

STRESSES AND STRAINS

An introduction to the mechanical properties and testing of materials in conservation practice

18-19 november 2021

HE-Arc Conservation-restauration, Neuchâtel

DESCRIPTION

Conservators, collection managers and other cultural heritage professionals often face **questions about mechanical loads** in their daily work.

Is this adhesive strong enough ? Will my object be safe in transport ? How do I deal with tears in a canvas, wood or metal, or the formation of craquelure, or cracking in wood panel paintings ? **How do I protect the collection during construction or rock concerts near the museum** ? Why do organ pipes deform ?



The answers to such questions can be found using the principles of the engineering/science of the mechanical properties and testing of materials. However, most conservation training are chemistry based or provide virtually no information on mechanical aspects of conservation.

OBJECTIVE

The objective of this two-day workshop is to **provide** conservators, collection managers and other cultural heritage professionals with the **basic concepts of the mechanical properties** of materials, and how they can be **simply evaluated in practice, within a conservation workshop**.

TARGET AUDIENCE

All conservators and any professional involved in the transport or conservation of collections.



CONTENT

The course will be a mix of theory and practice.

The first day will concentrate on the most important concepts of mechanical properties, introducing simple mechanical testing methods, which the conservator can use in the studio to provide qualitative comparative information.

The second day will deal with more complex issues in practice, and give participants the opportunity to pose questions from their own practice, and understand how to search for answers in an informed and systematic way.

TRAINER

Dr. W. (Bill) Wei, is a senior conservation scientist in the Cultural Heritage Laboratory of the Cultural Heritage Agency of the Netherlands (RCE).

He has a Bachelor of science in engineering degree from Princeton university, USA (1977), aerospace and mechanical sciences. He earned his Ph.D. in materials science from the university of Illinois Urbana-Champaign (1983), also USA. Before working in the cultural heritage world, he worked in the development of modern materials solutions for the aircraft and power industries.

His expertise in industry includes corrosion, failure analysis, and the mechanical properties of advanced engineering materials. In 1998, he joined the Netherlands Institute for Cultural Heritage (ICN). While working there, he obtained some conservator training in metals conservation.

He has over 20 years of experience in research and consulting on the effect of vibrations and shock on objects and collections in transport, and in the museum environment. He teaches specialized courses in his research areas for, among others, the conservation training program at the university of Amsterdam, and the university of applied sciences (HTW) in Berlin.

Also trained as a socratic dialogue moderator, he has organized and moderated over 40 dialogues on a number of controversial issues in conservation ethics and perception, including authenticity and originality, conservation ethics for moveable and immovable cultural heritage; the conservation of photographs, contemporary art, digitization and reproductions; and public participation in conservation decisions.

COORDINATION

Hortense de Corneillan, conservator and teacher at HE-Arc

FEE

CHF 550.-

Meals and travel expenses are not included.