



**Italian - Egyptian Workshop
on Sciences and Technologies
applied to Cultural Heritage I
(STACH 1)**

&

Exhibition
Between Art and Egyptology
The Pharaonic Egypt of Alberto Carlo Carpiceci
on his 100th birth anniversary
Architectural Drawing and Creativity

Cairo, Flamenco Hotel
December 11th – 13th, 2016

Chairpersons

Giuseppina Capriotti Vittozzi
Italian Archaeological Centre – IIC, Cairo

Marina Baldi
Consiglio Nazionale delle Ricerche – IBIMET, Roma

Italian - Egyptian Workshop on Sciences and Technologies applied to Cultural Heritage I (STACH 1)

Abstract

Background and objectives

The workshop would open a wide and integrated view on sciences and technologies applied to Cultural Heritage, in particular to Egyptian Archaeology. The event main aim is to strengthen the collaborations between Italian and Egyptian research teams, continuing the road open by the Italian-Egyptian Workshop "Archaeology and Environment" (Aswan, November 2013) and the very important meeting of 100 Italian and Egyptian researchers hold in Turin (June 2015), strongly sustained by the former President of the National Research Council of Italy and the Egyptian Ministry of Scientific Research. The workshop will also display some features of the Italian archaeological work in Egypt following the path of the conference "Italian Research on Egyptology: from Ippolito Rosellini to current archeological projects" (Cairo, October 2014), organized by the Director of the Italian Cultural institute.

Moreover, the workshop aspires to meet the demand for training by the Ministry of Antiquities, opening the doors to a wide number of young functionaries.

The program starts presenting results from some joint research projects already in existence.

The lectures range from archaeology, to environment, to observation technologies as satellite remote sensing, and analysis of materials with conservation techniques. In particular, the session on archaeology will illustrate research results on the important area of the Suez Canal, focused by the Ministry of Antiquities through the Suez Project. The workshop includes laboratories to enhance the participation of young scholars, who will be able to display and discuss their experiences.

Topics:

Archaeology, Meteorology, Spectroscopy, Biology, Chemistry, Satellite Remote Sensing, Photogrammetry, Geophysical survey, IT/ICT

Program

Sunday, December 11th

9.00 Registration of participants

Morning

9:30 – 10:00 Opening Session

Welcome speeches - Italian and Egyptian Authorities

Paolo Sabbatini, Direttore dell'Italian Cultural Institute, Cairo

Dalia El Meligy, Director of Research and Conservation, Ministry of Antiquities

Mohamed Ismail, Supervisor of the Permanent Committees and Foreign Missions,
Ministry of Antiquities

Giuseppina Capriotti Vittozzi, Manager of the Italian Archaeological Centre – IIC,
Cairo

10.00 – 10.30 Claudio Margottini, Italian Scientific Attaché, Cairo

Reducing UNESCO Heritage losses through proactive geosciences

10.30 - 11.00 Christian Greco, Museo Egizio, Turin

Dialogue between Egyptology and Sciences: Archaeometry as a tool, Research as an end

11.00 – 11.30 Randa Abdel-Karim, Engineering Center for Archeology - Faculty of Engineering,
Cairo University

Application of Nanotechnology in the Field of Conservation of Cultural Heritage

11:30 – 12:00 *Coffee Break*

12.00 – 12.30 Venice Gouda, National Research Centre, Cairo

*Strategies for the conservation of metallic cultural heritage in the frame of Italy-
Egypt cooperation*

12.30 – 13.00 Emma Angelini – S. Grassini, Polytechnic of Turin,

Tailored cleaning procedures for metallic cultural heritage artefacts

13.00 -13.30 Donatella Cavezzali, ISCR- Istituto Superiore Conservazione Restauro, Rome

*Sharing Knowledge through training ISCR training activities to the conservation of
Egyptian cultural properties*

13.30 - 14.00 Taha Mattar, Central Metallurgical Research & Development Institute

Egyptian-Roman heritage: a concrete relationship

14.00 - 14.30 Daniele Malfitana together with Antonino Mazzaglia, National Research Council of
Italy - IBAM

Producing knowledge in Archaeological practice and Cultural Heritage Research

14.30 - 15.30 Lunch

Afternoon

Session I – Archaeology, Chair Giuseppina Capriotti Vittozzi

- 15.30-15.50** Mohamed Abdel Maksoud, Egyptian mission in Tell Hebua
Tell Heboua, the Eastern gate of Egypt
- 15.50-16.10** Giuseppe Squillace, Calabria University
The area of the modern Suez Canal in the Graeco-Roman sources
- 16.10-16.30** Annalinda Iacoviello, Tor Vergata University of Rome
New archaeological Excavations in Tell el-Maskhuta

16.30 -17.00 *Coffee break*

- 17.00-17.20** Sayd Abdel-Alim, Ministry of Antiquities
New excavations in Tell Dafnah
- 17.20-17.40** Mahmoud Ragab, Ministry of Antiquities
The Disappeared Blocks from Tjegy Temple.

18.00 – 18.30 *Discussion*

18.30 Inauguration of the exhibition *The Pharaonic Egypt of Alberto Carlo Carpiceci*

Monday, 12 December

Morning

Session I – Conservation and Restoration of Cultural Heritage (ctd) – Chair Donatella Cavezzali

- 9.15 – 9.35** Badawi Ismail, South Valley University
Conservation management and technology in museum storage
- 9.35 – 9.55** Giuseppe Fanfoni, **Centro Italo-Egiziano per il Restauro e l'Archeologia**
Technologies and techniques applied to the restoration, in the CIERA work-site school
- 9.55 – 10.15** Moamen Othman, Ministry of Antiquities
From scattered to integrated: using virtual Restoration for reassembling papyrus the book of the dead of Mnw Hr –xt from 18th Dynasty
- 10.15 – 10.35** Cristina Vazio, Conservator
Conservation of wall paintings in Khonsu Temple, Karnak

10.35 – 10.50 *Discussion*

10.50 – 11.20 *Coffee Break*

Session II – Observation technologies (ctd) environment – Chair Mohamed Hamdan

- 11:20 – 11:40** Marina Baldi, National Research Council of Italy - IBIMET
Climate change and cultural heritage: knowing the impacts for conservation measures identification
- 11:40 – 12:00** Magdy Kamal Badir Beshayb, Egyptian Meteorological Authority, Cairo
Extreme climate events over Egypt, a case study in Alexandria
- 12:00 – 12:20** Hanan Elhaes, Medhat Ibrahim, National Research Centre & Ain Shams University, Cairo
Cost Effective Natural Materials for Remediation of Heavy Metals from Wastewater
- 12.20 – 12.40** Paola Grenni, together with - Martina Cardoni - Martina Di Lenola - Anna Barra

Caracciolo, National Research Council of Italy - IRSA
*Fluorescence in situ hybridization technique as useful tool for detecting
biodeteriogens of Cultural Heritage*

12.40 – 12.55 *Discussion*

Session III – Observation technologies, environment – Chair Medhat Ibrahim

12.55 – 13.15 Mohamed Hamdan, Cairo University

Geoarchaeology and Nile floodplain evolution of Saqqara-Memphis area

13.15 – 13.35 Marilena Cozzolino, Molise University

Geophysics for archaeology: methodologies and case histories

13.35 – 13.55 Magdy Ahmed Atya, National Research Institute of Astronomy and Geophysics

Initiating an Interactive Geo-informative Map for the Valley of the Golden Mummies (VGM), Bahariya Oases, Giza, Egypt. Particular results of STDF 4168 Basic and Applied Sciences

13.55 – 14.10 *Discussion*

14.10 -15.10 *Lunch Break*

Afternoon

15.10 – 16.10 Laboratories: Conservation and Restoration of Cultural Heritage

Analysis of Materials in Archeology

Observation technologies

Session IV – Analysis of Materials in Archeology – Chair Taha Mattar

16.10 – 16.30 Marco Ferretti, National Research Council of Italy - ITABC, Rome

First outcomes of the NRC-CNR bilateral project “Joint instrumental investigation of museum collections as a means of enhancing Cultural Heritage and strengthening interdisciplinary collaboration

16.30 – 16.50 Hamed Abdel-Aleem, Central Metallurgical Research & Development Institute

Identification, analysis and repair of failures in metallic artefacts by advanced non-destructive testing

16.50 – 17.20 *Coffee break*

17.20 – 17.40 Islam Mohamed Ezzat, Ministry of Antiquities

Gamma Radiation Technology in Producing Co-polymers for Specific Applications on Ancient Textiles Islam

17.40 – 18.00 Rafaat Ahmed, Central Metallurgical Research & Development Institute

Investment casting/ lost wax technology for production of replicas

18.00 – 18.20 Khaled Sadek - Ahmed Abdel-Azim, Central Metallurgical Research & Development Institute

Advanced physico-chemical and mechanical techniques for characterization of artefacts

18.20 – 18.35 *Discussion*

Tuesday, 13 December

Morning

Session I – Observation technologies, environment – Chair Marina Baldi

9.30 – 10.00 Fathi Saleh, CULTNAT, Cairo

The Suez Canal from the time of the pharaohs up till today

10.00 – 10.20 Bruno Marcolongo, National Research Council of Italy - IRPI

Nile & Red Sea

10.20 – 10.40 Chris Stewart, Tor Vergata University of Rome

Presentation on the application of Synthetic Aperture Radar (SAR) for archaeological research in Egypt

10.40 – 11.10 *Coffee Break*

11.10 - 11.30 Rosa Maria Salvatori, National Research Council of Italy - IIA, Rome

Multispectral remote sensing as a tool for environmental and archeological studies

11.30 – 11.50 El-Sayed Abbas Zaghoul, National Authority for Remote Sensing and Space Sciences (NARSS), Cairo

The Origin of the Archaeological Sites On the Nile Delta Region , Egypt

11.50 – 12.10 *Discussion*

Session II – Observation technologies – Chair Fathi Saleh

12.10 – 12.30 Marco Carpiceci, Sapienza University of Rome

Digital model, acquisition and processing: the new technologies for architectural survey

12.30 – 12.50 Francis Amin, Luxor University, *Photography for Archaeology*

12.50 – 13.10 Andrea Angelini, National Research Council of Italy - ITABC, Rome

The study of hieroglyphics through image-based system. A methodological approach for the representation of the numerical models

13.10 - 13.30 Costantino Campisi, National Research Council of Italy - IBB, Rome

3D modeling and printing for anatomical specimens of archaeological interest

13.30 – 13.45 *Discussion*

13.45 - 14.45 *Lunch Break*

Afternoon

14.45 – 15.45 Laboratory: Conservation and Restoration of Cultural Heritage

Analysis of Materials in Archeology

Observation technologies

Session IV – Information Technologies – Chair Mohamed Farouk

- 15.45 – 16.05** Barbara Maurina together with Franco Finotti , Fondazione Museo Civico di Rovereto
Science and new technologies applied to archaeology in a modern museum: the case of the Foundation of the Rovereto Civic Museum
- 16.05 – 16.25** Mohamed Farouk, CULTNAT, Cairo
3D, VR, and AR for Culture Heritage
- 16.25 –16.55** *Coffee break*
- 16.55 – 17.15** Khaled Abdel Ghani, Central Metallurgical Research & Development Institute
Application of three dimensional (3D) simulation methods for monuments restoration
- 17.15 - 17.35** Assayed el-Banna, Ministry of Antiquities
Using 3D applications in archaeological awareness programs for school children
- 17.35 – 17.55** *Discussion*
- 17.55 – 18.05** Piero Donato, President of the Italian Hospital in Cairo - Costantino Campisi, National Research Council of Italy - IBB
Award ceremony
- 18.05 – 18.30** **Closing Session: Conclusion and recommendations**
- 18.30** **END of CONFERENCE**