
CLEANLAB

Corrosion and cleaning of lacquered brass

OBJECTIVES

Objects made of lacquered brass are widely represented in museum's collections. This technique was applied to various categories of artefacts such as scientific instruments and decorative bronze items, including horological and liturgical objects. The degradation of both the varnish and the metal alloy are a frequent problem from an esthetical point of view and can also endanger the conservation of the objects.

In order to consider their preservation, the project objectives are :

- to investigate the degradation mechanisms of lacquered brass
- to validate non-invasive and effective cleaning methods, which allow conservators to remove corrosion and preserve the lacquers as much as possible

PROGRAM

The research program includes :

- an experimental study of degradation phenomena occurring on lacquered brass including two different types of varnishes and different pollutants
- a comparative study with chemical gel cleaning systems

RESULTS

The main deliverables of the project will be :

- to contribute to a better understanding of degradation mechanisms of ancient, lacquered copper alloys, by establishing a correlation between surface appearance, the type of varnish and surface degradation
- to validate one or several effective and non-invasive cleaning methods by providing a protocol including the following parameters : the type of gel and chemical reagent, treatment length, a possible combination of different gels as well as the type and length of rinsing



Lunette parallaxique ou équatoriale pour la recherche astronomique provenant de l'Observatoire de Neuchâtel, Merz und Sohn, Munich, 1860, pièce de l'observatoire déposée au Musée international d'horlogerie, La Chaux-de-Fonds

FUNDING

HES-SO, Réseau de Compétences Design et arts Visuels

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PARTNERS

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DURATION

20 months
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