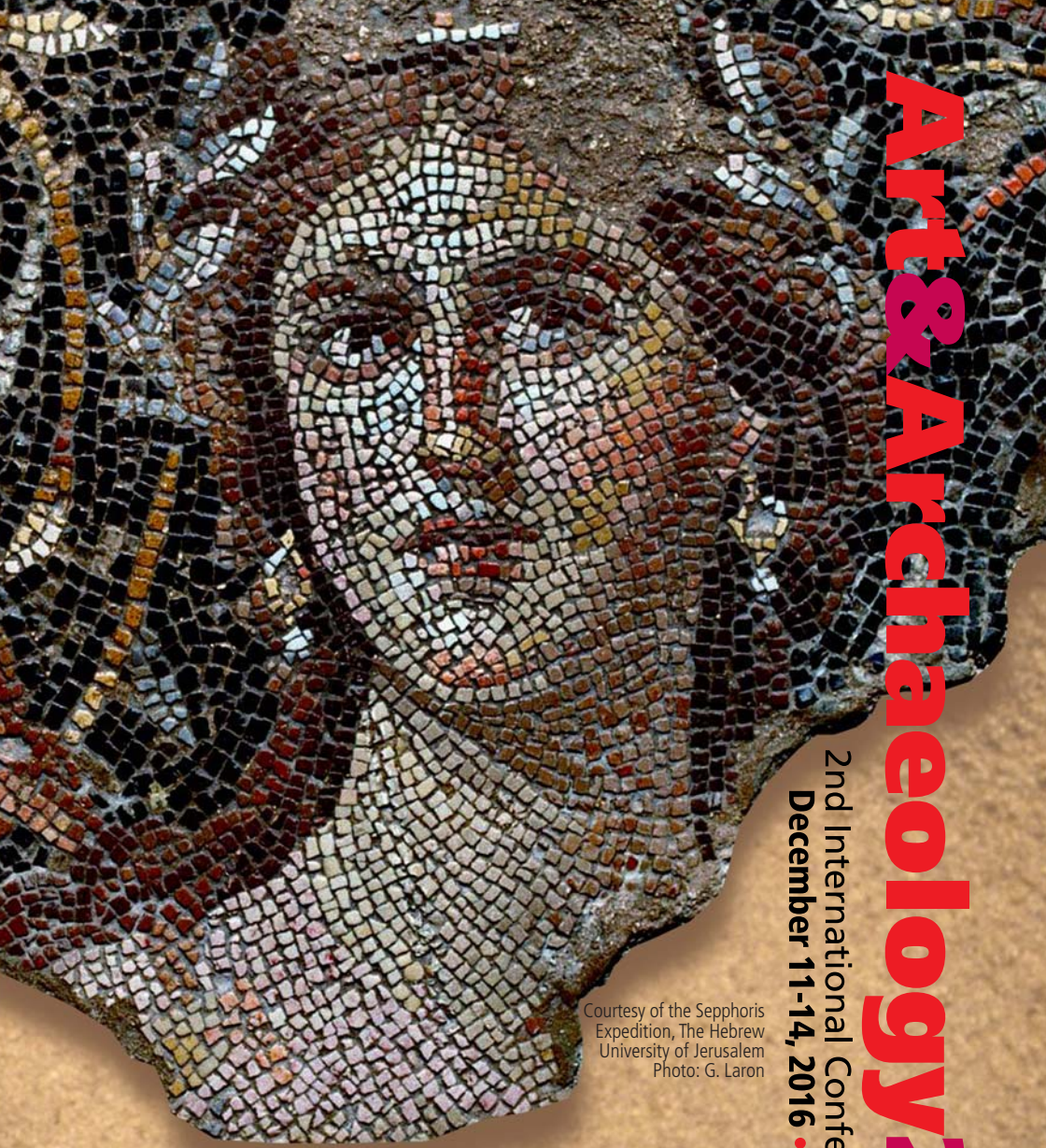

Art&Archaeology2016

2nd International Conference

December 11-14, 2016 • Jerusalem, Israel

Courtesy of the Sepphoris Expedition, The Hebrew University of Jerusalem
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Israel Antiquities Authority

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IN COORDINATION WITH

- Israel Society for the Conservation and Preservation of Cultural Property
- The National Library of Israel
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Dear Colleague,

We are happy to invite you to actively participate in Art&Archaeology2016, the International Conference to be held in Jerusalem, December 2016. It follows our successful Jerusalem Conference ART2008.

The main objective of Art&Archaeology2016 is to advance the frontiers of scientific knowledge connected with human cultural heritage. Heritage is our legacy from the past. It is our source for understanding the human mind, its capabilities and potential. Knowledge of the past influences our present day life and what we pass on to future generations.

Art&Archaeology2016 aims to bring together a range of scholars, specialists and experts in the fields of archaeology, art, history, preservation, restoration and reconstruction of museum or archaeological objects, cultural heritage, researchers of ancient structures and measurement scientists and technologists. Cultural heritage is characterized by time-spatial scales and a wide range of technologies are applied to understand and preserve our archaeological, historic and artistic patrimony.

The Art&Archaeology2016 conference seeks to encourage communication between these disciplines, to provide a survey of present work in the field, and to stimulate discussions.

We believe that synergy between the experts will yield further developments, adaption and adoption of measurement methods to deal with challenges of culture heritage research. The knowledge to be gained will provide understanding in more depth and dimensions of the human genius.

We look forward to your participation in Art&Archaeology2016, enlightening us with your paper or poster presentation and enjoying the entertaining social and cultural events in Jerusalem and in Israel.

Jerusalem, the holy site of three great monotheistic religions, provides a unique atmosphere of a modern vibrant society living alongside the archaeology and historical sites since the time of King David. It guarantees to provide you with an unforgettable experience.

With best regards,
Prof. Amos Notea
Conference Chair

Major Themes

Ethical Perspectives; Values and Principles at Stake
- Implementation of integrated strategies satisfying conservation code of practice and research code of ethics
- Public display, conservation treatment and scientific research, is it safe? Impact of handling on integrity of cultural heritage
- Measurements and calculations; dealing with margins of error and contamination problems

Non Invasive Spectroscopic Research and Analysis
- Re-constructing the evidence: studies of historical objects
- Non-invasive preservation monitoring, new developments and applications
- Spectroscopic techniques as a conservation treatment tool in art and archaeology

Microarchaeology
- Re-constructing the evidence: studies in archaeology
- On-site sampling and analysis
- Archaeometry and microanalyses

Authentication vs. Detection of Forgery
- Scientific examination of evidence of manufacture, use and provenance
- Complementary and comparative micro-analytical techniques refining interpretation of the past
- Museology; identifying and determining historical values proving authenticity

Digital Imaging and Computer Science
- Digital applications in conservation of art and archaeology
- Reconstructing the evidence in art and archaeology using advanced digital techniques
- Contactless scanning of objects; morphometric measurements

In addition, papers on biblical-related archaeological findings and archaeology in the Holy Land are welcome.

The principles of reversibility, minimal intervention and scientific objectivity are fundamental to the conservation profession. They are difficult to contend with both on a philosophical and on a practical level. Not clearly understood, they are still adopted with pride and form the disciplining guidelines of the modern conservators' approach to treatment. How can the adopted principles of minimal destructivity in conservation practice be maintained by the findings of scientific non-destructive inspection, testing and evaluation of objects of historical relevance? How can the scientific method which seeks to break down the complexities of the world into simple truths, be used to fathom the unpredictable complex behavior of specific objects?

This Art&Archaeology Conferenced hopes to demonstrate the type of productive partnerships that can be achieved between specialists working in NDT analysis and the application of NDT technology to solving practical museum and archeological conservation problems.

Conservators and Conservation Scientists working in team efforts are invited to submit papers.

Abstract Submission:

Papers can deal with both analytical and methodological approaches to gaining knowledge, implementation, and case studies.
All submissions must be written in English, the official language of the Conference.
Abstracts of approximately 300 words should be sent by email to: confer@isas.co.il
The abstracts should include authors' names, addresses and email. No pictures, tables or references.
All abstracts will be acknowledged and authors will be notified of the reviewers' comments.
Only fully registered participants will have their abstracts published.
Deadline for abstract submission (oral presentations): September 26, 2016
Late deadline (posters only): October 14, 2016

Gilberto Artioli
University of Padova
Italy

Ancient mortars and binders: can the walls speak?

The development of binder technology in the past will be briefly reviewed, with focus on the use of binders and mortars in structural architecture and their technological meaning. The traditional recipes of Roman mortars from literature sources will be compared with the results of the characterization of ancient materials from selected case studies, and open problems will be highlighted. The recent attempts to radiocarbon dating ancient mortars will also be presented. The aim is to show what the investigation of ancient materials can tell us not only on past technological developments and on conservation issues, but also on the future of modern cements.

Vito Mocella
National Council of Research Institute for Microelectronics
and Microsystems (CNR-IMM) Naples Units
Italy

Synchrotron based techniques reveal writing and ink composition of Herculaneum papyri

We discuss the first experimental demonstration of a non-destructive technique that reveals the text of a carbonized and thus extremely fragile Herculaneum papyrus. Buried by the famous eruption of Vesuvius in 79 AD, the Herculaneum papyri represent a unique treasure for humanity. Overcoming the difficulties of the other techniques we prove that x-ray phase contrast tomography technique can detect the text within scrolls, thanks to the coherence and high-energy properties of a synchrotron source[1]. This new imaging technique represents a turning point for the study of literature and ancient philosophy, disclosing texts that were believed to be completely lost. In order to improve the imaging technique we performed also an extensive experimental analysis of the ink composition, using a combination of synchrotron techniques at the ESRF, discovering the presence of metal in the ink of two Herculaneum papyrus fragments and proving that metals were used in ink several centuries earlier than previously believed [2,3].

[1] V. Mocella et al., "Revealing letters in rolled Herculaneum papyri by X-ray phase-contrast imaging", Nature Communications 6, 5895 (2015).

[2] P. Tack et al., "Tracking ink composition on Herculaneum papyrus scrolls: quantification and speciation of lead by X-ray based techniques and Monte Carlo simulations", Scientific Reports 6, 20763 (2016).

[3] E. Brun et al., "Revealing metallic ink in Herculaneum papyri", Proc. Natl. Acad. Sci. USA, 113 (14) 3751-3754 (2016).

Ira Rabin
BAM Federal Institute for Material Research and Testing;
Centre for the Studies of Manuscript Cultures
Germany

Material analysis: authentication or forgery detection?

The lecture will discuss the sensitive issue of authentication of the objects of cultural heritage of immense cultural and monetary value if certified to be genuine. It will be made clear that material analysis alone, especially its non-destructive variety conducted by specialists in a single technique, can not prove that the object is genuine. The best material analysis can do, after all appropriate tests have been conducted, is to announce that nothing has been found that contradicts the assumption of genuineness. Moreover, the results of the natural analysis can never be used as the only justification of the authentication in the cases of composite objects such as manuscripts or epigraphs. A certification always requires the expertise of the specialist in the field (be it a historian, paleographer, epigrapher, etc.), whose judgment can be at the most supported by appropriate material analysis.

The most effective approach for testing suspicious artifacts has been established by the forensic science. Here, not the authentication, but the determination of the forgery stands in the focus of the work. Investigation protocols developed within 150 years and constantly improved include a clear statement of the analysis purpose and the definition of plausibility criteria for the possible outcome. The younger sister of the forensics, archaeometry has to overcome additional obstacles such as the heterogeneity of historic material coupled with the scarcity of suitable reference material. Over the last two decades the popularity of archaeometric studies has increased enormously, with the industry-driven development of so-called non-destructive technologies (NDT) that do not require sampling. Further technological developments led to the appearance of NDT methods with extremely small interaction windows (μm range). Each of these methods has limitations that have to be carefully considered when planning the testsof a heterogeneous and often partially degraded historical material. This approach is inherently multi-instrumental, therefore archaeometric and forensic departments unite a number of specialists who work together defining the tasks and the methods involved for their successful completion.

Mark Van Strydonck
Royal Institute for Cultural Heritage
Belgium

From textile to stucco: ^{14}C dating of art

Established in 1948, the Royal Institute for Cultural Heritage is one of ten scientific institutions falling within the competence of the Belgian Federal Ministry of Scientific Policy. It was the first institute worldwide that groups laboratories, conservation-restoration workshops, photographic workshops, a photo library and a library in a single building. The building was designed in such a way as to join together very different work units and obtain an interdisciplinary approach to works of art. In 1963 a radiocarbon dating laboratory was installed in the institute.

Although most historians and art-historians consider the radiocarbon dating technique not to be very precise by their criteria, the method has gained a lot in importance since the introduction of the AMS technique. Radiocarbon is used increasingly in the field of textile research and old polychrome statues, but also objects made of ivory, parchment, paper and stucco are dated.

The method is used in cultural heritage studies, not only to obtain information about the age of the objects themselves but also to learn about the complex history of the objects and the cultures that made them. Besides the scientific interest radiocarbon is also used to detect forgeries or presumed forgeries.

Venue
Crowne Plaza Hotel, Jerusalem

Language
The official Conference language is English.

Contributions
Contributions may take the form of invited lectures, oral presentations, or posters. Participants interested in presenting are invited to email their abstract(s) to: confer@isas.co.il

Abstracts
Abstracts of approximately 300 words should be sent to confer@isas.co.il
Abstracts should include authors' names, addresses, and email.
No pictures, tables or references.
By submitting an abstract, at least one of the authors agrees to be present at the conference.
The International Scientific Committee will referee all submitted abstracts and will decide on the method of presentation (oral or poster).
Deadline for abstract submission (oral presentations): September 26, 2016
Late deadline (posters only): October 14, 2016

Papers
Authors of accepted contributions will be invited to submit a paper for publication in the Conference Proceedings.

Posters
Posters should be brought and mounted by the authors on the morning of December 12.

Exhibition and Sponsorship
Space for the commercial exhibition will be available upon request. Please contact the secretariat at meetings@isas.co.il for exhibition and sponsorship prices. A list of sponsors will be periodically published and updated on the Conference website.

Registration Fee

Registration:	Before 7.9.16	Before 15.11.16	After 15.11.16
Participants	$460	$520	$570
Current students*	$230	$280	$330

*Student registration form must be accompanied by proof of status.

Registration fee includes 3 days of conference, admission to scientific sessions, Program and Proceedings, 3 lunches, welcoming reception, gala banquet, 6 coffee and cake breaks and entrance to the exhibition and poster sessions.

Accompanying Persons
Fee of $200 includes welcoming reception, opening session, and gala banquet.

Cancellation Policy
All cancellations must be received in writing, via fax, email or post.
Registration cancellations received before October 15, 2016 - full refund less $60 (and bank commission).
Cancellations received between October 15 and December 5, 2016 - 50% refund.
No refund on cancellations received after December 5, 2016.
Refunds will be processed within two months after the conference.

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Website
www.art-archaeology.com
See website for additional information and periodic conference updates.

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Massada and the Dead Sea

Biblical Highlights of the Galilee

Pearls of the Western Galilee

For details and registration: http://www.art-archeology.com/hotels-tours
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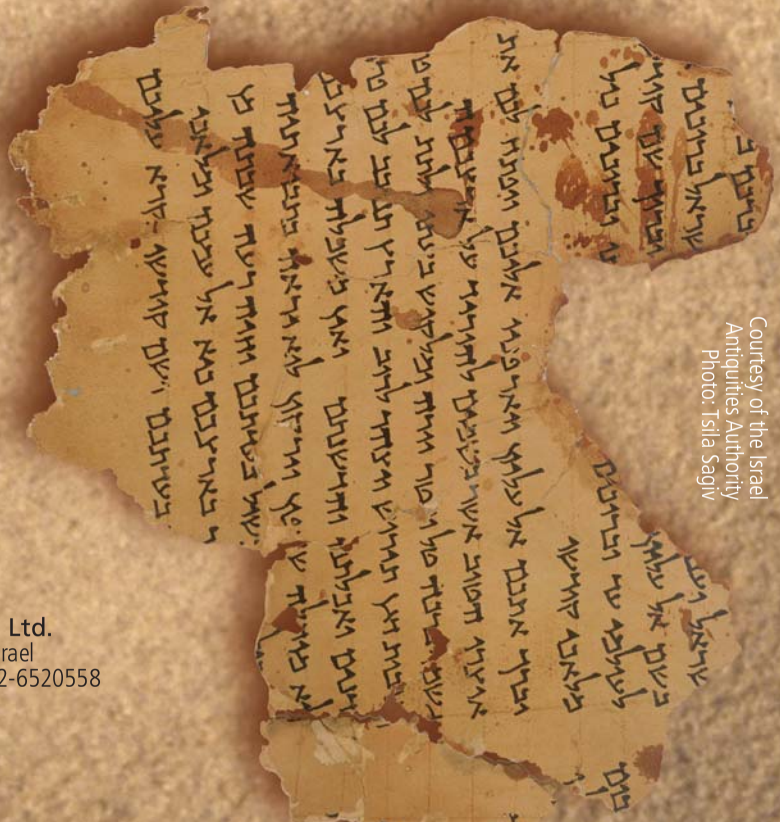

Courtesy of the Israel Antiquities Authority
Photo: Isla Segiv

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