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Πληροφοριακό Δελτίο της Ελληνικής Αρχαιομετρικής Εταιρείας

- Δεκέμβριος 2013 -

"Αίσώπου Μῦθοι ...«Ἀηδῶν καὶ χελιδῶν»

Ἀηδόνι συνεβούλευε χελιδῶν τοῖς ἀνθρώποις εἶναι
ὀμόροφον καὶ σύνοικον ὡς αὐτή. Ἡ δὲ εἶπεν· "Οὐ θέλω
τὴν λύπην τῶν παλαιῶν μου συμφορῶν μεμνησθαι, καὶ διὰ
τοῦτο τὰς ἐρήμους οἰκῶ."

[Ὅτι] τὸν λυπηθένθα ἕκ τινος τύχης καὶ τὸν τόπον
φεύγειν ἐθέλειν ἔνθα ἡ λύπη συνέβη."

Newsletter of the Hellenic Society of Archaeometry

- December 2013 -

Nr. 153

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Oldest structure ever found in the Judean lowlands southwest of Jerusalem,
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ΣΥΝΕΔΡΙΑ - CONFERENCES/WORKSHOPS

GAO ANNUAL CONFERENCE: FIRST CALL FOR PAPERS, INTERDISCIPLINARITY IN ARCHAEOLOGY, OXFORD, 14 – 15 MARCH 2014

Graduate Archaeology at Oxford would like to invite graduate students and recent post docs for paper submissions to this year's GAO Conference:

GAO Annual Conference: First Call for Papers Interdisciplinarity in Archaeology

Graduate Archaeology at Oxford invites submissions for papers and posters to be presented at the annual conference in Oxford from 14 – 15 March 2014.

This year the GAO is continuing last year's theme, asking what's new in archaeology, this time with a focus on interdisciplinarity. Archaeological projects increasingly conduct research using an approach that combines methods, theories, and data from different disciplines. The GAO wants to know what some of the challenges, benefits, and methods are for conducting such research in this way. Do you have a research topic that cuts across multiple disciplines? What methods do you? The GAO conference is a friendly forum for postgraduates to present their work and engage with fellow researchers.

Presentations and posters from all areas of archaeology, anthropology, and history are welcome to contribute to the conference. Papers will be included in the next GAO conference volume published by Archaeopress.

Topics include research touching on the following areas:

- Cross-discipline methodologies. What methods does your research employ to combine different types of data and theories.
- Interdisciplinary theory. Does this kind of research work? What are some of the drawbacks?
- Text and material culture.
- Science, technology, and archaeology.
- The application of methods from anthropology, psychology, and history.

Posters and proposals for 20 minute paper presentations are welcome. Please send an abstract of up to 300 words with a title, your name, and your institution to gao@arch.ox.ac.uk by **December 15th, 2013**.

For inquiries please contact Joanna Palermo at joanna.palermo@arch.ox.ac.uk, or visit <http://www.arch.ox.ac.uk/gao.html>.

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DIGITAL DOMAINS WORKSHOP,
DARTMOUTH COLLEGE,
MARCH 20 - 22, 2014

I am pleased to announce the Digital Domains workshop at Dartmouth College, scheduled for March 20 - 22, 2014. With support from the Neukom Institute of Computational Science, the workshop will bring together archaeologists, engineers, and computer scientists from the US, Mexico, and Europe to share research that reconstructs and engages archaeological landscapes through remote sensing and GIS.

Attendance is free and open to the academic community, so please feel free to share information about the workshop with your students and colleagues.

The conference features two papers of immediate interest to archaeologists of the ancient Near East:

*Jesse Casana and Jackson Cothren: The CORONA Atlas Project: Regional-scale archaeological prospection and site morphometric analysis in the Near East

*Bjoern Menze and Jason Ur: Using Micro Unmanned Aerial Vehicles in Archaeological Prospection – a Discussion of Potential Applications for the ‘Erbil Plain Archaeology Survey’ (EPAS)

You can find more information about the conference and the speakers on the Digital Domains website: <http://sites.dartmouth.edu/digital-domains/>

Students and scholars who use computing to reconstruct, visualize, and analyze past and present environments are encouraged to submit applications to present a poster which will be displayed during afternoon and evening receptions. Contact me directly before February 3rd to submit a poster abstract or to request more information.

Yours,

Jason T. Herrmann
Neukom Institute for Computational Science and Department of Anthropology
6047 Silsby Hall
Dartmouth College
(603) 646-8192



1ST INTERNATIONAL GEO-CULTURAL SYMPOSIUM "KALDERA 2014", 6-8 JUNE 2014, SANTORINI, GREECE

INTRODUCTION

The reputation of Santorini, in recent years, maintained because of the large tourism development and its geological formation. Scientific studies have been published, largely focused in the field of History, Prehistoric Archaeology, Marine Santorini but of Geological changes. This island has to bring, interesting points in different disciplines (Archaeology, History, Folklore, Architecture, Church History, etc.). Thanks to geological history, Santorini became center of attraction and the subject of archaeological research.

The group of islands that make up Santorini, belongs to a wider group of islands, that of the Cyclades. The geographical structure, consists of the islands of Thira, Thirasia, Aspronisi, Palea and Nea Kameni, occupying an area of 79194 sq. km and a length of 67 km. Thera crescent-shaped with a length of 15 km and a maximum width of about 6 km to the center. The island population of about 14218 inhabitants (2011) and distributed in fifteen villages: Fira, Firostefani, Imerovigli, Oia, Emporio, Megaloxorio, Pyrgos, Mesa Gonia - Kamari, Exo Gonia, Vourvoulos, Firostefani, Kontoxori, Bothwnas, Karterados, Mesaria, Akrotiri. The highest formation of the island is the rocky mass of the Prophet Elias - there the namesake monastery.

West of Thera and towards the northern end lies the second largest island of Thirasia. Its length is 6 square kilometers and a width of 2 km.

The most famous volcanic eruption of Santorini was in the 17th century BC. Named as "Minoan", from the leader of the excavations of Akrotiri, Spyros Marinatos since initially associated with the destruction of the Minoan civilization. This theory was reversed in recent years due to modern findings.

After the terrible eruption of 17th century BC, the island of Santorini inhabited in the late 13th century BC - early 12th. In the course of time, the culture of the island, as will appear in the SYMPOSIUM "KALDERA 2014", formed and interacts because of many particularities.

SYMPOSIUM TOPIC

- Geology
- Volcanology
- Oceanography
- History
- Archaeology
- Natural Hazards
- Folklore

SCIENTIFIC COMMITTEE

Organizer

“MESONISOS”, Centre of Island & Mediterranean Culture &
Members of the Scientific Community of Faculty of Geology and Geo-Environment

Scientific Committee

- Christos Doumas**, Professor of Archaeology, Director of Akrotiri Excavations
- Timothy Druitt**, Professor of Volcanology, Laboratoire Magmas et Volcans -CNRS, Clermont-Ferrand, France
- Elisavet Grapsa**, Dr. of History, President of “MESONISOS”, Center of island & Mediterranean Culture
- Paraskevi Nomikou**, Lecturer of Natural Geography & Geological Oceanography , University of Athens
- David Pyle**, Professor of Earth Sciences University of Oxford
- Efthimia Verikiou**, Assist. Prof of Natural Geography-Geomorphology, University of Athens

Please visit the site: <http://www.kaldera.gr/index.php/en/>

**ICONEA 2013, 4-6 DECEMBER, SENATE
HOUSE, UNIVERSITY OF LONDON, MALET
STREET, LONDON, WC1E 7HU**

emergency phone number: 07930 150 600

Wednesday December 4, 2013, Room 104

1400 Registration

1500 Speeches:

Paul Archbold, director of the institute of musical research

Irving Finkel, Richard Dumbrill, icona

1530 Richard Dumbrill

The problematics of musical theory transmission under the obnubilation of political and religious interference: before and after Berossus.

1630 Coffee Break

1700 Irving Finkel

Babylonian into Greek at the end of the First Millennium.

Thursday 5, Room 104

1000 Coffee

1030 Leon Crickmore

In Chapter 9, 'Plato's Musical Trigonometry', of his book *The Pythagorean Plato*, Ernest McClain proposes a highly imaginative musical interpretation of the cuneiform tablet Plimpton 322.

Unfortunately, the author's omission of the first column of the text severely undermines his case. This paper re-assesses the musicality of Plimpton 322 and explores its possible connection with the musical cuneiform tablet CBS 1766.

1130 Bruno de Florence

Revisiting Plato's Symposium, looking at its structure and at the two *épainos* from Aristophanes and Socrates. I will then propose a phenomenology of what I call the 'act of transmission' from a semiotic standpoint, which will include references to Peirce, Freud and Lacan.

1230 Discussion and lunch.

1400 Piotr Michalowski

There is a small number of cuneiform texts from ancient Mesopotamia that mention musical matters. Chronologically, these clay tablets come from different periods, spanning more than a millennium of literary practice. In this paper I will attempt to evaluate the place of these texts in the Mesopotamian written tradition and to evaluate the levels of stasis and change over the years.

1500 Nick Stylianou

Where Tetrachords Meet: Changing Perspectives on Modulation.

The transmission of classical music theory through Western tradition has influenced several structural distinctions and their associated terminology, such as the genera of tetrachords (diatonic, chromatic, enharmonic), systems of combination (conjunct, disjunct) and the naming of the modes (Dorian, Phrygian, Lydian, etc.). At the same time the Western tradition has blended various distinctions, for example the notion of authentic/plagal modality compared with major/minor tonality, and the subtle distinctions of microtonality compared with the flexibility of equal temperament. My presentation provides with an organisational classification of scales highlighting the interaction between diatonic and chromatic genera of tetrachords and their conjunction and disjunction. This gives a perspective on the changing notions of the term 'modulation' within the Western tradition, and a potential bridge towards approaching concepts aspects of modality in non-Western traditions.

1600 coffee break

1630 Theo Krispijn

2100 B.C. Break or Continuation in the Mesopotamian Musical Tradition? The earliest Mesopotamian texts with theoretical musical terminology come from the Old-Babylonian cities of Ur and Nippur around 1800 B.C. The terminology is based on the handling of musical instruments. I will investigate to what extent musical instruments were newly introduced in the Ur III and Old-Babylonian periods or if they were used in earlier periods and consider if this terminology came from earlier. My sources are the iconography of musical instruments, Sumerian lexical and literary texts, especially the Shulgi hymns from the Early Dynastic to the Old-Babylonian period.

Administrative documents from the Ur III period mentioning the production of musical instruments in workshops, the teaching of music, worship of divine instruments, and musical ensembles from Old Babylonian Mari.

1730 Round Table

Friday 6, Room G 35

1000 Coffee

1030 Alan Prosser

The history of the performance of the music of the Whirling Dervishes of Turkey are an interesting approach to a possible notation of their sacred compositions. This presentation will attempt at answering such questions as why did the Mevlevi not previously notate their music or did they consider that notation would not be sufficiently accurate.

1130 Richard Heath

Transmission of Astronomical Musicality into Mythic Narrative.

1230 Lunch Break

1400 Theodora Psychoyou and Christophe Cordier

This contribution focuses on the reception of the eight lines of Pindar's first Pythic Ode with music notation published by Athanasius Kircher in his 1650 *Musurgia Universalis*. He would have copied it from a manuscript found in a Sicilian Library. This fragment, now generally rejected as a fake or a pastiche, was considered, from Kircher till the twentieth century, as an important source of Ancient Greek Music although there were many doubts raised by scholars since the end of the eighteenth century (Charles Burney for instance), the First Pythic was regularly studied by many historians, especially August Böckh who, in his *De Metris Pindari* (1811), made of this fragment an authentically Greek musical document and a specimen of 'Dorian music'.

Other historians, from Jean-Jacques Rousseau to Maurice Emmanuel, quoted the First Pythic in their essays, before the composer André Jolivet, influenced by Emmanuel, used it in his score *Iphigénie à Delphes* in 1943. Thus we intend to show how scholars and musicians, in a rational, scientific way, imagined Ancient Greece and recreated 'Greek music' on the basis of philological data considered as 'genuine' during three centuries.

1500 Round table and conclusions.

1800 Drinks

1900 Concert at the Deller Room*

Some time around 2200 BCE a powerful Mesopotamian king by the name of Gudea had a dream. During the night the god Ningirsu instructed him to rebuild and expand his temple in the capital city of Girsu, located in what is now southern Iraq. Other deities appeared in the dream as well and upon awakening, the king set out to the city of his patron goddess to ask her to fully interpret the dream for him.

Once he fully understood his master's instructions he proceeded to purify his city and then organized a magnificent building project that involved his whole realm. The story of his dreams and subsequent construction work was celebrated in an elaborate Sumerian language poem, inscribed on two large hollow clay cylinders. The Gudea Cylinder poem is the oldest long poem known to date and is also the earliest substantial piece of literature that can be fully understood today.

The concert at Senate House will offer a modern musical setting for the dream sequence of the poem, sung in English by mezzo-soprano Deanna Relyea. The text was translated from the Sumerian by Professor Piotr Michalowski of the University of Michigan, who has spent a lifetime working on Mesopotamian literature. He will also organize the musical setting and perform on the bass and soprano clarinets and on the soprano saxophone. Also joining them will be three eminent London musicians: Gail Brand (trombone), Alison Blunt (violin) and John Edwards (double bass).

* This concert will depend on successful visa applications.

**INTERNATIONAL WORKSHOP, WEIGHTS
AND MEASURES AS A WINDOW ON
ANCIENT NEAR EASTERN SOCIETIES,
INSTITUT FÜR VORDERASIATISCHE
ARCHÄOLOGIE, LUDWIG-MAXIMILIANS-
UNIVERSITÄT, MÜNCHEN, SATURDAY,
DECEMBER 14, 2013**

Institut für Vorderasiatische Archäologie, Ludwig-Maximilians-Universität, 80539 München

Schellingstr. 12, Historicum, Raum 001; gefördert durch die Fritz Thyssen Stiftung

9.30-9.45

A. Otto / G. Chambon: Introduction to the theme

9.45-11.00

The weight of the power and the capacity of the king: Examples for the interdisciplinary approach of the project METROLOGIA (joint papers by METROLOGIA-members)

G. Chambon / J. Kreppner: Why did they inscribe jars ? Common approach of archaeology and philology

J. Kreppner / G. Chambon / D. Lacambre / L. Marti / T. Pommerening / F. Sarga: Standard measures and containers: between symbolic purposes, administrative activities and technical constraints

- coffee break -

11.20-12.50

The weight of the power and the capacity of the king: first results and future perspectives (joint papers by METROLOGIA members)

L. Rahmstorf / M. Melein / C. Fink / B. Einwag: The origin of the material of weight stones and its relation to the origin of the weight system

S. Clegg / A. Al Mohemid: How was the metrological ideology of the king and the gods translated into practicality and materiality?

I. Kanellos / S. Antin: Digital metrology and mediation issues

- lunch -

14.20-15.00

N. Postgate (Cambridge): Measuring Middle Assyrian grain (and sesame)

15.00-15.30

W. Sallaberger (München): Grain measuring vessels in Early Mesopotamia: Production, Use and Control

- coffee break -

16.00-16.40

L. Peyronel (Mailand): Weight systems and the society at Ebla

16.40-17.20

E. Bordreuil (Paris): The weights of the Late Bronze Age discovered at Ras Shamra – Ugarit

17.20-18.00

J.-Cl. Hocquet (Paris): Les poids et mesures de Tabriz, Alep et Damas vers 1500 d'après les sources marchandes vénitiennes

- reception -

Guests are welcome !

no conference fee.

Please announce your attendance: aotto@lmu.de

Abstract :

Since the first decipherments of cuneiform, scholars have been interested in the reconstruction of Ancient Near Eastern metrological systems – capacity, length, area and weight systems. They focus their attention mainly on the arithmetical relationships between measure units in order to reconstruct metrological data. In this respect, measuring systems are usually considered as “tools“, which enable historians to approach ancient political and economical reality by quantifying and estimating, among other things, the amounts of rations delivered to the palaces, the war booty, the dimensions of urban centers, buildings, etc.

Nevertheless, these systems are, beyond their mathematical and technical aspects, important cultural markers of ancient societies which can be used to examine cultural areas, administrative processes and political influence both on the local and the interregional level.

Their study, which concerns both material artefacts in their archeological contexts (jars of standard volume, measuring vessels, weight stones...) and data from the texts (signs

for measures units, accounting processes for measuring and weighting...) requires a close cooperation between archaeologists and philologists.

The project METROLOGIA, started in 2012, is based on such a cooperation between German archaeologists (Johannes Gutenberg-Universität Mainz and Ludwig-Maximilians-Universität München) and French philologists (Université de Bretagne Occidentale-Centre François Viète, Université de Lille, CNRS UMR 7192). It aims to study the use, function and distribution of the different capacity and weight systems of the Ancient Near East in their social, cultural and political context.

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ΘΕΣΕΙΣ ΕΡΓΑΣΙΑΣ/ΥΠΟΤΡΟΦΙΕΣ –
JOB VACANCIES/FELLOWSHIPS

SPECIALIST POSITION, KCCAMS/UCI
FACILITY, IRVINE, CALIFORNIA, USA

The Department of Earth System Science at UC Irvine has an immediate opening for a Specialist to support operations of the W. M. Keck Carbon Cycle Accelerator Mass Spectrometer (KCCAMS). The overall mission of the Keck facility is to use isotopes (primarily ^{14}C) to study the carbon cycle and its relationship with climate. We use ^{14}C as a dating tool for placing paleoclimate records in time, and we also use $\delta^{13}\text{C}$ and $\Delta^{14}\text{C}$ measurements in soils, sediments, land and marine biota, carbonates, organic matter, atmospheric gases, and individual organic compounds, as tracers for the carbon cycle.

We seek a highly motivated experimental scientist to work as a specialist in ^{14}C Accelerator Mass spectrometry. The successful applicant will work in a team that performs research and development of techniques to study the carbon cycle. Following the appropriate training, the successful candidate will assist in the processing of in-house and external samples for research in terrestrial carbon cycling through the KCCAMS sample preparation laboratory, help visiting researchers and students, help on training of laboratory assistants, and also participate in sample measurement using our AMS compact system, data analysis, and technical development as part of the overall activity of this research group. The successful applicant will also be encouraged to collaborate scientifically in program areas of the laboratory.

Applicants should have a B.S. or higher degree in Physics, Chemistry or Earth Science, or equivalent experience. Experience in AMS sample preparation and spectrometer operation and familiarity with carbon cycle research and radiocarbon methods is desired. Appointment level (Junior Assistant to Associate Specialist) and salary (\$35K - \$60K; plus full benefits) will be commensurate with qualifications and experience, based on University of California salary scales. The Specialist series are term positions, and the appointment will initially be made for two years. However, it is anticipated that this will be a long term position, contingent on continued funding for the laboratory.

Your application must be followed by cover letter, a curriculum vitae including names and contact information from all previous supervisors, and should be address to Dr. John Southon or Dr. Guaciara Santos, Dept of Earth System Science, U.C. Irvine, Irvine, CA 92697-3100; email jsouthon@uci.edu, gdossant@uci.edu. For further details please contact Dr. John Southon on +1 (949) 824-3674 or visit our web-page at www.ess.uci.edu/ams

The University of California, Irvine is an equal opportunity employer committed to excellence through diversity.

HONOR FROST FOUNDATION MASTERS
AND/OR DOCTORAL AWARDS IN
MARITIME ARCHAEOLOGY AT THE
FACULTY OF HUMANITIES, UNIVERSITY
OF SOUTHAMPTON

Applications are invited for a fully-funded studentship from the Honor Frost Foundation. The Foundation's mission is to promote the advancement and research, including publication, of maritime archaeology with particular focus on the eastern Mediterranean. The Foundation is keen to support educational opportunities for students from the primary regions where Honor worked and is supporting a scholarship in Maritime Archaeology for students from Cyprus, Lebanon and Syria to attend the University of Southampton in September 2014.

<http://www.honorfrostfoundation.org/>:

The scholarship is primarily for study at MA/MSc level with the possibility of further funding for PhD, but may also be offered at PhD level if there are suitable candidates. This award is only available to students from Cyprus, Lebanon and Syria.

Students will be registered at the University of Southampton and supervised by experts in the field of Maritime Archaeology.

Entry requirements:

The successful candidate must demonstrate a genuine interest in maritime archaeology and be keen to develop the subject in their home country upon their return.

The MA Scholarship requires: a good 2:1 honours degree (or equivalent) in either archaeology or a related discipline. You must be a citizen of Cyprus, Lebanon or Syria.

The MA scholarship is tenable for one year, commencing September 2014, at an annual stipend of £9,000 with an additional travel fund of £1000, which can be drawn as required during your study. Tuition fees will also be paid directly to the University at the appropriate fee rate. There may also be the opportunity to continue to MPhil/PhD, fully funded, for a further 3 years on completion of the MA/MSc.

The PhD scholarship requires: a good 2:1 honours degree (or equivalent) and a Masters in either archaeology or a related discipline. You must be a citizen of Cyprus, Lebanon or Syria.

The PhD scholarship is tenable for a maximum of three years, commencing September 2014, at an annual stipend of £11,000 with an additional travel fund of £1000 per annum, which can be drawn as required during your tenure. Tuition fees will also be paid directly to the University at the appropriate fee rate.

For further details contact: Dr Lucy Blue L.Blue@soton.ac.uk

Application for this studentship is by CV; a sample of written work (4,000 words, max); and a personal statement of up to 800 words explaining why you feel you are suitable for the MA or PhD scholarship. Please also arrange for two academic references to be sent independently by the deadline. All material should be sent to pgafh@soton.ac.uk. Please note all candidates will also need to apply to the University of Southampton through the normal application procedure in order to be eligible for the studentship. As part of the doctoral application procedure a 1,500 word research proposal is also required.

As part of the application process, you will be asked to provide IELTS or equivalent certification. Our application process requires a minimum IELTS score of 6.5 for MA and PhD. Should you be offered an award, we may require you to attend an intensive English language course and/or English language support classes either prior to or during the award period. The costs of this may be included in the studentship.

Deadline for applications: February 14th 2014

We may invite you for interview. Interviews will take place over the telephone/Skype in 2014 exact date tbc.

ΑΝΑΚΟΙΝΩΣΕΙΣ - ANNOUNCEMENTS

INTCAL13 NOW AVAILABLE ONLINE

Final versions of all IntCal13 articles are now online. All articles are available without restriction thanks to the generous donations from several people who made Open Access possible.

<https://journals.uair.arizona.edu/index.php/radiocarbon/issue/current>

Forms for ordering the 2012 Radiocarbon conference proceedings and for pre-ordering the IntCal13 printed copies can be downloaded from www.radiocarbon.org.

As always, we urge authors to cite which calibration program they employed and the data set used in their research.

Thank you to all who made this issue possible.

Best,
Mark

Mark McClure
RADIOCARBON Managing Editor
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www.radiocarbon.org | <https://journals.uair.arizona.edu/index.php/radiocarbon/index>

INTERNET SITES

WEBSITES HALA SULTAN TEKKE AND TELL ABU AL-KHARAZ

Dear All,

the website concerning the results from the Swedish excavations at Hala Sultan Tekke, Cyprus, is updated: http://www.fischerarchaeology.se/?page_id=1613

The results from the Swedish excavations 2013 at Tell Abu al-Kharaz, Jordan Valley, are now included in the expedition's website: http://www.fischerarchaeology.se/?page_id=1692

Any information on the two objects (end of web page 1692) is appreciated. The "white encrusted" sherd comes from an Iron Age II context with intrusive and residual finds.

Regards,

Peter M. Fischer

Peter M. Fischer

Professor Cypriote and Near Eastern Archaeology

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Email: peter@fischerarchaeology.se

THE PLAKIAS STONE AGE PROJECT

The Plakias Stone Age Project is a Greek-American collaborative project that funds research on the Stone Age discoveries around the village of Plakias in southwest Crete (Greece). It began in 2008 with the Plakias Mesolithic Survey where both Mesolithic (11,000– 9000 B.P.) and Lower Palaeolithic sites (1.5 million years–250,000 years ago) were found. The project continues with the excavation of the Mesolithic site of Damnoni and geoarchaeological dating of other sites found in the region.

Please visit the site: <http://plakiasstoneageproject.com/>

TIN (CASSITERITE) DEPOSIT **DISTRIBUTION 3D GIS MAPPING -** **MEDITERRANEAN BRONZE AGE**

Dear All,

The Tin (Cassiterite) Deposit Distribution 3D Google Earth GIS Project was originally initiated in 2007 and has finally come to fruition. It is intended to definitively present all currently known instances of the primary ore of tin throughout the entirety of Europe, the Middle East, and all of North Africa in an attempt to finally put to an end the lingering controversy regarding the availability of Tin to the Eastern Mediterranean during the Bronze Age.

While all of these deposits would not have been known to Bronze Age peoples they must have been aware of many of them especially from the alluvial deposits. To the best of my knowledge nothing like this has ever been completed before. We felt this was an important prerequisite for a much clearer understanding of the relationship between Bronze Age peoples and the most critical ingredient of their economies.

This Google Earth 3D mapping is intended to be a comprehensive geographical reference freely available to everyone. All of the countries surveyed for Cassiterite deposits from the currently available mineralogical data sources are included in the mapping whether they had any tin ores or not. Many did not. As always I would appreciate any additions, corrections, comments, or suggestions that anyone may have.

The map can be downloaded here:

["The Distribution of Tin \(Cassiterite\) Deposits - Mediterranean Bronze Age"](#)

Kind Regards,

W. Sheppard Baird

ARCHAEOLOGY IN GREECE ONLINE

Archaeology in Greece Online – the essential research tool for archaeological discoveries in Greece and Cyprus published by the British School at Athens and the École française d’Athènes - has a new search interface. Using photographs and maps, discoveries can be located within sites and regions, and down to street level within towns and cities.

Searches by toponym, period, building type, site category or material are plotted in map view, an ideal resource for teaching, presentations and essays. The thousands of illustrated reports uploaded each year provide an invaluable resource for the study of Greece from the Stone Age to the 20th century, freely accessible through a variety of search criteria, as well as an RSS feed.

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ΝΕΕΣ ΕΚΔΟΣΕΙΣ – NEW PUBLICATIONS
MEN OF BRONZE: HOPLITE - WARFARE IN
ANCIENT GREECE

Donald Kagan, Gregory F. Viggiano (ed.),
Princeton; Oxford: Princeton University
Press, 2013. Pp. xxv, 286. ISBN 9780691143019. \$35.00.

Reviewed by Matthew A. Sears, The University of New Brunswick
(matthew.sears@unb.ca)

Aristotle famously linked military organization and tactics to political developments within the Greek polis. Specifically, in the earliest post-monarchical times, aristocrats and their horses dominated both the battlefield and the state, whereas once the hoplite phalanx, with its greater numbers of cohesive soldiers, gained preeminence, a greater number of people gained a share in the state's government (Politics 4.1297b16-24). That military practices reflect far more than the realities of the battlefield – indeed being intertwined with politics, society, and culture – is beyond serious dispute. What is a matter for debate, however, is the extent to which politics, society, and culture play a role in military affairs, and vice versa. In the case of ancient Greek, and especially hoplite, warfare, this debate concerns two further questions: when, how, and why hoplite equipment and tactics emerged; and how exactly the hoplite phalanx operated on the battlefield. The present book, stemming from a 2008 conference held at Yale, gathers essays from several of the leading participants in the “hoplite debate” and, rather than offering a solution to the many issues involved, presents each side clearly and concisely so that the reader gains an understanding of the debate's terms, ramifications, and personalities.

In the last several decades scholars have marshaled serious challenges against what was once agreed to be the “orthodox” position regarding Greek hoplite warfare: namely, that a sudden revolution in tactics brought about by the invention of the double-grip hoplite shield in the early Archaic period led to massive social and political changes throughout Greece. This orthodox view stemmed ultimately from Aristotle's observation and gained widespread acceptance in the English-speaking world in the years following the hugely influential article by H. L. Lorimer published in the 1947 volume of BSA (though, to be sure, the orthodox view had existed in various forms well before Lorimer). The fullest and most recent catechism of hoplite orthodoxy came in the form of Victor Davis Hanson's *The Western Way of War: Infantry Battle in Classical Greece* (Berkeley: [1989] 1998) and *The Other Greeks: The Family Farm and the Agrarian Roots of Western Civilization* (New York: 1995). Drawing inspiration from John Keegan's *The Face of Battle* (London: 1976), Hanson provides a rich account of the nuts and bolts of hoplite warfare, especially the experience of the hoplites themselves, and the most comprehensive theory concerning how the hoplite phalanx and the independent farmers of which it was constituted revolutionized the polis and laid the groundwork not only for political egalitarianism, but the very concept of Western citizenship. Beginning with Anthony Snodgrass in the 1960s, who systematically analyzed the hoplite equipment dedicated at sanctuaries such as Olympia, the supposedly sudden revolution in arms and

tactics has increasingly given way to a more “gradualist” approach. Peter Krentz has devoted much work to showing that the mass-shove and other canonical elements of massed warfare are implausible on their face, while also reevaluating hoplite equipment to suggest that the soldiers were in fact much less heavily armed than traditionally thought and therefore capable of operating outside of the densest formations. Hans van Wees has argued that the warfare depicted in the Iliad, once thought to epitomize the sort of heroic and aristocratic fighting to which the hoplite phalanx represented a sudden and decisive break, was not in fact much different, if at all, from the Archaic phalanx. Van Wees offers the nebulous formations of Papua New Guinean warriors as a modern analogue to Homeric and Archaic warfare. He further argues that the “middling” yeoman farmer central to Hanson’s thesis did not exist in any great numbers during the Archaic period, and thus could not have had the sort of socio-political impact that Hanson and others postulate. All of these scholars – Hanson, Snodgrass, Krentz, van Wees, and several others holding various positions on the phalanx – have contributed to this book. It is perhaps an understatement that none seems to have been convinced by the arguments of the others.

Following a preface and introduction outlining the aims of the original conference and giving a brief overview of the book’s chapters, Donald Kagan and Gregory F. Viggiano in Chapter 1 provide a very useful synopsis of the hoplite debate. This chapter traces the debate from Grote in the 19th century to the present day, and will prove valuable to anyone wishing to get up to speed on past and current developments in the study of hoplite warfare. For Chapter 2, Viggiano teams up with Hans van Wees to offer a brief outline of the various iconographic sources for hoplite warfare, concluding that very little of the evidence is unambiguous, a fact that explains the persistence of sometimes diametrically opposed views among scholars.

Paul Cartledge, in Chapter 3, introduces the rest of the essays by framing some key terms of the debate, and expressing his approval of the rise in what he calls “polemology,” that is, the holistic study of ancient Greek warfare that takes into account broader Greek society instead of merely battlefield tactics and equipment.

For Chapter 4, Anthony Snodgrass traces the various ways that Homer has been treated as evidence for the phalanx, before returning to his important study of Greek arms and armor. Snodgrass attempts to highlight the hidden similarities between even the most seemingly opposed views of the phalanx, as he restates his own gradualist position.

Kurt Raaflaub in Chapter 5 explores the possibility of “Orientalizing” influence on Greek warfare, concluding that the phalanx and its equipment really were uniquely Greek developments. The single-grip round Assyrian shield might have influenced the double-grip hoplite shield, but even this is far from certain.

In perhaps the most contentiously argued piece in the book, Viggiano uses Chapter 6 to restate the orthodox view. For Viggiano, the phalanx could only have operated in massed formation, and the hoplite class must have been instrumental in first propping up tyrants against the old aristocracy, and eventually pushing for full equality for themselves. Though many valid challenges are raised by the revisionists, Viggiano maintains that no single revisionist thesis offers a satisfactorily complete alternative to the orthodox model. At the end of the chapter, he presents his own, very detailed, postulation of how and when the phalanx took hold throughout Greece, bringing in specific actors such as

Pheidon of Argos and Cypselus of Corinth. Viggiano's reconstruction is interesting, though perhaps far too detailed in light of the evidence.

In Chapter 7, Peter Krentz restates many of his arguments against the plausibility of the hoplite mass-shove and the heavy weight of hoplite equipment. Most interestingly, Krentz traces the scholarly history of orthodox ideas, showing that some ideas (such as the weight of the hoplite shield) have been passed on from generation to generation perhaps with too little critical evaluation. Krentz poses some very serious challenges to the view of the massed phalanx, though he could have done more to state exactly how hoplites fought in battle, if indeed they were not as densely packed as once thought.

For Chapter 8, Adam Schwartz defends the orthodox view of the extreme weight and unwieldiness of hoplite equipment, especially the shield. Schwartz insists that even a shield at the lower end of the estimated weight would be a considerable burden, especially considering the smaller relative size of ancient Greek soldiers. Schwartz and Krentz use much of the same pieces of evidence, including even the experiences of modern re-enactors and riot police, yet their conclusions stand at opposite poles.

John R. Hale in Chapter 9 presents the first real alternative to the orthodox view of hoplite development, positing that mercenary service abroad, especially in the Near East, was decisive for the rise of the hoplite and the phalanx. In contrast to the nearly continuous action that a Greek soldier would encounter in the employ of Assyrian or Egyptian rulers, the sporadic and small-scale battles in the Greek homeland were an insignificant sideshow. Hale makes two very interesting suggestions: that the round hoplite shield was developed to suit the needs of sea-borne troops making beach landings, and that the energetic and entrepreneurial spirit of these early mercenaries led to the values associated with the polis.

In Chapter 10, Lin Foxhall offers an overview of the evidence from survey archaeology. After usefully outlining the methods and aims of surface survey, she argues that the results of surveys throughout Greece tell against the rise in cultivation of marginal lands, a phenomenon that was essential to Hanson in formulating his views on the importance of small farmers.

In Chapter 11, Hans van Wees challenges the notion that there was a "middling" class of hoplite-farmers in the Archaic period, showing that the evidence points only to two classes, namely leisured farmers who could afford to have others do all the necessary labor, and everyone else, who often had to hire themselves out as labor. Van Wees's interpretation of the evidence is indeed compelling. He then offers the only full alternative to the orthodox model concerning hoplites and the development of the polis. For van Wees, the early polis was really a republic of gentlemen that offered equal rights to no more than 15 % or so of the total population. The larger phalanx, known from Classical sources, incorporating a larger share of the polis arose only in the very late 6th century.

Victor Davis Hanson uses the last chapter to restate the orthodox position, urging that the sources really do indicate that hoplite warfare was the rule for Archaic poleis and was foundational for the rise of Greek civic-mindedness. It was also a densely massed affair characterized by shoving. He concludes by reminding us that the orthodox position is no

mere flash in the pan, but rather a view that has been held, more or less, for over a century. This fact by itself should afford orthodoxy no small consideration.

As mentioned, this book is geared to presenting the parameters of the hoplite debate in the clearest possible terms, a goal in which it succeeds. Anyone charged with teaching about hoplite warfare and its role in Greek history, let alone anyone doing original research on the subject, will find this book useful and necessary. Can anything be said concerning which argument or set of arguments from the book are most convincing? I am sympathetic to the claim made by Hanson, and reiterated forcefully by Viggiano, that the revisionists, while perhaps highlighting genuine weak spots in the orthodox argument, have failed to offer a comprehensive theory of their own. Hanson and Viggiano maintain that the orthodox position still presents the most plausible account of all the evidence. Van Wees is the only revisionist in this volume, with the possible exception of Hale, offering a more or less comprehensive account of the rise of the phalanx and its role in socio-political developments, though I still find the dense, mass-shove image of hoplite battle itself to be more convincing than van Wees's alternative of loose and fluid formations.

Where van Wees succeeds most is in his reappraisal of the evidence, or lack thereof, of the middling yeoman farmer in the Archaic period. Van Wees' conclusion that there were really only two classes in Archaic Greece –leisured gentlemen farmers and everyone else – seems to me inescapable. In short, the socio-political effects and importance of the hoplite phalanx as suggested by the orthodox view seem increasingly uncertain, despite the fourth-century remark by Aristotle, while the orthodox picture of how hoplites actually fought continues to make the most sense in light of the evidence.

Please visit the site: <http://bmcr.brynmawr.edu/2013/2013-10-70.html>

ANCIENT GLASS - AN INTERDISCIPLINARY EXPLORATION

Julian Henderson
Hardback
ISBN: 9781107006737
\$110

This book is an interdisciplinary exploration of archaeological glass in which technological, historical, geological, chemical, and cultural aspects of the study of ancient glass are combined. The book examines why and how this unique material was invented some 4,500 years ago and considers the ritual, social, economic, and political contexts of its development. The book also provides an in-depth consideration of glass as a material, the raw materials used to make it, and its wide range of chemical compositions in both the East and the West from its invention to the seventeenth century AD. Julian Henderson focuses on three contrasting archaeological and scientific case studies: Late Bronze Age glass, late Hellenistic–early Roman glass, and Islamic glass in the Middle East. He considers in detail the provenances of ancient glass using scientific techniques and discusses a range of vessels and their uses in ancient societies.

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10. Chemical analyses of Islamic glasses
11. The provenance of ancient glass
12. Conclusions.

Please visit the site:

<http://www.cambridge.org/us/academic/subjects/archaeology/archaeological-science/ancient-glass-interdisciplinary-exploration?format=HB>

**LUOGHI PER LAVORARE, PREGARE,
MORIRE: EDIFICI E MAESTRANZE EDILI
NEGLI INTERESSI DELLE ELITES
MICENEE, BARBARA MONTECCHI**

I am glad to announce the publication of a new volume of the series Periploi. Collana di studi egei e ciprioti: Barbara, Montecchi, Luoghi per lavorare, pregare, morire: Edifici e maestranze edili negli interessi delle élites micenee, Firenze University Press, Firenze, 2013, pp. XII+313 (including 40 figures, B/N and colour), ISBN 978-88-6655-421-9 (in Italian with an extensive English abstract)

Abstract: Places to work, pray and die: Buildings and Builders under the Mycenaean elites. Mycenaean architecture is a topic widely investigated by archaeologists, from typological and/or technological and/or artistic perspectives and, more recently, from the socio-economic point of view. The present study gathers and fully analyses, for the first time, all terms and expressions which refer to buildings (chap. I), builders (chap. III), and supplies of building materials (chap. IV) in Linear B texts. Besides the philological discussion, textual evidence is compared with the related archaeological remains. Because the vast majority of buildings mentioned in the Linear B documents is linked to the religious sphere, all Mycenaean buildings with certain or possible religious functions are collected and discussed in chap. II. Finally, chap. V collects and discusses archaeological evidence of the workforce involved in the construction of monumental structures (= for ruling elites), such as tholos tombs, palaces, fortification walls in Cyclopean masonry, roads, bridges and dams, with the aim of detecting work phases, the different tasks required and the builders' social make-up.

Regards,

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HUMANS AND LANDSCAPES OF ÇATALHÖYÜK: REPORTS FROM THE 2000- 2008 SEASONS

Volume 8

Edited by Ian Hodder

SBN: 978-1-898249-30-6 (hardback)

Price: \$89.00

Details: 538 pp, 8 ½ x 11, 250 images, 50 tables, CD-rom with additional 100 figures and 25 tables

The Neolithic site of Çatalhöyük in Turkey has been world famous since the 1960s, when excavations revealed the large size and dense occupation of the settlement, as well as the spectacular wall paintings and reliefs uncovered inside the houses. Since 1993, an international team of archaeologists, led by Ian Hodder, has been carrying out new excavations and research, in order to shed more light on the people who inhabited the site. This volume, one of four copublished with the British Institute of Archaeology at Ankara, reports on the results of excavations in 2000–2008 that have provided a wealth of new data on the ways in which the Çatalhöyük settlement and environment were occupied. The first section explores how houses, open areas, and middens in the settlement were central to the daily lives of the inhabitants; the second section examines their subsistence practices; and the third examines the evidence from the skeletons of those buried inside the houses to understand the health, diet, lifestyle, associations, and burial practices of those who lived there. A complex picture emerges of a relatively decentralized society, large in size, but small-scale in terms of organization, dwelling within a mosaic patchwork of environments.

Buy this book at www.unmpress.com

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SUBSTANTIVE TECHNOLOGIES AT
ÇATALHÖYÜK: REPORTS FROM THE 2000-
2008 SEASONS, VOLUME 9 EDITED,
BY IAN HODDER

ISBN: 978-1-898249-31-3 (hardback)

Price: \$89.00

Details: 538 pp, 8 ½ x 11, 250 images, 50 tables, CD-rom with additional 100 figures and 25 tables

The ways in which humans became increasingly engaged in their material environment, such that “things” came to play an active force in their lives, is the subject of this volume in the Çatalhöyük series. The alluvial clays surrounding the site were extremely important in this dynamic involvement. In the absence of local stone, humans extracted and manipulated clay for a wide range of purposes, for the manufacture of bricks, ovens, pots, and figurines. This heavy use of clay led to changes in the local environment that influenced human activity, as indicated in the first section of the volume. In the second section, other examples of material technologies are considered, all of which engaged humans in various ways in specific dependencies and relationships. For example, large-scale studies of the obsidian trade have drawn a complex picture of changing interactions among humans over time. The volume concludes with an integrated account of the uses of materials at Çatalhöyük based on the analysis of heavy-residue samples from all contexts at the site.

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**STABLE PLACES AND CHANGING
PERCEPTIONS: CAVE ARCHAEOLOGY IN
GREECE,
BAR INTERNATIONAL SERIES 2558, 2013**

Edited by Fanis Mavridis and Jesper Tae Jensen

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EΙΔΗΣΕΙΣ - NEWS RELEASE

ELONGATION IN ACHEULEAN HANDAXES: A MATTER OF CHOICE

Researchers at the University of Liverpool have found that long and slender stone tools were made by human ancestors at least a million years ago – nearly twice as long ago as generally thought.

Materials such as branches, twigs, and stems were readily available to both animal and human tool makers from millions of years ago, but research at Liverpool has now shown that elongate forms were also made out of stone by human ancestors much earlier than is usually recognised.

Professor John Gowlett, as a member of an international team based on the University's Department of Archaeology, Classics and Egyptology, is working at Kilombe in Kenya, where he has found a number of hand axe tools that are very long and narrow.

Special attraction

Professor Gowlett said: “Psychologists have shown that moderately elongate forms are often favoured, especially those in the ratio 0.61. But there also seems to be a special attraction to far longer and slenderer forms.

“Some of the stone tools from Kilombe and other early sites are almost two and a half times as long as broad and there is no way this can occur by accident. They must have been carefully crafted.

“Usually such slender shapes are found far later in the fine blade tools made by Homo sapiens. The hand-axes were made by the earlier Homo erectus.

“As the concentrations of elongate tools are rare on the Kilombe site, they were probably made to carry out tasks of animal butchery or plant preparation which did not occur very often.

“They show that when the need arose early humans were capable of strikingly sophisticated behaviour.”

Source: University of Liverpool

More Information

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September 1993, Pages 175–199

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Please visit the site:

<http://www.pasthorizonspr.com/index.php/archives/10/2013/elongation-in-acheulean-handaxes-a-matter-of-choice>

RUINS OF HUGE ANCIENT STRUCTURE UNEARTHED NEAR PERSEPOLIS

The ruins of a huge building, which is surmised to be a temple constructed during the reign of Cyrus the Great, has been unearthed during an archaeological excavation near Persepolis in the southern Iranian province of Fars.

“During the excavation, which was carried out by a team of Iranian and Italian archaeologists in the ancient city of Parsa on the perimeter of Persepolis, an amazing structure that dates back to the early days of the Achaemenid era was discovered,” Alireza Asgari Chaverdi, the Iranian director of the team, told the Persian service of CHN on Tuesday.

“Thousands of glazed bricks have been used in the construction of the building, which covers at least an area of 33x33 meters,” he added.

He said, “The bricks bear bas-reliefs of the mythical animal motifs of Persia and Mesopotamia, most of which are similar to those that were used on the Ishtar Gate (the eighth gate to the inner city) of Babylon in Mesopotamia.

“An Akkadian-Babylonian cuneiform inscription has also been excavated. The designs and skills used to embellish the bricks, the widespread use of tar in the construction of the building, the use of various colors and mythical motifs such as Mushussu, a snake-dragon shaped symbol of Marduk (the chief of the Babylonian deities), and various lotus designs, all show that the structure was built during the reign of Cyrus the Great.

“Cyrus conquered Babylonia in 539 BC. Babylonian priests chose Marduk, which also was the god of the sky and the Earth during the Neo-Babylonian Empire. When Cyrus conquered Babylonia, Marduk was the most influential deity in Mesopotamia.

“According to archaeologists, groups of Babylonian priests and artisans were... taken to this region after the conquest of Babylonia by Cyrus, and he... allowed them to build a structure in the region where the ideological source of the Achaemenids was located. The building was constructed by Babylonian artisans with the same religious designs they used to create the mythical symbols like Mushussu.”

Asgari Chaverdi said that this discovery raises new questions about the religious outlook in Achaemenid society.

“Darius I came to power in 521 BC. Many religious changes occurred during his reign until Artaxerxes I was crowned as king. Now the question is whether the Achaemenids tolerated the community of Babylonian priests during the reign of Darius I or not,” he stated.

Professor Pierfrancesco Callieri of the University of Bologna and a number of his colleagues are also members of the team of archaeologists excavating the site.

The excavation, which has been in progress since late September, will come to an end in a few days.

Please visit the site: <http://tehrantimes.com/arts-and-culture/111817-ruins-of-huge-ancient-structure-unearthed-near-persepolis>

UNEARTHED HITTITE ARTIFACTS IN ISTANBUL BREAK NEW GROUND, BY ÖMER ERBİL

Traces of the Hurrian civilization discovered in excavations in the ancient city of Bathonea in Istanbul's Küçükçekmece river basin are being hailed as the year's most important discovery as they provide the first ever proof that the Hittites came to Europe and civilisations' long history

The discoveries in Istanbul's Küçükçekmece river basin, iron god and goddess statues that were found in two different places, have created great excitement among researchers.

An archaeological discovery in suburban Istanbul could soon force a rewrite in history books as new research has shown that the early Hittites actually ventured onto the European continent, having previously been assumed to have remained only in Asia.

"Istanbul has a new historic peninsula now. The first traces of the Hurrians in Istanbul shows the importance of these excavations. This is a big discovery to reach the traces of the Hittites in Europe," said Istanbul Provincial Culture and Tourism Director Ahmet Emre Bilgili, according to daily Radikal.

"We have shed light on a dark era of Istanbul," said Culture and Tourism Minister Ömer Çelik.

The traces from the Hurrian civilization - the early Hittite era - were found in the Küçükçekmece river basin in the western parts of the city.

The discoveries - iron god and goddess statues that were found in two different places - have created great excitement among researchers.

"The Mesopotamian works of art date back to between the 17th and 15th centuries B.C., known as the dark era of Istanbul. We have also found bitumen as well as tin and ceramic pieces dating back to the Mesopotamian era," said the head of the excavations, Professor Şengül Aydıngün.

Two Hurrian statues, bitumen, tin and ceramic pieces are from 1800 B.C. Bitumen was only used in Mesopotamia at the time and was used to make vessels waterproof. Maritime trade improved thanks to this material.

Tin was more valuable than gold at the beginning of the Bronze Age.

The tin in Küçükçekmece was found in cubes during excavations in the same place with the statues.

This year's excavations also revealed 301 bottles for holy water, called "Unguanterium," as well as small bottles for perfume or pomade made between the fifth and sixth centuries B.C.

Çelik said they were very pleased with the Hittite findings in Istanbul. "The two statues found in the excavations are from the Hittite era. They bring us back to 4,000 years ago. We are more hopeful for next year's excavations. I am sure that these excavations will make a contribution to tourism. This year, we provided more than 30 million Turkish Liras for the excavations. Now we have a new page in Istanbul's and Anatolian culture," he said.

God and goddess

Surface excavations around the Küçükçekmece river basin started in 2007, while a number of unknown structures in Istanbul have been unearthed over the past four years, surprising even the excavation team.

The Hurrian type of goddess statue is 5.4 centimeters long and weighs 14 grams. The statue, made of iron, has undergone erosion throughout the centuries. The god statue, meanwhile, is 6.1 centimeters long but weighs only 11 grams.

Such statues were used for vows and their earliest examples were found in southern Mesopotamia in 3000 B.C. Similar statues have been found in Turkey in the Alalah, Tilmen and Zincirli Oylum mounds elsewhere in Turkey.

Noting that they had already known about the existence of the first Neolithic groups in Istanbul, Aydingün said: "These groups' traces survived for 1,000-1,500 years. After their traces disappeared, there was a big chronological gap until the seventh century B.C. The two statues that we have found are from the early Hittite period. The statues of this era were found for the first time in Istanbul. The traces of the Hittites were previously [only] found in Troy and İzmir."

Also speaking about the findings, Istanbul Provincial Culture and Tourism Director Ahmet Emre Bilgili said they had not expected to find such groundbreaking findings when they began their research in 2007.

Please visit the site: <http://tinyurl.com/kvekllyp> [Go there for pix]

9,000-YEAR-OLD PAINTING OF VOLCANO **LINKED TO A REAL ERUPTION,** **BY BECKY OSKIN**

Hasan Dag volcano in Turkey erupted 9,000 years ago. The blast is depicted in the oldest known painting of a volcanic eruption.

A 9,000-year-old painting of an exploding volcano, the oldest ever found, can now be linked to a real-life eruption in Turkey.

The towering Hasan Dag volcano erupted 8,970 years ago, plus or minus 640 years, according to a new dating technique that analyzes zircon crystals in volcanic rock, geochemist Axel Schmitt of the University of California, Los Angeles, reported here Wednesday at the Geological Society of America's annual meeting.

Turkish scientists long suspected Hasan Dag was the source of the painting's dramatic scene, but never had a precise date for its volcanic rocks, Schmitt told LiveScience. The volcano is about 80 miles (130 kilometers) from the ancient village of Çatalhöyük, where the painting was discovered in 1964 during an archaeological dig. [The 7 Most Mysterious Archaeological Discoveries on Earth]

A 9,000-year-old painting of an exploding volcano at the Neolithic-era village of Catalhöyük in Turkey.

"The volcanological evidence also supports what previous interpreters have said about the volcanic style of the eruption here," Schmitt said. "It wasn't a Mount St. Helens-type cataclysmic event. It was small and local, more like a little burp of the volcano."

Schmitt and his colleagues dated volcanic pumice (lava that cooled so quickly it's glass) from the sides and top of Hasan Dag. Only pumice from the volcano's peak was 9,000 years old, they discovered. Rocks lower down were about 29,000 years old. This means the eruption wasn't big enough to spew lava and ash across the lower slopes.

"If anything, it was a relatively small event, like a Strombolian-type eruption," Schmitt said, referring to the small but spectacular lava fountains that frequently burst from Mount Etna and Mount Stromboli in Italy.

An outline of the Çatalhöyük shrine painting overlain on Hasan Dag volcano's twin peaks.

Catalhöyük was a proto-urban village settled during the Neolithic, or Stone Age. It is the largest and best-preserved Neolithic city ever found. The mural was painted in red-colored ochre on the wall of a shrine, showing what appears to be a map of the settlement and the double peaks of Hasan Dag.

Since its discovery, the painting has been preserved in a museum and Catalhöyük has become a popular tourist site. The evidence for a volcanic eruption has also been offered as proof that Hasan Dag is an active volcano.

Schmitt and his colleagues are conducting further studies to date the past eruption histories of Turkey's many volcanoes, and help better understand the risk of future eruptions.

"Some of these stratovolcanoes have probably had fairly large eruptions," Schmitt said. "They clearly need better constraints about their recurrence."

Please visit the site: <http://www.nbcnews.com/science/9-000-year-old-painting-volcano-linked-real-eruption-8C11498570>

THE SALTY POTS OF UR AND THE DESALINATION STATION, BY TESSA DE ALARCON

In July, I joined the Ur Digitization Project. As a part of this project, I have been working on a condition assessment of the ceramics from Ur. In doing the condition assessment I am looking at, measuring, and evaluating the stability of every ceramic vessel in the Museum's collection from Ur. So far I have examined over half of the ceramics, and found that the main issue is soluble salts. I know when we all hear salt we think table salt. This is not too far off as table salt, or sodium chloride, is a soluble salt. This just means that the salt is soluble in water and in many cases is also hygroscopic (a big word for "absorbs moisture from the air"). We have all seen how salt clumps in salt shakers and won't shake out nicely when it's humid. This happens because the salt is hygroscopic.

You are probably wondering "Why this is a problem for ceramics?"

Archaeological ceramics can absorb salts through moisture in the burial environment, and once they are excavated and dry out, the salts crystallize. If they crystallize inside the pores of the ceramic they can cause damage. If the ceramic is then exposed to changing relative humidity, these salts can go through cycles of dissolution as they pull moisture from the air and re-crystallization when they dry out, causing even more damage over time.

The pot on the left shows spalling. This happens when the salts pop off circular patches of the surface. You can see a spalled area in the front with the white salt crystals in the middle. The pot on the right is delaminating. This is also caused by the crystallization of salts.

In this case they crystallize in a single plane, pushing off thin layers of the ceramic.

To stabilize the salty pots from Ur, I have been working on setting up a desalination station. This involves setting up an area where the pots can be safely soaked. Because these salts are soluble, they can be removed by soaking the object in water. The images below walk through the process I have been using to stabilize objects like the ones shown above.

Because the surfaces of the ceramics are so unstable, these objects have to be consolidated first with a dilute adhesive that is not soluble in water (otherwise the consolidant would be removed during desalination along with the salts). I have been using Paraloid B-72™ in acetone that I apply drop-wise so that I can control where it goes and how much is applied.

After the pots are consolidated and the adhesive has fully dried (I usually wait a few days after consolidation to be sure), each object is weighed and placed in a known volume of deionized water. The pots are weighed and the water measured so that I can calculate when they are ready to come out of the water and compare the data from pot to pot.

I use a conductivity meter to record how much salt is being extracted from each object. Every time I take a reading, I note the date and time as well so that I can plot the data on a graph. The length of time each pot soaks depends on various factors (weight, volume of water, how salty it is), but to give you an idea, they can stay in the water for a week or more. Once each pot has been desalinated I pull it out of the water, rinse it off, and let it dry.

If the surface is unstable after the pot has dried, I do some final consolidation. Once the treatment is complete, I take the final treatment pictures and the pot goes back to its home in storage.

See more at: <http://www.penn.museum/blog/collection/conservation/the-salty-pots-of-ur-and-the-desalination-station/#sthash.jN3gIXT.dpuf>

Please visit the site: <http://www.penn.museum/blog/collection/conservation/the-salty-pots-of-ur-and-the-desalination-station/>

4,500 YEAR-OLD DWELLING FOUND IN TURKEY

It is the biggest building in Anatolia and Middle East ever found.

A four and half-thousand year-old dwelling belonging to an important ruler is the latest find from an archeological dig referred to as the Kultepe mound, in a district of Kayseri, in central Turkey.

“There is no such a huge building like this in Anatolia and Middle East. We are only at the certain part of the building right now. We will see an enormous structure once we discover it all. This is not a private house. It is most probably an administrative body. We believe that this is a building where Kanis King lives or governs his kingdom,” Prof. Fikri Kuloglu, Ankara University archaeologist and head of the Kultepe archaeological excavation, told an AA reporter.

The archeologist says the thousands of seals found (probably from Northern Syria) tell that there was "international and systematical trade" in those times and the archaeological excavations in coming years will give further evidence of those trade activities.

Kultepe, ancient mound covering the Bronze Age city of Kanesh, is in central Turkey. Kultepe was known to archaeologists during the 19th century, but it began to attract particular attention as the reputed source of so-called Cappadocian tablets in Old Assyrian cuneiform writing and language.

Please visit the site:

<http://www.worldbulletin.net/?aType=haber&ArticleID=122174>

APHRODITE SMILES ON UNL **ARCHAEOLOGICAL DIG IN TURKEY, BY** **RUTH OLIVER**

Years of exploring the mountains and fields of southern Turkey paid off over the summer when a University of Nebraska-Lincoln archaeological team made a lovely find.

The team unearthed a life-size marble head of Aphrodite, the Greek goddess of love, desire and beauty.

The team, led by Hixson-Lied professor of art history Michael Hoff, has been excavating the remains of the ancient city Antiochia ad Cragum, near the southern coast of Turkey.

“It was upside down when it was first found,” Hoff said. “The team flipped it over with big smiles on their faces.”

Last year Hoff’s team uncovered a mosaic thought to be the largest of its type in the region. The 1,600-square-foot mosaic depicted flowers and fruit and is believed to have been part of a Roman bathhouse.

“The mosaic was stupendous, and the statue was an exclamation point,” Hoff said.

Aphrodite’s head is the first example of a monumental statue found at the site. Hoff said mythological statues are common in Turkey but had not been uncovered yet in Antiochia ad Cragum because of limited excavation.

“We find fragments and pieces that escape getting thrown into the kiln, and luckily we found this head,” Hoff said.

Scarred with chips and cracks on its nose and face, the head of Aphrodite’s statue most likely avoided destruction during the Roman Byzantine period, about A.D. 330.

Hoff said the area where the head was found was once used to destroy ancient marble statues, to get lime for making mortar or because they were considered pagan symbols.

“Some rather zealous Christians were destroying images of Greek gods and goddesses to get rid of pagan images,” he said.

As for the rest of Aphrodite’s body, Hoff said it was most likely incinerated.

Before the excavation began in 2005, Hoff and his colleagues spent 10 years conducting a survey of the area. They based their decision to excavate Antiochia ad Cragum on historical context, accessibility and its potential to reveal new information. The ancient Mediterranean city once numbered perhaps 4,000 to 5,000 people, Hoff said.

“It’s not the nice objects we find but rather the body of information that they tell,” he said. “That’s the most important thing.”

Hoff said he and his team believe a well-to-do society lived in the area based on the remains that have been unearthed so far.

“Our excavation is beginning to shed light on perhaps a greater cultural wealth in this part of the Roman Empire than what we thought before.”

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Please visit the site:
<http://www.omaha.com/article/20131104/NEWS/131109507/1707>



PIGS IN ISRAEL ORIGINATED IN EUROPE, RESEARCHERS SAY, BY ISABEL KERSHNER

Israel may not be the most obvious place to study pigs, given that religious strictures in both Judaism and Islam forbid their consumption.

But Israeli researchers involved in a lengthy project whose goal is to reconstruct ancient Israel have now established that the pigs here are of European stock, unlike their Middle Eastern counterparts elsewhere in the region, and that they probably arrived with the non-kosher Philistines about 3,000 years ago.

In the highlands west of the Jordan River associated with the early Israelites, archaeological studies have shown that there are almost no ancient pig bones. The exceptionally high number of pig bones found in the lowlands, at what were urban Philistine sites like Ashkelon and Ekron, have given rise to the theory that the Philistines, sea people who migrated here from the Aegean basin, brought their culinary and husbandry habits with them.

A new study based on DNA testing of modern and ancient pigs has revealed that the European emigrant pigs became prominent during the Iron Age, around 900 B.C., and eventually took over the entire wild boar population in the area that is now Israel.

The study, published Monday in the journal *Scientific Reports*, is part of a long-term project in which Israeli researchers are examining the large migrations, trade, climate changes and other forces that shaped and changed the Levant in antiquity.

Understanding human and animal movement is crucial to that process, said Israel Finkelstein, a professor at Tel Aviv University's Institute of Archaeology, who directs the project. "We archaeologists know that pigs and pork consumption are two very good markers of ethnicity and identity," Professor Finkelstein said, given the pig taboo in ancient Israel.

Waste-eating pigs may have been good for keeping ships clean, he said, but they could not move great distances over land, so raising pigs might have become a marker distinguishing the Israelites, who were originally pastoral nomads, from sedentary societies. At the time when animosity developed between the highlands and the lowlands, as depicted in biblical stories like the battle between David and the Philistine giant Goliath, pigs could have symbolized a "we and they" theme, Professor Finkelstein said, as in, "They eat pork, and we don't."

(To complicate matters, archaeologists have found pig bones at later Israelite sites from around 800 B.C., indicating that not all Israelites were strictly kosher.)

The researchers began more than two years ago by mapping the modern wild boar population of Israel. Meirav Meiri, an expert in ancient DNA, tested preserved pig samples from all over the country — a piece of an ear, a sliver of skin — and found that all possessed the European gene signature. That came as a surprise, she said, given that

studies of pigs in nearby countries like Egypt, Iran, Iraq, Syria and Turkey had shown they were all of a Middle Eastern gene type.

European and Middle Eastern pigs do not look much different, but the DNA results raised the question of how the “Ashkenazi” pigs of European stock got here.

Working back through centuries of pig bones and teeth gathered from various collections and archaeological sites, Dr. Meiri painstakingly tested 177 ancient samples, including 34 with DNA preserved well enough to determine their genetic origin.

Large numbers of European pigs appeared in Israel around 900 B.C. and became more and more dominant until they had taken over completely.

“Once we had a local signature,” Dr. Meiri said of the genetic makeup of the pigs found here in antiquity, but that “no longer exists.”

The researchers assume that the Philistines brought domesticated pigs with them and that some of those pigs may have run off into the wild and mixed with the local population. But for the European pigs to have taken over so completely, the experts say, there may have been more waves of emigrant pigs from Europe, from the time of the Romans onward.

“Here, there’s an island of pigs with European ancestry,” said Steve Weiner, a professor at the Weizmann Institute of Science in Rehovot, Israel, who is a partner in the project, which is funded by a grant from the European Research Council. “We don’t know if Napoleon brought pigs, or the Crusaders, or if they all did.”

“Archaeologists,” he concluded, “take pigs very seriously.”

Please visit the site: <http://www.nytimes.com/2013/11/05/world/middleeast/pigs-in-israel-originated-in-europe-researchers-say.html>

STUDY REVEALS MORE CLUES TO ORIGINS OF DOMESTICATED DOG

Genetic evidence traces domesticated dogs to Palaeolithic hunter-gatherers in Europe, suggest the researchers.

Scientists have theorized that the origin of the domestic dog stems from the domestication of the Grey Wolf tens of thousands of years ago. But the approximate date and place have been grist for scientific debate for years, with some genetic and archaeological evidence indicating that humans domesticated wolves on more than one occasion, with today's lineage arising at the latest 15,000 years ago based on findings at the Bonn-Oberkassel site in Germany, and genetic evidence pointing to 33,000 years ago from investigations of the Razboinichya Cave in the Altai Mountains of Russia.

Now, based on a recently completed study, Olaf Thalmann of the University of Turku, Finland, and colleagues are suggesting that Palaeolithic hunter-gatherers in Europe as much as 32,000 years ago may have played a significant role in the process.

To come to this conclusion, Thalmann and his team compared mitochondrial DNA from a broad range of modern-day dog and wolf breeds to mitochondrial DNA from canine fossils dated to 19,000-32,000 years ago, as well as fossils from modern canines. Their analysis showed that modern dogs' genetic sequences most closely matched those of either ancient European canines, including wolves, or modern European dogs, but did not closely match DNA from canines outside of Europe.

According to the researchers, this suggests a European origin, and, as only hunter-gatherer populations were present during this period, a domestication that predates the advent of agriculture.

It has been previously thought that fields and crops attracted wolves to villages, leading to interactions with humans that eventually resulted in a cooperative or symbiotic relationship. Human intervention in canine evolution thus produced the variety of modern dog breeds commonly seen today in homes and dog parks throughout the world. But this study, along with clues from other research and excavations, pushes the origins back further to the Palaeolithic Age, when wild wolves may have been drawn to hunter-gatherers, the researchers suggest, because they could feed on carcasses the hunters left behind.

The details of the research appears in the 15 November 2013 issue of Science, published by AAAS, the nonprofit science society.

Please visit the site: <http://popular-archaeology.com/issue/09012013/article/study-reveals-more-clues-to-origins-of-domesticated-dog> [Go there for pix and captions]

24,000-YEAR-OLD BODY SHOWS KINSHIP TO EUROPEANS AND AMERICAN INDIANS, BY NICHOLAS WADE

The genome of a young boy buried at Mal'ta near Lake Baikal in eastern Siberia some 24,000 years ago has turned out to hold two surprises for anthropologists.

The first is that the boy's DNA matches that of Western Europeans, showing that during the last Ice Age people from Europe had reached farther east across Eurasia than previously supposed. Though none of the Mal'ta boy's skin or hair survives, his genes suggest he would have had brown hair, brown eyes and freckled skin.

The second surprise is that his DNA also matches a large proportion — about 25 percent — of the DNA of living Native Americans. The first people to arrive in the Americas have long been assumed to have descended from Siberian populations related to East Asians. It now seems that they may be a mixture between the Western Europeans who had reached Siberia and an East Asian population.

The Mal'ta boy was 3 to 4 years old and was buried under a stone slab wearing an ivory diadem, a bead necklace and a bird-shaped pendant. Elsewhere at the same site about 30 Venus figurines were found of the kind produced by the Upper Paleolithic cultures of Europe. The remains were excavated by Russian archaeologists over a 20-year period ending in 1958 and stored in museums in St. Petersburg.

There they lay for some 50 years until they were examined by a team led by Eske Willerslev of the University of Copenhagen. Dr. Willerslev, an expert in analyzing ancient DNA, was seeking to understand the peopling of the Americas by searching for possible source populations in Siberia. He extracted DNA from bone taken from the child's upper arm, hoping to find ancestry in the East Asian peoples from whom Native Americans are known to be descended.

But the first results were disappointing. The boy's mitochondrial DNA belonged to the lineage known as U, which is commonly found among the modern humans who first entered Europe about 44,000 years ago. The lineages found among Native Americans are those designated A, B, C, D and X, so the U lineage pointed to contamination of the bone by the archaeologists or museum curators who had handled it, a common problem with ancient DNA projects. "The study was put on low speed for about a year because I thought it was all contamination," Dr. Willerslev said.

His team proceeded anyway to analyze the nuclear genome, which contains the major part of human inheritance. They were amazed when the nuclear genome also turned out to have partly European ancestry. Examining the genome from a second Siberian grave site, that of an adult who died 17,000 years ago, they found the same markers of European origin. Together, the two genomes indicate that descendants of the modern humans who entered Europe had spread much farther east across Eurasia than had previously been assumed and occupied Siberia during an extremely cold period starting 20,000 years ago that is known as the Last Glacial Maximum.

The other surprise from the Mal'ta boy's genome was that it matched to both Europeans and Native Americans but not to East Asians. Dr. Willerslev's interpretation was that the ancestors of Native Americans had already separated from the East Asian population when they interbred with the people of the Mal'ta culture, and that this admixed population then crossed over the Beringian land bridge that then lay between Siberia and Alaska to become a founding population of Native Americans.

“We estimate that 14 to 38 percent of Native American ancestry may originate through gene flow from this ancient population,” he and colleagues wrote in an article published Wednesday in the journal *Nature*.

A European contribution to Native American ancestry could explain two longstanding puzzles about the people's origins. One is that many ancient Native American skulls, including that of the well-known Kennewick man, look very different from those of the present day population. Another is that one of the five mitochondrial DNA lineages found in Native Americans, the lineage known as X, also occurs in Europeans. One explanation is that Europeans managed to cross the Atlantic in small boats some 20,000 years ago and joined the Native Americans from Siberia.

Dr. Willerslev thinks it more likely that European bearers of the X lineage had migrated across Siberia with the ancestors of the Mal'ta culture and joined them in their trek across the Beringian land bridge.

He said his finding does not solve the much-disputed question of when the Americas were first settled. Archaeologists long believed the people of the Clovis culture, dated from 13,000 years ago, were the first Americans, but several recent finds point to an earlier date. “We need the sequencing of more ancient genomes to address this question,” Dr. Willerslev said.

The Mal'ta people built houses that were partly underground, with bone walls and roofs made of reindeer antlers. Their culture is distinguished by its many art objects and its survival in an unforgiving climate.

Dr. Willerslev presented his team's findings last month at a conference in Santa Fe on Native American origins. “There was a lot of surprise and some skepticism, as is often the case in science toward new findings,” said Dennis H. O'Rourke, an anthropologist at the University of Utah who works on ancient DNA and the North American Arctic.

Dr. O'Rourke said the result would prompt a search for more ancient DNA from Siberia in order to provide a better context for Dr. Willerslev's reconstruction of early American origins. “I think it's a very important and really interesting result, but it is from a single individual,” he said.

Theodore G. Schurr, an anthropologist at the University of Pennsylvania, said Dr. Willerslev had provided an interesting new perspective on Native American origins that helped explain the presence of the mitochondrial X lineage in North America and enlarged the understanding of population history in Siberia. But the time and place of the East-West population mixing adduced by Dr. Willerslev is not yet clear, he said.

An unexplained feature of the mixing is that the Mal'ta people did not pass on their mitochondrial DNA since the U lineage is unknown among Native Americans. Since mitochondrial DNA is passed down only through the female line, the population ancestral to Native Americans could have been formed by men of the Mal'ta culture who acquired East Asian wives.

Dr. Willerslev sees this as one possibility, another being that mitochondrial DNA lineages are easily lost through genetic drift, the random change in DNA patterns through the generations. "One has to be careful setting up detailed geographical scenarios at this stage," Dr. Willerslev said.

Please visit the site: <http://www.nytimes.com/2013/11/21/science/two-surprises-in-dna-of-boy-found-buried-in-siberia.html?src=me&ref=general>

ISRAELI ARCHAEOLOGISTS: PREHISTORIC MEN IN CARMEL CAVES HELD WAKES FOR THE DEAD, BY RAN SHAPIRA

Bones found in Carmel graves 13,000 years old are clearly remains of ritual meals, not offerings or just trash tossed from the cave.

Prehistoric men living in the Carmel caves 13,000 to 12,000 years ago didn't just toss their dead down the mountainside. They buried them and held wakes, archaeologists have discovered.

The proof is evidence of communal meals attended by dozens of people right by ancient graves in Raqefet, a Carmel Mountain cave some 20 kilometers southeast of Haifa. Archaeologists discovered an ancient burial site with 29 skeletons of babies, children and adults interred over more than a thousand years inside the cave. The graves date from 13,700 to 11,700 years ago.

The site, excavated between 2004 and 2011, belongs to the Natufian civilization which existed in the Levant between 15,000 and 11,500 years ago. This particular cave was excavated by Prof. Dani Nadel of Haifa University in collaboration with researchers from the Weizmann Institute and colleagues from France, Hungary and the United States.

The project was funded by several grants, including one from the National Geographic Society.

If it moved, they ate it

The new findings were reported by Dr. Reuven Yeshurun, Prof. Guy Bar-Oz and Prof. Nadel in the latest issue of the Journal of Anthropological Archaeology. The evidence for these burial meals was thousands of animal bones that had been laid in graves together with the interred human bodies. The bones belonged to a wide range of animals, including birds, tortoises, gazelles and wild boars, say Yeshurun and Bar-Oz.

Smaller mammalian bones were also found, including those of the common hare and of stone martens – apparently ancient man did eat shrews and the like.

The bones bear markings of butchery using flint tools, as well as blunt blows using hammer-stones, used to extract bone marrow, according to Yeshurun. This strongly indicates the bones are the remains of meals.

Og didn't toss the bones from his cave

The Natufian culture is named for the Natuf creek 15 kilometers northeast of the Israeli city of Lod, which is the first location in which their remains were first discovered. The Natufians are believed to be among the first groups of humans to abandon the nomadic way of life and to settle in permanent locations. Some believe they were the first humans to cultivate cereals.

They were also among the first groups known to establish graveyards - defined spaces in which they buried their dead for many generations.

Such burial sites were usually placed in entrance chambers of caves or in terraces directly below them. Earlier civilizations used to bury their dead in random locations, if at all.

The researchers rejected the hypothesis that the bones were merely rubbish scattered by earlier dwellers in these caves, and that later inhabitants used the same pits for burial.

Yeshurun, who studied the cave as part of his doctoral thesis, explains that Natufians did not throw out garbage. Bones left over from meals would be ground underfoot inside the dwelling, shattered by trampling, or burnt when fires were lit.

All Natufian settlements contain such burnt or broken bones which derive not from slaughter or cooking, but from later destruction, he says. However, the bones found at Raqefet cave are less burnt and shattered than those found at other Natufian settlements. In addition, the cave has no signs of dwelling – it was apparently only used for burial.

Gods wouldn't appreciate masticated offerings

Another hypothesis was that these bones are of animals that were laid in the graves as offerings. The researchers rejected this as well, since it was customary to use whole animal body parts as burial offerings, such as a bird wing or a mammalian shank, placed beside the dead person in order to accompany him or her on their last journey.

The graves in this cave had no whole bones or bones lying in an orderly configuration, except one gazelle bone and a boar jaw found in one burial pit.

This left a third hypothesis, namely that the bones were placed in the graves not for ritual or hygienic reasons, but for symbolic and social reasons.

“The untypical and meticulous gathering of the leftover bones indicates that it had some significance after the meal was over, possibly of stashing it with the deceased,” says Yeshurun.

He notes that the Natufians were living through a period of great transitions in lifestyle. They existed on the cusp of an agricultural lifestyle and the domestication of animals and plants. They were still hunter-gatherers like their ancestors, but were already starting to build small permanent settlements. Each village had up to several hundred inhabitants, and they needed to be inventive in order to feed everyone.

Although not producing food yet, they needed to be creative in order to foster social cohesion. Feasting at wakes, with the apparent participation of the entire group, may have been an expression of such attempts to foster this cohesion.

Please visit the site: <http://www.haaretz.com/archaeology/premium-1.558690>

ΑΝΑΣΚΑΠΤΟΝΤΑΣ ΤΗΝ ΕΛΛΑΔΑ - Όλες οι ΑΝΑΣΚΑΦΕΣ ΤΗ ΔΕΚΑΕΤΙΑ 2000-2010 ΣΤΟ SITE ΤΟΥ ΥΠΟΥΡΓΕΙΟΥ ΠΟΛΙΤΙΣΜΟΥ

Όλες οι ανασκαφές σε όλη την Ελλάδα στο διάστημα μιας δεκαετίας (2000 - 2010) παρουσιάζονται πλέον [στην ιστοσελίδα του υπουργείου Πολιτισμού](#). Προς ενημέρωση κάθε ενδιαφερομένου για το έργο που γίνεται σε διάφορες περιοχές της χώρας, με κείμενα και φωτογραφίες από αρχαιολογικούς χώρους και ευρήματα.

Μία εξαιρετική πρωτοβουλία, που δεν αναδεικνύει μόνον το έργο των Εφορειών Αρχαιοτήτων (Κλασικών και Βυζαντινών) αλλά και των εργαζομένων αρχαιολόγων ενώ επιπλέον αποτελεί μία καταγραφή νέων αρχαιολογικών χώρων και αντικειμένων, που έχουν έρθει στο φως. Να σημειωθεί εξάλλου, ότι η έκδοση «Αρχαιολογικό Δελτίο» στην οποία περιλαμβάνεται όλο αυτό το υλικό θα εξακολουθήσει να κυκλοφορεί.

Στην ιστοσελίδα του ΥΠΠΟ το έργο παρουσιάζεται ανά Εφορεία _ συγκεκριμένα υπάρχουν 39 Εφορείες Προϊστορικών και Κλασικών Αρχαιοτήτων και 28 Εφορείες Βυζαντινών _ ενώ η διάταξη ακολουθεί την γεωγραφική διαίρεση της χώρας. «Στο πανόραμα αυτό ξεδιπλώνονται μεγάλες και μικρές στιγμές της ανασκαφικής σκαπάνης, ώρες χαράς, προσμονής και ελπίδας αλλά και φάσεις σιωπής, αγωνίας και έντασης», γράφει στην εισαγωγή της έκδοσης η γενική διευθύντριας αρχαιοτήτων του ΥΠΠΟΤ κυρία **Μαρία Ανδρεαδάκη - Βλαζάκη**, η οποία έχει την επιμέλειά της.

Όπως γράφει εξάλλου η γενική γραμματέας του υπουργείου Πολιτισμού κυρία **Λίνα Μενδώνη** «Η δεκαετία που πέρασε, υπήρξε λόγω και των μεγάλων έργων υποδομής που υλοποιήθηκαν σε ολόκληρη την επικράτεια, μία ιδιαίτερα γόνιμη και παραγωγική περίοδος. Νέα ευρήματα άλλαξαν κυριολεκτικά τον αρχαιολογικό χάρτη της χώρας, ανέτρεψαν αντιλήψεις ή επιβεβαίωσαν υποθέσεις. Υπολείπεται η συστηματική μελέτη, η κριτική πραγμάτευση και η συνθετική δημοσίευσή τους, η οποία είναι αυτή που θα απαντήσει στα ερωτήματα της επιστημονικής κοινότητας παρέχοντας συγχρόνως και το πρόκριμα για την υιοθέτησή τους από την κοινωνία».

Please visit the site: <http://www.tovima.gr/culture/article/?aid=452092> and <http://www.yppo.gr/0/anaskafes/index.html>

OLDEST STRUCTURE EVER FOUND IN THE JUDEAN LOWLANDS SOUTHWEST OF JERUSALEM, BY COURTNEY SUBRAMANIAN

Israel's transportation company has uncovered a 10,000-year-old house and a 6,000-year-old temple during a routine dig to expand one of the nation's highways.

Workers unearthed a the house, the oldest structure ever found in the Judean lowlands southwest of Jerusalem, while digging for the planned expansion of Route 38, according to the Israel Antiquities Authority.

The house dates back to the Pre-Pottery Neolithic period, signifying the transition of society to "permanent dwellings," or settling down rather than traveling in search of food, Times of Israel reports.

State-owned Netivei Israel Company, which is in charge of the highway expansion, also said it discovered what is believed to be a 6,000-year-old cultic temple from the Chalcolithic period.

"We can see distinctly a settlement that gradually became planned, which included [streets] and buildings that were extremely impressive from the standpoint of their size and the manner of their construction," the Antiquities Authority said in a statement Monday.

The two organizations invited the public to visit the historic site in Eshtaol on Wednesday.

Please visit the site: <http://world.time.com/2013/11/26/israel-discovers-10000-year-old-house-near-jerusalem/>
