



MUSEI VATICANI



THE VIRGIN BESTOWS HER BELT TO SAINT THOMAS, THE MASS OF SAINT GREGORY, SAINT JEROME PENITENT by Antonio del Massaro, known as “il Pastura”

LABORATORY OF SCIENTIFIC RESEARCH FOR DIAGNOSTICS AND CONSERVATION

Before and during every operation of restoration, the Laboratory of Diagnostics for Conservation and Restoration of the Vatican Museums, carries out a series of scientific investigations, suitable for defining the exact state of conservation of an artifact, and studying the causes of its degradation. This scientific approach follows an exact methodology of study developed by the Laboratory itself. The first to be carried out are non invasive investigations (imaging) which, by analysing the work through electromagnetic radiation invisible to the human eye, reveal certain material characteristics and help better understanding how the artist originally created his work.

INDUCED ULTRAVIOLET FLUORESCENCE



This type of analysis essentially studies the more superficial layers of the work and, in particular, the organic substances. Useful observations on the eventual presence of superficial substances, and of retouches carried out in preceding conservation projects, are thus made possible. The latter are particularly discernable, as they are distinguished from the original by a different, generally darker, fluorescent colour. This is particularly the case with the vestments of the Virgin, the face of Saint Thomas and the angel to the right of the Madonna. The vestments of Saint Gregory, the architecture of the scene where he is present, the mountains and the vestments of Saint Jerome, also reveal evidence of retouches. With this analysis technique it is also possible to single out the artist's use of an organic colourant of a lacquer type. This may be observed on the clothes of the Madonna, the angels and Saint Thomas, on the flesh tones of all three scenes, on the red of the altar of Saint Gregory and on the hat beside the figure of the lion.

INFRARED IN FALSE COLOURS

This enables analysis to go beyond the first layers of the material and to assess the pictorial film. More detailed observations of the conservation state are

made possible through the “transparency” given to non original reconstructive interventions. This is very evident on the blue mantle of the Virgin, where all areas affected by previous retouches have been highlighted, and also on the foliage near the face of Saint Thomas. The dark tones of the backdrop greenery – in the background foliage, for example – reveal the presence of a pigment with a copper base of the malachite kind.



INFRARED REFLECTOGRAPHY

This analysis technique renders the original preparatory drawing underneath the colour film (draft) visible. It also reveals the conservation state of all the pictorial layers. On this tempera painted panel, not only are the preparatory drawing and the artist's original shading visible, but also certain areas of gaps, where subsequently integrated colours have fallen away.



In the scene of the Mass of Saint Gregory, one can spot a dramatic moment of artistic “repentance”; the architecture behind the figure of Christ was in fact originally drawn in a totally different position compared to the final version. Similarly, on the left of the little candle, above the halo of Saint Gregory, the silhouette of a much longer candle is discernable.

