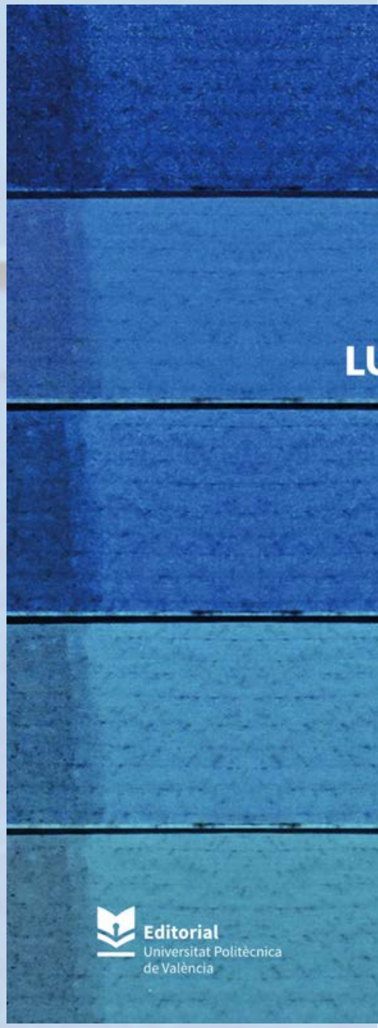
Reviewing Conservation 360°

UV-Vis Luminescence Imaging techniques



UV-Vis Luminescence Imaging Techniques
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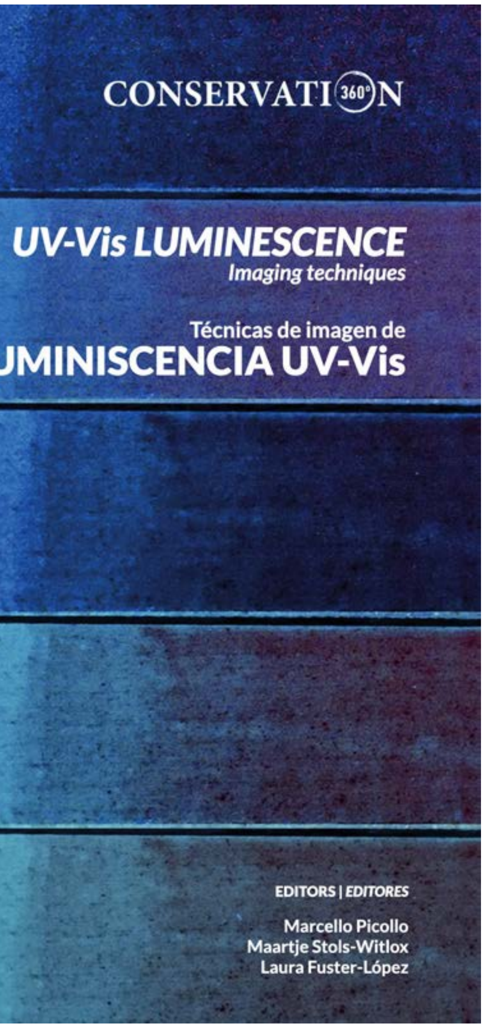
UV-Vis Luminescence Imaging Techniques is the first of the volumes that make up the Conservation 360° series, produced by the Polytechnic University of Valencia (UPV). The series is international, peer-reviewed, and open access (with the option of print-on-demand), comprising several books, each providing a comprehensive overview of a different topic within the field of conservation. The goal of this series is to create reference books that will contribute to the advancement of the field in the coming years. You can read reviews of the two other books in the series—*Diagnosis: Before, During, After* and *Education and Pedagogy*—in issues 110 and 108 of *News in Conservation*.

The books are written to be accessible at different levels, making them suitable for both students and professionals. This was true for me—I felt comfortable reading it and appreciated that, as it is a project launched by UPV, the text is available in both English and Spanish making it much easier for me, as a Spanish speaker, to understand.

The table of contents is evidence of the impressive quality of the included papers, as well as the diverse nationalities of the authors, representing different realities and material conditions. At the beginning of the text, there are several introductions to the series, explaining the motivation behind its creation, and an introduction to this specific volume. This



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introduction is particularly interesting and necessary, as it focuses on terminology and provides some historical background regarding the titular technique. Before the main sections of the book, we find the foreword, "Some Observations about Images", written by Néstor Barrio—an eminent figure in Argentina and one of my first professors when I began my conservation studies at university.

The remainder of the book is divided into two main parts. The first part is dedicated to the fundamentals and compiles several essays that explore the theory of luminescence phenomena. It explains, in a very detailed and clear way, how fluorescence occurs and how it differs from phosphorescence and luminescence. There are also many contributions that explain the types of lamps used, specifying longwave and radiation types. The correct terminology and the need for its standardisation are also discussed.

This section explains how, and for what purposes, this technology is used; indeed, it is a versatile technique with many applications. However, this part also discusses some of the technique's limitations and offers guidance to avoid misinterpretations. Another great advantage of this section is that it encourages you to practice the technique, providing information about the types of lamps, cameras, systems, conditions for image capture, and methodological framework for interpretation (including how to use them, with helpful graphics) that you or your institution can acquire and apply in your work.

The final section of the book is devoted to cases studies. What can I say about it? It was one of the most engaging parts of the book; having read all the preceding papers, I was able to understand the cases in greater depth. The versatility of the technique is fully evident here. The first case concerns the examination of archaeological stone artefacts and the possibility of discovering pigment residues, as well as differentiating between two blue colorants.

There are also papers on the technique used to identify lacquers on historical musical instruments as well as to distinguish cadmium-based pigments, explore titanium white pigments, and many other fascinating topics—which I prefer not to mention to avoid spoilers for the readers.

Reading this book is an excellent opportunity to stay up to date with new applications of UV-Vis luminescence imaging, and it truly provides everything you need to begin using it. While some results require expert analysis for proper acquisition and interpretation, many other features can provide valuable information even for those without such specialised knowledge.

Victoria Zucchi is a conservator specialising in paper and documentary heritage. She holds a degree in conservation and restoration of cultural property from the Universidad del Museo Social Argentino. Since 2013, she has worked at the Historical Archive of the Argentine Ministry of Foreign Affairs where she is responsible for the conservation, restoration, and preventive care of archival documents. She also holds diplomas in audiovisual heritage preservation and archival management and has collaborated with various archival institutions on preservation and disaster response.