Synchrotron SOLEIL IPANEMA

Recent Results and Perspectives for Synchrotron Studies on Cultural Heritage
Dr. Loïc Bertrand Researcher and Head of Institut Photonique d'Analyse Non-destructive Européen des Matériaux Anciens (IPANEMA), SOLEIL Synchrotron and CNRS.

The information that can be retrieved from the study of ancient materials relies strongly on the development and application of new techniques of physical analysis. This is particularly important at a time when global changes affecting our environment and way of life impose new stress putting heritage preservation at risk. Synchrotron photon-based methods are indeed increasingly being used for the physico-chemical study of cultural heritage materials, namely for the high sensitivity and high resolution provided by the source. In 2004, Institut Photonique d'Analyse Non-destructive Européen des Matériaux Anciens (IPANEMA), an interface dedicated to archaeology, paleontology, paleoenvironments and heritage materials, was launched at the French synchrotron SOLEIL to encourage the access of international researchers from the fields to advanced instrumentation and expertise, and induce innovative instrumental developments. The Smithsonian Institution, through a Memorandum of Understanding (MOU) signed by Dr. Eva Pell, the Under Secretary for Science, and her counterparts at CNRS and SOLEIL on 10 June 2010, became a formal partner with IPANEMA. The goal of the MOU is to join Smithsonian and SOLEIL Synchrotron efforts to analyze antiquities, paleontological specimens, and other cultural heritage materials. The joint programs will include exchange of staff and fellows, collaborative research using the synchrotron platform, development of advanced methods, and joint seminars, workshops, and meetings.

The Museum Conservation Institute's (MCI) researchers and SOLEIL partners have begun collaborative studies on historical pigments and exploration of novel approaches to study intact proteins from archaeological specimens and antiquities.

Dr. Bertrand will give an overview of IPANEMA's research to date with the goal of identifying other areas of collaboration between IPANEMA/SOLEIL, MCI and the Smithsonian. During his visit, Dr. Bertrand will be available to discuss individual research areas with interested Smithsonian staff.

More information about SOLEIL can be found at:
http://www.si.edu/mci/english/about_mci/SOLEILPartnership.html

Freer Gallery of Art

and

Museum Conservation Institute

Topics in Museum Conservation

November 18, 2010
2:00 PM Coffee
2:15 PM Lecture
Thursday

Smithsonian Institution

Freer Gallery of Art

Conference Room G120

Enter the Freer Gallery at the Mall Entrance,
Proceed down the stairs to the lower level,
Conference Room G120 is just to the left at
the bottom of the stairs

Smithsonian
Museum Conservation Institute