

“ETTORE MAJORANA” FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO GALILEO GALILEI, FOUNDER OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE “ITALIAN NAVIGATOR”, FATHER OF THE WEAK FORCES

# INTERNATIONAL SCHOOL HUBERT CURIEN STRUCTURAL AND MOLECULAR ARCHAEOLOGY

*3<sup>RD</sup> COURSE*

## *NON-INVASIVE ANALYSIS OF PAINTING MATERIALS*

ERICE - SICILY: 14 - 21 JUNE 2010

Sponsored by the:

- Inter-University Attraction Program, Belgium Federal Science Policy
- Centre National de la Recherche Scientifique
- Centre de Recherche et de Restauration des Musées de France • University of Liège
- Ettore Majorana Foundation • Ecole doctorale METAMORPHOSE • European Program CHARISMA

### PROGRAMME AND LECTURERS

*X-ray and ion beam techniques*  
*Raman and Infra-red spectroscopy*  
*Imaging under various radiations*  
*Degradation process*  
*Conservation basics*  
*Wall paintings and rock art*  
*Antiquity paintings*  
*Renaissance paintings*  
*Modern paintings*  
*New conservation techniques*  
*Practice of analytical techniques*

- P. BAGLIONI, University of Florence, IT
- B. BRUNETTI, University Perugia, IT
- N. BROERS, ESA St-Luc, BE

- F. CASADIO, Art Institute of Chicago, US
- M. COTTE, ESRF, FR
- J. DIK, Technical University of Delft, NE
- M. EVENO, C2RMF, FR
- C. FOTAKIS, University of Crete, GR
- R. GARCIA MORENO, University of Liège, BE
- M. HARTWIG, Georgia State University, US
- K. JANSSENS, University of Antwerp, BE
- M. MENU, C2RMF, FR
- C. MILIANI, University Perugia, IT
- A. ROUVERET, University of Paris X, FR
- J. SANYOVA, KIK-IRPA, BE
- D. STRIVAY, University of Liège, BE
- P. VANDENABEELE, University of Gent, BE
- L. VINCZE, University of Gent, BE

#### PURPOSE OF THE COURSE

Structural and molecular Archaeology is an emerging interdisciplinary field based on structural analysis at the atomic, molecular and supramolecular level. An essential part is examining novel non-invasive methodologies to analyze cultural heritage objects and in particular painting materials. The original objects may undergo their own materials history at the atomic and molecular level. Here, we have to take into account the archaeological and historical periods of time as a "fourth dimension in chemistry" measured in centuries and millennia, in order to approach the significance of the material analyzed at the present time.

The study of pigments and paintings often presents difficulties arising from the non destructive examination necessity for precious objects, as well as from the complexity of the interactions between the components or from the long term action of atmospheric and other exterior agents. The research along new lines is likely to be induced by recent achievements in Chemistry, Physics, Crystallography, Materials Sciences.

The interdisciplinary study will be practically exemplified by in situ measurements with portable analytical tools followed by discussions in the art field. Thus this 3rd Course is planned to favor contacts between scientists, archaeologists and art historians.

Further information can be found on the website

<http://www.nacho.ulg.ac.be>

#### REGISTRATION

Interested candidates should register by 1 April 2010 by writing to

David STRIVAY

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specifying:

- i) full name, age, gender, citizenship;
- ii) postal address, phone, fax, electronic mail;
- iii) present academic position and scientific interests;
- iv) the title or abstract of a scientific contribution to the poster session which might be included in the program.

Applications should contain CV and a cover letter explaining your interest in cultural heritage material analysis.

#### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 meters above sea level) more than three thousand years ago. The founder of modern history - i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes - the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said "After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicanians all together they were named Elymi: their towns were Segesta and Erice". This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchise, by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilizations are to be found in the neighborhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands - theatre of the decisive naval battle of the first Punic War (264-241 B.C.) - suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Comino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the "Ettore Majorana" Foundation and Centre for Scientific Culture can be found on the website at the address:

<http://www.ccsem.infn.it>