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Milene Gil

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Milene Gil and Manuel Ribeiro

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Milene Gil, António Candeias and Vanda Amaral

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ANALYSES OF ALFREDO VOLPI'S PAINTINGS WITH EDXRF, SPECTROPHOTOMETER AND MULTISPECTRAL IMAGING

E.K. Mori(1), E.A. Del Lama(1), M.A. Rizzutto(2), E.M. Kajiya(2) and P.H.O.V. Campos(2)

(1) Instituto de Geociências da Universidade de São Paulo. Rua do Lago 562, São Paulo SP 05508-080 Brasil

(2) Instituto de Física da Universidade de São Paulo. Rua do Matão 187, São Paulo SP 05508-090 Brasil

Painter Alfredo Volpi (1896 - 1988) is one of the most important contemporary Brazilian artists. His extensive work, mostly characterised by chromatic compositions and geometric abstractions is technically unique. The artist attributed great importance to craft and materials, developing his own systematic way of working. From the mounting of the canvas to the paints, made with natural earth pigments.

It is understood that these elements are important keys to a deeper understanding of his work, both technically and artistically. The present investigation was carried making use of non-destructive complementary analytical techniques. The aim was to study the chromatic and chemical composition characteristics of his paintings and gather information on the technical procedures the artist may have used.

Among the paintings analyzed were temperas belonging to the Museum of Contemporary Art-USP. The selection focused on the time the artist's work underwent a major transformation, from figuration to abstraction, from the use of industrial oil-based paints to the medieval technique of tempera. This technique, known for its opacity, colour saturation and material presence of pigments on the canvas became as important as the colour itself in the shaping of the artist's new spatial relation.

The spectrophotometer was used to measure the colour based on the spectral curves and numerical reference coordinates within a uniform colour space. Techniques of visual examination from imaging visible light, visible fluorescence by ultraviolet radiation and near infrared reflectography were used to gather information about the artist's creative process. These techniques also helped detect restoration patches and identify pigments. Spectroscopy EDXRF (Energy Dispersive X-Ray Fluorescence) is important for chemical characterization of materials.

From the integration of these techniques it was possible to identify a part of the rich palette of Volpi's paintings; document the present aspects of the colours; recognize or give indications of pigment compositions and shed light on parts of each of the works stories, such as the presence of graphite sketches, covered earlier paintings and brushstrokes as well as document its current condition.

The tools used have proven useful in characterizing the paintings, revealing new information about the work of the artist and raised new questions. The information obtained may be the beginning of a database on his oeuvre.