

Séminaire SOLEIL

Prussian blue backward and forward : looking for the new, preserving the old

Claire GERVAIS

(Bern University of the Arts, Switzerland)

Invitée par Marie-Angelique LANGUILLE

Lundi 19 novembre à 14h00
Grand Amphi SOLEIL

Séminaires

Prussian blue and its analogues are widely studied because of their interesting and promising magnetic and optical properties. Similarly but not for the same motivations, the original pigment Prussian blue is still studied in heritage science because of its capricious fading behavior under light exposure.

Synthesized accidentally in 1706 by the colormaker Diesbach, the pigment was used as early as 1710 by painters and was later employed in the first photographic printing processes as a dye, and for a wide range of manufactured objects (e.g. blueprints, stamps, etc...). PB fading is due to the photoreduction of iron(III) into iron(II) and depends a lot on the object investigated, puzzling conservators concerned with the preservation of Prussian blue objects.

This talk will aim at rationalizing this problem by transferring part of the knowledge acquired on PB analogues to the study of PB artefacts. Specificities of such composite systems will be also highlighted. Particularly, the roles of the substrate in modifying the PB structure and influencing the redox process are demonstrated by means of X-ray absorption spectroscopy of PB-paper model samples. Some pistes are proposed to further investigate the complex relationship PB-substrate and show that PB fading in cultural objects does not come... *out of the blue*.



Ce séminaire sera suivi d'une pause-café



Formalités d'entrée : accès libre dans l'amphi du Pavillon d'Accueil. Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central, merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

SYNCHROTRON SOLEIL

Division Expériences - L'Orme des merisiers - Saint-Aubin - BP 48 - 91192 GIF S/YVETTE Cedex

<http://www.synchrotron-soleil.fr/portal/page/portal/Soleil/ToutesActualites>

Secrétariat Division Expériences : sandrine.vasseur@synchrotron-soleil.fr