

**Art&Archaeology2018 -
3rd International Conference**
December 10-12, 2018 • Jerusalem, Israel

SCIENTIFIC PROGRAM

Monday, December 10, 2018

08:00-08:50 Registration

08:50-11:00 Opening Session

Chair: Amos Notea, Holon Institute of Technology, Israel

Greetings

Measurement Techniques to Uncover Mysteries in Art

Giacomo Chiari, Getty Conservation Institute (retired), Italy

Tri-modal Imaging Spectroscopy of Paintings

John Delaney, National Gallery of Art, USA

11:00-11:30 Coffee Break & Posters

11:30-13:20 Parallel Sessions

**Session I: Study of Manuscripts at the BAM, Berlin & CSMC,
Hamburg**

Chair: Ira Rabin, BAM Federal Institute for Materials Research and Testing, Berlin,
Centre for the Study of Manuscript Cultures, University of Hamburg, Germany

Scientific Systematic Study of Inks from Coptic Manuscripts

Tea Ghigo, BAM, Ira Rabin, BAM and CSMC, Germany, Paola Buzi, University of Rome, La Sapienza, Italy

“The Perfume of Men”: Recipes of Black Inks from the Medieval Islamicate World

Claudia Colini CSMC, Oliver Hahn, Olivier Bonnerot, Ira Rabin, BAM and CSMC, Germany

Cairo Genizah Legal Documents of the 11th Century: Analysis of writing Materials

Zina Cohen, BAM, Germany, Judith Schlanger, EPHE Ecole Pratique des Hautes Etudes, France, Oliver Hahn, Ira Rabin, BAM and CSMC, Germany

Scientific Service Project Z02 at the Centre for the Study of Manuscript Cultures:
Material-science Methods of Reconstructing the History of Manuscripts

Olivier Bonnerot, BAM and CSMC, Sebastian Bosch, CSMC, Ira Rabin, Oliver Hahn, BAM and CSMC, Germany

Multispectral Imaging at the CSMC: Recovery of Lost Writing

Ivan Shevchuk, CSMC, University of Hamburg, Germany

Session II: Mosaics

Chair: Zvi Greenhut, Israel Antiquities Authority, Israel

The Mosaikon Project-reasons History and Causes

Giora Solar, SOLAR Architects - Architecture, Town Planning, Cultural Heritage Management Planning and Conservation

Conservation Mosaics for Public Display - The Cooperation Projects between the Getty Conservation Institute and the Israel Antiquities Authority

Jacques Neguer, Israel Antiquities Authority, Israel

The Potential of On-site Handheld XRF Measurements for Provenance Applications of Mosaic Tesserae: A Case Study Ramat Beit Shemesh, Israel

Yotam Asscher, Hodaya Bitan, Benyamin Storchan, Israel Antiquities Authority, Israel

Approach and Restoration of Vandalized Mosaics in Israel

Ghaleb Abu Diab, Jacques Neguer, Israel Antiquities Authority, Israel

The Problems of use of Modern Materials in Conservation Outdoor Mosaics

Mark Avrahami, Jacques Neguer, Israel Antiquities Authority, Israel

13:20-14:15 Lunch

14:15-16:00 Parallel Sessions

Session III: Imaging 1

Chair: Sarel Shalev, University of Haifa, Israel

Revealing Carvings beneath Lichen Covered Surfaces at Stonehenge

Gavin Leong, Matthew Brolly, University of Brighton

Classification of Multispectral Point Clouds Applied to Archaeological Material

Aurore Mathys, Royal Museum for Central Africa and Royal Belgian Institute of Natural Sciences, Pierre Hallot, University of Liège, Belgium

The Sinai Palimpsests Project: Recovering Erased Texts in the World's Oldest Library, via the Application of Non-destructive Spectral Imaging Across a Large and Variable Collection

Michael Phelps, EMEL, USA, Damianos Kasotakis, EMEL, Greece

An Innovative Approach to Photogrammetric Modeling and Digital Reconstruction of Archaeological Sites in Israel

David Zell, Israel

A Rock Art Geoinformation System

Kair Zhumadilov, Vladislav Kazakov, Vasily Kovalev, Dmitriy Cheremisin, Novosibirsk State University, Russia

Session IV: RTI

Chair: Moshe Caine, Hadassah Academic College Jerusalem, Israel

The Riddle of the Saint Helena Crosses

*Moshe Caine, Doron Altaratz, Hadassah Academic College Jerusalem, Amit Re'em, Israel
Antiquities Authority, Israel*

Documentation and Conservation of Gravestone Inscriptions Using Computational Imaging and Visualization Techniques

Chelsea Graham, Yale University Institute for the Preservation of Cultural Heritage, USA

Micro RTI as a Tool for the Research and Conservation of Archaeological Textiles

Ravit Linn, Yehonatan Goldman, Orit Shamir, Mina Evron, University of Haifa, Israel

The Preferable Pixel

Michael Maggen, Conservation The Israel Museum, Israel

The Program for the Implementation of Comprehensive Photogrammetric Documentation by the Israel Antiquities Authority

Alexander Wiegmann, Israel Antiquities Authority, Israel

16:00-16:30 Coffee Break & Posters

16:30-18:00 Parallel Sessions

Session V: Imaging 2

Chair: Sarel Shalev, University of Haifa, Israel

Survey and Analysis Methods Used for the Study of the Early Bronze Age Observation Site of Linsmeau and the Bell Barrows of Bonlez (Belgium)

Frederic Heller, AWaP, Belgium

Evanescence Optical Method for Evaluating Nanoprofiles of Materials Deposited on Transparent Surfaces

Aaron Peled, Simona Popescu, Holon Institute of Technology (HIT), Israel

The Application of Portable XRF Scanner on Negev Rock Art: Chronological Trends at the Ramat Matred Petroglyphs as a Test Case

Yuval Goren, Ifat Shapira, Ben-Gurion University of the Negev, Davida Eisenberg-Degen, Israel Antiquity Authority, Israel

The Usage of Marble and Other Imported Stones at Hipposussita and Hamat Gader (Gadara Thermae, Israel)

Dror Segal, Footprints in the Valley Museum of Archaeology - Gan Hashlosha, Israel

Session VI: Organics

Chair: Amos Notea, Holon Institute of Technology, Israel

Designing Storage Atmosphere for Woollen XVIth Tapestries -

Proteomic Examination of Wool's Keratin Degradation Depending on Artificial Ageing Atmosphere

Monika Aksamit-Koperska, Ewa Bulska, Julio C. Torres, University of Warsaw, Poland

**Gentle Objects Treatment of Corpus of Finds Investigation with HDR-microscopy -
New Technique Meets Old Technology**

Sigrun Martins, Archäologisches Museum Frankfurt, Germany

Insights into Microbial Communities and Biofilm Structure Associated with Petroglyph Sites from the Negev Desert, Israel

Irit Nir, Hana Barak, Yifat Baruch, Esti Kramarsky-Winter, Ariel Kushmaro, Ben Gurion University, Israel

Newly Synthesized Nanocollagen: The Solution to the Problem of Leather Preservation

Federica Valentini, Tor Vergata University of Rome, Marina Bicchieri, Istituto Centrale Restauro e Conservazione Patrimonio Archivistico e Librario, Italy

Tuesday, December 11, 2018

08:15-09:00 Registration

09:00-11:00 Plenum

Chair: Zvi Koren, Shenkar College of Engineering, Design and Art, Israel

NDT for the Approach to Seismic Safety of Outstanding Italian Heritage Buildings
Dario Foppoli, Foppoli Moretta e Associati, Italy

The Science of the Pigments in Illuminated Manuscripts
Mary Virginia Orna, College of New Rochelle, USA

11:00-11:30 Coffee Break & Posters

11:30-13:00 Parallel Sessions

Session VII: Experiences of NDT Application to Italian Cultural Heritage

Chair: Michele Carboni, Politecnico di Milano, Italy

SmART_Scan Procedure: An Alternative to XRF-scanners?
Giacomo Chiari, Getty Conservation Institute (retired), Italy

GPR Investigation for Historical Masonries: Case Histories from Florence (Italy) Cultural Heritage Monumental Buildings
Massimo Coli, Tessa Donigaglia, Florence University, Paolo Papeschi, Francesco Boscaglim, IDS GeoRadar s.r.l., Exagon Group, Italy

Experiences in the Application of NDT for the Dismounting of Ancient Columns
Dario Foppoli, Foppoli Moretta e Associati, Vincenzo Pisano, Land, Italy

A Proposal for a Multidisciplinary Procedure for the Evaluation of Historical Metallic Tie-rods
M.G. Bellanova, Michele Carboni, AIPnD, R. Felicetti, Italy

Session VIII: Pigments

Chair: Zvi Koren, Shenkar College of Engineering, Design and Art, Israel

Archaeo-chemical Facts Regarding the Processing of Ancient Molluscan Purple

Zvi Koren, Shenkar - Engineering. Design. Art, Israel

Chemical Analysis on a Urartian Painting Fragment from Arin-berd/Erebuni (Armenia)

Yeghis Keheyan, ISMN_CNR, SMATCH, Giancarlo Lanterna, Opificio Pietre Dure, Italy, Boris Gasparyan, Institute of Archaeology and Ethnography, National Academy of Sciences of Armenia, Armenia, Roberto Dan, Priscilla Vitolo, ISMEO, Italy

Mapping the Colors of the Roman Empire: The Scientific Investigation of the Roman Trade in Pigments

Hilary Becker, Binghamton University, USA

Disclosing a New Aspect in Modern European Art: Multidisciplinary Analysis of Modern Reverse Paintings on Glass (1905-1955)

Simon Steger, BAM, Diana Oesterle, Ludwig Maximilians Universität München, Simone Bretz, Conservator for Reverse Paintings on Glass, Heike Stege, Doerner Institut, Bayerische Staatsgemäldesammlungen, Oliver Hahn, BAM, Gisela Geiger, Museum Penzberg - Sammlung Campendonk, Germany

13:00-14:00 Lunch

14:00-16:00 Parallel Sessions

Session IX: Conservation

Chair: Ravit Linn, University of Haifa, Israel

Cultural Heritage in the Time of Climate Change

Doris Hamburg, US National Archives (retired) and PreservationMatters, USA

Innovations in Accelerated Corrosion Testing for Pollution Control in Museums and Collections

Alexandra Jeberien, Hildegard Heine, HTW Berlin, Germany

Conserving Cultural Heritage: a Cultural, Social and Economic Experience. The Case of the Sculptures of Mont'e Prama in Sardinia

Roberto Nardi, Centro di Conservazione Archeologica - Roma, Italy

Glass-induced Metal Corrosion: Two Case Studies from the Decorative Arts

Katja Franziska Siebel, Lena Hoenig, Andrea Fischer, Gerhard Eggert, State Academy of Art and Design, Germany

The Challenge of Preserving and Maintaining Masada - The Most Visited World Heritage Site of Israel

Orit Bortnik, Ravit Linn, University of Haifa, Israel

The Choices We Make: An Examination of the Suitability of Using Heat to Reduce Efflorescence in Modern and Contemporary Paintings

Shawn Digney-Peer, Silvia Centeno, Julie Arslanoglu, The Metropolitan Museum of Art, USA

Session X: Archaeology

Chair: Yuval Goren, Ben-Gurion University of the Negev, Israel

Microarchaeology: Revealing the Microscopic Archaeological Record

Steve Weiner, Weizmann Institute of Science, Israel

Uranium-thorium Method Dating in Archaeology

Miryam Bar-Matthews, Avner Ayalon, The Geological Survey of Israel, Israel

Raman Characterisation of Charred Materials - Diagenesis in Archaeological Charcoal

Roman Schuetz, Elisabetta Boaretto, Weizmann Institute of Science, Israel

Evaluating the Authenticity of UNESCO World Heritage Sites in the Negev Desert

Ram Shoeff, Ravit Linn, Ronny Reich, University of Haifa, Israel

Revealing Metals inside a Roman Ink from a Cemetery of the Roman city of Este - 1st Century A.D.

Mirta Sibilia, IAEA and Elettra Sincrotrone Trieste, Austria, Federica Gonzato, Polo Museale del Veneto - Italian Ministry for Cultural Heritage, Italy

Iron Technology in the Neo-Assyrian Sphere: The Iron Workshop at Tel Sera', Western Negev, Israel

Yarden Pagelson, Eliezer D. Oren, Yuval Golan, Yuval Goren, Ben-Gurion University of the Negev, Israel

16:00-16:20 Coffee Break

16:20-17:30 Session

Session XI: Architecture, Buildings & Sites

Chair: Giora Solar, ICOMOS Israel, Israel

"The Secret Surrounding Landscape of Olympieion"

How the Ancient Athenian Remains "Rebuild" the Ancient Attic Landscape in the Eye of the Modern Visitor

Eva Andronikidou, National Technical University of Athens, Greece

Umm el-Qanatir - 21st Century Tools for the Reconstruction of a 6th Century Building

Yeshu Dray, Kinneret Institute for Galilean Archaeology, Israel

Late Neolithic Geoglyphs in the Negev and Sinai Deserts

Uzi Avner, Dead Sea - Arava Science Center, Israel

19:00-21:00 Gala Dinner

Wednesday, December 12, 2018

08:15-09:00 Registration

09:00-10:00 Plenum

Chair: Ira Rabin, BAM Federal Institute for Materials Research and Testing, Berlin, Centre for the Study of Manuscript Cultures, University of Hamburg, Germany

Frontiers of Biological Materials Characterization
Admir Masic, Massachusetts Institute of Technology, USA

10:00-11:30 Parallel Sessions

Session XII: Conserving UNESCO Sites 1

Chair: Elisabetta Boaretto, Weizmann Institute of Science, Israel

Authentication of Archaeological Material: the Radiocarbon Research Responsibility for the Preservation of Cultural Heritage

Elisabetta Boaretto, Weizmann Institute of Science, Israel

Archaeology: Research, Technology and Social Relevance

A straightforward relationship

Daniele Malfitana, Institute for Archaeological and Monumental Heritage of the National Research Council of Italy - Catania, Italy

An Integrated Diagnostic and Valorization Project for UNESCO Sites: The Case of the "Terme del Sarno", Pompei

Gilberto Artioli, Università di Padova, Italy

Towards a Global Archaeology. From Data to Shared Knowledge

Antonio Mazzaglia, Institute for Archaeological and Monumental Heritage of the National Research Council of Italy - Catania (Sicily - Italy), Italy

Session XIII: Metals

Chair: Sarel Shalev, University of Haifa, Israel

Precious Metals Plating of 3D-printed Components

Dana Ashkenazi, Alexandra Inberg, Tel Aviv University, Naveh Dresler, Dorin Shani, Afeka Academic College of Engineering, Yosi Shacham-Diamand, Tel Aviv University, Adin Stern, Afeka Academic College of Engineering, Israel

Residual Stress in Minted and Cast Coins

Alexander Kossolapov, Ksenia Chugunova, The State Hermitage Museum, Russia

Lebanese Mountain Figures: Reviled // Revealed

Deborah Schorsch, The Metropolitan Museum of Art, USA

Distinguish between Ancient and Modern Leaded Tin-bronzes Based Upon the Composition of Their Lead Inclusions

Sana Shilstein, Weizmann Institute of Science, Alex Berner, Technion - Israel Institute of Technology, Yishai Feldman, Weizmann Institute of Science, Sarel Shalev, University of Haifa, Yuri Rosenberg, Tel Aviv University, Israel

11:30-12:00 Coffee Break & Posters

12:00-13:00 Parallel Sessions

Session XIV: Conserving UNESCO Sites 2

Chair: Giora Solar, ICOMOS Israel, Israel

Mineralogical Interpretation of Multispectral Images: Identification and 2D Distribution of Pigments in the Frigidarium of the Sarno Baths, Pompeii
Yotam Asscher, Israel Antiquities Authority, Israel, Ivana Angelini, Michele Secco, University of Padova, Matteo Parisatto, GeoMEB S.r.l.s., Rita Deiana, Gilberto Artioli, University of Padova, Italy

Heritage at War: From the Destruction to the Reconstruction of the Archaeological Heritage
Stefano Valentini, CAMNES (Center for Ancient Mediterranean and Near Eastern Studies), Carlo Francini, Municipality of Florence, Italy

Session XV: Digitizing

Chair: Adin Stern, Ben-Gurion University of the Negev, Israel

Automatic Extraction of Catalog Data from Digital Images of Cairo Genizah Fragments
Roni Shweka, The Association for the Study of Jewish Manuscripts, Yaacov Choueka, Israel, Lior Wolf, Nachum Dershowitz, Tel Aviv University, Israel

EpHEMERA: The Online 3D Database System for Endangered Architectural and Archaeological Heritage in the South Eastern Mediterranean Area (EpHEMERA)
Dante Abate, Avgoustinos Avgousti, Marina Faka, Sorin Hermon, Andriana Nikolaidou, Nikolas Bakirtzis, The Cyprus Institute, Cyprus

3D Visualization of Archaeological Artifacts Online
Vasily Kovalev, Vladislav Kazakov, Kair Zhumadilov, NSU, Russia

13:00-14:00 Plenum

Chair: Adin Stern, Ben-Gurion University of the Negev, Israel

Gold from the Royal Tombs of Ur - A Material Characterization and Provenance Study
Sabine Klein, German Mining Museum and Ruhr-University Bochum, Germany

14:00-14:45 Lunch

POSTERS

Characterization of Ancient and Modern Hydraulic Mortars at Caesarea by Combined XRD, SEM, XRF and FTIR Techniques

Yotam Asscher, Aliza Van Zuiden, Hen Elimelech, Israel Antiquities Authority, Israel, Michele Secco, Giulia Ricci, Gilberto Artioli, CIRCe - Center for the Investigation of Cement Materials, University of Padova, Italy

Social Networks as a Source for Museums Appreciation

Arriel Benis, Amos Notea, HIT - Holon Institute of Technology, Almog Boim, Israel

Improving the Surface Finish of SLM Based AlSi10Mg Specimens: A Case Study

Naveh Dresler, Dorin Shani, Afeka Academic College of Engineering, Alexandra Inberg, Dana Ashkenazi, Yosi Shacham-Diamand, Tel Aviv University, Adin Stern, Ben-Gurion University of the Negev, Israel

Unusual Finding of Iron Gall Ink as Pigment in Some Armenian Medieval Miniatures

Yeghis Keheyan, Maurizio Aceto, Italy

Monochromatic Polychrome Decoration on Icarus, A Wooden Sculpture. The Sculpture Studio of Prof. Adam Myjak, Faculty of Sculpture, Academy of Fine Arts in Warsaw

Danuta Stępień, Academy of Fine Arts (ASP) in Warsaw, Poland

Digital Survey of Heritage and its Potential for Representation to the Broad Public

Rebeka Vital, Shenkar. Design. Engineering. Arts, Israel

Archaeology and Judaic Ritual Dyes

Irving Ziderman, Tekhelet Foundation, Israel