

Hidden Secrets and Science and Technology Approaches to Titian's Ecce Homo

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Exhibitions in Cyprus and France showcase advances in science, technology and art focusing on aspects of research on a painting by the famous Renaissance master Tiziano Vecellio, also known as Titian (Pieve di Cadore, c. 1480 - Venice, 1576). Heritage science, digital technologies and art characterization enhance our understanding of the provenance, style and the chaîne opératoire of works of art. Drawing on the interdisciplinary expert capacity of APAC Labs of the Cyprus Institute, Titian's Ecce Homo (c. 1570-1575, oil on canvas) from the Pittas collection has been the focus of a years-long integrated science and technology research effort, which mapped the painting's materials and stratigraphy to unveil unknown secrets of the technique, processes, and materials used by the artist. More importantly, research mapped the existence and visualized an unknown portrait of a man hidden under the Ecce Homo composition and helped in artistic recreation and reimagination.

An exhibition in Cyprus and an exhibition in France present a journey through science, technology and art focusing on aspects of research on a painting by the famous Renaissance master Tiziano Vecellio, also known as Titian (Pieve di Cadore, c. 1480 - Venice, 1576). These presentations offer an introduction to heritage science and art characterization and the ways analytical work enhances our knowledge of the material aspects of art. Innovative methods and tools help us revise our understanding of the provenance, authenticity, style, aesthetics, and the *chaîne opératoire* of artworks. Drawing on the interdisciplinary expert capacity of the Andreas Pittas Art Characterization Laboratories (APAC Labs) at The Cyprus Institute (Cyl), Titian's *Ecce Homo* (c. 1570-1575, oil on canvas) from the Pittas collection (Fig. 1) was the focus of a years-long integrated science and technology research effort, which mapped the painting's materials and stratigraphy to unveil unknown secrets of the technique, processes, and materials used by the artist¹.

¹ Research of the Pittas collection *Ecce Homo* painting drew on contributions from of a range of APAC Labs experts (listed alphabetically): Avgoustinos Avgousti, Nikolas Bakirtzis, Svetlana Gasanova, Ropertos Georgiou, Sorin Hermon, Athanasios Koutoupas, Nicolette Levy, Michel Menu, Raphael Moreau, Andriana Nikolaidou, Rahaf Orabi.

More importantly, research mapped the existence of an unknown portrait of a man hidden under the *Ecce Homo* composition².



Figure 1. Titian, *Ecce Homo* (c. 1570-1575, oil on canvas)

The Cyprus exhibition took place in Limassol between 24 January and 10 March 2025 and was organized by the Cyprus Institute in collaboration with the Organization Lemesos 2030 - European Capital of Culture Candidate City

² Svetlana Gasanova — Nikolas Bakirtzis — Sorin Hermon, *Non-invasive Sub-surface Analysis of the Male Portrait Underlying the Ecce Homo Painting attributed to Titian's Studio*, «Heritage Science», 5 (2017), n. 33, p. 1-11. Also, Nikolas Bakirtzis —Svetlana Gasanova —Ropertos Georgiou —Sorin Hermon, *Painting Layers and Secrets of a Reused Canvas: Titian's Ecce Homo in the Pittas Collection*, in: *Titian: Themes and Variations*, ed. by P. Humfrey, Florence: Mandragora, 2022, p. 114-127.

and the Limassol Municipality³ (Fig. 2). It was hosted at the Limassol Municipal Arts Center-Apothikes Papadaki. The exhibition in France was held between 7 March and 14 June 2026 in the Musée Condé at the Château de Chantilly outside Paris.



Figure 2. The opening of the exhibition “Unseen Gaze – The Hidden Portrait under Titian’s *Ecce Homo*” in Limassol, Cyprus in 2025

Throughout his career, Titian kept returning to the intense moments of Christ’s trial, mockery and final condemnation as the Prefect of Judaea Pontius Pilate submitted to the demands of the mob demanding Jesus’s execution⁴. Numerous works representing different aspects of the story offering fascinating iconographic and narrative context to probe questions related to the evolving interests of Titian, the production and the artistic processes of his studio as well as the taste, expectations and perceptions of his patrons and clients. The Pittas Collection *Ecce Homo* depicts Christ from the waist up naked, bound and crowned with a wreath of thorns. He loosely holds a cane with his left hand, tied at the wrist with rope over his right one, which extends diagonally across his chest and rests on his left shoulder. To his left is the figure of Pontius Pilate, who is wearing a lavish red coat with fur collar and sleeve cuffs. To the right of Christ is the figure of a youth holding the ropes bounding Jesus’s hands. To the right of Christ’s head, behind the youth, is possibly the head of another participant. It is estimated that the specific iconographic type of the Pittas *Ecce Homo* dates from or after the year 1570, only a few years before his death in 1576.

³ <https://www.lemesos2030.com/en>.

⁴ Paul Ioannides, *The Mocking of Christ, the Recognition of Christ’s Divinity and the Ecce Homo by Titian and his Studio*, in: *Titian: Themes and Variations*, ed. by P. Humfrey, Florence: Mandragora, 2022, p. 94-113.

The work was documented and analysed with the help of a broad range of advanced digital imaging and analytical spectroscopic tools aiming to map its material aspects and pigments as well as to uncover details of the work's history and artistic techniques. Guided by the observations of Prof. Paul Ioannides and a preliminary X-ray on the existence of an underpainting depicting a man, APAC Labs' researchers were able to document the stratigraphy of the canvas and to reveal the material presence of a complete portrait, painted at 180 degrees angle, under the *Ecce Homo* composition. The use of image-based methods, such as X-ray, computational, multispectral and large format near infrared (NIR) imaging confirmed and spatially mapped the presence of the underpainting featuring the portrait of a standing man. The use of an innovative multi-modal scanner, combining Macro X-Ray Fluorescence (MA-XRF), Reflectance Spectroscopy (RIS), and Luminescence Imaging Spectroscopy (LIS), permitted the complete material mapping of the two works. The prototype multi-modal scanner was developed by APAC Labs / STARC in collaboration with the Centre de recherche et de restauration des musées de France (C2RMF), the Fondation des Sciences du Patrimoine (FSP), and the Centre national de la recherche scientifique (CNRS) in France.

Scanning results provided a unique visualization of the hidden portrait depicting a seemingly middle-age man standing in front of a desk and holding a quill with his right hand (Fig. 3). He is probably a professional man, possibly a merchant, a banker or an account of some sorts, posing in his place of business or private study. Unfortunately, no definitive identification of the depicted man can be made at this time.



Figure 3. Visualization of the hidden portrait under the *Ecce Homo* at the Limassol exhibition

The study of the stratigraphic relation between the two paintings has identified important details related to the choices of the artist in the reuse of the canvas. The *Ecce Homo* composition was painted directly on the male portrait without an intermediate preparatory layer. The existence of the completed portrait on the canvas affected the execution of the *Ecce Homo* composition. Details and pictorial elements from the portrait layer seem to have influenced and were used in the compositional execution of the *Ecce Homo*. The fact that the *Ecce Homo* was executed directly on the portrait surface points to an experienced and confident artistic hand, plausibly tracing the work of the leading studio artist, Titian himself. Reusing and repainting canvases was a common practice in artists' workshops. Artists often recycled these valuable materials for various reasons, including unsuccessful compositions, unpaid commissioned paintings or unsatisfied clients. For unknown reasons the portrait was painted over with the *Ecce Homo* composition. The Limassol exhibition also presented an ambitious effort to recreate the lost portrait with the engagement of artist Erato Hadjisavva, who used research results on the painting's materiality to remake and reimagine the unknown man's representation. The Château de Chantilly exhibit will feature along the Pittas collection work, the *Ecce Homo* from the Musée Condé collection attributed to Titian and his studio (oil on canvas, after 1547), which was analyzed and studied by the C2RMF in France, thus aiming to a creative research dialogue between the two works by the great master.

Due mostre, a Cipro e in Francia, presentano i progressi della scienza, della tecnologia e dell'arte, focalizzandosi su aspetti della ricerca relativi a un dipinto del celebre maestro rinascimentale Tiziano Vecellio, noto anche come Tiziano (Pieve di Cadore, 1480 circa - Venezia, 1576). La scienza del patrimonio, le tecnologie digitali e la caratterizzazione artistica aiutano a migliorare la nostra comprensione della provenienza, dello stile e della chaîne opératoire delle opere d'arte. Avvalendosi della competenza interdisciplinare degli esperti dell'APAC Labs del Cyprus Institute, l'Ecce Homo di Tiziano (1570-1575 circa, olio su tela) della collezione Pittas è stato al centro di un pluriennale lavoro di ricerca scientifica e tecnologica, che ha permesso di mappare i materiali e la stratigrafia del dipinto, svelando segreti sconosciuti della tecnica, dei processi e dei materiali utilizzati dall'artista. Ancora più importante, la ricerca ha permesso di individuare e visualizzare un ritratto sconosciuto di un uomo nascosto sotto la composizione dell'Ecce Homo, contribuendo alla sua ricreazione e reinterpretazione artistica.

L'ultima consultazione dei siti web è avvenuta nel mese di giugno 2026