

CRAFTSMANSHIP+



FOSTERING A NEW AND COMPETITIVE
APPROACH TO CRAFTS AND SEMI-INDUSTRIAL
HIGH ADDED-VALUE SECTORS

The art of Stained glass

FRANCE



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CRAFTSMANSHIP

THE ART OF STAINED GLASS

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ARTS AND TECHNIQUES OF GLASSWORK

OPTION | STAINED GLASS ARTIST

DESCRIPTION OF THE ACTIVITY:

The stained glass artist is a trained professional. In a workshop, he should be able to carry out different kinds of stained glass creative and restoration work.

To achieve these objectives, he must master general, technological and professional knowledge and know-how, but also be sensitive to artistic and stylistic concepts and to innovative ideas, and be able to work alone or as part of a team.

The scope of his work is defined by the following activities:

- 1 Preparation
- 2 Execution
- 3 Upkeep

Without forgetting the quality of the handiwork, he must constantly assume through respecting the requirements for the work.

In this part of the Craftsmanship program, we concentrated on activities in the workshop and not on site.



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PHASE 1 | PREPARATION

This previous phase consists of familiarizing oneself with instructions about the work.

Starting from the worksheet and the model, the aim is to:

- 1 Take into account information about carrying-out the work (technical process, difficulties, time factor)
- 2 Take into account the technical and artistic nature of the work (dimensions, forms, references, colours, care with handling materials, aesthetic nature, ...)

Each bay is then referenced and numbered on the principle of “corpus vitrearum”.

Then, before starting any intervention, the operator must prepare the tools and materials.

Taking account of the work and timeframe for operations to be carried out, this consists of:

- 1 Selecting tools and materials suitable for the work to be carried out
- 2 Checking the condition of the tools and materials (drawing, cutting and assembly instruments, soldering iron, kiln equipment, ...)
- 3 Preparing the materials for the work (sheets of glass, lead, tin, sealants, mortar seals and adhesives, etc)
- 4 Preparing supplies (paper, stearin ...)
- 5 Methodically arranging the tools and ways of using them in compliance with safety requirements
- 6 Ensuring the proper functioning of the safety devices and access to the workstation.

As soon as the raw materials are ready for the work to be carried out and are sufficient for the quantity and quality, work can start to be produced.



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PHASE 2 | EXECUTION

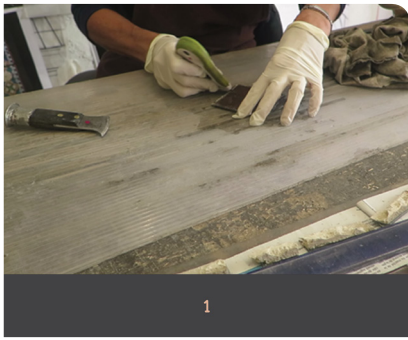
2.1. Participating in producing graphic elements needed for the renovation of the work

These operations, in various stages of completion, are:

- 1 Making measurements and references, and producing patterns and drawings corresponding to bay openings to be glazed
- 2 Producing different kinds of layouts, tracing and plotting for geometrical stained glass according to instructions, models or cards provided
- 3 Carrying out the referenced smear which is necessary for simple restoration work, as well as the corresponding templates for the simple replacement of glass pieces. The smear is the exact plumbing survey. It is obtained by friction of a fatty substance on a flexible paper placed on the panel.

2.2. Removing the glass

This operation consists of dismantling the bay by removing the sealing threads to disconnect the pieces of glass from the used lead. These pieces of glass are then sorted, assembled and then placed on the tracing or the paper.



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2.3. Panel cleaning

The purpose of cleaning is to:

- 1 recover the legibility of the panel darkened by various deposits, dust, soot, residues of putty
- 2 eliminate the layer of alteration products on the surface of the glasses, which has the effect of maintaining the humidity and promoting the proliferation of microorganisms.

The cleaning operations must be preceded by a very careful examination of the state of conservation of the grisaille, enamel, cold paint, on both sides of the glass. Indeed, decors have often been applied also on the external face and very subject to atmospheric aggressions.

2.4. Making the assemblages of the panels: the crimping

Crimping is the step in which glasses and pellets can be assembled. The “lead path” draws the pattern of the stained glass. The pellets are placed according to the drawing, the glasses are nested in the groove of the lead and the pellets are welded to hold the glasses together and consolidate the whole.

While respecting safety and ergonomics rules, the operations consist of:

- 1 Assembling and crimping the glass pieces with lead weights
- 2 Beating the lead wings
- 3 Welding each joint with tin
- 4 Moving around and picking out a piece of glass (colour correction or restoration)
- 5 Making and installing fasteners on the panels

2.5. Making sure of the sealing

At various stages in carrying out the work (after crimping, after “repicage” during mounting or on the glass), they must be sealed according to instructions. This sealing is necessary for the strength and waterproofing of the object (glass-glass, glass-lead, panels-bracket). The fine spaces between the glasses and the pellets are filled with a liquid mastic. Then it is cleaned with sawdust.