

RESTORATION TREATMENT REPORT

WATER FAIRY

EMIL JOHANN LAUFFER

1975

NATIONAL GALLERY IN PRAGUE



Alžběta Mirjam Procházková
Academy of Fine Arts in Prague
The Studio of Restoration of Painted Artworks
academic year 2023/24
diploma thesis

author:	Emil Johann Lauffer
title:	Water Fairy
date:	1875
technique:	oilpainting on canvas
dimentions:	140 x 195 (dimentions in decorative frame) 108,7 x 157,8 (dimentions of the painting)
owener:	National Gallery in Prague
inventory number:	O 14882
provenience:	Prague
previous restoration treatments:	no report exists
term of the beginning of the treatment:	5th of January 2024
term of the end of the treatment:	
institution:	Academy of Fine Arts in Prague Studio of Restoration of Painted Artworks
studio leader:	doc MgA. Adam Pokorný Ph.D.
supervisors:	ak. mal. Theodora Popová MgA. Denisa Cirmaciová Ph.D. MgA. David Hrabálek
laboratory examination:	Ing. Lenka Zamrazilová
treatment done by:	Alžběta Mirjam Procházková

DESCRIPTION OF THE ARTWORK

A massive gilded decorative frame encloses an oil painting depicting an intimate scene of the Water Fairy walking through a landscape with a gurgling stream. The girl is positioned in the central composition in a tender pensive gesture. With her left hand she holds above her head a pale blue drapery with floral patterns, which spreads loosely behind her figure and merges to the ground, where it transforms into rivulets of water. In her right hand, the fairy elegantly holds a sparkling pearl. The girl's gaze is fixed upwards to the right, out of the picture. Her long brown hair falls around her body to her hips and is interwoven several times with a ribbon of pearls. Around her head is a floral wreath of dark leaves with two red flowers. The girl is depicted in the nude with a light green shawl tied around her legs with a distinctive knot at the lap. The fairy stands in a contrapposto position with the weight of her body transferred to her right leg. Her left foot is casually relaxed slightly behind her right. In the background, the girl is surrounded by a dark corner of trees, from which a stream of water flows diagonally at the bottom of the painting, reaching down to the fairy's feet. The trickles of water run around or over several boulders and stones. In the upper right of the background, the density of the tree transitions into a vista of an unspecified landscape with hills and a sky with white clouds.

The author of the work is the Czech painter of German nationality Emil Lauffer (28 June 1837 - 31 May 1909), baptized Emil Johann Leo Lauffer. He studied at the Vienna Academy under Christian Ruben and came to Prague in 1865 to make two mural paintings in the Queen Anne's Summer Palace according to his professor's conception. He remained in Prague and was then professor of drawing at the German Polytechnic Institute (1869-1907) for almost forty years. He also worked at the Prague Academy, where his student was Václav Brožík. He also gave private drawing lessons to well known Czech impressionistic painter Antonín Slavíček. Lauffer was a representative of Austrian-German Romantic historical painting, and repeatedly used templates from other paintings as models for his works. In addition to painting on canvas, he also produced mural paintings (a fresco in the foyer of the National Theatre in Prague based on a design by Mikoláš Aleš, and a ceiling painting in the hall of the Liblice castle). In 1864-1886 he was a member of the Krasoumná Jednota. He died in Prague and was buried in the Olšany Cemetery.

RESTORATION EXAMINATION

THE PAINTING'S TECHNIQUE

The painting was received in a decorative gilded frame. The dimensions of the painting with decorative frame are 140 x 195 cm. The decorative frame is wooden, richly embossed with floral motifs. The carving has a glue-chalk gesso layer and oil gilding. The painting was adjusted into the frame by 8 screw clamps from the back side. In the lower left part of the back side of the frame is glued a paper sign carrying a note 17/81.

The oil painting is on canvas support. The dimensions of the painting are 108,7 x 157,8 millimetres. The material of the textile support is linen canvas woven with linen weave. The warp threads are oriented horizontally, the weft threads intersect them vertically. The weave density is 19 warp threads and 17 weft threads per cm². The character of the threads is very regular, it is an industrially produced canvas of very fine structure with a distinct presence of knots throughout. On the top and bottom edges the linen is cut so that the ground layer extends to the edge, in contrast to the right and on the left side where the ground layer ends approximately 2 cm before the edge of the canvas itself. At these points, there are nail holes around the entire circumference of the canvas support from earlier stretching. The weave of the linen is slightly deformed around these holes, which was caused by the off and on action of humidity during the application of ground layer on the canvas. Therefore, we conclude that the canvas was pre-grounded in a larger format. It was probably a roll of canvas 120 cm wide. The required format for this painting was then cut from this commercially prepared roll. The back of the canvas support shows a slight seepage of the ground layer throughout, with several places where it has been completely soaked through. The support stretcher is rectangular with an off-center horizontal bar. The frame is not fitted with a spacer bars, at the corners of the frame there are 11 wooden wedges. On the right part of the bottom bar is a label of the National Gallery with the inventory number of the painting, due to the orientation of the painting the label is upside down. The canvas backing is attached to the frame around the edges with metal nails with spacing of 10 - 13 cm. Between these nails there are other holes at regular intervals of about 6 cm around the perimeter of the canvas. Therefore, the stretching of the painting is not probably original. The canvas was probably restretched on the current stretcher, however, it is not clear whether or not this was the author's work.

The ground layer is probably based on emulsion of oil and water gesso, tinted white. It is very thinly applied in a smooth layer. The imprimatura is tinted a light ochre.

The painting is oil-bound; it is a commercial tube paste. The construction of the painting within the figure is different from the construction of the painting in the background.

The figure was built on an underpainting composed of cool tones of earthy iron oxide pigments in the tonality of brown and ochre. In the shaded areas, the underpainting visually asserts itself in the sum of the layered construction of the painting. The underpainting was applied over a layered glaze painting composed primarily of lead white with varying proportions of the iron oxide pigments. Impasto accents, applied with short brushstrokes, are found in the lighter parts. In contrast to this layered construction, the background was painted with a very suggestive painting alla prima on a simple tinted underpainting. The underpainting in shades of

brown and ochre of areas of the painting depicting floral landscape staphage, sandy ground and water springs is also visually evident in the shadows. The indication of pigments used for particular colours was based on the evaluation of IR and UV false colour as well as by the XRF testing and laboratory examination of samples of cross-section. The samples were mainly taken to examine the blue and green pigments whose diversity was exhibited in IR false colour picture. Some of the blue reflections of the water were painted with cobalt blue, the dark shades with Paris blue. The landscape was built up in very impasto layers of lead white with cobalt blue on a bluish underpainting composed of cobalt blue. The drapery of the veil was painted at the end in a subtle glaze layer with a few pasty accents, mainly in floral decoration. The fairy's legs were hidden by the drapery after they were painted, painted in a combination of Parisian blue and chrome yellow in a rather pasty layer of colour.

Optical research using the Osiris camera in the infrared spectrum as well as the capture in X-ray spectrum revealed that the painter created the composition of the painting and the figure's posture directly on the canvas. Infrared reflectography and RTG pictures uncovered numerous shifts and changes in the girl's posture and gesture both in the underpainting and in the final author's over-paintings. Above all, the IR photographs make it very clear how the girl's standing gesture, the movements of both hands, and her posture in counterpoint changed. In these photographs one can observe the change in the gestures of both of the girl's hands, which is further more visible in RTG pictures. The right hand, which was raised higher and relaxed, was holding the flower. The left hand was first relaxed along the body (following the onset of the drooping arm), then raised above the head in a similar gesture to the final one, but a few centimetres higher, above the drapery. The position of the legs and contrapposto was also modified. In the images we can observe that the painter also worked with the variation of shifting the weight of the body thanks to her left leg as opposed to the present right one. The right leg was dropped and placed two tens of centimetres higher than now, and in this position it was also adjusted twice. With the shift in the fairy's stance came a slight shift in the girl's hips and belly button.

The painting was finished with a thick varnish layer with a glossy character applied with a brush over the whole surface.

CONDITION OF THE PAINTING BEFORE TREATMENT

The canvas support is slightly loosened and warped on the stretcher. The bulges of the linen support in the right part of the painting can be seen in the photographs in raking light. There are a few other loosenesses around the edges of the painting. There are several other loosening and curling of the linen support around the perimeter of the image and in the corners. This phenomenon is due to the lack of distance bars of the stretcher. There is a large amount of dust deposits on the surface of the back of the painting. A heavy deposit of dirt is also found behind the stretcher bars. The support frame is slightly curved. There are a few secondary drips of the significantly shaded material in the UV luminescence on the stretcher bars. Probably the same material was also sprayed on the back of the canvas support in the lower left corner.

The ground layer is relatively stable and without loss of adhesion to the canvas support.

The painting is remaining a good adhesion to the ground layer. There are only a few defects 4 - 12 mm long with loss of painted layer. On the images in the varying side lighting there is a significant full secondary craquelure of the paint layer and the ground. In the area of the knot of the drapery hiding the fairy's legs, the painting has been rubbed off at the points of the craquelure tops. There were two mechanical damages in the area of the painting in the form of incisions from the front of the painting into the paint layer, dents in the canvas underlay, which, however, were not disturbed by the cutting. The presence of a thick varnish is evident in the UV luminescence images. The examination of cross-sections demonstrated the presence of two varnish layer. The original varnish was unequally thinned in the past within local removal of the finish glazes of the paint, several defects were filled and overpainted and a new varnish layer was applied. Both varnish layers are degraded, which is manifested by a distinct yellowing of the character of the painting.

There is a large amount of fly mosses and several drips of synthetic material all over the surface of the painting, especially in the right bottom corner of the painting. In this place the paint layer has been disturbed and removed.

There is a large amount of dust deposits and dirt on the surface of the painting.

TREATMENT PROPOSAL

1. Preliminary examination, including both non-invasive optical-physical methods and destructive spectral analytical methods (3 samples of cross section).
2. Preconsolidation of loosened painted layers.
3. Removal of dust and dirt deposits from the front and back sides of the painting using dry methods.
4. Removal of the dirt layer from the varnish of the painting.
5. Thinning of the degraded varnish layer.
6. Removing the painting from the stretcher.

7. Completion of the removal of dust and dirt deposits from the back side of the canvas.
8. Strip lining.
9. Flattening of the canvas using a climatic humidity chamber.
10. Consolidation of the painting on a vacuum heating table.
11. Finalizing the varnish removal, removing local overpaintings and fillers.
12. Removal of dust and dirt deposits from the original stretcher.
13. Providing the original stretcher with distance bars.
14. Stretching the canvas onto the original stretcher.
15. Filling of the defects.
16. Retouching of the fillers and defects in the painted layer.
17. Spraying of the varnish layer.
18. Adjustment of the painting into the decorative frame.

TREATMENT REPORT

- The photo-documentation of the painting was conducted using multispectral examination methods, including photographs taken in visual daylight and raking light, UV luminescence, UV photography, and IR reflectography. The IR false color and UV false color images were created using Photoshop. X-ray spectrum analysis was performed on the painting. The technique of the painting and its condition was analyzed and the treatment proposal was estimated.
- Several areas of the painting were analyzed using XRF, and three samples were taken for cross-section analysis.
- The painting was removed from the decorative frame during the photo-documentation.
- There were multiple defects on the painting with loosened or missing paint layers. These areas were consolidated using a 5% gelatin solution in distilled water. Local facing was then removed using White Spirit after preconsolidation.
- The pH of the painting surface was measured by placing agarose pieces on the surface and calculating with a pH meter both before and after dry cleaning. The pH on the non-cleaned part was 6.5, and on the cleaned part, it was 6.7.
- Both the front and back sides of the painting were cleaned using sponges and a vacuum cleaner to remove dirt and dust deposits.
- Reversibility tests for the surface dirt were conducted using aqueous methods. A buffered solution with ortho-phosphoric acid at pH 6.3 was tested first, followed by the addition of the surfactant Ecosurf. The free buffered solution at pH 6.3 was chosen as the most effective for cleaning the entire surface of the painting.
- Afterwards, reversibility tests of the varnish layer were conducted. The varnish proved to be very sensitive from the beginning, using the testing set of IE and IA approved by Cremonesi. With IE 1, the reaction was too fast, while the second row of IA1 showed no reaction, and IA 2 had a reaction that was difficult to moderate. Subsequently, tests were conducted using free isooctane, White Spirit, and Shellsol D 40, but no visible reaction was observed under both daylight and UV light. Cremonesi's latest research suggests that the mixing of non-polar and high-polar solvents is not always recommended. This prompted an evaluation of the varnish's reversibility using a different solvent set. A mixture of isooctane with methylethylketone (MEK) and White Spirit with butyl acetate was prepared in the same proportions as the previously tested IE and IA rows. The proportions of 7:3 and 6:4 of isooctane with MEK showed sufficient reactions. However, some areas exhibited blanching, which was subsequently removed. Additionally, the slow thinning of the varnish proved difficult to control. An uneven varnish layer was discovered during testing, particularly noticeable in darker areas compared to lighter sections and the incarnate. Beneath this varnish layer, the original varnish layer was found, previously unevenly removed during an unreported treatment. This discovery led to the development of a gelled solvent solution. Due to its superior gelling properties, White Spirit was chosen in combination with MEK. The solvent surfactant gel with Ethomeen C12 (SSG C12) was created using White Spirit and tested on areas of the painting with a thinner varnish layer, such as lighter sections and the incarnate. Two different ratios of SSG C12 with MEK were tested: 10% and 20% of MEK in SSG C12. These gels were then applied to other areas of the painting. The result was a moderate thinning of the varnish, without affecting the original varnish layer in areas where it was preserved. The process was monitored through examination under daylight and UV light. Reversibility tests for the varnish layer were then carried out. The varnish proved to be very sensitive to the testing set by Cremonesi. Different solvent combinations were

tested, including isooctane with methylethylketone (MEK) and White Spirit with butyl acetate. The most effective combination for moderately thinning the varnish layer without affecting the original varnish was found to be White Spirit in combination with MEK, gelled using a solvent surfactant gel with Ethomeen C12 (SSG C12).

- After thinning the varnish layer to an approximately equal level (without total removal), the edges of the painting were supported using facing before removing it from the stretcher. Smooth Japanese paper was chosen for the facing and applied with a 1% solution of gelatin in distilled water.
- The back side of the canvas was cleaned using dry methods (vacuum cleaner, brushes, and sponges) to remove dust residues. The edges of the canvas, which were on the sides of the stretcher bars, were flattened by the application of distilled water to the grooves on the back side of the painting.
- The strip lining process was initiated using synthetic canvas trevira and BEVA 371 adhesive. The adhesive was left to evaporate overnight and then activated by iron the following day. The strips were applied to the canvas using a heated (65°C) iron and a cold, heavy one.
- The painting was stretched onto a working stretcher.
- A climatic humidity chamber was used to expose the painting to a humidity level of 79% for several hours. The painting was monitored during this time, and the stretcher was adjusted as needed.
- The surface consolidation was performed using a 10% BEVA 371 solution in toluene, applied warm in a vertical position. Toluene was chosen for better penetration properties over other solvents and vertical position assisted to apply less material than in the laid position. The solvent was left to evaporate overnight.
- Meanwhile, the original stretcher was dismantled, and each stretcher bar was cleaned using dry methods with sponges. Afterwards, the residues of dirt were removed by cotton swabs wetted with White Spirit. Then, the stretcher was reassembled into its proper position. Since the stretcher originally had no distant bars, new ones were glued to the side edges of the original bars around the entire stretcher.
- The next day, the adhesive was activated on a vacuum table. The painting was placed face up on the table, covered with a thin silicone rubber sheet, and the stretcher was removed. Sheets of silicone Melinex were placed under and over the painting, and the vacuum table was heated to 65°C while pressure was applied for approximately one hour.
- This action significantly helped to flatten the craquelure; however, the result was still insufficient. Therefore, the painting was placed on the vacuum hot table once again, this time with the painting facing down. Before the first activation of the consolidating agent, the losses in the painting layer were contemporarily filled with Evacon R filler (with tylose and aluminium hydroxide). This covered any doubts of deformation of the canvas in losses. The painting was again placed on a thin silicone rubber sheet with an interlayer of silicone Melinex sheet. On the back side of the painting facing up, a sheet of silicone Melinex was laid as well, and the entire table with the painting was covered with a Melinex sheet to create the vacuum system. The table was heated up to 65°C while pressure was applied. After the table cooled down, the painting was uncovered and immediately stretched on its original stretcher.
- The facing around the edges was removed using wet water-absorbent Suction-Block sponges. During the removal, the paint and ground layer were consolidated using Medium für Konsolidierung by Lascaux. The residues of adhesive that permeated through the craquelure to the front side of the painting were removed, along with the continued thinning of the varnish layer.
- Several areas of the painting with overpainting and fillers were discovered during the varnish removal. These areas were removed due to color changes and inadequate surface quality. The removal was conducted using isooctane-methyl ethyl ketone-ethanol (proportion 7:2:1) solvent surfactant gel with carbopol.
- The temporary fillers were removed, and all the losses were infilled by a filler consisting of Evacon R, tylose, and calcium carbonate with Bolognese chalk (1:1). The surface of the fills was adjusted to imitate the surrounding painting surface by incision and application of fluid filler to achieve an impression of impasto character.
- The infillings were isolated using 10% Regalrez 1094 dissolved in Shellsol D 40.
- The inpainting was conducted firstly using watercolors to achieve an opaque base colour. Afterwards an initial dammar varnish was sprayed and the inpainting was finished by glazes from Gamblin retouching paints for pictorial reintegration.
- The final dammar varnish was sprayed.
- The painting was adjusted to the decorative gilded frame which was firstly cleaned from dirt and dust residues and the velvet tape was applied around the bars where the painting is in contact with the frame. The frame will be treated in future by the professional restorators concentrated for the conservation of decorative gilded frames.

MATERIALS USED FOR THE TREATMENT

local consolidation: 5% solution of gelatine in distilled water, increasment of penetration by White Spirit

PH messurment: 3% agarose solution in distilled water

surface dirt removal: aqueous solution buffered by ortho-phosphoric acid at pH 6.3 rinsed by rinsing solution with CO₂ in pH 6.3

thinning of degraded varnish: solvent surfactant gel based on White Spirit with Ethomeen C12, for some areas adding of 10% MEK

facing: 1% solution of gelatine in distilled water applied on japanies paper

strip lining: synthetic canvas trevira applied with BEVA 371 heat seal adhesive

consolidation: 10% solution of BEVA 371 in toluene

temporary fillers: Evacon R filler bulked with tylose C300 and aluminium hydroxide

final fillers: Evacon R filler bulked with tylose C300 and mixture of calcium carbonate and bolognese chalk (1:1)

isolation of fillers: Regalrez 1094 dissolved in Shellsol D40

retouching: watercolour paints Schminke Horadam

Gamblin retouching colours dissolved in Shellsol A with 10% Laropal A 81

initial and final varnish: dammar resin dissolved in solvent mixture of Shellsol A and Shellsol T (2:1)

METHOD OF CREATING DOCUMENTATION

The photographic documentation was taken with a Canon EOS 6D Mark II camera with two types of lenses: the Canon Lens EF 50mm 1:1.4 and a SIGMA 70mm 1:2.8 DG M macro lens. Photographs in day and raking light were taken under LED headlight illumination at 5500K.

For multispectral photography the same camera was used with ring filters for VIS and UV luminescence reduction filter UV&IR cut, for UV photographs the LDP LLC 330 filter and for IR spectral photographs the HOYA infrared R72 filter with halogen lamps (3200K).

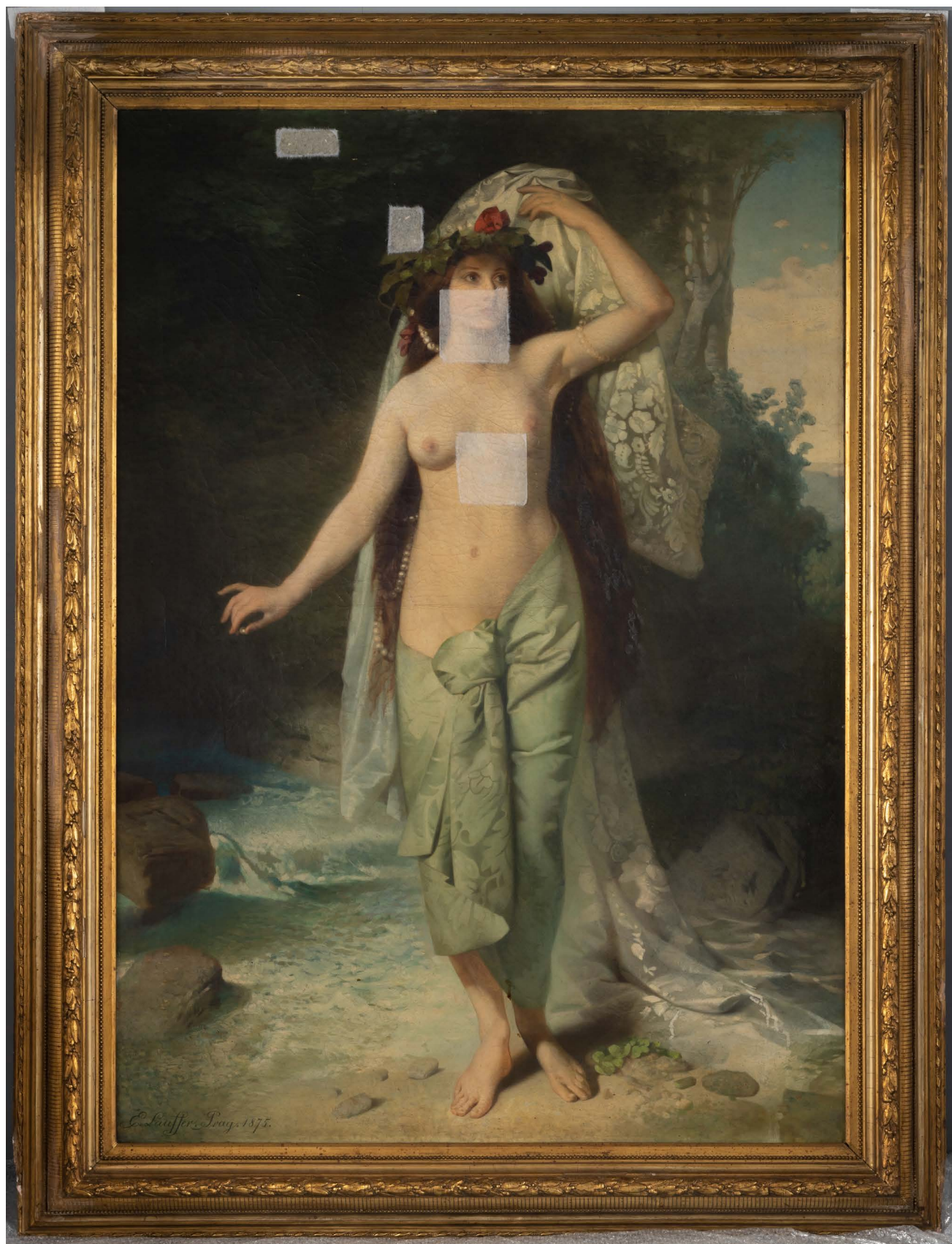
All photographic documentation was taken in RAW+L format. RAW photo formats were edited in Photoshop and exported to JPG format. IR false color and UV false color were edited using Photoshop.

Documentation was created in InDesign and exported to pdf format.

The documentation was printed in an authorised Conica Minolta printer on 170g/m² coated paper.

PHOTOGRAPHIC DOCUMENTATION

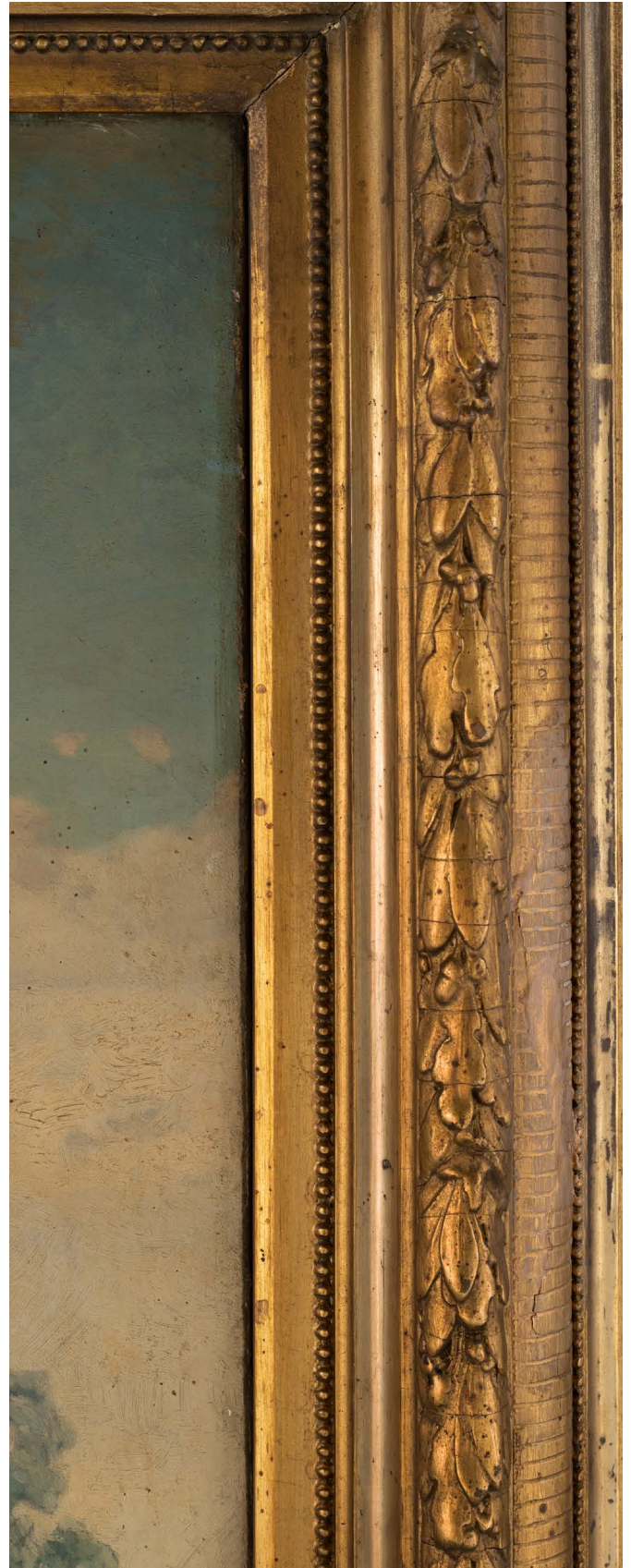
preliminary examination before the restoration treatment



painting in decorative gilded frame
photography in day light



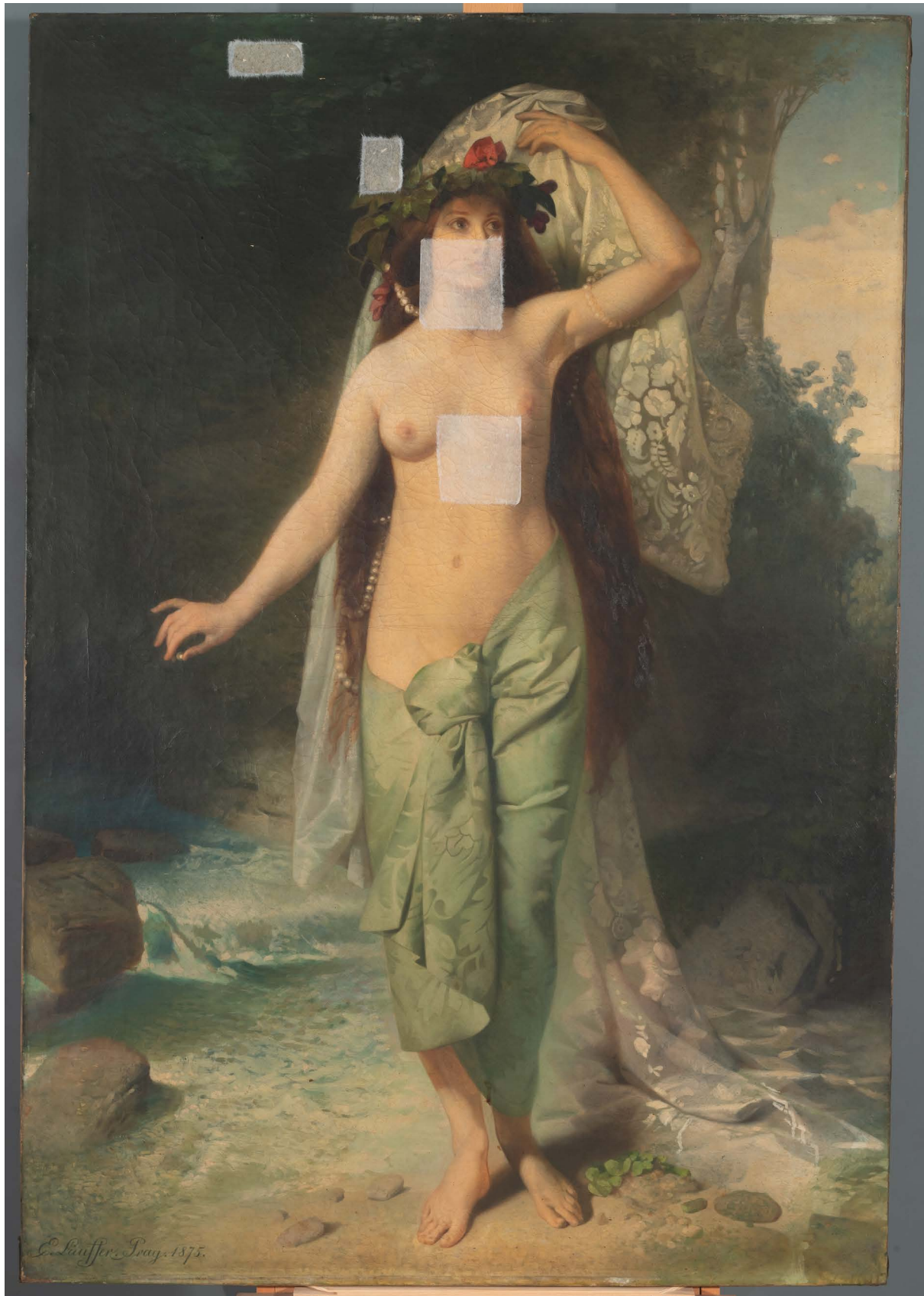
painting in decorative gilded frame
photography in day light, back side



details of adjustment of the painting inside the frame
photographs in day light

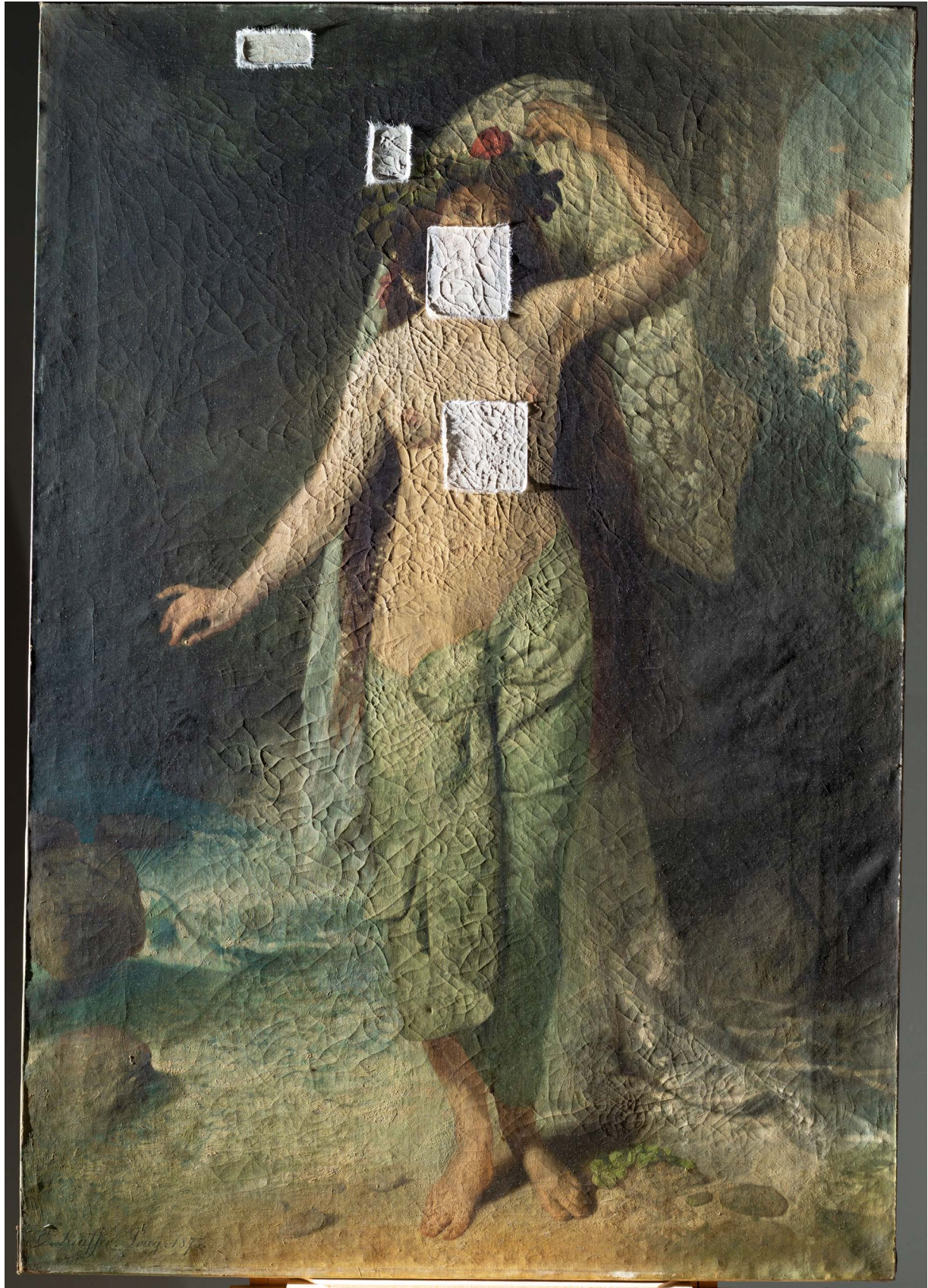


details of adjustment of the painting inside the frame
photographs in day light, back side

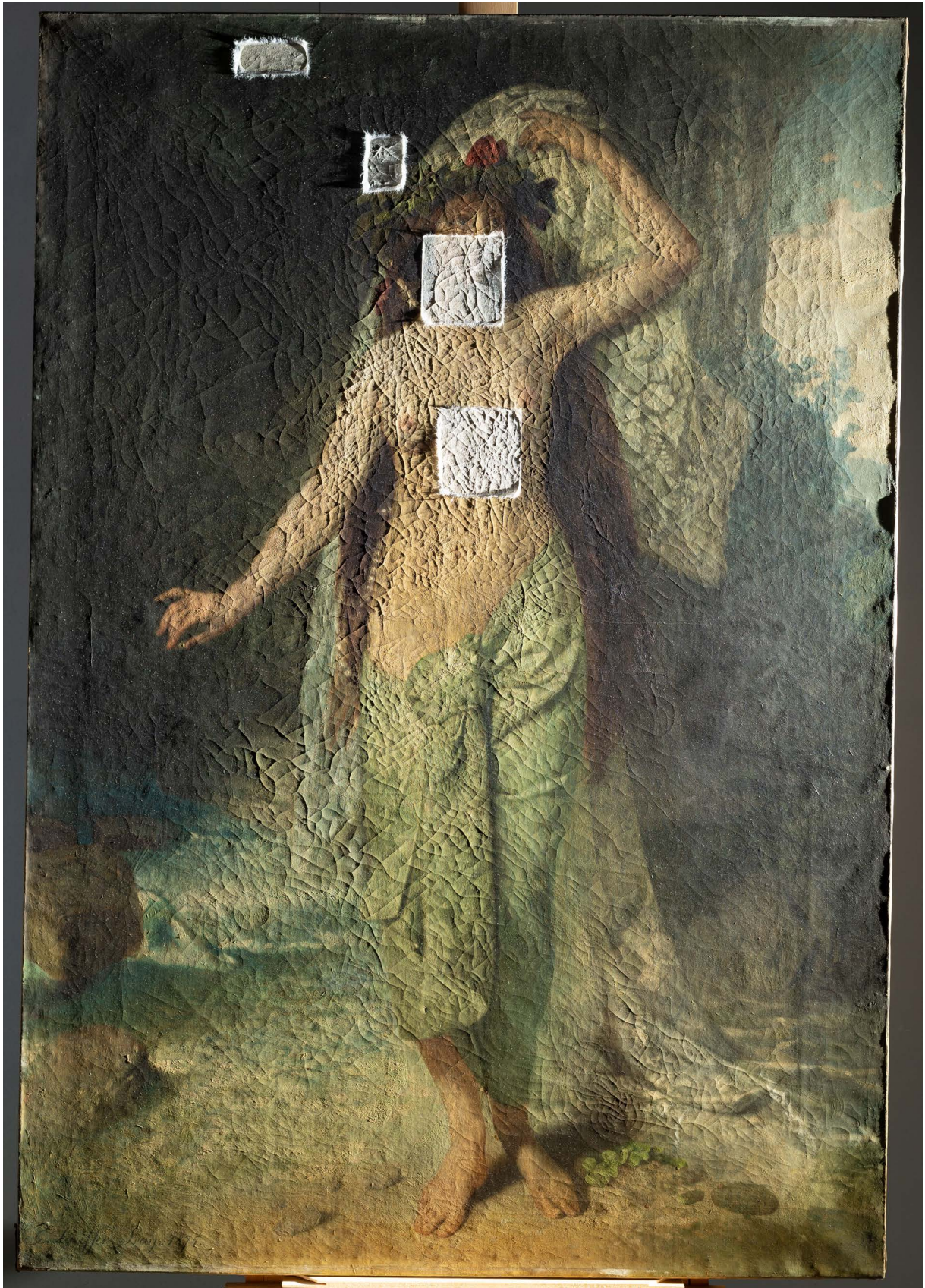




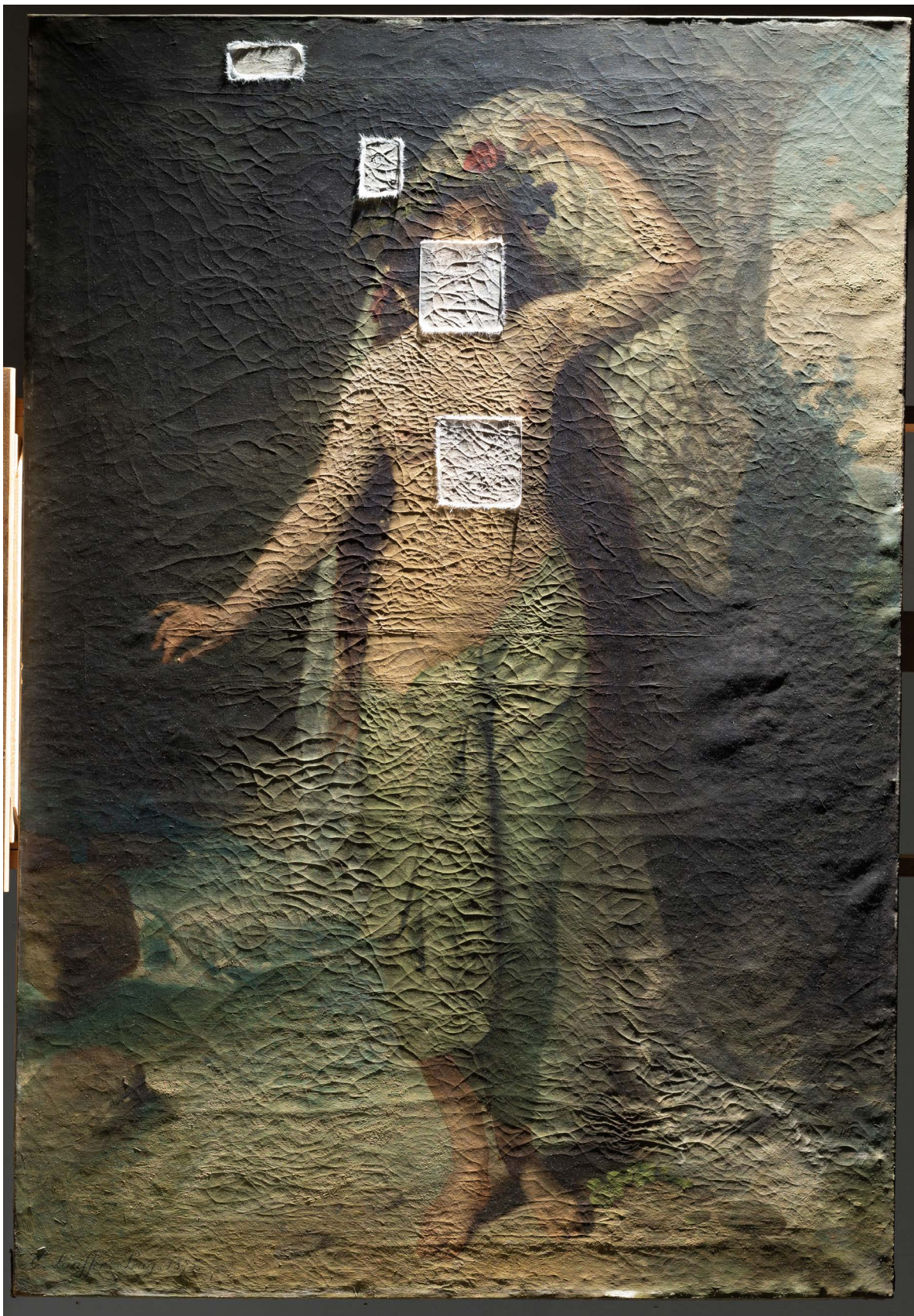
EMIL JOHANN LAUFFER

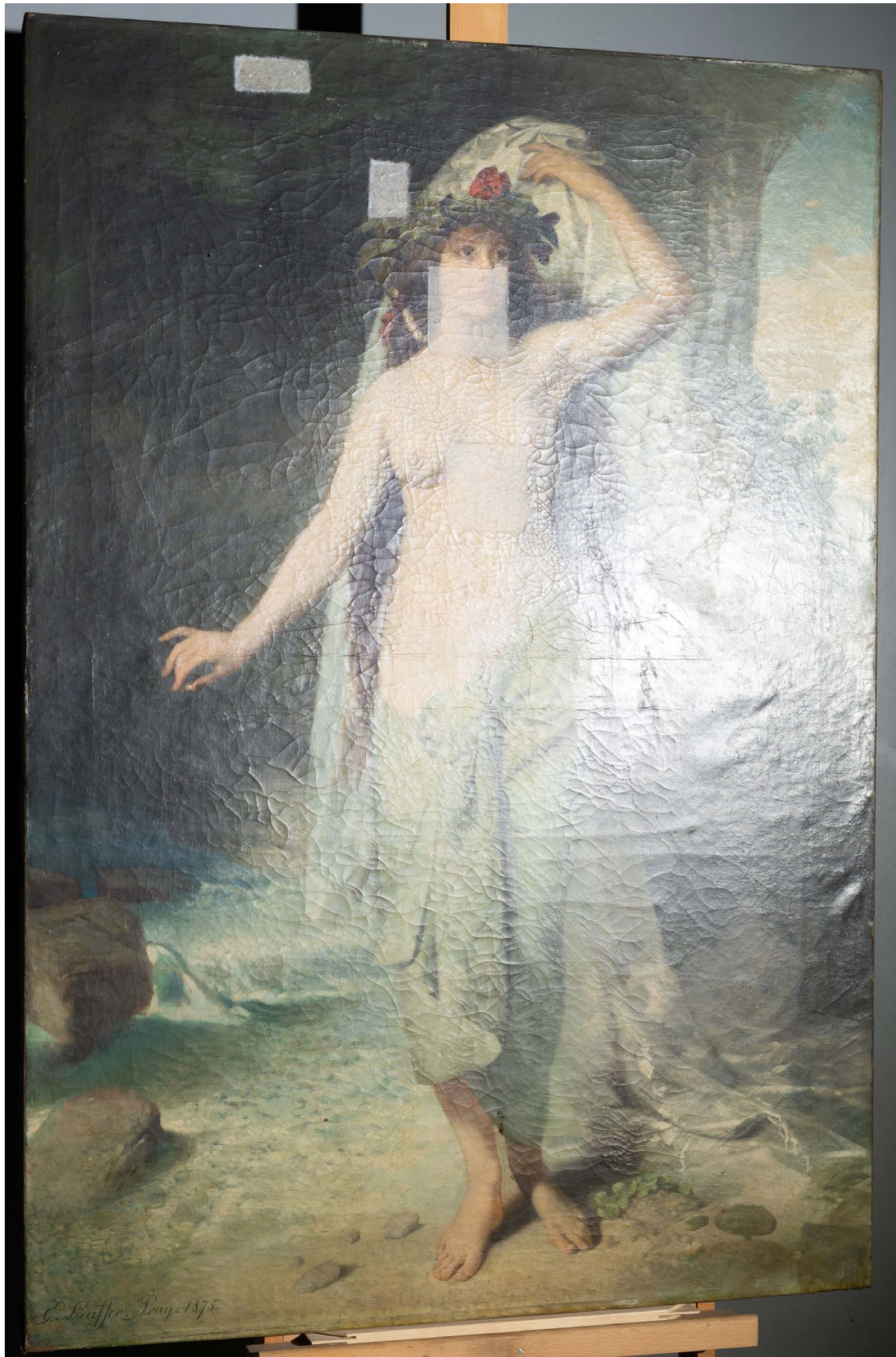


photography in raking light from left side

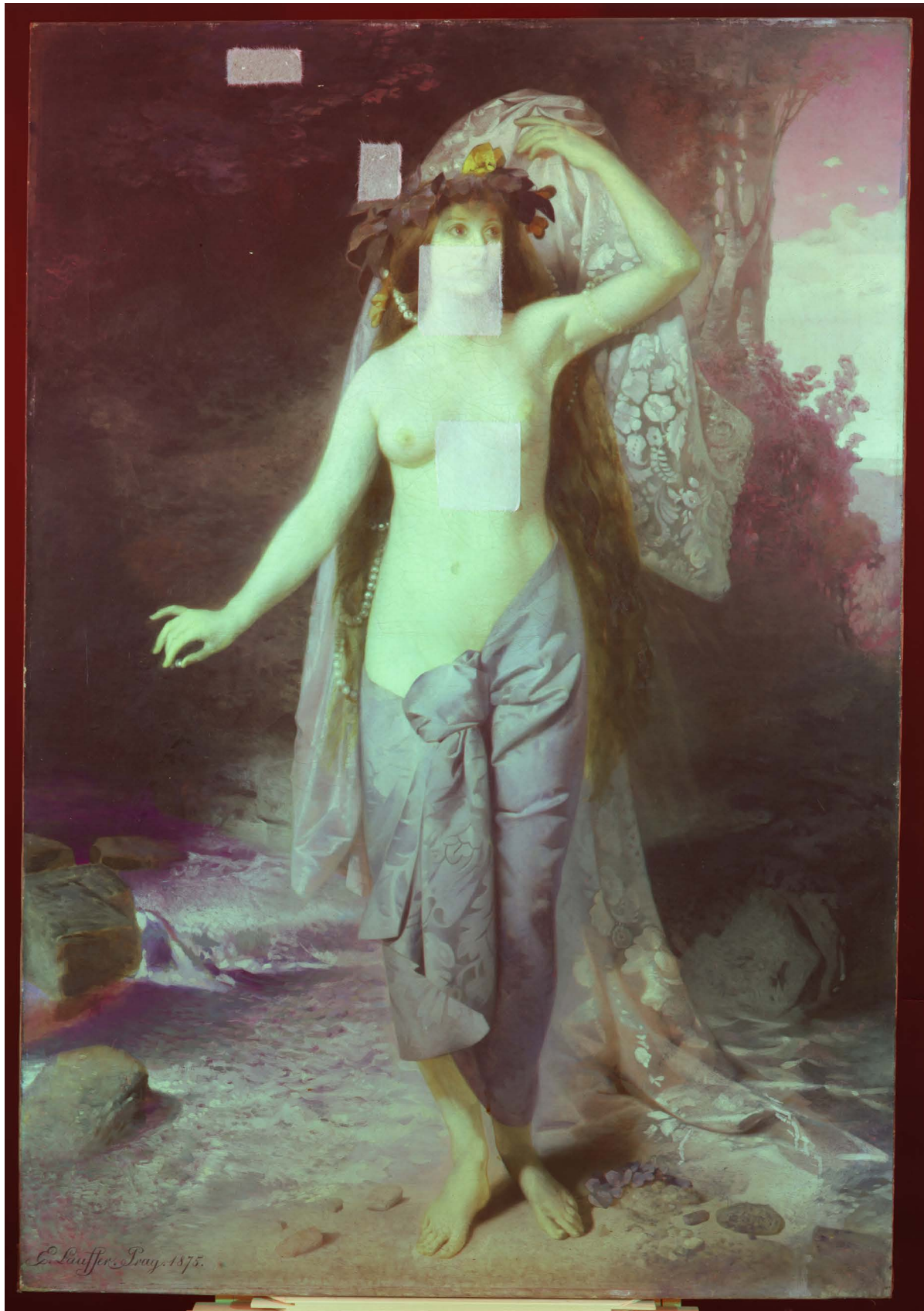


photography in raking light from right side

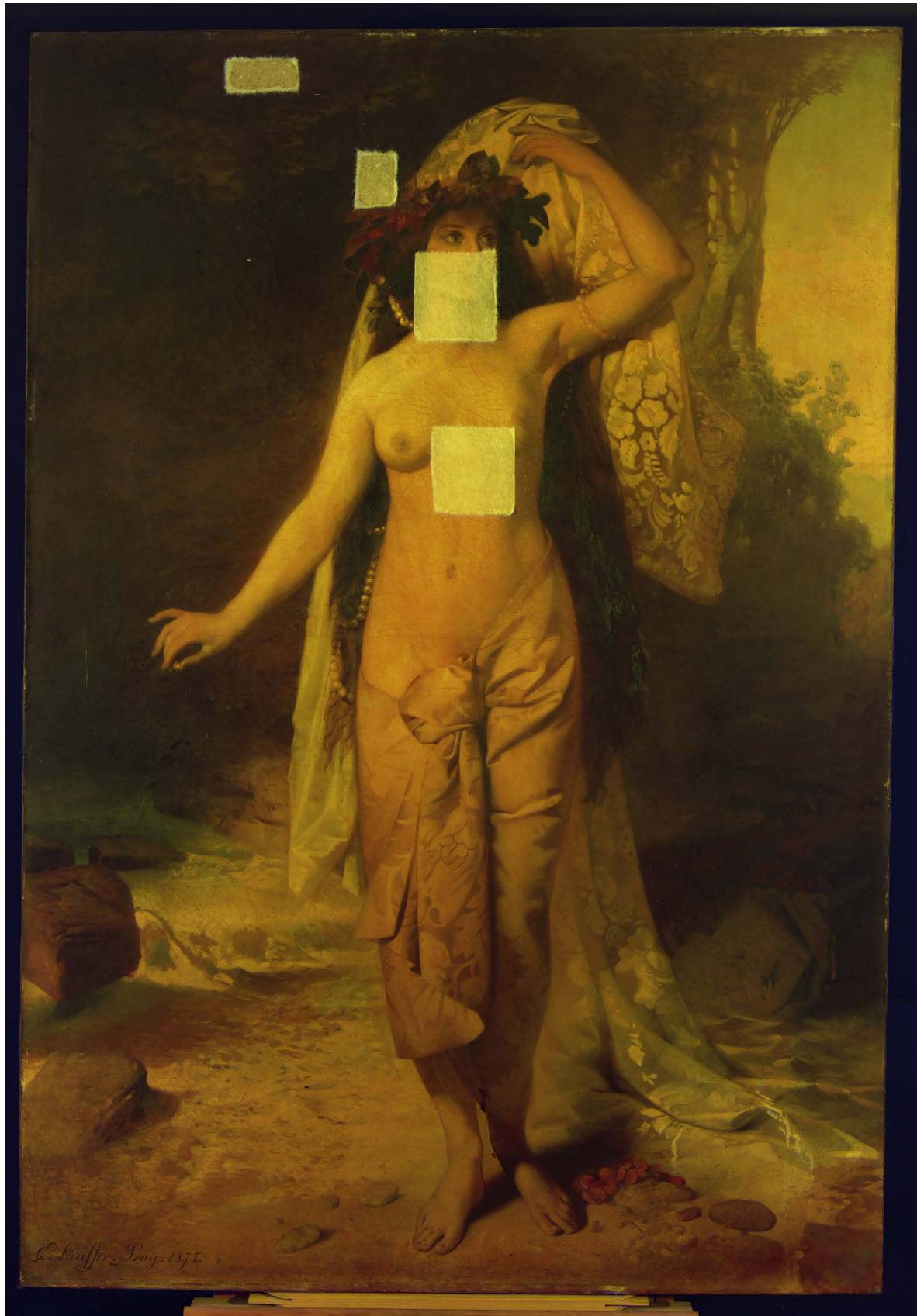


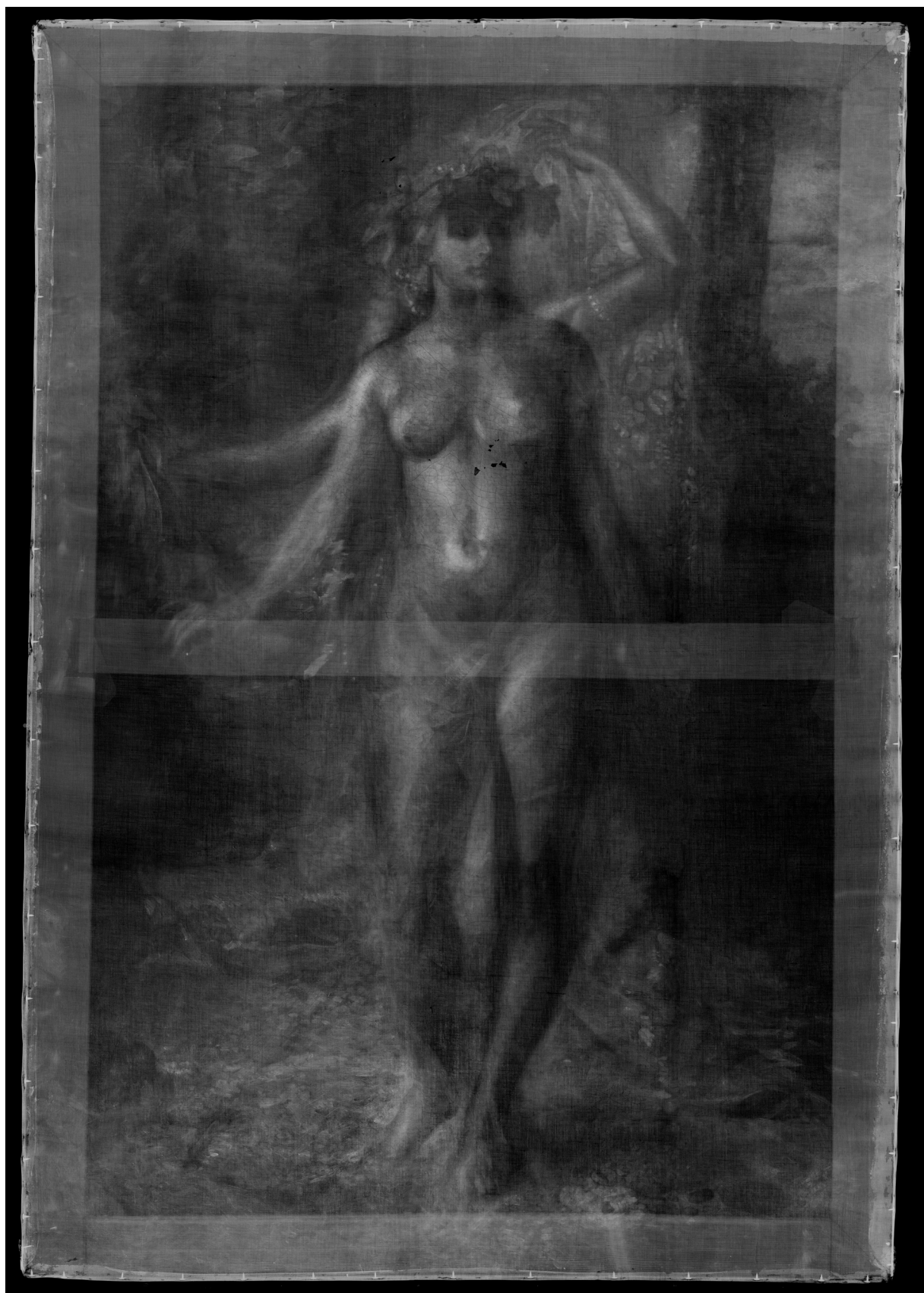


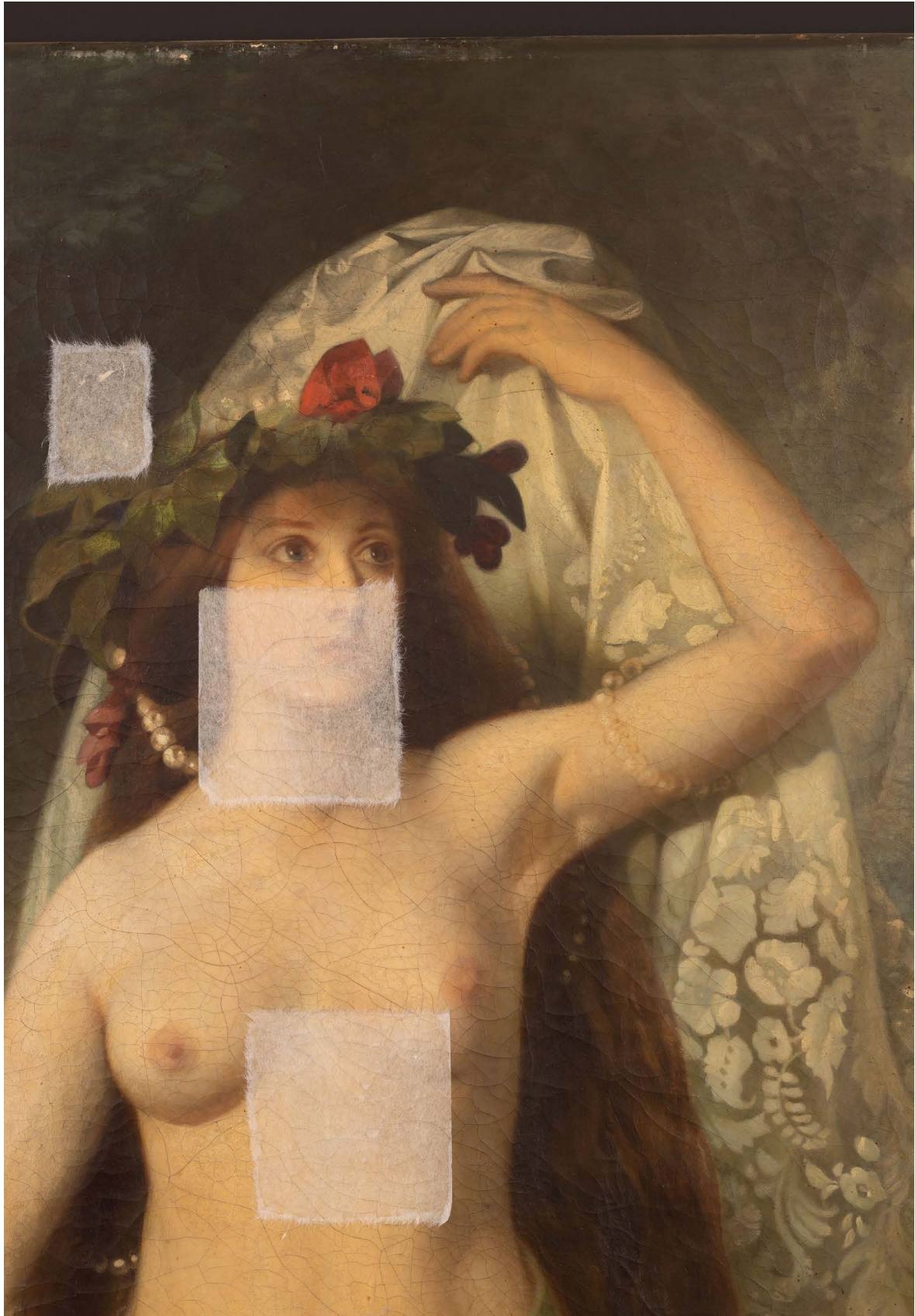






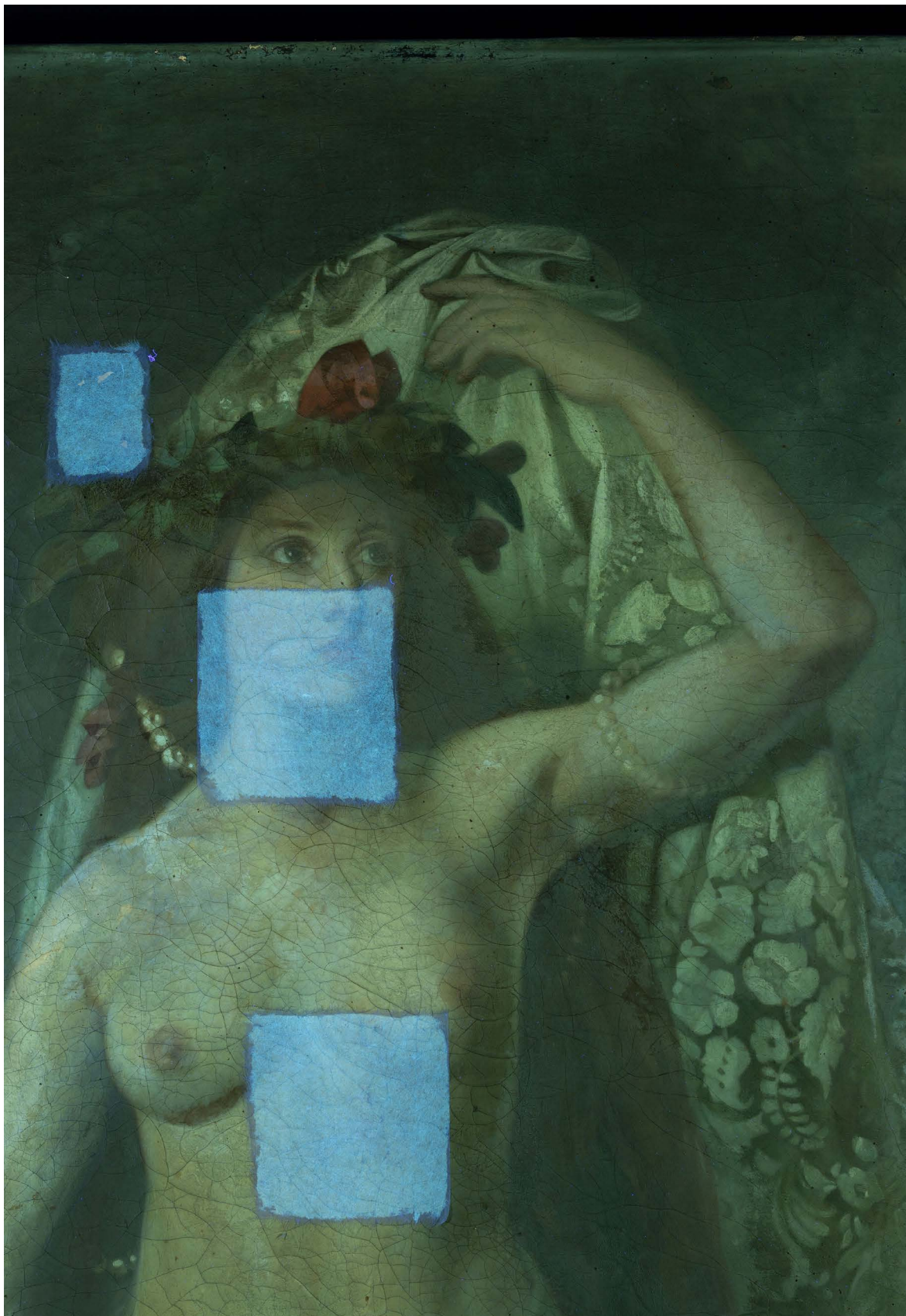




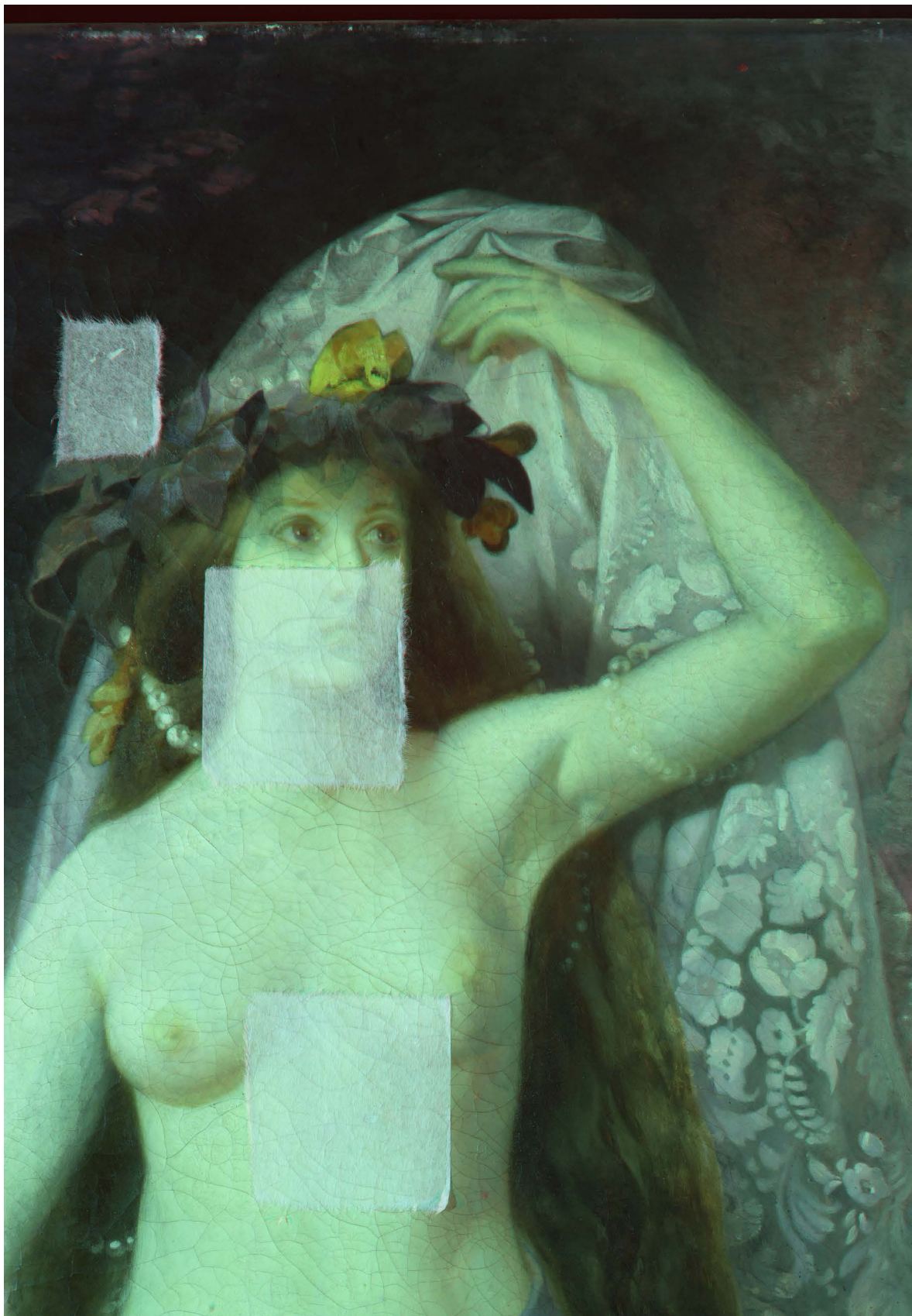




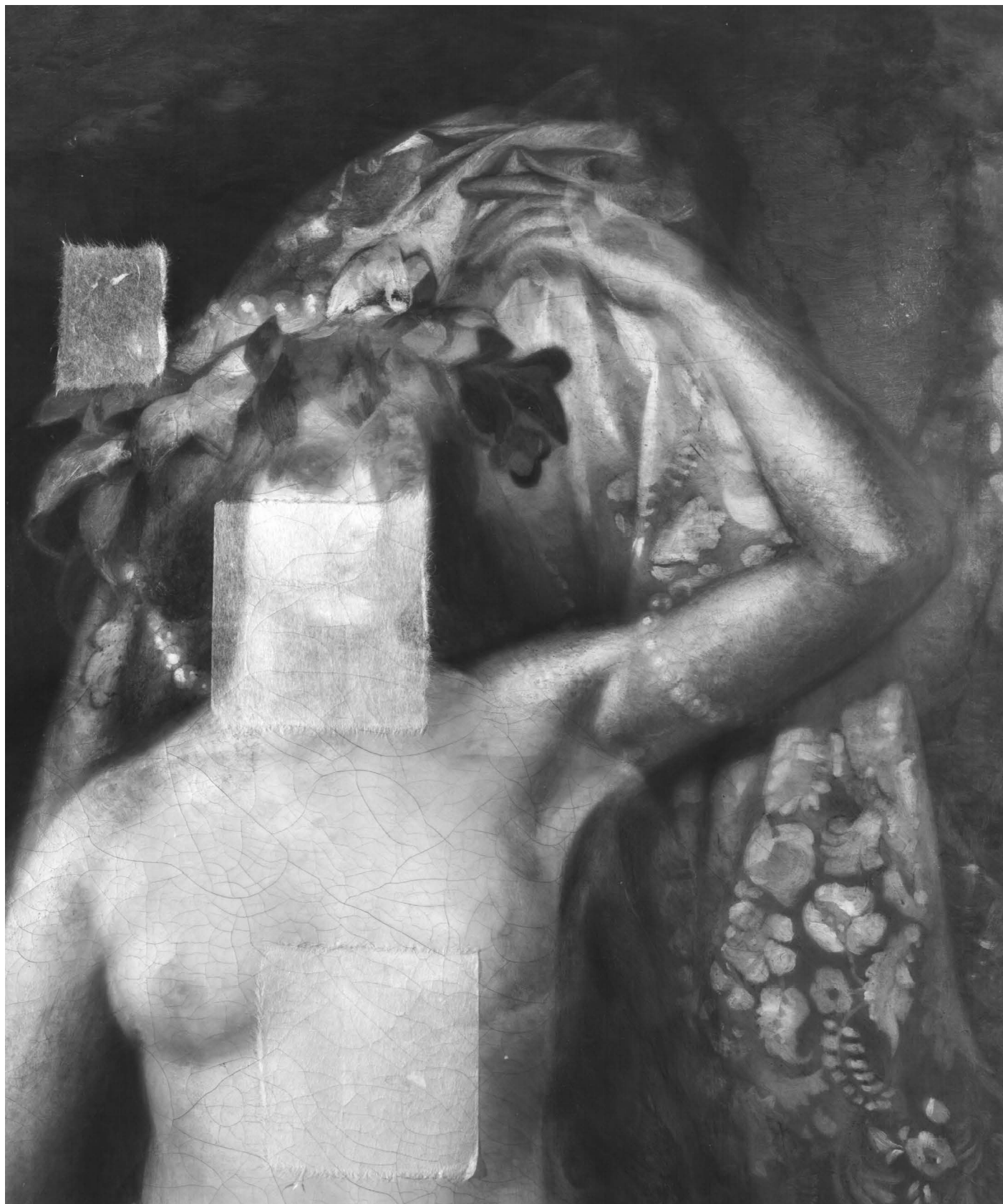
photography in raking light
detail



photography in UV luminescence
detail

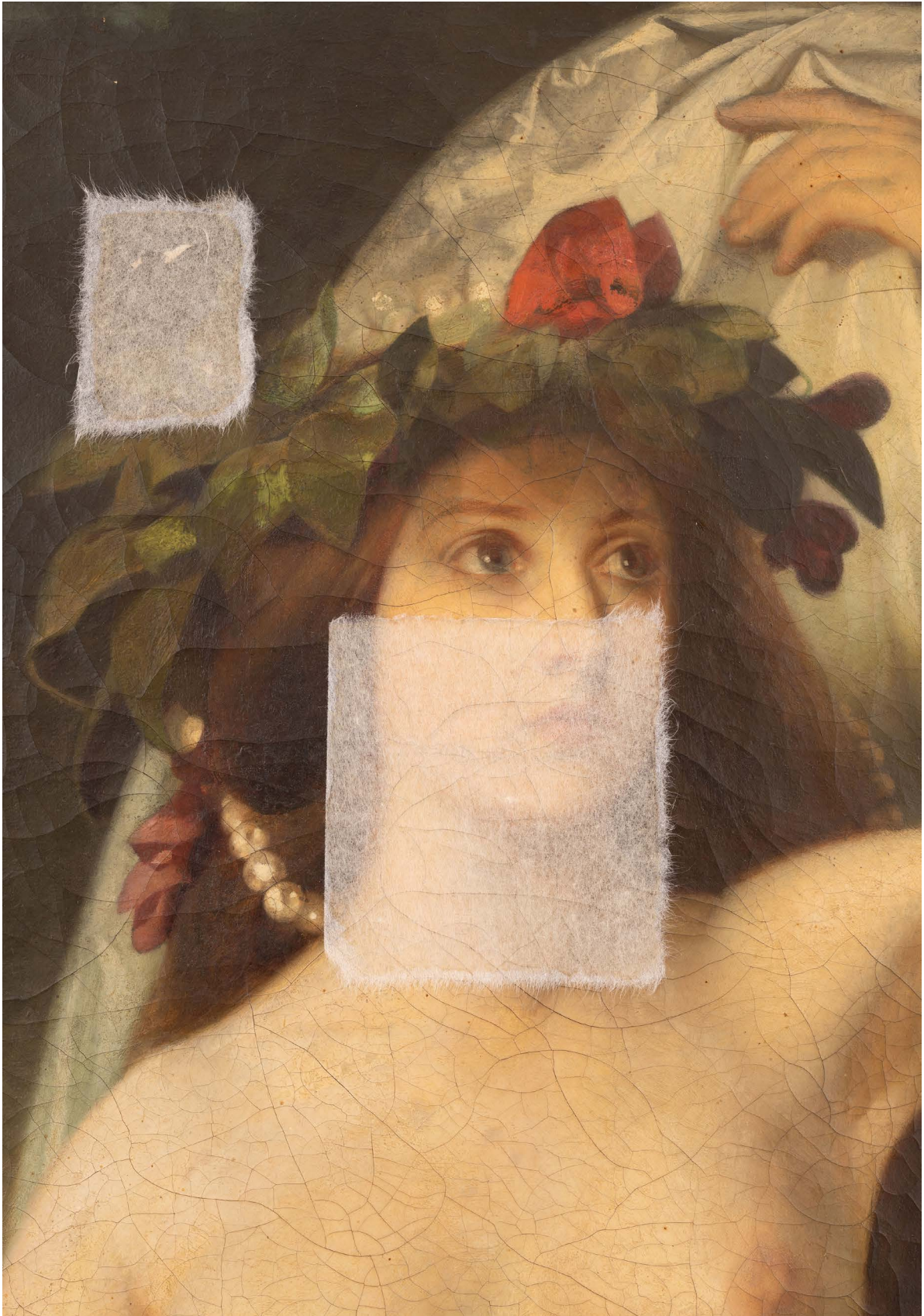








IR reflectography picture
detail





photography in raking light
detail







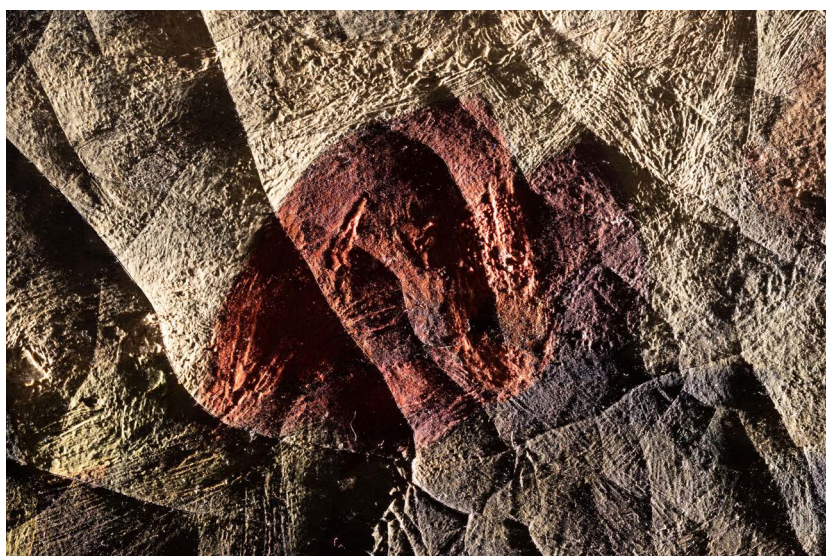


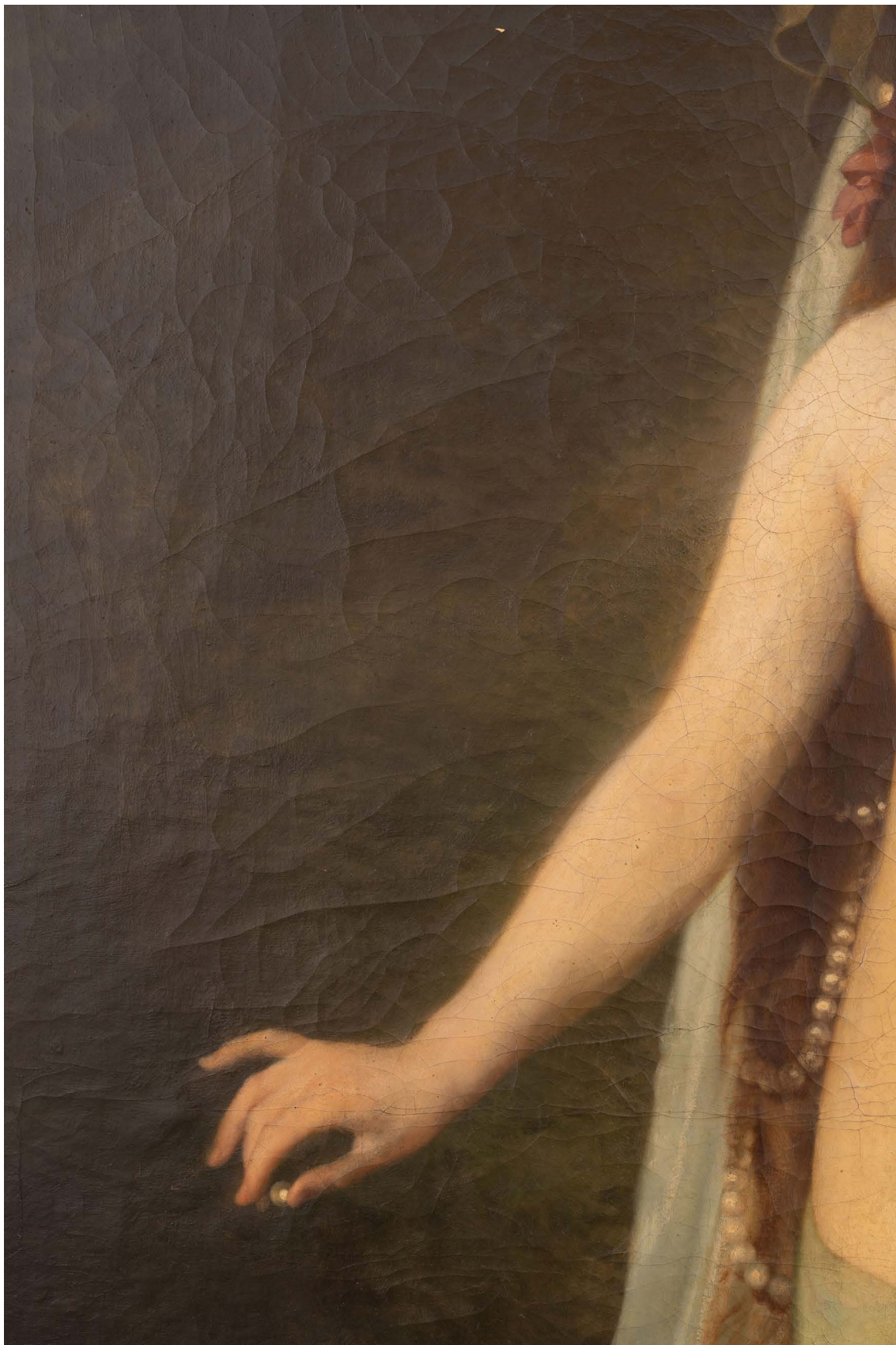




macrophotography in raking light
detail

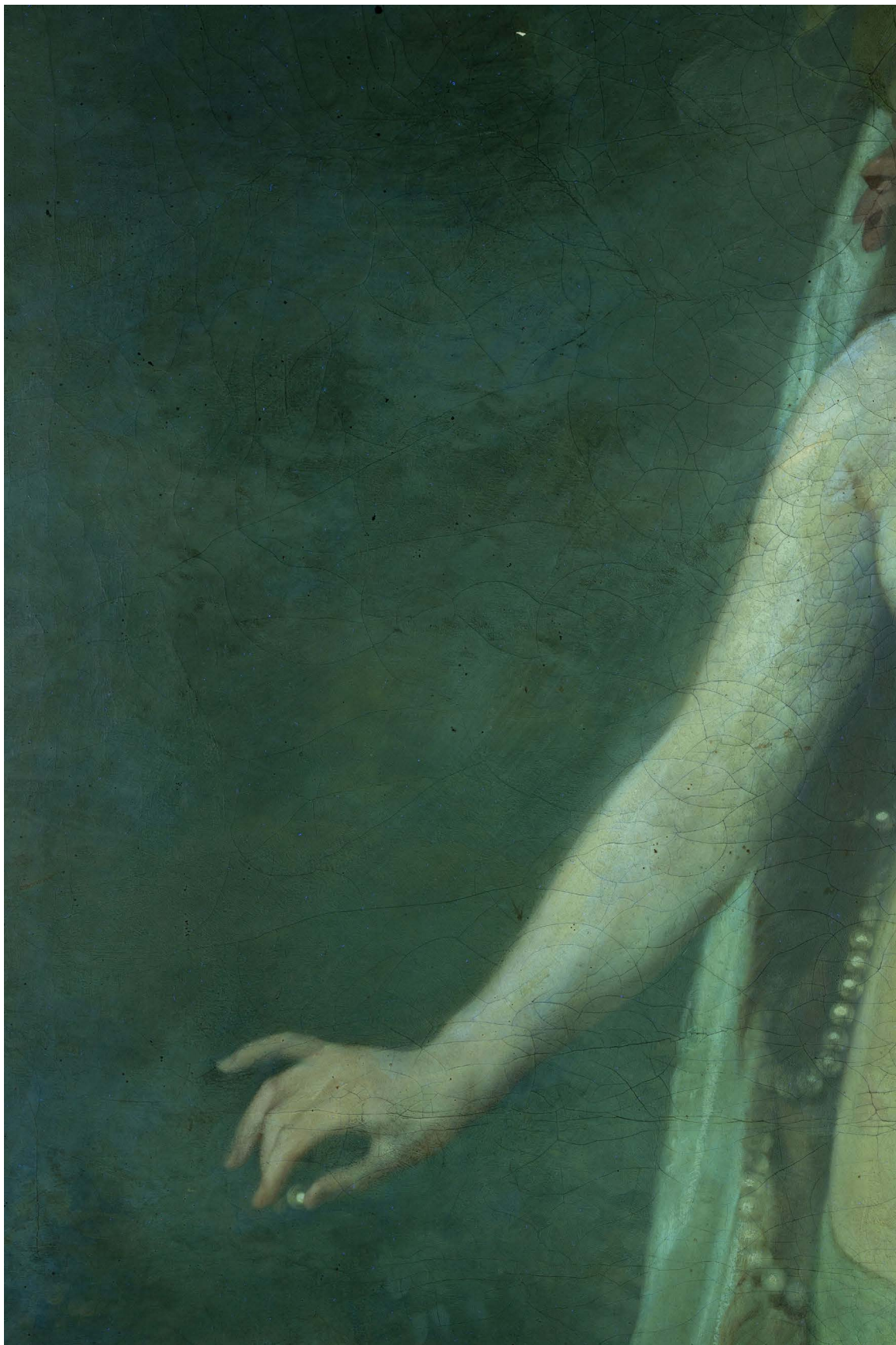








photography in raking light
detail







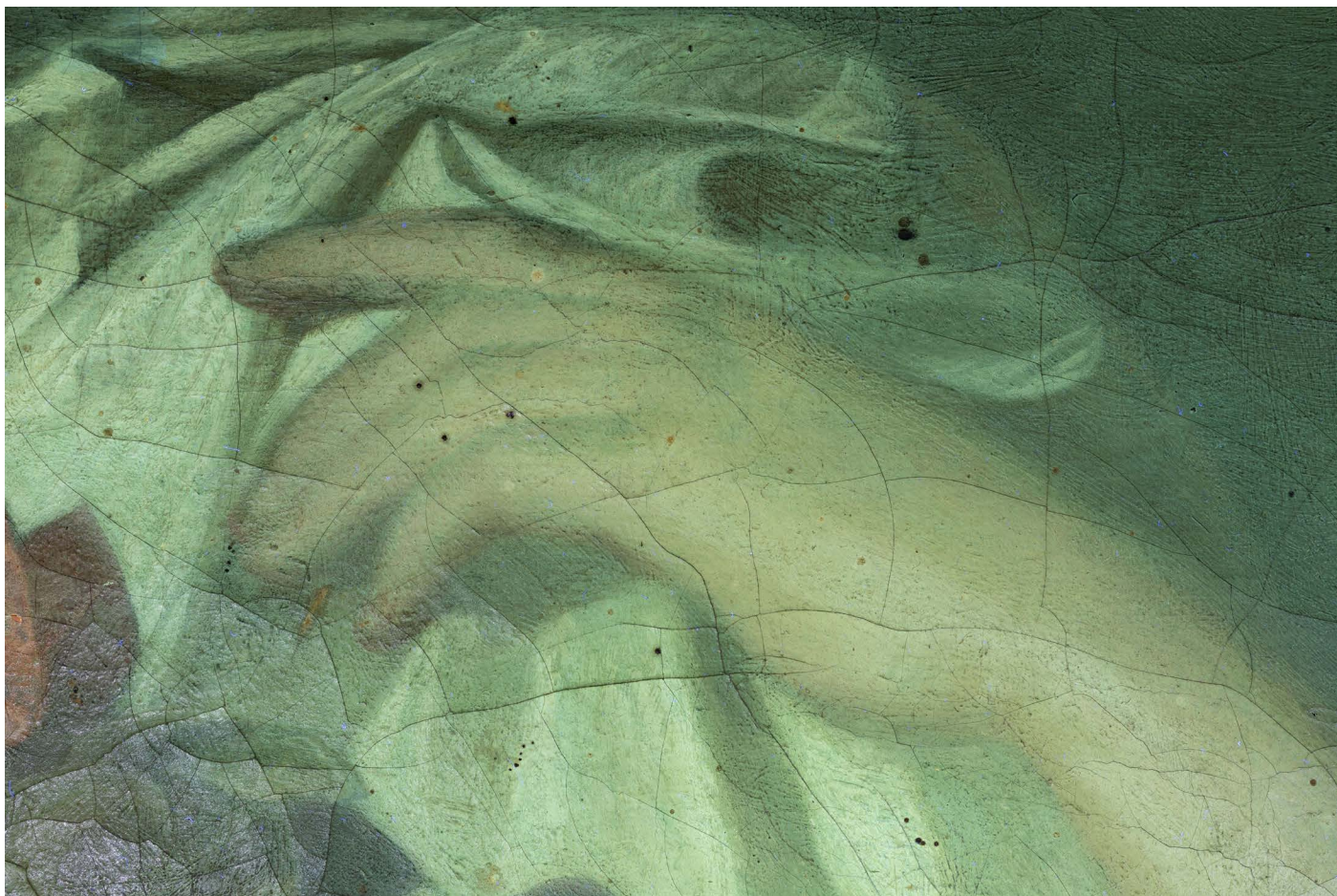






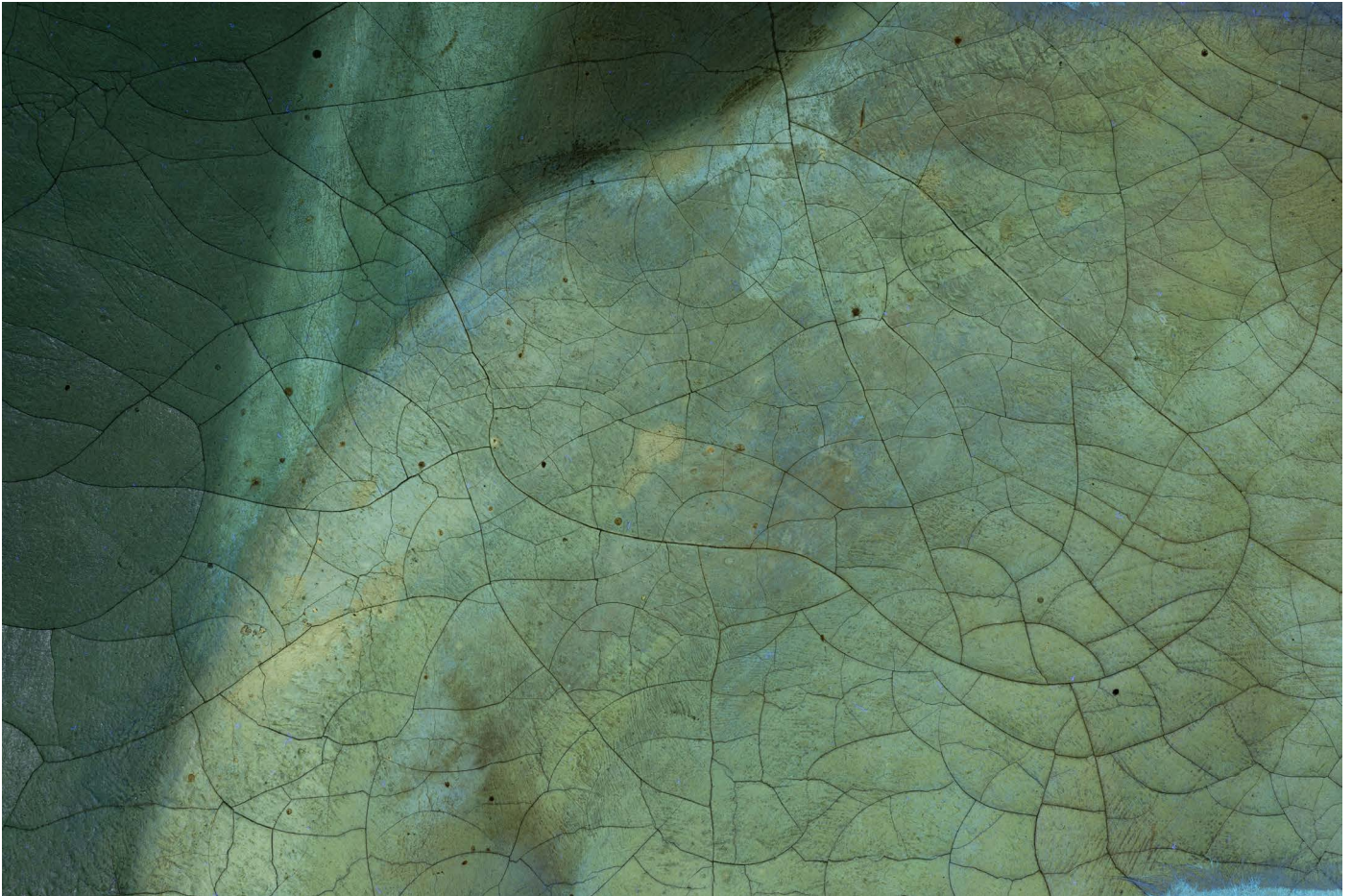
















macrophotography in raking light
detail





photography in day light
detail



photography in raking light
detail

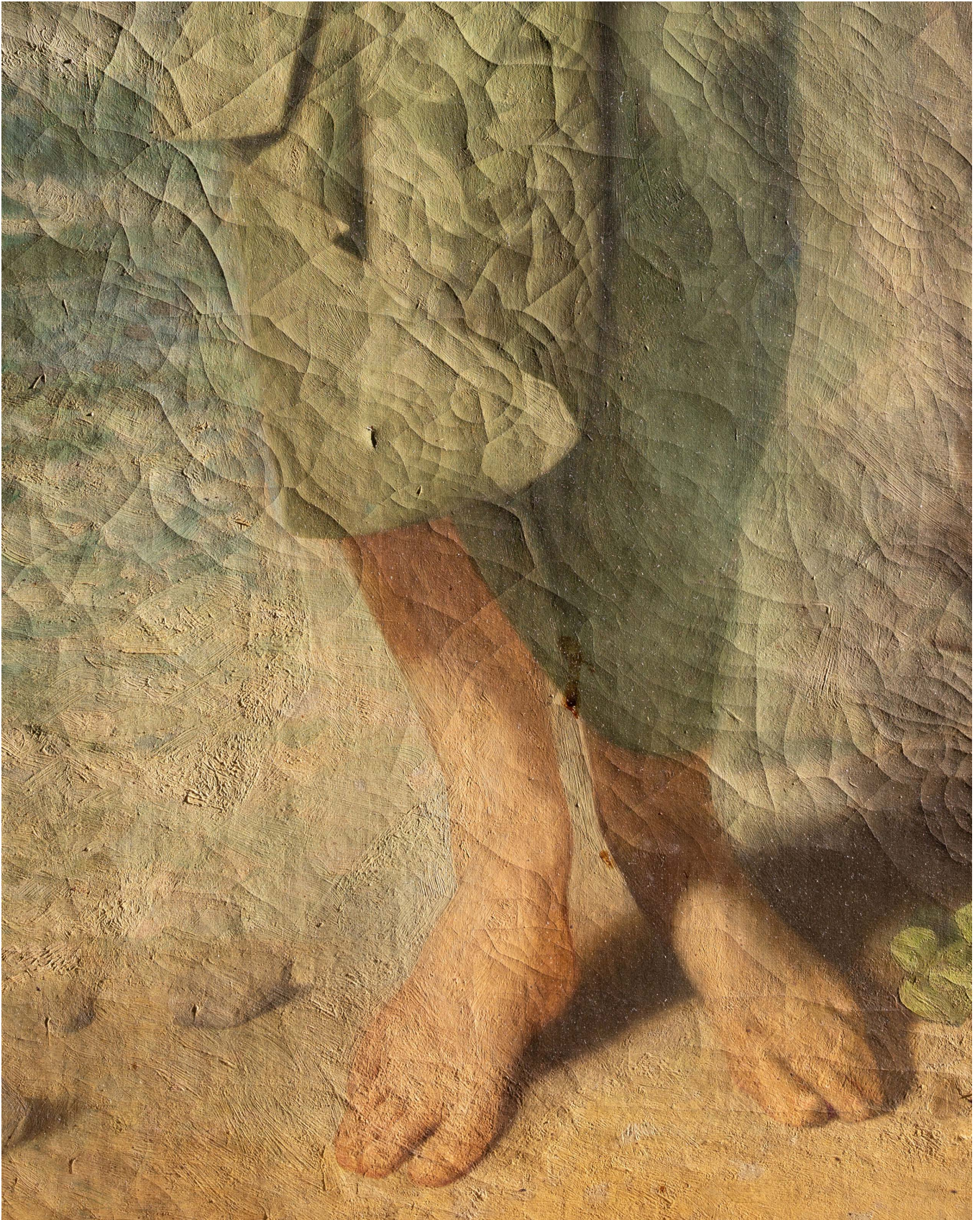






IR reflectography picture
detail





photography in raking light
detail





IR false colour picture
detail

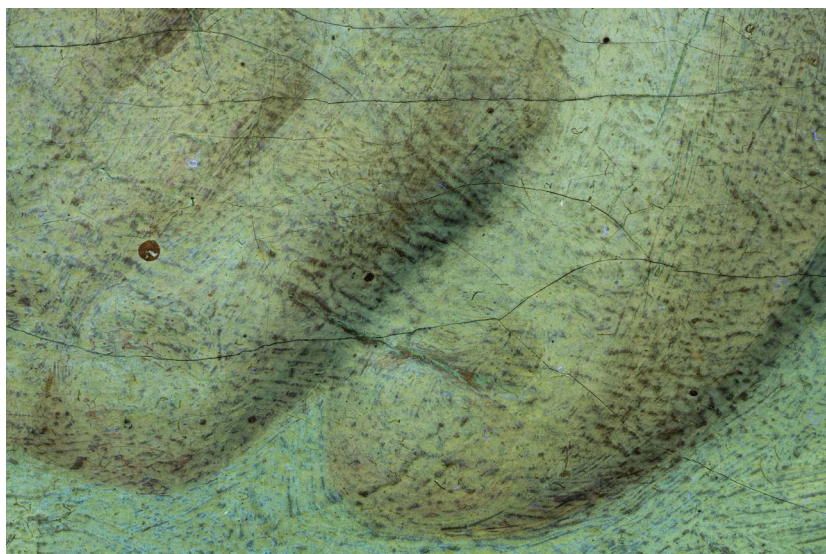








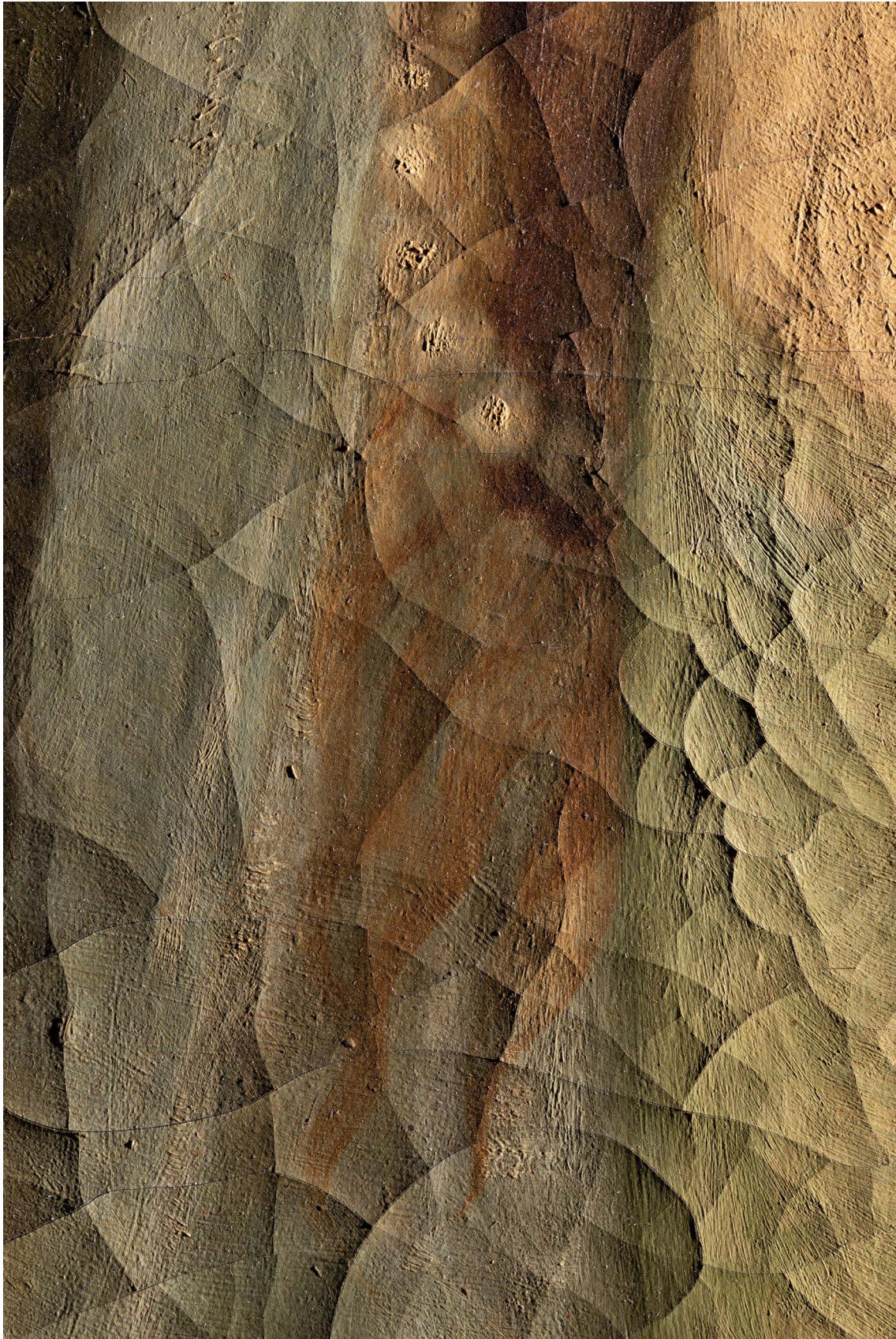












macrophotography in raking light
detail





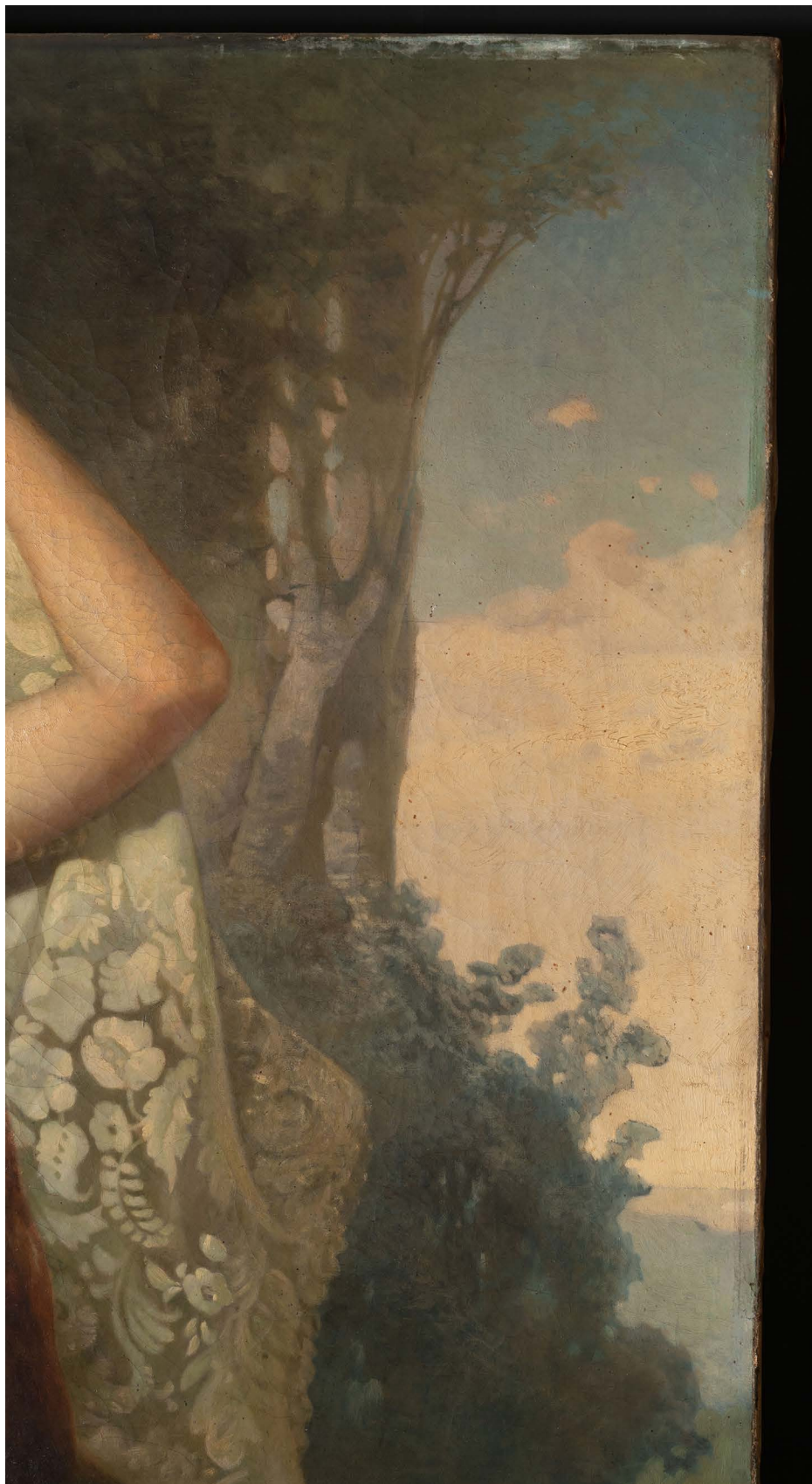
macrophotography in day light
detail

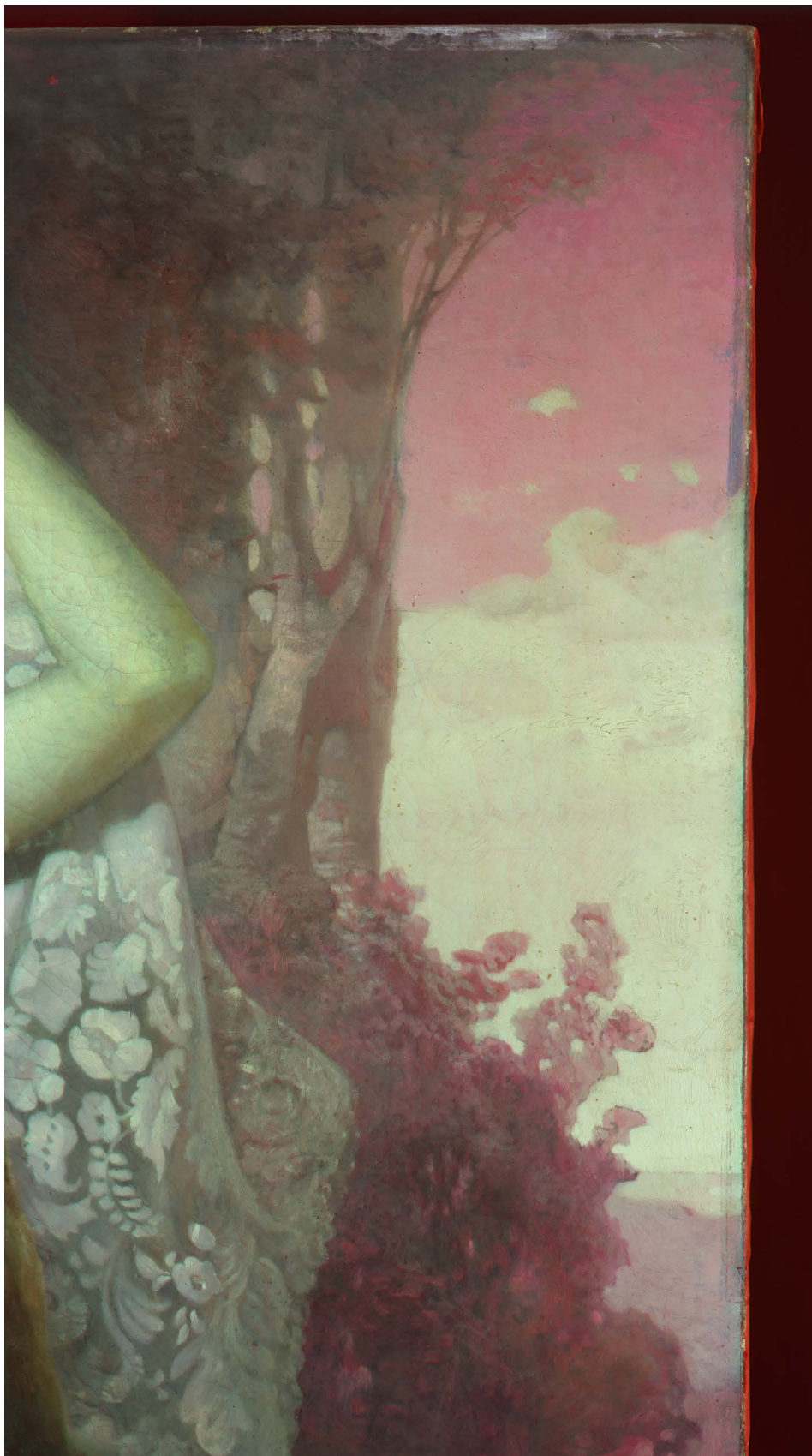


macrophotography in raking light
detail



macrophotography in UV luminescence
detail



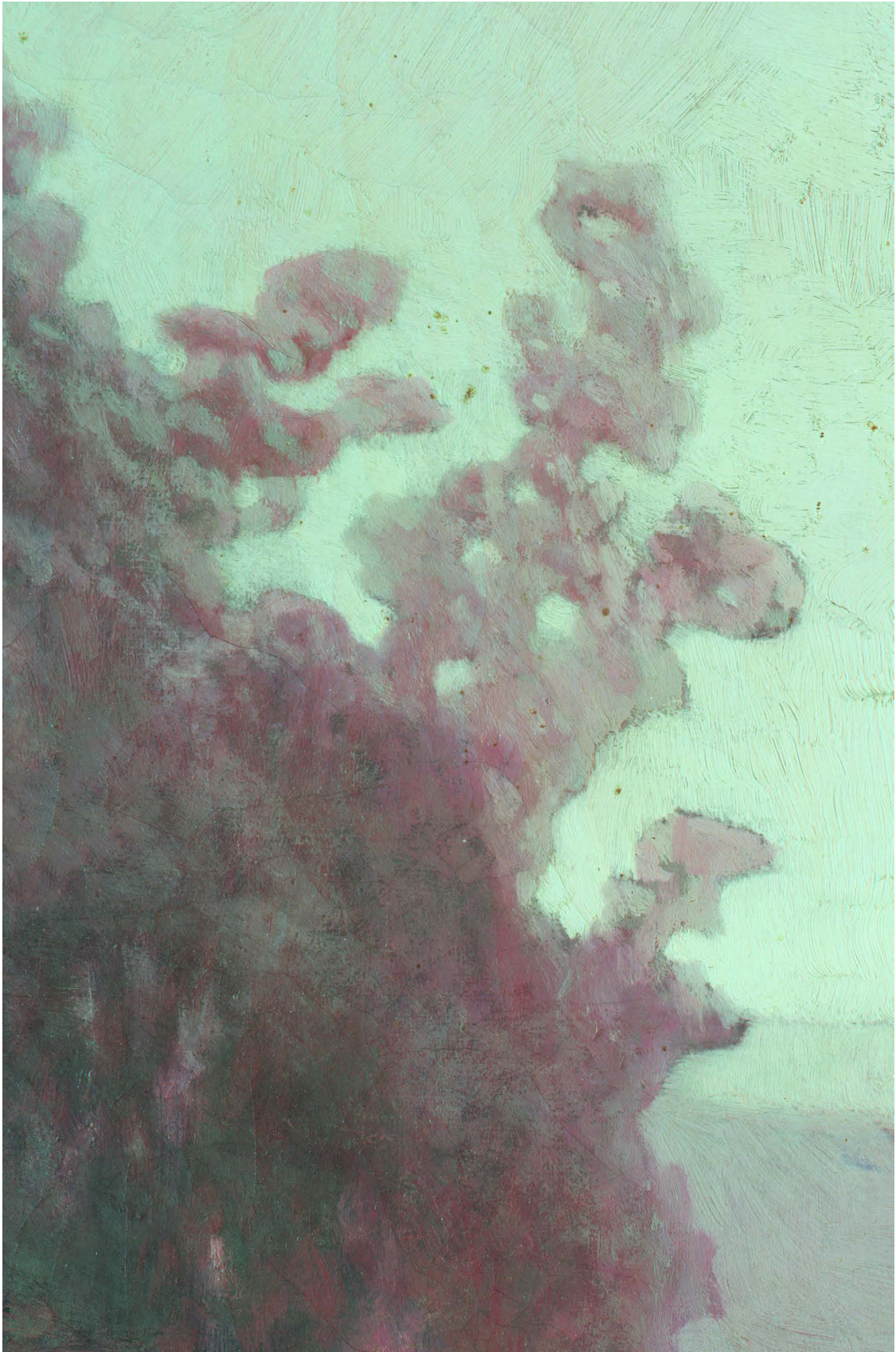






macrophotography in raking light
detail



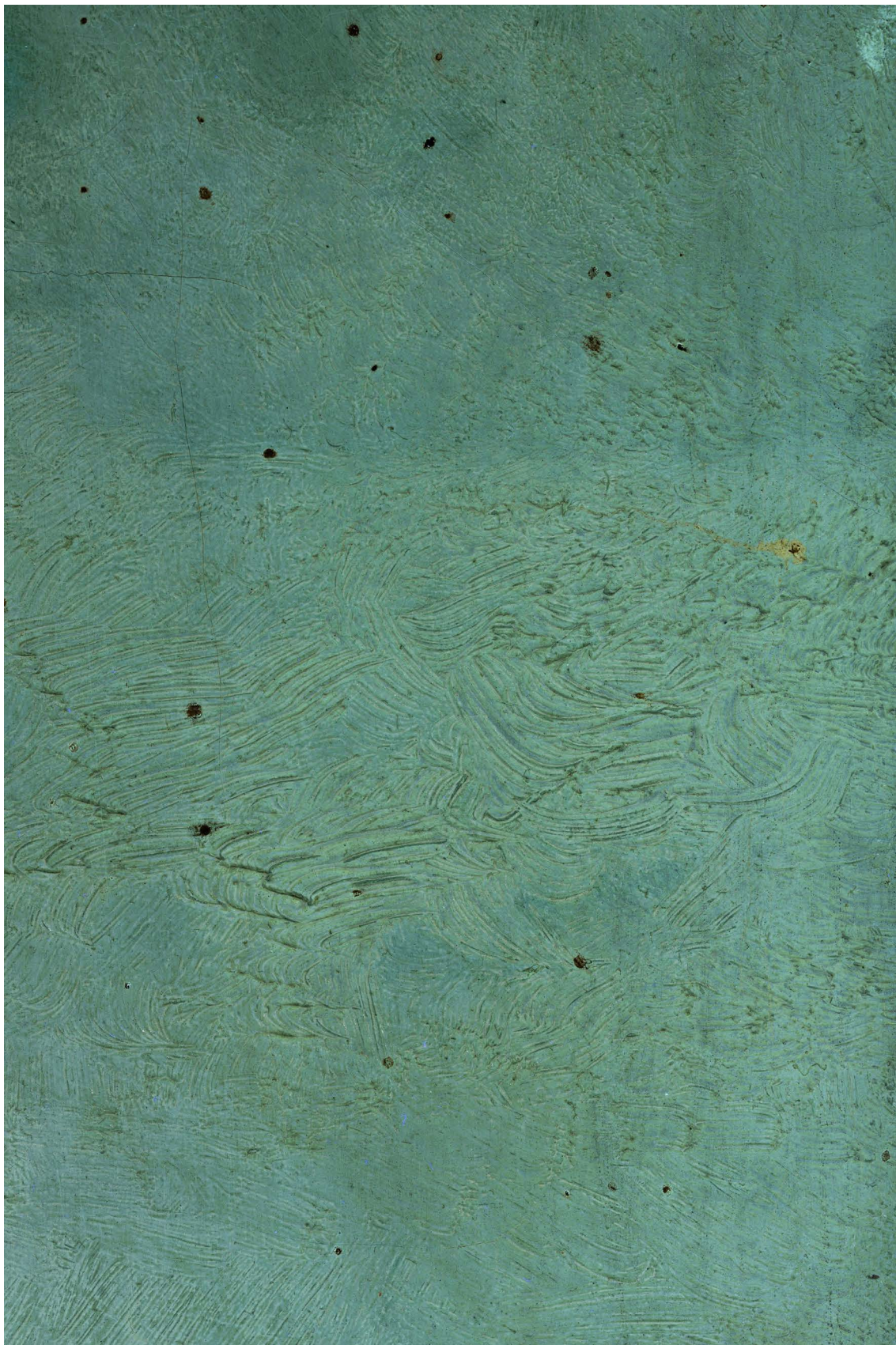


IR false colour picture
detail





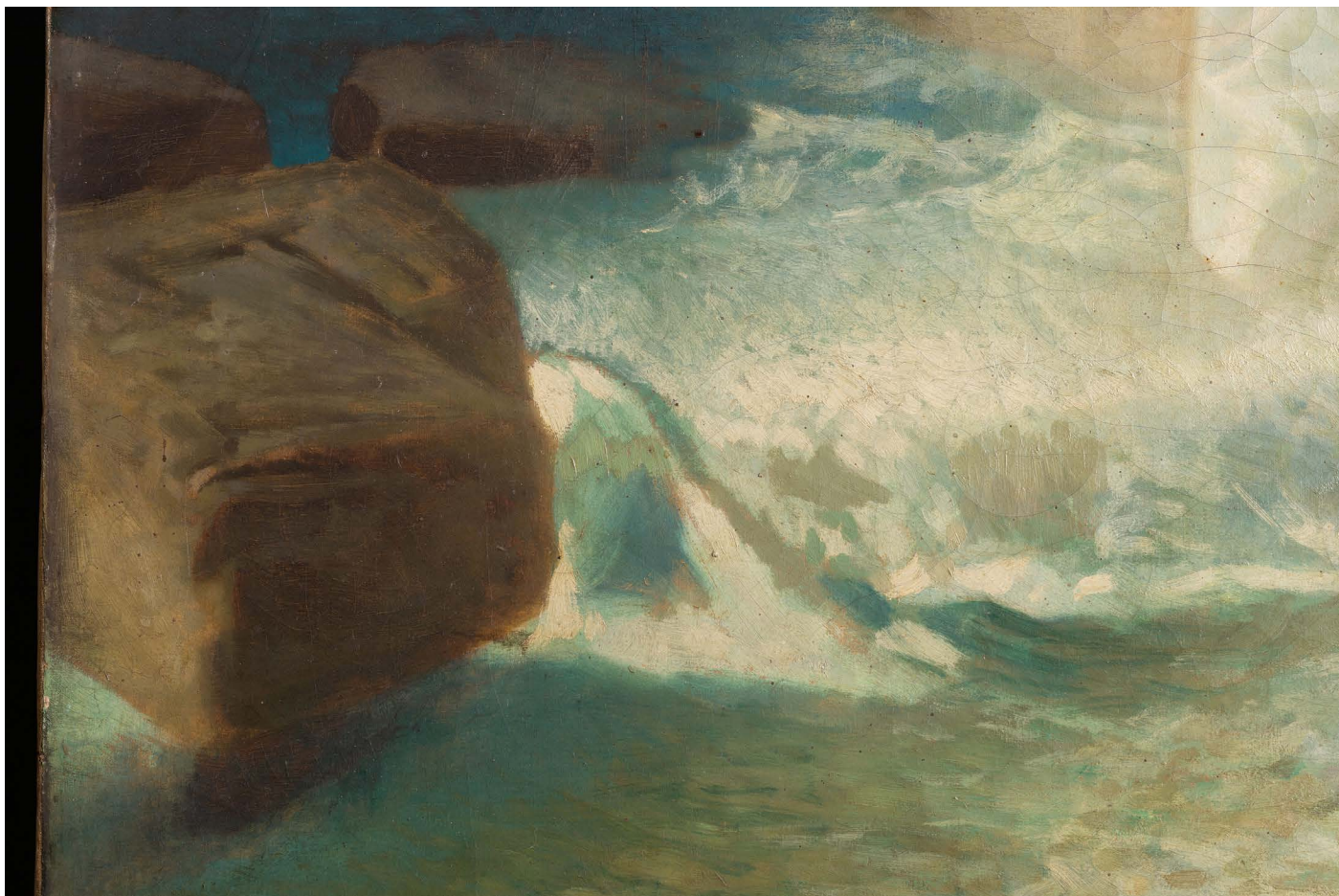
macrophotography in raking light
detail

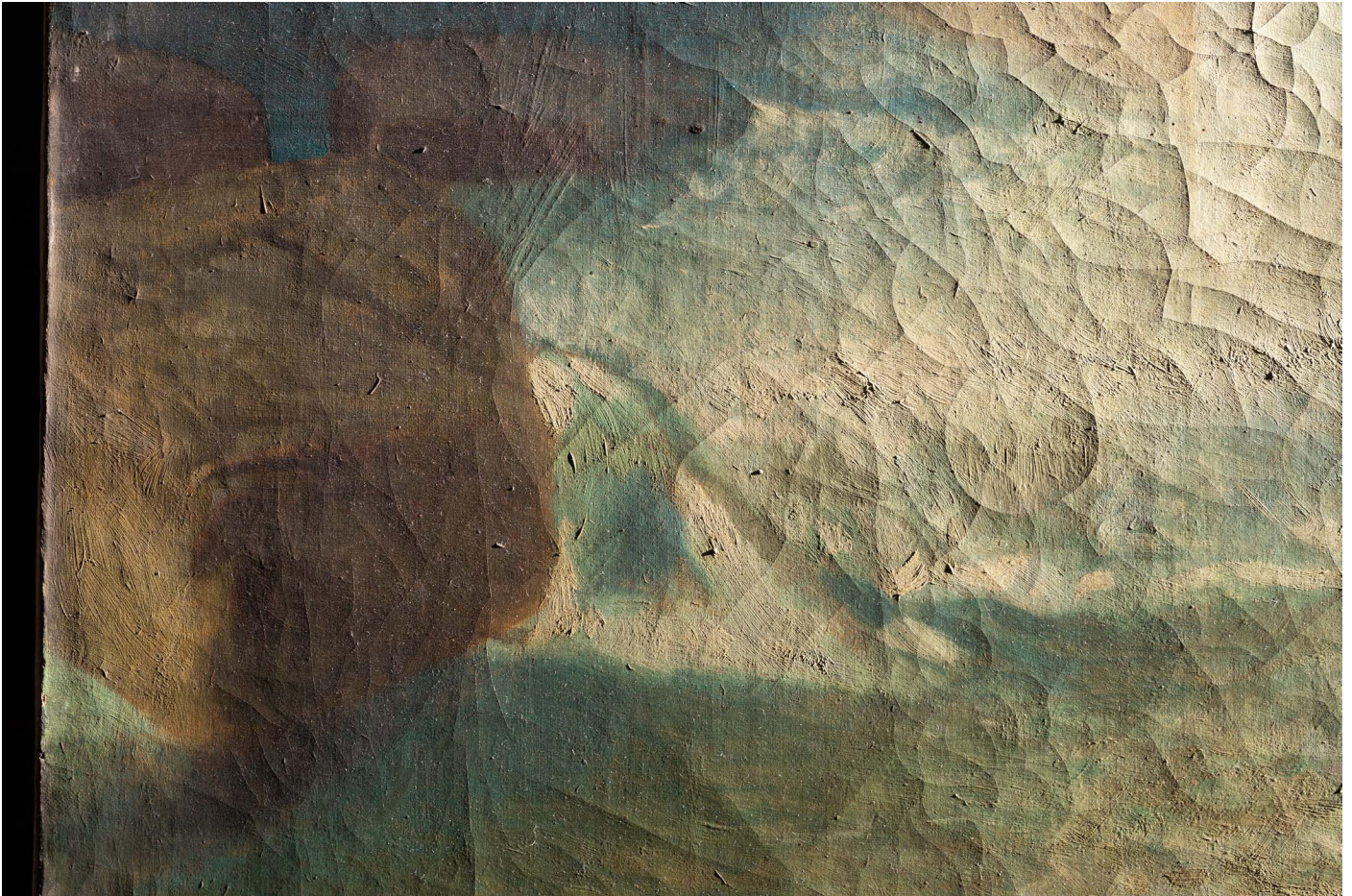


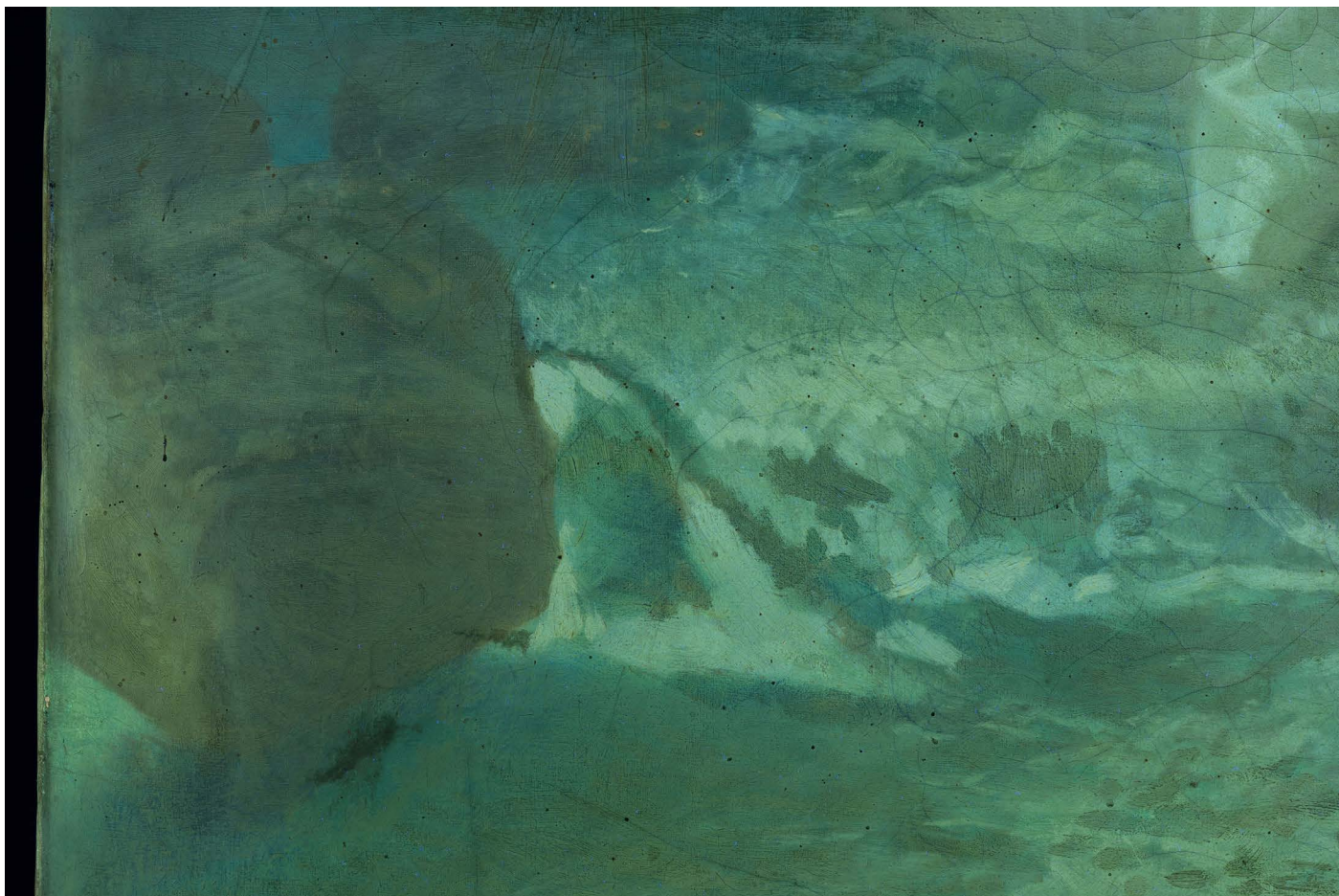


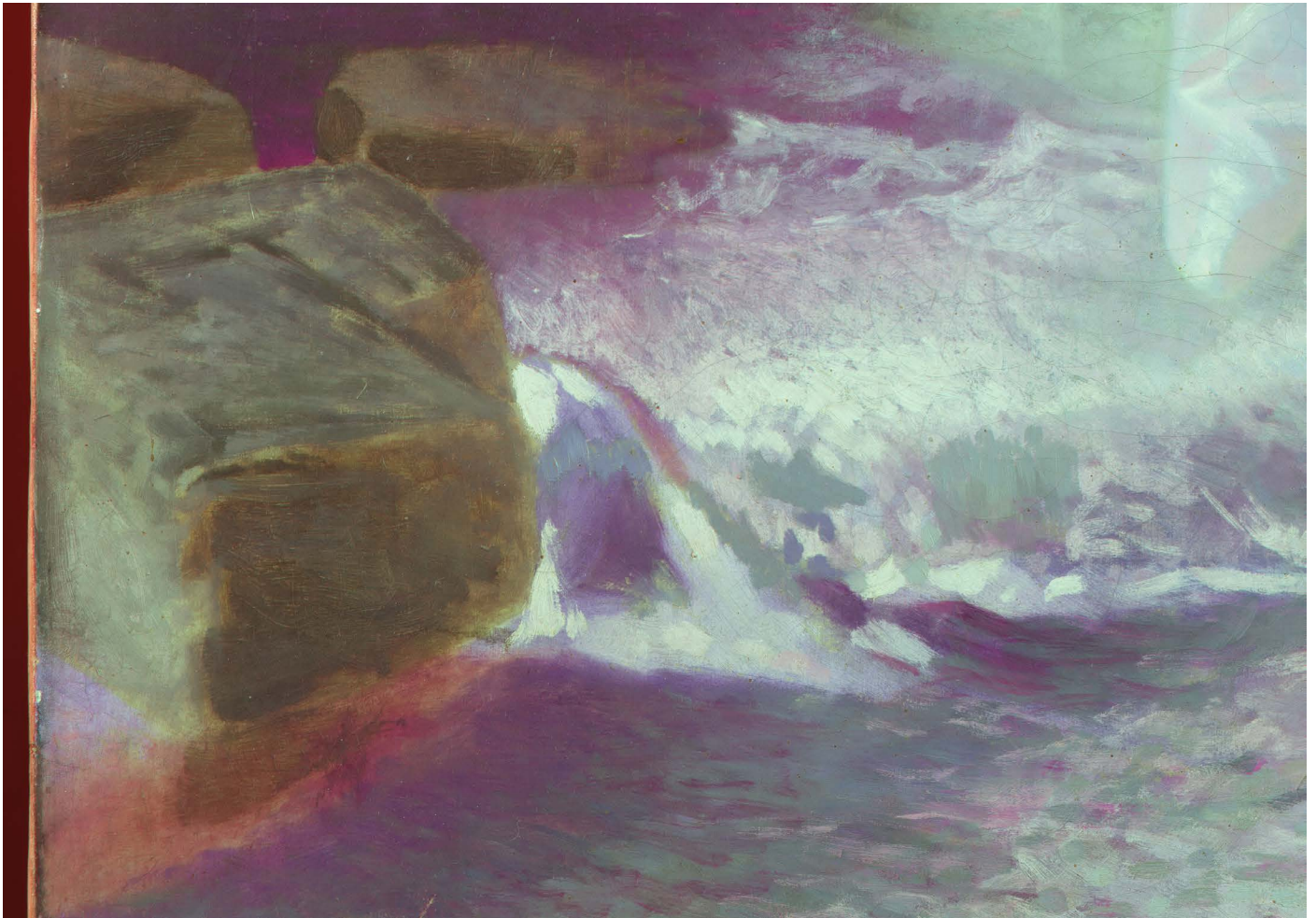


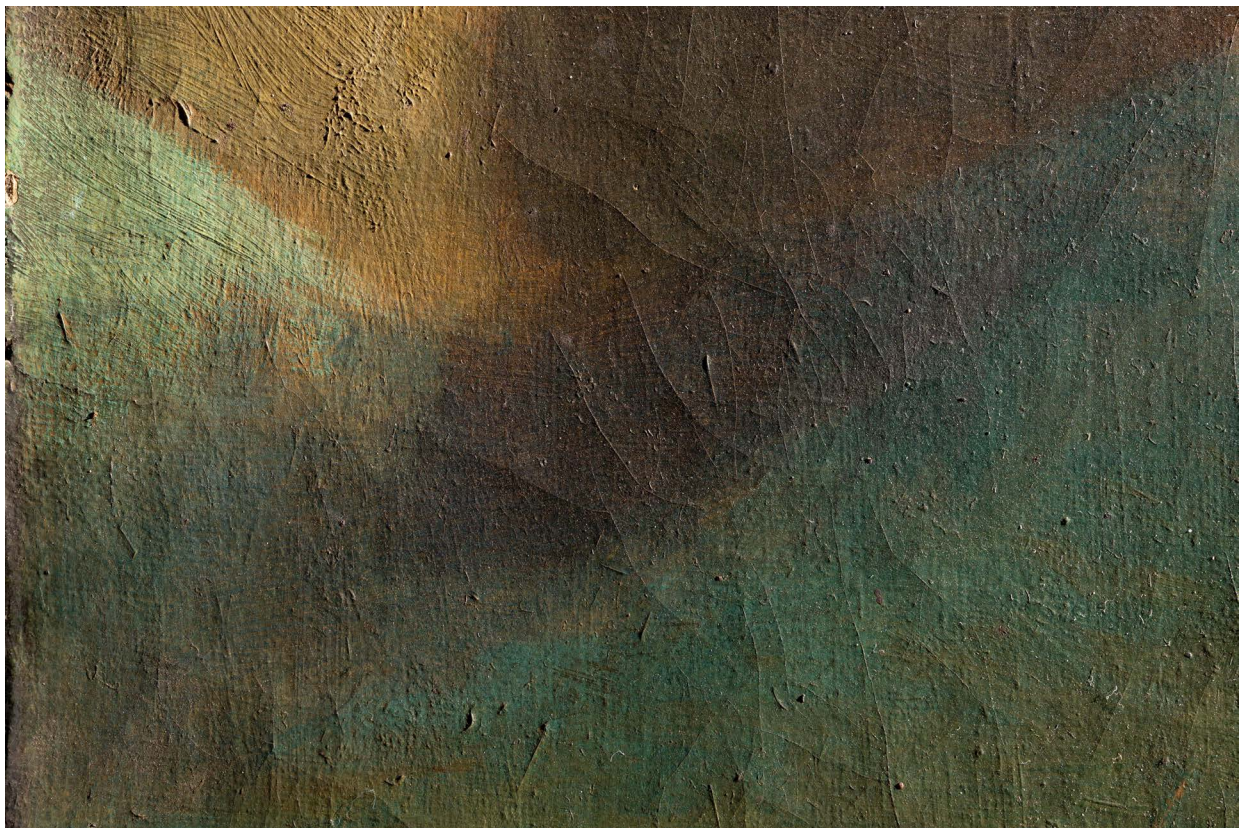


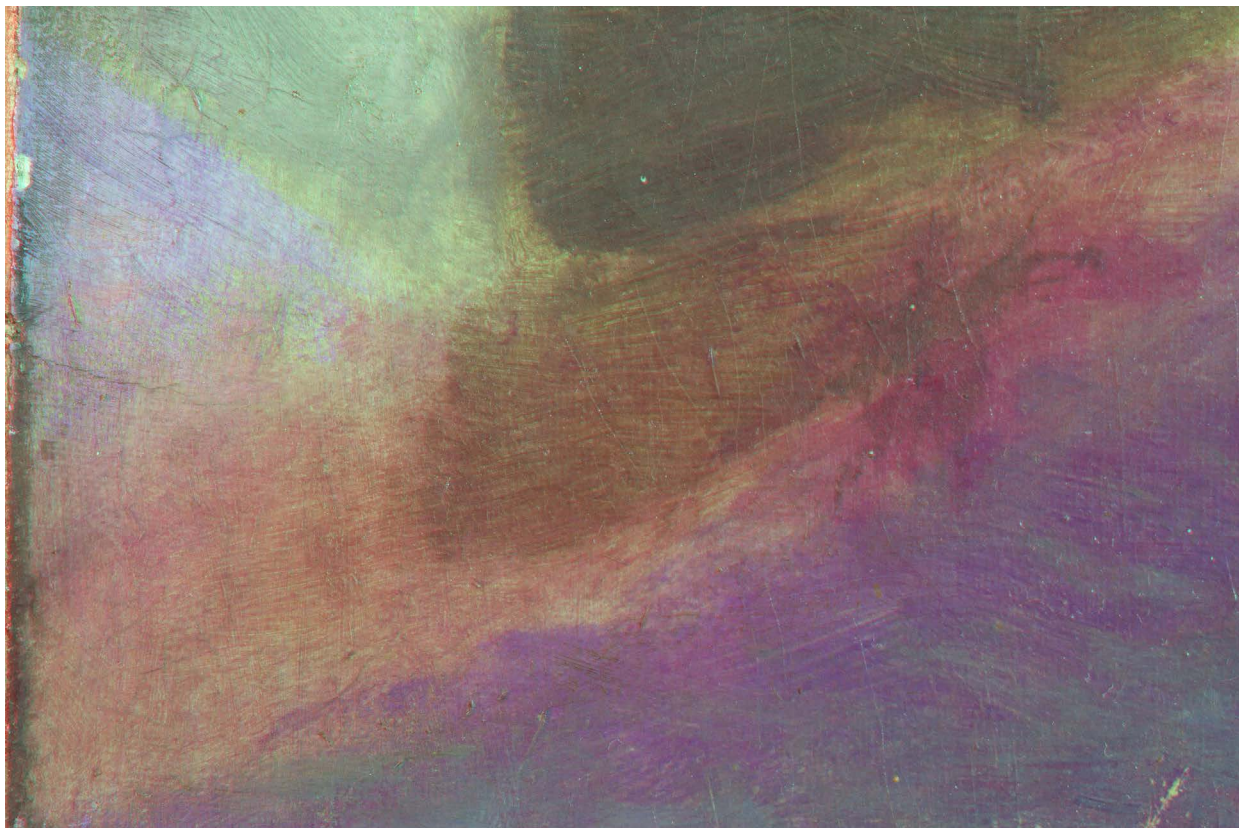
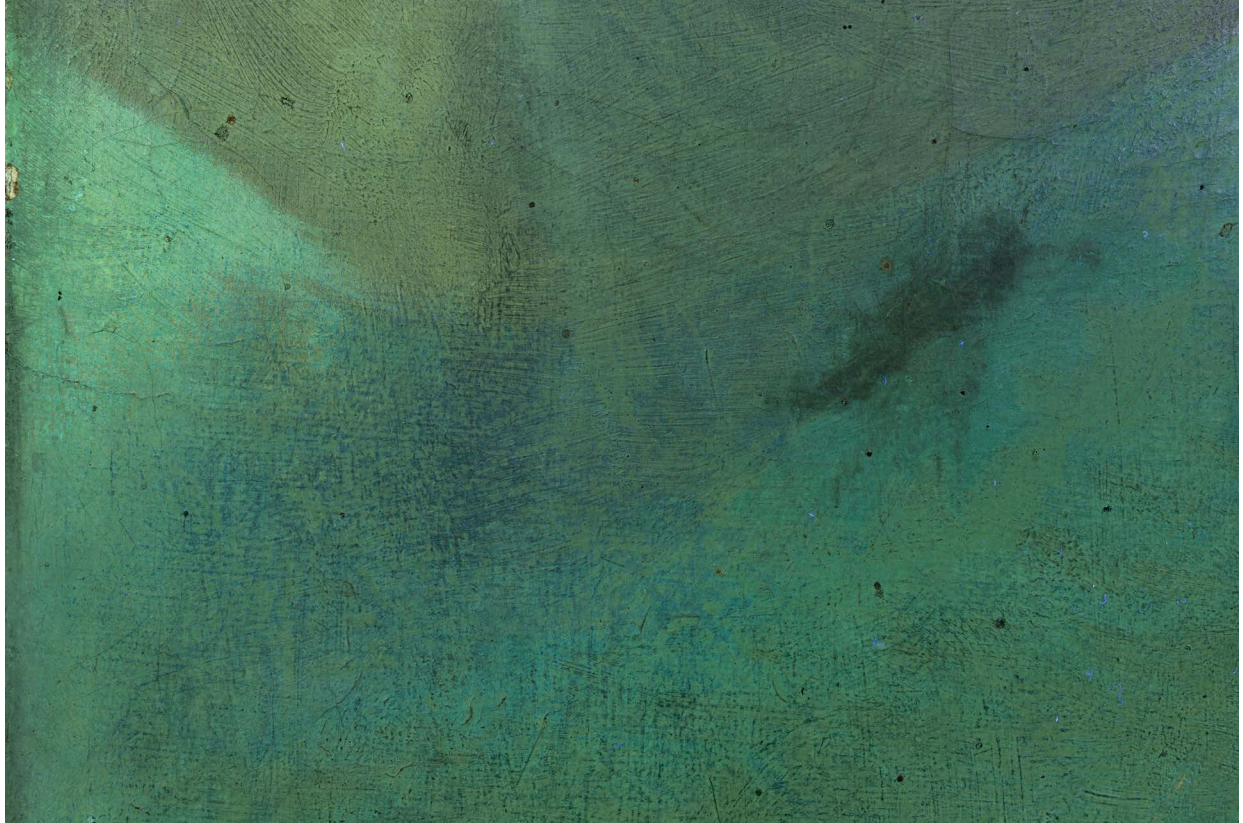


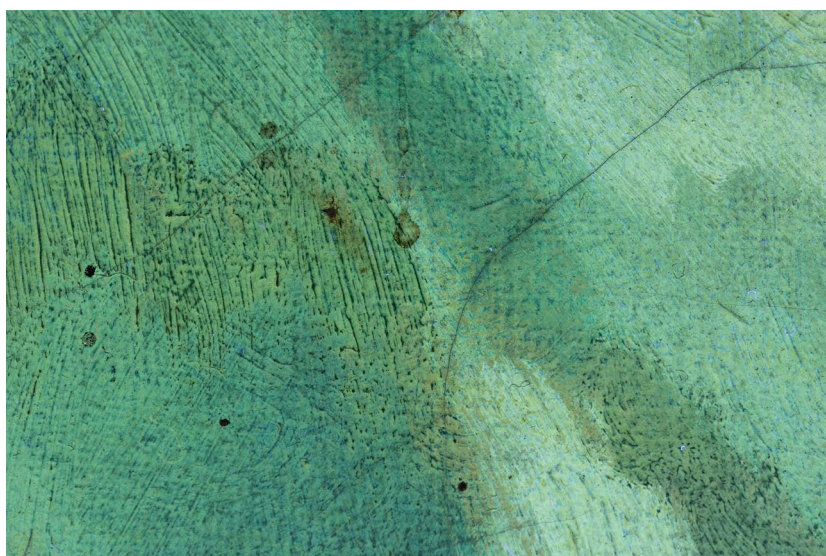
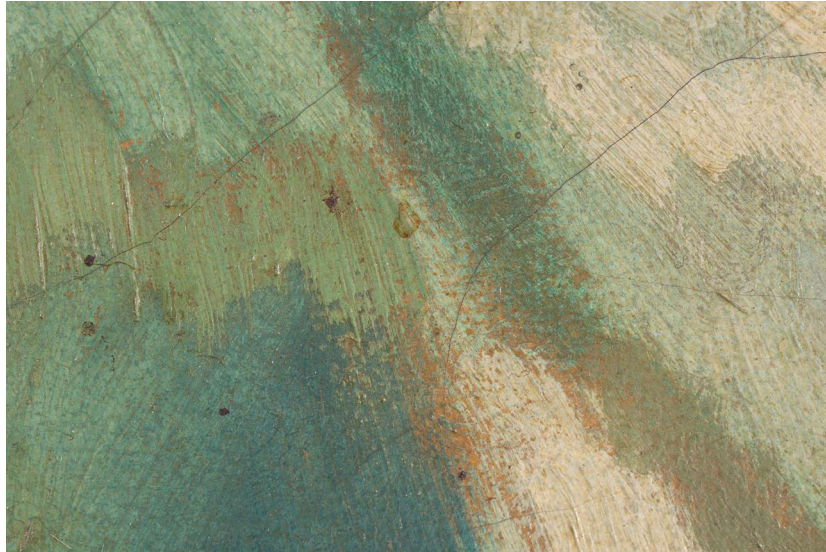




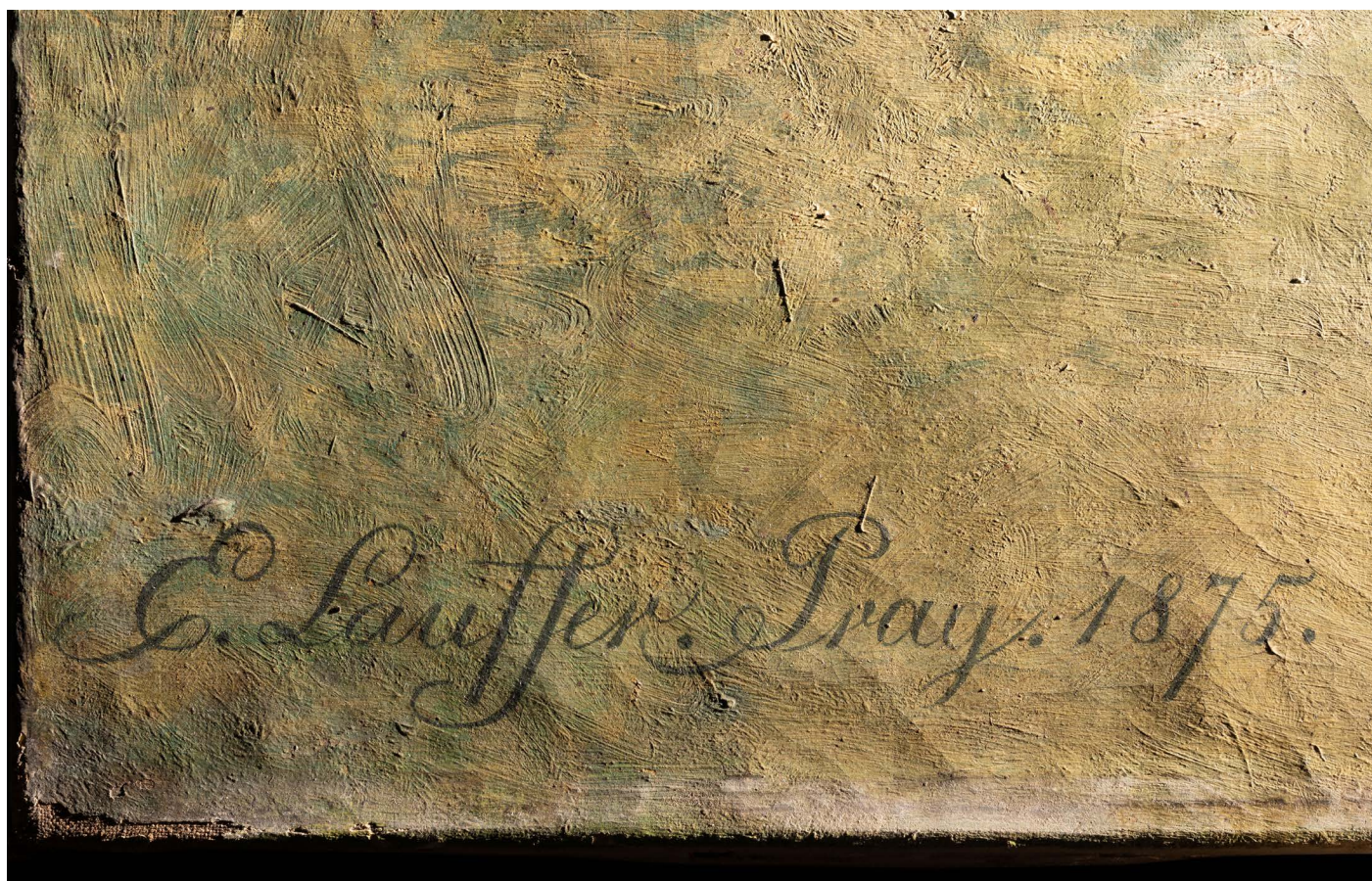




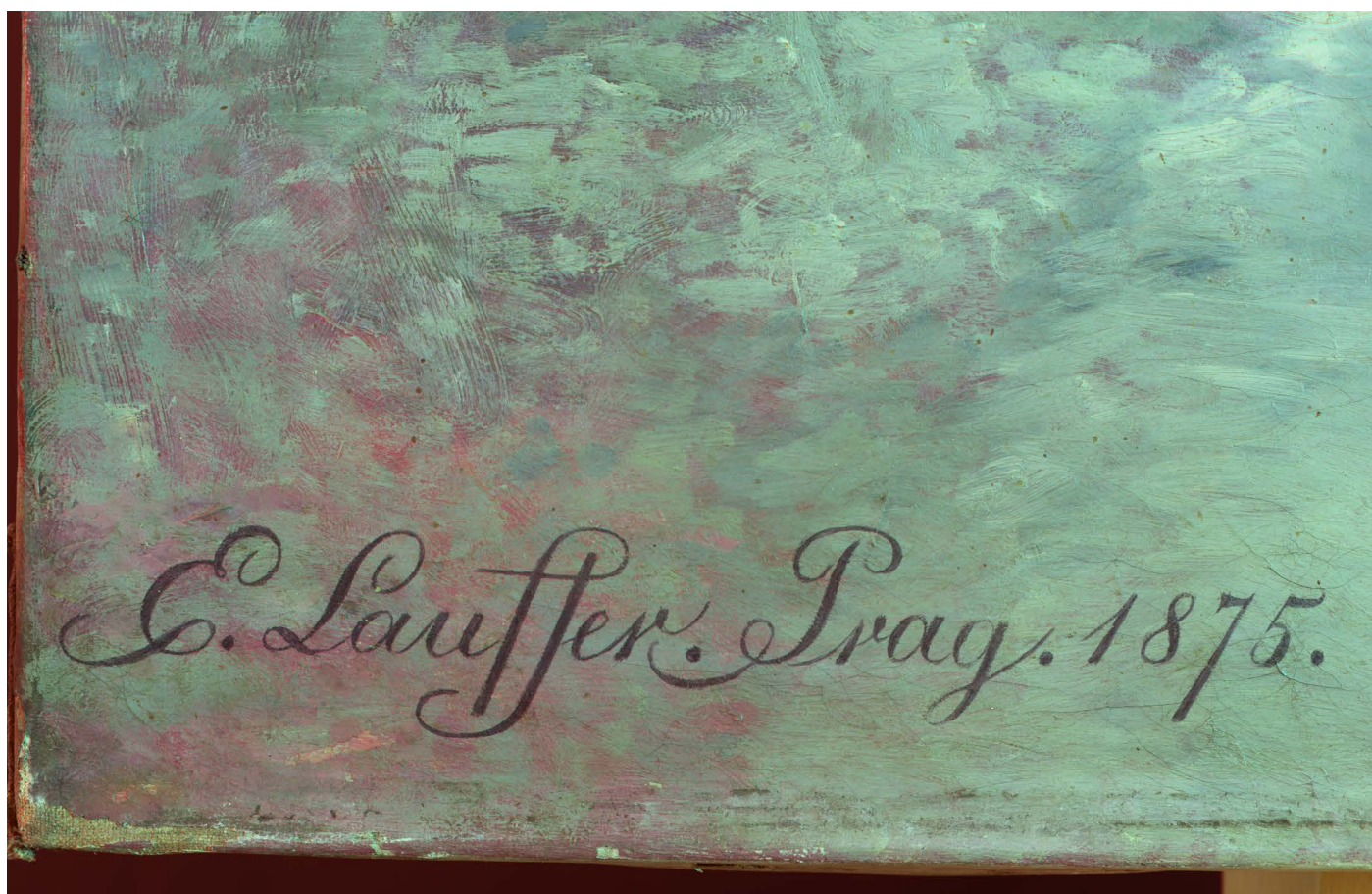






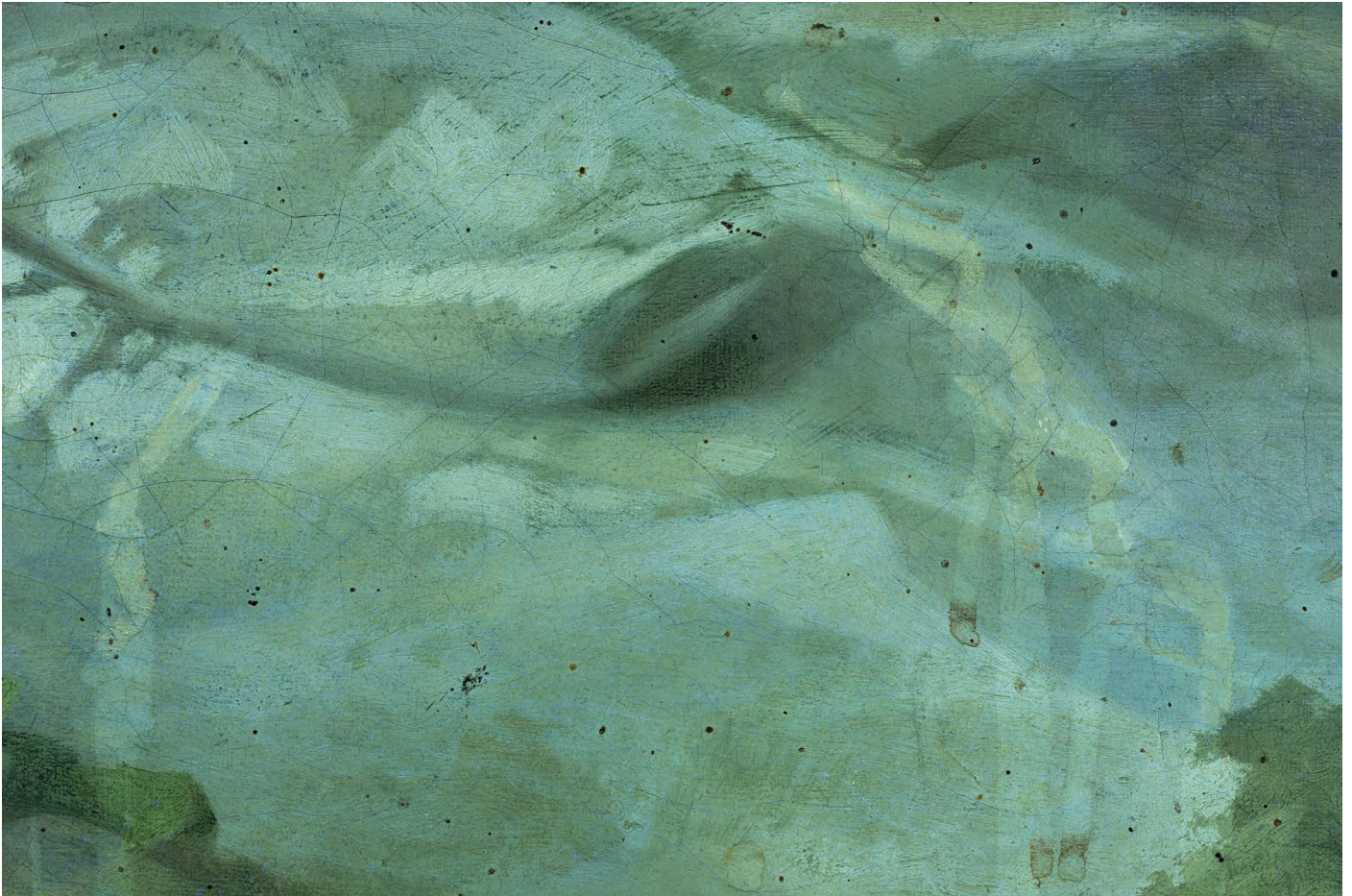






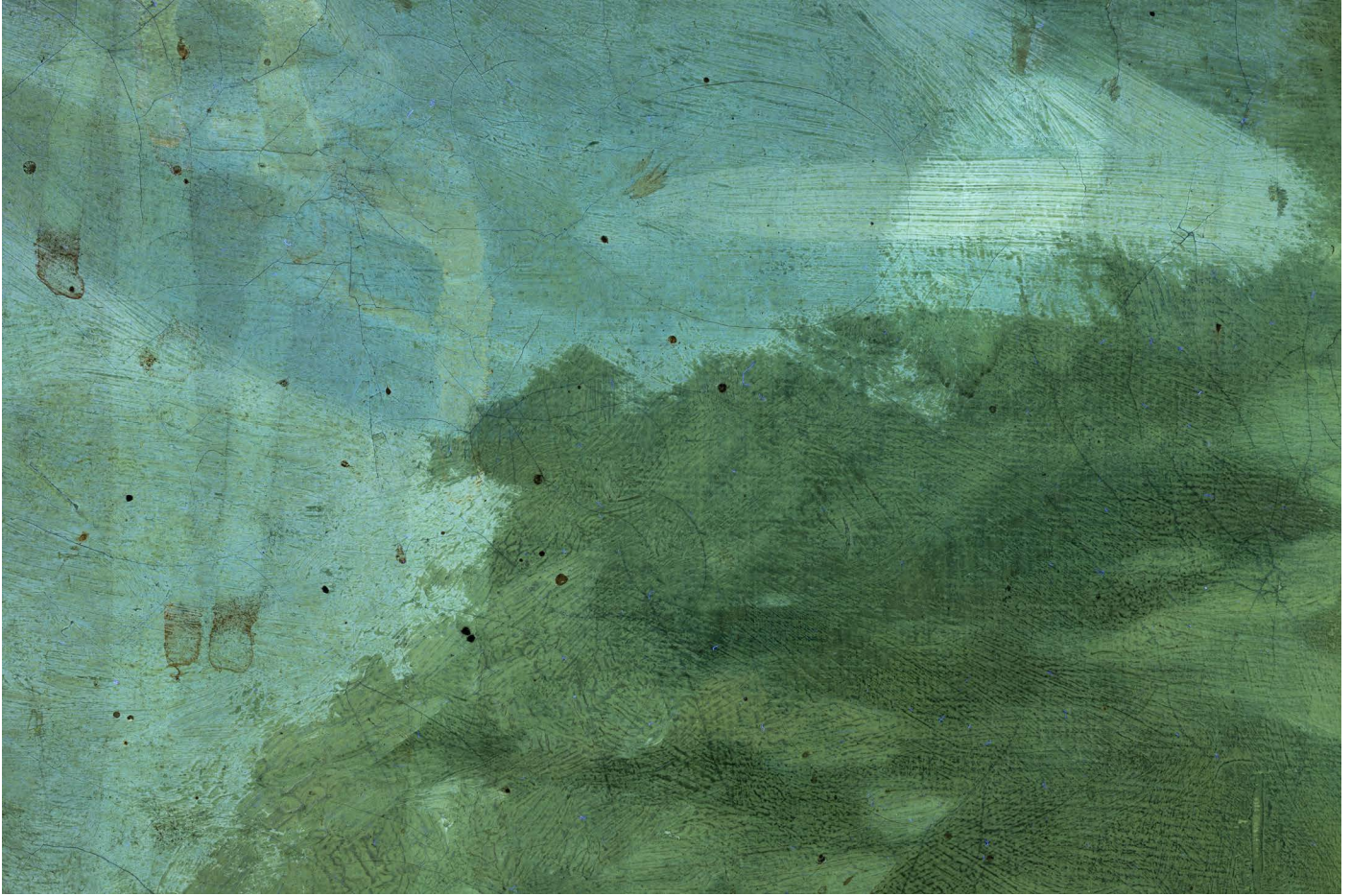


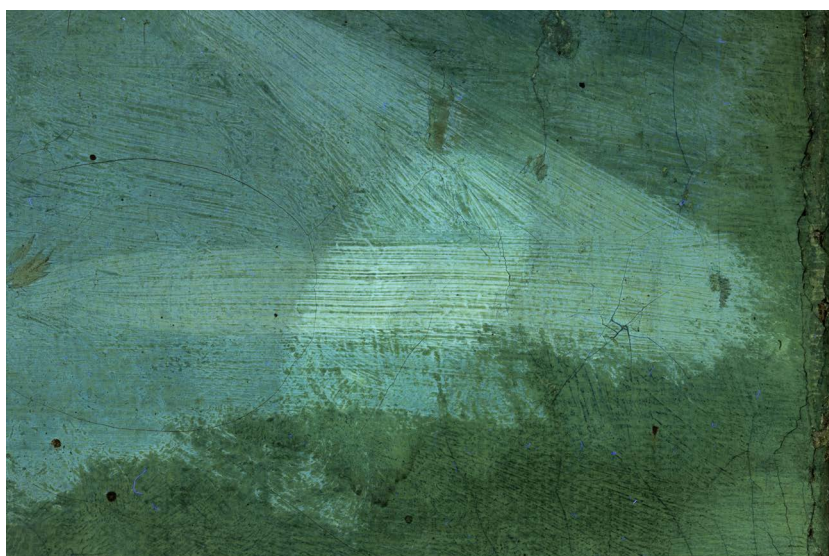








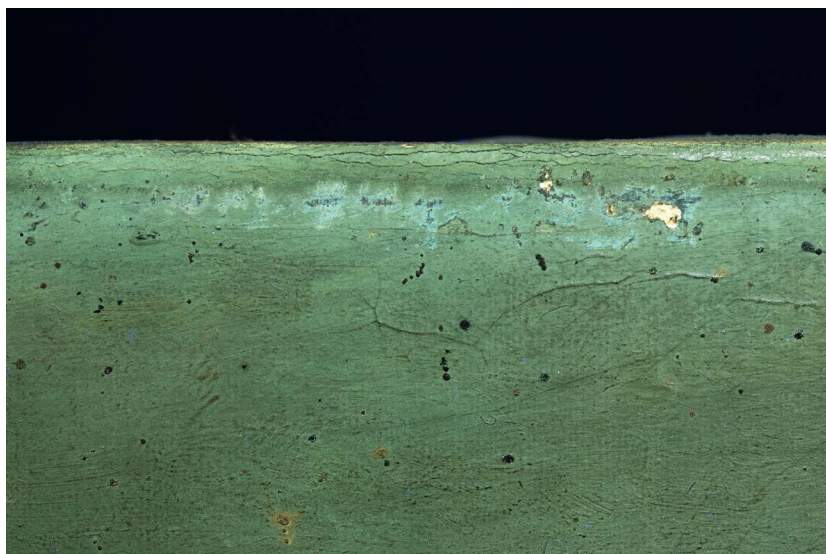
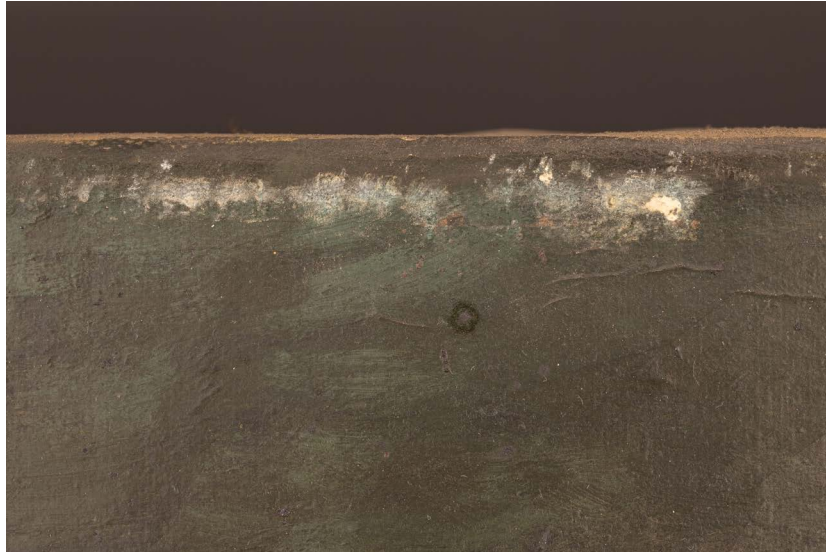


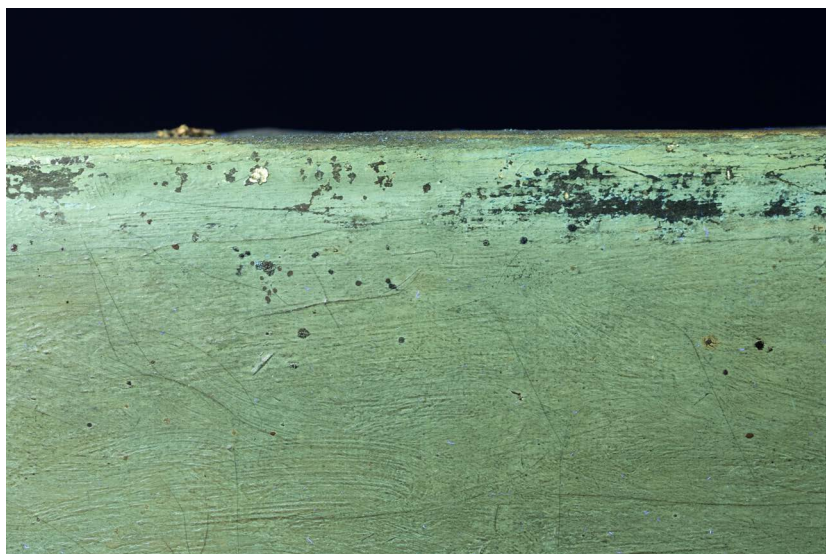
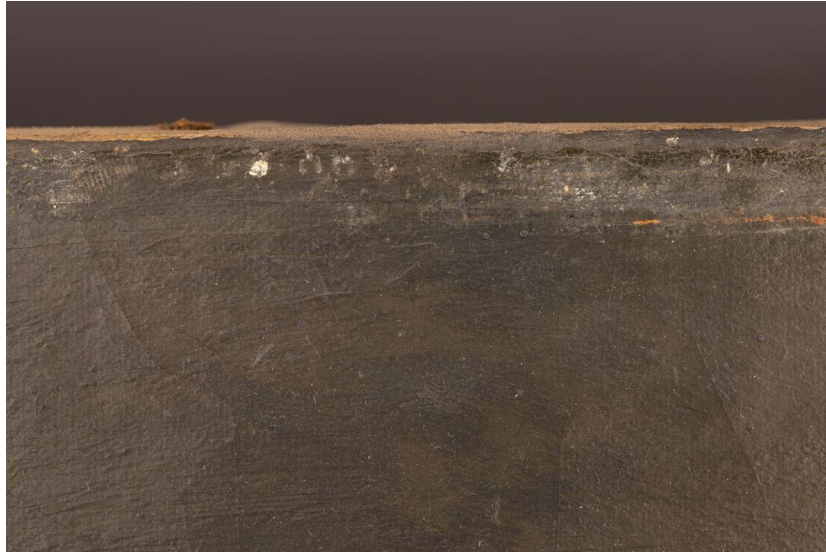




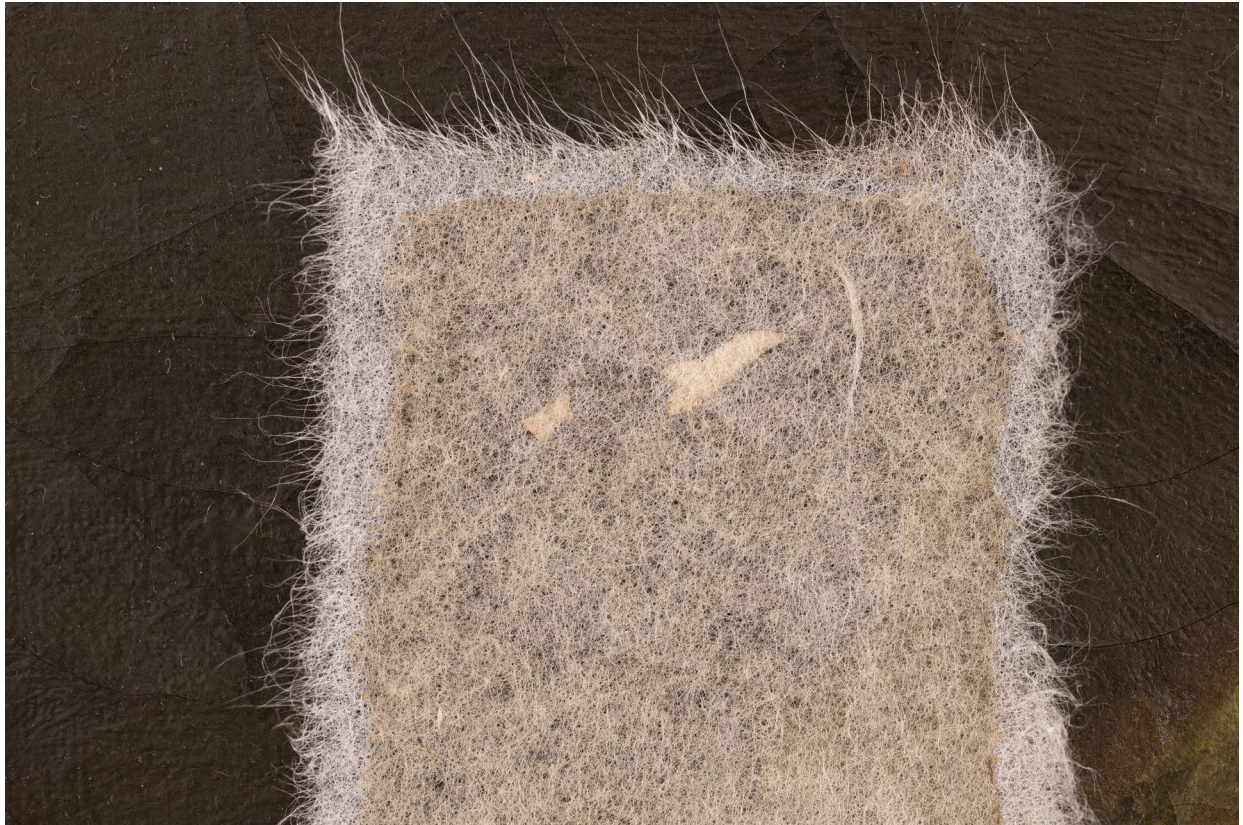


macrophotographs in day and raking light
detail

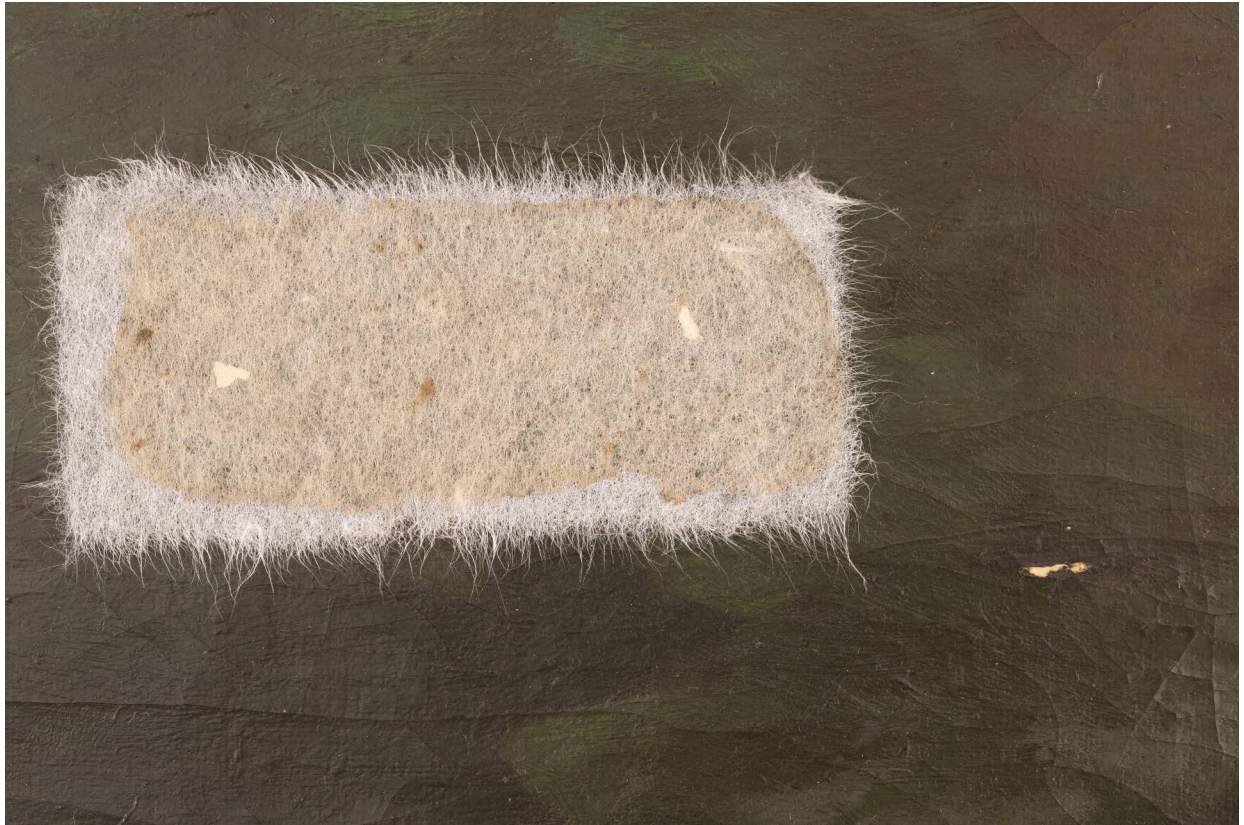








macrophotographs in day and raking light
detail

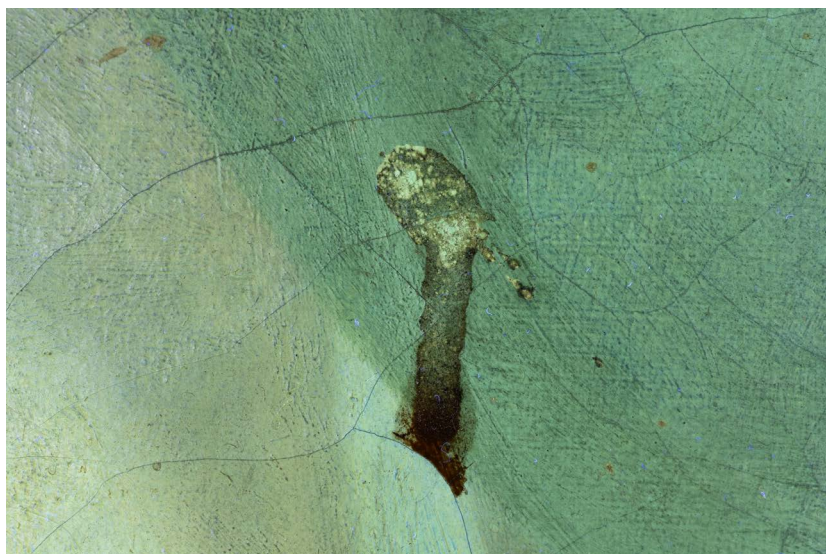


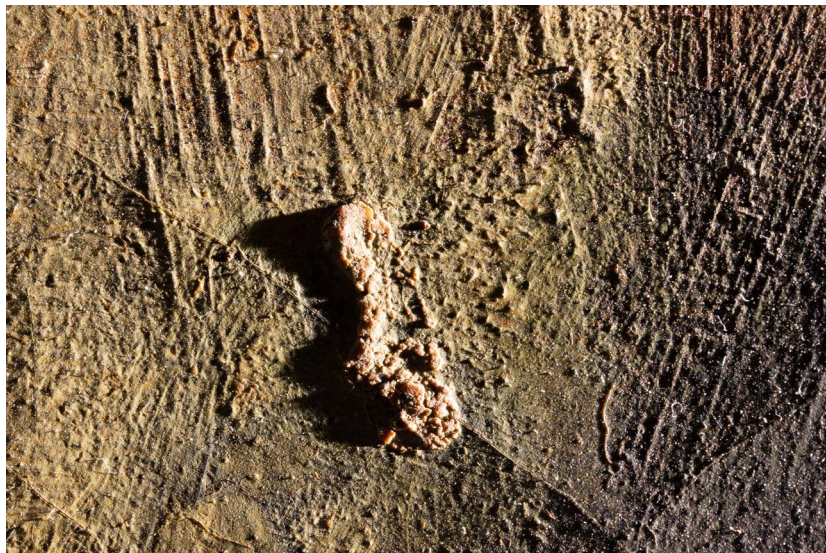


macrophotographs in day and raking light
detail











photography in day light
back side of the painting



photography in UV luminescence
back side of the painting





photographs in day light
back side, details

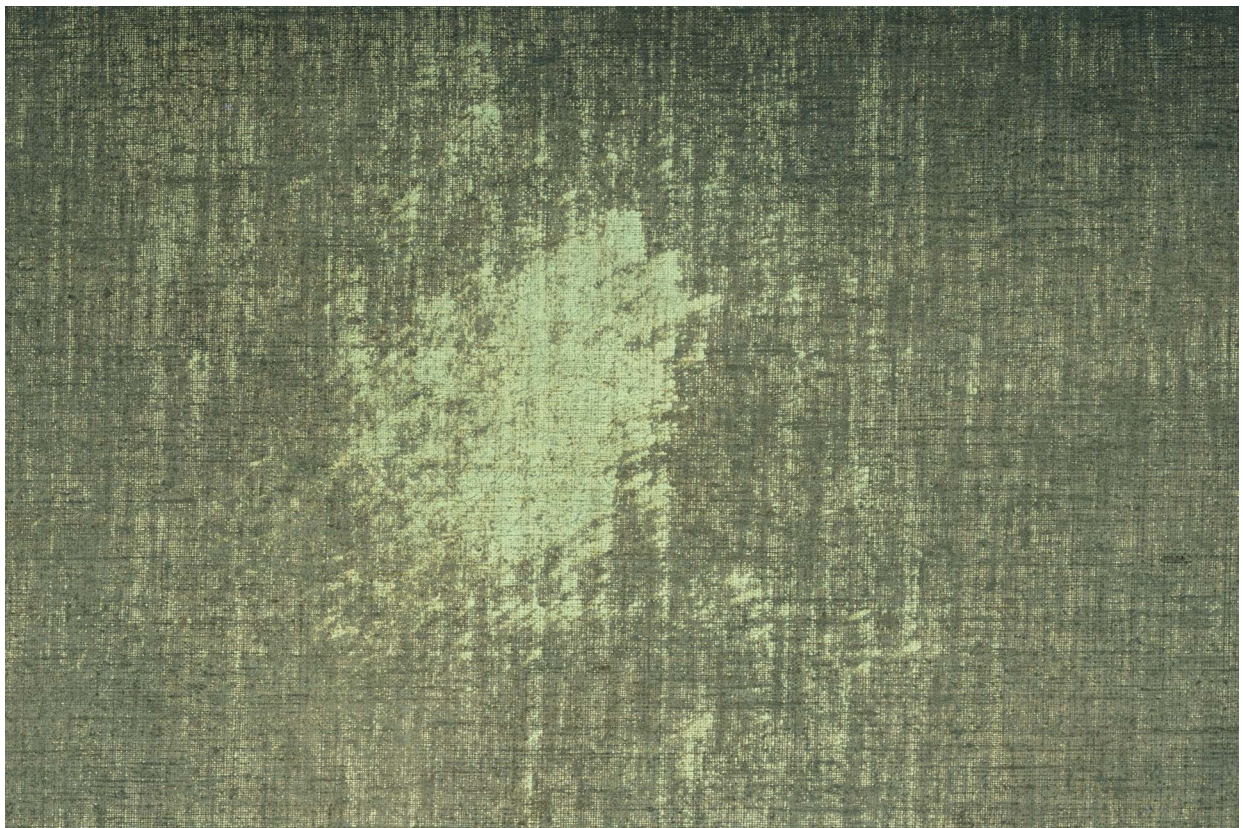












photographs in day light and UV luminescence
back side, detail









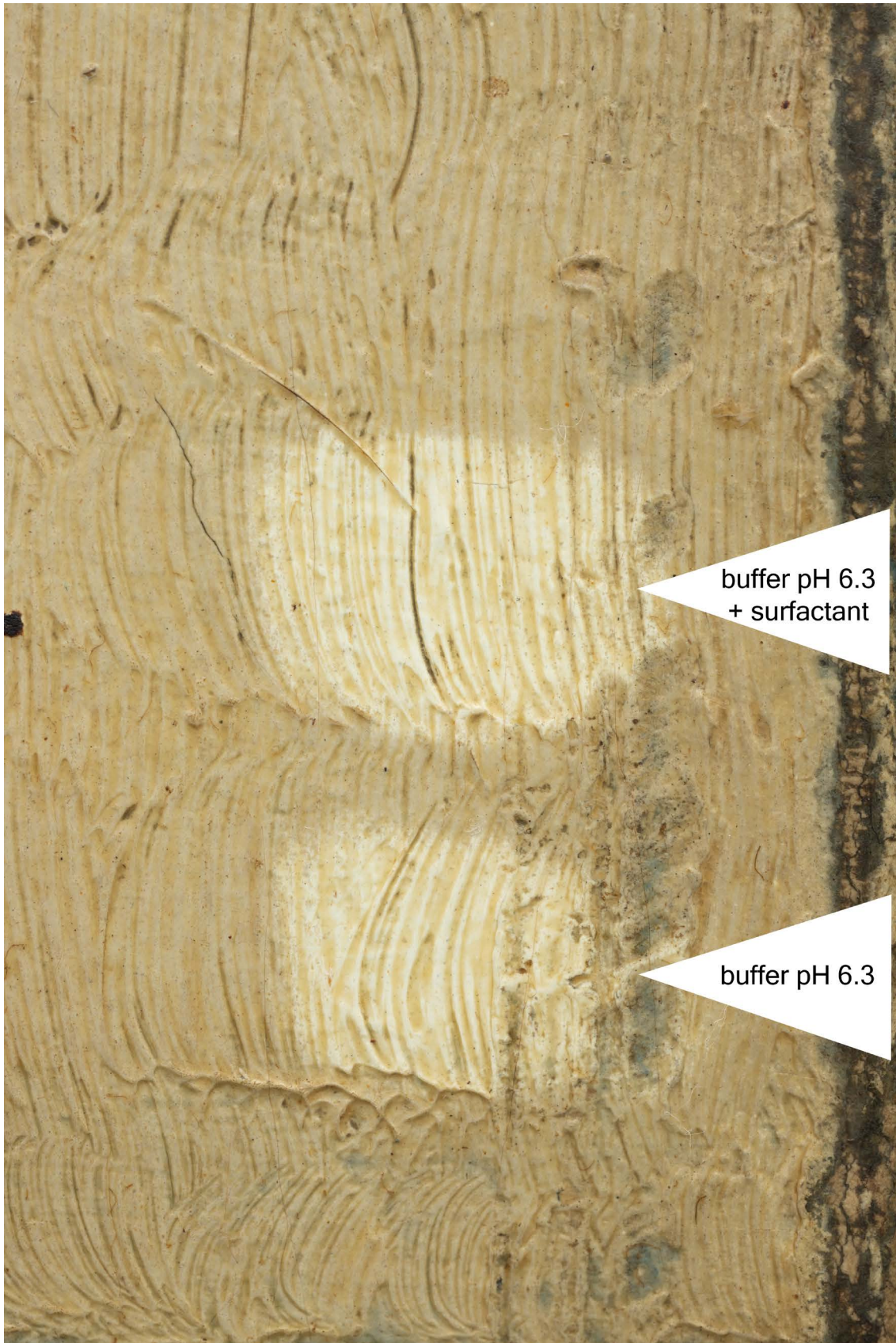
photographs in day light
details of attachment of the canvas to the stretcher

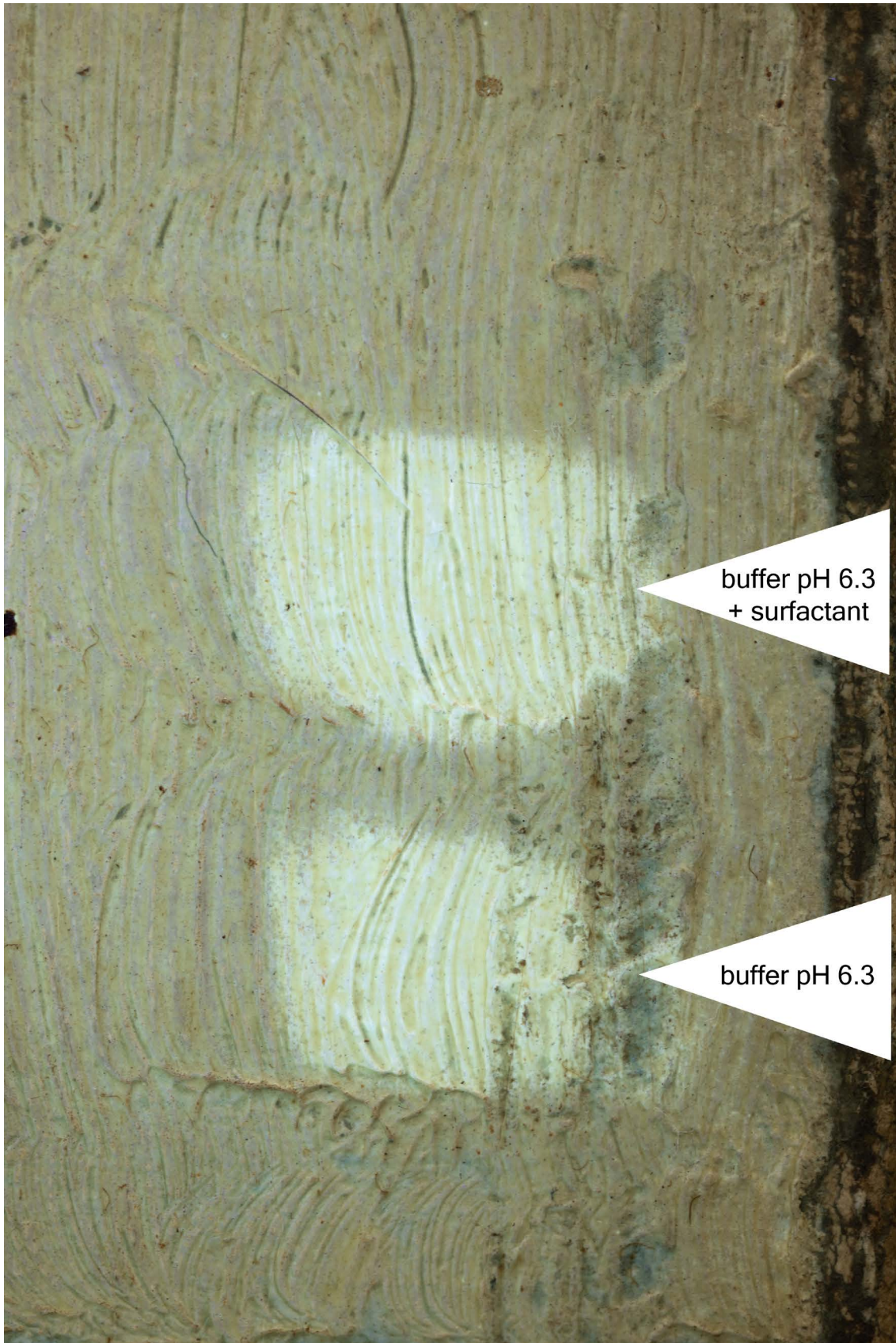
PHOTOGRAPHIC DOCUMENTATION
OF THE RESTORATION TREATMENT





local consolidation of loosened and flaking paint and ground layer after application of adhesive and wheighthen photographs in day light

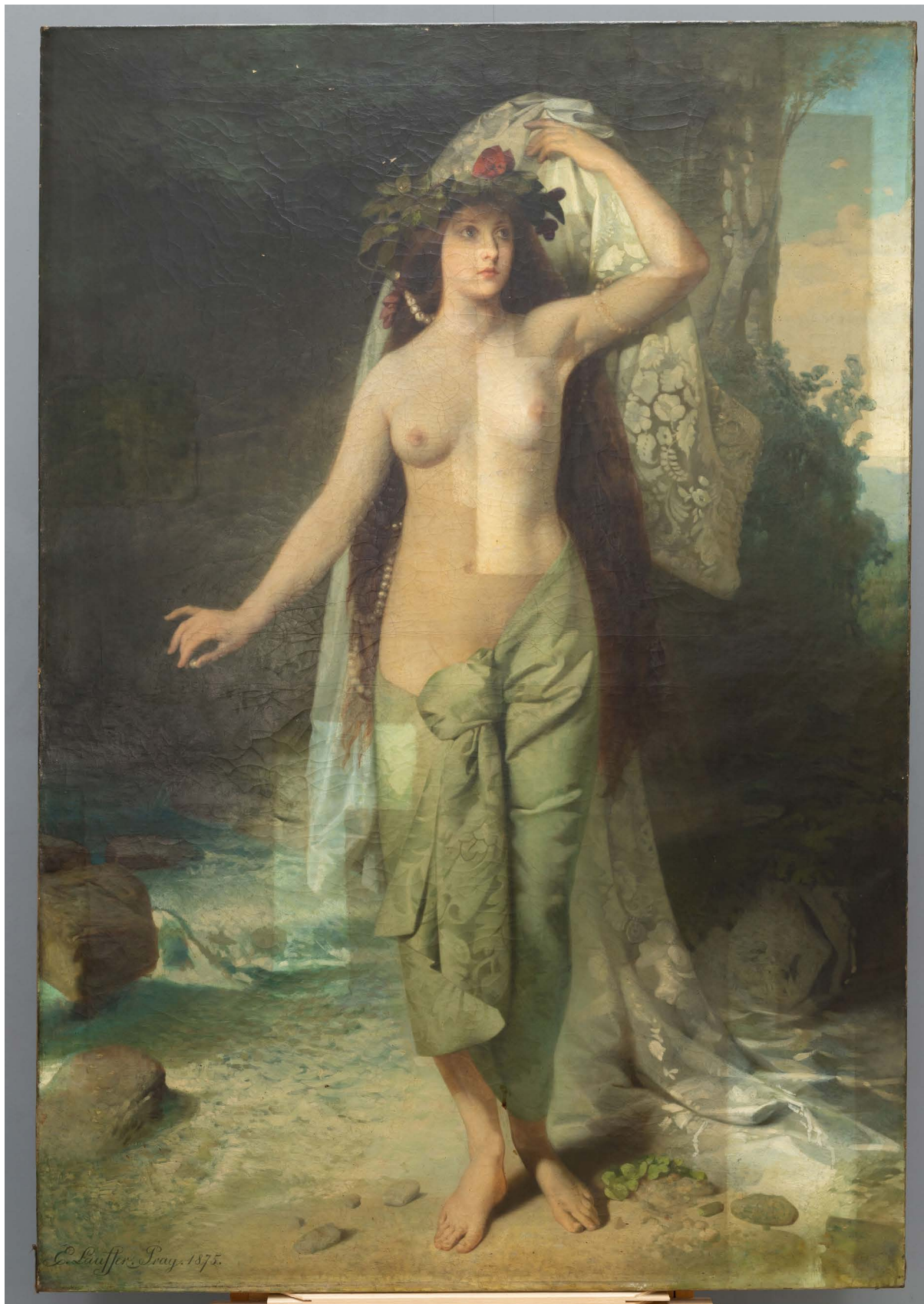


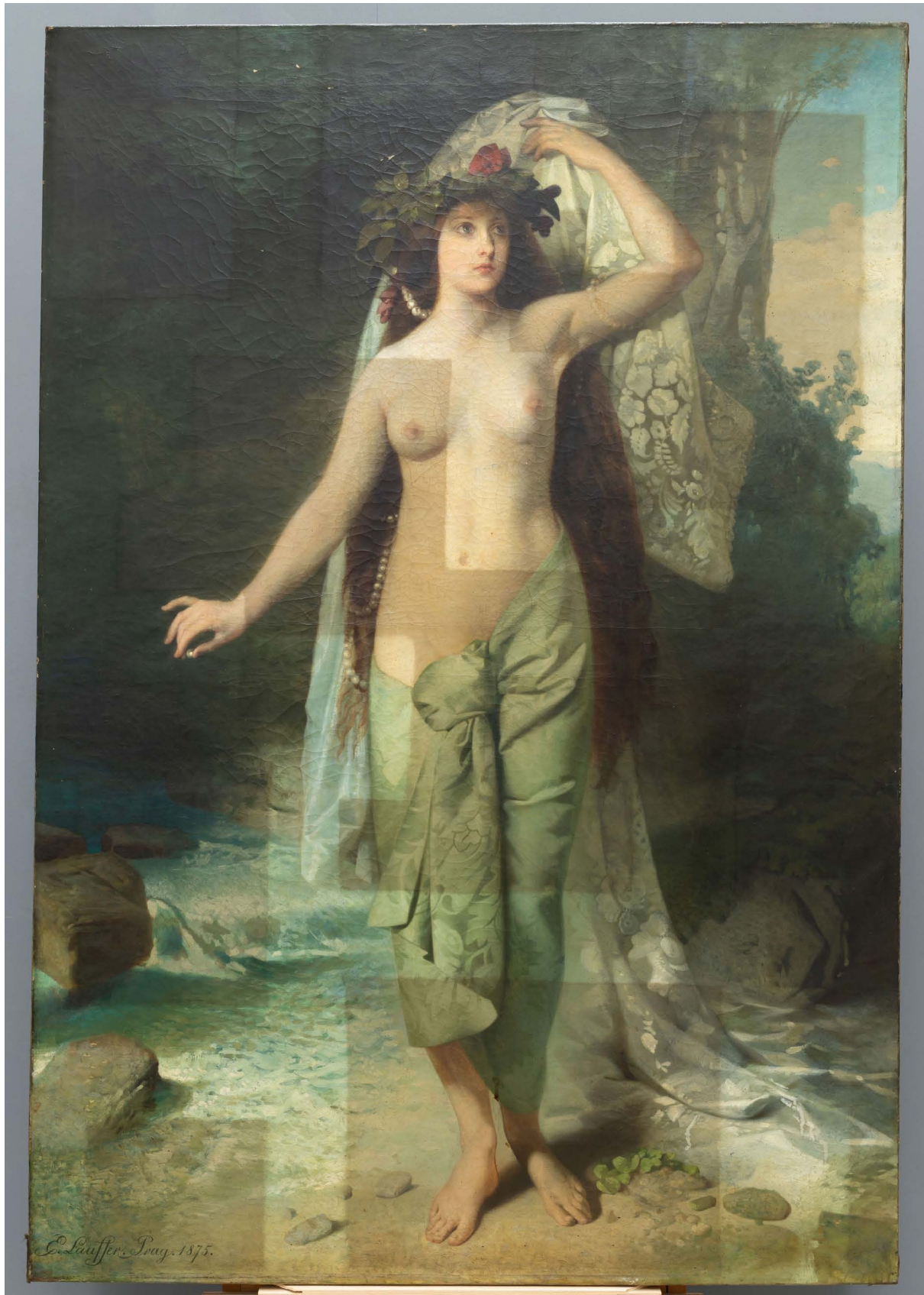


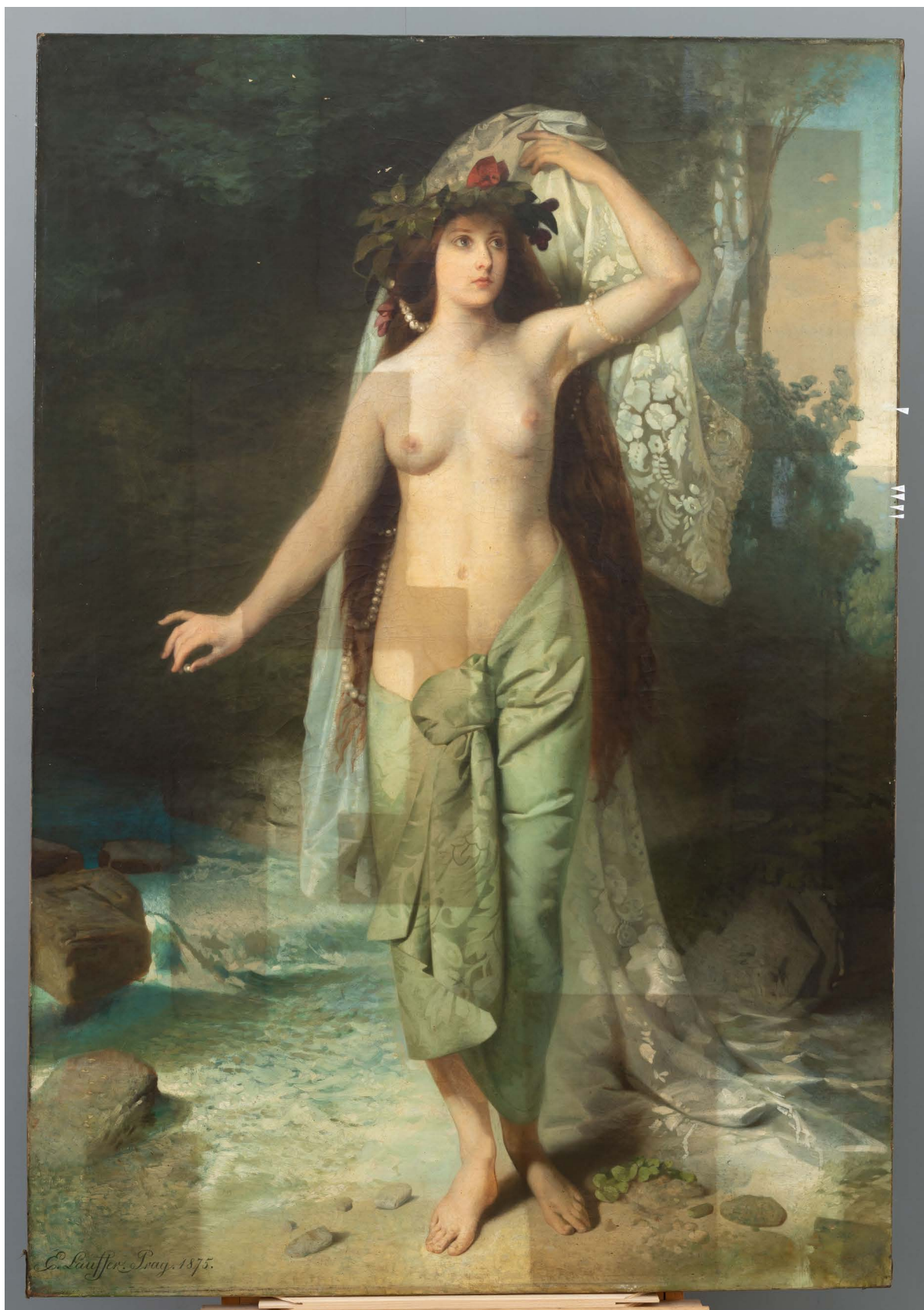


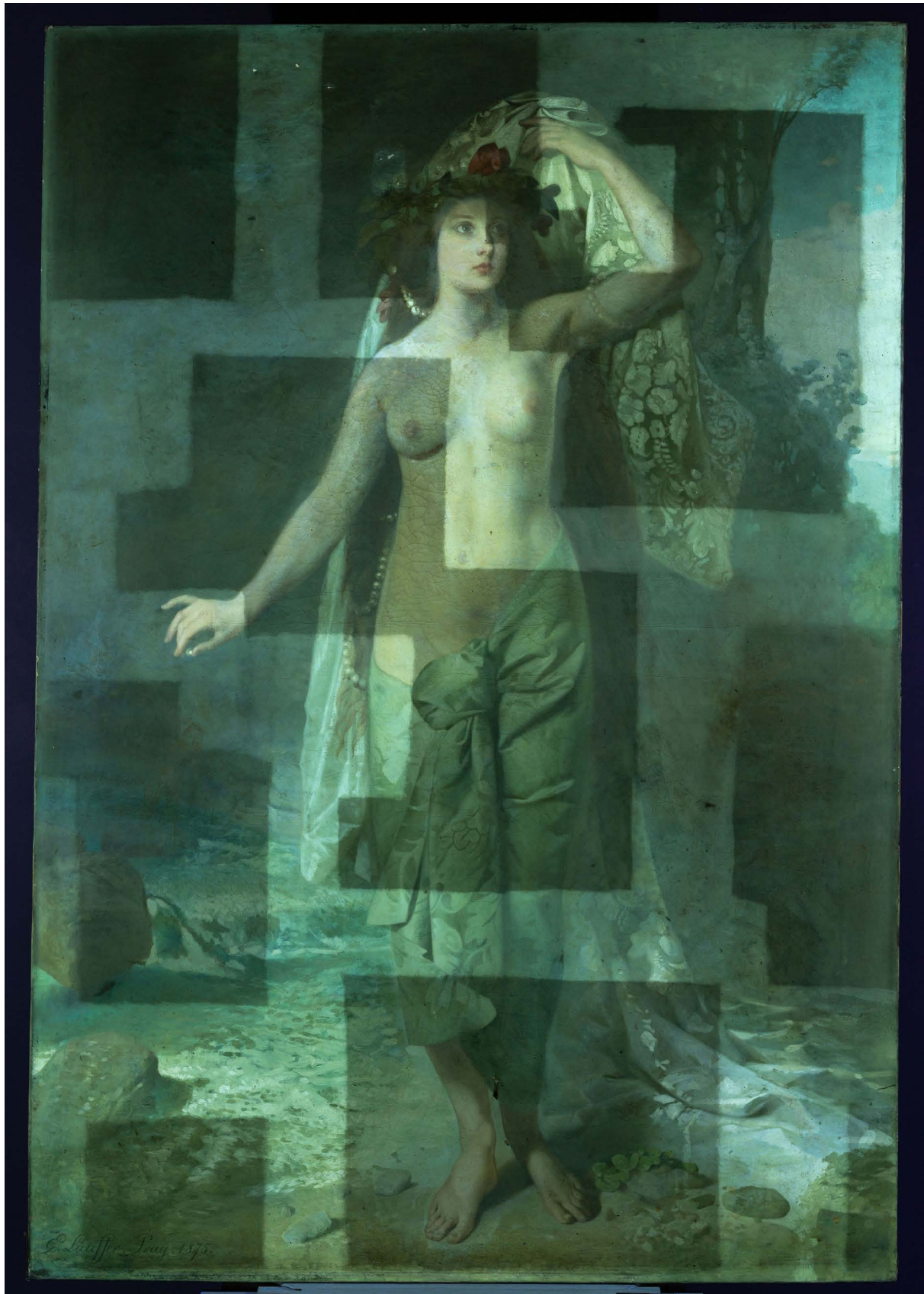


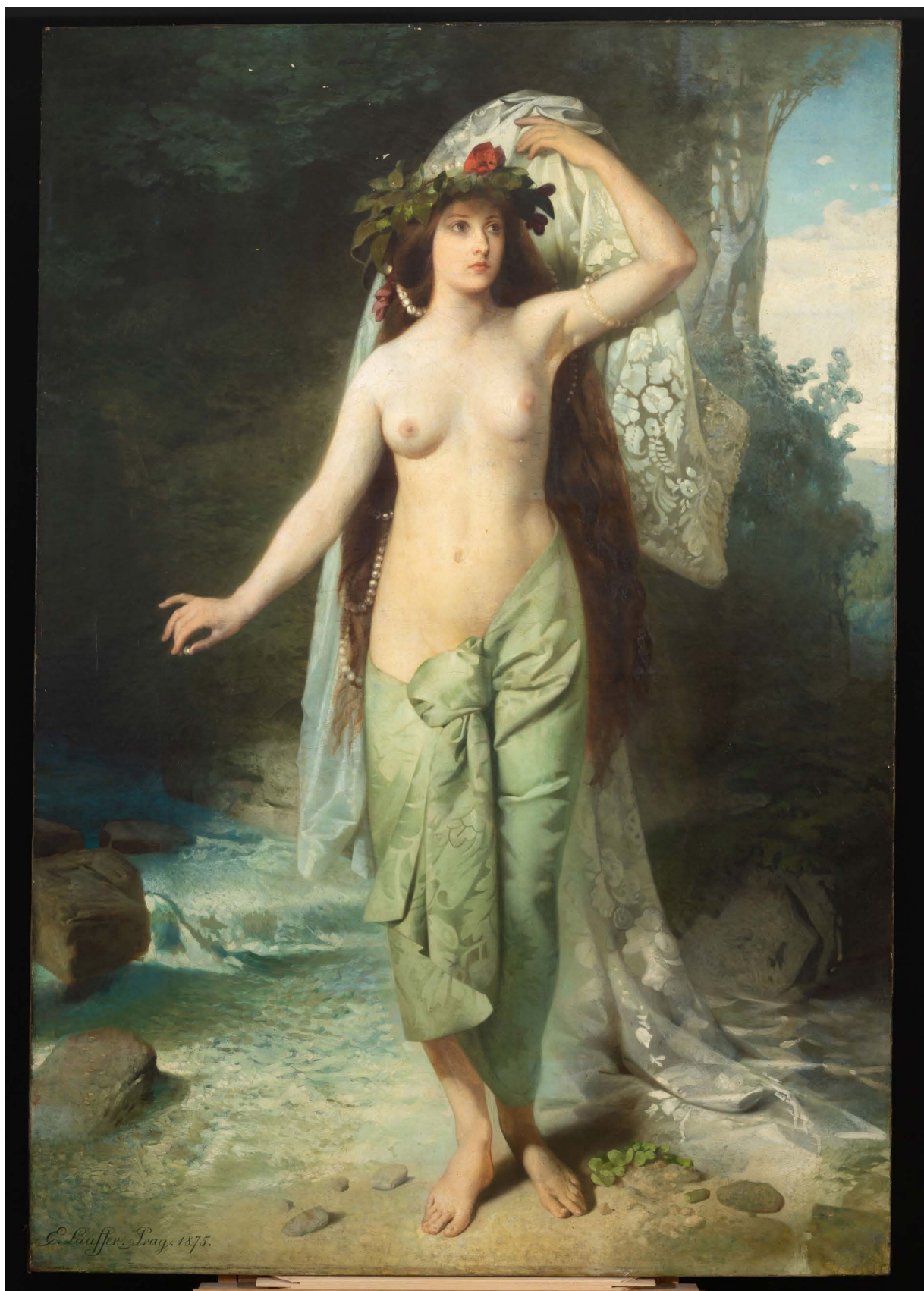
probe of surface dirt removal
photography in day light

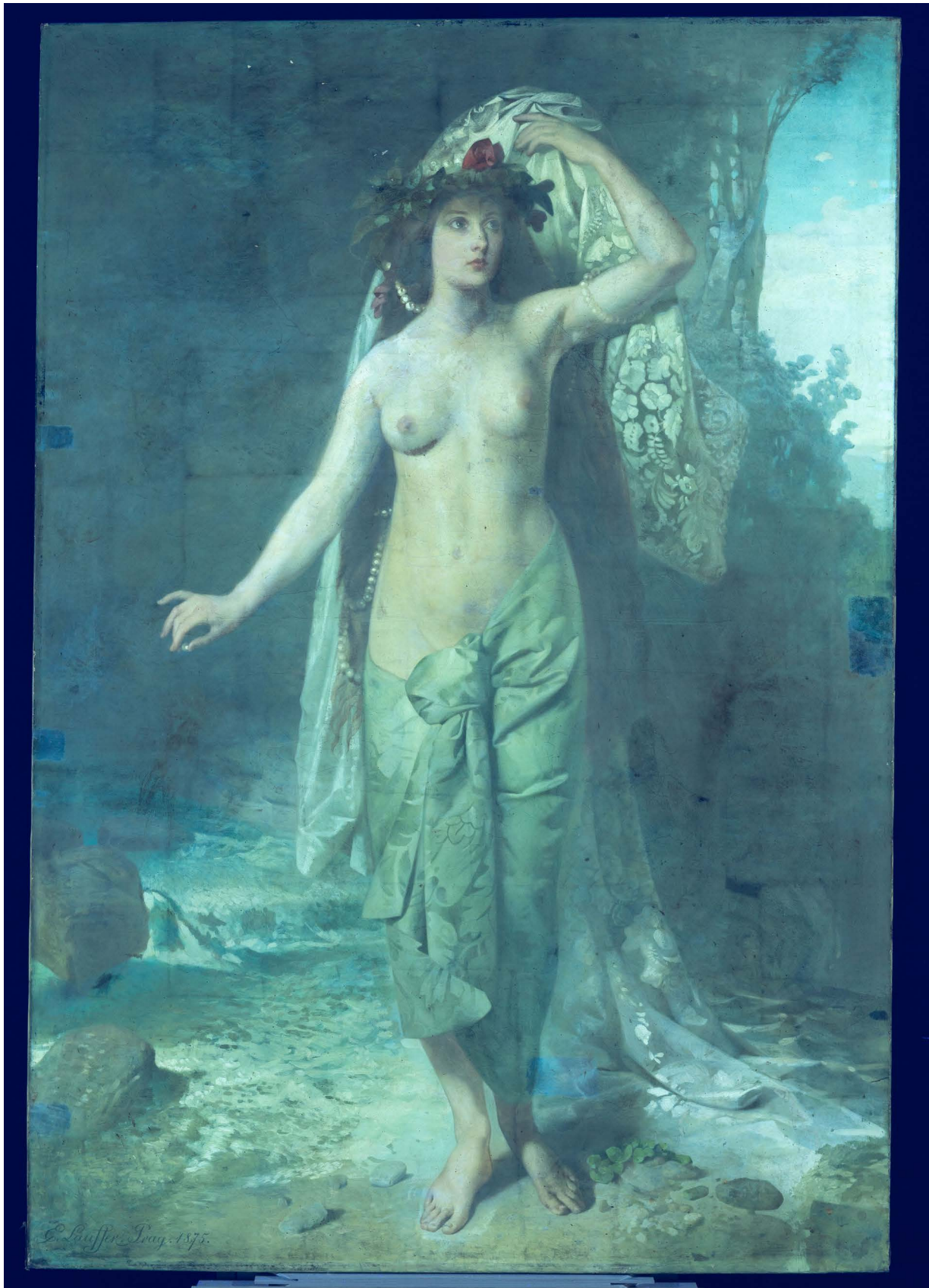








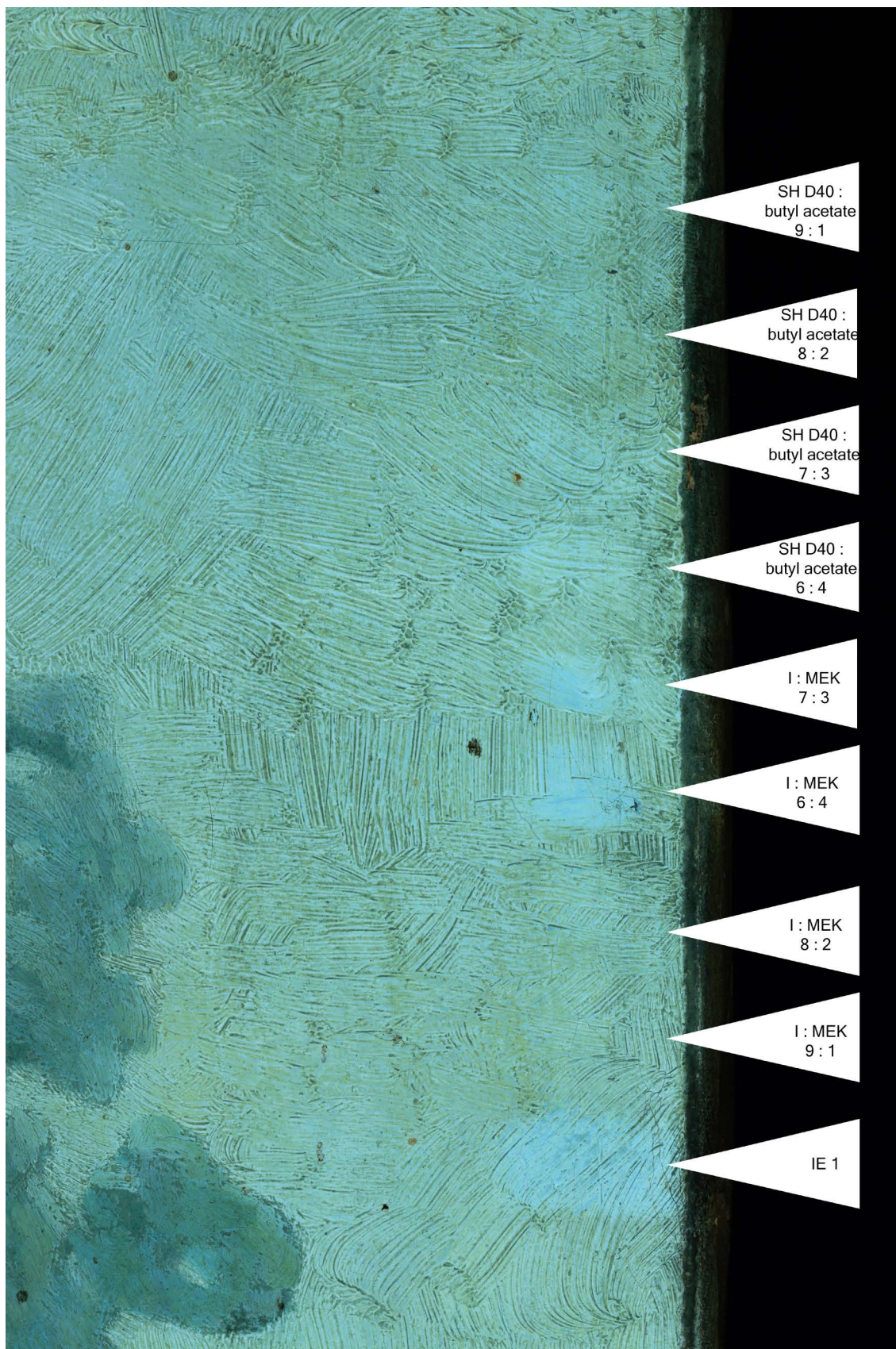


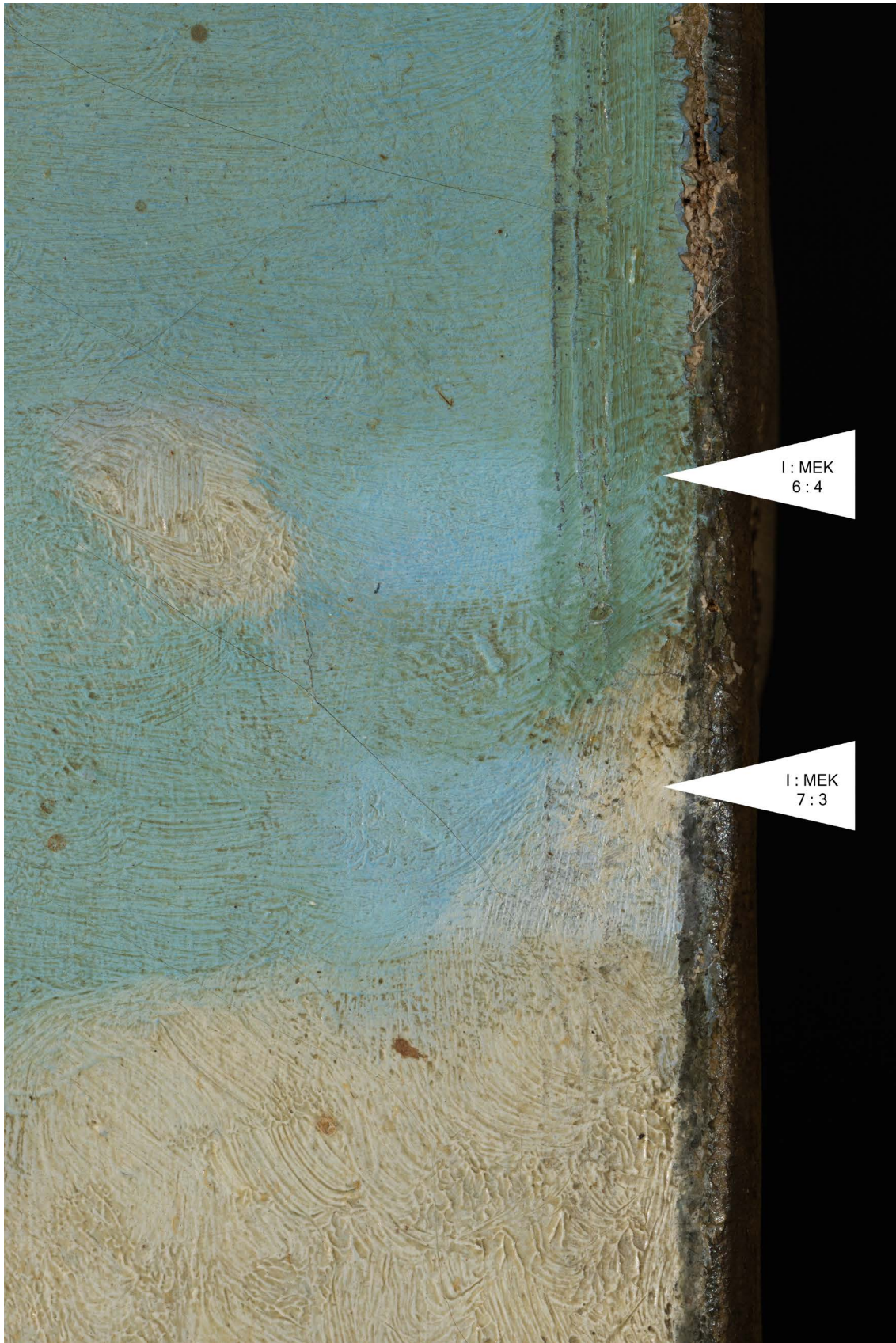


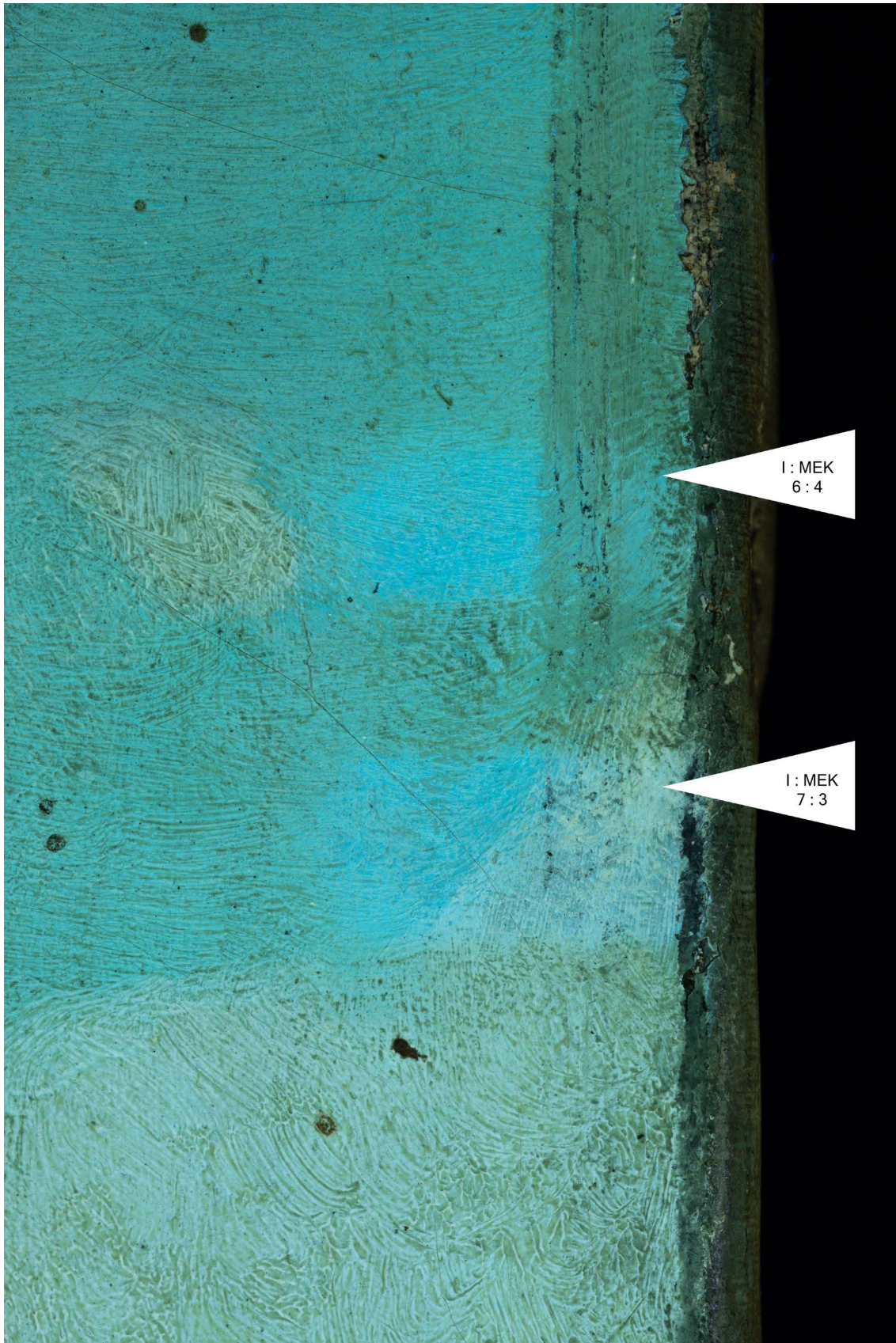




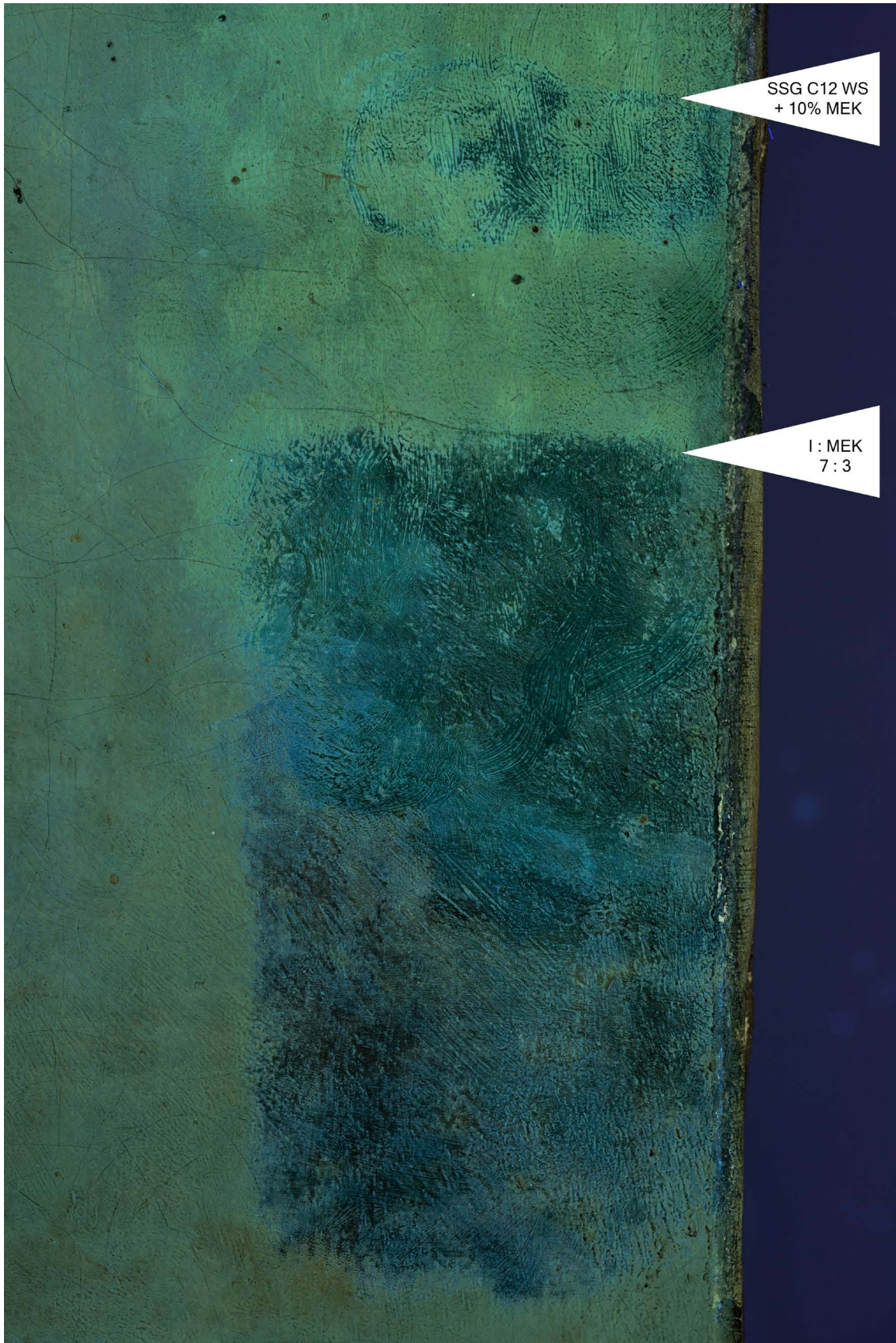




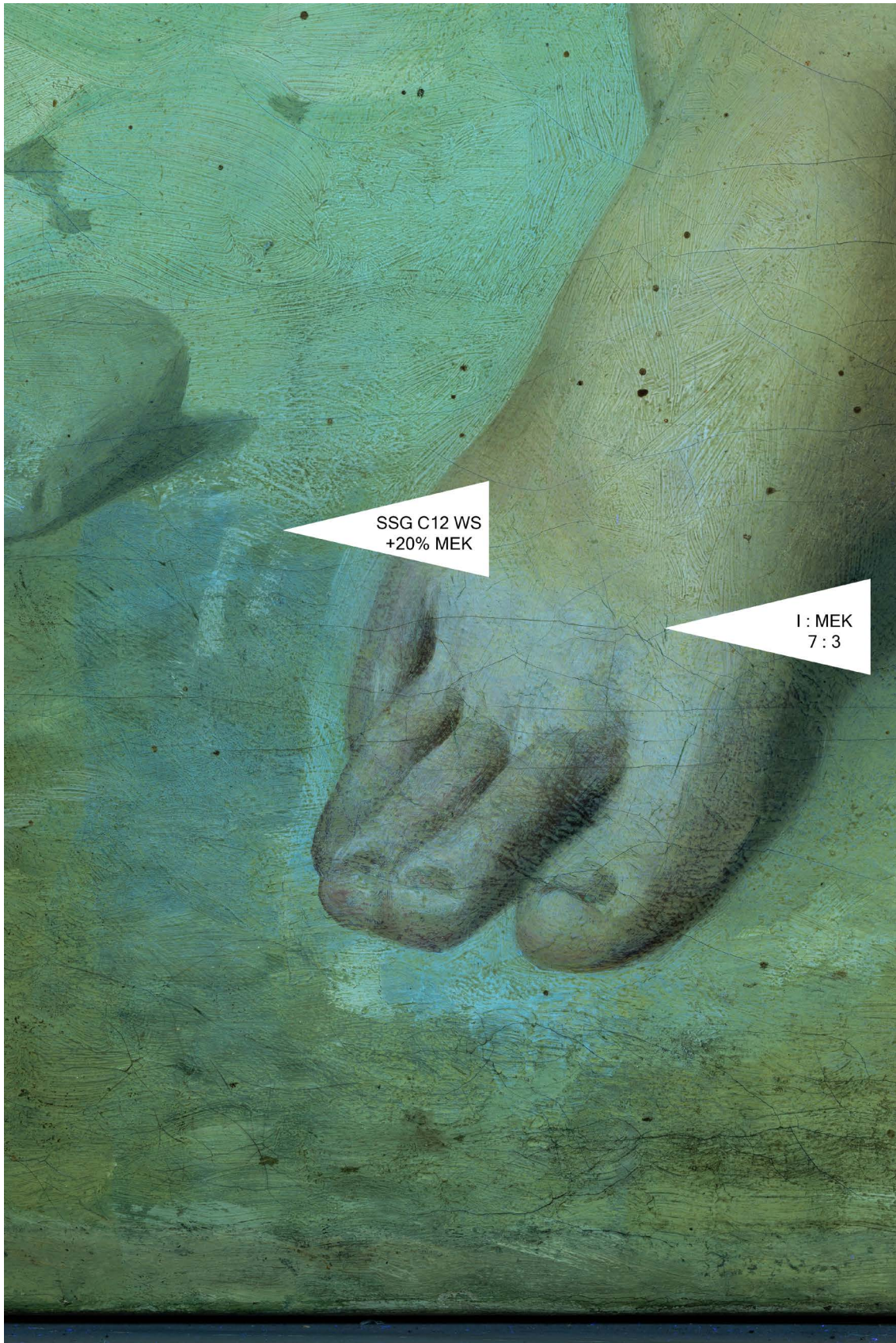




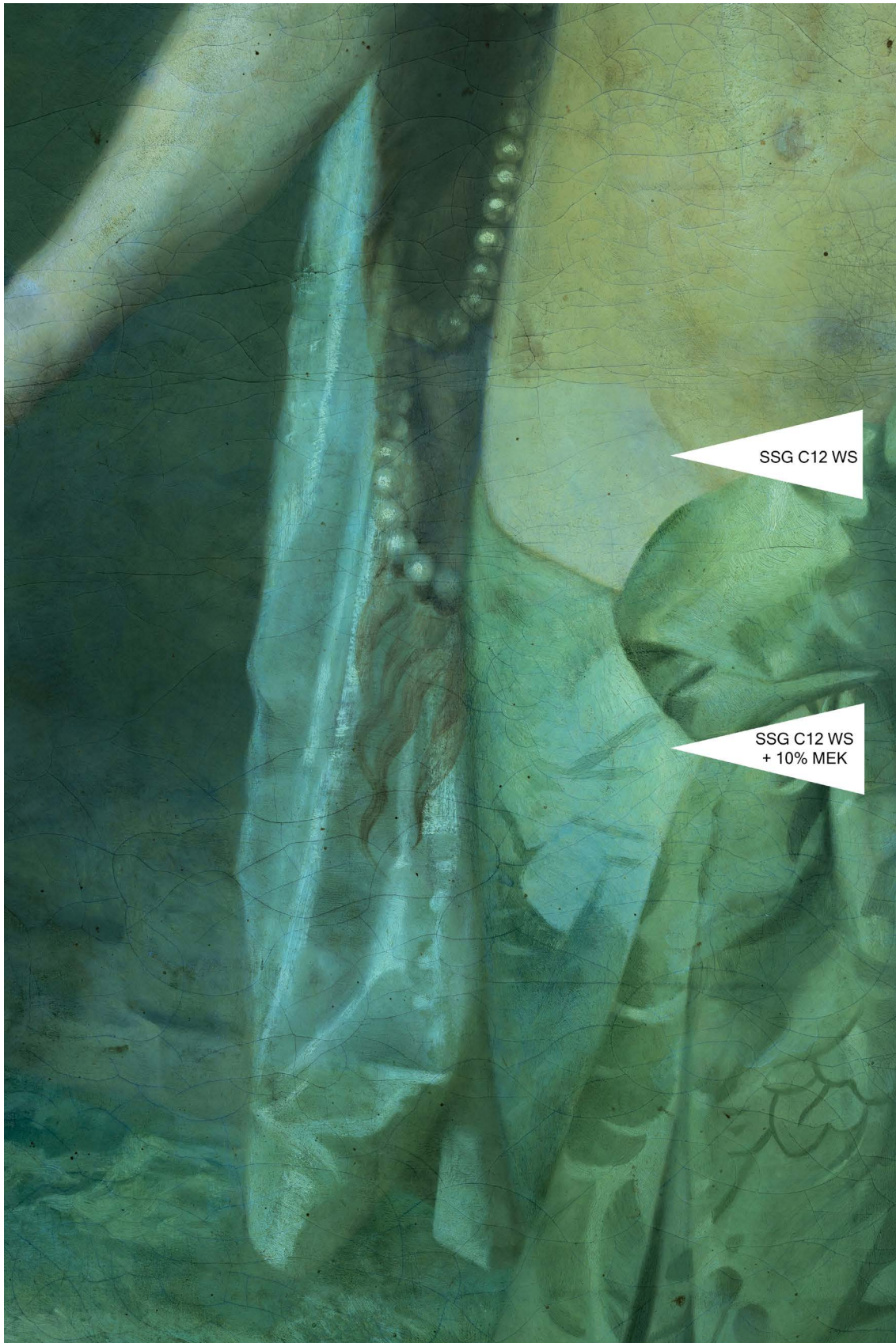


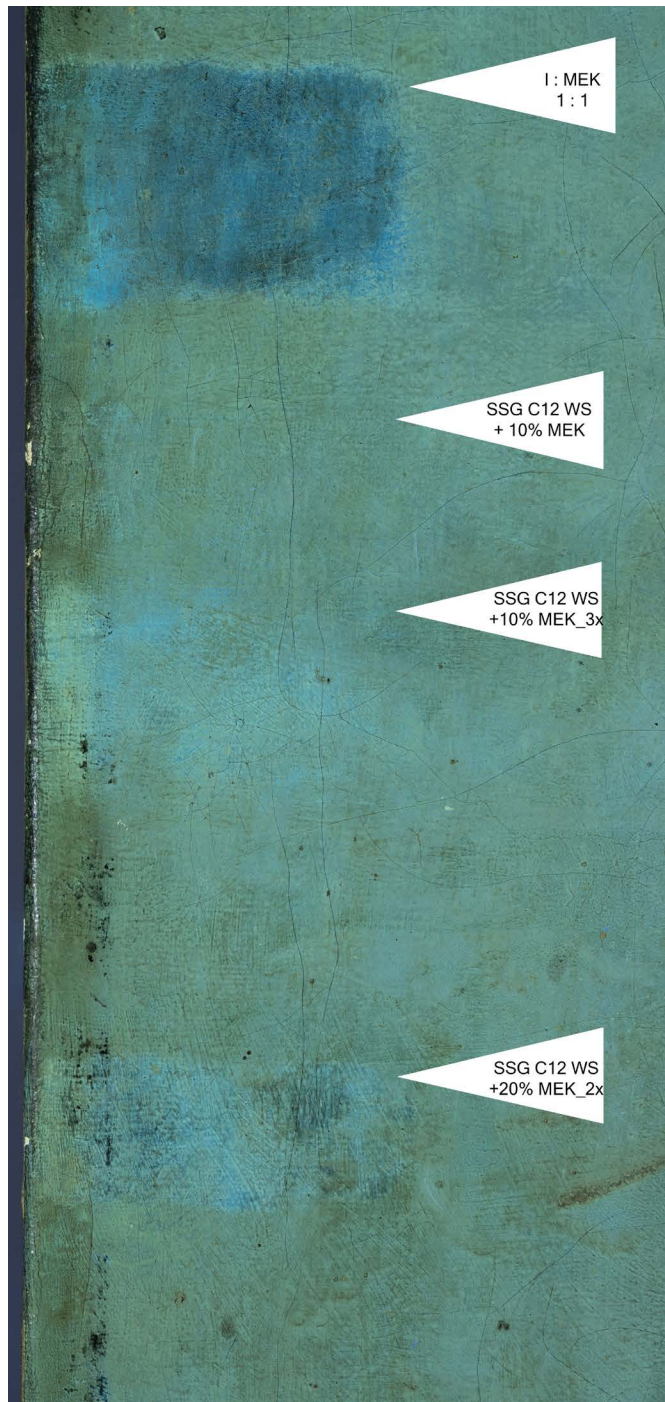
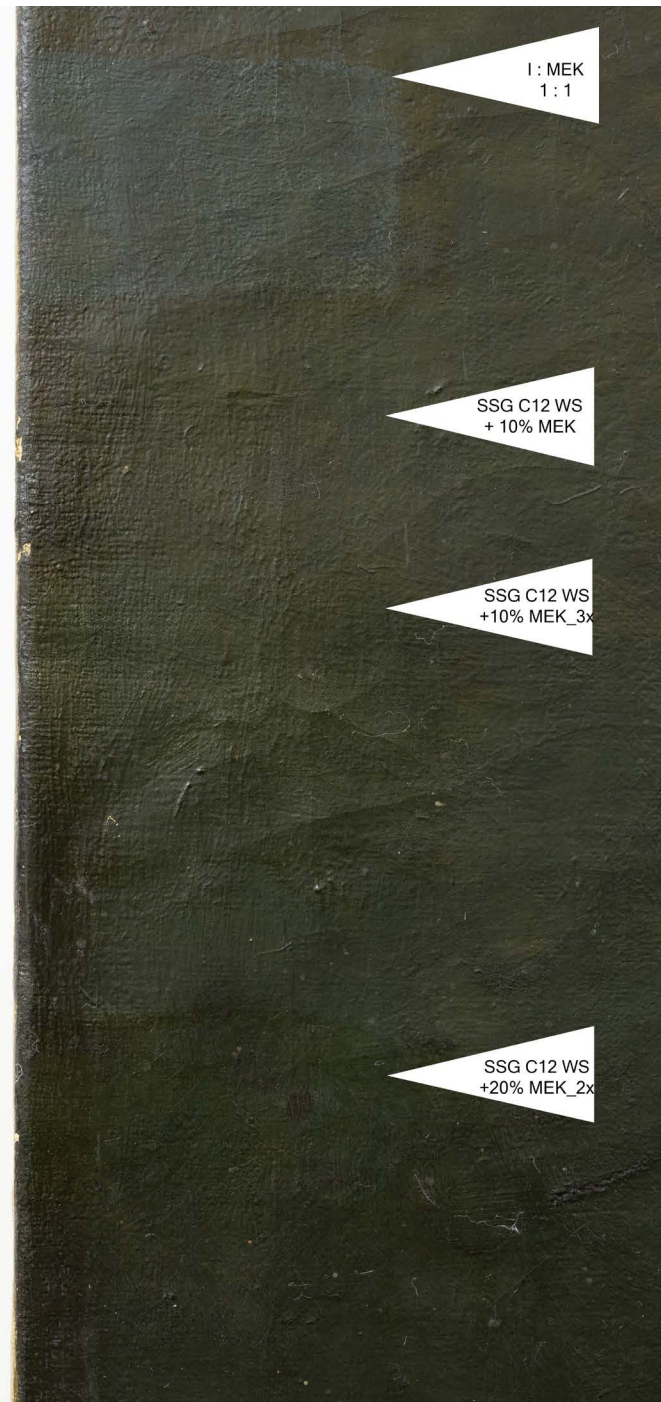


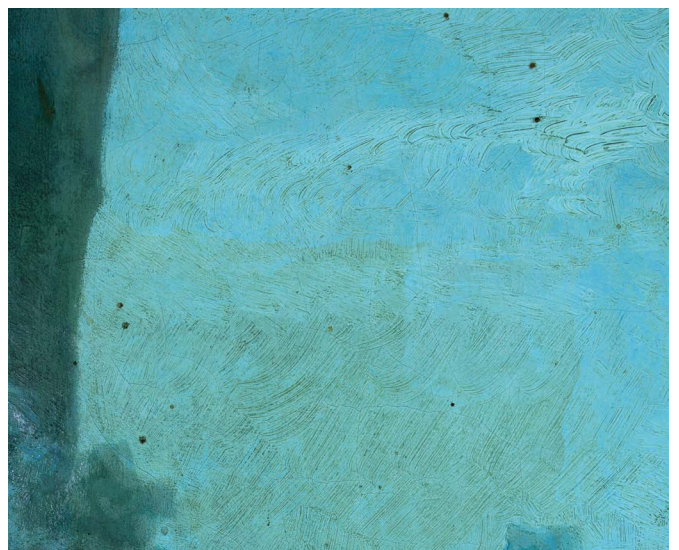
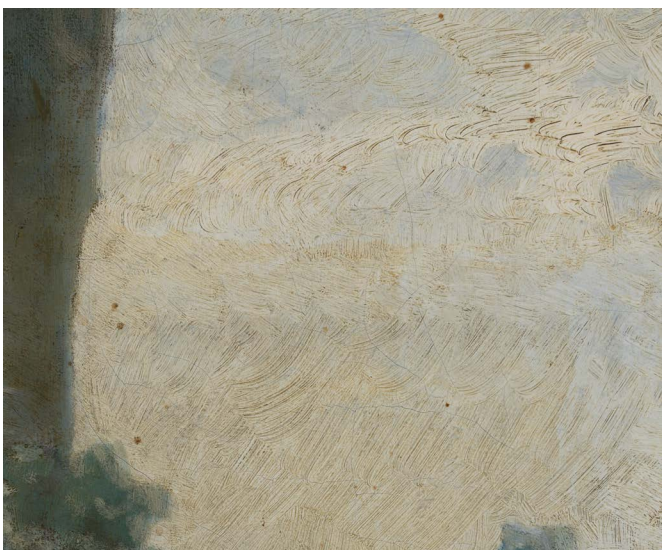
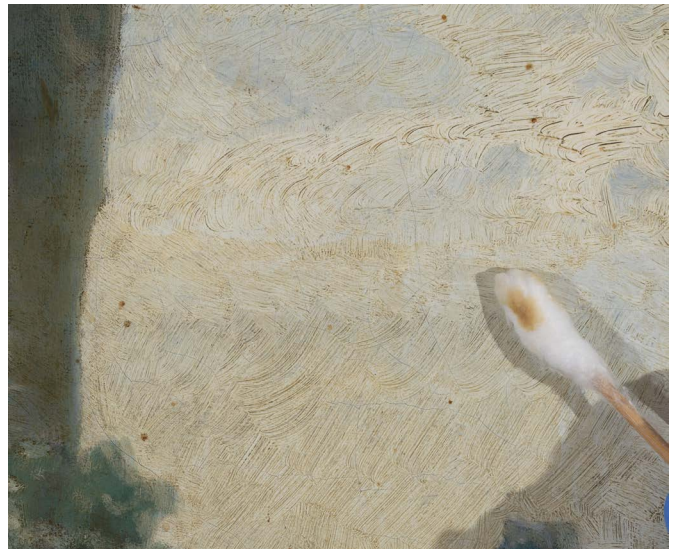












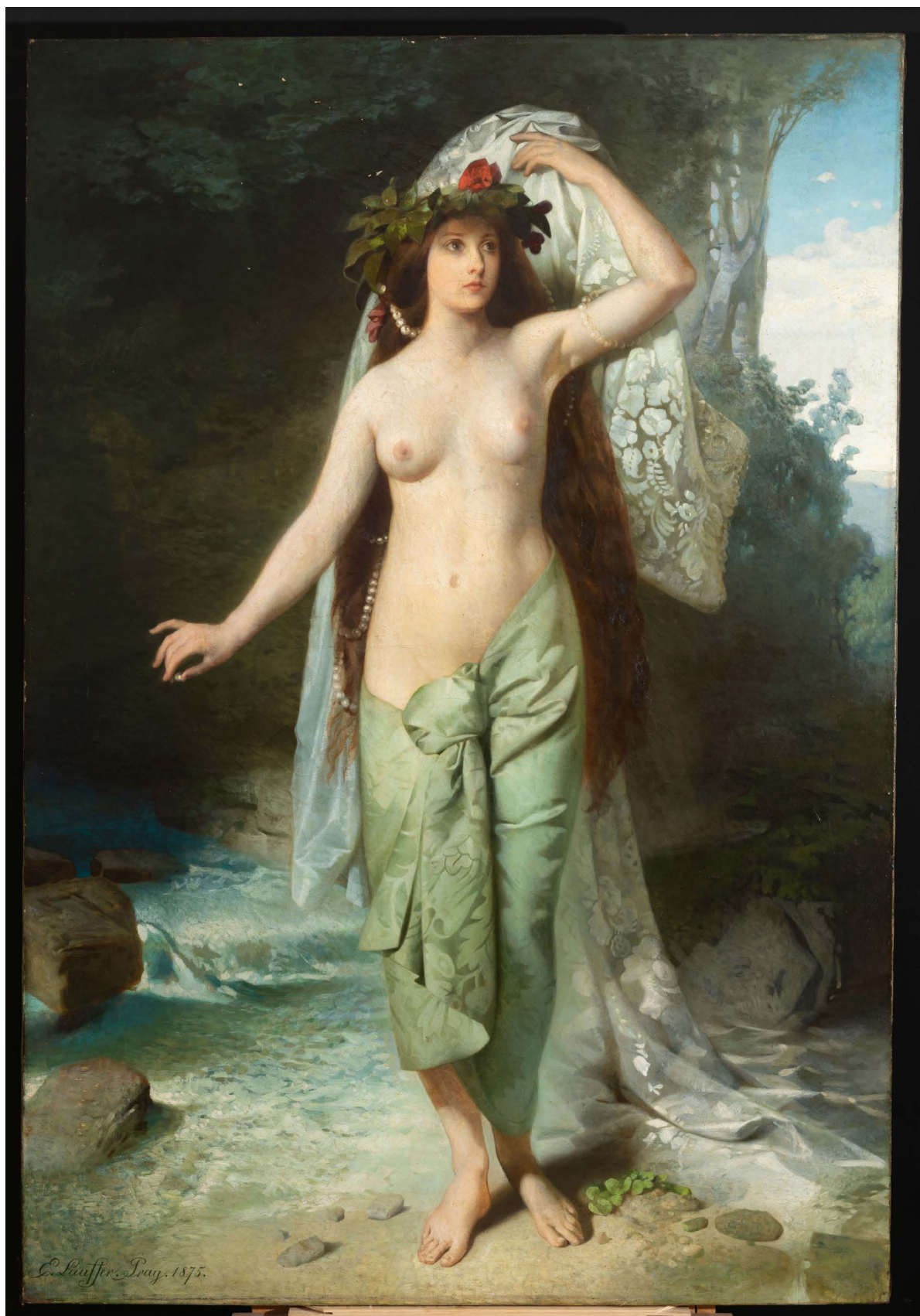
progress of thinning of varnish layer
photographs in day light and UV luminescence



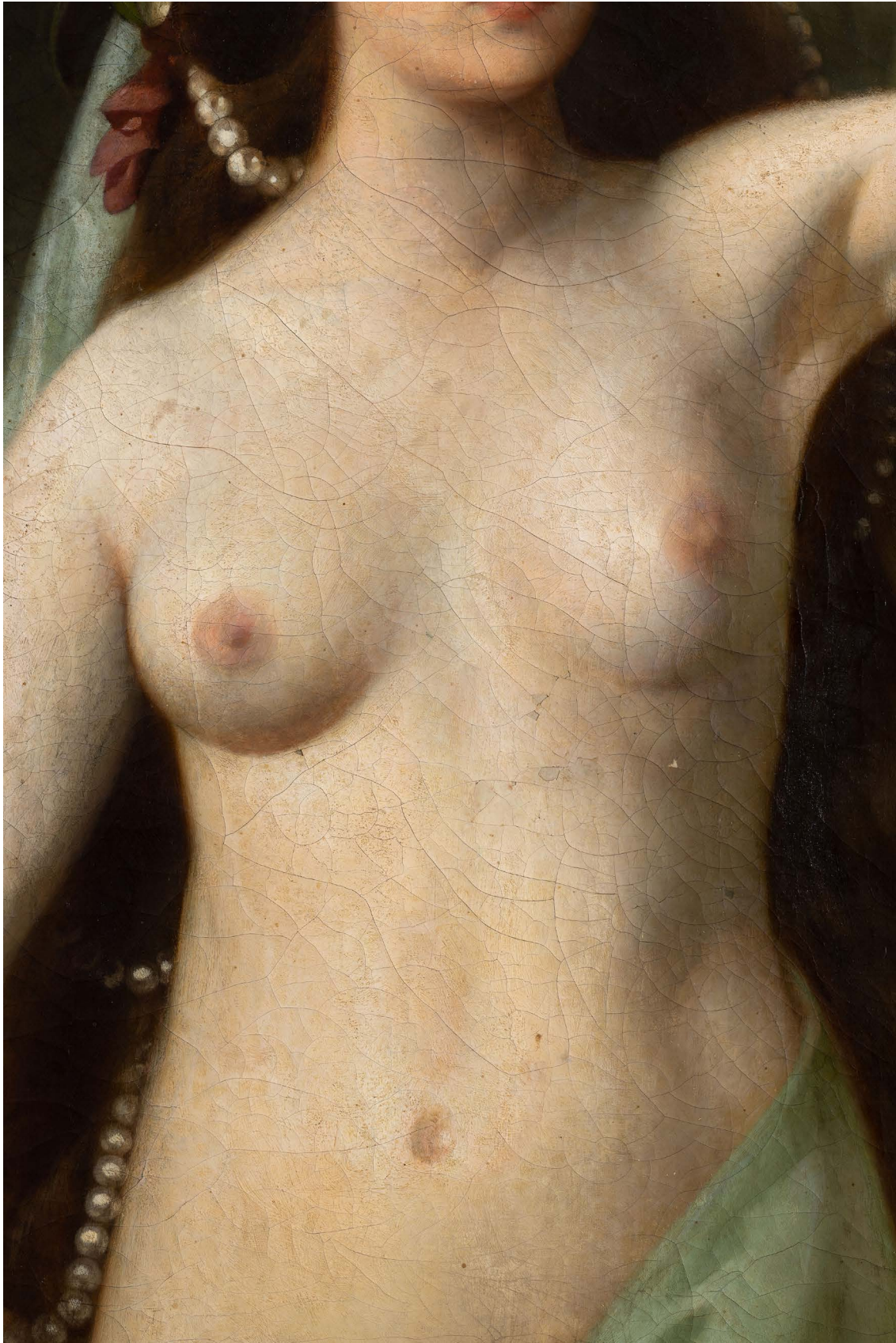




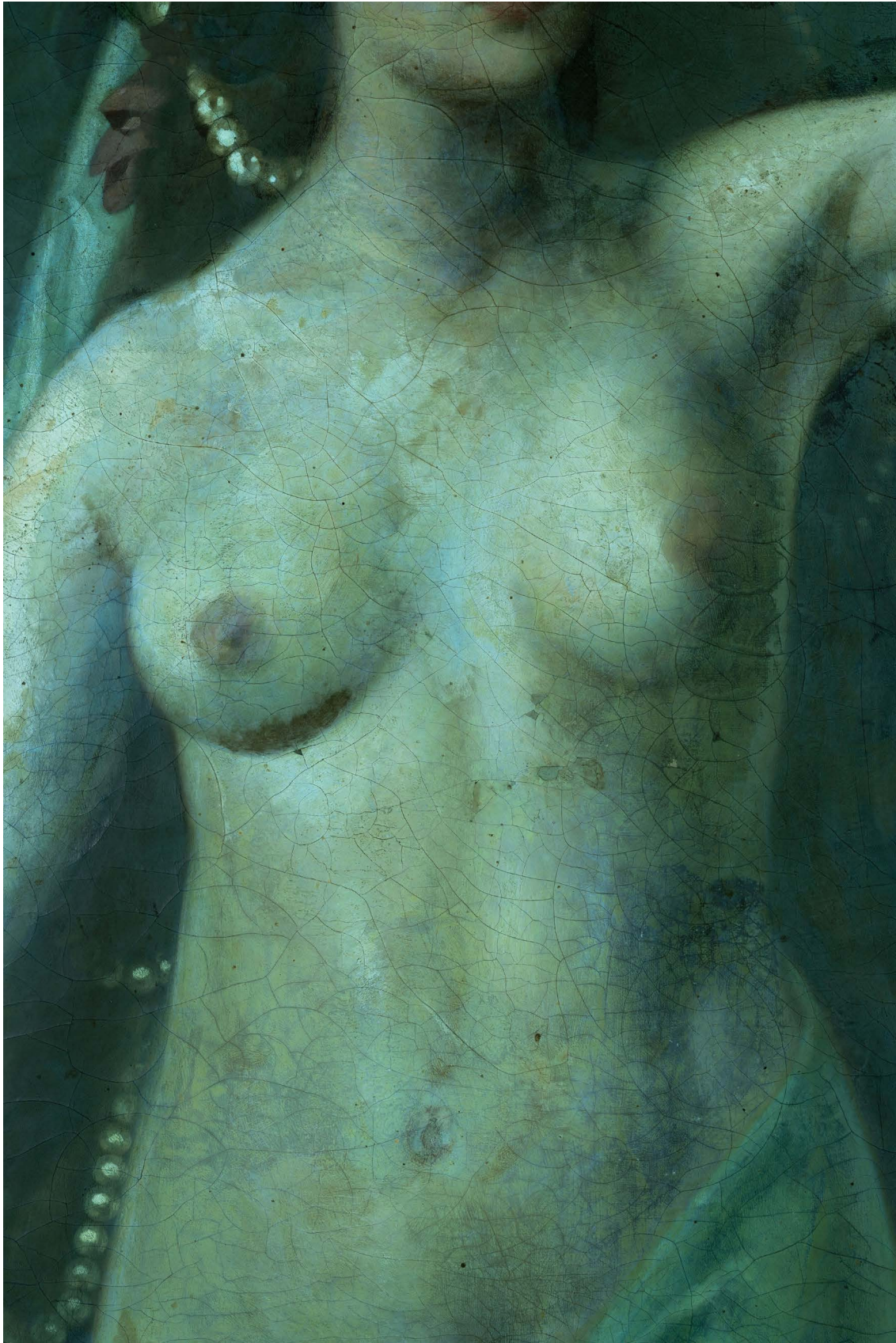




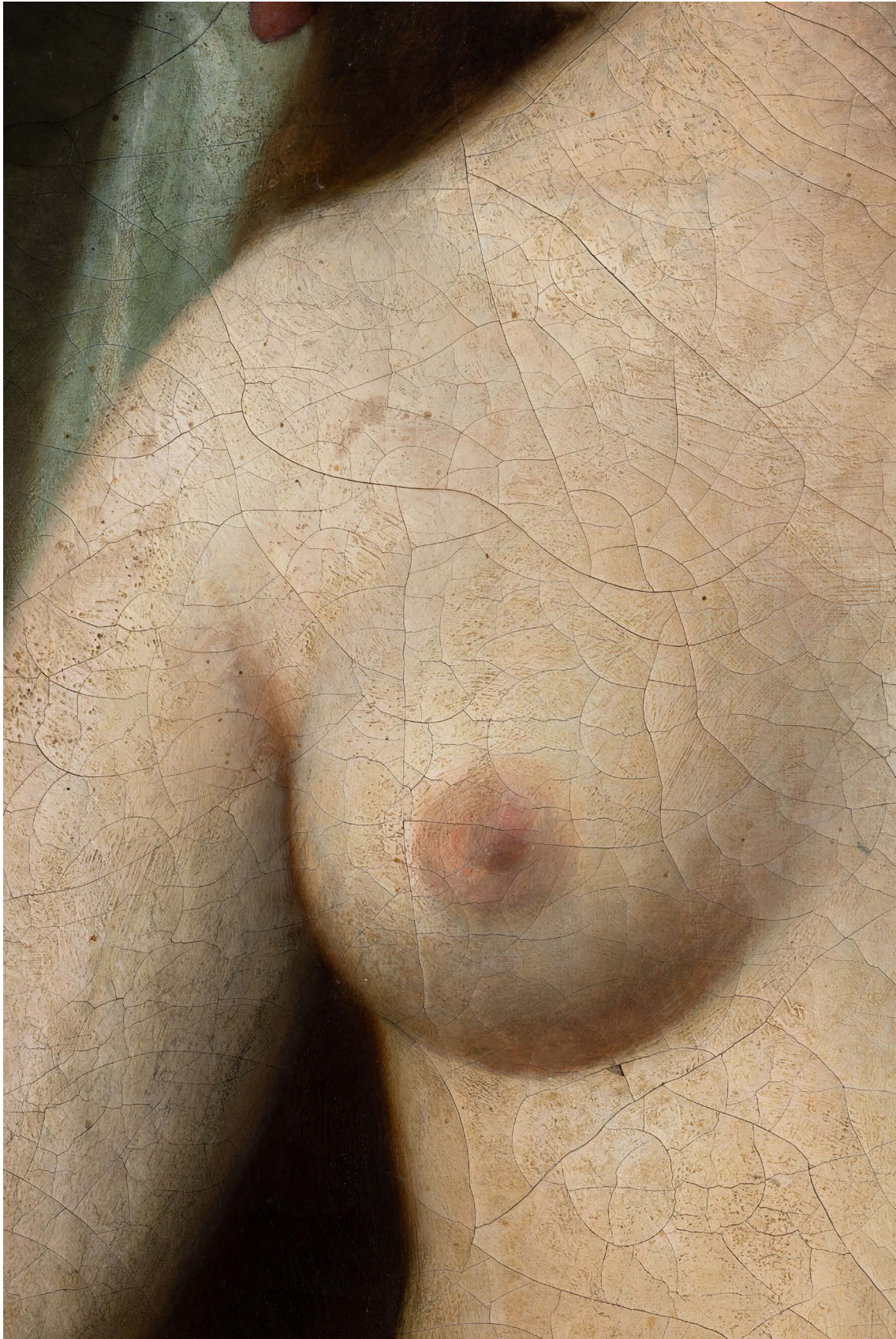




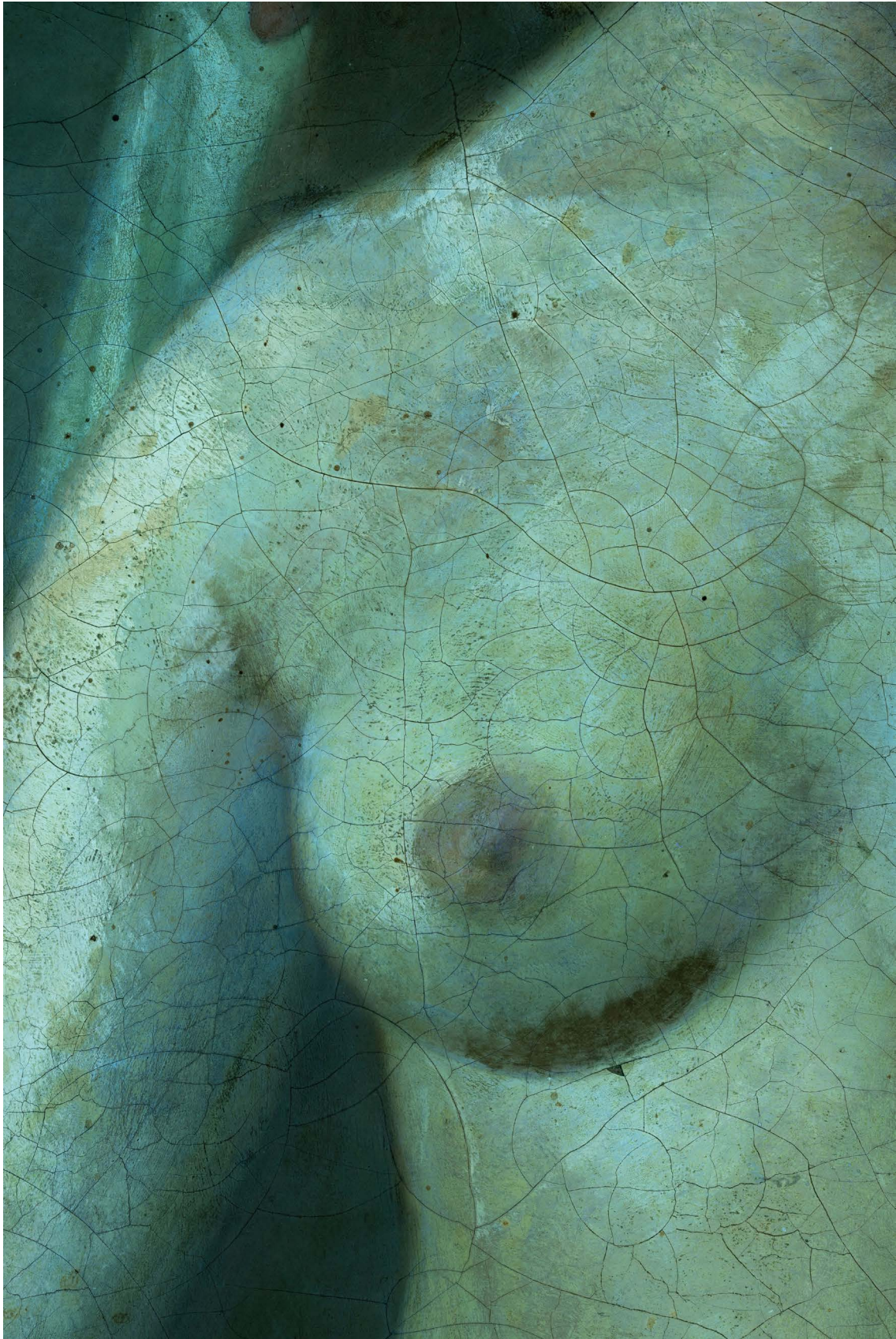
condition after thinning of varnish layer
photography in day light, detail



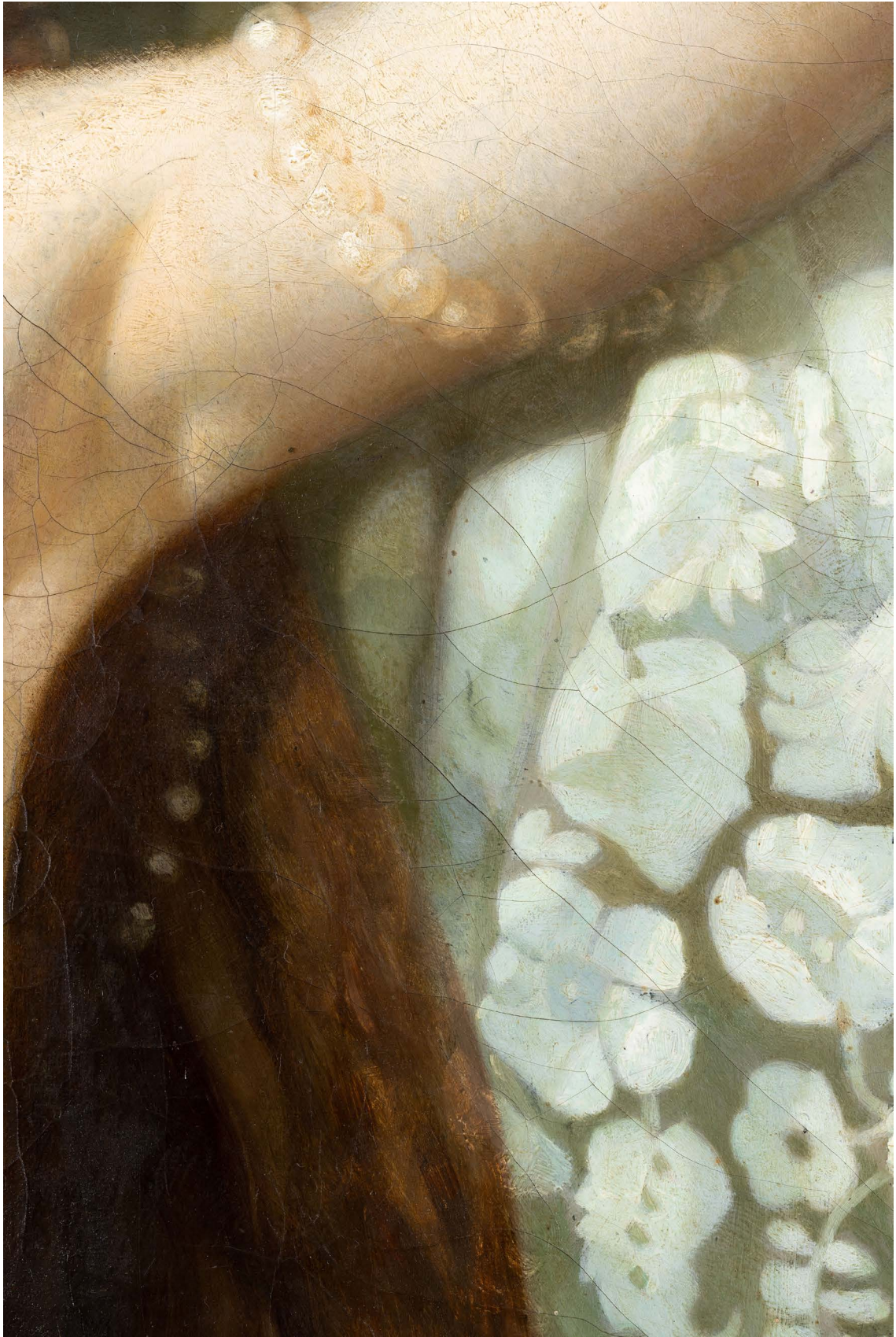
condition after thinning of varnish layer
photography in UV luminescence, detail



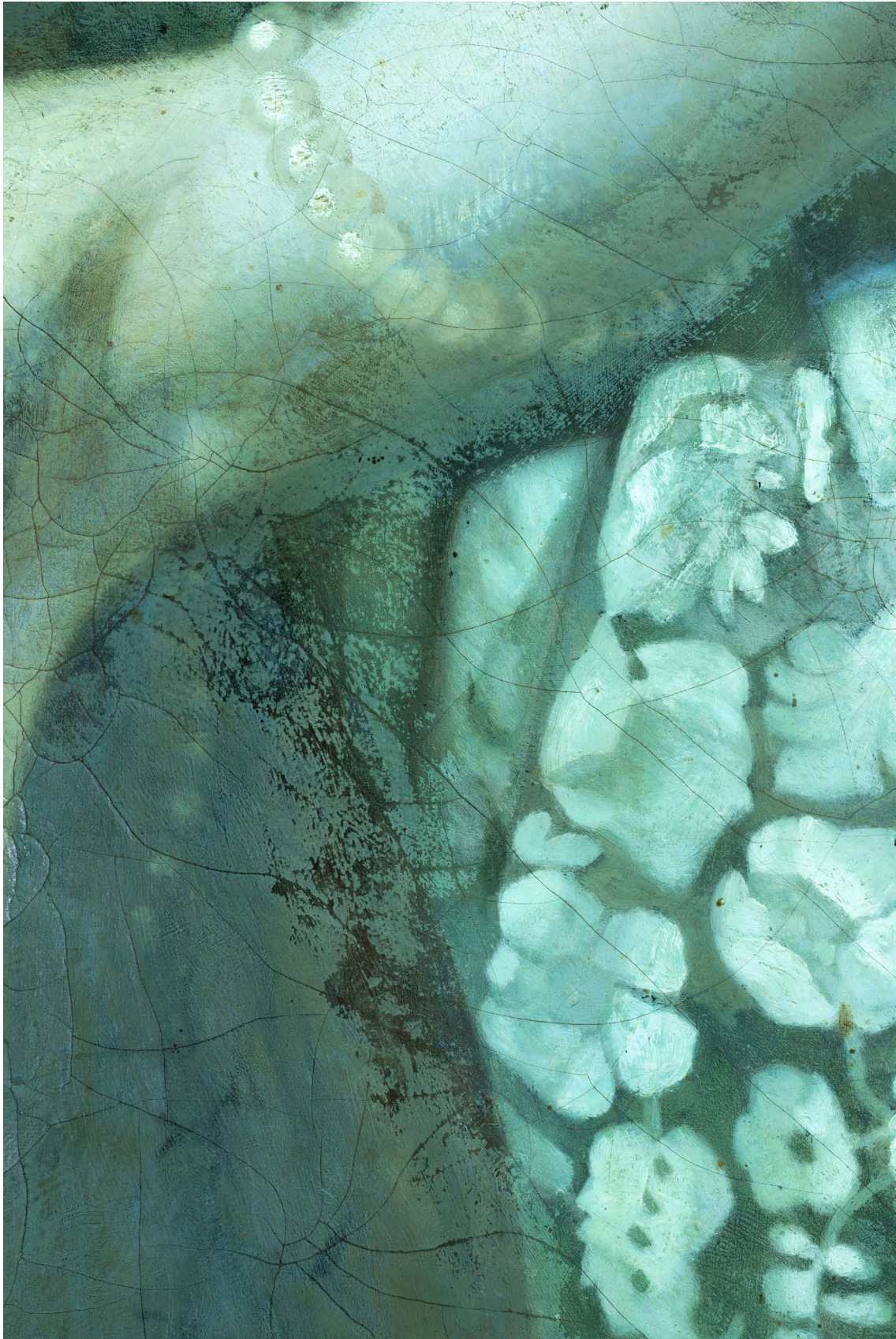
condition after thinning of varnish layer
photography in day light, detail



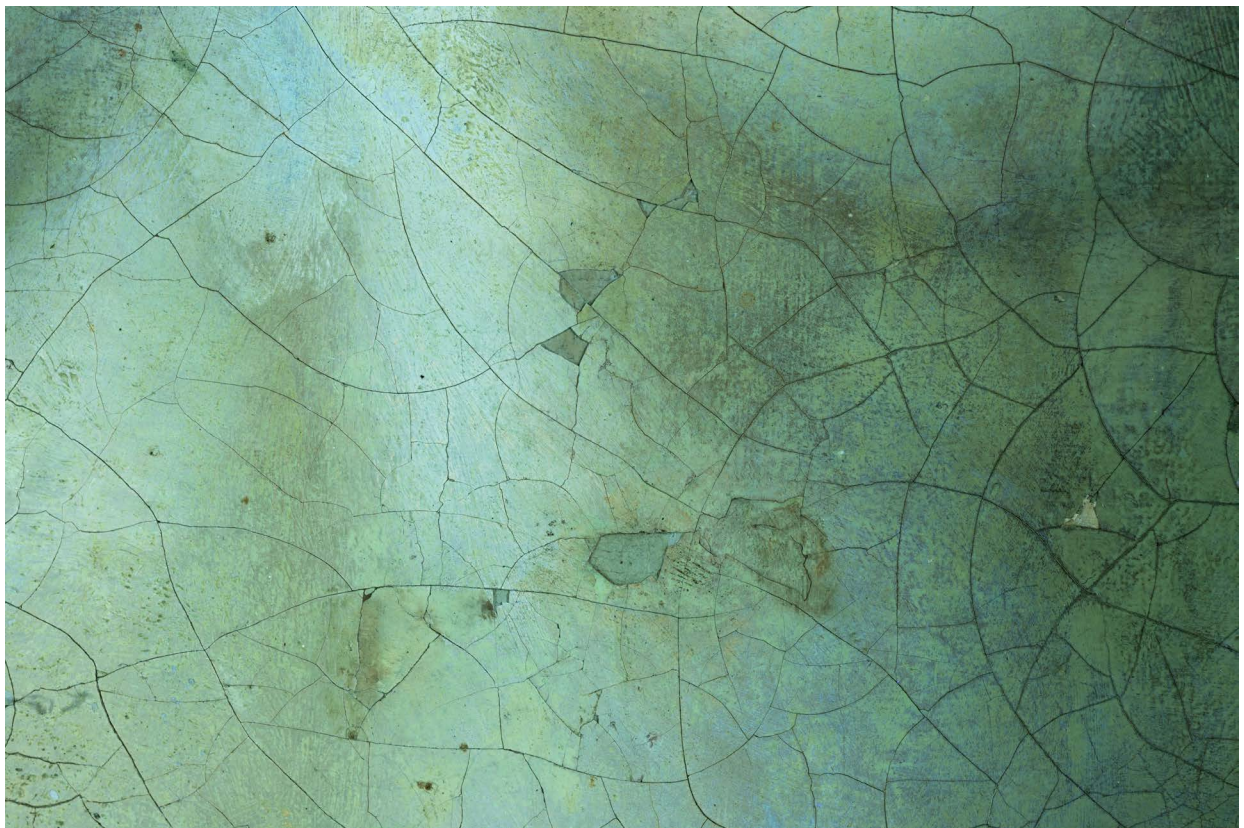
condition after thinning of varnish layer
photography in UV luminescence, detail

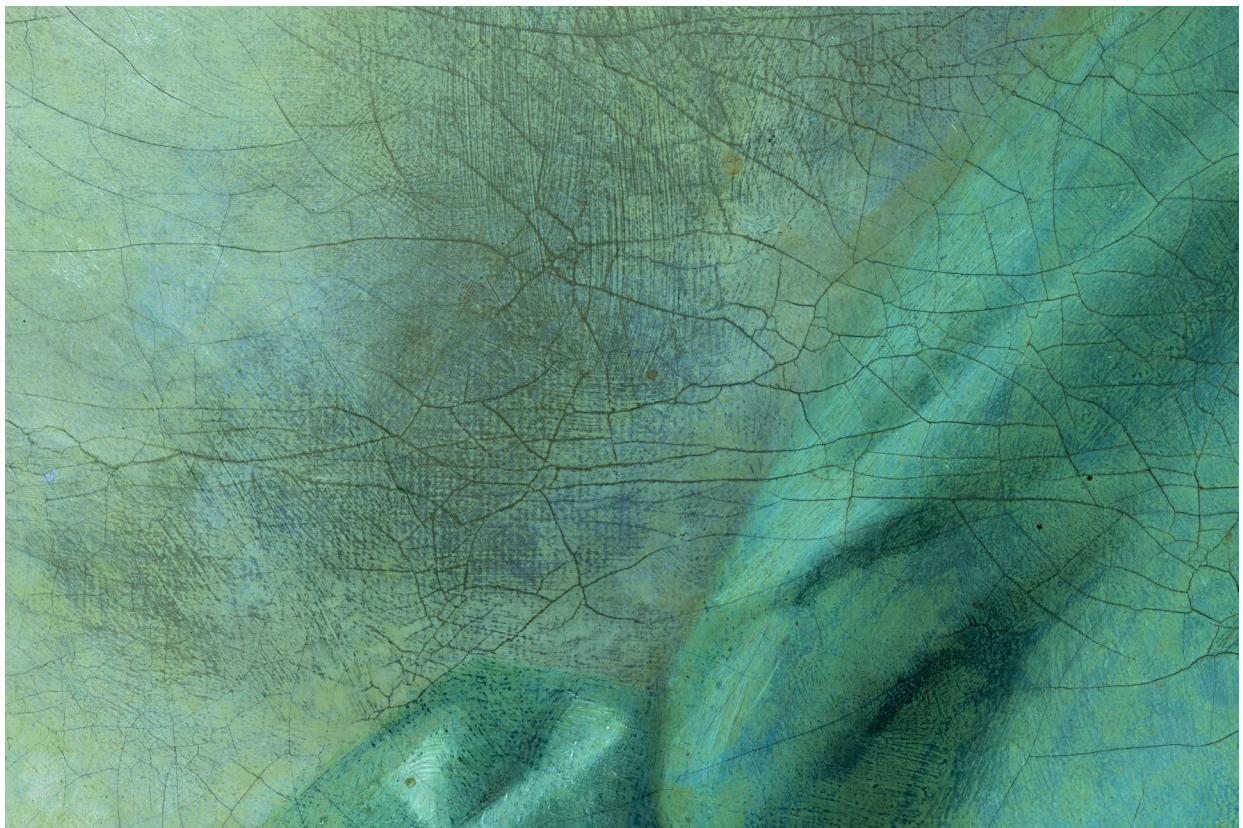
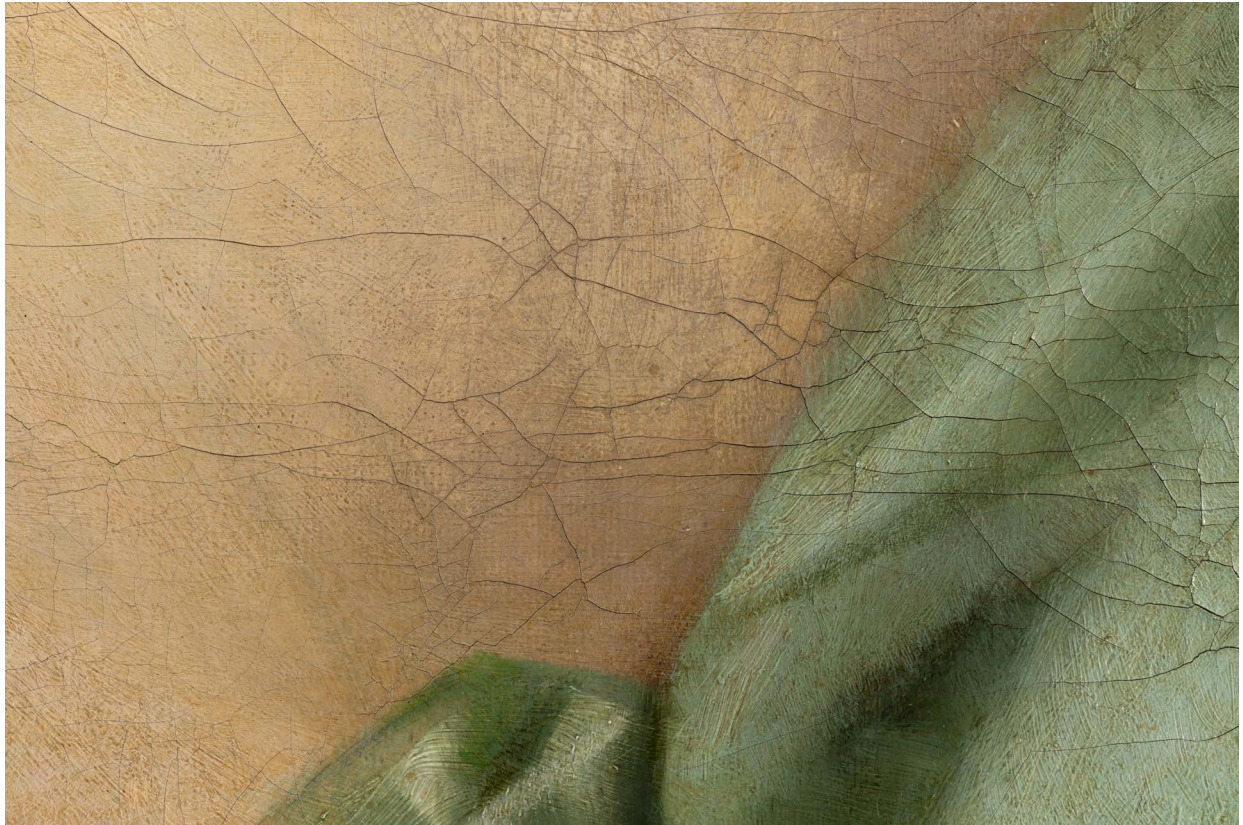


condition after thinning of varnish layer
photography in day light, detail



condition after thinning of varnish layer
photography in UV luminescence, detail

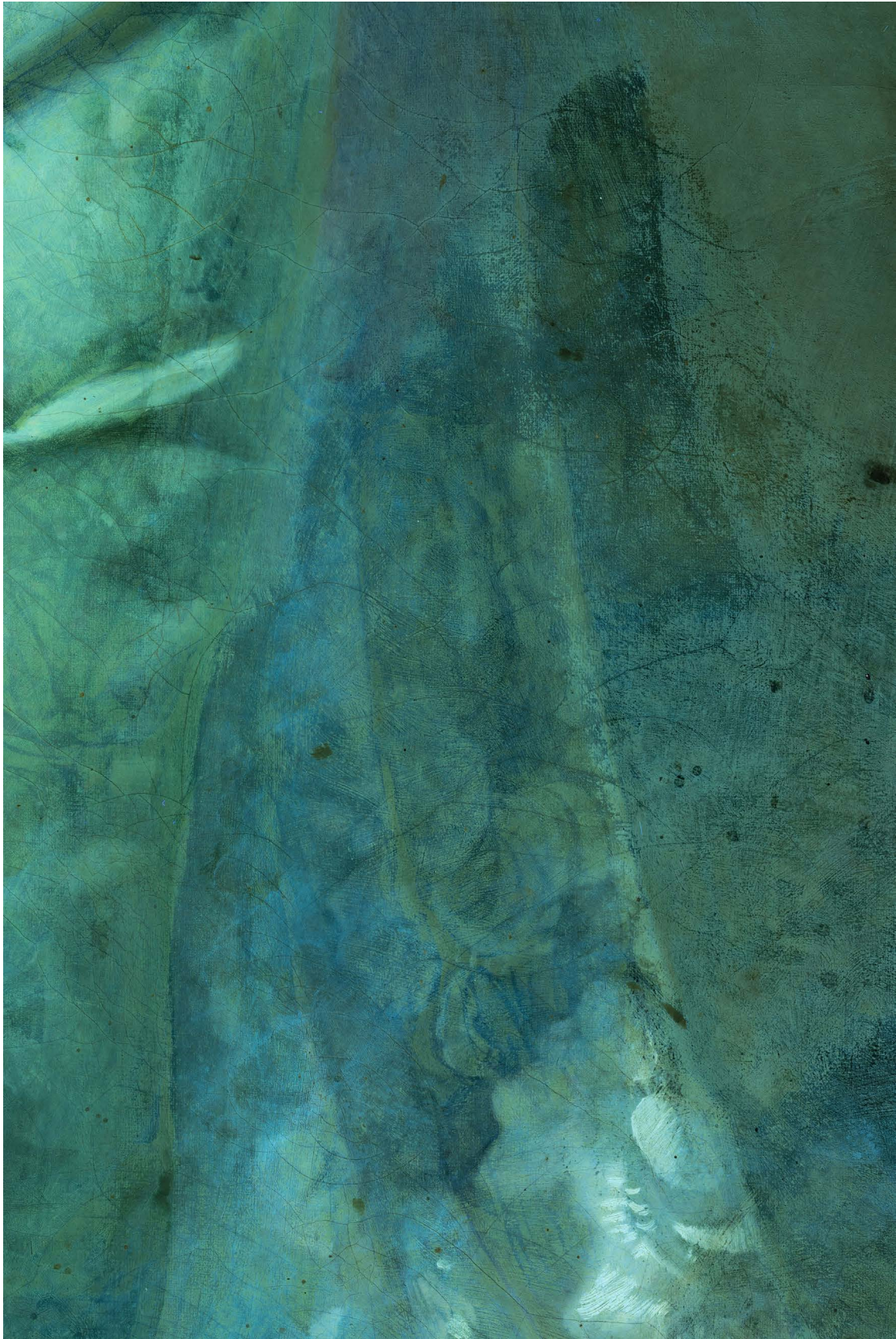




condition after thinning of varnish layer
photographs in day light and UV luminescence, detail

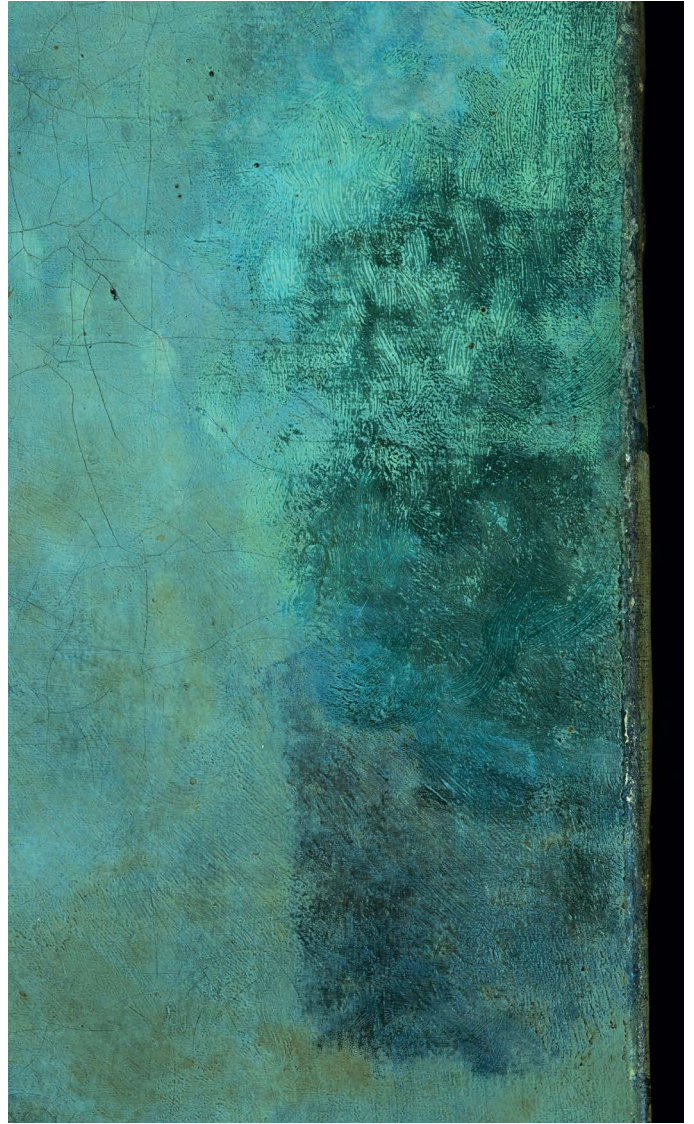
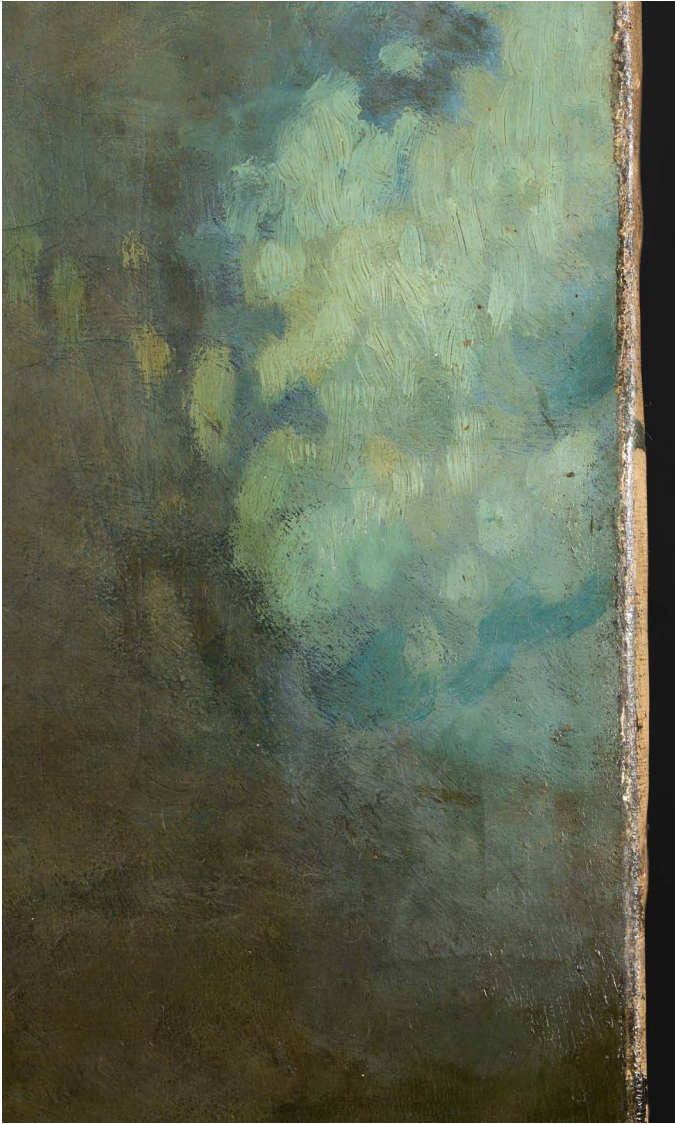


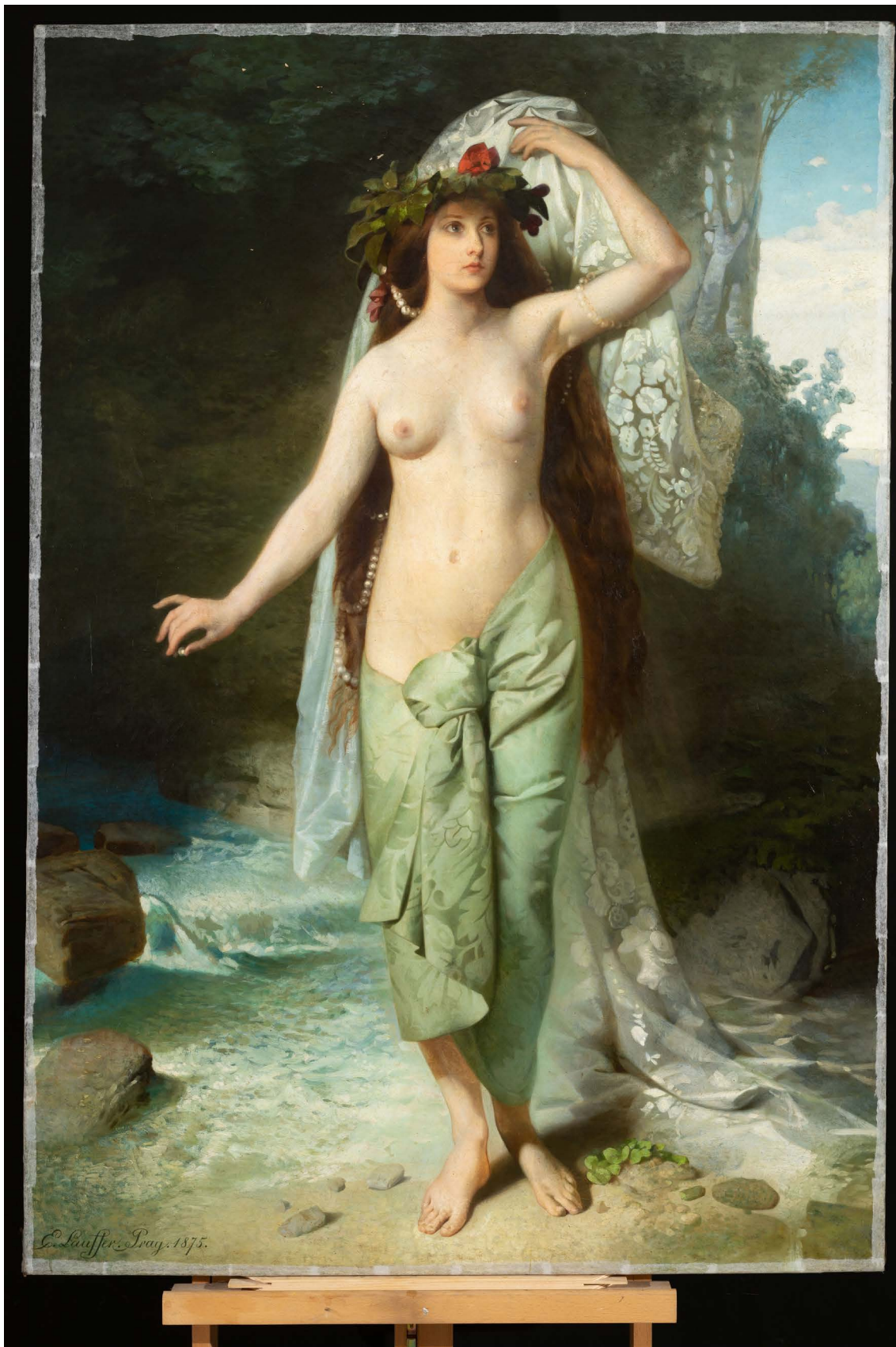
condition after thinning of varnish layer
photography in day light, detail



condition after thinning of varnish layer
photography in UV luminescence, detail









condition after application of facing around the edges
photography in day light, detail



condition after removal from the stretcher
photography in day light



condition after removal from the stretcher
photographs in day light, details





condition after removal from the stretcher
macrophotographs in day light, details





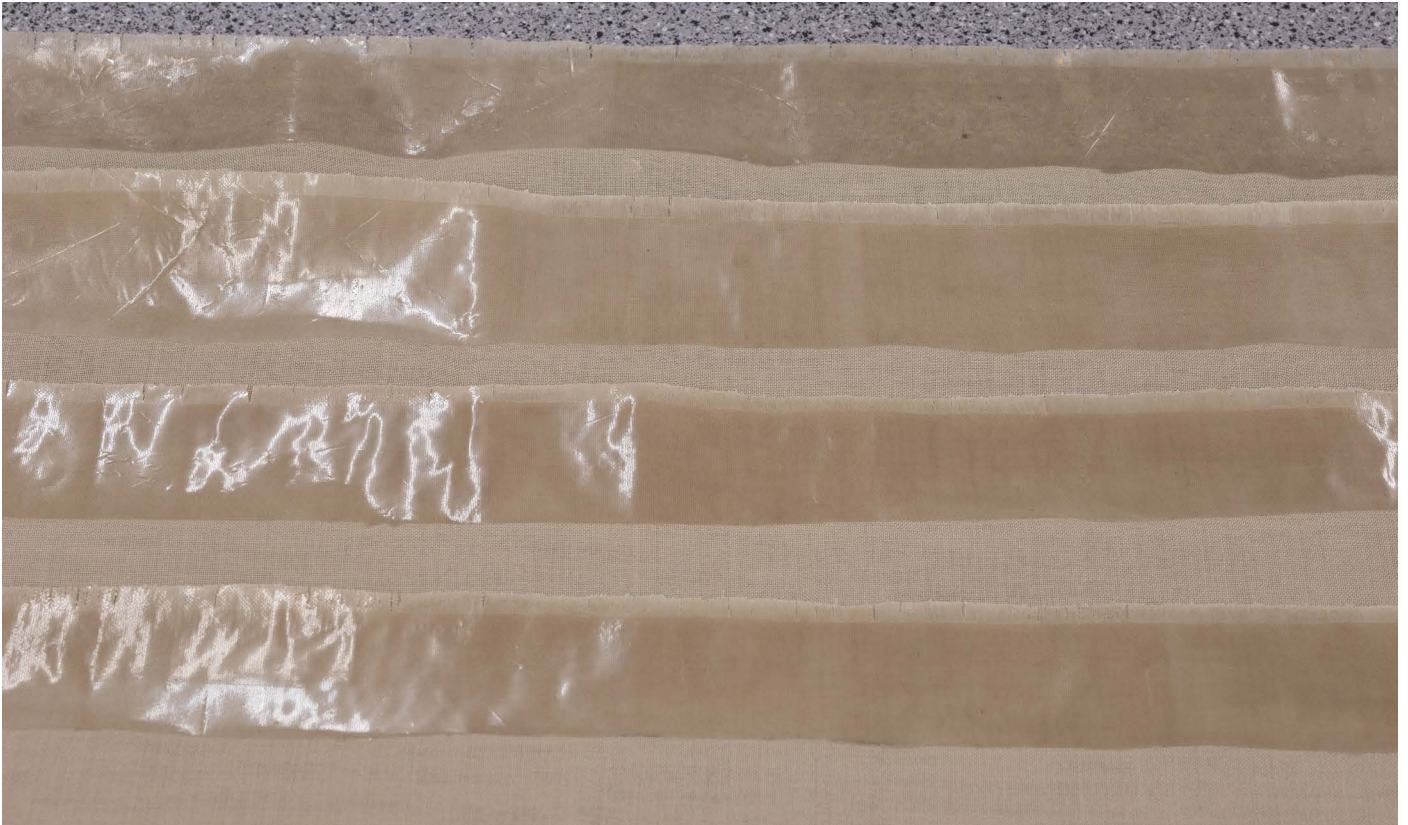
condition after removal from the stretcher
photographs in day light, details



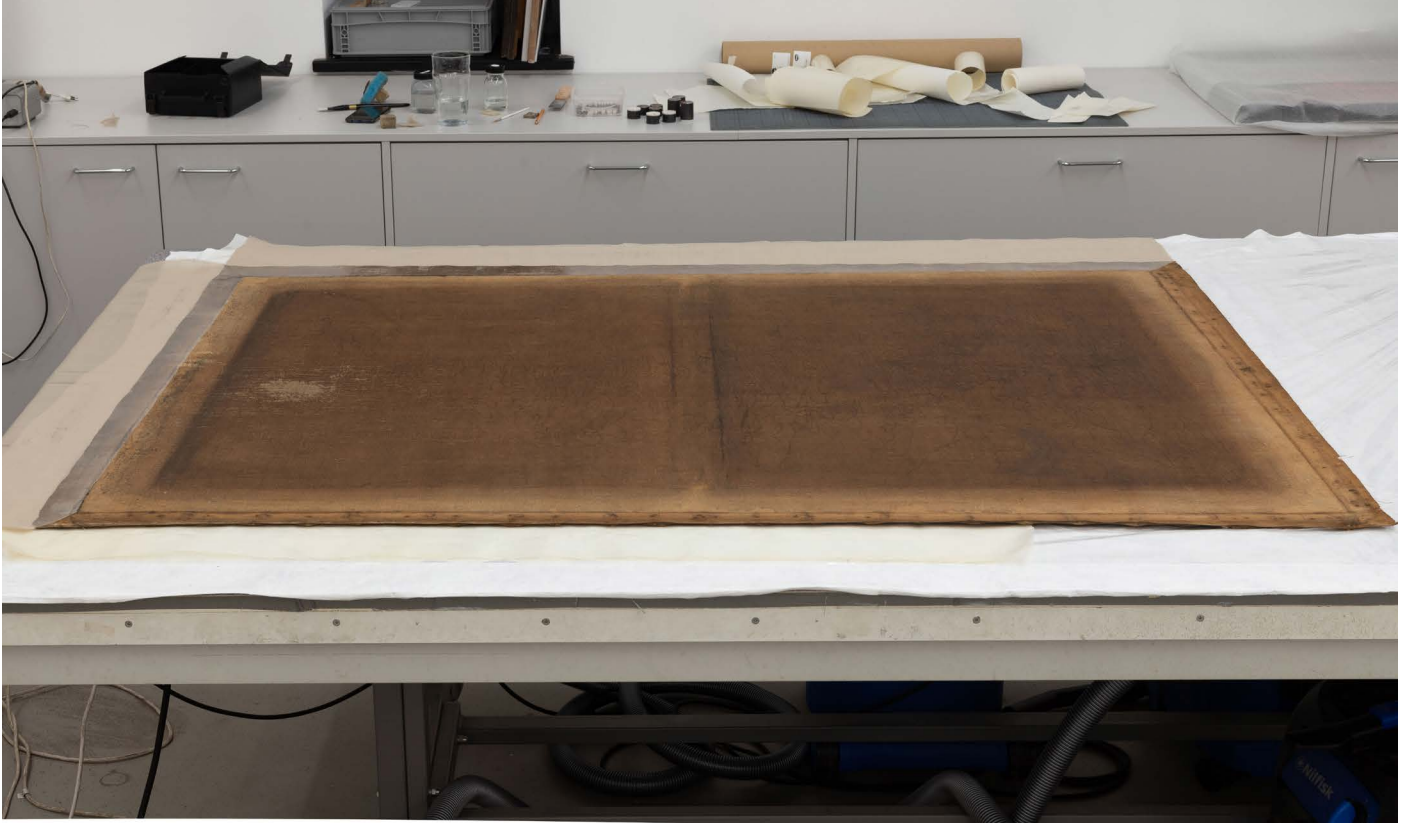


condition after flattening of the edges by local influence of humidity and application of weight
photography in day light





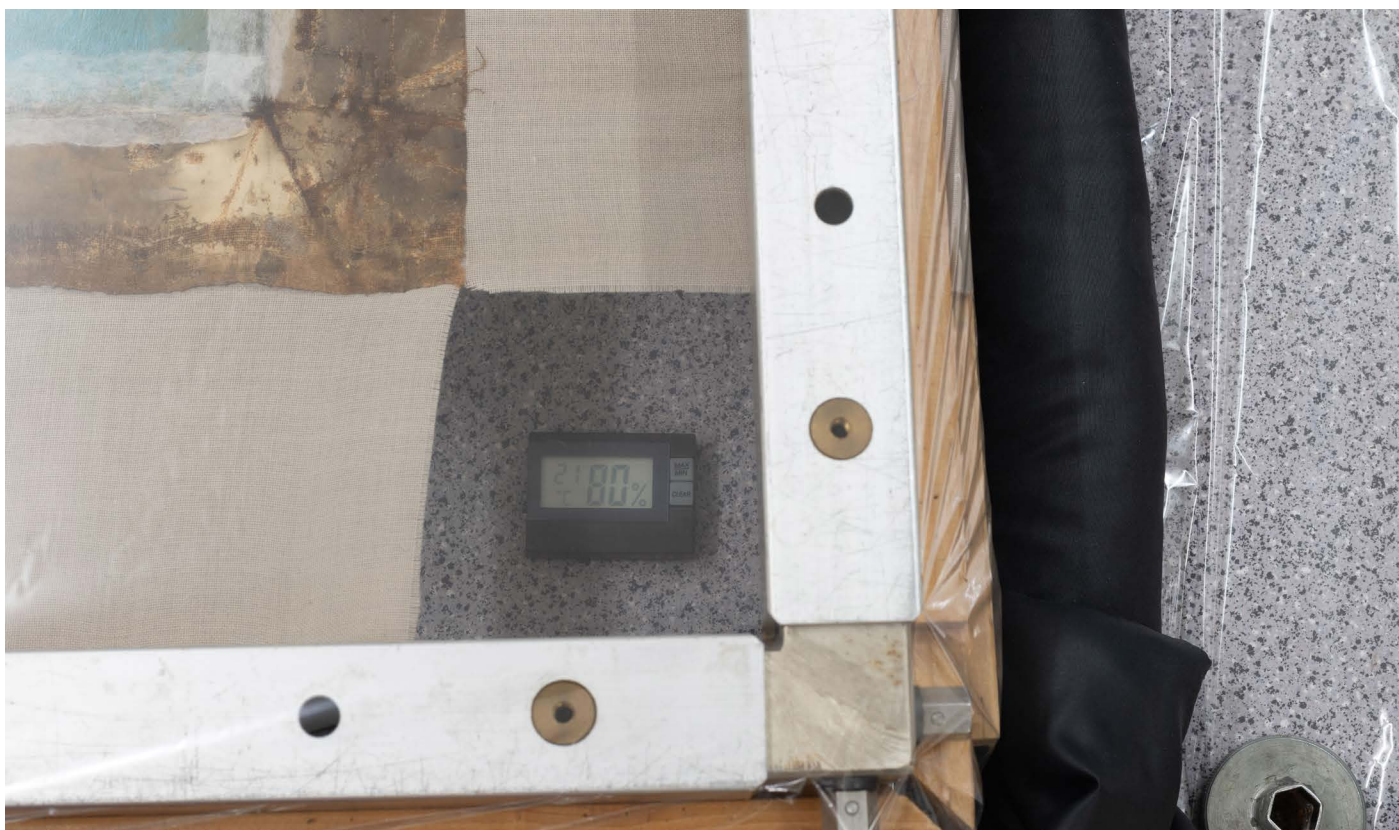
progress of application of strip lining with BEVA 371 heat seal adhesive
photographs in day light



progress of application of strip lining with BEVA 371 heat seal adhesive
photographs in day light



condition after stretching on temporary working stretcher
photographs in day light



process of flattening the painting by influence of humidity in climatic chamber
photographs in day light



process of flattening the painting by influence of humidity in climatic chamber, control drying and moisture elimination on heated vacuum perforated table
photographs in day light



progress of application of consolidating adhesive BEVA 371 in vertical position
photography in day light



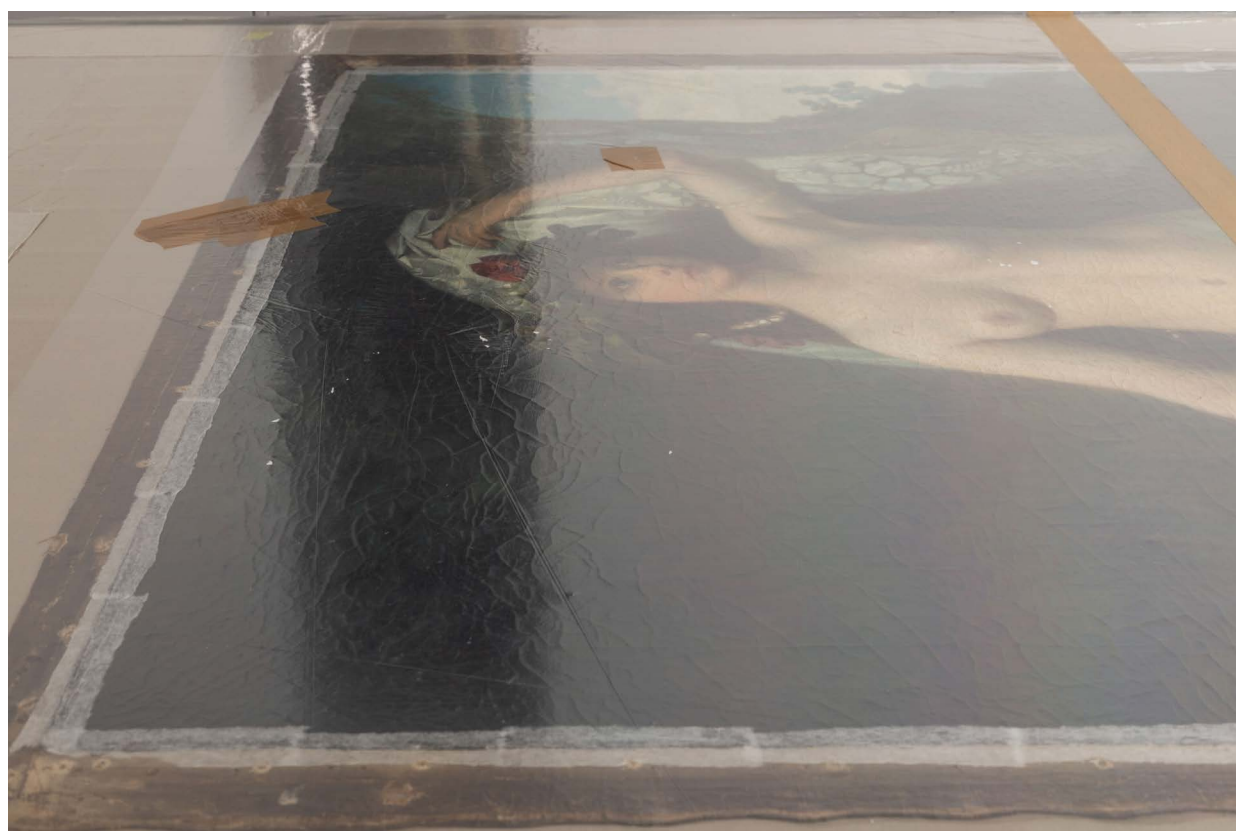
progress of application of consolidating adhesive BEVA 371 in vertical position
photography in day light



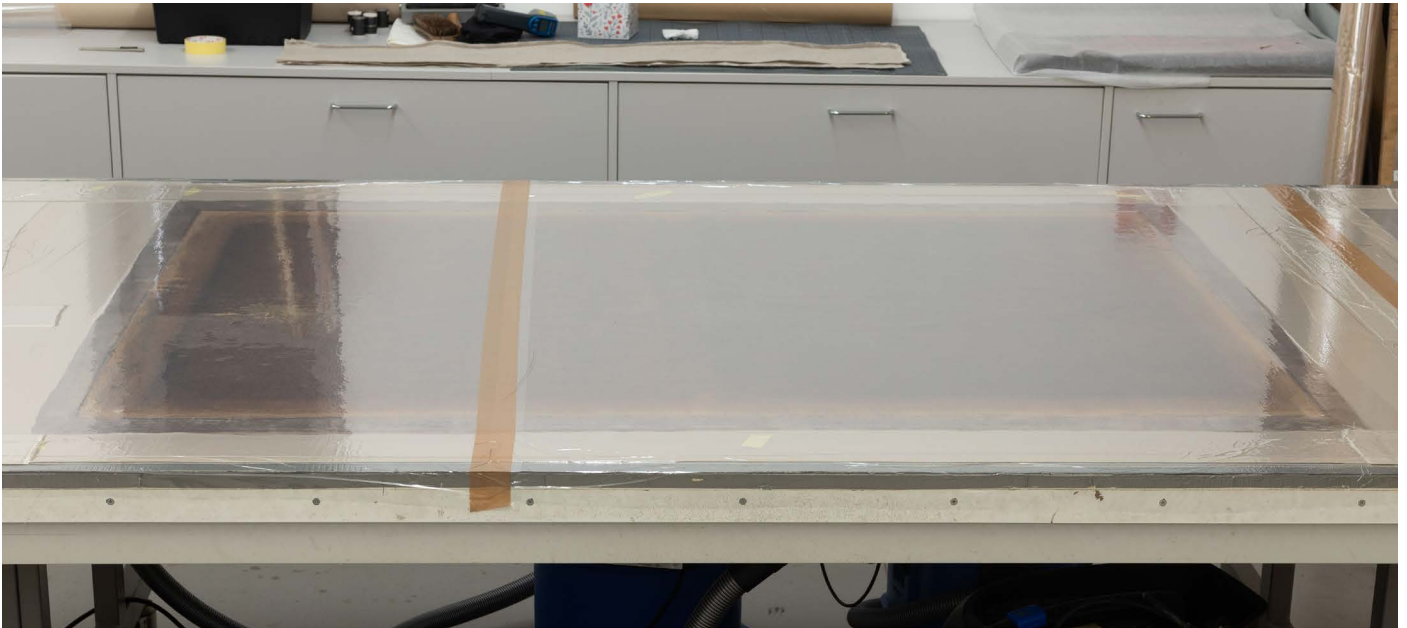
progress of application of consolidating adhesive BEVA 371 in vertical position
photography in day light



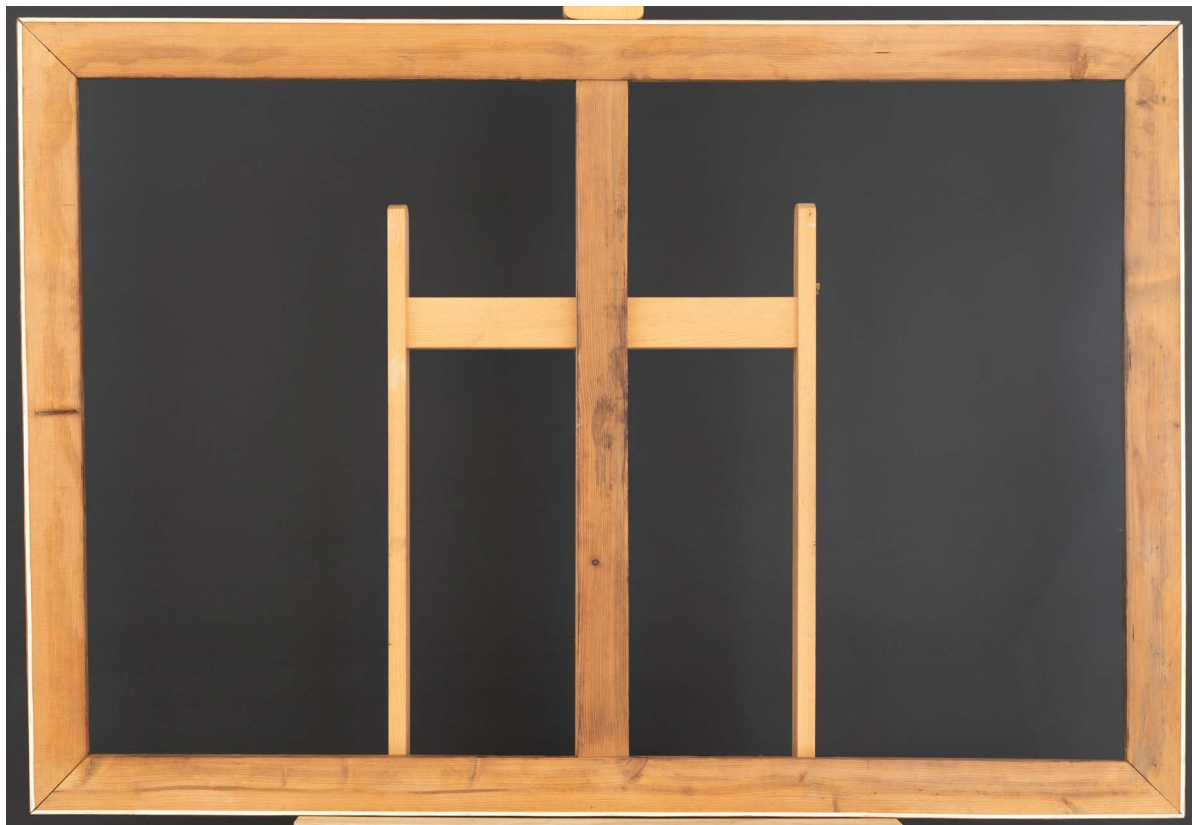
progress of application of consolidating adhesive BEVA 371 in vertical position
photography in day light



process of activation of the consolidation and flattening of the craquelure of the paint and ground layers, painting facing up
photographs in day light



process of activation of the consolidation and flattening of the craquelure of the paint and ground layers, painting facing down
photographs in day light



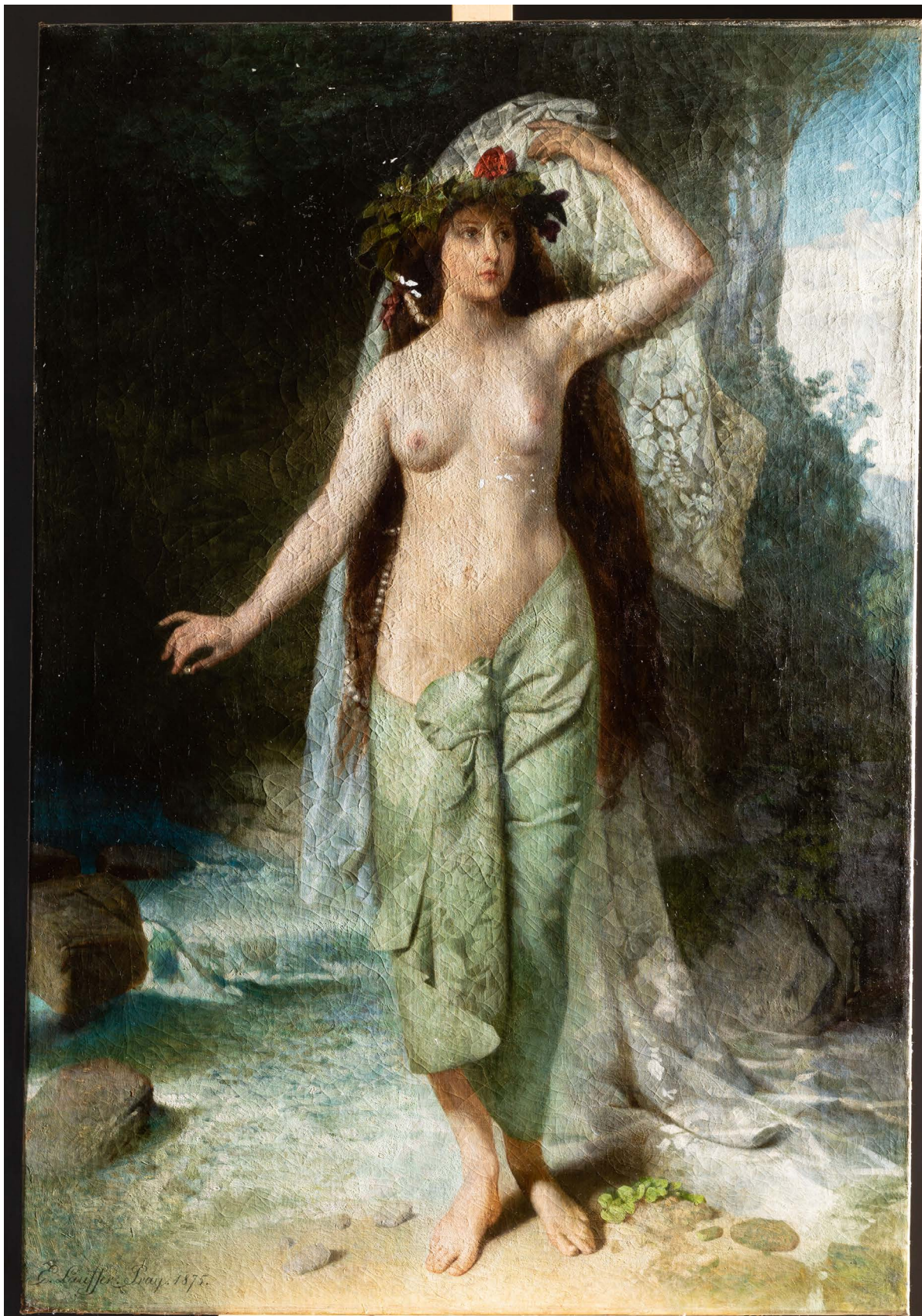
condition after cleaning of stretcher and application of distance bars
photographs in day light, front and reverse side of the stretcher

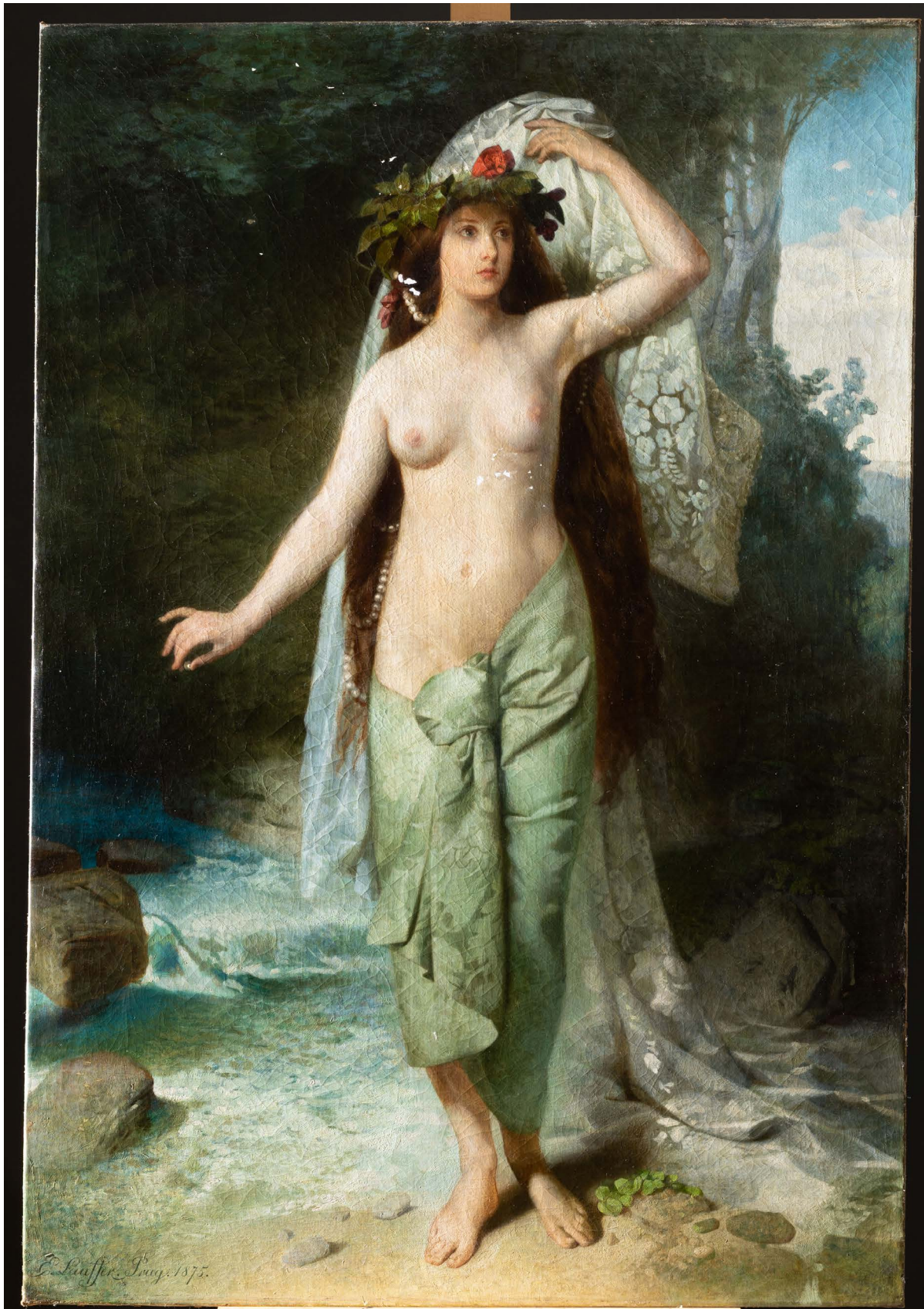


condition after cleaning of stretcher and application of distance bars
photographs in day light, reverse side of the stretcher, details

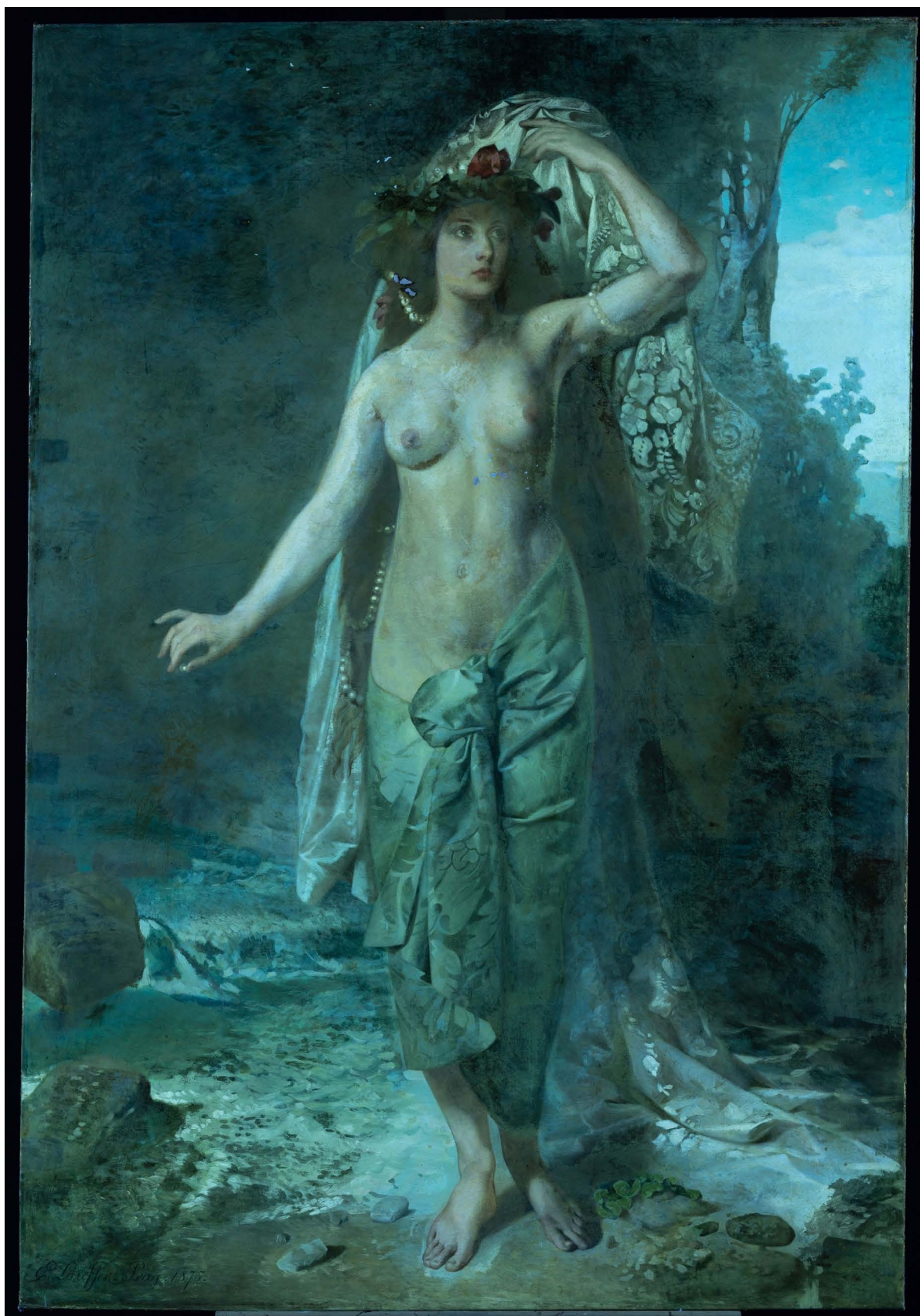








condition after stretching the painting on the stretcher
photography in raking light from left side



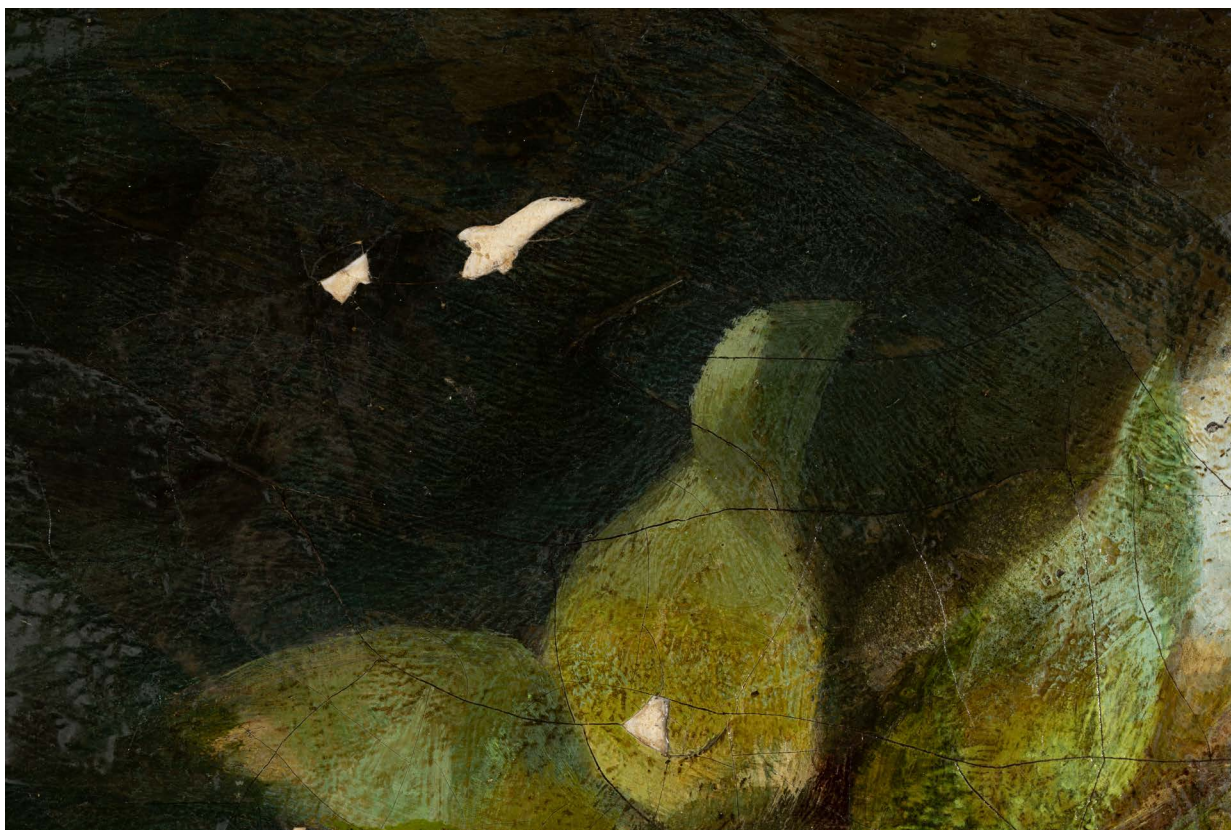




condition after stretching the painting on the stretcher, back side
photography in day light



condition after stretching the painting on the stretcher, back side, details
photographs in day light



condition after removal of degraded retouching and unsuitable fillers
details of losses in paint and ground layer of the painting
photographs in day light



condition after removal of degraded retouching and unsuitable fillers
details of losses in paint and ground layer of the painting
photographs in day light

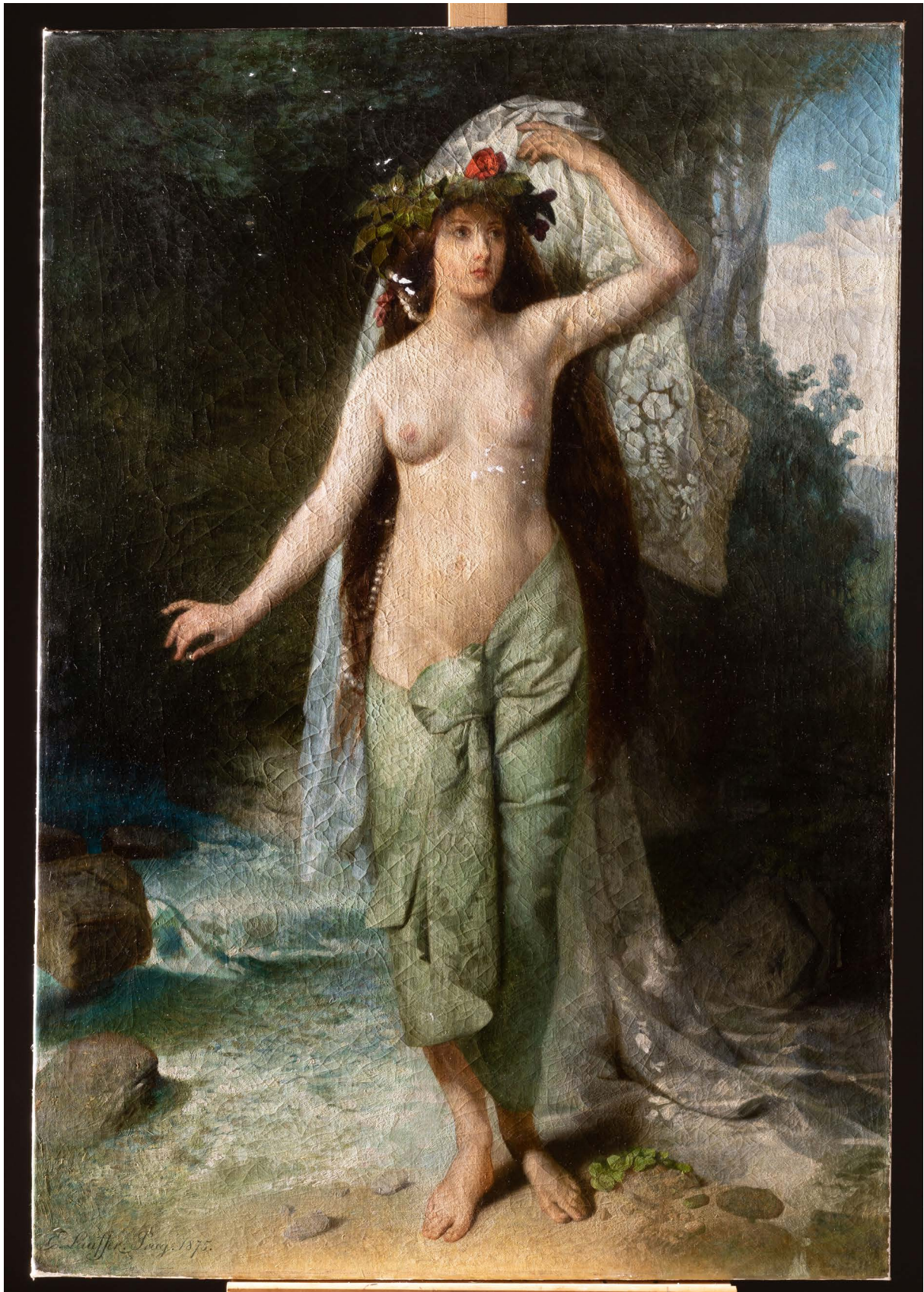


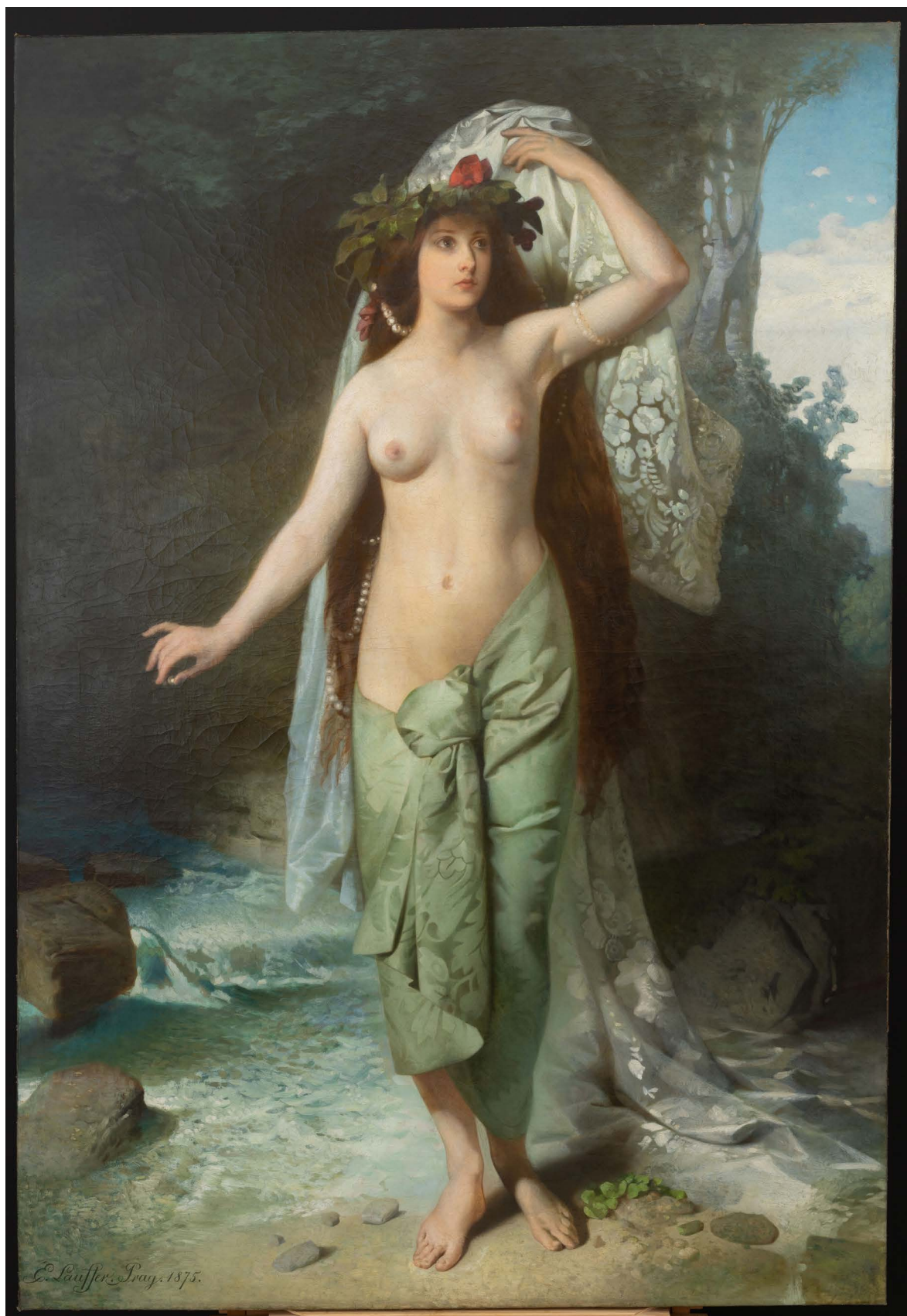
condition after application of fillers inside the defects
macrophotographs in day and raking light, details

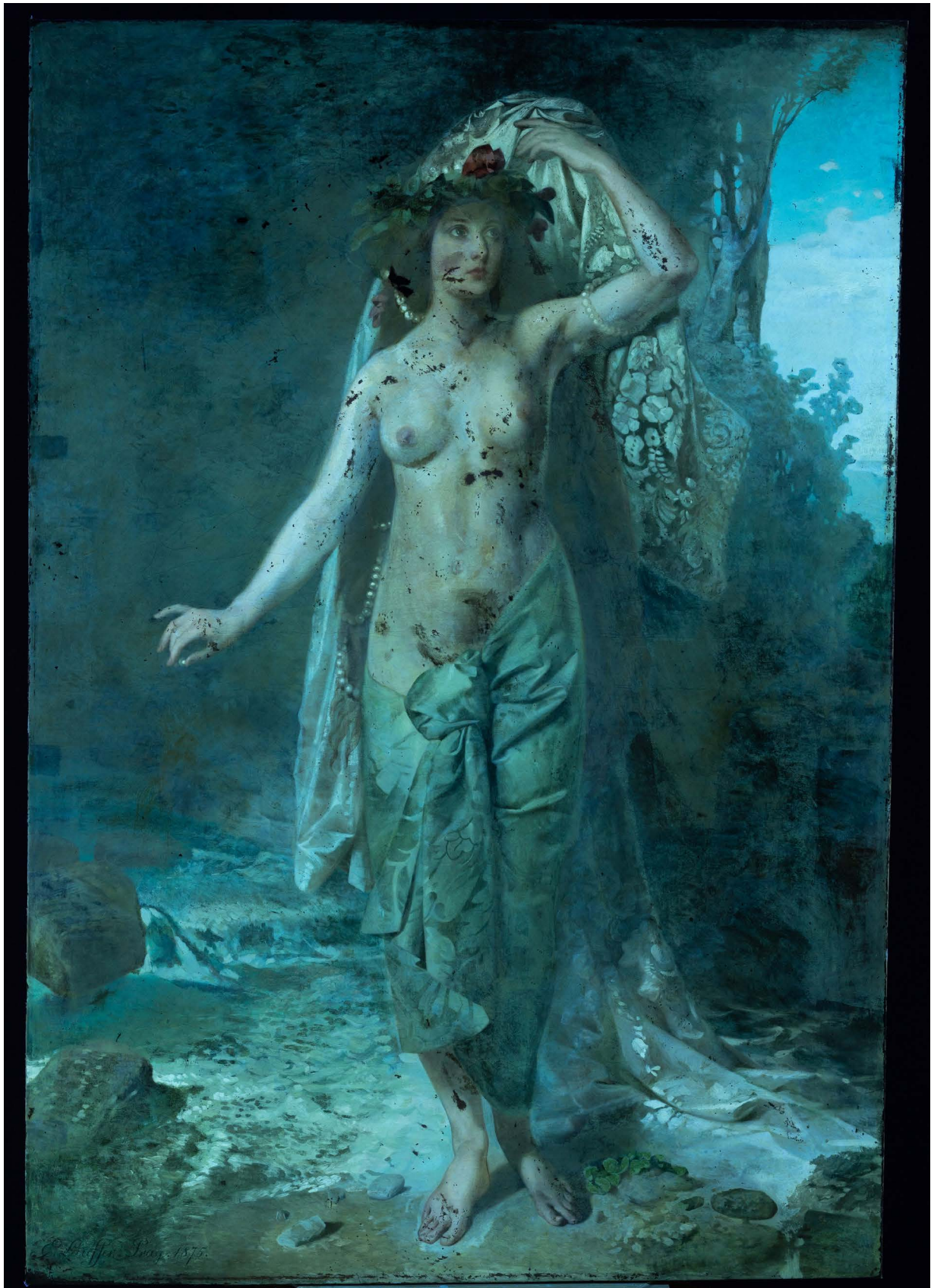


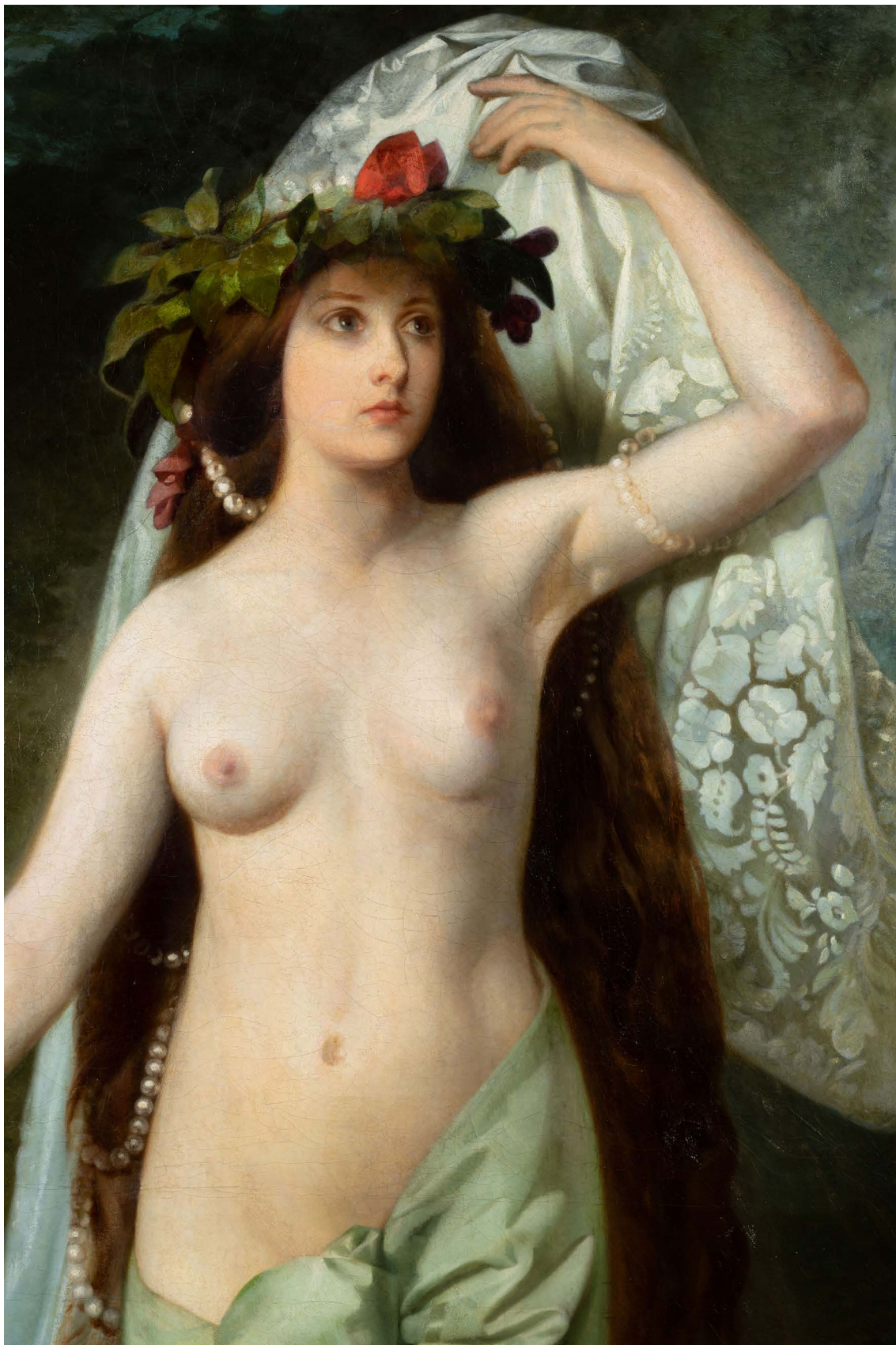
condition after application of fillers inside the defects
macrophotographs in day and raking light, details





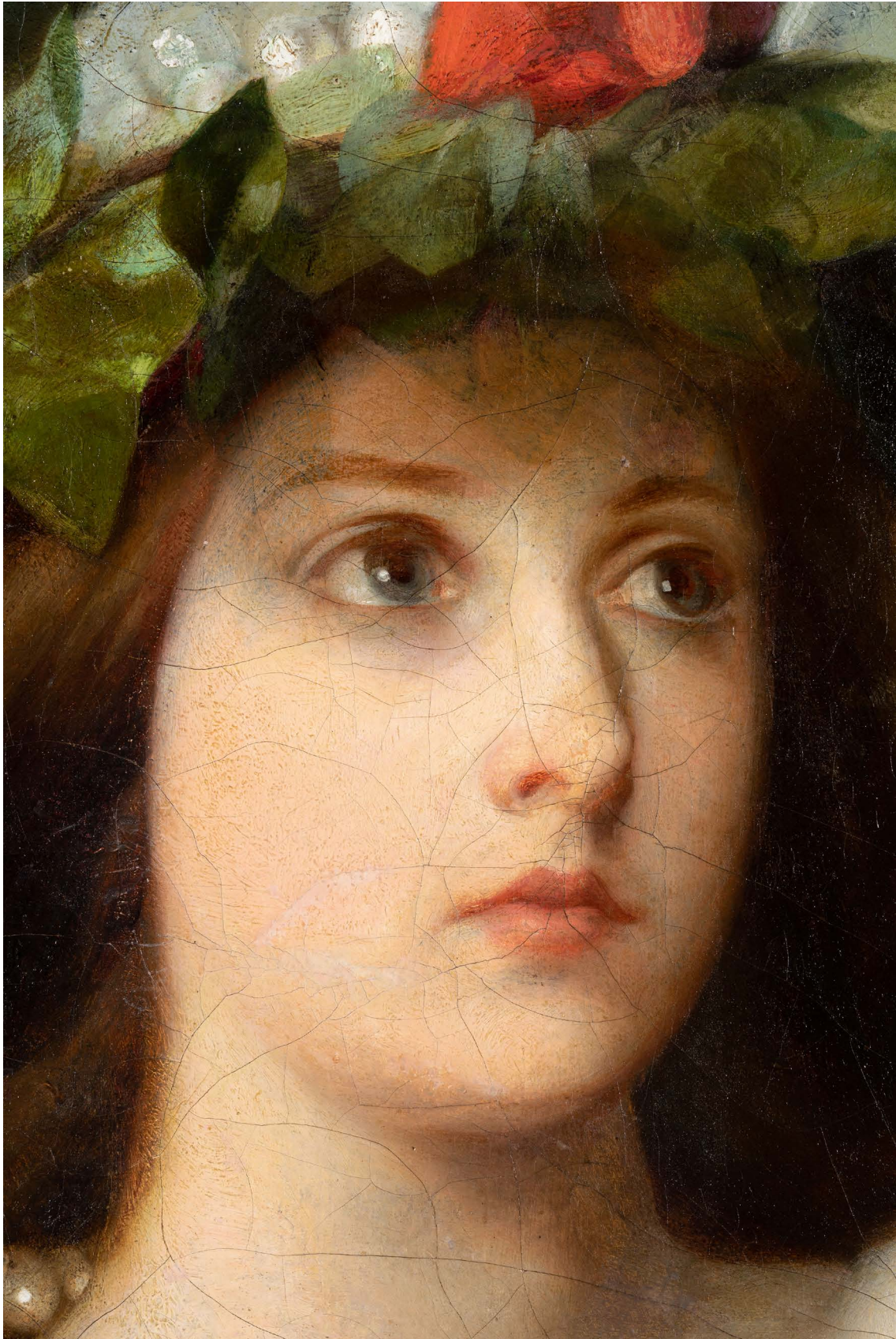








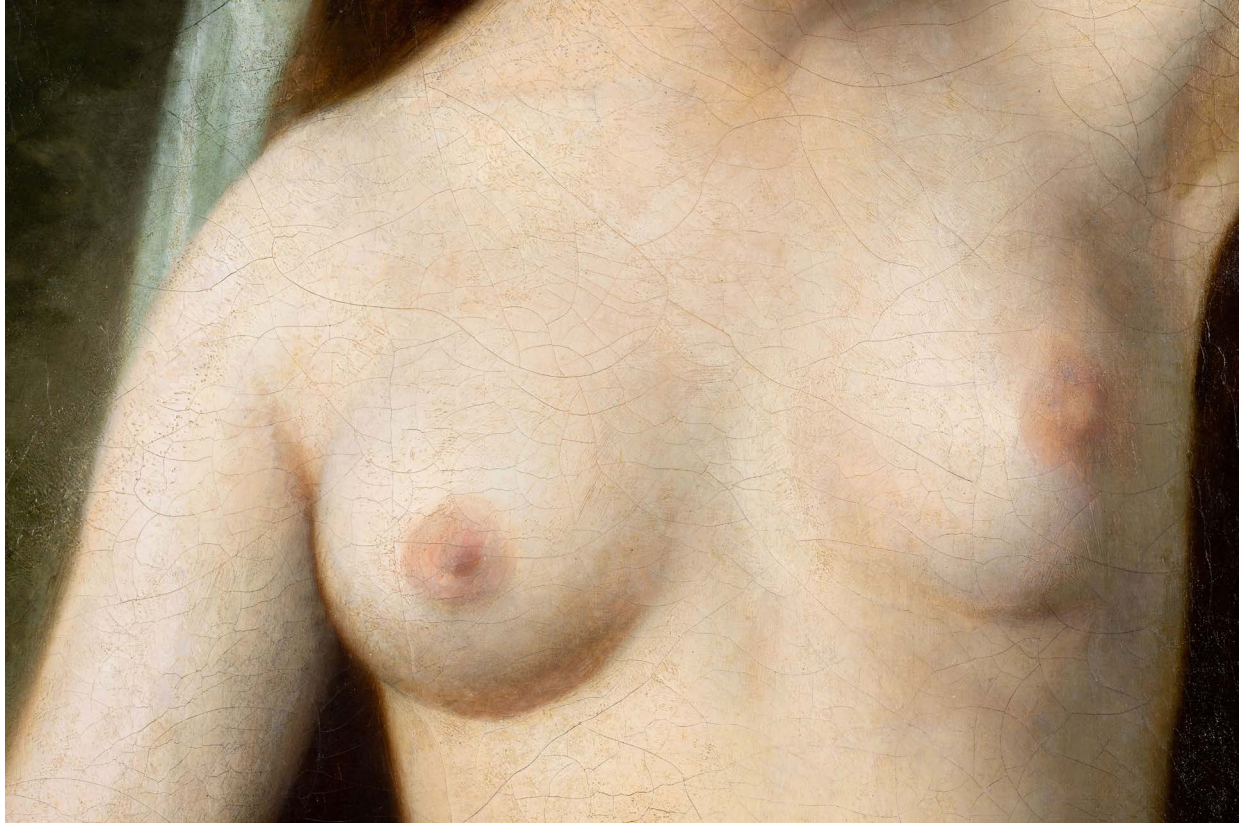
condition after retouching fillers and defects, detail
photography in UV luminescence



condition after retouching fillers and defects, detail
photography in day light

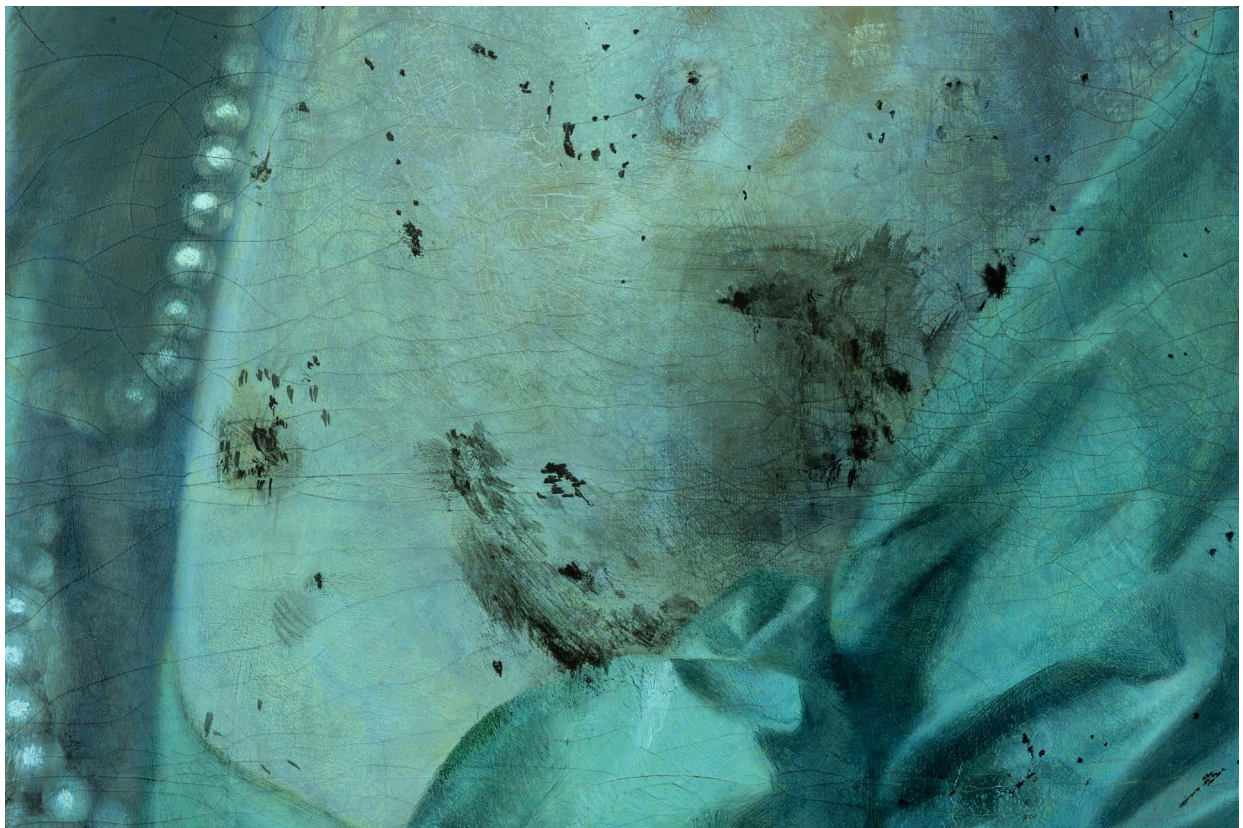
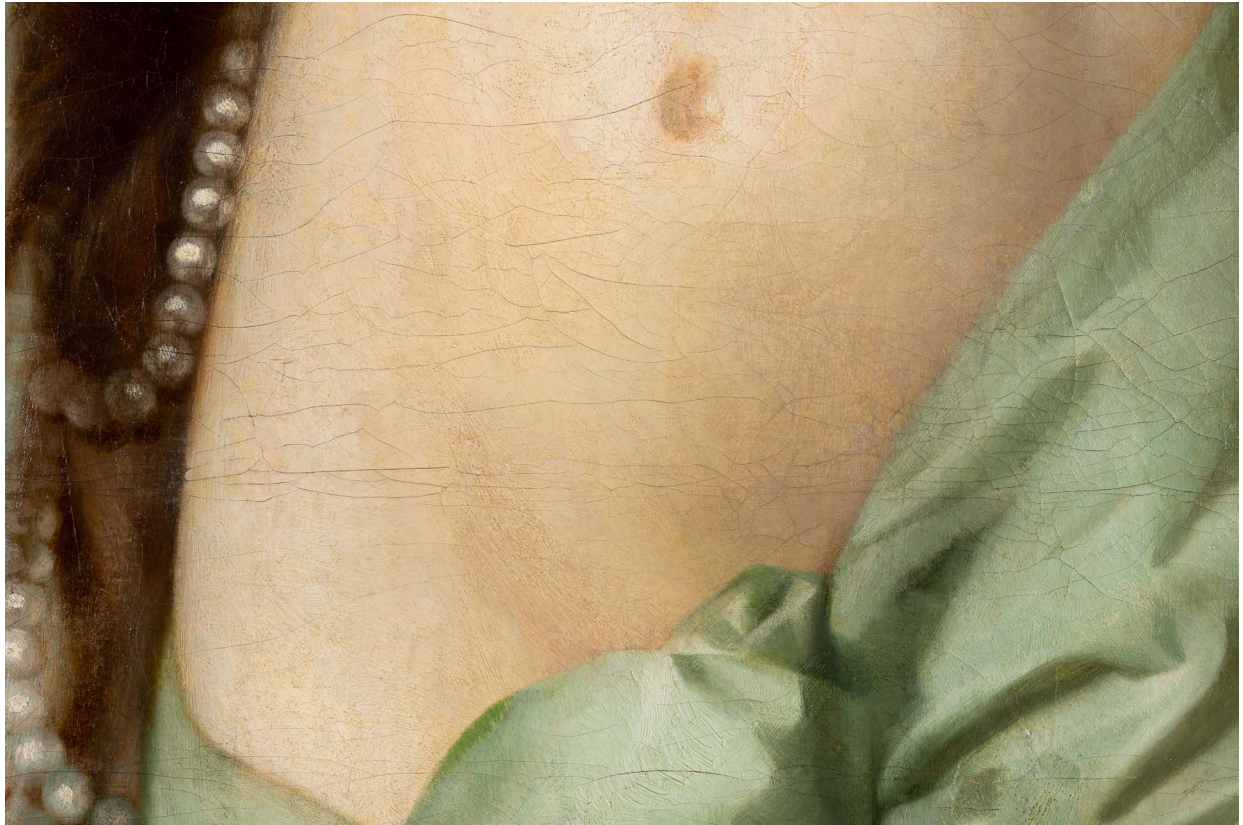


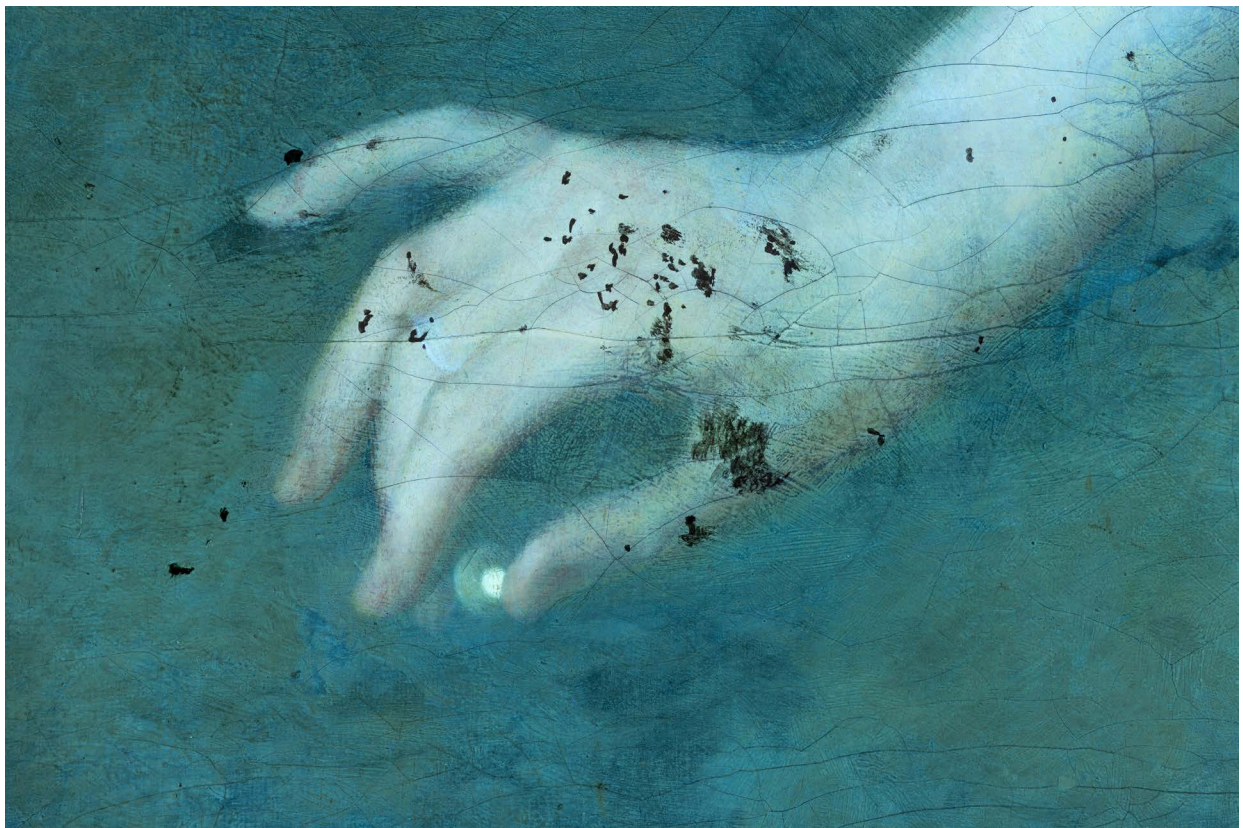
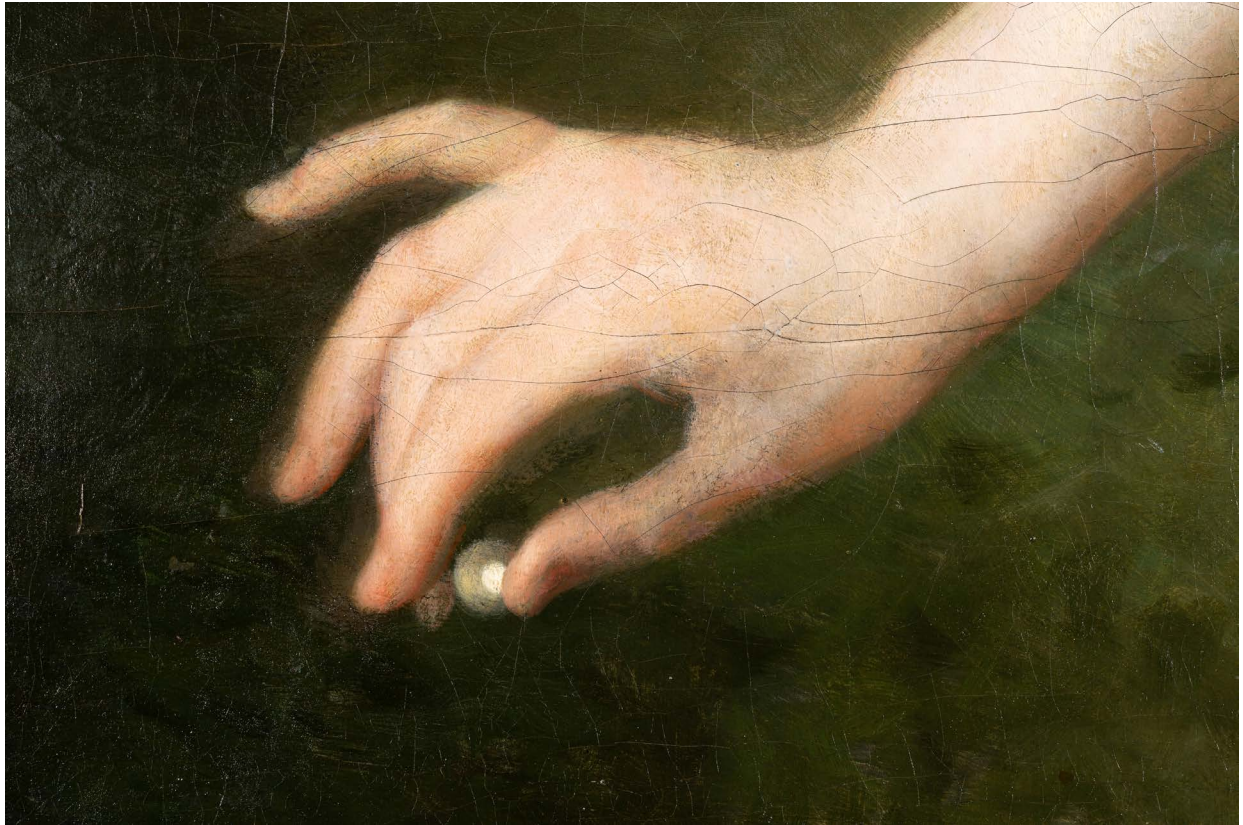
condition after retouching fillers and defects, detail
photography in UV luminescence



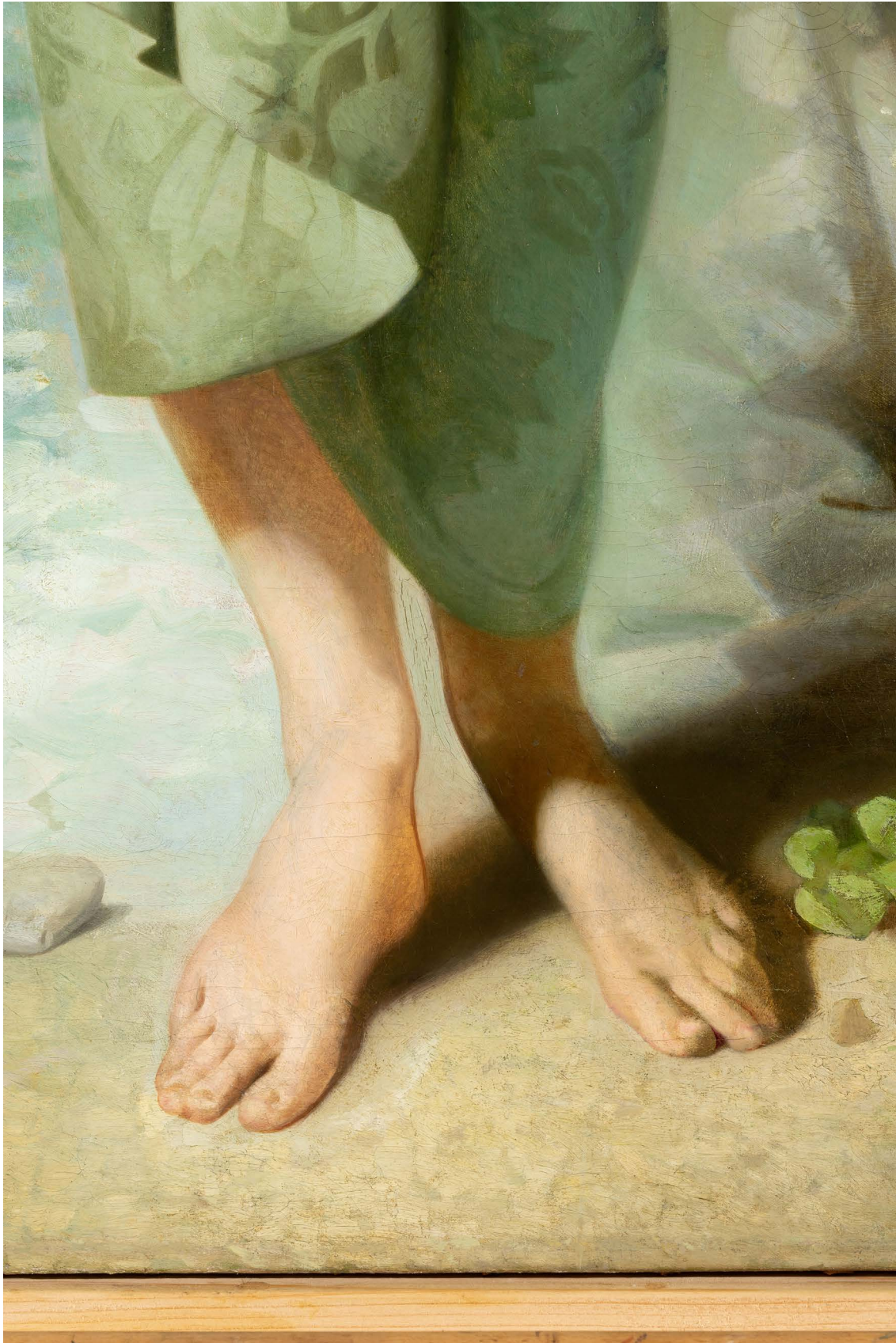


condition after retouching fillers and defects, detail
photographs in day light and UV luminescence



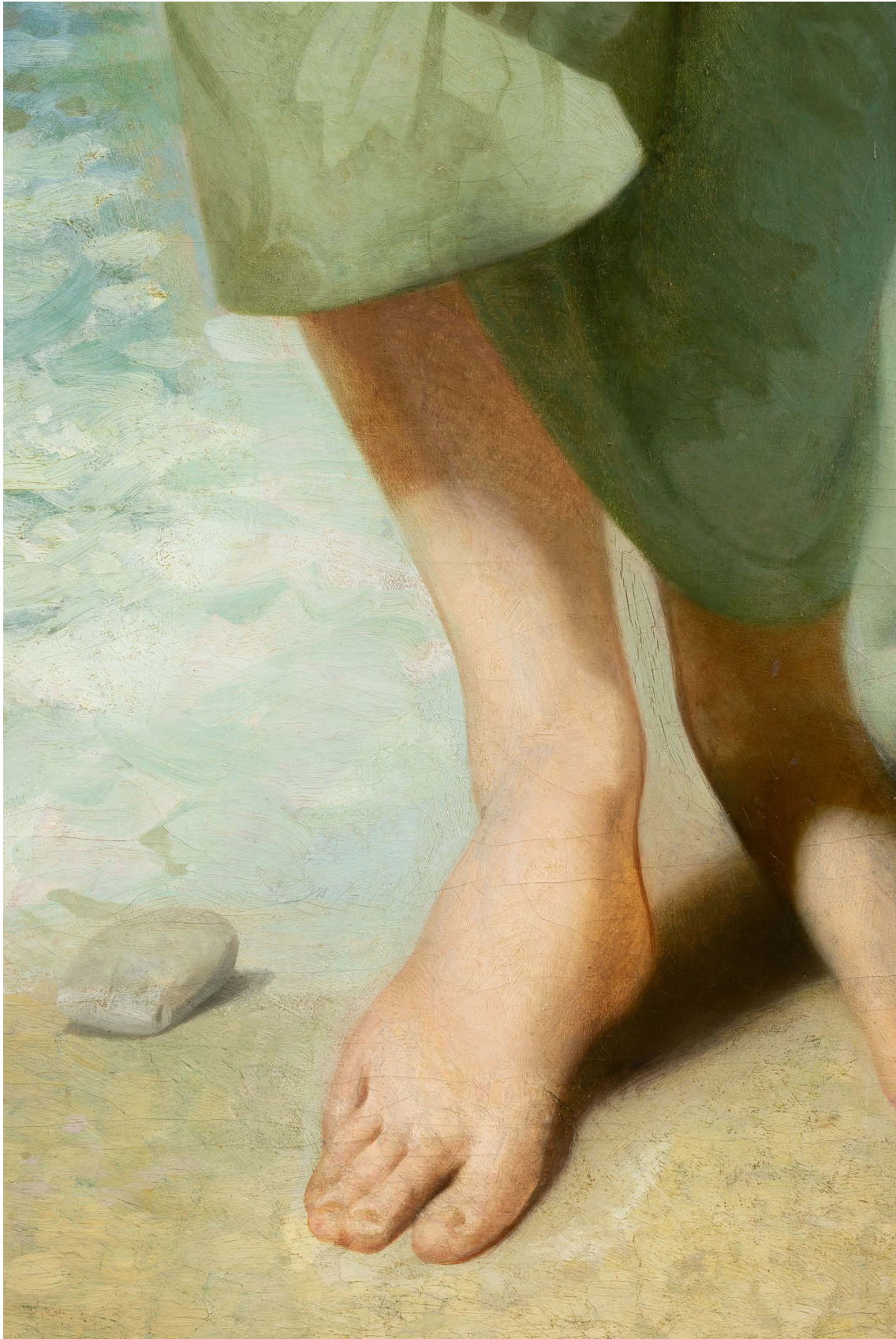


condition after retouching fillers and defects, detail
photographs in day light and UV luminescence





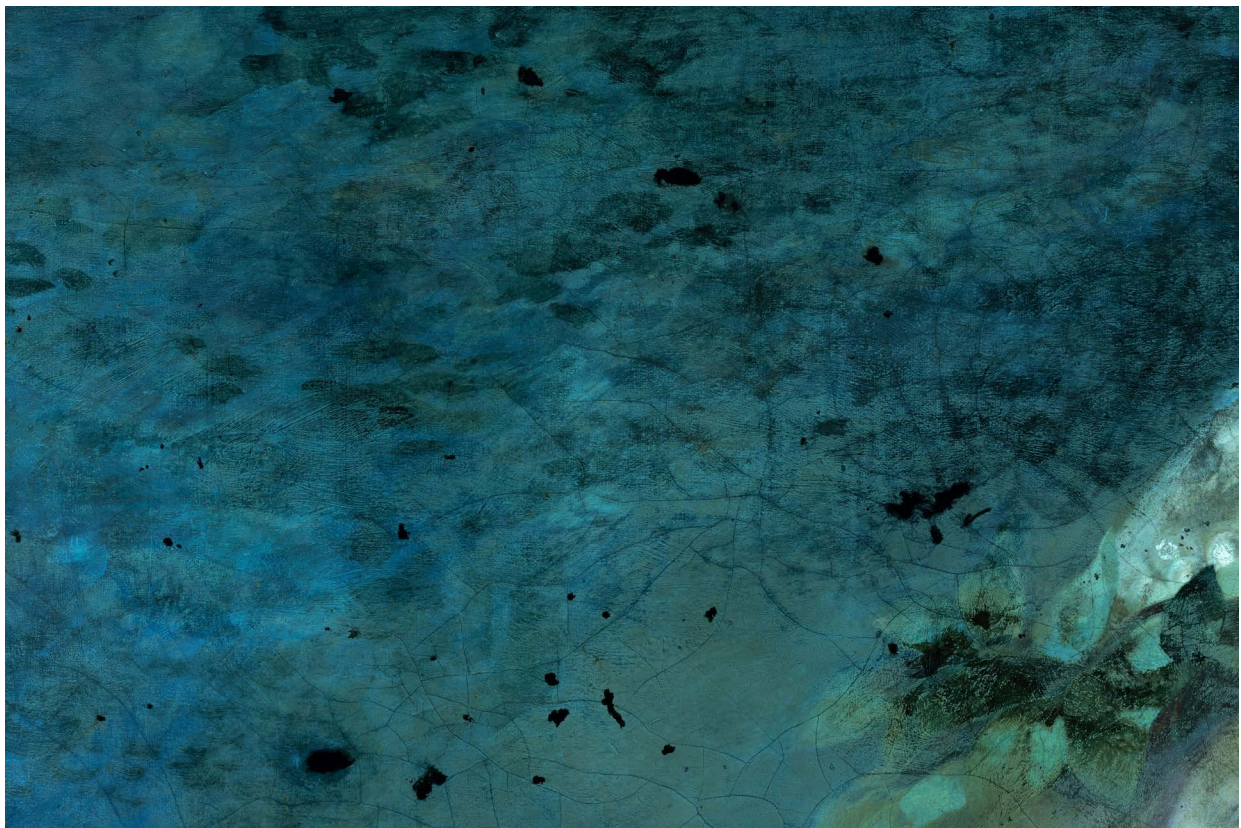
condition after retouching fillers and defects, detail
photography in UV luminescence





condition after retouching fillers and defects, detail
photography in UV luminescence









condition after retouching fillers and defects, detail
photography in UV luminescence