



## Eu- ARTECH

*Access, Research and Technology for the conservation of the European Cultural Heritage*

*Integrated Infrastructure Initiative*

*FP 6 - Structuring the European Research Area*

[www.eu-arteck.org](http://www.eu-arteck.org)

### Thematic meeting “New strategies for natural dyestuffs analysis in art objects”

7 November 2007

Exhibition centre Heiligenkreuzerhof  
University of Applied Arts, Vienna.

*to be held jointly to the 26<sup>th</sup> annual meeting of Dyes in History and Archaeology.*

The meeting is organised as issue of a collaborative initiative on the analysis of natural organic dyestuffs, which is being carried out within the framework of the Eu-ARTECH project: Access, Research and Technology for the conservation of the European Cultural Heritage.

The objective is to draw up an investigation strategy on natural dyestuffs and organic pigments analysis in cultural heritage objects, including innovative techniques next to well-established analyses, being complementary in the extraction of information on materials' identification, provenance and technology of preparation as well as on degradation mechanisms' issues.

Eu-ARTECH consortium has proceeded to the assessment of well established analytical protocols, based on the study of well-defined reference materials representative of those present on cultural heritage objects. Reliable analytical data through interlaboratory experiments are exchanged and evaluated following common protocols for reporting and common criteria for interpreting the results.

The intention is that a 'library' of the reference materials and a database of the preparation and analytical data relating to them should ultimately be available to the partners in the consortium and to other researchers in the future.

The agenda of the meeting includes open discussion on outcomes and considerations already made during investigation of the shared reference samples with well established analytical procedures. However, the focus is put to the discussion of novel analytical approaches that could allow to study the organometallic complex as a whole, in order to progressively approach more complex analytical questions in the investigation of natural dyestuffs in paintings or dyed textiles, such as biological source identification, provenance investigation, technology of application, study of degradation mechanisms depending on binding medium or application technology, etc.

Discussion will be introduced on the development of novel analytical approaches as well as the integration of complementary or cross-informational techniques.

## Topics:

### **Novel analytical approaches in the investigation of natural dyestuffs**

- Fibre-optics UV-vis fluorescence spectroscopy with stationary and time resolved methods.
- Micro spectrofluorimetry on cross-sections
- Raman spectroscopy
  - SERS, Surface Enhanced Raman Spectroscopy.
  - FT-Raman
- NMR spectroscopy

### Invited speakers (confirmed):

**Prof. Aldo Romani**, Università di Perugia, Dipartimento di Chimica, Italy

**“Steady state and time-resolved fluorescence spectroscopy: a helpful approach to the non invasive characterization of lake pigments”**

**Prof. Maria Joao Seixas de Melo**, Departamento de Conservação e Restauro, Universidade Nova de Lisboa, Portugal

**“Bright light: the use of Microspectrofluorimetry for the characterization of lake pigments”**

**Dr. Klaas Jan van den Berg**, Netherlands Institute for Cultural Heritage, Amsterdam, The Netherlands

**“Aspects of red lake paints after Vincent van Gogh”**

**Dra. Concepción Domingo**, Instituto de Estructura de la Materia, CSIC, Madrid, Spain

**“Surface Enhanced Raman Scattering applied to the detection and characterization of natural dyes”**

**Prof. Howell Edwards**, University Analytical Centre, Division of Chemical & Forensic Sciences , School of Life Sciences , University of Bradford, U.K.

**FT-Raman spectroscopy on dyestuff analysis, title to be announced.**

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A few additional contributions on the announced topics will be accepted only for oral presentation and authors are asked to submit their abstracts electronically to Sophia Sotiropoulou, [s.sotiropoulou@artdiagnosis.gr](mailto:s.sotiropoulou@artdiagnosis.gr), in Word Format or Rich Text Format (RTF) till May 15<sup>th</sup>. The abstract should be less than 500 words. Notification for approval will be sent to the authors by May 31<sup>st</sup>.

Participation to the meeting is free, however, due to the limited number of participants, it should be noted that Registration is requested, form attached below to be sent to Sophia Sotiropoulou, [s.sotiropoulou@artdiagnosis.gr](mailto:s.sotiropoulou@artdiagnosis.gr), allowing to the organisers to better schedule the meeting.

