



**The Smithsonian, the largest museum complex in the world,  
SOLEIL synchrotron and the CNRS have signed a co-operation accord  
in the presence of the French Research Minister, Madame Valérie Pécresse.**

*On the 10<sup>th</sup> June, at the Research Ministry, Eva Pell, Michel van der Rest and Alain Fuchs signed a Memorandum of Understanding between their institutions. This general framework for cooperation will cover three main areas: Joint research on ancient materials, developing French and American methodology for analyzing these materials and encourage the development of joint projects between the U.S.A and Europe by means of the IPANEMA research platform, which is being set up on the SOLEIL site to study ancient materials.*

Ancient materials is a field that brings together many scientific communities worldwide, from environmental sciences, the humanities, physics and chemistry around the analysis of objects that are particularly complex, often fragile, historic and valuable to archaeologists, paleontologists and conservation scientists or to tell us about past climates. Since 2006, SOLEIL synchrotron, a research center for materials characterization, has developed a unique interface to identify the needs of these communities and bring together the skills required to meet them. From this groundwork was born the IPANEMA research platform, which will open in 2012 on the SOLEIL synchrotron site, with support from the State and Ile-de-France Region. IPANEMA is funded by SOLEIL, the CNRS, the Ministry of Culture and the French National Museum of Natural History.

The Smithsonian Institution, the largest museum complex in the world, was keen to establish a close collaboration within this framework with SOLEIL and the CNRS, culminating today in this accord.

There are three main components to this joint action by the two facilities:

- First research, with the pooling of resources for research in conservation, archaeology and paleontology, such as the ongoing studies on the deterioration of Prussian blue, a pigment often used by Van Gogh and Claude Monet, but unfortunately sensitive to light and oxygen deprivation.
- Interactions between the scientists in the 9 laboratories and 18 museums of the American Institution and French specialists on methods of materials analysis deemed to be among the best in the world.
- The emergence of partnerships between the United States and all European countries involved in the field of ancient materials.

### **REMINDER**

Situated on the Saclay Plateau CAMPUS in the Essonne Département, SOLEIL synchrotron is both a large multidisciplinary instrument and a research laboratory. SOLEIL is a non-trading company whose two key shareholders are the CNRS and the CEA. The construction of such equipment involves both a large building project and high precision mechanics. The aim is to accelerate electron bunches so that they produce exceptionally brilliant light over a very broad wavelength range: from infrared to X-rays, via ultraviolet radiation. The characteristics of this light (intensity, focus, stability, polarization, etc.) make it possible to observe material down to the atomic level and to carry out previously unimaginable experiments both in fundamental and applied research of interest to industry. SOLEIL serves many areas at the forefront of science and industry today: biology, chemistry, materials science, the environment, physics, earth sciences, cultural heritage and archeology.

The criteria that define SOLEIL (operating energy, the numbers of undulators, the broad spectral bandwidth from infrared to X-rays, brilliance and continuous injection to ensure beam stability to within a micron, etc.) place it among the best in the world.

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Website: [www.synchrotron-soleil.fr/ipanema/](http://www.synchrotron-soleil.fr/ipanema/)

**Press contact:** Marie-Pauline Gacoin - 01 69 35 90 15 – 06 72 41 36 37 –  
[marie-pauline.gacoin@synchrotron-soleil.fr](mailto:marie-pauline.gacoin@synchrotron-soleil.fr)

**Scientific contact:** Loïc Bertrand – [loic.bertrand@synchrotron-soleil.fr](mailto:loic.bertrand@synchrotron-soleil.fr)