METHOD STATEMENT FOR THE CONSERVATION AND RESTORATION OF THE PAINTING OF TWO HISTORICAL PAINTINGS BY

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OUR LADY OF POMPEII AND THE IMMACULATE CONCEPTION

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ATELIER DEL RESTAURO
CONSERVATION & SCIENTIFIC ANALYSIS OF WORKS OF ART

1 Method statement for the conservation and restoration of the paintings

1.1AIMS AND OBJECTIVES

The aims and objectives for the conservation and restoration project will include:

Providing an accurate record of the present condition of the painting

Developing a methodology, following standard conservation and restoration practices to conserve the painting by:

-Documenting the painting before, during and after conservation and by providing photographs of the entire conservation process.

-Understanding the causes and nature of the mechanisms of deterioration through research and investigation

To implement preventive conservation measures to inhibit further deterioration

To make available a detailed report of all the restoration and conservation interventions carried out.

The conservation and restoration program will consist of interventions according to current conservation ethics and principles which include recognizability, reversibility, compatibility and minimal intervention.

2.2. PHOTOGRAPHIC AND GRAPHIC DOCUMENTATION

- Photographic documentation

Before, during and after, general and detailed shots will be taken in diffused and raking light using an SLR digital camera. The photos will be taken both in RAW and JPEG format.

- Optical investigations of portions of surfaces

1. Shots in raking light choses on the basis of representativeness.
2. Non-invasive optical investigations - photographic shots in UV-Fluorescence

2.3. ANOXIA DISINFESTATION

In the case of the presence of insect infestation, disinfestation of Xyfologus insects will be done by anoxia disinfestation, which has optimum results in fully eradicating xylofagus insects as well as being an ecological alternative, as the process does not imply the use of toxic gases.

This process is conducted by enclosing the artefact for a period of 3 weeks in a sealed environment and displacing the oxygen by the use of inert gases, controlling the enclosure to a percentage low enough to kill all stages of the insect life-cycle: adults, larvae, pupae and eggs.

2.4. HUMIDITY TESTS

Tests will be carried out to understand whether the canvas support is sensitive to heat and water based substances, so as to identify the appropriate procedures for the treatments.

2.5. CLEANING

Different cleaning tests will be carried out to devise an appropriate cleaning methodology:

Mechanical methods – will be effective to remove surface deposits such as dust, grime, fly specks and wax from candles

Chemical methods – which involve the dissolution of chemical mechanisms for the removal of oxidized varnish from the painted surface - The removal of overpainting where present will be preceded by tests to determine the overpainting resistance to the cleaning solution and the response of the original painted surface. Once the

identification of the materials to be cleaned is made, it will be possible to formulate a cleaning method which is tailor-made to a particular problem. Both water-based methods and solvent-based cleaning will be tested. The approach will be carried out using the WOLBERS AND OR CREMONESI CLEANING methods through different tests by respecting the pH of the pictorial surface using different organic solvents (ACETONE, ETHANOL, LIGROIN®), water based solutions with different concentrations of acids (CITRIC ACID salts) and bases (TRIETANOLAMINE®) will also be tested.

Following the above preliminary tests the supporting agents and/or thickeners that will help to create the solvent or reactant system will also be identified. An organic solvent gel system intended to have a very specific solvency parameter will be preferred as the rate of evaporation is reduced and the flow is restricted. This has the advantage that less polar solvents can be applied to the surface. The risk of swelling a vulnerable oil paint is reduced and health and safety aspects for the conservator are considerably improved. A high molecular weight polyacrylic acid CARBOPOL ® can be used as a gelling agent.

2.6. REMOVAL OF OLD INFILLS

In the case that old infills are present, mechanical cleaning of the infills will be carried out using a surgical blade, following the softening of the infills using distilled water.

2.7. CONSOLIDATION OF THE PICTORIAL LAYERS AND CANVAS SUPPORT

For the adhesion of the detachments between the painted surface and the canvas a conservation standard adhesive will be selected after different tests will be carried out.

The adhesive will be applied to the back of the painting. The consolidation treatment will be carried out under vacuum. *Adhesive test will be carried out with the possible use of the following: Beva 371 or Plexisol*

2.8. FACING

Facing will be applied to to the painting in-situ, in order to protect the painting during transportation. Additionally, facing will also be applied to protect the pictorial layer from any flaking or lifting of paint during handling and the conservation treatments on the verso. The facing will be applied in large pieces of square shaped Japanese paper slightly overlapping each other. A cellulosic adhesive will be used due to its easy reversibility.

2.9. REMOVAL OF OLD AUXILIARY FRAME

Following further investigations of the painting' back, a better of understanding of the state of conservation of the painting' support and auxiliary support could be had. This will determine the procedures and treatments to be carried out on the painting's support.

If the wooden support physical structure is not suitable to maintain the painting in good tension, it will be advised to change it to a new expandable auxiliary frame, to ascertain the prolonged conservation of the canvas.

Figure 1: Example of newly constructed expandable auxiliary frame

2.10. LINING OR STRIP LINING OF PAINTING

Following the detachment of the painting's auxiliary frame the painting's support will be assessed. Considering the state of conservation of the painting it is suggested that a lining or strip-lining intervention will be carried out.

A **lining** intervention is considered necessary to give the painting a stable support in the case the canvas support has become frail and deteriorated with time. Lining a painting refers to applying a new canvas support to the back of a stretched canvas painting. The reasons for this type of treatment mainly included: the weakness of the canvas and the high humidity experienced locally.

In this case, a lining canvas, having a similar weave and properties as the original canvas, will be treated by wetting with water and sizing with glue. Once dry it will be streched and tensed well over the stretcher frame.

The lining canvas will be adhered to the back of the original canvas, using a synthetic adhesive which is of a stable nature and reversible, in the case that in the future a new lining intervention would be required. Synthetic adhesives also avoids the risk of insect infestation and fungal growth. (PLEXISOL B550® or BEVA OF GEL ®). The choice of adhesive will be made once the back of the painting will be inspected and also according to the results of the humidity tests.

Alternatively, if the painting' support is found to be in a stable condition, **Strip-lining** will be implemented in order to extend the painting' tacking margins, making the stronger and aiding in the process of re-stretching the painting onto their stretcher frame.

The treatment consists in adhering strips of canvas to the perimeter of the painting from the back. The chosen canvas will be of a similar weave to the original. The treatment will be carried out methodically by means of a synthetic conservation standard adhesive, which will be applied to both the original and to the strips of canvas. The adhesion of the strips of canvas to the painting will be carried out using the *sottovuoto* technique, by placing the painting under light vacuum for a few minutes.

The canvas for either the lining or the strip lining will be chosen out of these high quality linen canvases supplied by CTS: 2297 tela lino, 2297 tela patina, 1111 tela lino, tela lipari.

The Atelier del Restauro team was selected to participate in the first virtual course related to ***Structural Treatments of Paintings: Reinforcement with the Mist-lining System***, a course supported by the Getty Foundation's Conserving Canvas Initiative, hosted and organized by SRAL to provide theoretical and practical sessions related to the 'Mist-Lining' technique.

The mist-lining technique involves:

- The minimal use of adhesive to achieve the required bond and shear strengths
- The regeneration of the adhesive using solvent vapours
- The elimination of moisture through the use of a dry adhesive layer

- The application of low pressure to create the desired bond

When carrying out structural interventions on canvas paintings, we propose the use of the mist-lining methodology, which is the latest methodology in the conservation of canvas paintings applying minimum intervention principles.

2.11. RE-STRETCHING OF THE PAINTING

Following the treatment of the support, the painting will be re-stretched onto the auxiliary frame using stainless steel staples, according to modern conservation practice.

2.12. INFILLS OF LOSSES

After resolving all the physical issues of the painting, the aesthetic problem resulting from lacunae of the pictorial layers will be treated. Infilling of the losses will be required to obtain a homogenous surface layer.

Primarily the painting will be viewed in raking light and the micro lacunae will be filled with Gesso di Bologna and using a small brush. The lacunae containing the inlays will be stuccoed with gesso di Bologna and animal glue (*rabbit skin glue*) to compensate for the low edge present. When dry, the infills are levelled to the surface of the painting using a fixed blade, the edges and excess of gesso will be then cleaned with a cotton swab dampened in water.

2.13. RE-INTEGRATION OF LOSSES

The chosen integration method will establish the former unity of the painting, using reversible colours, which will not alter in time preferably using water colours (Windsor & Newton) and completing the work using glazes of Maimeri ® varnish colours. A layer of retouching varnish is first applied. Varnishing will be carried out using conservation retouching Le Franc and Bourgeois Varnish. The varnish will be applied in order to:

- Saturate the colours of the painting before starting the reintegration phase.
- Seal the in-fills in place.

- Create an intermediate layer between the retouching to be carried out and the original paint layer.

The process of filling in the lacuane will be done using a series of fine dots (known as Puntini) or fine vertical lines (known as Tratteggio).

RETOUCHING VARNISH - RETOUCHER LE FRANC & BOURGEOIS	
RETOUCHING VARNISH Before starting the retouching with the maimeri varnish colours, the painting must be coated with a retouching varnish. Normally one / two coats are applied with a brush, depending on the absorption. Then, after the retouching phase the final layer of varnish will be applied.	
VERNICE RITOCCO SOPRAFFINE ART. 1188	To be applied by brush

2.14. APPLICATION OF PROTECTIVE COATING / VARNISH

A final reversible and non-yellowing varnish layer will be applied to seal off the retouching, saturate the original colours and to protect the painting's surface from deteriorated agents. The coating applied will be of a stable nature and it will re-establish the richness of the paint layer allowing a proper tone. It will also keep dirt and dust particles including polluting agents off the picture layer. A layer of gloss varnish followed a matt varnish will be applied, a preferred varnish brand will be the high quality varnish brand of Le Franc & Bourgeois®.

CHOSEN FINAL VARNSIH - TABLEAUX LE FRANC & BOURGEOIS	
FINAL VARNISH Once the retouching is completed, one will proceed with the final varnishing, which, based on the desired effect, bright or satin or matt, will involve the spray application of one of the following varnish. THE CHOSEN SURFACE FINISH WILL BE DECIDED AFTER VARNISH TESTS ARE CARRIED OUT	
VERNICE FINALE BRILLANTE SOPRAFFINE ART. 1186	For slightly shiny effect and spray applications

VERNICE FINALE BRILLANTE J. G. VIBERT ART. 1251	For a brilliant effect and spray applications
VERNICE FINALE OPACA ART. 1188 (SATINE)	For an opaque/matt effect and spray applications
VERNICE FINALE OPACA ART. 828	For an opaque/ matt shiny effect and spray applications
VERNICE FINALE OPACA ART. 159 (SPRAY)	For opaque effect on single portions

2.15. ADDITION OF PROTECTIVE CANVAS BACKING

Following the treatment and re- mounting of the painting it is suggested that a canvas backing material is attached to the back of the painting in order to protect it from external pollutants. The fabric will be either a non-woven or densely-woven 100% polyester or a densely-woven linen. The backing will be attached to the paintings' auxiliary frame in a reversible manner to facilitate future inspections of the painting.