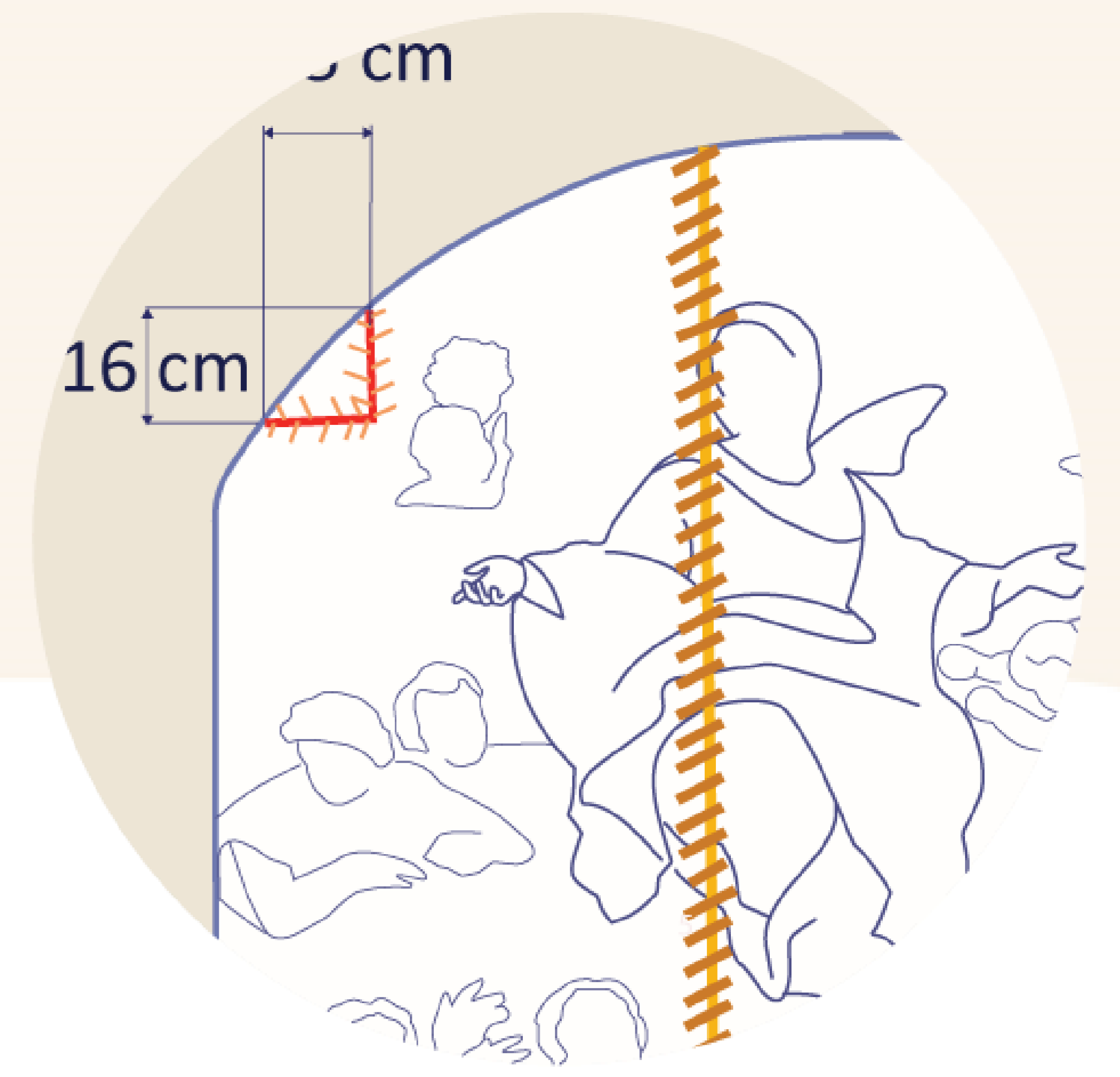


The Materiality in the Altar Screens of Pedro Alexandrino de Carvalho

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Introduction

Pedro Alexandrino de Carvalho (1729 - 1810) marked the Portuguese painting of the second half of the 18th century and the first decade of the following. To him resorted the great patrons, and its artistic production was closely bound to the reconstruction of Lisbon after the earthquake of 1755. Though he didn't receive a direct influence in his artistic formation from the most relevant European production centres, he was considered an *in vogue* artist in Portugal, during the last quarter of the 18th century, and so he became the painter who most painted altar screens.

Altar screen is a particular painting typology that is technologically unusual, as in some exhibition systems (characteristic of the Portuguese art) the paintings inserted in the altarpieces may be moved as a theatre curtain in order to show the Holy Sacrament or exhibit a sculpture. This type of exhibition systems imparts a more scenographic dynamism to the 18th century altarpieces on churches.

Case Studies



Painting L-Sta. Is/A
 Virgin Mary with the child and Saint Anthony. Church of Santa Isabel (Lisbon, Portugal) 1764



Painting P5
 Lady of the God Dead. Private chapel of Sabrosa (Vila Real, Portugal) by 1780 (?)



Painting P6
 Last Super. Church of São Faustino (Peso da Régua, Vila Real, Portugal) by 1786-1800 (?)



Painting P3
 Jesus Christ delivering the keys to St. Peter. Church of São Faustino (Peso da Régua, Vila Real, Portugal) by 1786-1800 (?)

Experimental

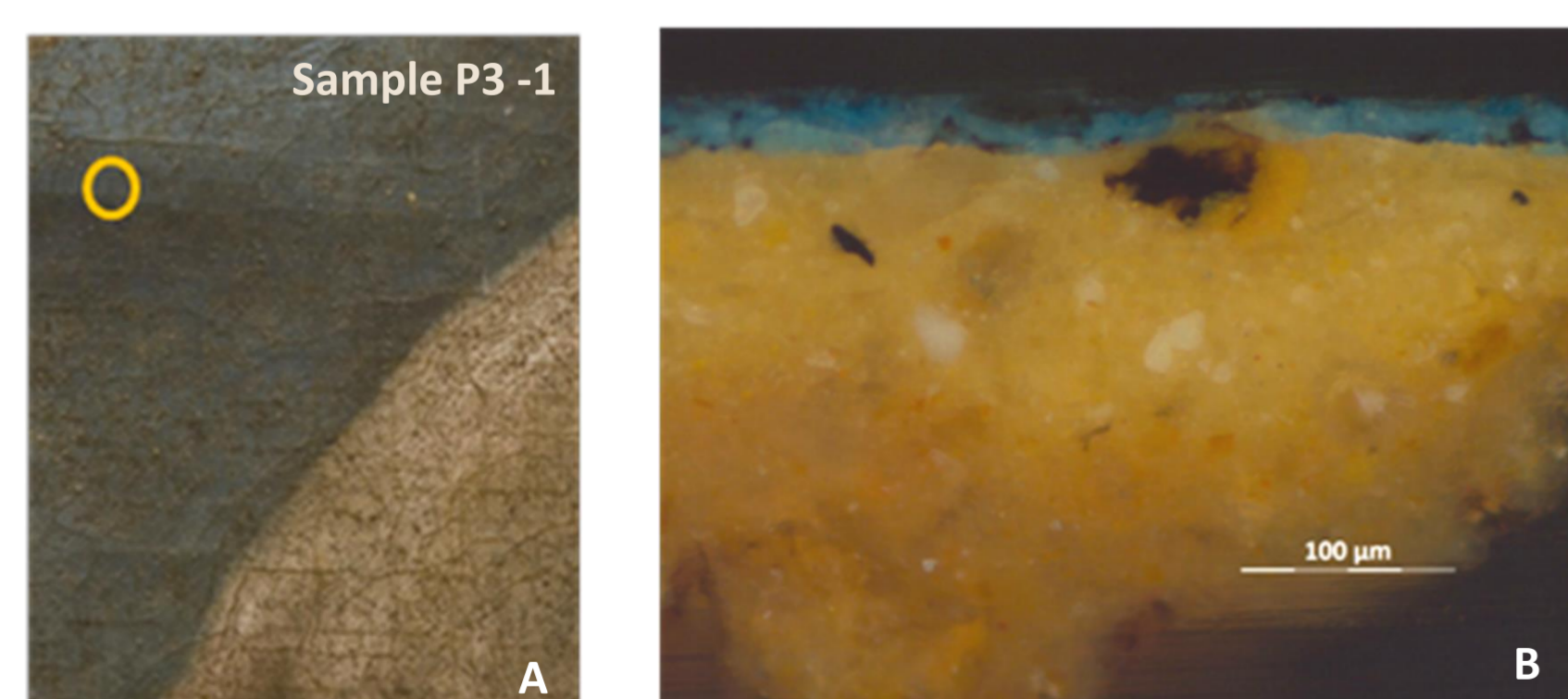
In this communication, we present the material study of four paintings executed by Pedro Alexandrino de Carvalho in different stages of his career.

The research methodology, in this work, includes the study of micro-samples collected over the representing colours of each painting, which were submitted to optical microscopy (OM) examinations, scanning electron microscopy with energy dispersive X-ray spectrometry (SEM-EDS) and Fourier transform infrared micro-spectroscopy (micro-FTIR) analyses.

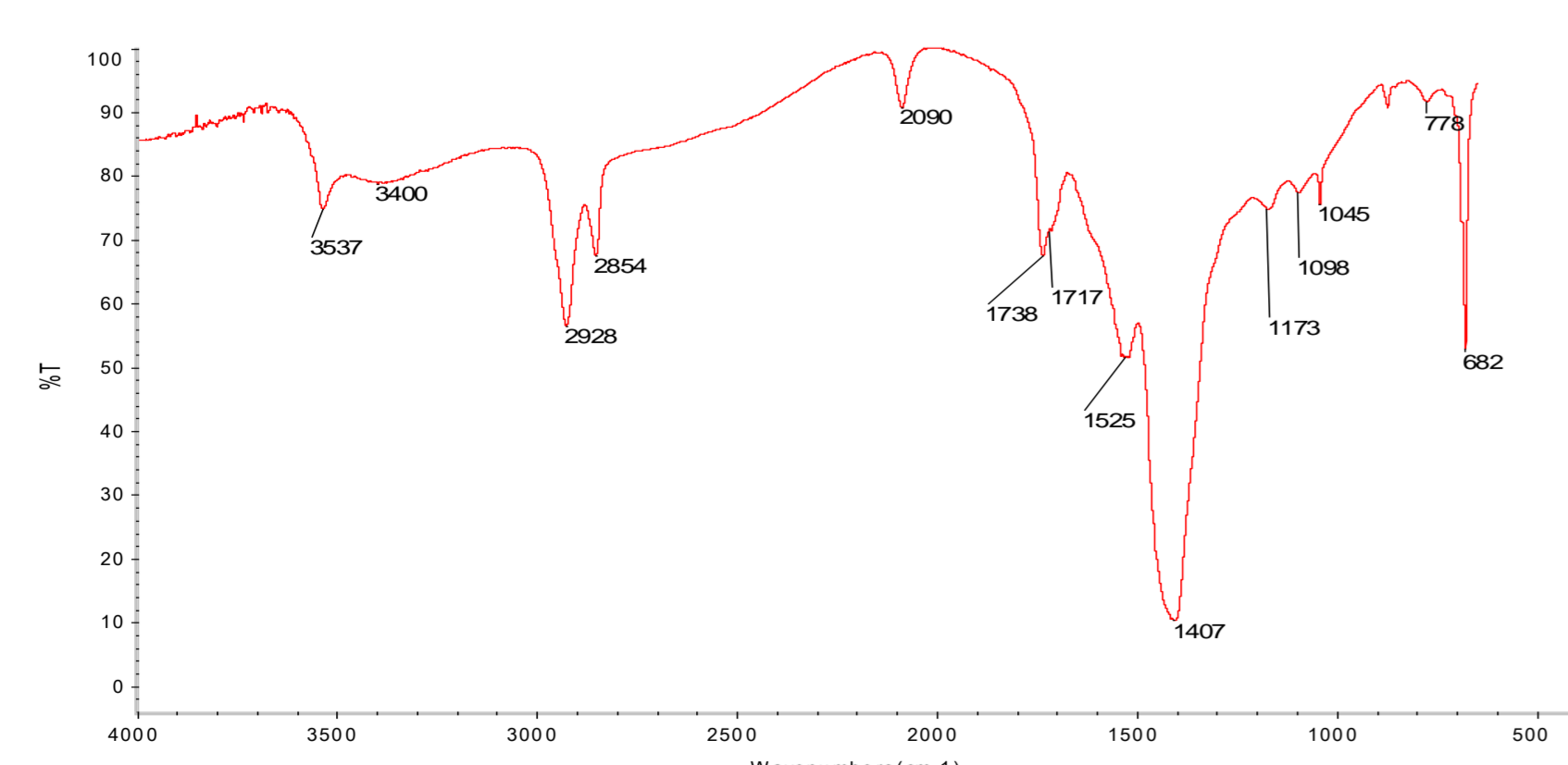
Results

	Pigments							Binder	Ground layers			
	●	○	●	○	●	●	●		Painting P3	Painting P5	Painting P6	Painting L-Sta. Is/A
Painting P5	Carbon black	White lead Calcite	Vermillion Red ochre	Red lake pigment	Yellow ochre	Brown ochre	Prussian blue	Oil	2 nd Calcite Iron oxides + silicates Carbon black	Calcite Iron oxides + silicates Carbon black Dolomite	Calcite Iron oxides + silicates Carbon black White Lead	Calcite Iron oxides + silicates Carbon black White Lead
Painting P6	Carbon black	White lead Calcite	Red ochre	Red lake pigment	Yellow ochre	Brown ochre	Prussian blue	Oil				
Painting P3	Carbon black	White lead Calcite	Vermillion Red ochre	Red lake pigment	Yellow ochre	Brown ochre	Prussian blue	Oil				
Painting L-Sta. Is/A	Carbon black	White lead Calcite	Red ochre	–	Yellow ochre	Brown ochre	Prussian blue	Oil	1 st EDS maps reveal greater concentration of Fe in this layer			White Lead (greater concentration)

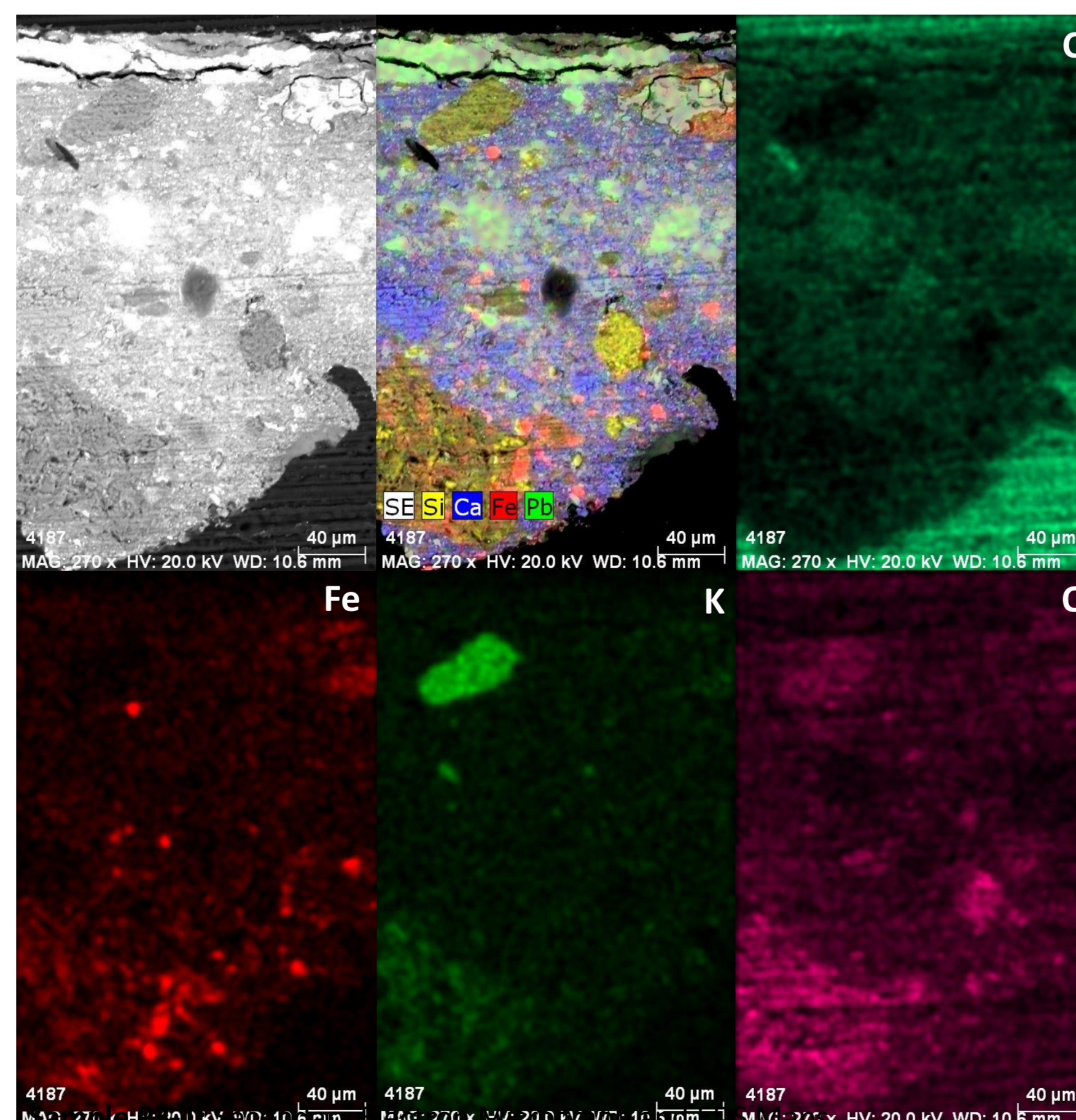
Characterization of the sample P3-1 by MO, micro-FTIR and SEM-EDS



Location of the blue sample collection point (A) from the painting *Jesus Christ delivering the keys to St. Peter*, and sample's cross-section (B)



Sample P3-1: FTIR spectrum of the blue layer revealing the presence of Prussian blue, white lead, oil and metal carboxylates (metal soaps)



Conclusions

Results reveal that the execution technique is similar in the four paintings: 2 preparatory layers, followed by 1 or 2 paint layers in most samples. Micro-FTIR and SEM-EDS analyses allowed identifying the pigments and binders in samples, and some coherence in the use of pigments was observed in the 3 stages of Pedro Alexandrino's artistic production.

A differentiating factor, which may help us distinguishing the altar screens on the different phases, refers to the composition of the ground layers.

Acknowledgments

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