

# The Impact of the Painter-Restorer Fernando Mardel on the Conservation and Restoration of the Painting Collection at the Palace of Queluz

Filipa Lopes, Faculty of Fine-Arts of the University of Lisbon/CIEBA, filipalopespp99@gmail.com; Ana Bailão, Faculty of Fine-Arts of the University of Lisbon/CIEBA, ana.bailao@gmail.com; Hugo Xavier, Parques de Sintra – Monte da Lua, hugo.xavier@parquesdesintra.pt

25TH CONSERVATORS-RESTORERS' PROFESSIONAL MEETING  
26 MAY 2025, POSAVJE MUSEUM BREŽICE, SLOVENIA

## Introduction

This research centers on the conservation of the painting collection at the Palace of Queluz, a renowned example of Rococo architecture in Portugal. It combines two complementary phases: the development of a preventive conservation plan and an in-depth study of the paintings created, as well as the interventions undertaken by painter-restorer Fernando Mardel (1884–1961) following the 1934 fire.

Together, these approaches provide a comprehensive perspective on heritage preservation, emphasizing the importance of both preventive measures and critical evaluation of past restoration efforts.

## Objectives

Grounded in two complementary phases, this research began with a focus on preventive conservation. A comprehensive environmental and structural assessment of the Palace of Queluz facilitated the development of a tailored preventive conservation plan, addressing the specific vulnerabilities of its collections.

This initial phase provided essential context for understanding the current condition of the paintings, helping to differentiate between environmental damage and prior interventions, and informing safer analytical strategies. It also guided the establishment of conservation priorities, minimized risks associated with technical analyses, and established a foundation for an interdisciplinary understanding of the artworks and their historical context.

The study is currently centered on the paintings created and restored by Fernando Mardel after 1934, which are located in the Waiting Room, the Tea Room, and the Don Quixote Room. Current objectives include examining Mardel's contributions within their historical and artistic context, analyzing his painting and chromatic reintegration techniques, identifying his materials and methods, and assessing the current condition of the paintings he treated. The aim is to evaluate the long-term impact of his interventions and to consider their relevance to contemporary conservation practices. A comparative study of Mardel's original paintings and his restored works will further understanding of his techniques and interventions, revealing the criteria, choices, and limitations inherent in his restoration approach.

## Methods

The methodology for developing a preventive conservation plan tailored to the National Palace of Queluz was organized into four key phases. The initial phase involved characterizing the building, its environment, the collection, staff, and visitor profiles, followed by the selection of 75 movable cultural assets to enable a statistical approach.

Subsequently, a risk assessment was conducted to identify the primary agents of deterioration and their potential impact. Based on this assessment, a set of preventive conservation guidelines and procedures was proposed, aiming to mitigate or eliminate risks and to support long-term preservation through an integrated and site-specific strategy.

Currently, the research employs a multi-phased methodology that integrates historical research, technical study, and documentation. It began with bibliographic and archival research on Fernando Mardel and his interventions at the National Palace of Queluz. The current focus is on photographic documentation of the paintings to create orthophotos (Figure 1), which will form the visual basis for technical mapping. Digital microscopy is also being used to record interventions and pathologies observed in each painting (Figure 2). The documentation of the Waiting Room has already been completed, while the recording and analysis of the Don Quixote Room are currently underway.

The next phase will involve non-invasive techniques such as UV fluorescence, infrared imaging, and XRF to identify materials and painting techniques. Afterward, mock-ups will be developed to simulate Mardel's reintegration processes, and a GIS-based system will be implemented to document all findings.



Figure 1 - Photographic documentation of a painting restored by Fernando Mardel, located in the Waiting Room.



Figure 2 - Examination of pathologies and previous interventions identified in a painting restored by Fernando Mardel, located in the Waiting Room.

## Results

The risk assessment results highlighted key priorities for conservation efforts at the National Palace of Queluz. As shown in Figure 3, fluctuations in relative humidity and temperature, pollutants, and pests were identified as the most pressing concerns, with several areas designated as high priority.

Consequently, specific preventive conservation standards and procedures were developed, primarily targeting these identified risks. Factors such as physical forces, dissociation, visible light, and UV radiation were not examined in detail, as existing institutional guidelines and mitigation measures are already in place to effectively manage their impact on the collection.

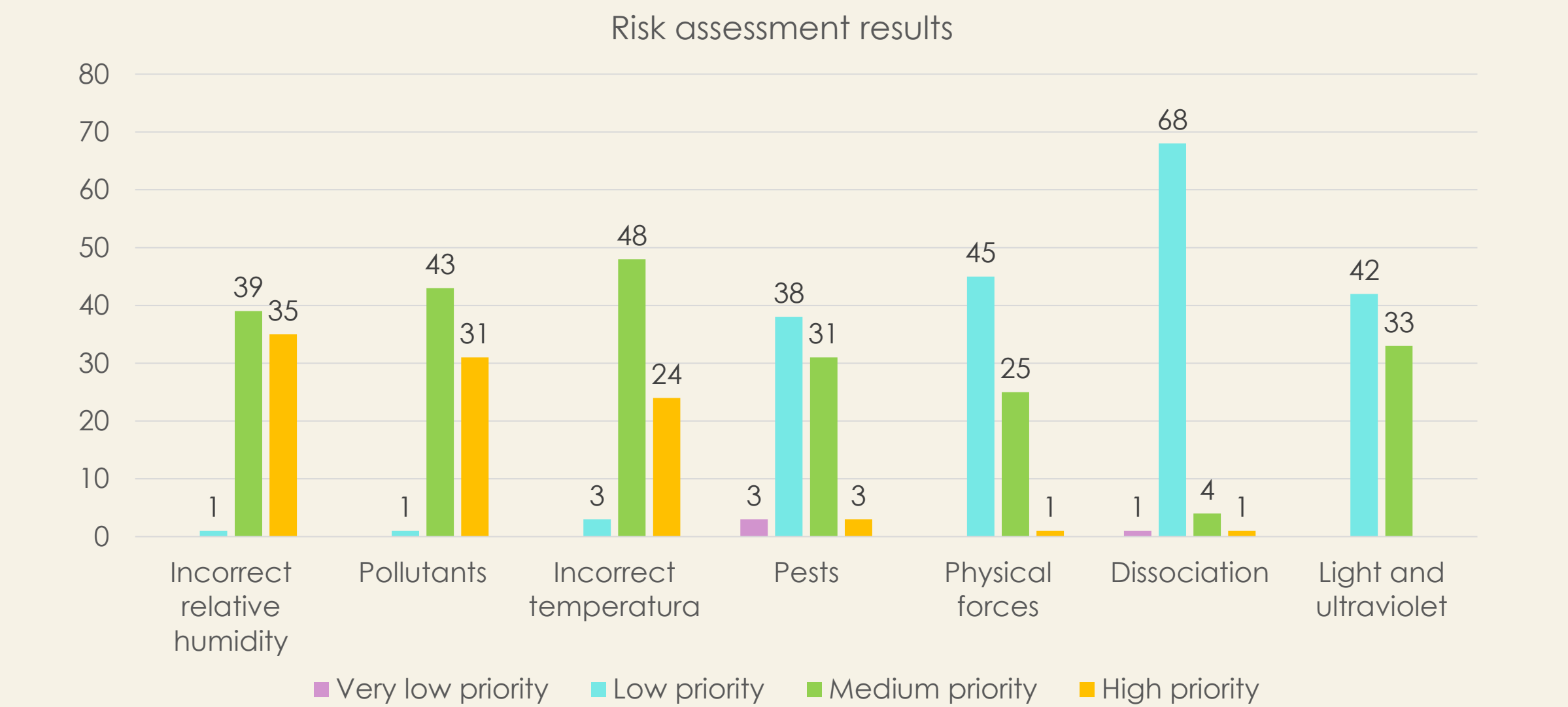


Figure 3 - Levels of priority identified in the sample of cultural assets considering each agent of deterioration analyzed.

As the technical study of Fernando Mardel's restored and newly painted works is ongoing, definitive conclusions remain pending. However, preliminary observations indicate that the restored paintings exhibit signs of age-related degradation, with chromatic reintegration remaining visibly distinct. In contrast, the newly created paintings are in good condition. The prior preventive conservation study suggested that the deterioration of the restored works is primarily related to the environmental conditions within the room. Therefore, it can be inferred that Mardel's restoration methods did not significantly contribute to the current damage. Current evidence suggests that his interventions were appropriately executed. The application of orthophotography (Figure 4) has proven crucial in visualizing and interpreting the data collected thus far.

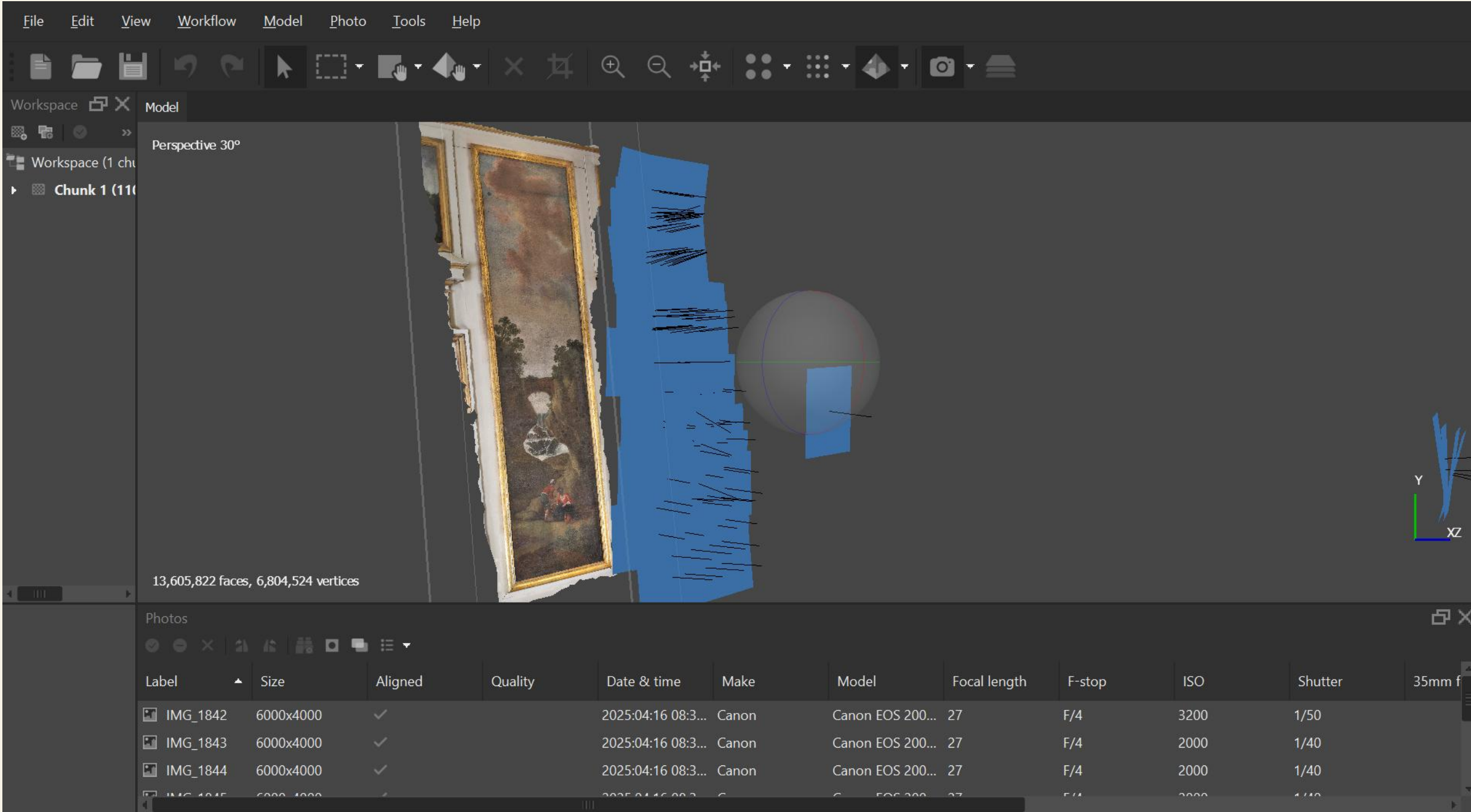


Figure 4 - Orthophoto processing of a painting restored by Fernando Mardel, located in the Waiting Room. Generated with Agisoft Metashape software.

## Conclusions

This research underscores the value of integrating preventive conservation strategies with critical evaluation of past restoration efforts. The completed risk assessment facilitated the implementation of targeted preventive measures, while the ongoing technical study of Fernando Mardel's work has already yielded significant understandings. Although final conclusions are still pending, preliminary findings suggest that Mardel's interventions were carefully executed and have not significantly contributed to the paintings' current condition. The use of orthophotography has proven invaluable for documenting and interpreting these changes. This multidisciplinary approach reinforces the groundwork for future conservation decisions and highlights the ongoing relevance of past practices in informing present and future interventions.

## References

Lopes, F. (2024). Contributos de normas e procedimentos de conservação preventiva para o Palácio Nacional de Queluz [Master Thesis, Faculdade de Belas-Artes da Universidade de Lisboa].