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Discovery and material study of the missing feet part from Magritte's *L'évidence éternelle* of 1954

Catherine Defeyt^{1*} , Francisca Vandepitte², Elodie Herens¹ and David Strivay¹

Abstract

One of the two missing canvases from *L'évidence éternelle* of 1954, the one of the feet, has been discovered beneath a small woman portrait painted in 1958, *La toile de Pénélope*. Indeed, the underlying woman's feet revealed through the IRR and XRR images leave little doubt about the identity of the hidden composition. All the more so as the canvas dimensions perfectly match with the format ascribed to the feet part in the diagram Magritte made of the 1954 variant of *L'évidence éternelle*. This paper presents the main results of the material study conducted on *La toile de Pénélope* by means of non-invasive and complementary imaging and analytical techniques. Furthermore, it proposes a virtual colorized reconstruction of the hidden picture, built on the basis of the XRR and IRR images, the elemental information provided by the MA-XRF analysis, the Raman results and the microscope examination of the painting surface.

Keywords: Magritte, Painting, Non invasive

Introduction

In the framework of the project Magritte on practice (2015–2018), 50 oil paintings and 10 gouaches made by the artist between 1920 and 1967, and housed by the Magritte Museum (Royal Museums of Fine Arts of Belgium—RMFAB), have been investigated in situ by means of a mobile lab equipped with a large panel of non-invasive methods. The implemented imaging and analytical techniques are: infrared reflectography (IRR), X-ray radiography (XRR), high resolution visible and UV light photography, Raman spectroscopy (RS), digital microscopy, and scanning X-ray fluorescence (MA-XRF).

Amongst the axes of research developed in the project there was the discovery of double paintings. Indeed, David Sylvester pointed out the fact that Magritte routinely reused the canvas supports from previous paintings. A practice the author has correlated with the artist's financial difficulties, persisting until the 1940s [1]. The quantity and the quality of the overpainted compositions remain

outstanding issues. The specialists of the Belgian surrealist are then faced with a challenging task; the assessment of the importance and the significance of the lost works.

In that respect, the extended number of RMFAB paintings investigated through complementary imaging techniques has greatly increased the chances of discovering double paintings. Indeed, six double oil paintings have been discovered within the Brussels corpus [2, 3].

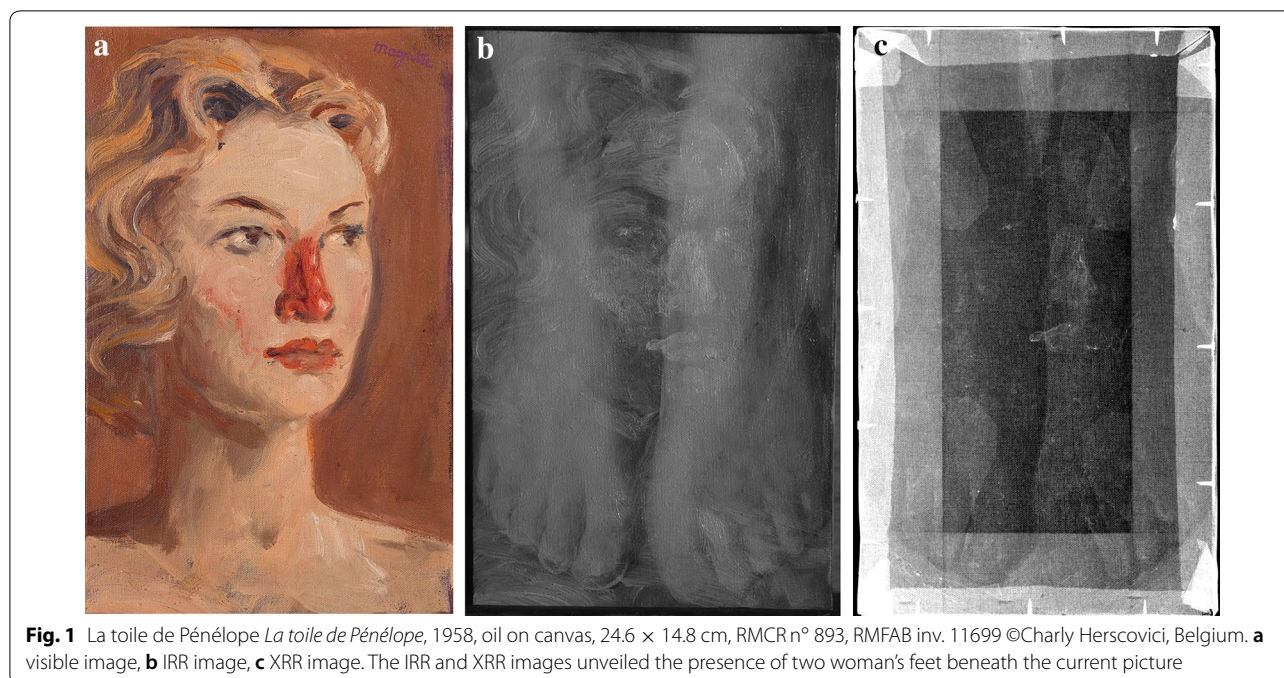
One of them is *La toile de Pénélope* (René Magritte Catalogue Raisonné (RMCR) n° 893 [4], RMFAB inv. 11699), a small woman portrait executed in 1958, for which the IRR and XRR images revealed the presence of two woman's feet lying beneath the painting surface (Fig. 1a). The discovered feet have been rapidly identified as part of the third and last variant Magritte made of *L'évidence éternelle* in 1954 (RMCR n° 807 [4]).

This paper presents an overview of the results obtained for *La toile de Pénélope*, which includes the current picture and the feet lying underneath. The combination of imaging and analytical methods permitted collection of substantial information about the appearance of the hidden composition. The present paper proposes a virtual colorized reconstruction of the lost fifth part from *L'évidence éternelle*, on the basis of these outcomes.

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Experimental

A high-resolution photographic documentation was first gathered. The full size images in visible light and under ultra violet light have been acquired by using the home-made scanning system of the CEA [5] and a D7500 Nikon camera with an AF-S Micro Nikkor 105 mm Nikon objective. Each close-up is recording a 4 cm × 3 cm area of the painting. The images are then stitched as a panorama view with PTGui software. These photographs have been enriched by X-ray radiography and infrared reflectography images. Additionally, the painting surface has been examined with a digital microscope (Dino-Lite).

In order to obtain further details on the hidden composition and to get a better understanding of the pigments distribution through elemental maps, X-ray fluorescence (XRF) spectroscopy was used in macro scanning mode (MA-XRF). The XRF scan of the whole painting has been completed in approximately 8 h by using the CEA translation stage and homemade XRF system [6, 7], made of a Moxtek Magnum X-ray tube (50 kV) (with a Ag anode), a detector X-123SDD Amptek (25 mm²), with a resolution of 130 eV at 5.9 keV. Scanning step was set to 1 mm, speed to 3 mm/s. X-ray tube was set to a voltage of 40 kV and a current of 120 μA. Spectra were treated in batch mode using PyMCA [8], allowing separation of the signals from the different chemical elements.

The analyses by Raman spectroscopy (RS) were performed with the Enwave Optronics setup (portable Raman analyzer I-Dual-G), using a laser at 785 nm [9]. Three Raman spectra were acquired for each of the

twelve investigated sites, with the lowest laser power necessary to obtain valuable results (ca. 30 mW). The recorded spectra were treated using GRAMS. Data and images were all acquired on the museum site thanks to the CEA mobile lab.

Results and discussion

The IRR and XRR images recorded for *La toile de Pénélope*, (Fig. 1) revealed straightaway the presence of two woman's feet beneath the visible portrait. The discovered feet and the way they are displayed, undeniably appear connected to *L'évidence éternelle*, a truncated female nude composed of five separate small canvases, Magritte first painted early on his career (RMCR n° 327 [10]) and reproduced twice afterwards (Fig. 2).

The prototype executed in 1930, possibly inspired by Salvador Dali's portraits enclosed in human body shapes, shows a truncated nude of Georgette Magritte, painted in a three-quarter view (Fig. 2a) [10]. In 1948, Magritte completed another version of the work in which the model (still not identified) is portrayed in a frontal view (Fig. 2b) [11]. We know from Sylvester that a third and last variant of *L'évidence éternelle* was attempted by Magritte in 1954 [4]. However, the entire completion of this late version remained uncertain since, until recently, only three canvases have been traced (Fig. 2c): the face, the breast and the knees. The canvas of the face corresponds to a small woman's portrait subsequently titled *La ressemblance*, and stayed with Magritte until his death (Fig. 3a). Unfortunately, its model, a young blond woman had not been

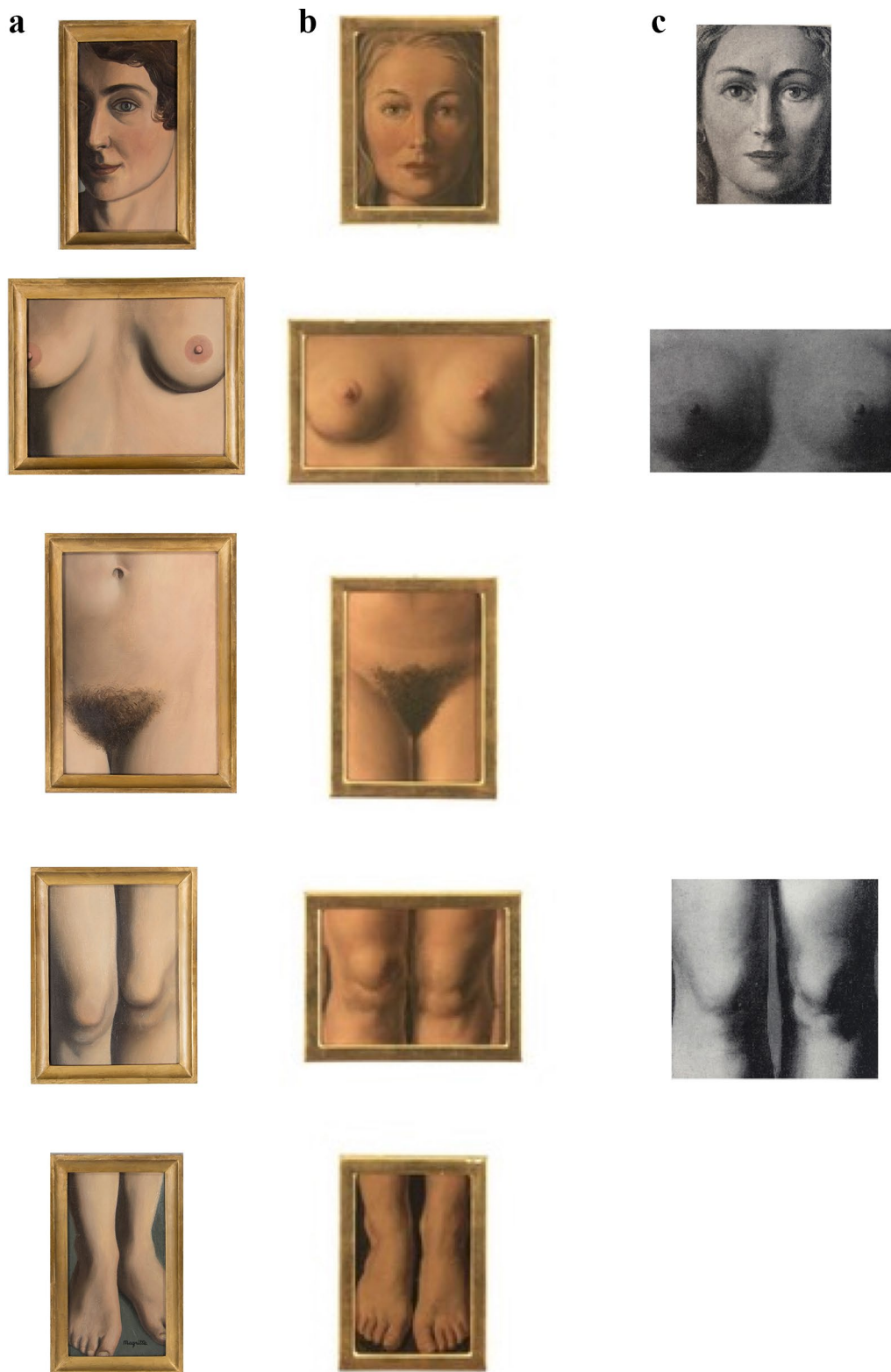


Fig. 2 *L'évidence éternelle*. **a** *L'évidence éternelle*, 1930, oil on five canvases, 22 × 12, 19 × 24, 27 × 19, 22 × 16, 22 × 12, RMCRn° 327 [10] ©Charly Herscovici, Belgium. **b** *L'évidence éternelle*, 1948, oil on five canvases, 25.5 × 19.5, 19.3 × 32, 27 × 20.2, 20.5 × 26.6, 26 × 18, RMCRn° 640 [11] ©Charly Herscovici, Belgium. **c** *L'évidence éternelle*, 1954, oil on canvases, 20.5 × 15.6, 16 × 28, 21 × 20, RMCRn° 807 [4] ©Charly Herscovici, Belgium



a

b

Voici au verso la liste des tableaux disponibles chez del Corso 146 Via Sistina - Roma le 13 janvier 1954-

Cher Monsieur Iolas,

Voici les dimensions de 5 petits Chassis à faire pour "L'Évidence éternelle" (les cadres peuvent être commandés aussi, si il faut gagner du temps) -

Voici aussi le plan pour la glace et le socle -

J'ai commencé les 5 petits tableaux, ils seront bientôt terminés - (Il y aura un nombre, et de cette façon ce sera une variante un peu différente de celle que vous voyez.)

Avez-vous reçu le No spécial de la Louve et 'après nature' ? à quand votre visite ?

Bien amicalement vôtre
René Magritte

5 chassis

Mesures en Millimètres :

- 150 x 200
- 280 x 160
- 130 x 350
- 210 x 200
- 150 x 250

Fig. 3 La ressemblance. **a** René Magritte posing with *La ressemblance* in the Mimosas house, in 1954, MRBAB/AACB, inv. 39739 ©Charly Herscovici, Belgium. **b** Project draft of *L'évidence éternelle* enclosed with a letter Magritte sent to Alexander Iolas in 1954 (Magritte archive, The Menil Foundation, Houston)

identified. The artist offered the canvas of the breast and the one of the knees to Suzi Gablik, a young American author who lived with the Magrittes for eight months in 1960 [12]. Gablik kept the canvas of the knees and sold the one of the breast to Robert Rauschenberg [4].

The subject and the framing of the picture found beneath *La toile de Pénélope*, but equally its size leave little doubt about its provenance. Like the face, the breast and the knees belonging to the 1954 variant, the discovered feet are represented in a frontal view. Moreover, the canvas dimensions (24.6 × 14.8 cm) perfectly match with the stretcher format ascribed to the feet part (25 × 15 cm) in the project draft of *L'évidence éternelle* from 1954 (Fig. 3b) [4].

The underlying purple layer, punctually visible on the right edge of the painting (Fig. 4a), can be reasonably considered as the background color behind the feet. Indeed, the observed purple color perfectly tones

with the background color found in the part of the knees (Fig. 4b). In the light of this outcome, the purple signature affixed in the upper right corner of *La toile de Pénélope* (Fig. 5a) can be seen as a deliberate reminiscence of the sacrificed picture.

The examination of the painting surface with raking light unveiled Magritte's signature from the lost picture in the lower left corner (Fig. 5b). Although the third canvas that should contain the navel is still missing, the discovery of the fifth part containing a signature strongly indicates that Magritte would have actually painted a navel part as well and that this variant was once a complete set.

The Raman measurements performed on the purple under layer unscathed by the current brown background allowed the identification of Ultramarine, vermilion, lead white and carbon black. In addition, the MA-XRF analysis of the whole painting permitted the identification

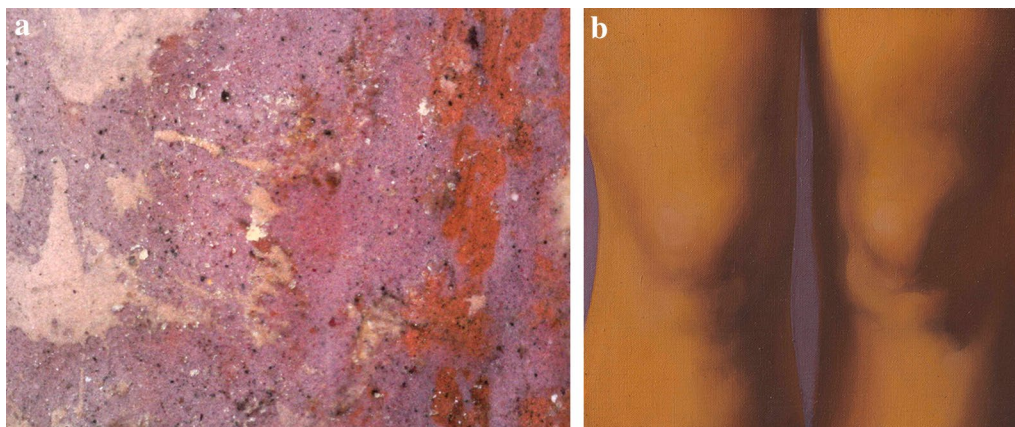


Fig. 4 The background. **a** Purple under layer punctually visible on the right edge (magnification ×50) and originating from the previous background colour. The related purple shade has been achieved by mixing several pigments, including Vermilion, ultramarine, lead white and carbon black. **b** Part of the knees (21 × 20 cm) from the 1954 version of *L'évidence éternelle* ©Charly Herscovici, Belgium

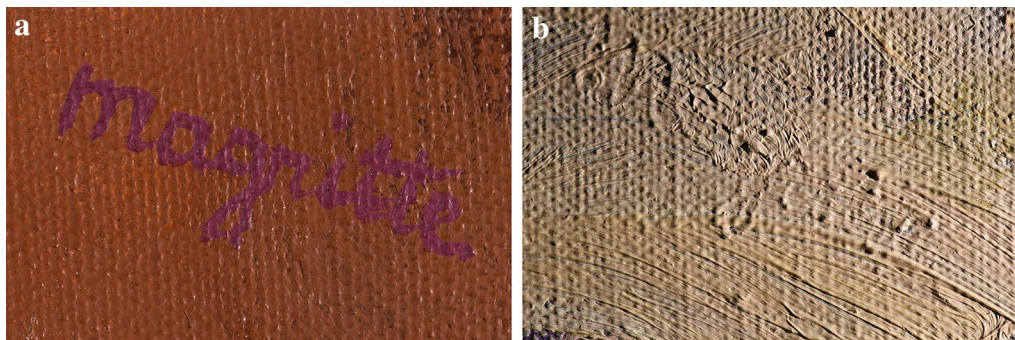


Fig. 5 Signature. **a** Current purple signature affixed in the upper right corner. **b** Underlying signature from the feet part of *L'évidence éternelle* (1954) visible with raking light in the lower left corner

of inorganic pigments originating from both the visible image and the hidden composition. The distribution maps recorded for Hg and Pb (Fig. 6) support the presence of Vermilion and lead white in the overall background color enclosing the feet. The Hg scan provided further information on the lost image since it made visible the former signature lying just below the left foot as a shadow. Concerning the feet themselves, the MA-XRF scans of the Zn, Fe and Ca elements (Fig. 6) indicate flesh tones based on zinc white and iron oxide/hydroxide pigment(s) with Ca contents.

Like reported for several other Magritte's oil paintings and observed in MA-XRF scan of the painting side, the present canvas has been primed with two separate ground layers, a first one based on lead white and a second one based on zinc white [2, 13–16].

The MA-XRF results (Fig. 6) and the Raman spectra related to the visible portrait led to the identification of titanium white (anatase), barite, strontium sulfide, zinc white, vermilion, iron oxides with calcium contents, ivory black and ultramarine. The white pigment predominantly used for painting *La toile de Pénélope* is titanium white (anatase), associated with barite and strontium sulfide.

However, zinc white has been equally identified from the painting surface, chiefly in the flesh tones. Besides titanium white and zinc white, the flesh tones involve iron oxides pigments with calcium contents, vermilion and ultramarine. The brown background and the brown hair have in common high contents of iron oxides and titanium white (admixed with barite and strontium sulfide). The use of vermilion is prominent only in the nose and in the lips.

A colored reconstruction of the feet part, built on the basis of the overall information collected in the present study, is proposed in Fig. 7. Color hue has been identified by looking at the right edge of the painting while contours and shadows have been obtained by looking at the Zn and Pb MA-XRF scans (Fig. 6).

Conclusions

The woman's feet revealed through the IRR and XRR images leave little doubt about the identity of the composition lying beneath *La toile de Pénélope*. All the more, so do the dimensions of the canvas which totally match the format ascribed to the feet part in the 1954 project

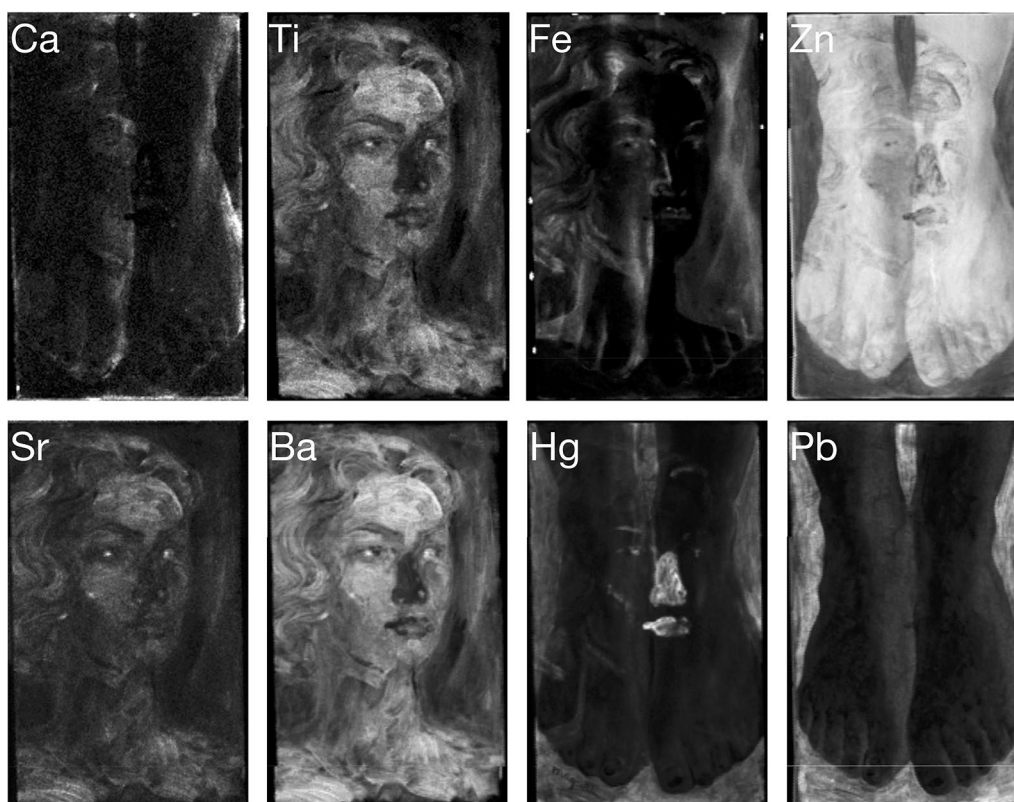


Fig. 6 MA-XRF. MA-XRF maps showing the distribution of Calcium (Ca K-ray), Titanium (Ti, K-ray), Iron (Fe, K-ray), Zinc (Zn, K-ray), Strontium (Sr, K-ray), Baryum (Ba, L-ray), Mercury (Hg, L-ray) and Lead (Pb, L-ray) for the whole painting. The grey scale corresponds to the intensity of the signal of each element, black being the minimum of the signal, white, the maximum



Fig. 7 Virtual reconstruction. Virtual colored reconstruction of the feet part from *Lévidence éternelle* (1954), built on the basis of the XRR and IRR images, the MA-XRF results, the examination of the painting subsurface through digital microscopy and the chromatic range of the related knees part

draft Magritte made of *Lévidence éternelle*. Like the face, the breast and the knees, the feet from the 1954 variant have been portrayed in a frontal view. The model's pose is therefore much closer to the 1948 version than to the prototype, within Georgette Magritte which was painted in a three-quarter view.

Because it perfectly matches with the purple background of the knees, the purple under layer visible in some places on the right edge of *La toile de Pénélope* most probably corresponds to the background color of the feet. In the light of this outcome, the purple signature in the upper right corner of *La toile de Pénélope*, appears as a reminiscence of the sacrificed composition.

With regards to the last missing canvas from *Lévidence éternelle* of 1954, the discovery of the signed feet part

tends to evidence Magritte likely did complete the painting of the navel as well.

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Authors' contributions

CD, EH and DS have realized the in situ measurements (imaging, XRF and Raman), CD, DS and FV have interpreted the results of the analysis. All authors read and approved the final manuscript.

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Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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