# TEACHING TRADITIONAL AND CONTEMPORARY LINING METHODS
# RESOURCES FOR FUTURE RESEARCH

## INTRODUCTION

Under Erasmus programme, the École Supérieure des Arts, Saint-Luc, Belgium, organized a two year Intensive Programme entitled ***Comparative Studies of Traditional and Contemporary Lining Methods*** with the participation of Escola das Artes, Universidade Católica Portuguesa, Portugal and of Universitá degli Studi Urbino "Carlo Bo", Italy.

Traditional lining methods used to follow local variations due to historical and geographical contexts. Lining used to be carried out too frequently, almost as a preventive measure, and this allowed the existence of a specific profession, the "liner" who had a deep knowledge of structural issues. Starting from 1974, lining has become an almost unconventional treatment in museums, and the more recent techniques based on BEVA prevailed. Traditional techniques are becoming disregarded, related practices and knowledge are being lost. The prioritization of minimal intervention and budget cuts within academic institutions and museum conservation departments have lead to alternative options or lining postponement.

## GOALS

The pedagogical goals of the Intensive Programme were the **preservation of traditional techniques through their practice** and discussion of related principles, in comparison with contemporary methods. Each of the 3 groups was composed of 2 teachers and 12 students, for a total of **15 lining methods** in two weeks.

From each technique **samples were extracted**, for peeling test and measurement of Elastic Modulus in order to evaluate mechanical properties of each lining system (reversibility, adhesion strength and efficiency, etc).

A survey on published and unpublished **references about lining** treatments was started, with a critical review of the information collected. This helped promoting education in conservation and the generation of a network between European academic institutions and students.

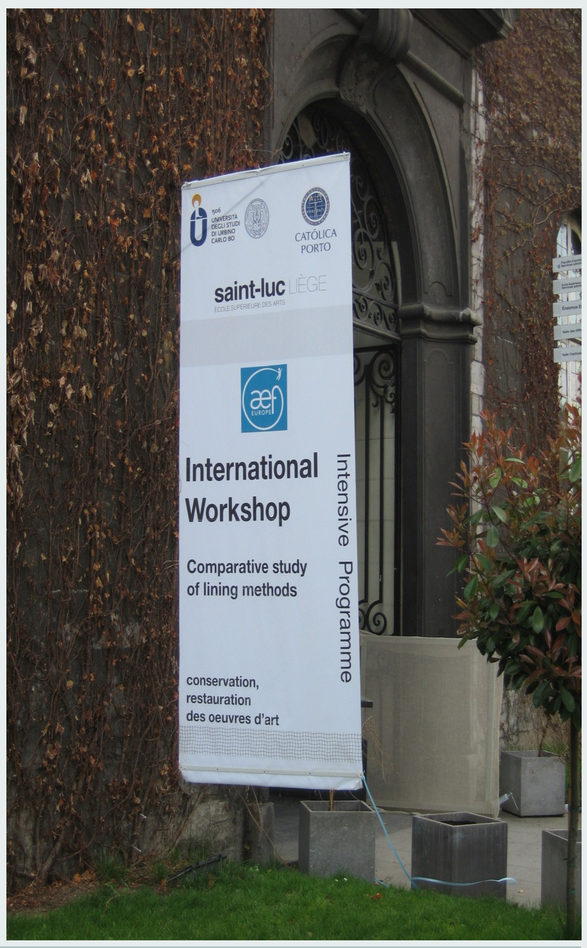


**Fig. 1**— 1st International Workshop at École Supérieure des Arts, Saint-Luc, Belgium

**Fig. 2**—Daily discussions between teachers and students after theorethical and practical sessions at Escola das Artes, Porto (2nd International Workshop)

## METHODOLOGY

Daily theoretical sessions were open to a wide public in the conservation community, while the practical work was performed by small groups of students and teachers, on each technique. At the end of the day, discussion lead to sharing knowledge between the groups.

**Traditional lining** included Florentine and Roman paste glue, sturgeon glue and wax-resin techniques. **Modern techniques** revolved around cold lining and heat-activated methods. Cold lining methods included the well-known Mehra's nap-bond lining and Jos Van Och's mist lining, which was also presented in a modified form developed in Italy for warmer climates. Beva gel lining was also performed. For the heat-seal methods, Berger's Beva 371 O.F. adhesive was applied either as a liquid solution, as a spray or as a dry film.

## MOCK-UPS

The same "painting" was used for all techniques, made from a single piece of linen canvas from the traditional Belgian manufacturer, Claessens.

Mock-ups had the same dimensions (130 cm x 80 cm) and the quantities of each material used (adhesives, solvents, etc) were recorded.
Lining canvases included Belgian and Italian linens as also, poliester canvases and films (Lascaux P110, Trevira Ispra from CTS, sailcloth, PET Mylar). Poliester Reemay was used as interleaf.

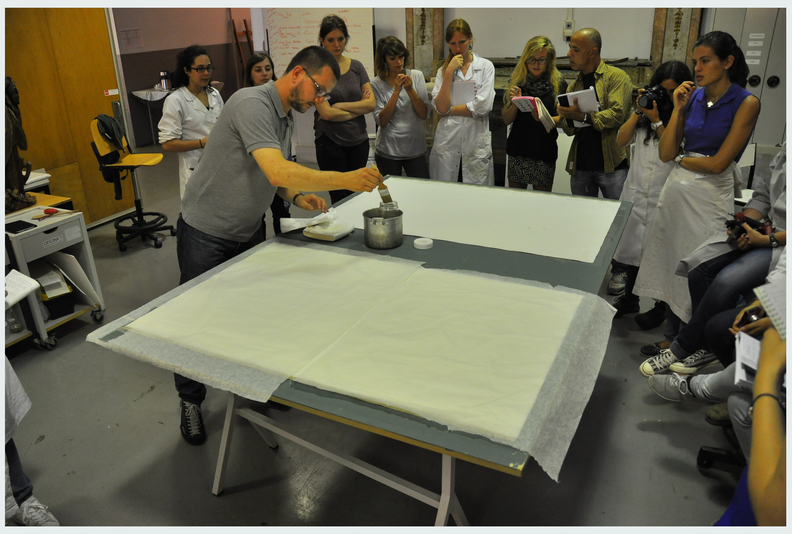

**Fig. 3**—Teacher´s demonstrations at the practical sessions at Escola das Artes

**Fig. 4**—Students practice

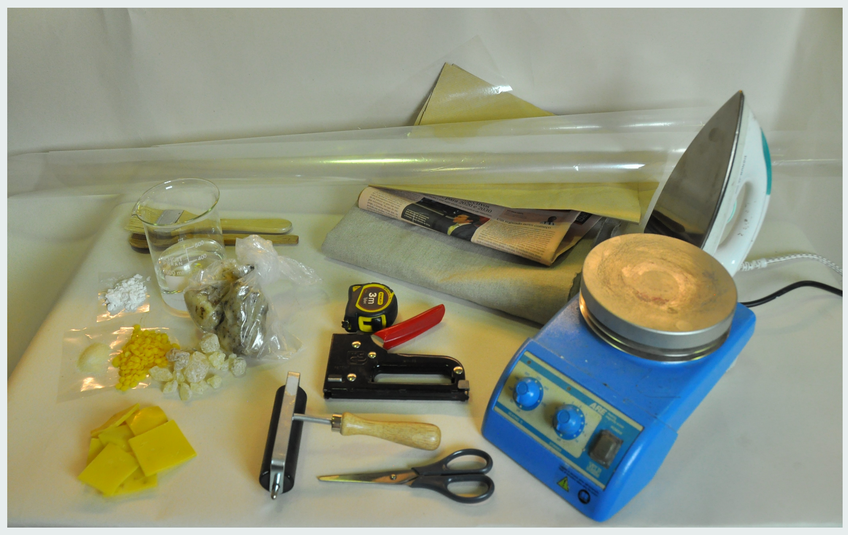

**Fig. 5**—Material preparation for production of the didactical and professional Manual

## FUTURE OUTCOMES

All information has been recorded, revised and edited in a homogeneous format, aiming at the **publication of a manual for didactical and professional use**.

**Mechanical tests and comparative studies** will be undertaken during winter 2019 on now five years naturally aged samples.
Aside with the measures relating to adhesion and to the increase of mechanical properties of the painting, moisture upload and temperature sensitivity will be evaluated. Weight changes, reversibility and de-lining methods will be investigated.

The Intensive Program has been performed twice, in Liege and in Porto. The **format proved to be successful**, for students, teachers and local professionals, and could be easily exported to other institutions.


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**Promoting conservation**

**Aiming at reproducibility**


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