waded into the water-covered fields, to do weeding and planting, and the rivers' warm, slow-moving water would have been an ideal breeding ground for the snail hosts of the parasite, Stein said.

As follow-up work, the team wants to analyze the genetic material from the parasite to see if the flatworm has evolved since it began infecting humans, Mitchell said.

The findings were published on June 19 in the journal *Lancet Infectious Diseases*.

Please visit the site: <http://www.businessinsider.com/ancient-parasite-still-infects-humans-today-2014-6?msource=MAG10>

KING MENTUHOTEP II'S CHAPEL
UNEARTHED IN SOHAG - A WELL
PRESERVED LIMESTONE CHAPEL FROM
THE REIGN OF THE 11TH DYNASTY KING
MENTUHOTEP II HAS BEEN UNEARTHED IN
SOHAG, BY NEVINE EL-AREF

At the Arabet Abydos area in Sohag, where the large temple of King Seti I is located, an Egyptian excavation mission from the Ministry of Antiquities and Heritage (MAH) stumbled upon a limestone ancient Egyptian chapel from the 11th Dynasty.

The excavation work came within the framework of a cleaning programme carried out by the MAH in that area, after officers of the tourism and antiquities police caught red handed inhabitants trying to illegally excavate the area in front their residences in search of treasured artefacts.

Ali El-Asfar, head of the ancient Egyptian Section at the MAH, told Ahram Online that the chapel is in a very well preserved condition and is located 150 metres north to the temple of King Seti I.

Early studies on the hieroglyphic text engraved on the chapel's walls suggest that it belongs to the 11th Dynasty king Mentuhotep II, in honour of the god Osiris after his unification with the local god of Sohag, Khenti-Amenty.

The chapel is now under restoration as some of its engraving was subjected to damage from subterranean water.

"It is a very important discovery that will reveal more of the history of King Mentuhotep II," Minister of Antiquities and Heritage Mamdouh El-Damaty told Ahram Online.

He explained that monuments belonging to Mentuhotep II are rare in Abydos, despite that Mentuhotep II built several religious edifices in Abydos in an attempt to bolster his power in the ancient city through drawing closer Khenti-Amenty.

Please visit the site:

<http://english.ahram.org.eg/NewsContent/9/40/105292/Heritage/Ancient-Egypt/King-Mentuhotep-II-s-chapel-uneearthed-in-Sohag.aspx> [Go there for pix]

REMAINS OF LONG-LOST TEMPLE DISCOVERED IN IRAQ, BY OWEN JARUS

Life-size human statues and column bases from a long-lost temple dedicated to a supreme god have been discovered in the Kurdistan region of northern Iraq.

The discoveries date back over 2,500 years to the Iron Age, a time period when several groups — such as the Urartians, Assyrians and Scythians — vied for supremacy over what is now northern Iraq.

"I didn't do excavation, just archaeological soundings —the villagers uncovered these materials accidentally," said Dshad Marf Zamua, a doctoral student at Leiden University in the Netherlands, who began the fieldwork in 2005. The column bases were found in a single village while the other finds, including a bronze statuette of a wild goat, were found in a broad area south of where the borders of Iraq, Iran and Turkey intersect. [See Photos of the Life-Size Statues & Other Discoveries in Iraq]

For part of the Iron Age, this area was under control of the city of Musasir, also called Ardini, Marf Zamua said. Ancient inscriptions have referred to Musasir as a "holy city founded in bedrock" and "the city of the raven."

A lost ancient temple

"One of the best results of my fieldwork is the uncovered column bases of the long-lost temple of the city of Musasir, which was dedicated to the god Haldi," Marf Zamua told Live Science in an email. Haldi was the supreme god of the kingdom of Urartu. His temple was so important that after the Assyrians looted it in 714 B.C., the Urartu king Rusa I was said to have ripped his crown off his head before killing himself. He "threw himself on the ground, tore his clothes, and his arms hung limp. He ripped off his headband, pulled out his hair, pounded his chest with both hands, and threw himself flat on his face ..." reads one ancient account (translation by Marc Van De Mieroop).

The location of the temple has long been a mystery, but with the discovery of the column bases, Marf Zamua thinks it can be narrowed down.

Additionally, Marf Zamua analyzed an ancient carving of Musasir, discovered in the 19th century at Khorsabad. The carving, he found, shows hillside houses with three windows on the second floor and a doorway on the ground floor. Such a design can still be seen today in some villages, the bottom floor being used as a stable and storage area, he noted.

Life-size statues

This long-lost temple is just the tip of the archaeological iceberg. During his work in Kurdistan, Marf Zamua also found several life-size human statues that are up to 7.5 feet (2.3 meters) tall. Made of limestone, basalt or sandstone, some of these statues are now partly broken.

They all show bearded males, some of whom "are holding a cup in their right hands, and they put their left hands on their bellies," said Marf Zamua. "One of them holds a hand ax. Another one put on a dagger."

Originally erected above burials, the statues have a "sad moment" posture, Marf Zamua said. Similar statues can be found from central Asia to eastern Europe. "It is art and ritual of nomads/pastorals, especially when they [buried] their chieftains," Marf Zamua said.

Most of the newfound statues date to the seventh or sixth century B.C., after Musasir fell to the Assyrians, and during a time when the Scythians and Cimmerians were advancing through the Middle East.

Modern-day dangers and ancient treasures

Over the past few weeks, conflict in Iraq has been increasing as a group called the "Islamic State in Iraq and the Levant" (ISIS) has taken several cities and threatened to march on Baghdad. The Kurdistan area, including this archaeological site, is autonomous, and its militia has been able to prevent ISIS from entering it.

Marf Zamuavs aid there are risks associated with living and working in the border area. Due to the conflicts of the past few decades, there are numerous unexploded land mines, one of which killed a young shepherd a month back, he said. Additionally the National Iraqi News Agency reports that Iranian artillery recently fired onto the Iraqi side of the border, and there have been past instances where planes from Turkey have launched attacks into Iraqi Kurdistan.

Despite these risks, there are also terrific archaeological finds to be made. In addition to the statues and column bases, Marf Zamua found a bronze statuette of a wild goat about 3.3 inches (8.4 centimeters) long and 3.2 inches (8.3 cm) tall. Researchers are now trying to decipher a cuneiform inscription on the statuette.

Marf Zamua presented the discoveries recently in a presentation given at the International Congress on the Archaeology of the Ancient Near East, held at the University of Basel in Switzerland. In addition to his doctoral studies, Marf Zamua teaches at Salahaddin University in Erbil, which is the capital of Iraqi Kurdistan.

Please visit the site: <http://www.livescience.com/46674-remains-of-long-lost-temple-discovered-in-iraq.html> [Go there for pix and caption]

SCIENTISTS ARE STUDYING MUMMIES FROM THE TEMPLE OF HATSHEPSUT

Scientists from the Polish-Egyptian Archaeological and Preservation Mission at the Temple of Hatshepsut at Deir el-Bahari are using computed tomography and X-ray to study more than 2.5 thousand years old mummies of the priests of the god Montu - told PAP Zbigniew E. Szafranski, director of the Research Station of the Centre of Mediterranean Archaeology of the University of Warsaw in Cairo.

The project began in May. The first mummies, which are currently stored in the Luxor Museum, have already been scanned. The next activities are planned in Cairo, at the National Museum of Egyptian Civilization (NMEC) and the Egyptian Museum.

Mummies studied by the scientists come from the tomb of the priests of the god Montu excavated in the Temple of Hatshepsut in the 1930s, nearly a thousand years after the death of the woman pharaoh the place changed its function from the temple to the burial site. The name of the valley, in which the temple is located - Deir el-Bahri - in Arabic means "Monastery of the North", a reference to the later still history of the place, which in the 5th-12th century was the location of Egyptian Coptic Christian church. Priests of Montu lived during the reign of the XXV Dynasty, the so-called Third Intermediate Period.

They worshiped their god on the other bank of the Nile - in the temple complex which was a part of Karnak.

"In recent years, we re-excavated the tomb located in the Royal Mortuary Cult Complex of the temple. Due to the fact that the documentation methods almost 100 years ago were not perfect, we decided to accurately describe and document everything. In the process, we discovered objects that previous researchers had missed - explained Dr. Zbigniew E. Szafranski. - The study was preceded by documentation of sarcophagi, cartonnage and mummies currently in Egyptian museums".

According to the scientists, the scan results will be used in several ways. Firstly, they will deepen the knowledge of the pharaonic era communities and possibly help to discover unknown practices associated with funerary rites. On the other hand, the data may be used for the purposes of museums and popularisation.

Polish-Egyptian Archaeological and Preservation Mission has been working in the Temple of Hatshepsut since 1961. The archaeologists carry out numerous reconstructions of facades and interiors of the temple, as well as and excavations. In recognition of the Polish contribution to the discovery of the ancient temple, a plaque commemorating their efforts was placed in November 2008 on the south wall of the ramp leading to the upper terrace of the structure.

Studies of mummies are carried out with an Antiquities Endowment Fund grant awarded to the Mission with the help of the American Research Centre in Egypt (ARCE) and the Research Station of the Centre of Mediterranean Archaeology of the University of Warsaw in Cairo.

Please visit the site:

<http://www.naukawpolsce.pap.pl/en/news/news,401026,scientists-are-studying-mummies-from-the-temple-of-hatshepsut.html>

ANCIENT ROMAN CITY DISCOVERED **UNDER NILE DELTA SILT,** **BY AL-MASRY AL-YOUM**

The Minister of Antiquities and Heritage Mamdouh al-Damaty announced the discovery of the remains of an ancient city dating back to the Roman era, located at a distance of approximately 25 km south of the Rashid's Nile branch in Beheira Governorate.

An international joint team between the Ministry of Antiquities and the Italian-Egyptian Center for Restoration and Archaeology surveyed of archaeological area of al-Koam al-Ahmar in Beheira where they discovered the remains of a city under an enormous layer of the Nile silt.

Damaty explained that this discovery had a monumental historical importance, especially, as it reflected a lively image of the details of daily life in the Roman era in Egypt as well as revealed the architectural nature of such cities.

The discovered city is a distinct model that reflects the mechanisms of urban planning during the Hellenistic era in the Delta, said Damaty, pointing out that the archaeological remains discovered contribute to the identification of more of the architectural elements in the region, specifically in the sites of Koam al-Ahmar and Koam al-Wasat, and adds to former discoveries such as the large ancient Roman bathhouse, located in the same region.

The minister added that the survey conducted revealed the existence of many facilities surrounding a huge building that appeared in a rectangular shape, a building that was likely used in the past for either religious or administrative purposes, Damaty said.

Damaty praised the research experience where the latest techniques of geophysical, topographic and magnetic surveys in addition to aerial photography were used by an international team of archaeologists.

The initial signs suggest that the discovered city belongs to the late period of the Pharaonic families, and still needs more studies and specialized research to reach all the historical archaeological details and facts, said member of the discovery team Mohamed Kenawy.

Please visit the site: <http://www.egyptindependent.com//news/ancient-roman-city-discovered-under-nile-delta-silt>

WHAT ROME'S ARCH-ENEMIES WORE INTO BATTLE, BY PAUL RODGERS

Naval archaeologists think they've found the only example of armor from Carthage to survive the destruction of the city-state by Rome in 146BC.

The helmet, recovered from the site of the Battle of the Egadi Islands, northwest of Sicily, is dramatically different from the Celtic style worn across Europe, popularly known as a Roman helmet.

It appears to have a nose guard, a broad brim protecting the back of the neck from ear to ear, and a high, narrow crest, said Dr Jeff Royal, director of archaeology at the RPM Nautical Foundation in Florida.

Roman helmets, called montefortinos, are easily identified, said Dr Royal from the deck of his foundation's ship, RV Hercules. "They look like half a watermelon with a knob on top and cheek flaps down the side that tie at the chin."

The suspected Carthaginian helmet, heavily encrusted after more than two-millennia under the Mediterranean Sea, is currently undergoing cleaning and conservation that should eventually reveal more details.

The find is the latest in a string of discoveries made with unmanned submersibles that are upsetting our understanding of naval tactics during the Punic Wars, which saw the upstart republic overthrow its North African rival and turn the Mediterranean into a Roman lake.

Dr Royal and his colleague Sebastiano Tusa, Sicily's superintendent of the sea, and their team have also discovered that the ships were both smaller and more powerful than previously thought.

The evidence comes from 11 bronze battering rams, the main maritime weapon of the day. These were cast to custom fit the bows, thus revealing the dimensions of the timbers used in the keels.

From those measurements, Dr Royal and his team calculate that the ships could not have been more than 28 metres (90ft) long, far less than the 40 metres previously estimated. That throws into question whether they were really triremes, with three decks of oarsmen, as a ship so tall would be unstable.

The weight of the rams, around 125kg (275lbs), indicates that they would have been able to smash in the side of a ship, rather than just poke a small hole in it, as had been thought.

The rams, mounted below the waterline, had three horizontal planes designed to slice into their targets' timbers. "They'd have cracked in two, spilling all their materiel," Dr Royal said. The dispersal of amphorae and other goods on the seabed confirms that ships were breaking apart on the surface, rather than sinking intact.

The Battle of the Egadi Islands in 241BC brought the First Punic War to an end after 20 years of fighting.

The victory came despite Carthage's traditional naval dominance. Rome had already lost four fleets to foul weather during the campaign.

But under Catulus, they ambushed the Carthaginian fleet led by Hanno as it sailed, heavily loaded with supplies, to relieve the besieged city of Lilybaeum (now called Marsala).

The Roman ships, by contrast, had been stripped of their masts, sails and other unnecessary equipment to make them more seaworthy in the rough conditions. As a result, they were far more maneuverable and sank or captured half of Carthage's fleet, leading to a peace treaty.

Please visit the site: <http://www.forbes.com/sites/paulrodgers/2014/07/05/first-armor-from-carthage-romes-great-rival-found-off-sicily/>

HIDDEN BENEATH THE RUINS OF ELEUTHERNA, BY CHRISTINA LINCIR

Buried during the catastrophe that felled a city, a recently rediscovered collection of ivory plaques provides a glimpse into the early Byzantine world

Imagine if a powerful and destructive earthquake struck Los Angeles. What would you do if you knew those were your final moments? What would be left after you were gone?

On July 21 in the year 365, a powerful earthquake leveled Eleutherna, an important city southeast of modern Rethymnon on Crete. Over 1500 years later, from 1985 to 2003, a team of Greek archaeologists under the direction of Professor Petros Themelis brought to light a number of buildings in the southwest part of the city, including House I, a lavish urban villa. Hidden within the debris in Rooms 100 and 116 (see the plan below) were more than 145 fragments of ivory, among them three ivory plaques currently displayed in [Heaven and Earth: Art of Byzantium from Greek Collections](#) at the Getty Villa.

These plaques were once affixed to the sides of two cherished wooden coffers. The selection of imagery and quality of carving on these boxes provide precious information about the wealth and erudition of a fourth-century couple whose lives were interrupted by natural disaster.

The large urban villa where these ivories were found once accommodated an extended family. It was richly decorated with marble and limestone columns and had painted walls. Room 100 was a large banquet hall that could have accommodated many people. The house also included a work area (Rooms 6 and 7), a cellar (Room 8) and a room furnished with chests and closets for the family (Room 9).

In the peristyle (courtyard) immediately outside of rooms 100 and 116 were found the skeletons of a couple that died as they protectively embraced their young child, likely the child for whom the coffer was first offered as a gift.

More about this family's story can be learned through large number of personal objects also found in the demolished house, which included ceramic vessels, glass beads, coins, gold rings, bronze objects, carved bones, and ivory.

A Newborn's Coffin

Ivory fragments were discovered in rooms 100 and 116 of House I in Eleutherna. The coffers to which they were once affixed have been reconstructed as shown in the illustration above, with truncated pyramidal lids and rectangular and truncated bases. The ivories are carved with subjects derived from Greek mythology: the story of Achilles, the Greek hero and main character of Homer's *Iliad*, and a Marine Thiasos (the triumphal wedding procession of Poseidon and Amphitrite).

The fragments exhibited now at the Getty Villa in *Heaven and Earth* include four scenes from the life of Achilles: his birth, his submersion in the river Styx, his placement in the

care of the centaur Chiron, and his dragging the body of Hector, leader of the Trojans, behind his chariot during Patroclus's funeral games.

The second coffer, not included in the exhibition, was decorated with a Marine Thiasos, attended by such figures as sea nymphs and hippocamps. Based on their subject matter, the coffers are thought to have been gifts to a couple to commemorate their marriage (the Marine Thiasos coffer) and to celebrate the birth of their son (the Achilles coffer).

Though small in size, the ivories are carved in a monumental style reminiscent of large-scale sculpture of the same period. Just down the hall from the exhibited ivories at the Getty Villa, for example, a much larger sarcophagus panel made around the year 210 and [decorated with the story Endymion and Selene](#) contains many of the elements represented on the coffers; it also offers clues about the kinds of sculptural sources that would have been available to the carver of the Eleutherna ivories.

The imagery on the coffer also foreshadows compositions that would later appear in Christian art. The representation of the hero's birth—in which a midwife prepares to bathe the child in a basin as his mother, the Nereid Thetis, reclines on a couch and is attended by female servants—recalls representations of the Nativity of Christ and the Birth of the Virgin, including a gilded icon found in the exhibition *Heaven and Earth*.

Why These Images?

At the time in which these ivories were carved, the late 3rd and early 4th centuries AD, Christianity had already begun to spread throughout the Roman Empire. At the same time, however, heroic scenes from ancient mythology continued to excite the imagination of many, particularly as sources of secular art.

Interestingly, mythological scenes continued to be used in medieval Byzantium for the decoration of ivory boxes, most notably the [Veroli Casket](#) from the second half of the tenth century, today in the Victoria and Albert Museum in London. Another example can be seen on a twelfth-century bone casket box, also displayed in *Heaven and Earth*, which depicts putti dancing with real and fictitious creatures. The continuous use of mythological scenes for the decoration of luxury objects is often seen as an indication of elite tastes and levels of education.

The couple discovered in House I lived at a time of radical transformation. After the earthquake, the rebuilt, early-fifth-century city of Eleutherna contained an episcopal church and additional basilicas. These architectural remains witness the rapid spread of Christianity. Fragments of the older, earthquake-damaged buildings were used as fill for the new structures, and carvings and inscriptions—including *spolia* (reused sculptural elements) from pagan buildings were employed as construction material for the new basilicas.

Personal items such as these ivory plaques open a window into the lives of the people who lived in a world of rapidly transforming art, religion, and society. An examination of the two coffers teaches us what one couple from Cretan Eleutherna celebrated and what was important to them. Studying these fragments reminds us that archaeologists are not just unearthing artifacts, but that they are also uncovering the stories of the people who made and used them.

For additional reading, see Magdalini Vasiliadou, “[The Ivory Plaques of Eleutherna and their Workshop](#),” in *Second Hellenistic Studies Workshop*, ed. Kyriakos Savvopoulos (Alexandria, 2011).

- See more at: <http://blogs.getty.edu/iris/hidden-beneath-the-ruins-of-eleutherna/#sthash.CjUeovzJ.dpuf>

Please visit the site: <http://blogs.getty.edu/iris/hidden-beneath-the-ruins-of-eleutherna/>

HISHAM'S PALACE MUSEUM, **BY JACK GREEN**

A new museum opened to the public at the archaeological site of Khirbet al-Mafjar (Hisham's Palace) on May 28, 2014. The museum presents archaeological artifacts, architectural elements, and stucco decoration, providing a range of information to visitors about the site's rich history and aspects of daily life in the Palace and the adjacent agricultural estate.

Graphic panels and thematic displays present key elements of interpretation that supplement the information provided by the introductory film and site panels on the archaeological site. An introductory museum panel presents a timeline and maps that situate the site over time and space. An adjacent panel presents information about Palestinian archaeologist Dimitri Baramki and his contribution to the early excavations in the 1930s and subsequent study of Khirbet al-Mafjar, prior to the later work on the site by British archaeologist Robert Hamilton. The intention of this panel is to recognize Baramki's achievements and to raise awareness of archaeological fieldwork by Palestinian archaeologists in the 20th century – inspiring subsequent generations in the 21st century.

A further testament to Baramki's contribution is presented in a display entitled Ceramic Traditions, which utilizes his pottery sequence demonstrating the more extensive occupation of the site after the end of the Umayyad Dynasty (ca. 750 AD), during the Abbasid and into the Ayyubid period (until around 1250 AD). In addition to transitional early Islamic and Umayyad red-painted pottery, the majority of ceramics retrieved from the site and displayed here are actually Abbasid in date (ca. 750–1000 AD), including incised and molded creamware vessels, Abbasid "Palace Ware" and glazed ceramics. This informative display of ceramic types presents an obvious challenge to Hamilton's narrative that proposed a general abandonment of the site after an earthquake around 749 AD.

One display case presents objects that illustrate the economic role of the site as an agricultural estate and the import of products or materials. Carbonized dates and sesame seeds are just some of the organic products encountered during the excavations of Khirbet al-Mafjar. In addition, the display presents information about the grape press found at the site attesting to the fertility and abundance of the site within the Jordan Valley. Ceramic and glass vessels associated with cooking, eating, and drinking, mostly dated to the Abbasid period, hint at the types of objects associated with the spirit of hospitality and entertainment at Khirbet al-Mafjar. Objects of daily life, including coins, personal ornaments, and cosmetic implements come largely from the more recent excavations in the Northern Area carried out by the Jericho-Mafjar Project.

The rest of the Museum focuses on decorative and architectural aspects of Hisham's Palace. A reconstructed cupola (dome) from the Audience Hall's Diwan stands in the entrance. Now in fragments, it was originally carved from a single piece of sandstone, and plastered and painted. This decorative installation contains motifs visible on grander scale in the Palace and carved column capitals that imitate earlier Classical traditions but also hint at Sasanian inspiration. A niche from the façade of the audience hall is installed

in one corner of the gallery, which introduces the context of the famous stucco sculpture of the Caliph (Hisham or Walid II) that once dominated the entrance. Many fragments of carved humans, animals and vegetal and geometric friezes in stucco, as well as smaller architectural elements are presented in one very large case, some of which still carry red, yellow, and black colored pigments. Graphic panels provide information on wall paintings and mosaics of Hisham's Palace, supported by images on a video slideshow from the Rockefeller Museum that give a broader sense of the discoveries from the site on display in Jerusalem.

Lastly, a "touchable" exhibit consisting of fragments of building materials is presented in a display entitled "Building Hisham's Palace." This invites all visitors (not only children), to touch these samples of marble, sandstone, cedarwood, brick, amongst other materials.

This small museum now contains around 150 objects from the site of Khirbet al-Mafjar. The majority of the artifacts come from the 1934–1948 excavations carried out by Dimitri Baramki, later joined by Robert Hamilton. This group is supplemented by more recent discoveries from the Jericho-Mafjar Project (2011–2013 seasons). The former group consists of mainly restored ceramics and fragments of carved stucco retrieved during the mid-1990s from a long-forgotten and partially buried storage depot near the entrance of the site. These artifacts appear to have been left at the site by its excavators in the 1930s and 1940s, perhaps with the intention that one day they might form the basis for a site museum. The majority of the larger fragments of stucco, painted plaster, and other objects were transported to the Palestine Archaeological Museum (Rockefeller Museum), Jerusalem, and can be seen there today.

Hisham's Palace Site Interpretation Panels

A series of 16 new site interpretation panels were also produced as part of the site and museum improvement project in 2014. These replace earlier site panels which had served the Palace and Audience Hall areas of the site over the past few years, supplemented by a series of additional panels in the Northern Area of the site.

The panels were printed on ceramic tiles, seen as the most durable option for the site, and are incorporated into a new visitor route for the site that takes into account more recent findings from the excavations. New panels that have not been previously available to the public include: The Grape Press, the Northern Area mosque, the Stables, and the Abbasid House.

The site of Khirbet al-Mafjar is a popular tourist destination as well as a key site for Palestinian school children. Visits to the site are part of the school curriculum, and therefore all children visit the site as part of their history education. The site is also a popular destination for Palestinian families. These improvements to the site and museum will therefore enhance peoples' understanding and appreciation of the importance of Jericho's rich cultural heritage, and in particular its early Islamic heritage, for years to come. In addition, the benefit to the local economy in terms of tourism is obvious. With more to see at the site, and more reasons to visit the site and spend time there, this will encourage greater interest and investment in Jericho as a cultural destination for visitors.

Project Collaboration and Partnership

The Museum and Site Improvement project was conceived by the Ministry of Tourism and Antiquities, with the assistance of the Jericho-Mafjar Project of the Oriental Institute of the University of Chicago. The Museum and Site project was managed by the Non-Governmental Organization DAI (Development Alternatives Inc.) as part of The Compete Project, a USAID funded initiative to build economic sectors within the West Bank and Gaza, including tourism. The Oriental Institute Museum, University of Chicago, was invited to contribute to and consult on the project through providing text and graphic content, curatorial and museum exhibition advice, and the preparation of mounts for the new displays. The museum and site panel content was prepared and edited by the co-directors of the Jericho Mafjar Project, Donald Whitcomb, Associate Professor of Islamic Archaeology, Oriental Institute of the University of Chicago, and Hamdan Taha, Director of the Palestinian Department of Antiquities and Cultural Heritage, and Deputy Minister of Tourism and Antiquities. Jack Green, Chief Curator of the Oriental Institute Museum, served as the curatorial consultant and exhibit coordinator. Erik Lindahl, Head of the Preparation Department of the Oriental Institute Museum also served as a consultant on the project, and helped sourcing materials and making mounts. Brian Zimerle joined Erik and Jack on the mount making and installation team, closely assisted by Firas Aqel, Elham Alama, and Imad Doudeen, of the Palestinian Department of Antiquities and Cultural Heritage. Elham Alama is the assigned curator for the Hisham's Palace Museum.

For further acknowledgments: go to the link above.

For more information on the Jericho Mafjar Project, go to:
<http://www.jerichomafjarproject.org/>

Please visit the site: <http://www.jerichomafjarproject.org/site-museum> **[scroll down for images]**

THREAT TO UNIQUE BLACK SEA ARCHAEOLOGICAL RESERVE AREA ESCALATES AS CONTROVERSIAL EU- FUNDED WORK CONTINUES

The threat to the archaeological sites and monuments in the unique national archaeological reserve "Yailata" on the Black Sea coast in north-west Bulgaria has escalated as an EU-funded "socialization" project being implemented by Kavarna Municipality has moved into a highly contentious and feared phase of the destructive and crude physical reconstruction of the early Byzantine fortress in the reserve. The first phase of the project, the reinforcement of the exceptional ancient rock church of Ss Constantine and Helena, attracted wide-ranging and scathing criticism for its use of badly-executed and obsolete "restoration" methods which have disfigured and damaged the emblematic historic monument.

The "Yailata" project has become the most controversial of the many similar projects funded by the European Commission Regional Development Fund supposedly intended to develop the tourist potential of archaeological and historic sites in the poorest EU member state, Bulgaria. But, as widely reported in the national media and by expert bodies such as the national Association of Conservator-Restorers and the Bulgarian National Committee of ICOMOS as well as activist heritage groups, the outcomes of the implementation of the programme has led to significant and irreparable damage being inflicted on some of the major historic sites "targeted" by the programme. The scale of damage and fanciful nature of the reconstruction projects has also provoked a growing public outcry and the vigorous condemnation of Bulgarian and international archaeologists, conservation architects and heritage professionals.

Believing that the situation with the destructive massive physical and imaginary reconstructions at archaeological sites had spiralled out of control, in early June the Bulgarian National Committee of ICOMOS felt compelled to issue an official declaration at its annual meeting categorically denouncing the ongoing EU-funded projects of false, hypothetical reconstructions at archaeological sites as damaging and deforming the authenticity of the national cultural heritage.[1] The ICOMOS Bulgaria declaration also exposes the corrupt cronyist practices that accompany the realization of the programme in Bulgaria, asserting that its outcomes are in breach of both national heritage legislation and international conventions for the protection of archaeological and architectural heritage which have been ratified by Bulgaria.

In the case of the EU-funded project for the "socialization" of the archaeological reserve "Yailata", which also falls within an area protected for its biodiversity and habitats within the EU's Natura 2000 network and is commonly seen as a national treasure due to its singular combination of rare natural and archaeological features, the reaction of the public, expert and activist groups and the media has been particularly vehement and wide-ranging.

Archaeologists such as Dr Kalin Dimitrov of the Bulgarian Academy of Sciences and Deputy-chairman of the Association of Bulgarian Archaeologists have called the project

of the reconstruction of the Byzantine fortress "madness", a "non-aesthetic construction" built in "a crude manner" and "for no clear purpose".[2]The Regional Museum at Dobrich in north-east Bulgaria under whose regional authority the reserve falls has also issued an official statement against the project, declaring that its realization contravenes international norms and Bulgarian heritage legislation and the needed archaeological salvage excavations have not been carried properly or completed.[3]

International denunciation of the crude and primitive methods employed to "socialize" the archaeological reserve has been even more forceful.

A number of leading names in the field of conservation and restoration of archaeological and architectural heritage have strongly criticized the outdated and destructive methods of reconstruction of the rock church and fortress in the reserve.

Prominent conservation architects such as Professor Tina Wik of Dalarna University, Sweden, has categorized the "restoration" of the rock church as a "disaster" and the "destruction" of the monument and has called for an immediate termination of work at the site. Peter Riddington, Director of Donald Insall Associates (Architects and Historic Building Consultants, London), has described the "repair" of the fortress as "a crude rebuilding employing ill matched materials", replacing "a truly significant historic monument" with "a crude modern facsimile".

Due to ongoing inspections of the variety of breaches of national legislation the project at "Yailata" has been officially declared "temporarily suspended" on the Bulgarian government website for EU projects.[4]But instead of observing this official "suspension", the construction firm undertaking the additions to the historic Byzantine fortress on behalf of Kavarna Municipality has not only continued to work, but has actually increased the tempo and scale of its activities.

In addition, access roads to the site have been constructed for the use of the different types of heavy machinery needed for the massive reconstruction activities at the fortress. The construction of such access roads and the movement of heavy machinery is theoretically banned by national legislation on such protected Natura 2000 areas.

The reserve is one of the last (if not the last) remaining steppe zone within the European Union member states and apart from its little-explored historic monuments, its singular natural environment, flora and fauna has made it a renowned area for wildlife and nature tourism. Now, with a variety of heavy machinery moving unchecked throughout the reserve and protected areas, the worst predictions of environmentalists that the planned construction work would destroy hectares of steppe grass and endemic species and severely damage the area's exceptional biodiversity have materialized.[5]

Thus instead of developing the tourism potential of the area (the declared aim of the project) it is instead being gravely degraded, as its most attractive and unique historical and natural features face disfigurement and destruction.

Environmentalist and heritage activists have been extensively documenting the illicit use of heavy machinery in the reserve and protected area despite being bullied and receiving death threats from workers on the construction team. Shocking footage on Bulgarian state and satellite television has recorded the unbridled and destructive use and movement of heavy machinery around the reserve and at the archaeological site.[6]

Environmentalists point out that Kavarna Municipality's authorisation of the construction of an excessively high concentration of wind turbines and other developments in the same Natura 2000 protected areas without adequate assessments of their environmental effects has already led the European Commission to take Bulgaria to the European Union Court of Justice for its failure to observe EU Birds and Habitats Directives to protect unique habitats and species.[7]

This new construction assault of Kavarna Municipality on a rare protected area will undoubtedly make it one of the worst offenders against biodiversity in the EU. Exasperated with the seeming inability of the Bulgarian authorities to control or even temporarily suspend the project, expert and activist teams have taken their campaigning to halt or modify the project directly to European and international institutions. But with the construction team hurrying to complete the reconstruction works at the site by the end of August, prospects look grim for one of the most intriguing and under-explored Black Sea archaeological complexes.

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[1] <http://icomos-bg.org/?p=9&l=1&id=182>; English summary of the declaration accessible at: <http://www.bta.bg/en/c/ES/id/849745>

[2] <http://mittag.wordpress.com/2014/05/10/yailata-fortress/>

[3] <http://www.temanews.com/index.php?p=tema&iid=812&aid=18352>;
<http://dobrich.topnovini.bg/node/519715>

[4] <http://umispublic.government.bg/srchProjectInfo.aspx?id=6752>

[5] <http://bnr.bg/en/post/print/100278688/nature-conservationists-diary...>;
http://bbf.biodiversity.bg/indexdetail_art.php?id=828&lang=EN

[6] <http://bnt.bg/news/obshtestvo/zaradi-narusheniya-arheoloji-iskat-sp...>

[7] http://europa.eu/rapid/press-release_IP-13-966_en.htm

Please visit the site: <http://globalheritagenetwork.ning.com/profiles/blogs/threat-to-unique-black-sea-archaeological-reserve-area-escalates>

BEFORE THE GAS, THERE WAS COPPER

Former head of the Antiquities Department Vassos Karageorghis describes what it was like the last time Cyprus had an important natural resource to trade. It was around 3,500 years ago and the resource was copper

AFTER ABOUT six thousand years of relative isolation Cyprus started exploiting her rich copper mines at the beginning of the second millennium BC.

Copper not only changed the lifestyle of the Cypriots, who started making more effective tools, weapons, and other utensils with this new material, but thanks to technologies introduced from neighbouring countries they were able to make an alloy of copper and zinc, which resulted in a much harder alloy, bronze. Numerous such examples have been found in tombs throughout the island.

Cyprus was privileged by nature to have rich resources of copper which were very much in demand throughout the ‘Old World’ of the Mediterranean and even beyond. Written tablets from the Palace of Mari in Mesopotamia refer to Cyprus, under the name of Alasia, as a copper producing country. Cypriot copper, in the form of ingots, was exported as far as the central Mediterranean, Egypt, the Aegean, Anatolia and even the Black Sea.

The Pharaoh of Egypt, the ‘superpower’ of the Bronze Age, had a regular correspondence with the King of Alasia, who used to send him hundreds of copper ingots, in exchange for luxury goods.

In a shipwreck near the south western coast of Asia Minor dating to the end of the 14th century BC, 355 copper ingots were found weighing ten tons. Scientific analysis has demonstrated that the copper came from Cyprus and was destined for the Aegean. Ingots have also been found in Crete and the Greek mainland.

The King of Cyprus became very influential among the rulers of the great powers of the ‘Old World’. The King of Ugarit in Syria referred to him as ‘my brother’. Further loads of copper were also found in shipwrecks dating back to 1200 BC.

Installations for the smelting of copper were situated in the main urban centres along the eastern and southern coasts of Cyprus and from its harbours the precious commodity was exported to east and west. The wealth of Cyprus is reflected in the rich gifts found in tombs of the Late Bronze Age, mainly during the 14th and 13th centuries BC. The treasures included Mycenaean vases, objects of gold and silver, as well as other luxury goods, such as alabaster, and faience imported from Egypt.

The Late Bronze Age was the island’s ‘Golden Age’. It was copper which attracted the first Aegean immigrants who settled on the island and gradually caused the hellenisation of Cyprus. Copper was needed for the manufacture of weapons and all those who wanted to dominate in the Mediterranean needed large quantities of it. Cyprus could supply them.

The Cypriots were very conscious of copper's importance in their everyday life and in preserving the 'international' position of the island. They did their utmost to protect their copper resources by placing the production of copper under the protection of their gods, one male and the other female, the bronze statues of which have been found. They both stand on a base in the form of a copper ingot. Small votive ingots with engraved inscriptions in the Cypro-Minoan script are also known, symbolic offerings for the blessing of the copper mines. The old gods of Cyprus did protect them.

But one wonders whether the piety of modern Cypriots achieve a similar protection for our petrol and gas.

The export of copper continued into the first millennium BC, but to a lesser degree once iron came to dominate the manufacture of weapons.

The territorial waters of Cyprus are hiding a new precious commodity – petrol and gas – which is as vital today as copper was in antiquity.

The government is trying to secure safe exploitation of this wealth, based on international law and strengthen its position through 'alliances' with other friendly neighbours.

Is Cyprus entering a new 'Golden Age'? In the Late Bronze Age trade in copper was carried out peacefully and the King of Alasia was treated as a 'brother' and with respect by the island's neighbours. Not so to-day, at least with regard to one neighbour. We all hope that the exploitation of the new commodity will be carried out peacefully and that our island will gain once more its 'pristine glory', to use the words of an inscription found in the Gymnasium of ancient Salamis.

Please visit the site: <http://cyprus-mail.com/2014/07/06/before-the-gas-there-was-copper/>

ARCHAEOLOGISTS INVESTIGATE A MASSIVE ANCIENT MYCENAEAN CITADEL

Geophysical surveys reveal extensive unseen remains of the vast ancient citadel of Glas.

A team of archaeologists is surveying and excavating the remains of a major ancient Mycenaean citadel—an archaeological site featuring ruins that are turning out to be much more extensive than what meets the naked eye.

Under the leadership of Associate Professor Christofilis Maggidis of Dickinson College and the auspices of the Athens Archaeological Society, teams of specialists have been systematically surveying an imposing, island-like, flat-topped bedrock outcrop that rises 20-40 meters above a surrounding plain with a summit area stretching 49.5 acres at the northeastern edge of the Kopais basin in southeastern Greece. Known as the citadel of Glas and identified as consisting of ancient Mycenaean structures, the summit area featuring the ruins is estimated to measure ten times the size of the ancient citadel of Mycenaean Tiryns and seven times that of Mycenae, the famed city of Agamemnon of Homer's Iliad.

"I first excavated at Glas in 1990 as a graduate student with my mentor, the late Spyros Iakovidis," said Maggidis. "The unparalleled size of the citadel, its connection with the gigantic drainage project of Kopais, and the discovery of such important but few remains in the citadel indicating that the rest of the citadel was left vacant puzzled me since then."

Begun in the 14th century BC, the drainage project of Kopais was a large-scale engineering effort of massive proportions which transformed the Kopais basin into what became the most fertile plain on mainland Greece. The ancient engineers drained marshland through a complex drainage control system, diverting six rivers and streams from the basin into two enormous canals that converged at the northeastern edge of the Kopais basin. The canals were flanked by massive embankments reinforced at some locations with double Cyclopean revetments that supported roads and were supplied with underground drains and channels directing water overflow into artificial polders, natural cavities and sinkholes, or to the Larymna bay. Archaeologists estimate that as much as 2,000,000 cubic meters of earth were moved to build dykes and embankments along the periphery of the basin, with more than 250,000 cubic meters of stone used to face the embankments.

Thought to be the administrative center for this expansive system, the citadel of Glas was protected by a massive Cyclopean wall about 5.50-5.80 meters thick, running along the edge of the natural outcrop summit platform and defining the periphery of the citadel for approximately 3 kilometers, featuring four gates and a cluster of three adjacent central enclosures. But, said Maggidis, "the citadel of Glas presented the lay-out of a fort with certain spatial peculiarities: only one third or less of the total area of the citadel (49.5 acres) seemed to be occupied by various buildings and structures (administrative buildings, storage facilities, workshops, kitchens, personnel residence quarters), whereas no other ruins had been located so far by surface survey anywhere else in the citadel." The space outside the central enclosures, in other words, appeared to be void of structures. Why?

For Maggidis, this just didn't add up.

"I was convinced that Glas was much more than a fort administrating the drainage works of the Kopais lake and the local agricultural production, and decided to investigate the site further."

And investigate he did.

Beginning in 2010, Maggidis and colleagues conducted a systematic geophysical survey of the citadel using ground penetrating radar (GPR), a Fluxgate gradiometer, electrical resistivity, and satellite imagery. The team focused primarily on unexplored areas and some already excavated sectors.

The results were illuminating.

"The citadel of Glas was not left void of structures outside the central enclosures after all, but was apparently covered with many buildings of various uses, including at least five large and well-built complexes, extensive residential quarters and clusters of buildings stretching between these complexes, (semi)circular structures (silos?), a cistern, staircases, retaining walls and terraces. This is the picture of a fortified town."

Maggidis and colleagues had come much closer to uncovering the true proportions and complexity of the citadel. But looking ahead, he sees much more to be done.

"The systematic investigation of the Mycenaean citadel of Glas will continue and intensify in the next decade," says Maggidis. "The geophysical survey will focus on the eastern (Sector IV) and the western part of the citadel (Sector V), while systematic excavation will target select building complexes, clusters, and structures."

More information about the Glas survey and excavations can be obtained at the project website. A detailed article about the discoveries at the citadel of Glas will be published in the upcoming September issue of Popular Archaeology Magazine.

Please visit the site:

<http://popular-archaeology.com/issue/06052014/article/archaeologists-investigate-a-massive-ancient-mycenaean-citadel> [Go there for maps and pix]

SKELETONS OF WAR DEAD FROM 11,000 BC GO ON SHOW AT THE BRITISH MUSEUM

The remains, displaying breaks and slash marks of violent death, were found in a cemetery on the banks of the Nile river

Lying on their left sides, curled together, the two skeletons on display for the first time at the British Museum look peacefully laid to rest. But the razor-sharp stone flakes scattered around and among the bones are the remains of ancient weapons, with a myriad breaks and slash marks on the skeletons. The two are among the oldest war dead in the world, men who died a brutal death after violent lives 13,000 years ago.

The cemetery they came from, on the banks of the Nile in what is now northern Sudan, is famous among archaeologists: dating from about 11,000 BC, it is among the oldest organised burial grounds in the world. However, the finds, including the shattered bones of scores of men, women and children and the remains of the weapons that killed them, have never been exhibited before.

"I suspect there was no outside enemy, these were tribes mounting regular and ferocious raids amongst themselves for scarce resources," curator Renee Friedman said. "Nobody was spared: there were many women and children among the dead, a very unusual composition for any cemetery, and almost half bore the marks of violent death. Many more may have died of flesh wounds which left no marks."

"Many had the marks of earlier injuries which had healed: these people lived in extraordinarily violent times."

They were buried very carefully. All the bodies were laid on their left sides, heads pointing to the east and looking south – towards the source of the river and the rising sun, the two elements on which survival depended.

"Before this date we find isolated burials of bodies just placed in holes in the ground," Friedman said. "These come from a time when the hunter gatherers are starting to put down roots, and burying their ancestors is a very powerful way of laying claim to the land. But clearly they had to defend it, not once but many times, at terrible cost."

The cemetery at Jebel Sahaba now lies deep under the waters of the Aswan dam. They were excavated in the 1960s by the American archaeologist Professor Fred Wendorf, in one of the Unesco-funded rescue digs when archaeologists from all over the world came to Egypt to save as much history as possible before the waters rose.

The most famous of the projects was the dismantling of the twin temple complex of Abu Simbel, which was reconstructed on higher ground. However, so much material was excavated that research has continued on the finds from other sites for the past half century.

The site excavated by Wendorf was part of early Egypt, and startlingly different from today's familiar landscape of parched baking desert and lush fertile river valley. The people – heavy boned and strong jawed, unlike the slighter later people of Ancient Egypt – were among the first human inhabitants after the ice age, but the weather is believed to

have been cold and dry, with little fertile land. Some climate historians believe the water level of the Nile was also rising, compressing the habitable land even further.

Wendorf recovered the remains of 61 individuals, and of the weapons that killed them. When he retired from the Southern Methodist University of Texas in 2001 he presented his collection, including research notes, photographs and site drawings, to [the British Museum](#). The collection has been visited by scholars from all over the world, but has never been seen by the public, until the redisplay of the Early Egyptian gallery allowed some of the most extraordinary pieces, including two of the skeletons, to come out of the stores.

The stone flakes of the weapons, originally lashed into wooden handles which have decayed, look primitive, but they were murderous: Wendorf found hundreds, but scans at the British Museum have revealed many more including some which penetrated and lodged inside the skulls. An arm bone also on display shows a healed fracture, a classic defensive injury from arms raised to ward off a savage blow.

"Often with remains from such an ancient time, we will never know what happened to them," Friedman said. "With these skeletons there is no question: we found arrow heads lodged in spines, spear points that had pierced eye sockets, and many that clearly died under a hail of arrows. The lives and deaths of these people were not nice."

Early Egypt Gallery, British Museum.

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ARCHAEOLOGISTS UNCOVER LOST POPULATION OF ANCIENT AMARNA

Burial remains shed new light on the "missing 6,000" of ancient Egypt's Amarna period.

It remained a mystery for decades.

Since archaeologist F.Ll. Griffith's excavations in the 1920's at the ancient site of the pharaoh Akhenaten's short-lived new capital city of Akhetaten (modern Amarna), archaeologists have been puzzled about the whereabouts of the remains of the city's commoner population – the people who toiled to build and maintain Akhenaten's sacred edifices and infrastructure -- and more specifically, the estimated 6,000 people who died during the short 15-year period of the city's construction and development.

“A will-of-the-wisp, the dream of a rich unplundered cemetery of the middle classes at El-Amarneh, full of choice vases and amulets, beckons to each successive explorer,” wrote Griffith in the report for his 1923 excavation season.*

Many of the elaborate unfinished rock-cut tombs of Akhenaten's elite courtiers and high officials had already been found. They grace the cliff faces of the northern end of the Amarna city plain and the face of a low escarpment at the southern end of the ancient city. They can be plainly seen today by modern visitors.

But the burials of the deceased of the estimated 30,000 commoners and laborers remained elusive – until 2001, when archaeologist Barry Kemp of the University of Cambridge began to see the first signs. Kemp has directed excavations and surveys at Amarna for the Egypt Exploration Society since 1977.

“The puzzle seems now to have been solved,” says Kemp. “ It has come about through the desert GPS survey begun in 2001 and continued in subsequent years. First came the discovery of two cemeteries (clearly robbed) of what must be relatively poor graves on the flat desert not far from tomb no. 6 (of Panehesy), the southernmost of the North Tombs. The surface pottery is appropriate to the Amarna period. In 2003 a third cemetery was discovered on the east side of a narrow wadi which runs back into the low escarpment behind tomb 25 of the South Tombs group. In 2004 two further cemeteries likely to be of the Amarna Period were located on the floor of another wadi which cuts through the cliffs where the North Tombs are located.”**

Most recently, from 2006 to 2013, Kemp's excavation team has uncovered artifacts and bones from a cemetery site located near the South Tombs, a site where preliminary evidence indicated that it held the burials of a poorer class of people. “Of the various cemeteries located it is the one that has the most varied material present on the surface, including late 18th Dynasty sherds, a few pieces of glass vessel and faience, and mud bricks,” states Kemp and colleagues. But, Kemp continues, “it has been partly washed away by occasional floods that have swept down it and across the desert plain in front. The floods left behind a scatter of human bones along both the sandy floor of the wadi and the watercourses that cross the desert plain beyond.”**

Flooding hasn't been the only challenge faced by researchers at the site. Extensive looting has taken its toll, resulting in additional bones and sherds scattered out of their original contexts across the site and creating urgent pressure to record what remains before it is lost.

Under the direction of Jerry Rose of the University of Arkansas, Project experts have been examining the skeletal remains. "Preliminary indications are that they lived hard, short lives," reports Kemp and colleagues.** In 2015, examination of the skeletal remains will continue, and Kemp hopes to begin excavating at locations near the North Tomb.

The pharaoh Akhenaten, best known as the 'heretic pharaoh', employed thousands of workers and officials to build and administer the city of Akhetaten (Amarna) as his new capital on virgin land north of Thebes in Middle Egypt. Dedicated to the veneration of his new monotheistic religion of worship to the Aten, construction commenced in or around Year 5 of his reign (1346 BC) and is thought to have been completed by Year 9 (1341 BC). Unlike all other ancient Egyptian cities, it is the only one that preserved details of its internal plans. This city, however, was short-lived, lasting only 15 years until Akhenaten's death. Akhenaten's son Tutankhamun moved the capital back to Thebes upon his father's death and returned Egyptian worship to its former pantheon of gods.

More information about the Amarna Project can be obtained at the website, where individuals may also find a utility to donate to support the project efforts. Those interested in participating in the project may also visit the applicable University of Arkansas website.

* JEA 10, 1924, 303-304.

** <http://www.amarnaproject.com/>

Please visit the site:

<http://popular-archaeology.com/issue/06052014/article/archaeologists-uncover-lost-population-of-ancient-amarna>

ANCIENT PRIEST'S TOMB PAINTING DISCOVERED NEAR GREAT PYRAMID AT GIZA, BY OWEN JARUS

A painting discovered in the tomb of a priest, just 1,000 feet (300 meters) from the Great Pyramid at Giza in Egypt depicts scenes of ancient life.

A wall painting, dating back over 4,300 years, has been discovered in a tomb located just east of the Great Pyramid of Giza.

The painting shows vivid scenes of life, including boats sailing south on the Nile River, a bird hunting trip in a marsh and a man named Perseneb who's shown with his wife and dog.

While Giza is famous for its pyramids, the site also contains fields of tombs that sprawl to the east and west of the Great Pyramid. These tombs were created for private individuals who held varying degrees of rank and power during the Old Kingdom (2649-2150 B.C.), the age when the Giza pyramids were built.

The new painting was discovered in 2012 by a team from the Institute of Oriental Studies of the Russian Academy of Sciences, which has been excavating these tombs since 1996.

A surprise discovery

Scientists discovered the painting when they began restoring the tomb of Perseneb, a man who was a "priest" and "steward," according to the tomb's inscriptions.

His tomb, located 1,000 feet (300 meters) east of the Great Pyramid of Giza, contains an offering room, central room and burial chamber. The three rooms contain 11 statues showing depictions of Perseneb and members of his family. First recorded in the 19th century by the German explorer Karl Richard Lepsius and French Egyptologist Auguste Mariette, the tomb is believed to date to the middle or late fifth dynasty (ca. 2450-2350 B.C.). The fifth dynasty is a time period within the Old Kingdom.

"Known since the 19th century, the [tomb] could hardly present any new principal features. Therefore, it was a real surprise to discover an Old Kingdom painting on the eastern wall of the central room," wrote Maksim Lebedev, a reader (the American equivalent is a professor) at the Russian State University for the Humanities, in an email to Live Science.

"The painting was made on a thin layer of fine white plaster darkened with 19th-century soot and dirt. By the time of recording, only about 30 percent of the original plaster had preserved on the wall," Lebedev said.

Since the 19th century, the growth and industrialization of Cairo has led to problems with pollution at Giza. And the fact that people were actually living inside the tomb in some periods (including the Middle Ages) also damaged the painting, Lebedev said.

Nevertheless, "none of the scenes has been lost completely. The remaining traces allow [for the] reconstruction [of] the whole composition," Lebedev said.

Scenes of life

The reconstructed painting reflects ancient life. At the top of the painting there are images of boats sailing the Nile River, their sails pointing south. They "probably represent the return of the owner from the north after a pilgrimage or inspection of his funerary estates," Lebedev said. Funerary estates were tax-exempt property left by the deceased to help support surviving dependents and the upkeep of his tomb.

The painting's "two lower registers preserved representations of various agricultural scenes: plowing, sowing, workers driving sheep over sown seed, driving donkeys laden with sheaves to the threshing floor," Lebedev said.

The painting also shows an image of Perseneb, his wife and what appears to be his dog. There is also a marsh scene with a man on a boat who appears to be bird hunting.

"All the depicted scenes had important symbolic meanings. Fowling (bird hunting) in the marshland could refer to the ideas of rebirth and taming of chaotic forces," Lebedev said. "The full agricultural sequence relating to crops represents the most crucial event in the life of ancient Egyptian society," he added. Also, the representation of "boats with sails going southwards is another important tomb subject, which reflected the high status of the person."

More discoveries to come

The area the Russian team has been excavating contains a number of tombs that may hold undiscovered wall paintings. The team has found indirect evidence for paintings in some tombs, such as very smooth walls and remains of wall plaster and paint, Lebedev said.

"Since many rock-cut chapels of the eastern edge of the Giza plateau were rapidly excavated or just recorded [without excavation] in the first half of the 20th century, sometimes without sufficient documentation, and still covered with thick layers of rough plaster left from later inhabitants [who lived in the tombs], one may expect that more paintings will be discovered in this part of the necropolis."

The tomb of Perseneb was partly restored by the Russian mission in 2013. The work was supported by a donation from the Thames Valley Ancient Egyptian Society in the United Kingdom.

The painting reconstructions will be published, in full, in a scholarly publication in the future. The images on Live Science show just a few of the reconstructed scenes.

Please visit the site: <http://www.livescience.com/46806-tomb-painting-discovered-near-great-pyramid.html> [Go there for pix]