RESTORATION TREATMENT REPORT

ANGEL LIGHTBEARER

unknown artist
State castle Loket



Alžběta Mirjam Procházková
Academy of Fine Arts in Prague
The Studio of Painted Artworks and Polychrome Statues Restoration
academic years 2022/23-2023/24

avu

STATE CASLTE LOKET

title:	Angel lightbearer
author:	unknown
date:	high baroque, second half of the 18th century
technique:	wooden polychrome sculpture
dimensions:	height 75 cm, width 55 cm, depth 20 cm
owner:	State castle Loket
term of the beginning of the treatment:	Fabruary 2022
term of the finish of the treatment:	
institution:	Academy of Fine Arts in Prague The Studio of Painted Artworks and Polychrome Statues Restoration
studio leader:	doc MgA. Adam Pokorný Ph.D.
supervisors:	ak. mal. Markéta Pavlíková MgA. David Hrabálek
laboratory examination:	Ing. Lenka Zamrazilová
treatment done by:	Alžběta Mirjam Procházková

DESCRIPTION OF THE ARTWORK

The wooden polychrome sculpture depicts an angel standing in a contrapposto with arms spread diagonally. It is a paired sculpture of two figures of angels of light. Both statues were probably holding a lamp or a candle in their outstretched hands. The figure is in a relaxed gesture pose. The angel stands barefoot on a low wooden plinth. The released left leg is stepping forward, while the right leg is completely static. The legs are draped up to the plinth in a brownish-ochre drapery, which is covered in the upper part of the body up to below the hips by a blue-red tunic tied with a yellow ribbon. The left arm is stretched along the body of the angel, the right arm is stretched upwards. At the upper part of the back are attached grey wings, which, unlike the pair of the statue, do not have a detailed carving of feathers. This is a secondary supplement. The wings are attached with wooden and metal nails. The head of the angel is tilted forward and slightly inclined towards the left shoulder. The angel has long detailed curly hair. The angel‘s eyes are fixed upwards and the lips are puckered in a gentle smile.

The sculpture is carved from soft wood, probably lime. The carving is very detailed and delicated and has a chalk gesso throughout. Several layers of polychrome in various colours are applied to the ground.

TECHNOLOGICAL EXAMINATION AND STATE OF PRESERVATION

The statue is in relatively good condition, no bacteria, mould or wood-boring insects have been found. An X-ray shows that the sculpture consists of six wooden parts. The right and left arms are attached to the body at the shoulder by a wedge and metal rivets. The left arm is also connected by a pin at a point below the angel‘s elbow. Both wings are attached with metal and wooden rivets and nails. The left thumb, index, middle and ring fingers are probably secondarily carved and glued to the hand with glue, but there is still a very clear crack in the joint. There is a wooden skewer inserted into the carving in the abdomen area. A narrow hole, about 20 cm long, is carved into the base and part of the angel‘s legs, probably used to clamp the sculpture into the altarpiece. There are several drying cracks on the statue. All the fingers of the right hand and the little finger of the left hand have been insulted in the past.

The surface of the sculpture is heavily soiled with a dust deposit. UV luminescence images show that the surface of the polychrome has been given a full coat of varnish. At the bottom of the drapery on the back of the statue, a second insulating layer of varnish with green inscription of the inventory number has been applied locally over the varnish layer. A few centimetres away, a similarly executed inscription on the statue was probably present earlier, but here the inscription has been scraped away, down to the chalk ground. The carving has a chalk gesso base on which several secondary coats of polychrome have been applied. This is evident on close examination of the defects, particularly with a Dino Light digital microscope. In some places the defects reveal the chalk gesso layer itself. It is likely that some of the layers are in a continuous all-over coating, which became apparent during the restoration work on the pair of angel statues.

Four corss-section samples were taken from the statue and subjected to laboratory examination.

TRREATMENT PROPOSAL

1. Preliminary examination, including both non-invasive optical-physical methods and destructive spectral analytical methods.
2. Consolidation of loosened painted layers.
3. Removal of dust and dirt deposits by dry methods.
4. Examination of the layers of polychromy by evaluating the cross-section and conducting probes on each part of the polychromy.
5. Sequential removal of the non-original layers of varnishes and overpaintings one by one, with each layer documented for examination of the relationship between the layers of polychromy. Reversibility tests for each layer, removal by organic solvents, aqueous solutions, and mechanically by scalpels.
6. Adjustment of any missing supplements of the wooden carving.
7. Filling of defects.
8. Retouching of defects and losses in the polychromy.
9. Application of an isolation varnish layer.

TREATMENT REPORT

- The photo documentation of the sculpture was conducted using multispectral examination methods, including photographs in visual daylight and raking light, UV luminescence, and X-ray capture. Samples for cross-section analysis were taken. There are two pairs of sculptures of the Angel from the same altarpiece. The first pair was previously restored by another student. The restoration of this pair should utilize similar techniques and methods, ensuring that the layers of polychromy are from the same period.
- The sculpture has several layers of polychromy, with some parts of the statue having been overpainted more times than others. The relation of the polychromy layers was examined by stratigrafic probes and the comparison of solubility of each colour layers on the particular part of the sculpture. The examination of stratigrafic probes and cross-section samples indicated the unsystematic overpaintings of the polychromy, espacialy in the relation of front and reverse side of blue-red dress coat, wheter the red riverse side of the coat was overpainted more times than the front blue side. Furthermore, some of the layers were resitant to solvent and wery difficult to remove mechanicaly. In comparison to the paired angel, one more layer of overpainting was found on the lower dress.
- For the treatment of the first angel from the pair, it was decided not to remove all the layers. The focus was on re-exposing the second oldest polychromy layers on the most parts of the sculpture, while leaving the original polychromy layer covered. This approach was chosen because the preservation state of the original layer was uncertain, and the upper layers were nearly insoluble.
- The youngest polychromy layer was removed from all parts of the sculpture. Due to the resistency and insolubility in any solvent or aqueous solution, it had to be removed mechanically using scalpels and ultrasonic scalpels.
- The second youngest layer was soluble in acetone. Different acetone solutions mixed with isooctane were used to remove this layer from the dress coat, lower dress, and incarnates. The solution IA7 was applied with a brush and cotton swabs to remove the blue polychromy layer from the front side of the dress. The advantage of this solution‘s polarity was that it did not affect the varnish layer, thereby preserving it and maintaining a certain level of patina effect. For the red reverse side of the coat, this layer was removed using IA8 solution. The overpainting layer on the incarnates was removed with IA8 solution, and from the plinth with IA5 solution. The yellow overpaintings on the lower dress, decorative buckles, and fringes were removed with IA4 solution. Under this layer of overpainting, another slightly more citron-like yellow layer appeared. This was likely a preparation layer for the upper one, creating a stratum of these two layers due to their very similar solubility and lack of dirt residues. Therefore, it was removed with a slightly more polar solution of isooctane and acetone.
- The third youngest layer varied across different parts of the sculpture. It was decided to preserve this layer on both the red reverse side and blue front side of the dress coat, including the gilded decorative buckles and fringes, as well as on the plinth.
- The third layer was removed from the incarnates mechanically using scalpels and ultrasonic scalpels.
- The fourth layer (or the third, if the previous stratum of two yellow layers is counted as one) was only removed from the yellow dress. This layer was almost completely resistant to any solvent mixtures and aqueous solutions. It could only be swelled in an oil-in-water emulsion at pH 8.5 with triethanolamine and a 10% addition of benzyl alcohol. After a five-minute application, the solution was removed with a dry cotton swab. After several minutes, the layer swelled, allowing for its gentle removal by mechanical action with scalpels and cotton swabs. Residues of this layer were removed mechanically with scalpels after drying. This operation had to be done very accurately to prevent the solution from reaching the lower polychromy layer, which is soluble in water or solvent mixtures.
- The polychromy overpainting layers on the hair were impossible to decipher and interpret stratigraphically due to the poor condition of each layer and the total lack of division between them. Therefore, the strata of overpaintings were thinned to a consistent level to make the appearance more visually integrated with the rest of the sculpture and to better exhibit the delicate carving of the hair.
- The unfastened right arm of the angel was disattached, the residues of the adhesive were removed and the arm was fixed to the proper possition and adhered by wood glue Bindan.
- Losses were filled with a traditional gesso filler, and the inpainting and retouching of these areas and defects were completed

using watercolor paints.

- The non-original, minimally curved wings were detached from the sculpture. Following photodocumentation and layer examination using stratigraphic probes, it was decided to remove the youngest overpainting polychromy from initially only the left wing to assess the state of preservation and quality of the original layer. This layer was removed mechanically with a scalpel after swelling it with a solvent gel consisting of acetone, ethanol, and isopropanol (1:1:1) with a 5% addition of ammonia. This approach reflects a specific example of a historical attitude towards restoration treatment. The wings were originally designed in a minimalist concept, including the polychromy layers. However, the owners preferred the wings to be reconstructed using the model of the original wings preserved on the paired sculpture. Therefore, the secondary wings were preserved in their existing condition.
- New wings were curved from lime wood and the polychromy was reconstructed. An isolation layer of rabbit skin glue solution and a rabbit skin glue/chalk gesso layer were applied. A separating layer of white shellac in ethanol was brushed over the gesso surface. The polychromy was reconstructed using quache paints and was subsequently sanded multiple times using sandpaper and a dremel tool to imitate the wear and destruction observed on the original wings.
- The missing fingers were also reconstructed within the polychromy using the same method as the wings.
- The surface of the polychromy on the entire sculpture was isolated using a solution of Paraloid B 72 in toluene.

MATERIALS USED FOR THE CONSERVATION TREATMENT

consolidation: 5% gelatine solution in disttiled water
non-original polychromy removal: solutions of isooctane and aceton
IA4 (isooctane : aceton 3:2), IA7 (isooctane : acetone 3:7), IA8 (isooctane : acetone 1:4)
oil-in-water emulsion buffered to pH 8.5 with triethanolamine with 10% of benzyl alcohol
solvent gelled solution of acetone, ethanol and isopropanol (1:1:1) with 5% of ammonia
adhesive for reattachment of wooden parts: Bindan (glue for wood)
fillings: glue-skin gesso filler
7% rabbit skin glue solution in water bulked with mixture of calcium carbonate and bolognese chalk (1:1)
retouching and inpainting: watercolour paints
reconsturctions of polychromy: wood isolation: 12% rabbit skin glue solution in disttiled water
gesso layer: 12%rabbit skin glue solution in disttiled water bulked with bolognese chalk
separating layer: solution of white shellac in ethanol
watercolour paints and quache paints
isolating varnish layer: 4% solution of Paraloid B 72 in toluene

METHOD OF CREATING DOCUMENTATION

The photographic documentation was taken with a Canon EOS 6D Mark II camera with two types of lenses: a Canon Lens EF 50mm 1:1.4 and a SIGMA 70mm 1:2.8 DG M macro lens. The photographs in diffused daylight and raking light were taken with LED headlights at 5500K. Photographs in UV luminiscence were captured within the exposition to UV LED lamps.
RTG picture was captured by RTG device on negative films, scanned to computer and exported as JPG. The postproduction within the compilation of each picture was done in Photoshop program.
All photographic documentation was taken in RAW+L format. RAW photo formats were edited in Photoshop and exported to JPG format.

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.



condition before treatment
day light photography



condition before treatment
UV luminiscence photography



condition before treatment
day light photography



condition before treatment
UV luminiscence photography



condition before treatment
day light photography



condition before treatment
UV luminiscence photography



condition before treatment
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condition before treatment
day light photography



condition before treatment
UV luminiscence photography



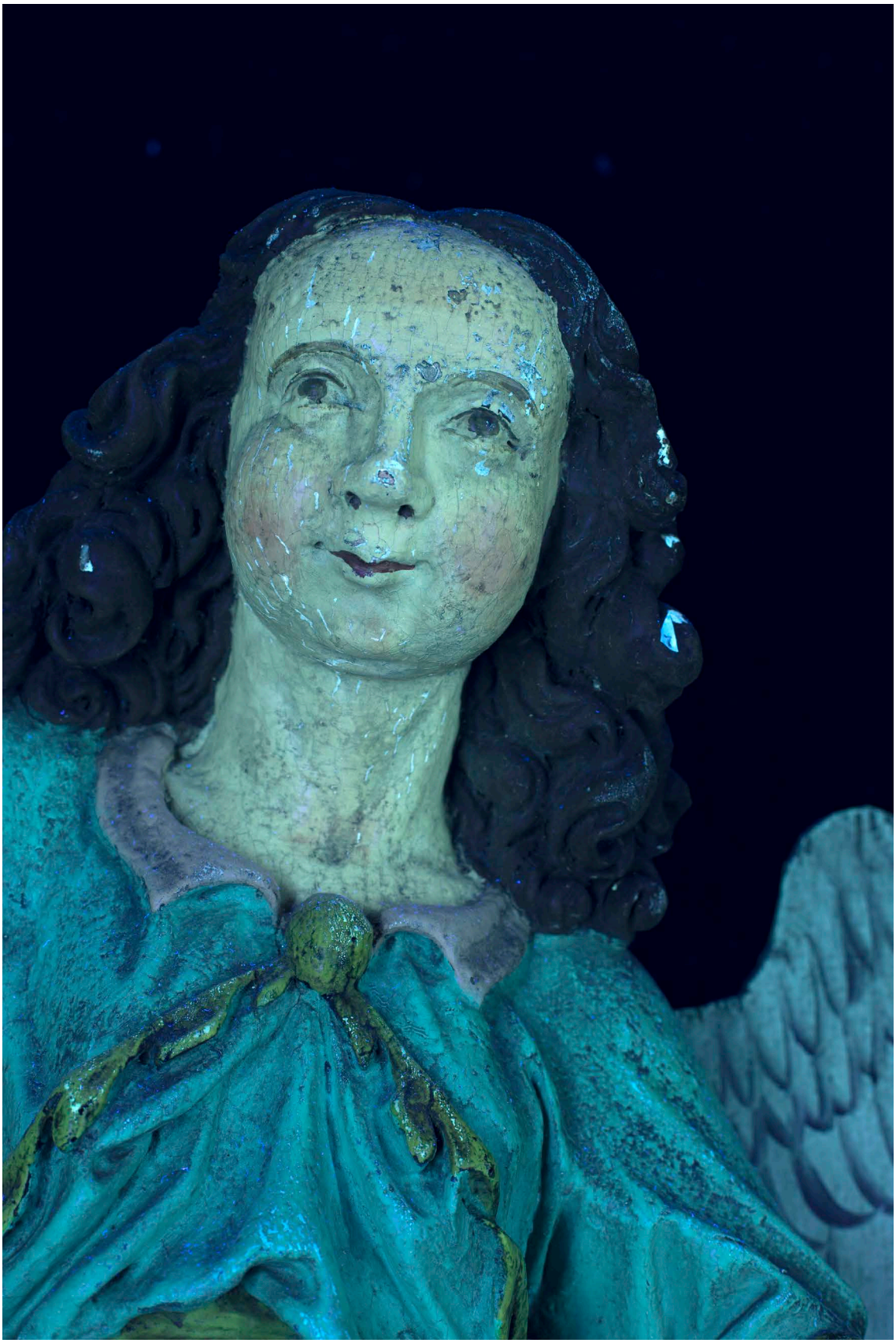
condition before treatment
day light photography



condition before treatment
UV luminiscence photography



condition before treatment
day light photography, detail



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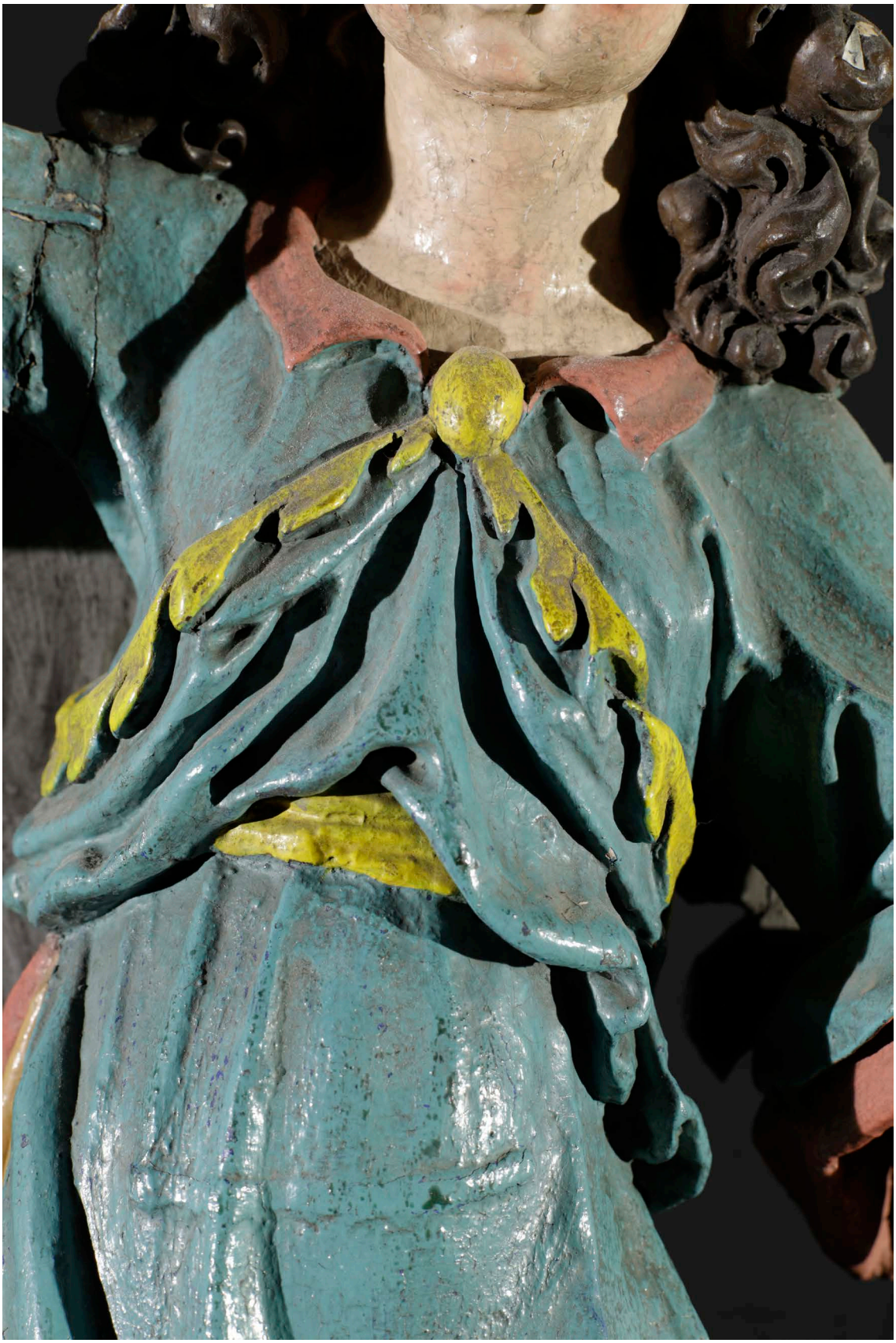
UV luminiscence photography, detail



condition before treatment
day light photography, detail



condition before treatment
UV luminiscence photography, detail



condition before treatment
day light photography, detail



condition before treatment
UV luminiscence photography, detail



condition before treatment
day light photography, detail



condition before treatment
UV luminiscence photography, detail



condition before treatment
day light photography, detail



condition before treatment
UV luminiscence photography, detail





condition before treatment
day light photography, details





condition before treatment
UV luminiscence photography, details





condition before treatment
day light photography, details





condition before treatment
UV luminiscence photography, details



condition before treatment, view from bellow
day light photography



condition before treatment
X-ray capture



condition before treatment
day light photography, detail

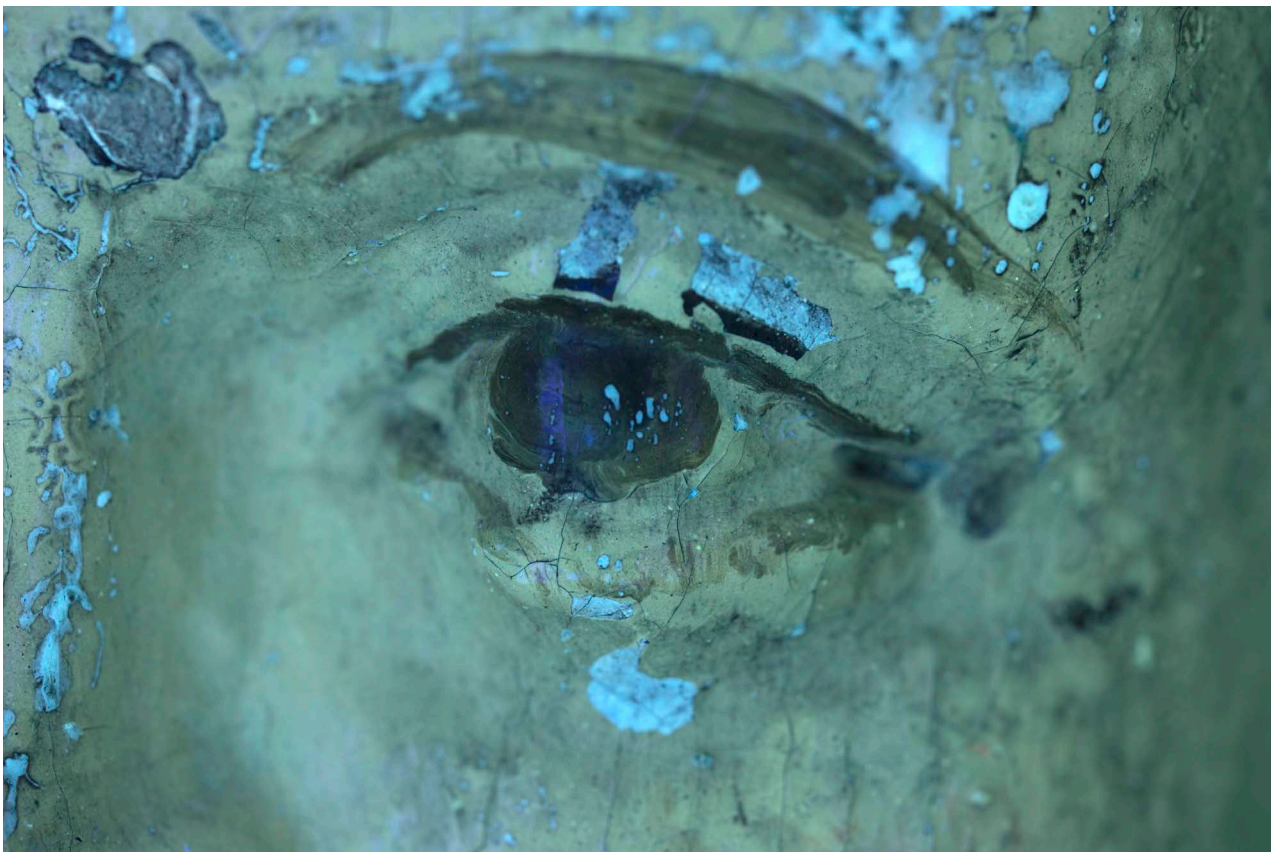


condition before treatment
day light photography, detail





condition before treatment
day light photography, details





condition before treatment
UV luminiscence photography, details





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day light macrophotography, details







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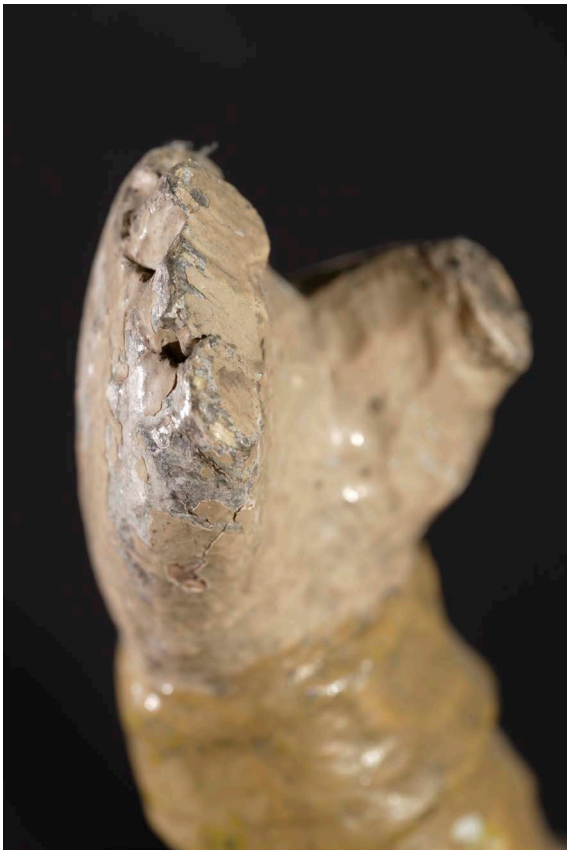
day light macrophotography, details



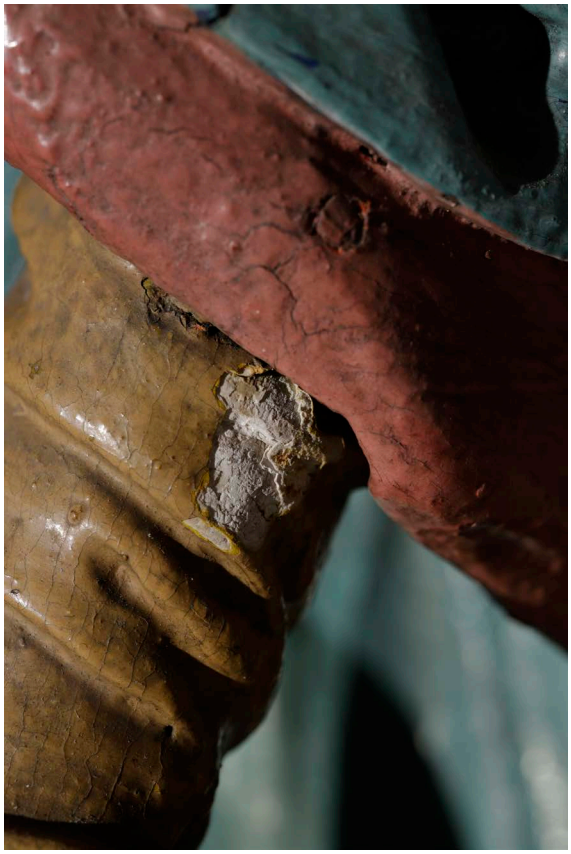


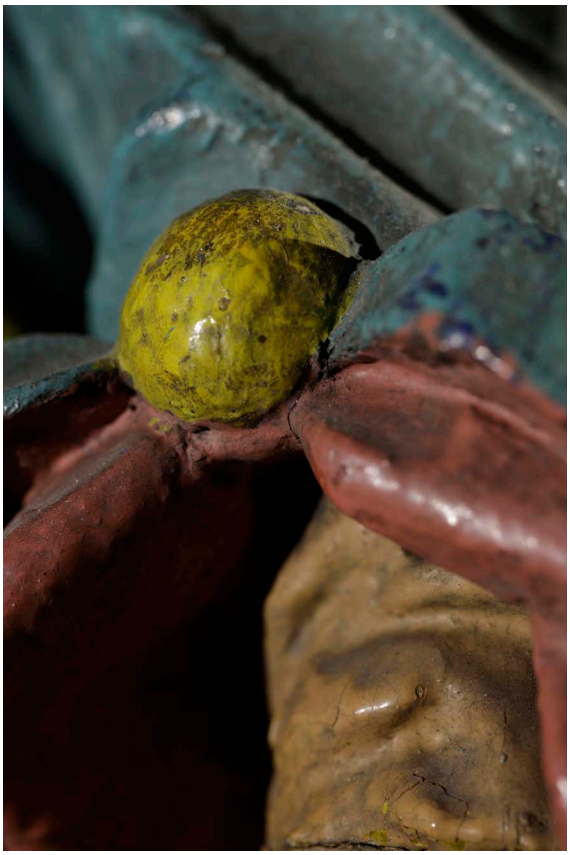




day light macrophotography, details









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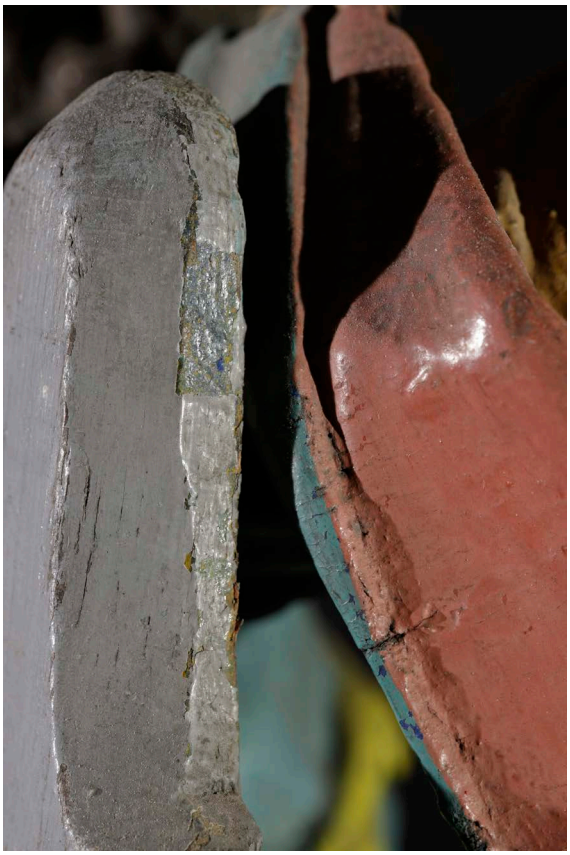

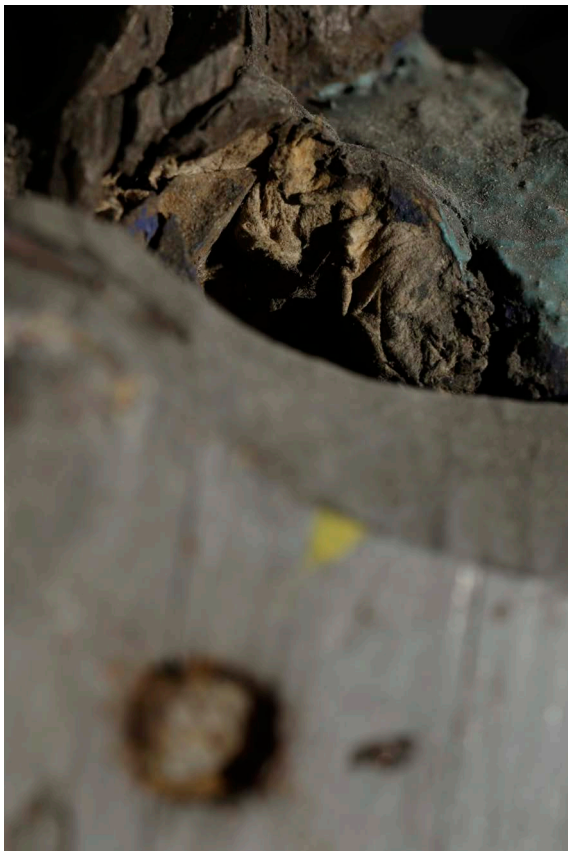

day light macrophotography, details





condition before treatment
day light macrophotography, details





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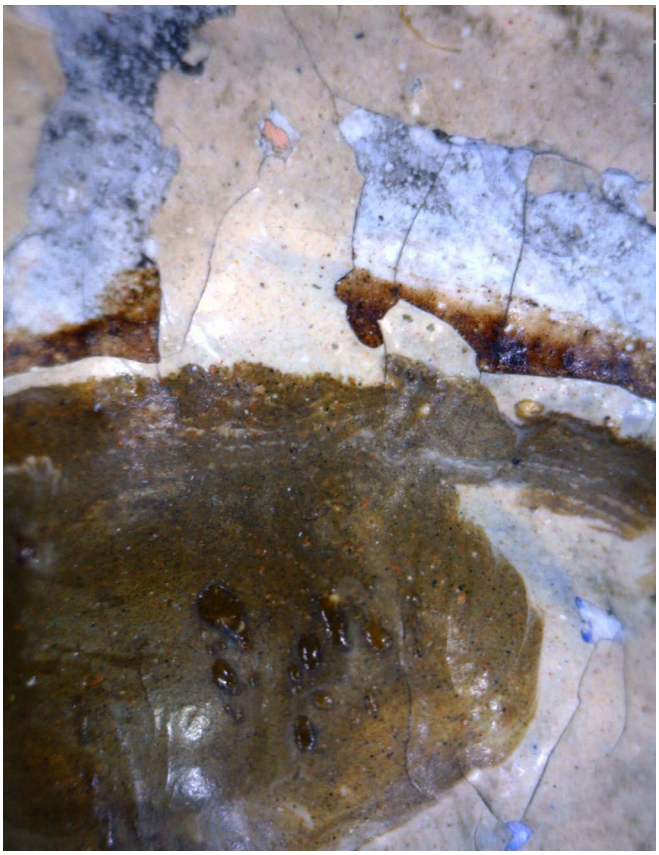
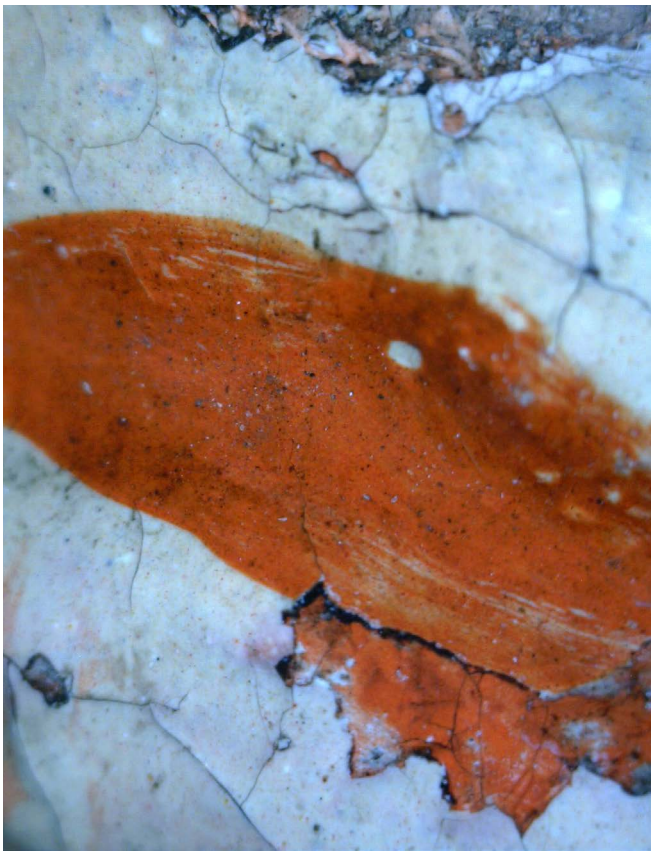
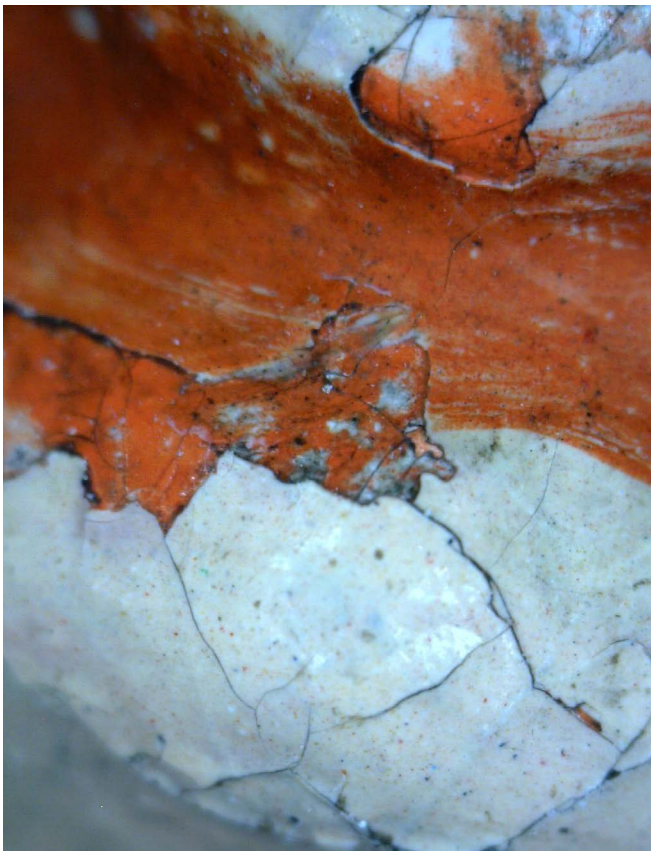
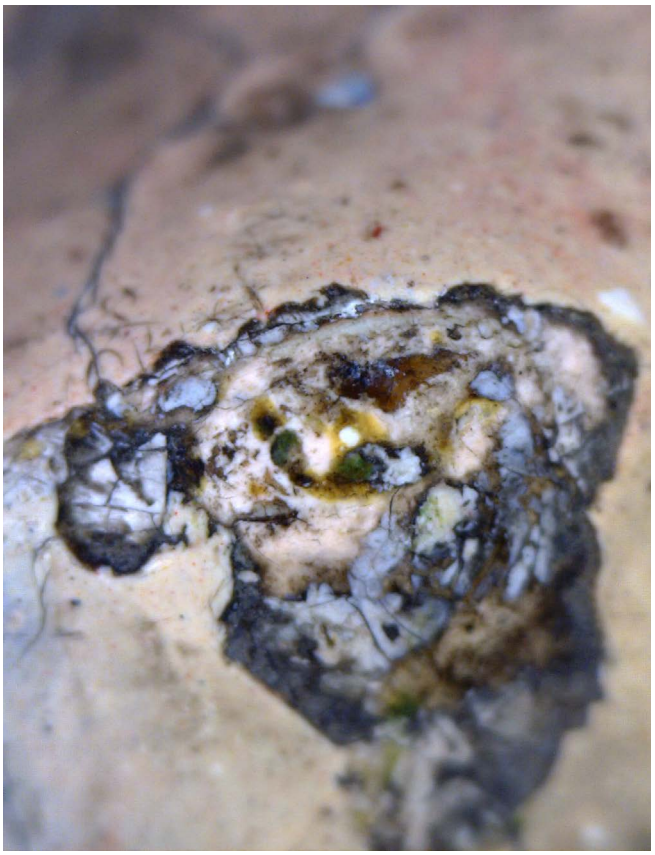


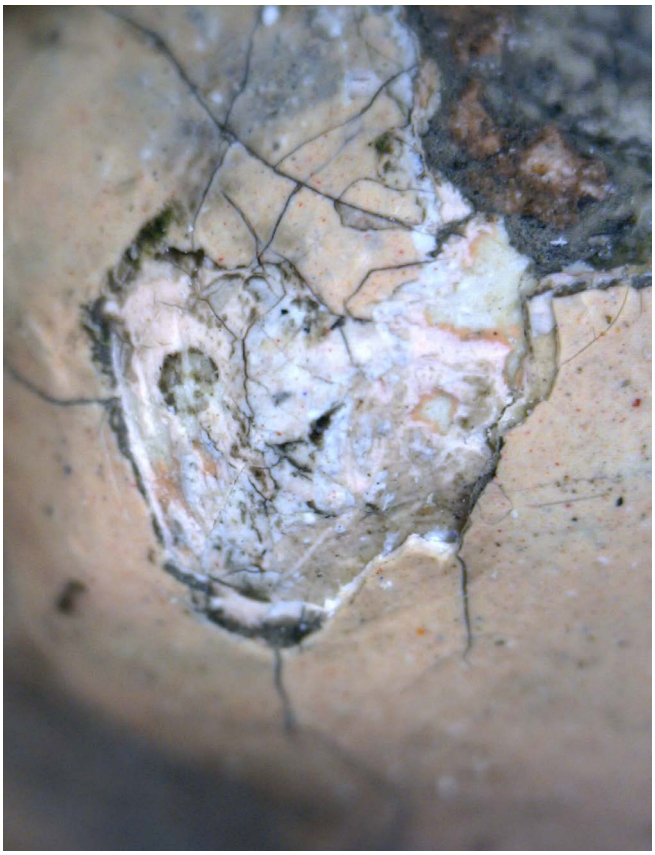


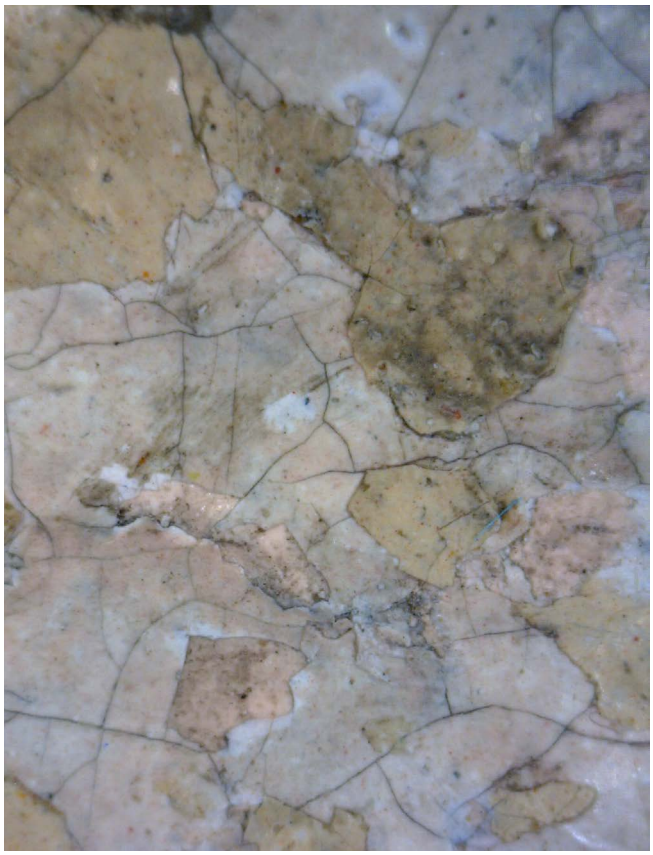


condition before treatment
day light macrophotography by DinoLight, details









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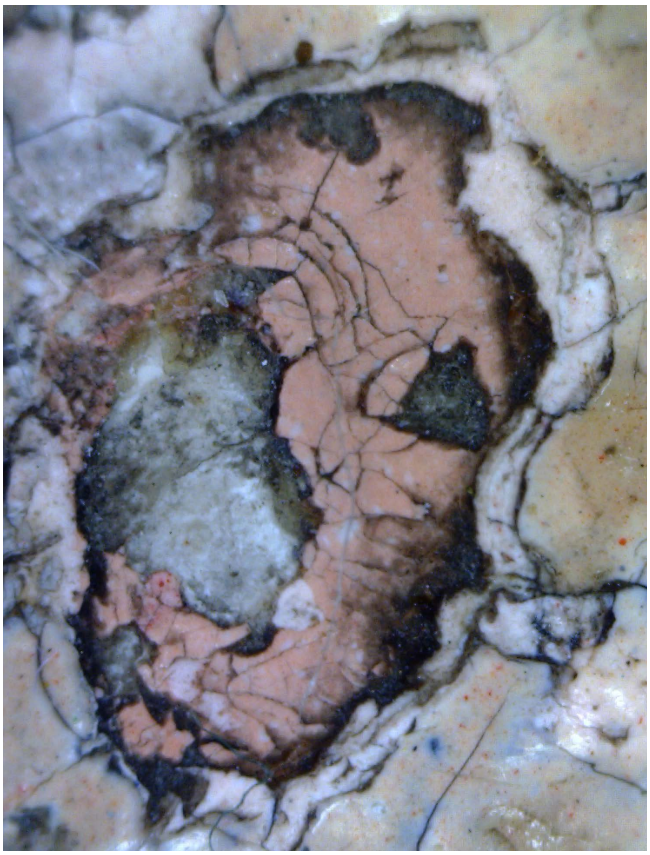

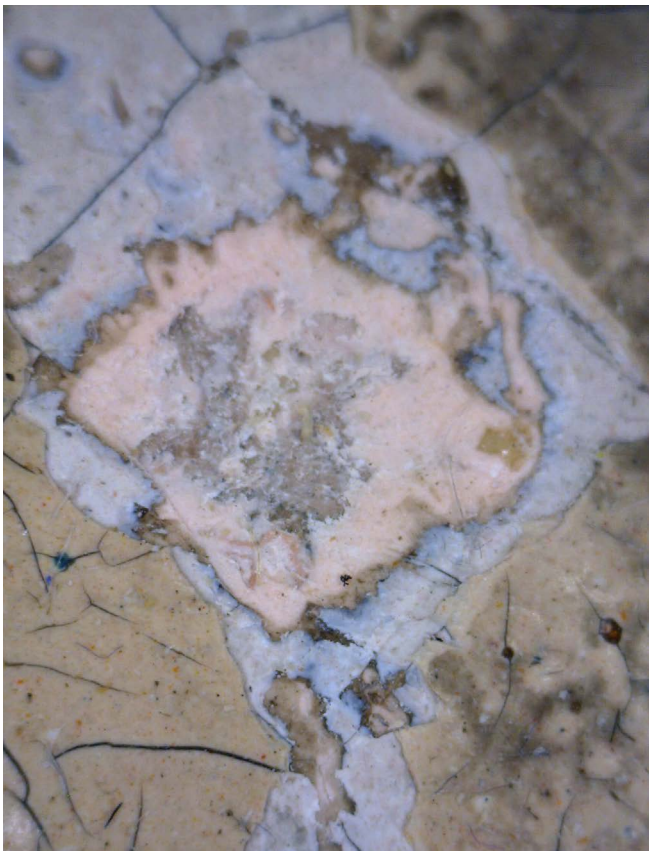





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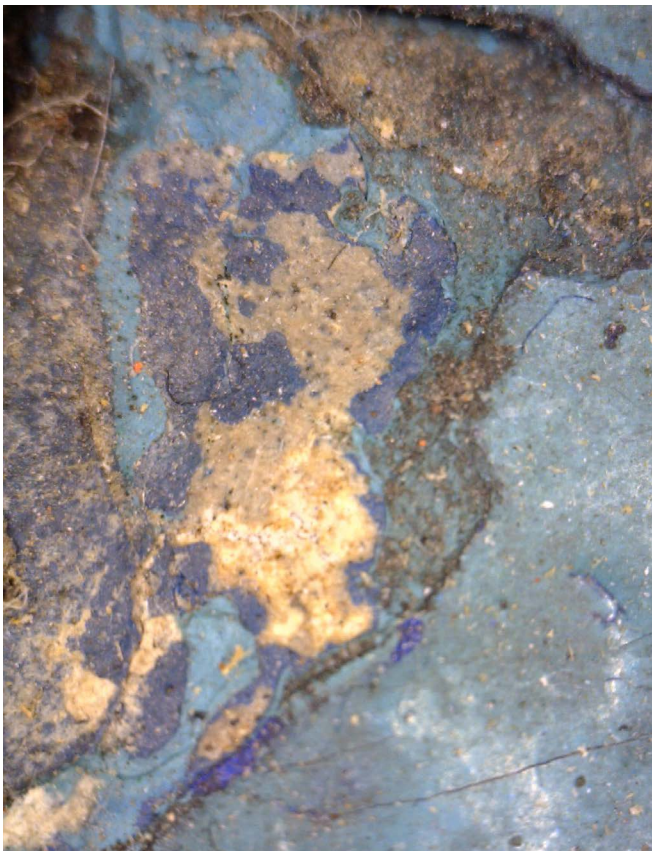

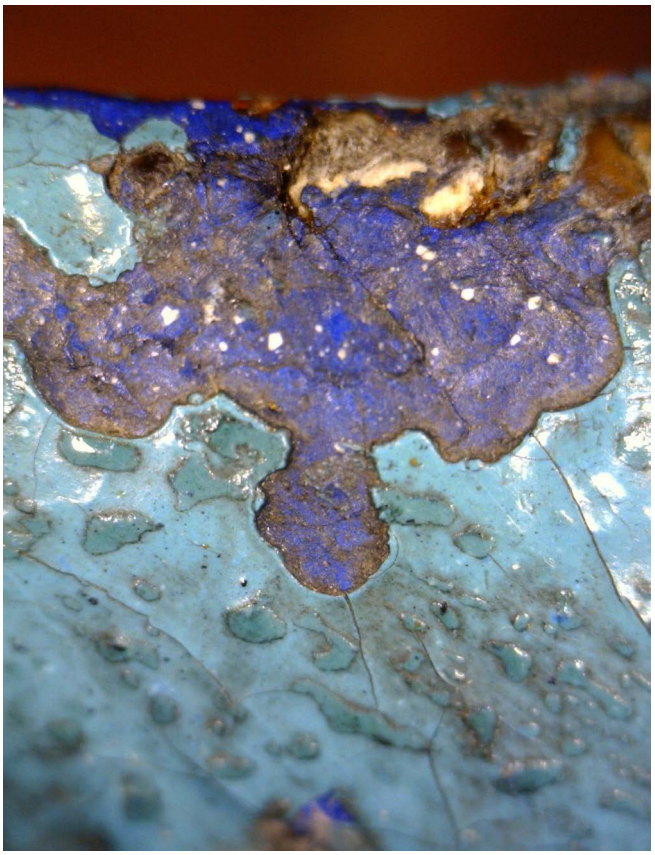

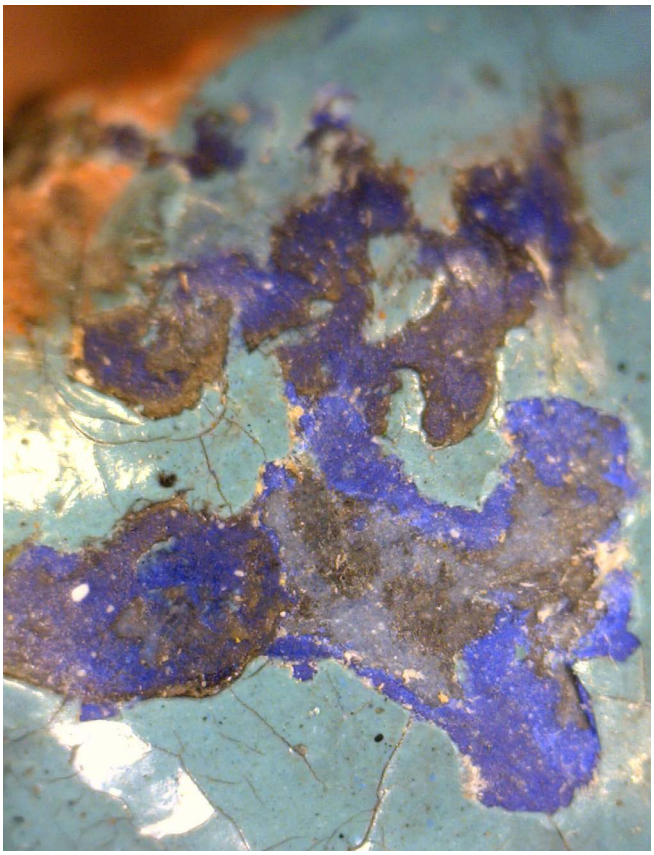



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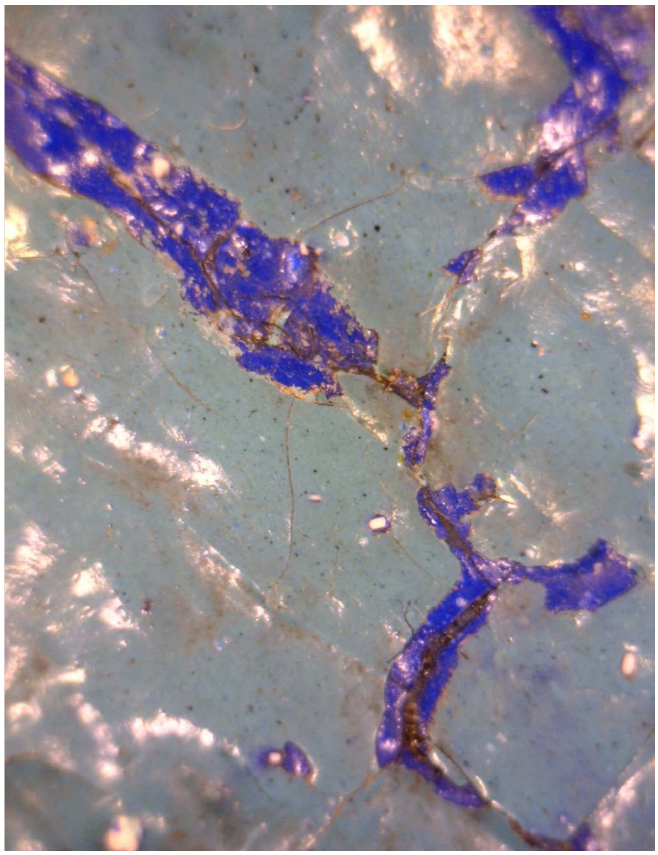
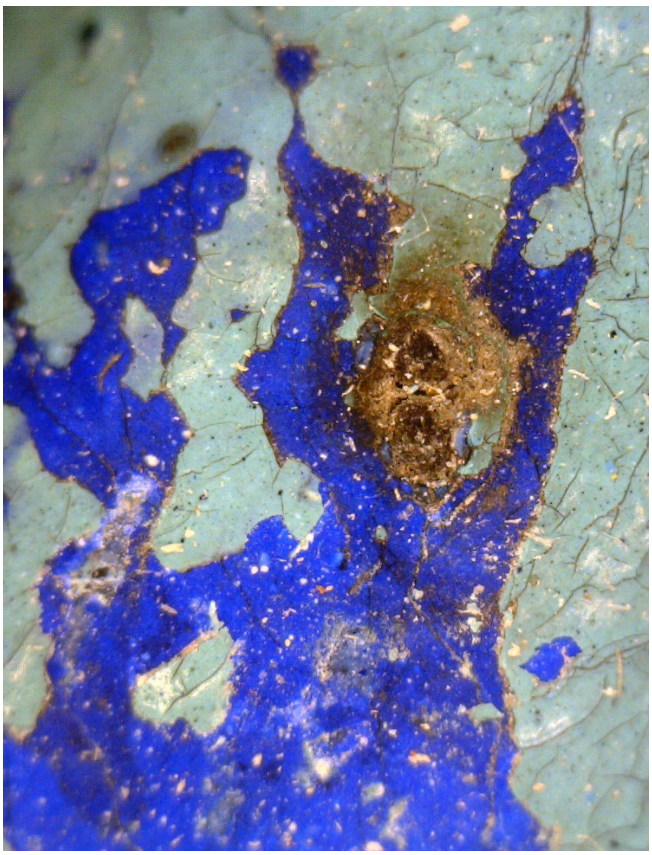
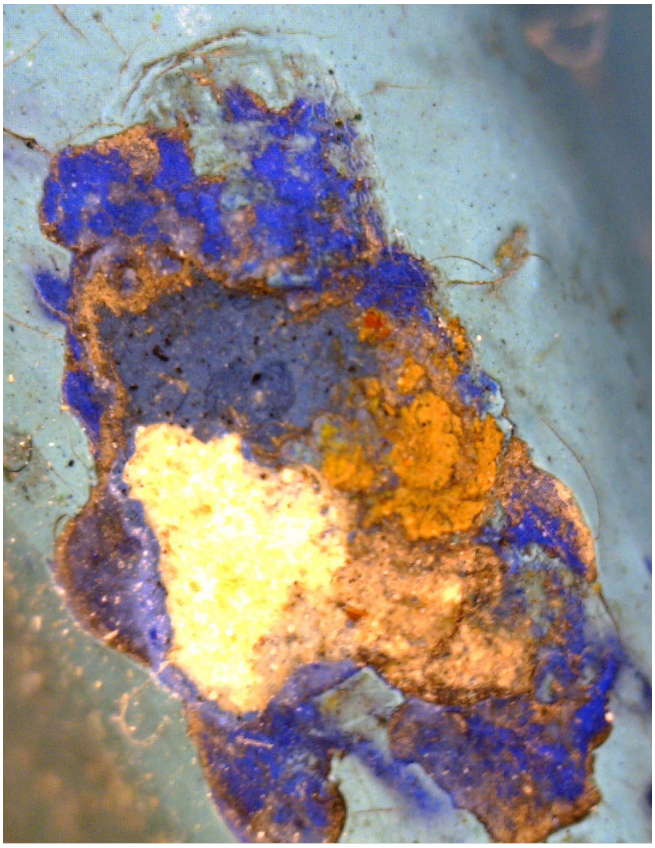
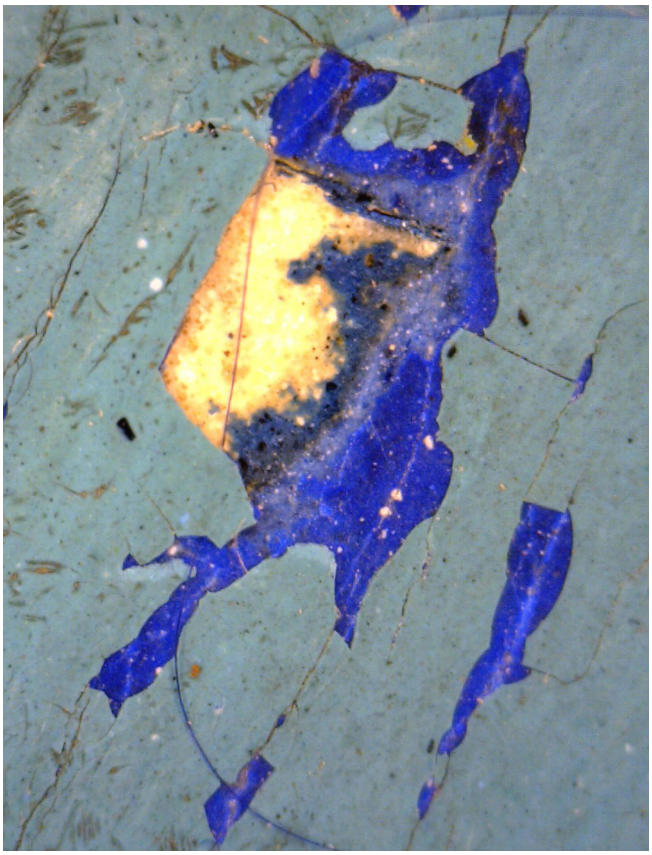
day light macrophotographyby DinoLight, details

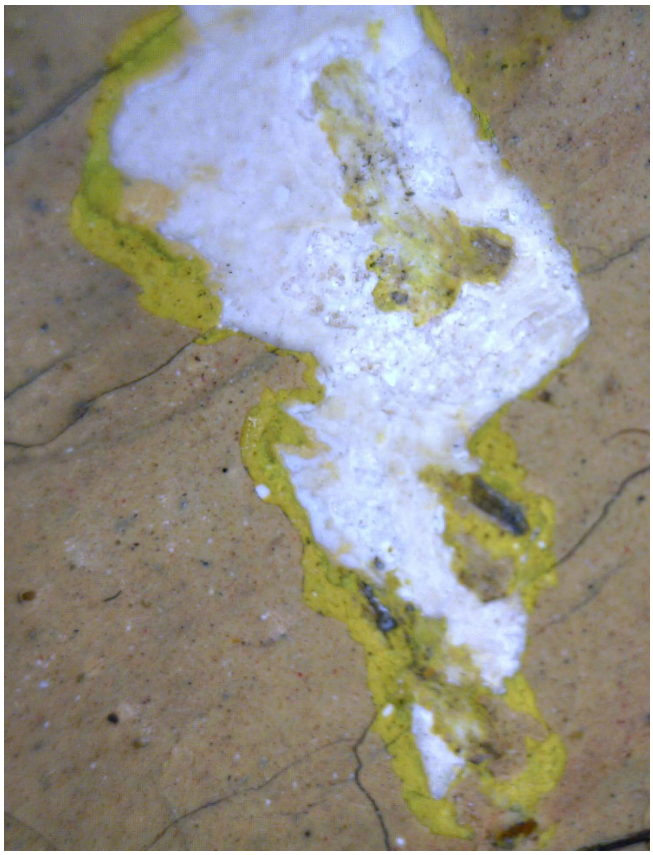






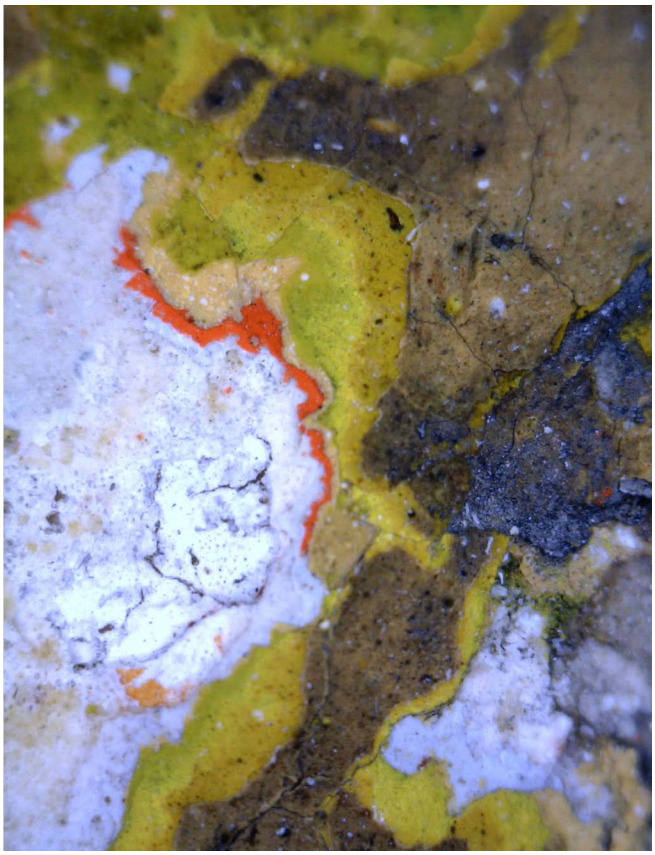


condition before treatment
day light macrophotography by DinoLight, details









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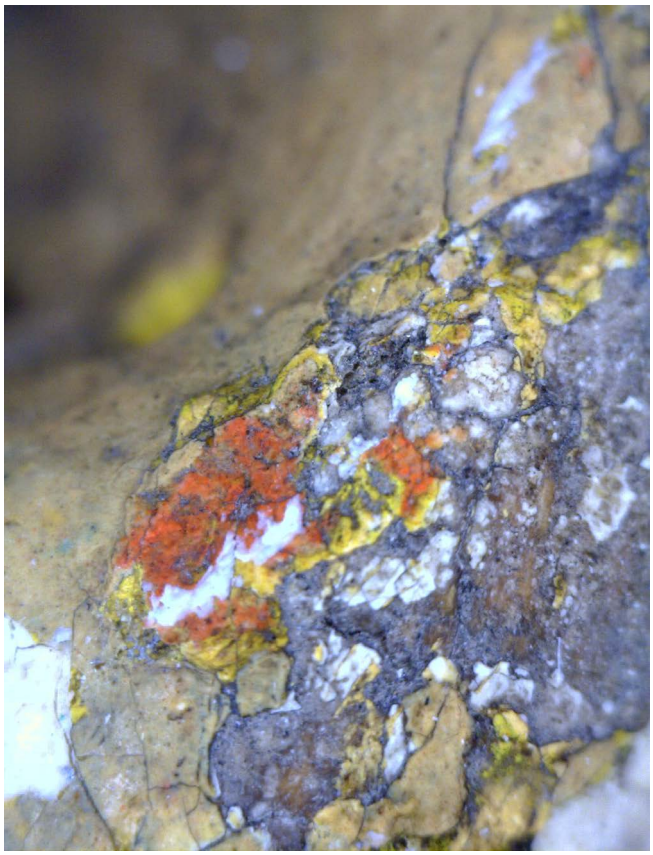
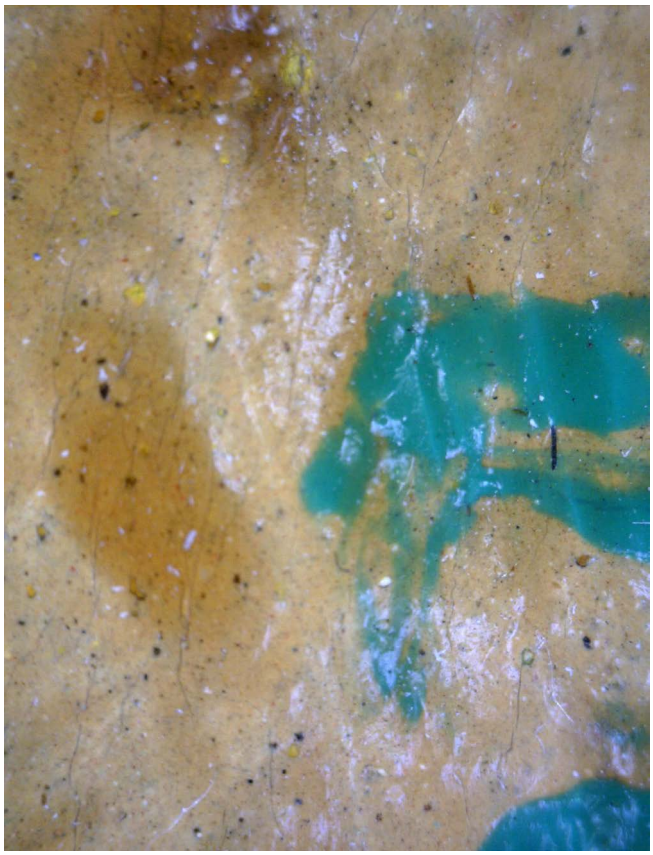
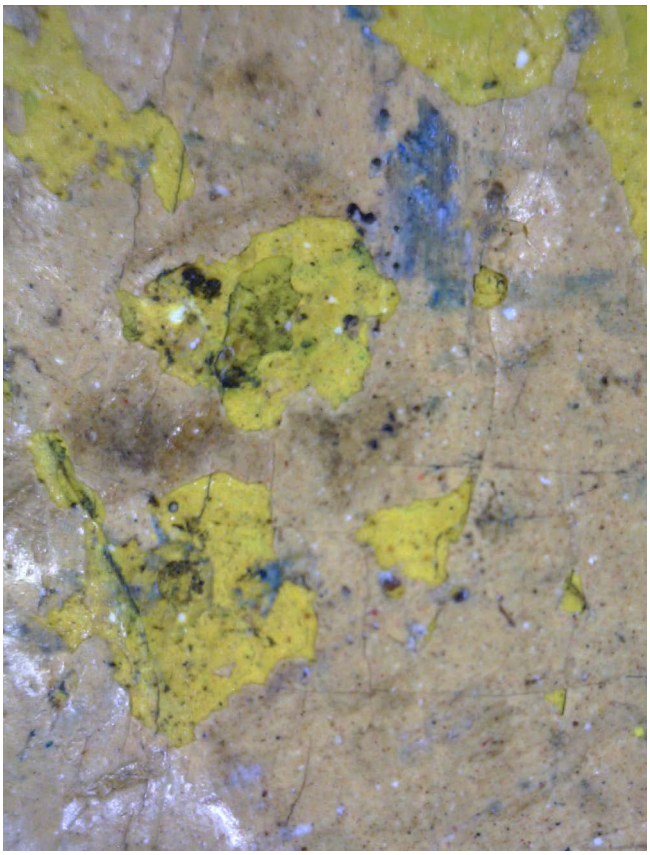
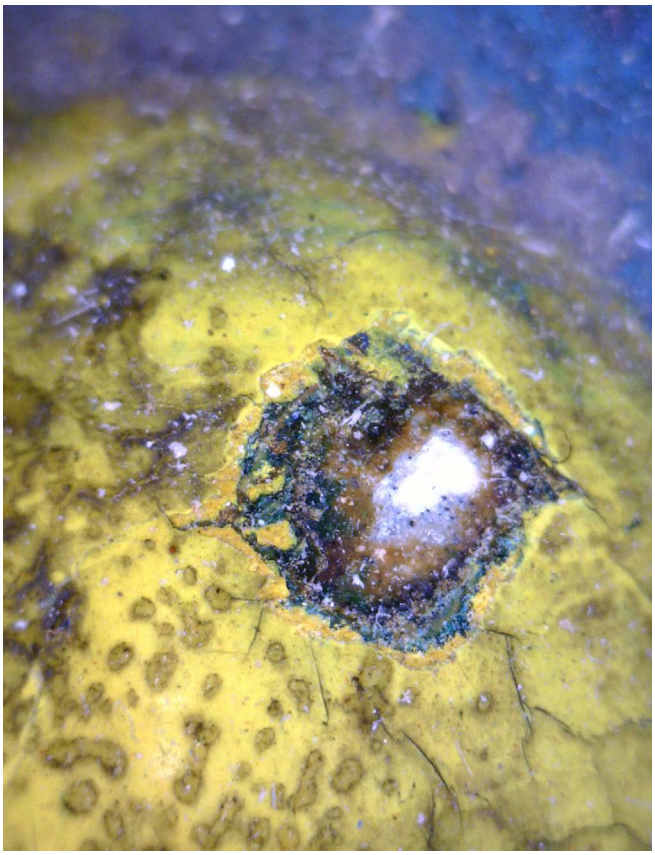


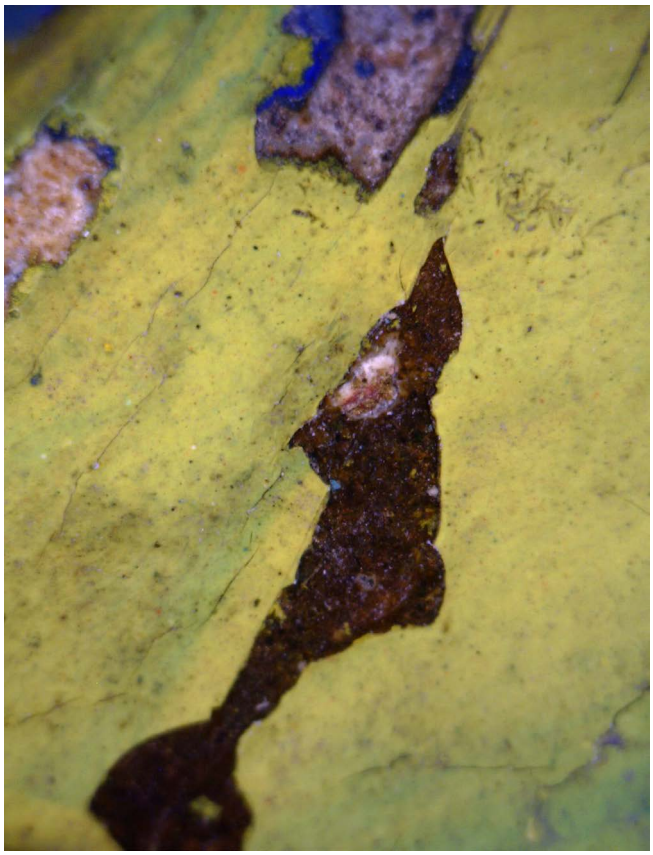


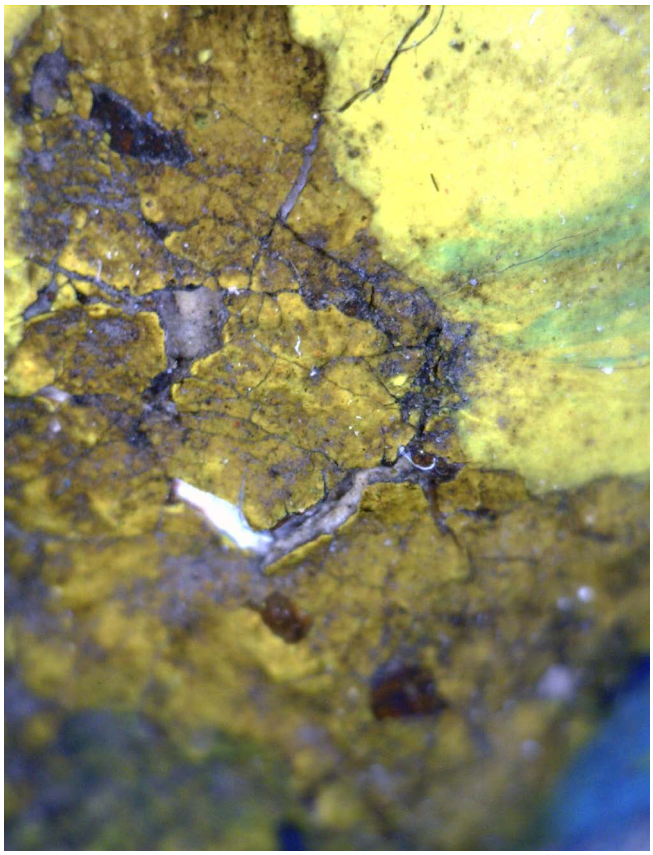


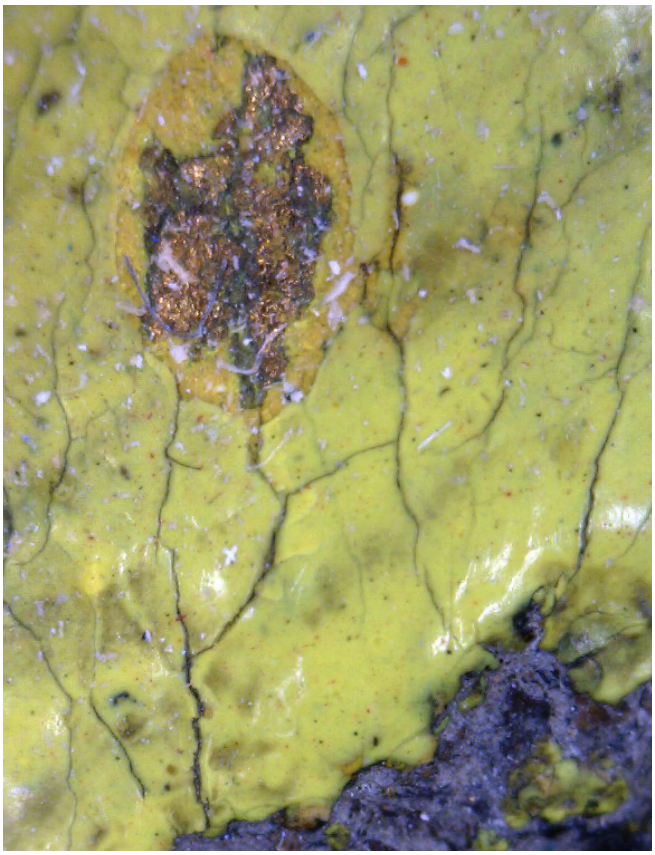


condition before treatment
day light macrophotography by DinoLight, details









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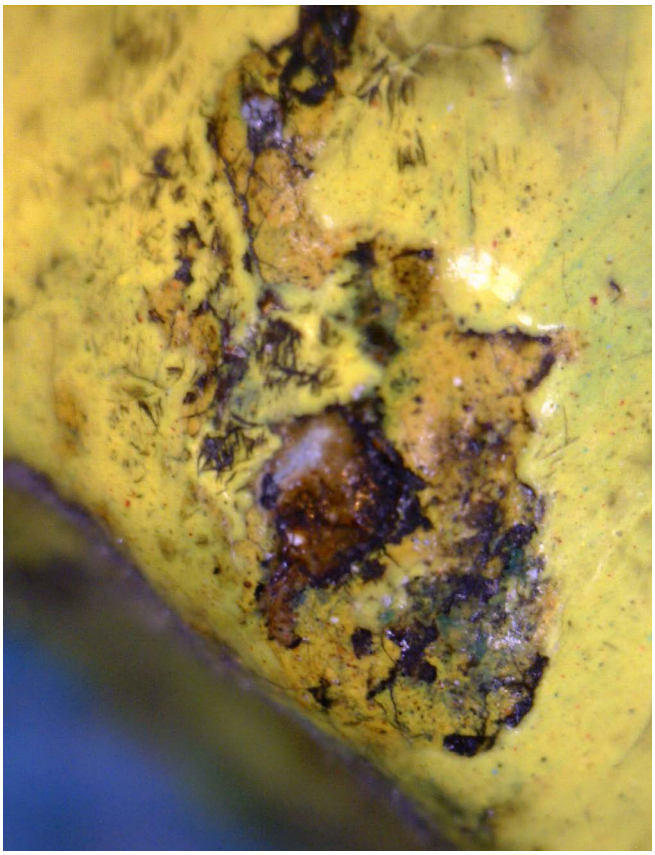
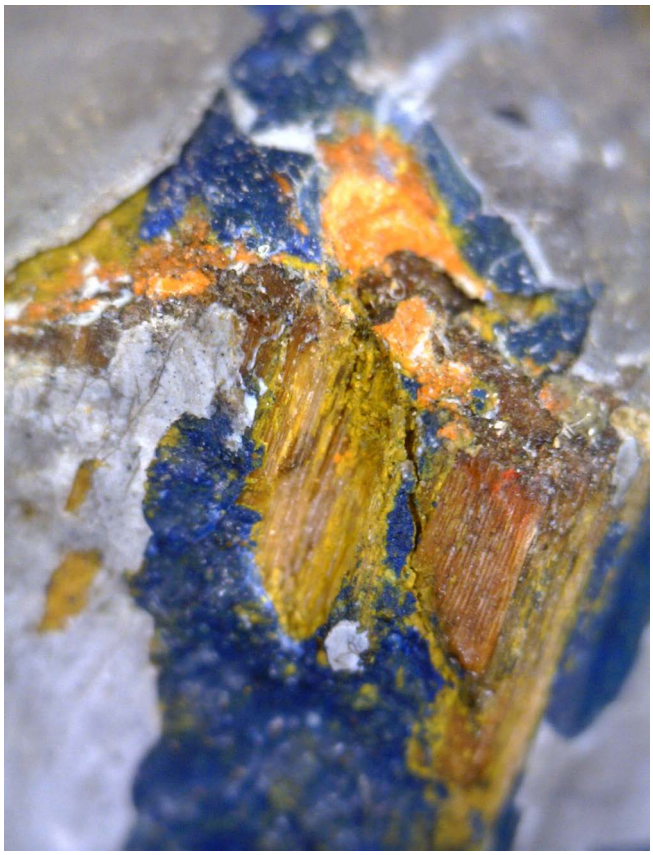
day light macrophotographyby DinoLight, details

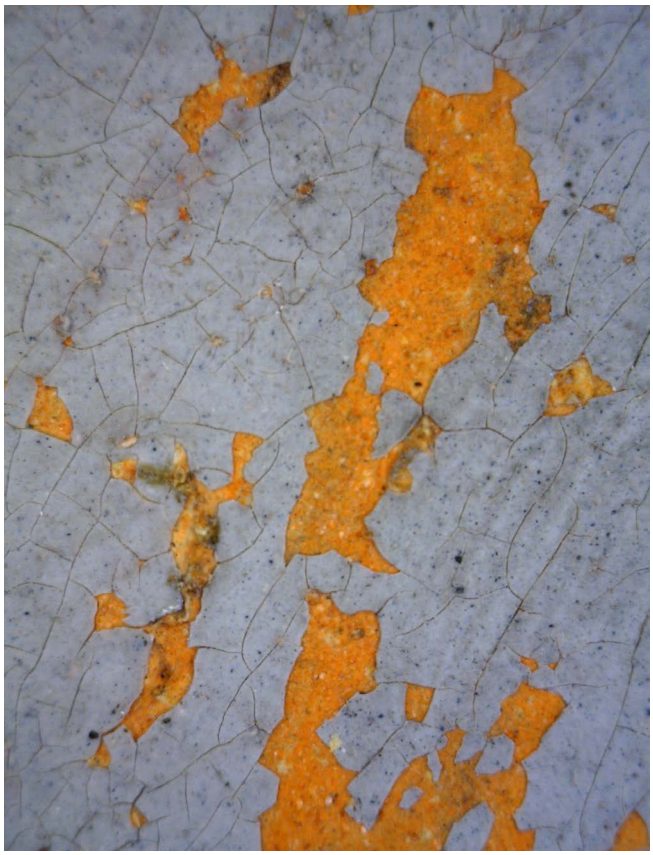




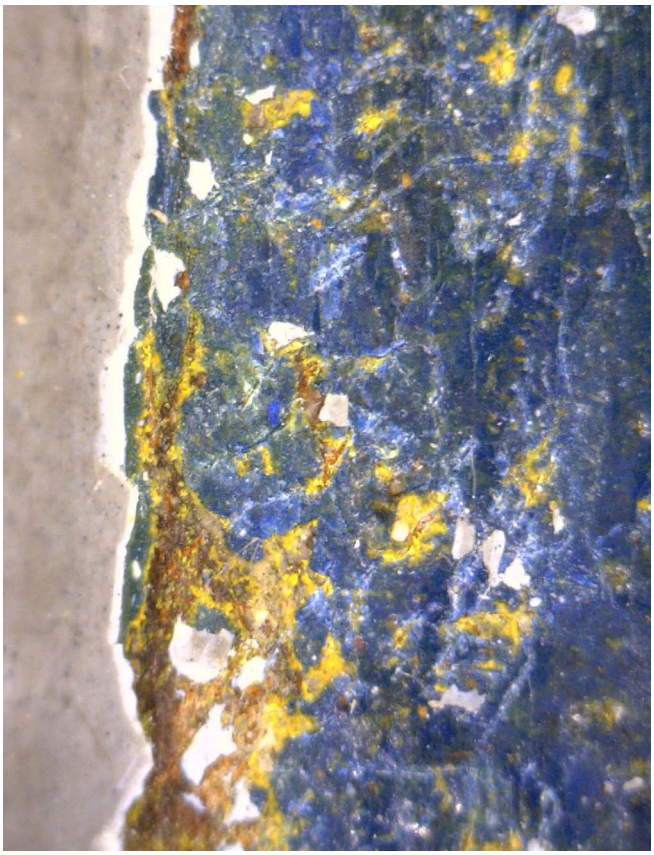




condition before treatment
day light macrophotography by DinoLight, details









condition before treatment
day light macrophotographyby DinoLight, details



straticrafic probes
day light photography



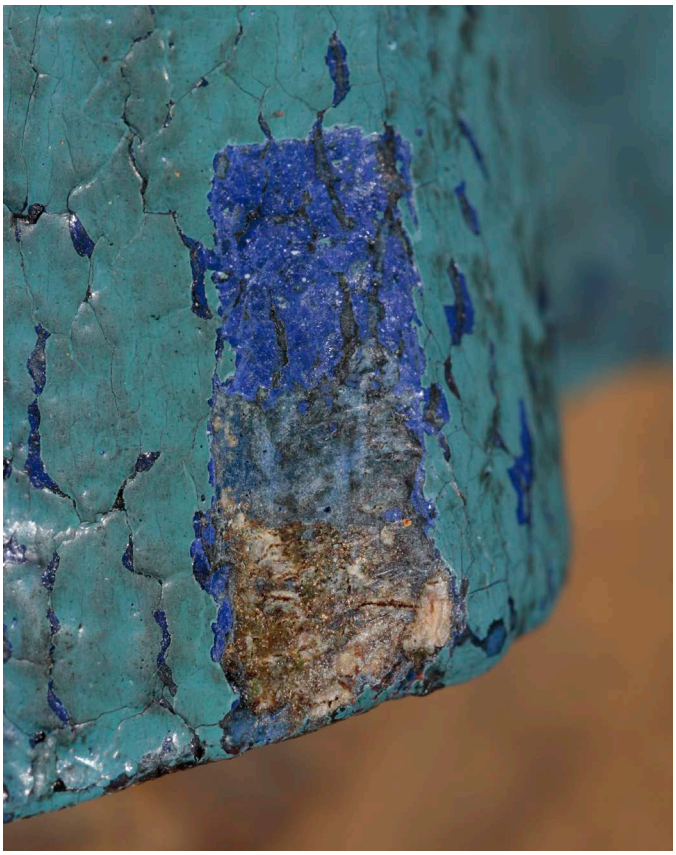
stratigrafic probes
UV luminiscence photography

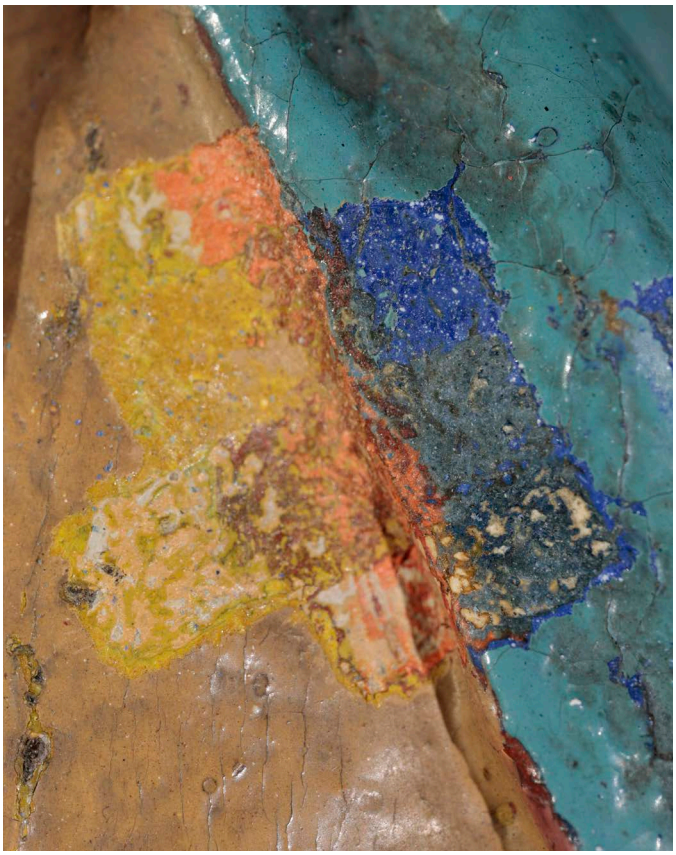


straticrafic probes
day light photography



stratigrafic probes
UV luminiscence photography





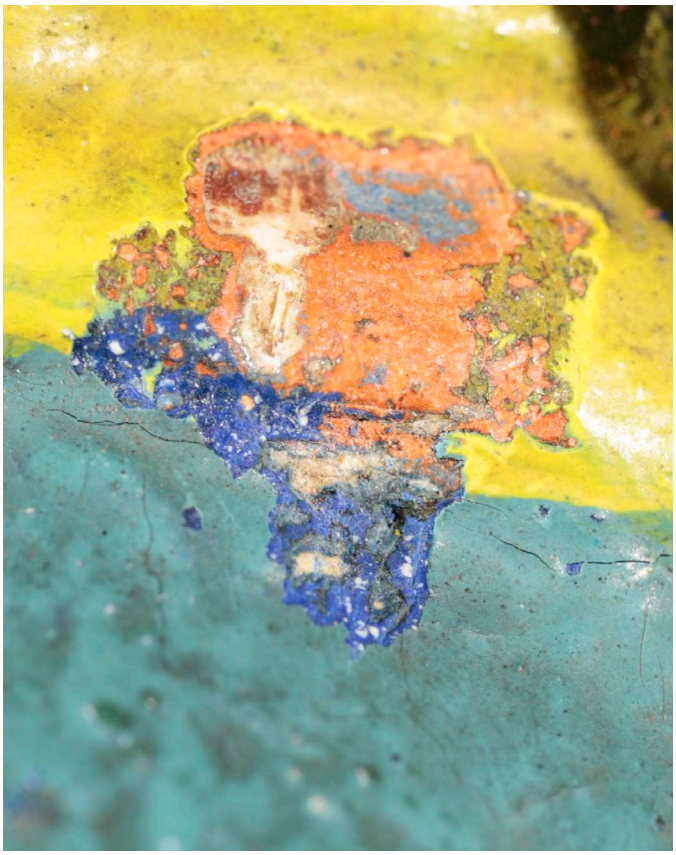




stratigrafic probes
day light photography









stratigrafic probes
day light photography





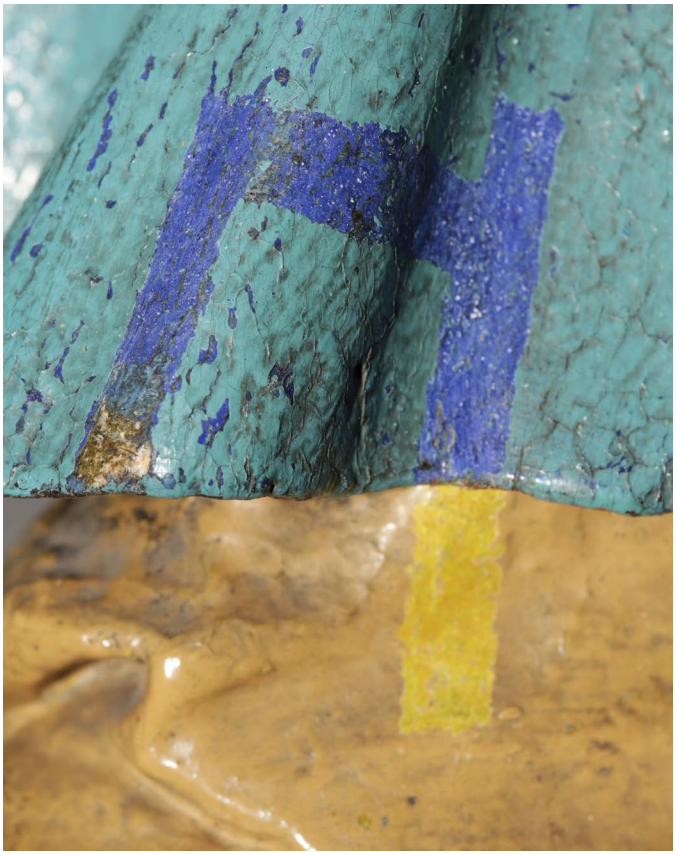


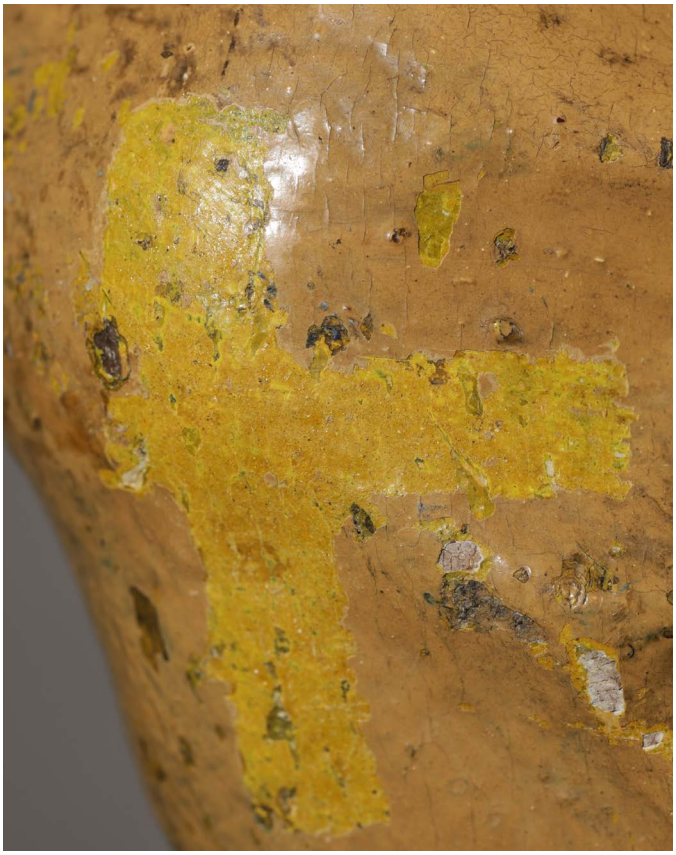


stratigrafic probes
day light photography

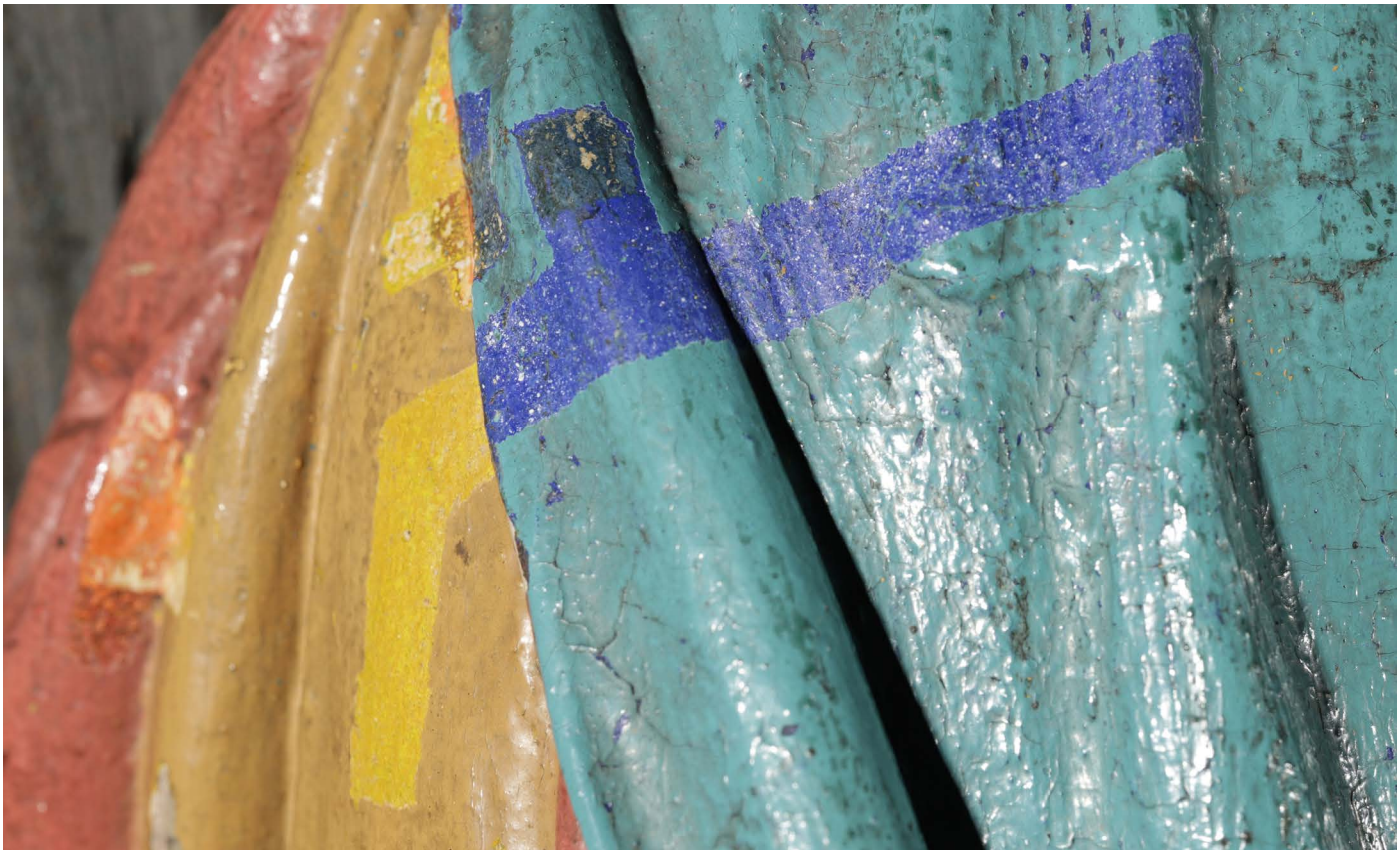






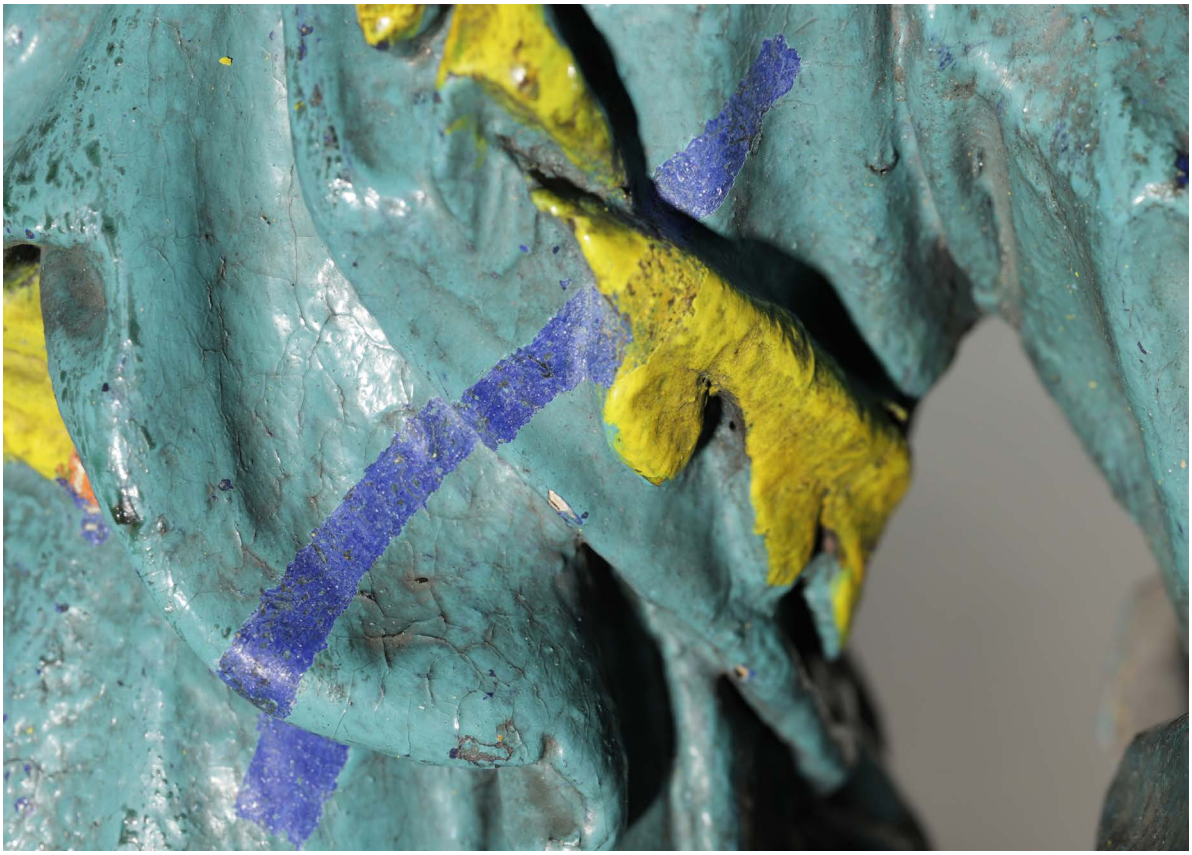


strip probes on the second youngest layer of polychromy





strip probes on the second youngest layer of polychromy







strip probes on the second youngest layer of polychromy



progress of the removal of the youngest polychromy layer
day light photography



progress of the removal of the youngest polychromy layer
UV luminiscence photography



progress of the removal of the youngest polychromy layer
day light photography



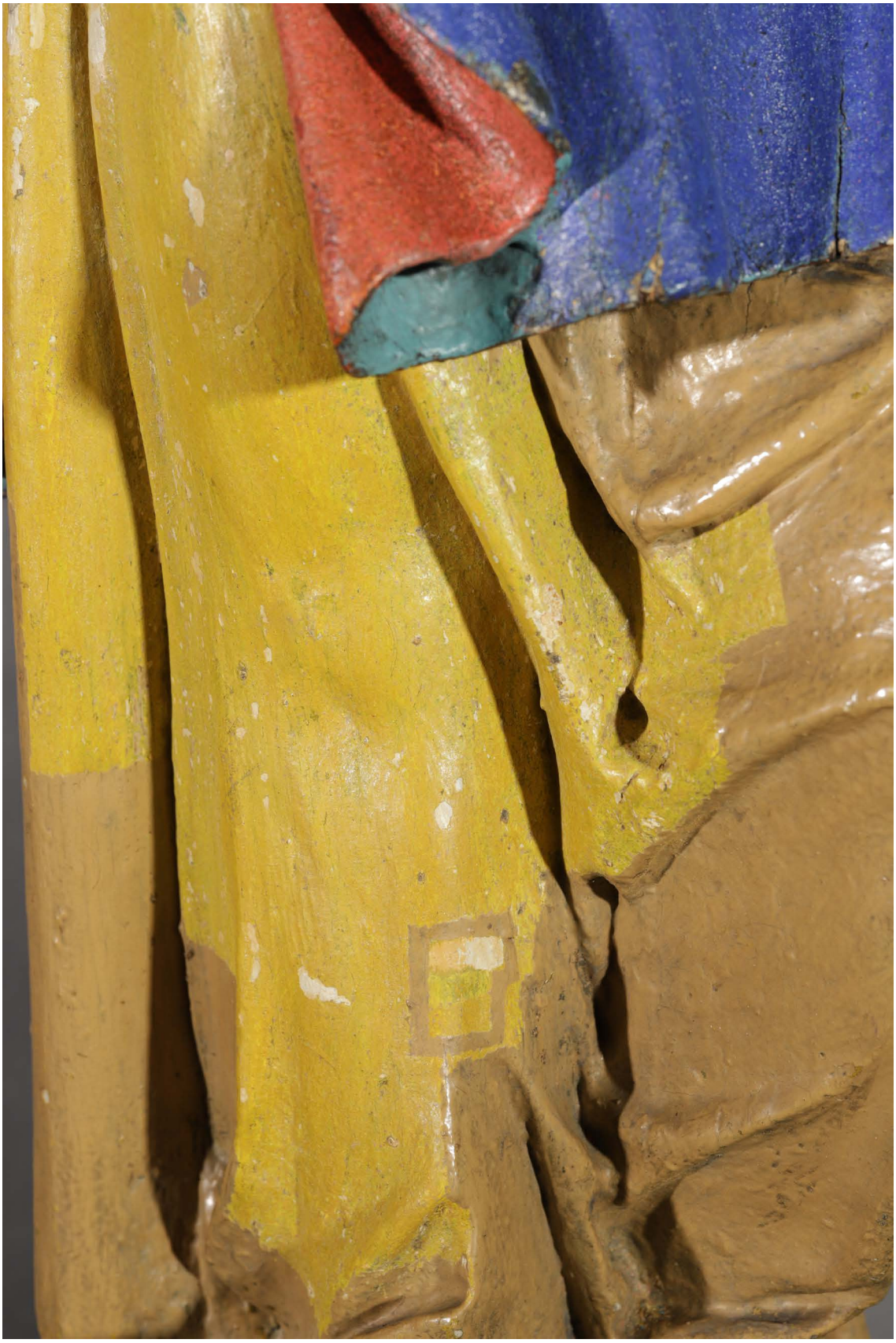
progress of the removal of the youngest polychromy layer
UV luminiscence photography



progress of the removal of the youngest polychromy layer
day light photography, detail



progress of the removal of the youngest polychromy layer
UV luminiscence photography, detail



progress of the removal of the youngest polychromy layer
day light photography, detail



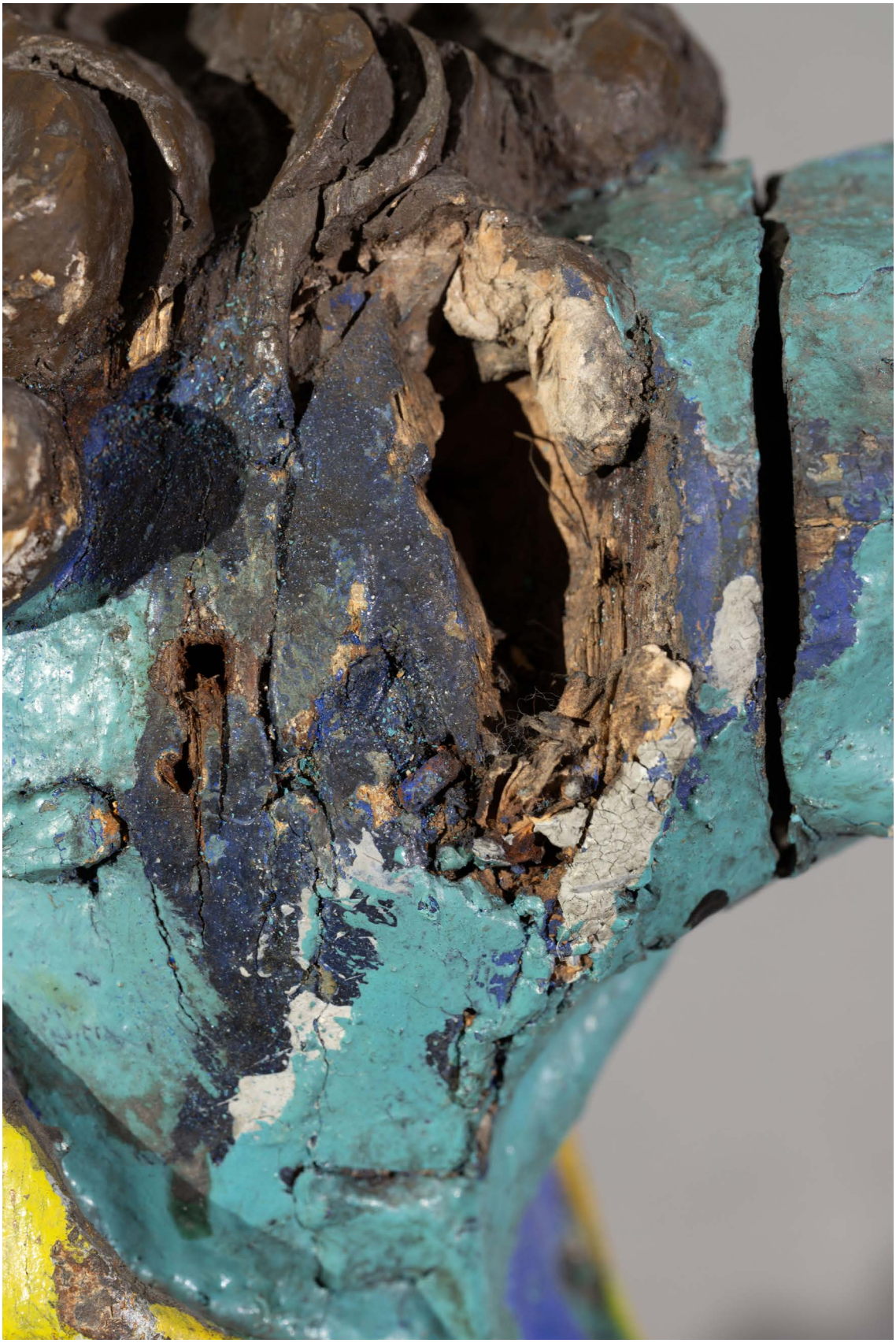
progress of the removal of the youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



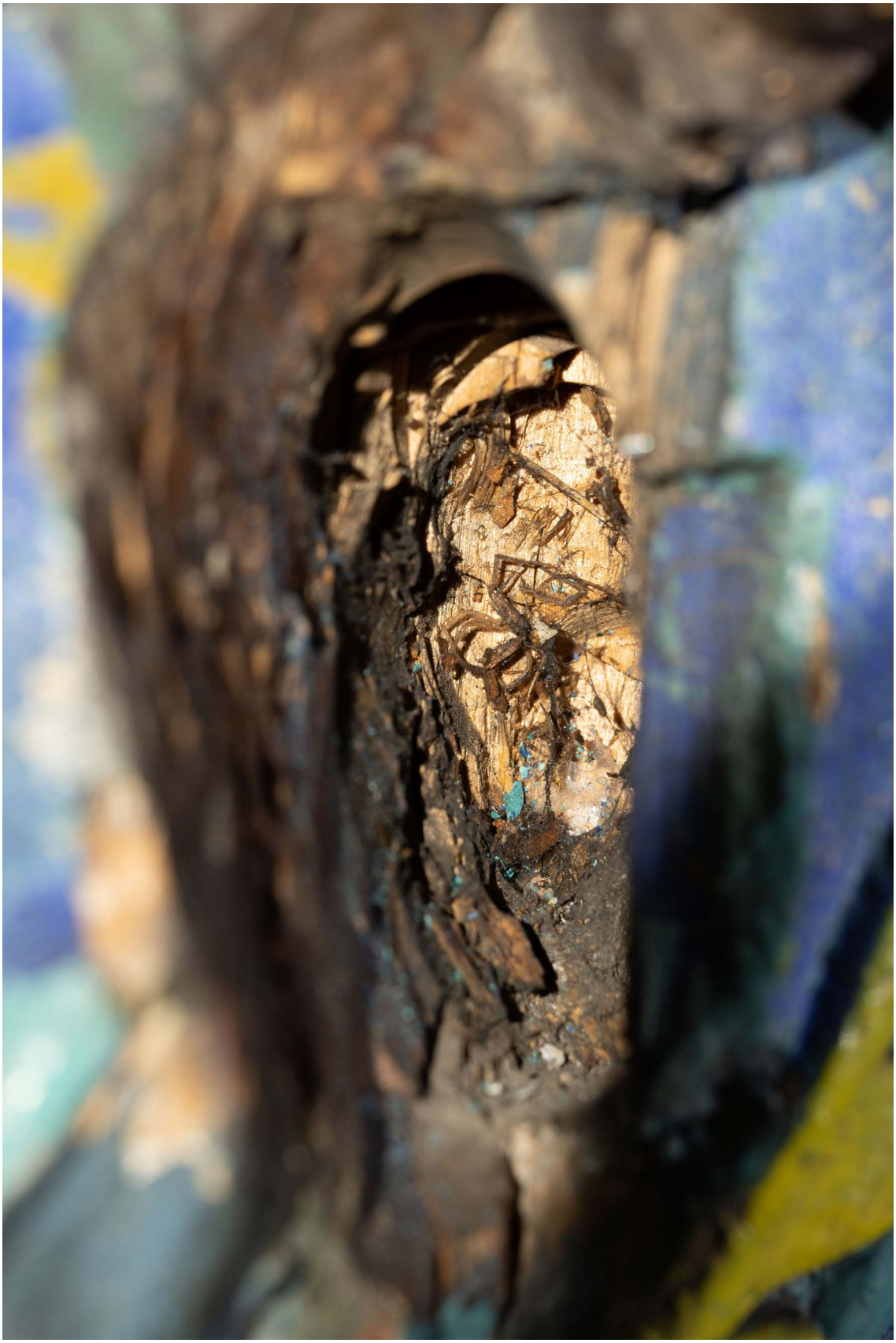
condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the youngest polychromy layer
day light photography



condition after removal of the youngest polychromy layer
UV luminiscence photography



condition after removal of the youngest polychromy layer
day light photography



condition after removal of the youngest polychromy layer
UV luminiscence photography



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



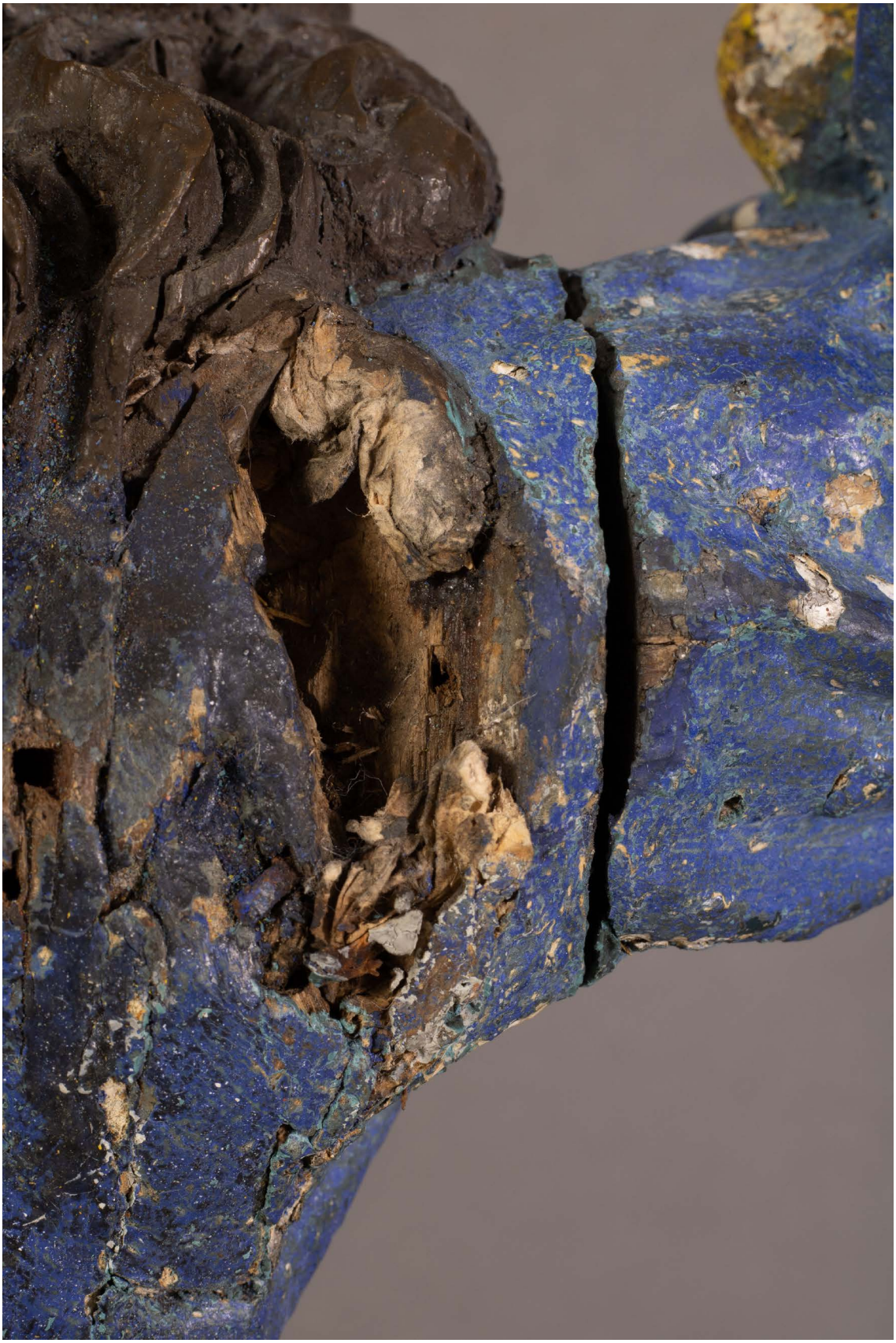
condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail



condition after removal of the youngest polychromy layer
day light photography, detail





condition after removal of the youngest polychromy layer
day light photography, details





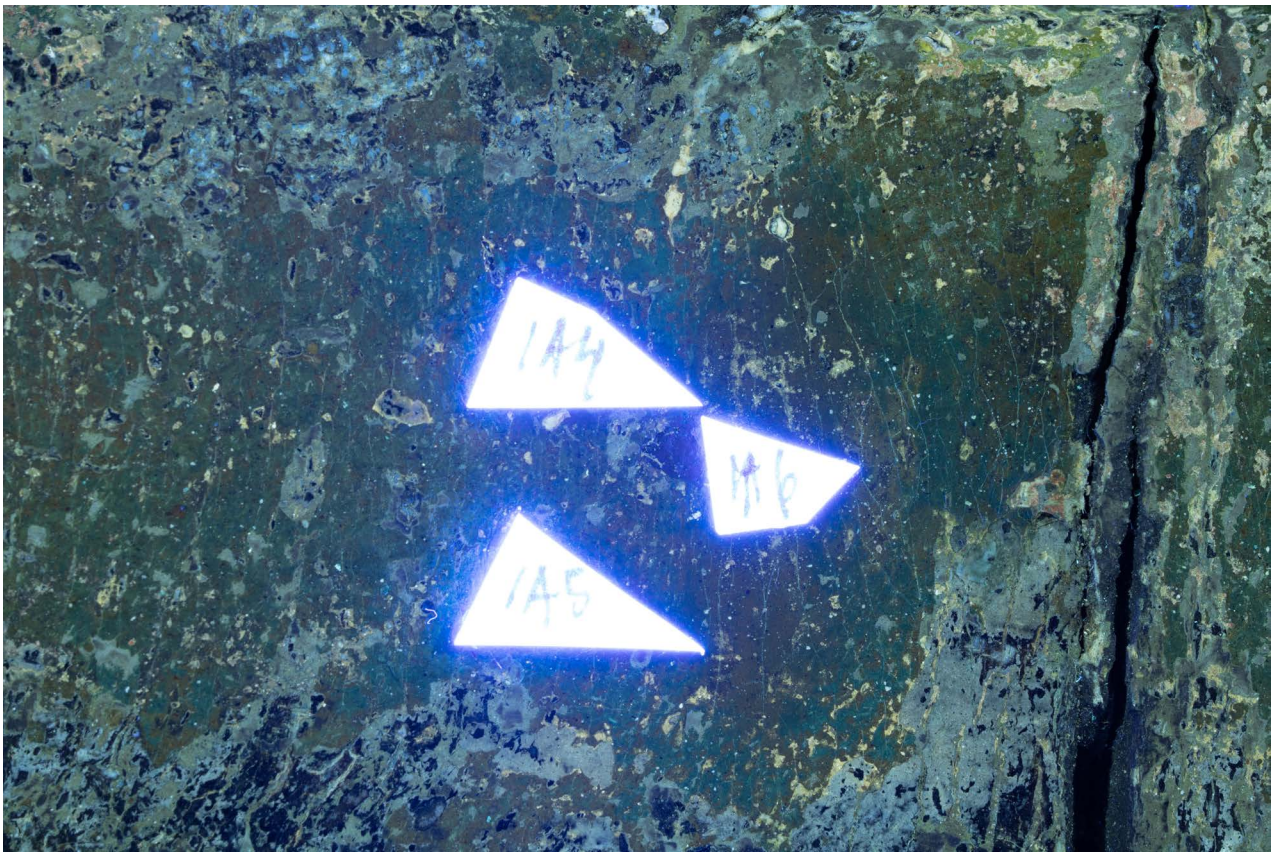
condition after removal of the youngest polychromy layer
day light photography, details



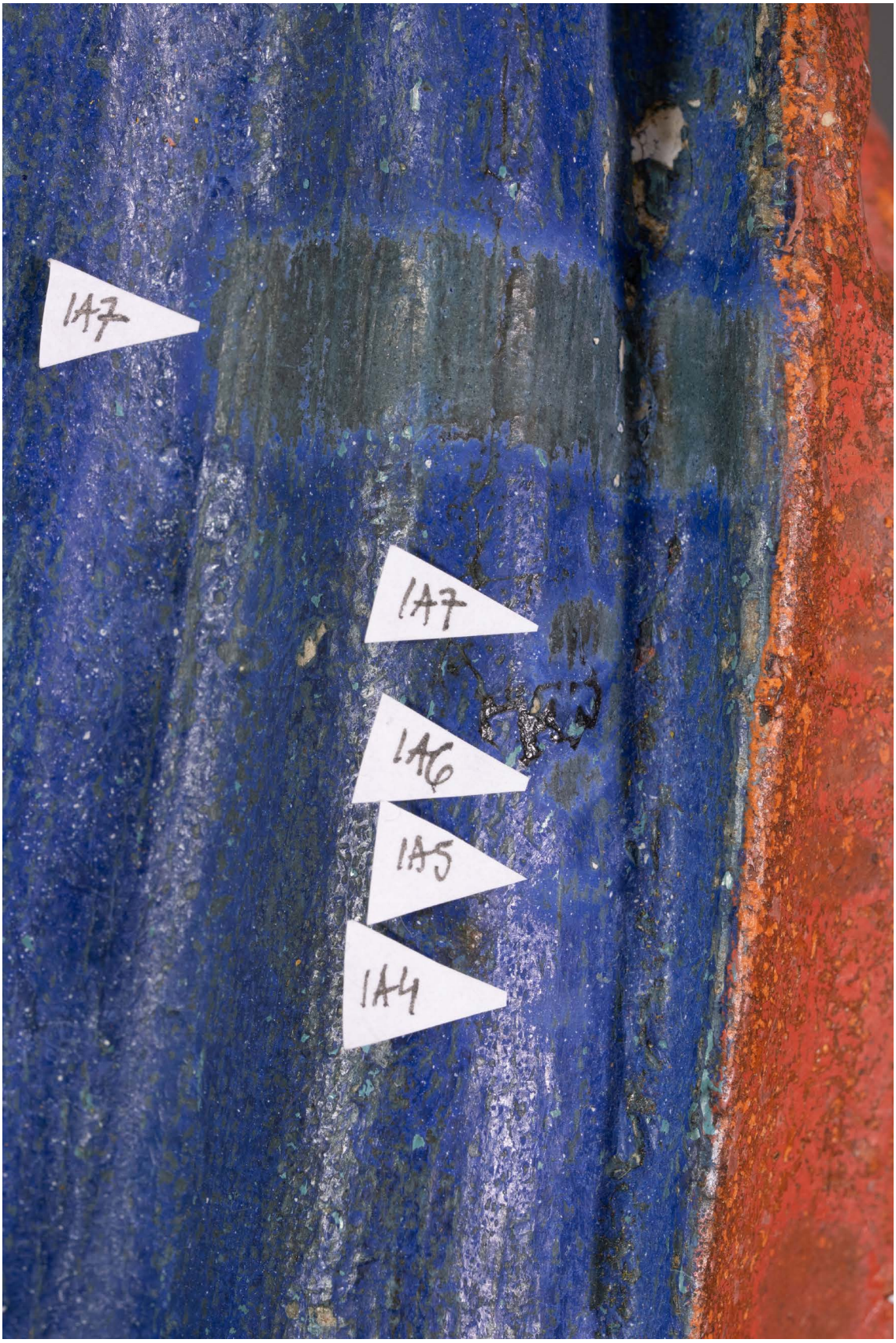


condition after removal of the youngest polychromy layer
day light photography, details





solubility tests of the second youngest polychromy layer
day light and UV luminiscence photography



solubility tests of the second youngest polychromy layer
day light photography



solubility tests of the second youngest polychromy layer
UV luminiscence photography

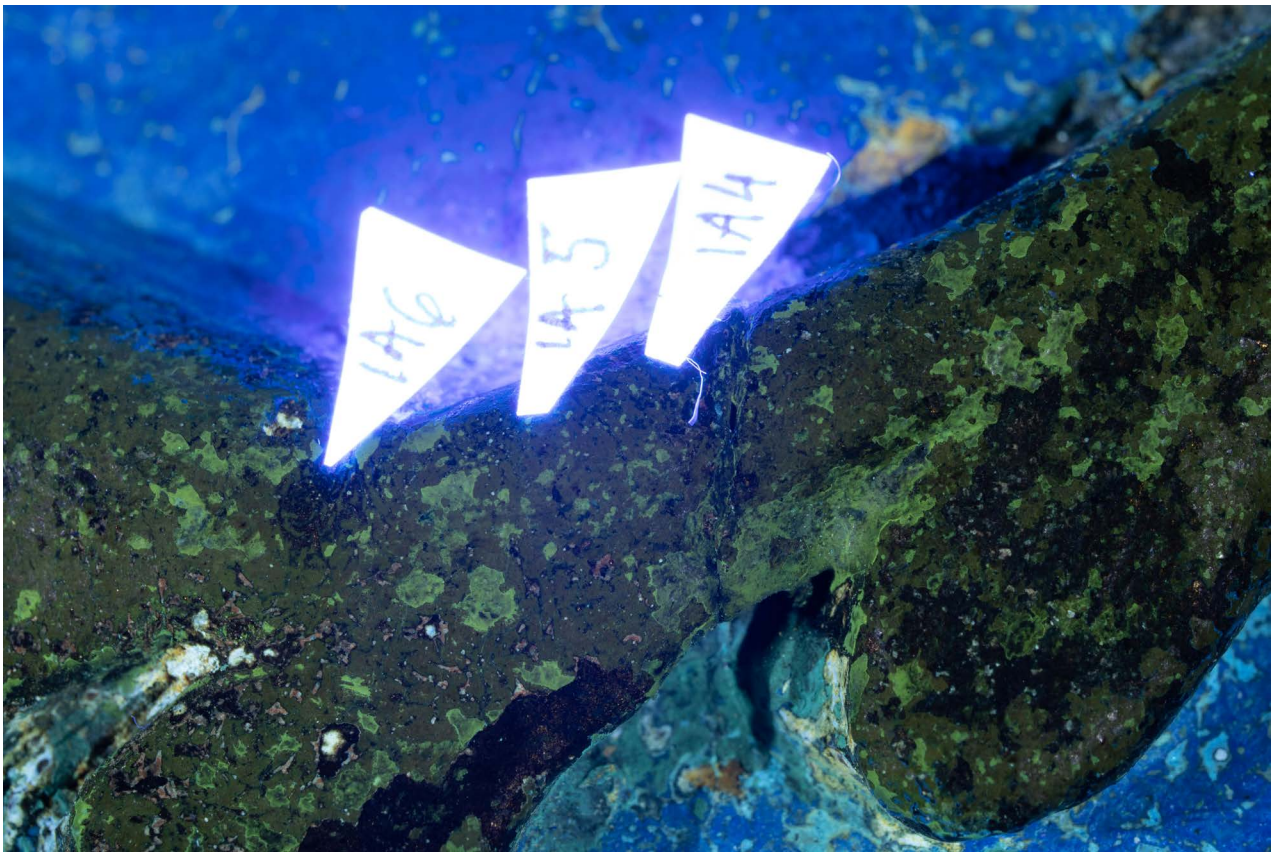


solubility tests of the second youngest polychromy layer
day light photography

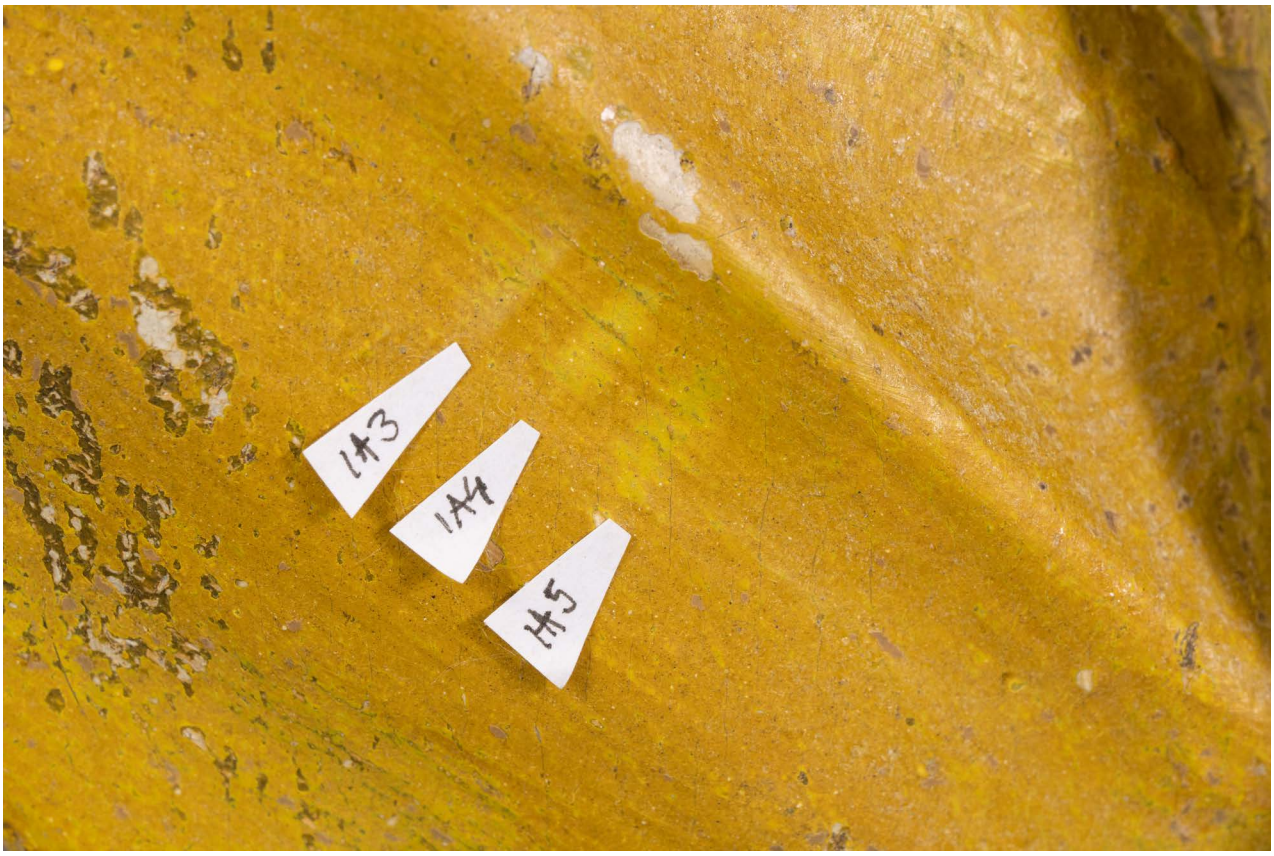


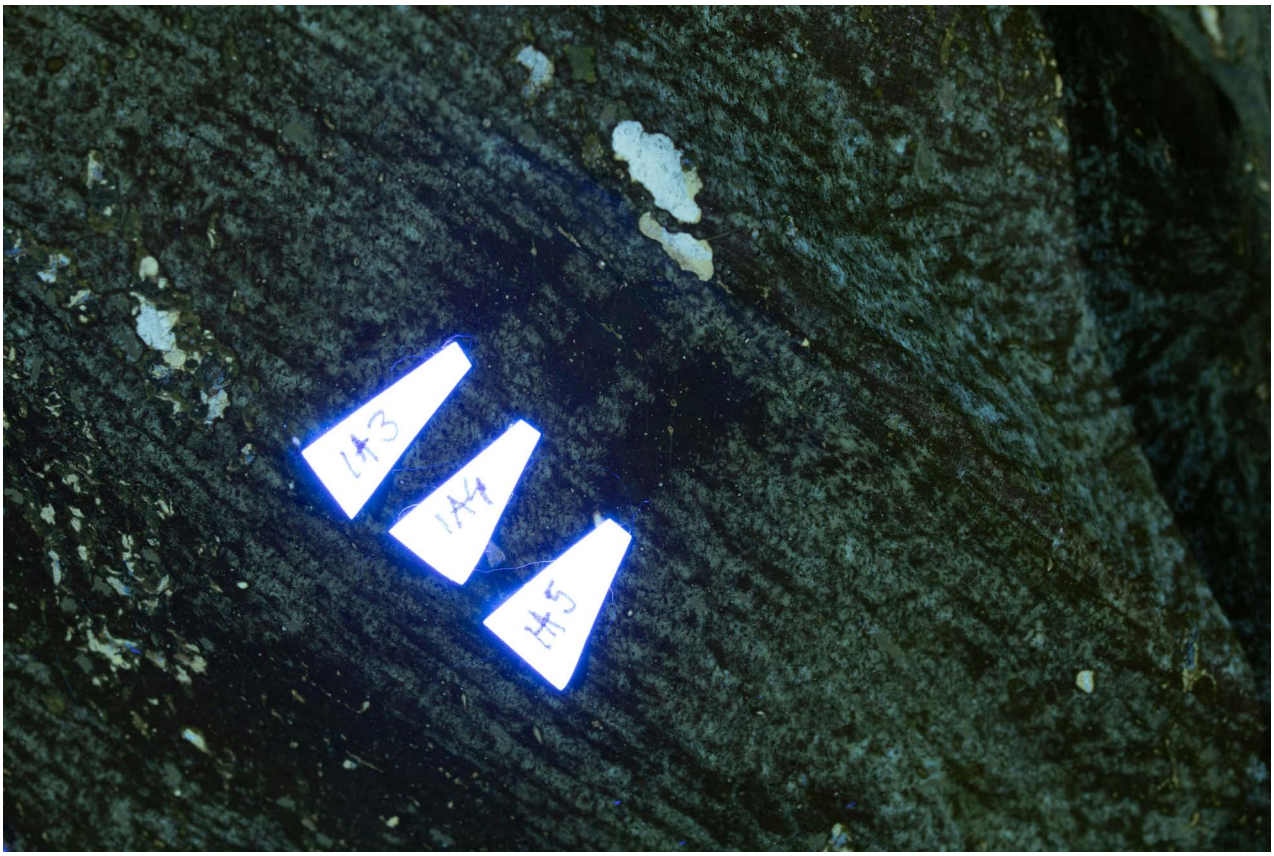
solubility tests of the second youngest polychromy layer
UV luminiscence photography



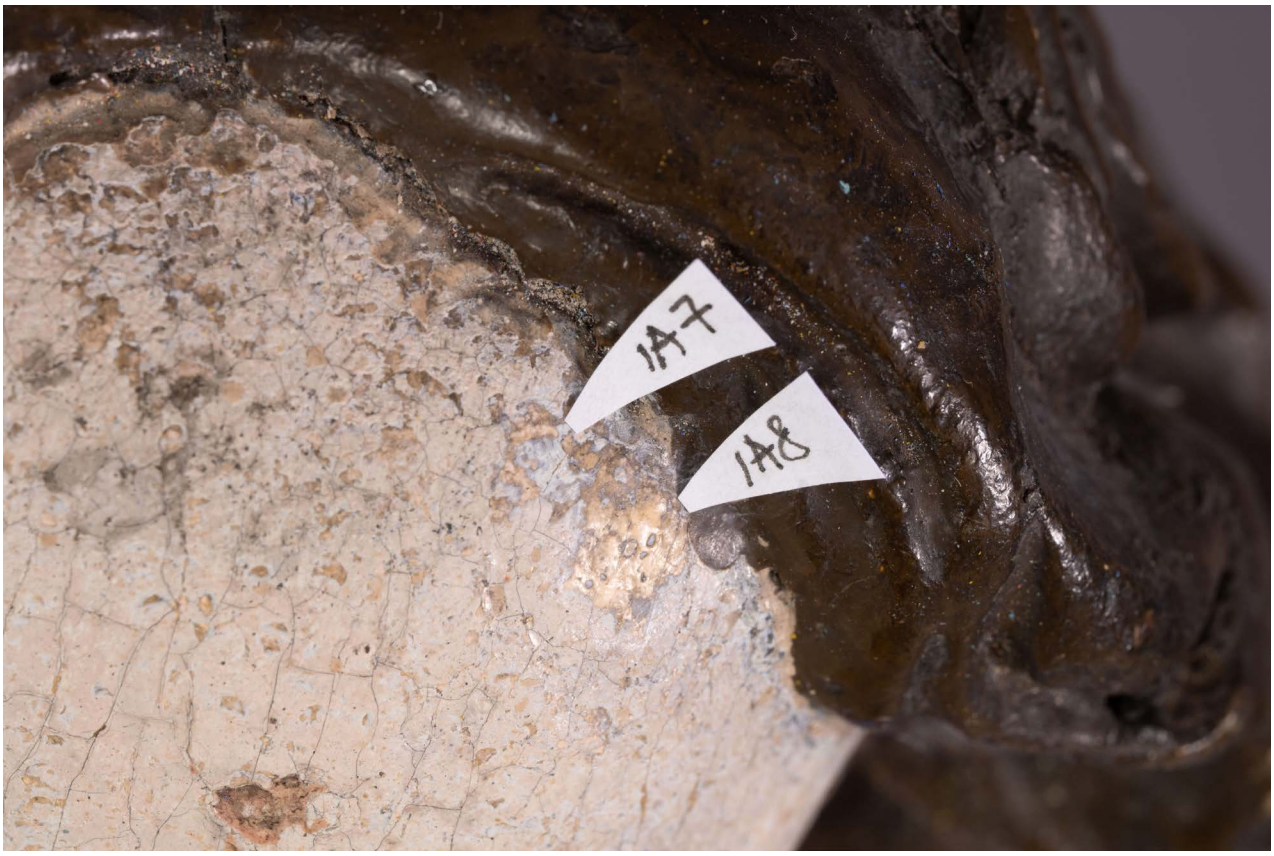


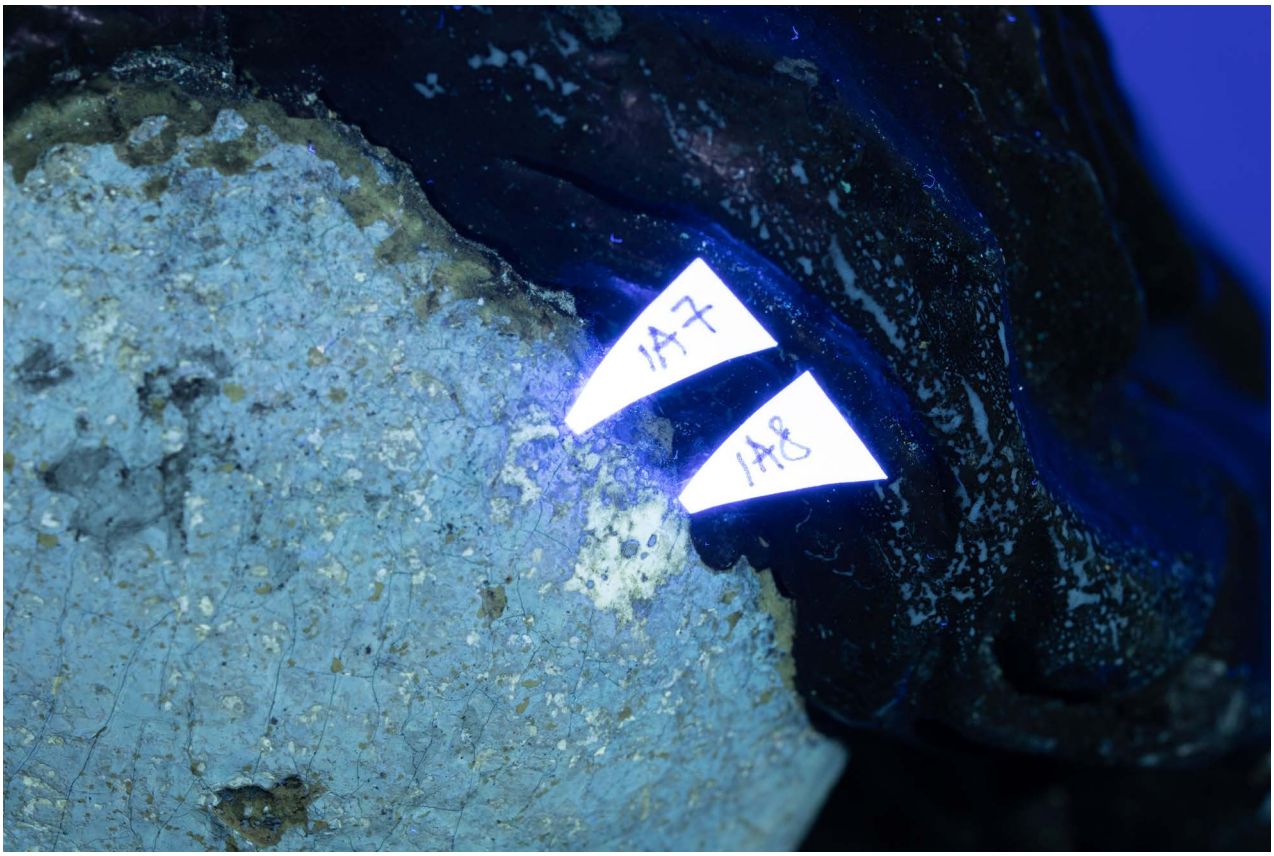
solubility tests of the second youngest polychromy layer
day light and UV luminiscence photography





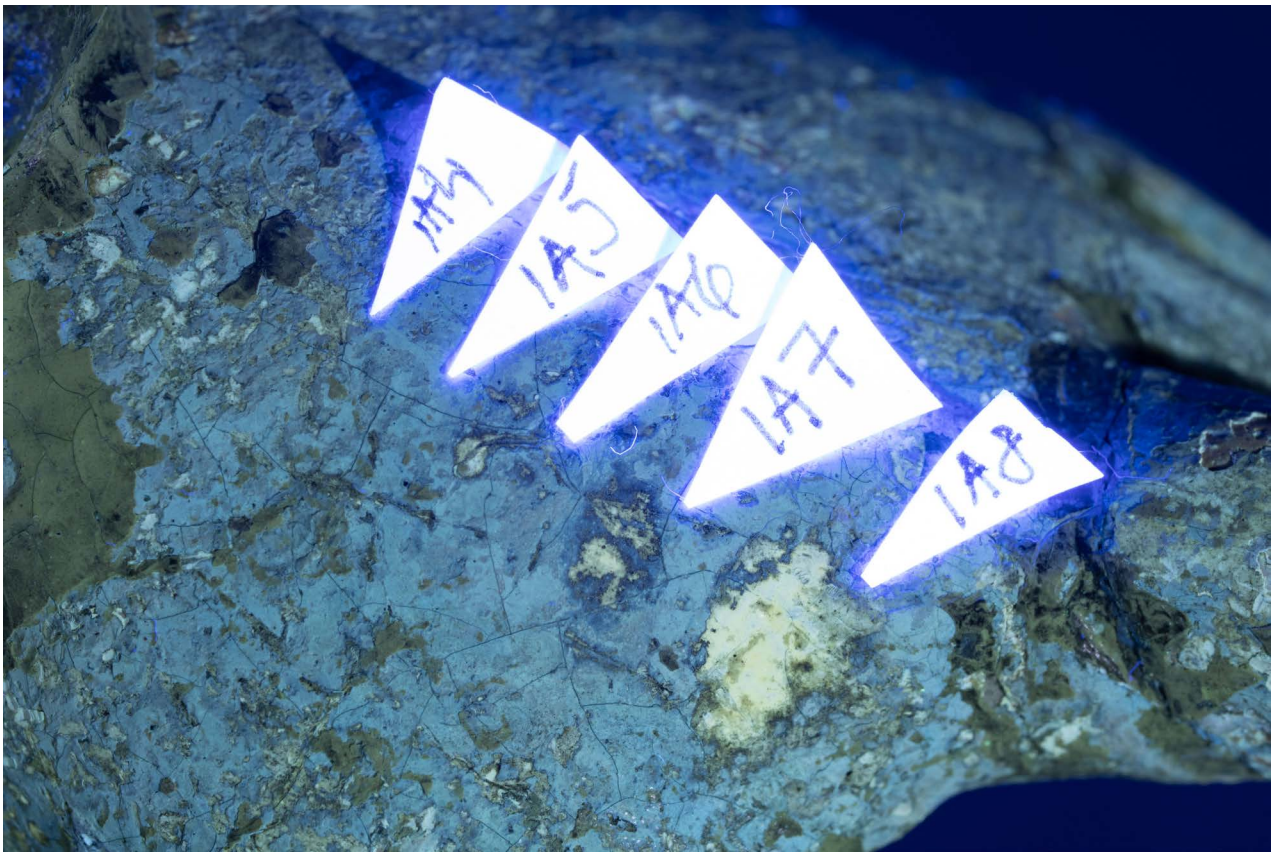
solubility tests of the second youngest polychromy layer
day light and UV luminiscence photography





solubility tests of the second youngest polychromy layer
day light and UV luminiscence photography





solubility tests of the second youngest polychromy layer
day light and UV luminiscence photography



condition during the removal of the second youngest polychromy layer
day light photography, detail



condition during the removal of the second youngest polychromy layer
UV luminiscence photography, detail



condition during the removal of the second youngest polychromy layer
day light photography, detail



condition during the removal of the second youngest polychromy layer
UV luminiscence photography, detail

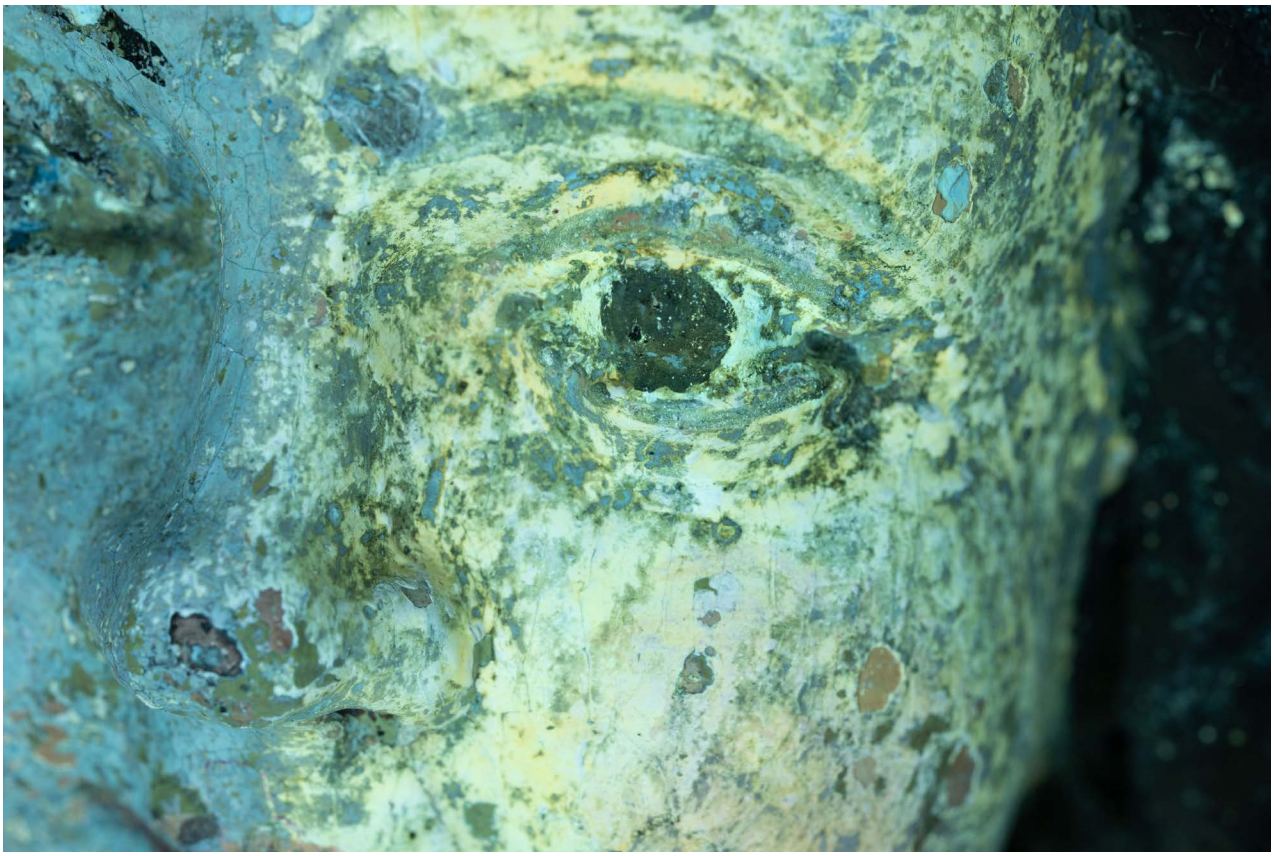


condition during the removal of the second youngest polychromy layer
day light photography, detail



condition during the removal of the second youngest polychromy layer
UV luminiscence photography, detail





condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details





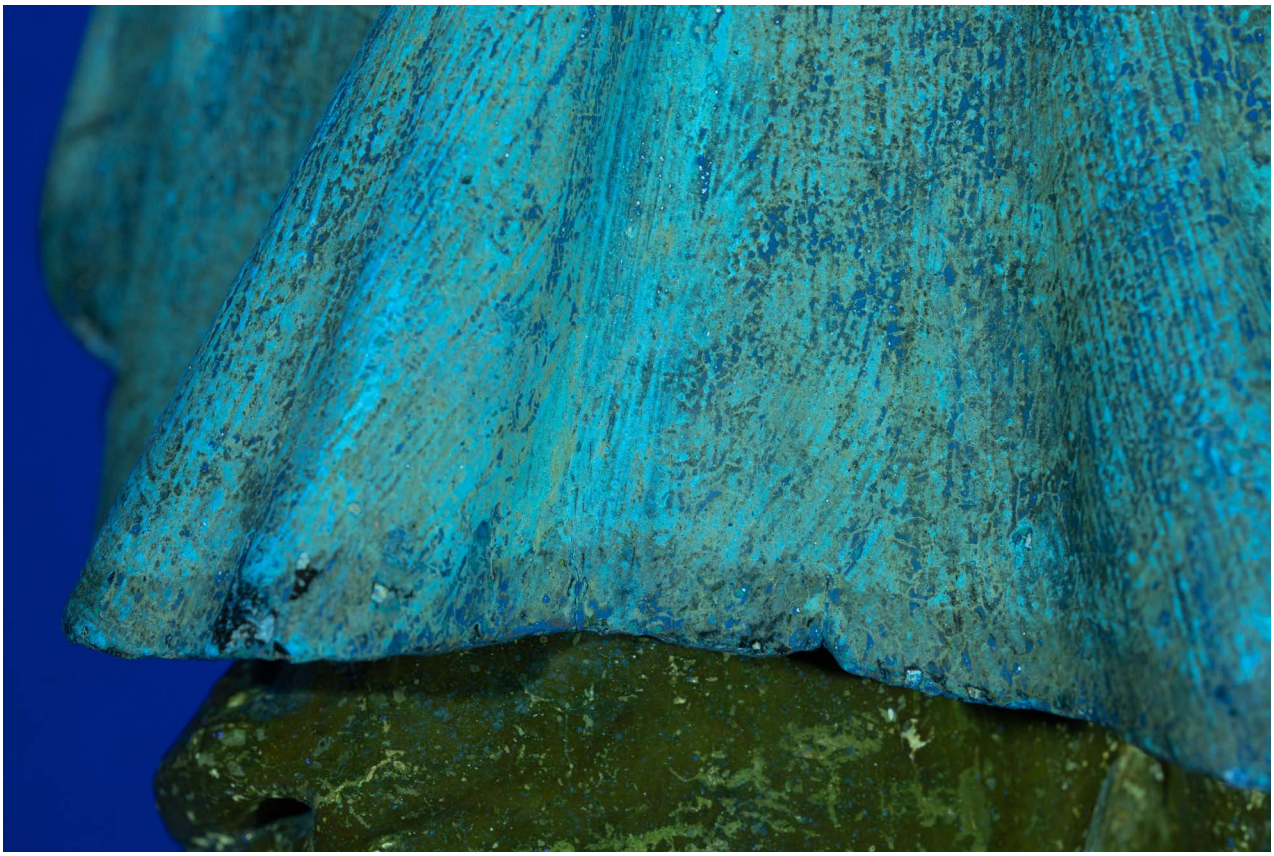
condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details





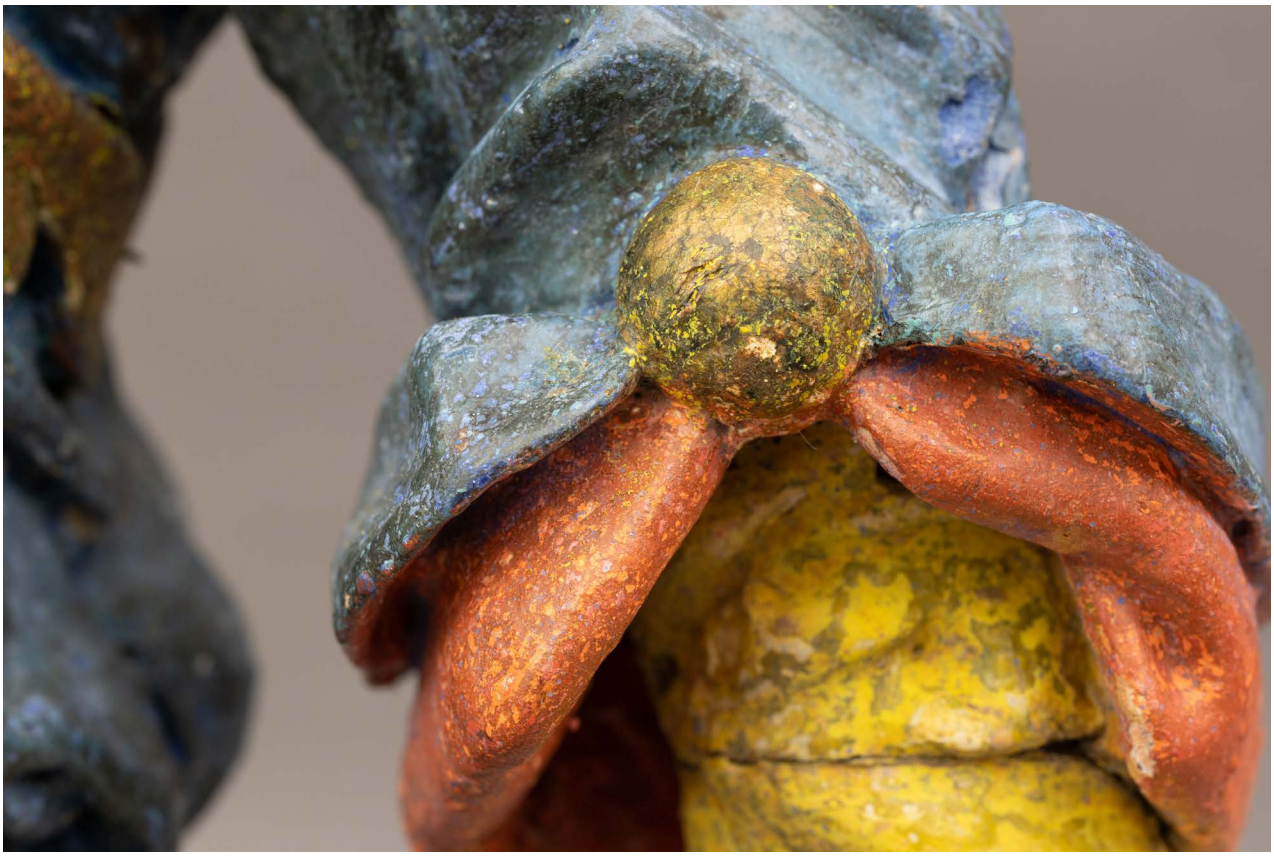
condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details





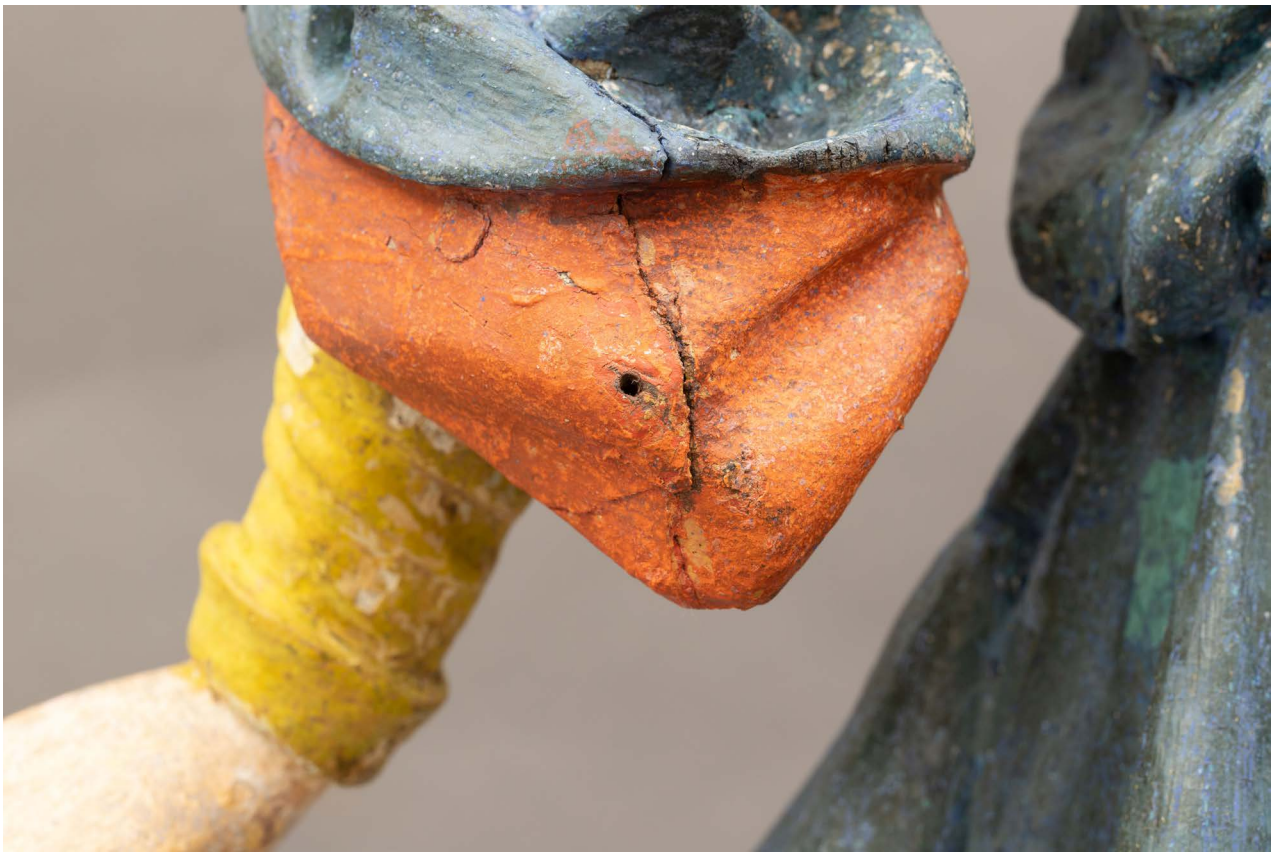
condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details





condition during the removal of the second youngest polychromy layer
day light photography, details





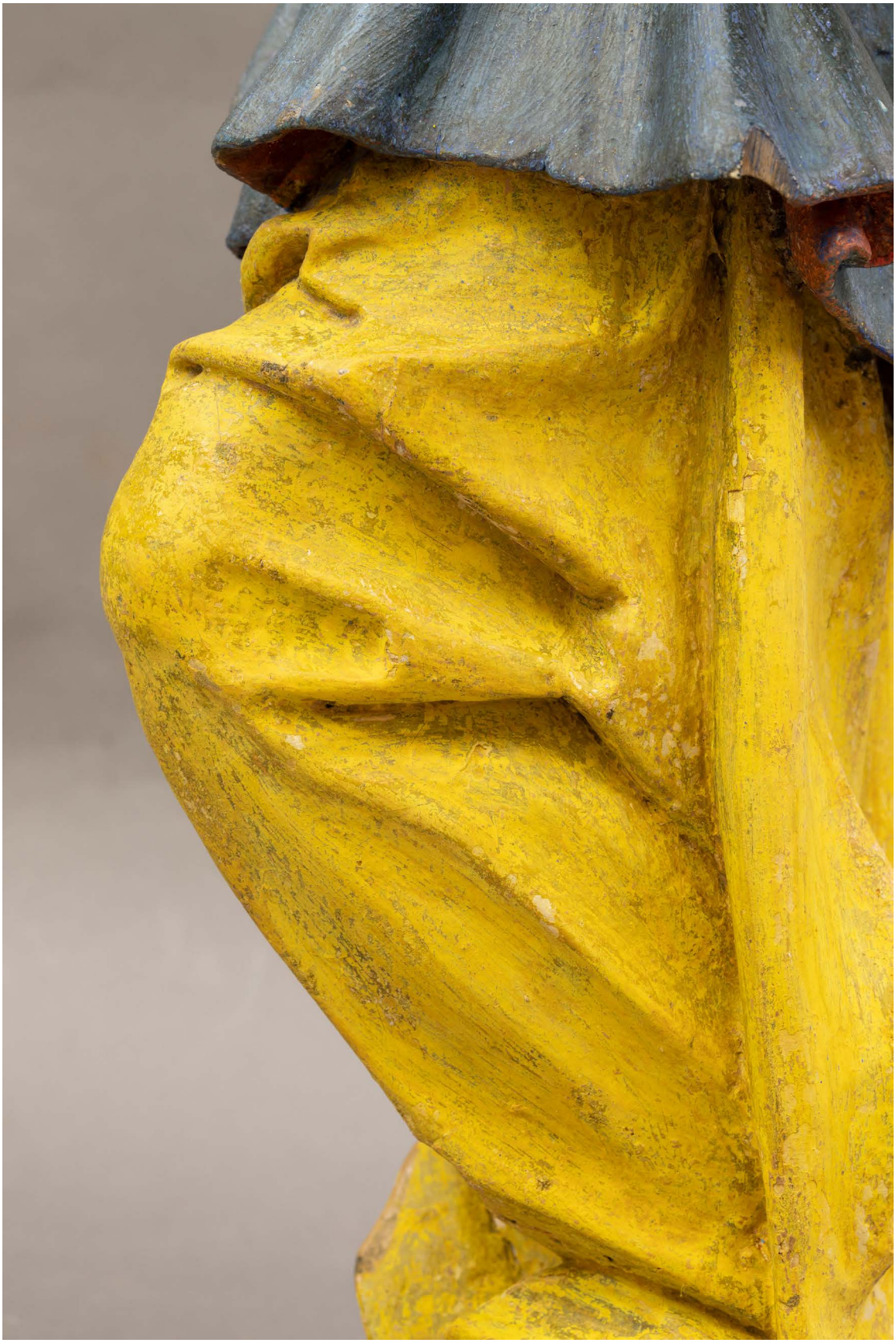
condition during the removal of the second youngest polychromy layer
day light photography, details



condition during the removal of the second youngest polychromy layer
day light photography, detail



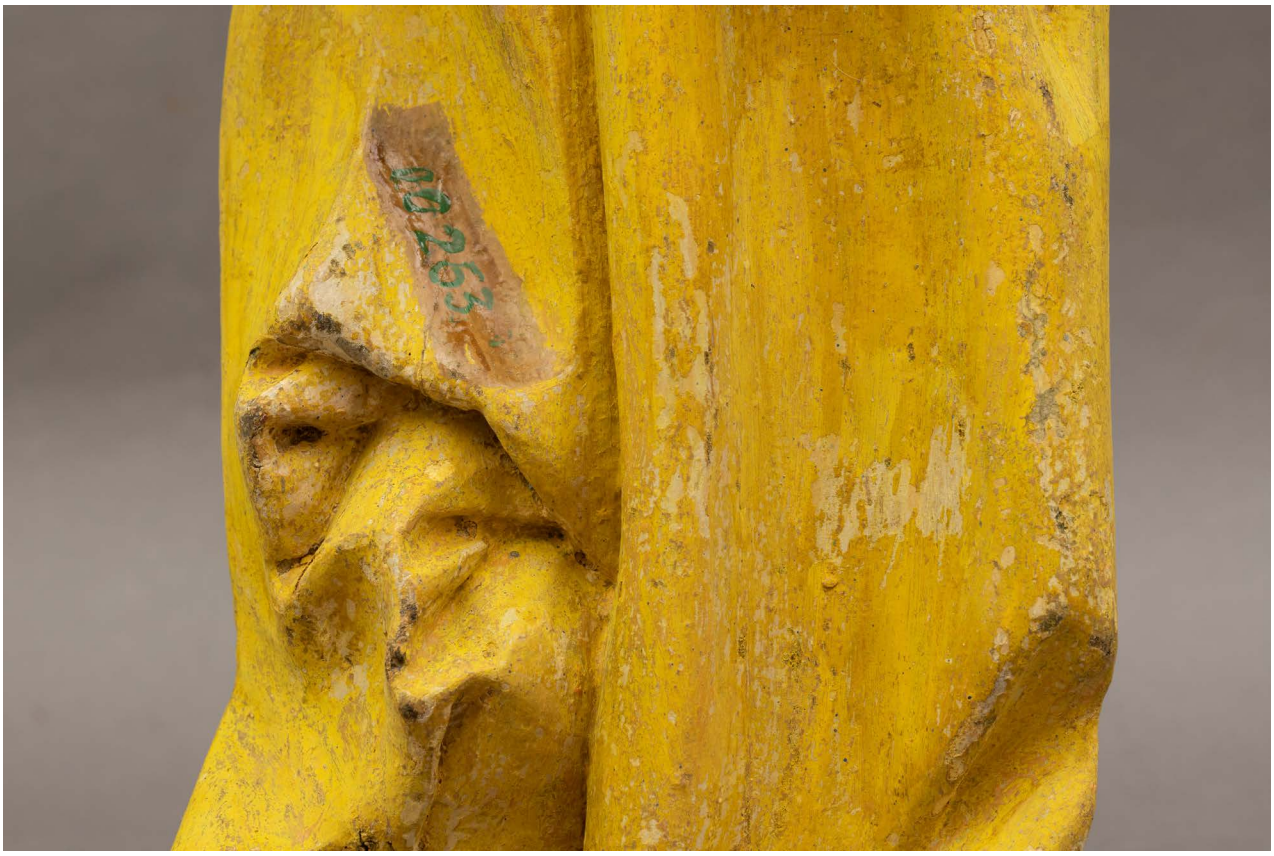
condition during the removal of the second youngest polychromy layer
UV luminiscence photography, detail



condition during the removal of the second youngest polychromy layer
day light photography, detail



condition during the removal of the second youngest polychromy layer
UV luminiscence photography, detail





condition during the removal of the second youngest polychromy layer
day light photography, details





condition during the removal of the second youngest polychromy layer
day light photography, details





condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details





condition during the removal of the second youngest polychromy layer
day light and UV luminiscence photography, details



condition after removal of the second youngest polychromy layer
day light photography, details



condition after removal of the second youngest polychromy layer
UV luminiscence photography, details



condition after removal of the second youngest polychromy layer
day light photography, details



condition after removal of the second youngest polychromy layer
UV luminiscence photography, details



condition after removal of the second youngest polychromy layer
day light photography, detail



condition after removal of the second youngest polychromy layer
day light photography, detail



condition after removal of the second youngest polychromy layer
day light photography, detail



condition after removal of the second youngest polychromy layer
day light photography, detail





condition after removal of the second youngest polychromy layer
day light photography, details



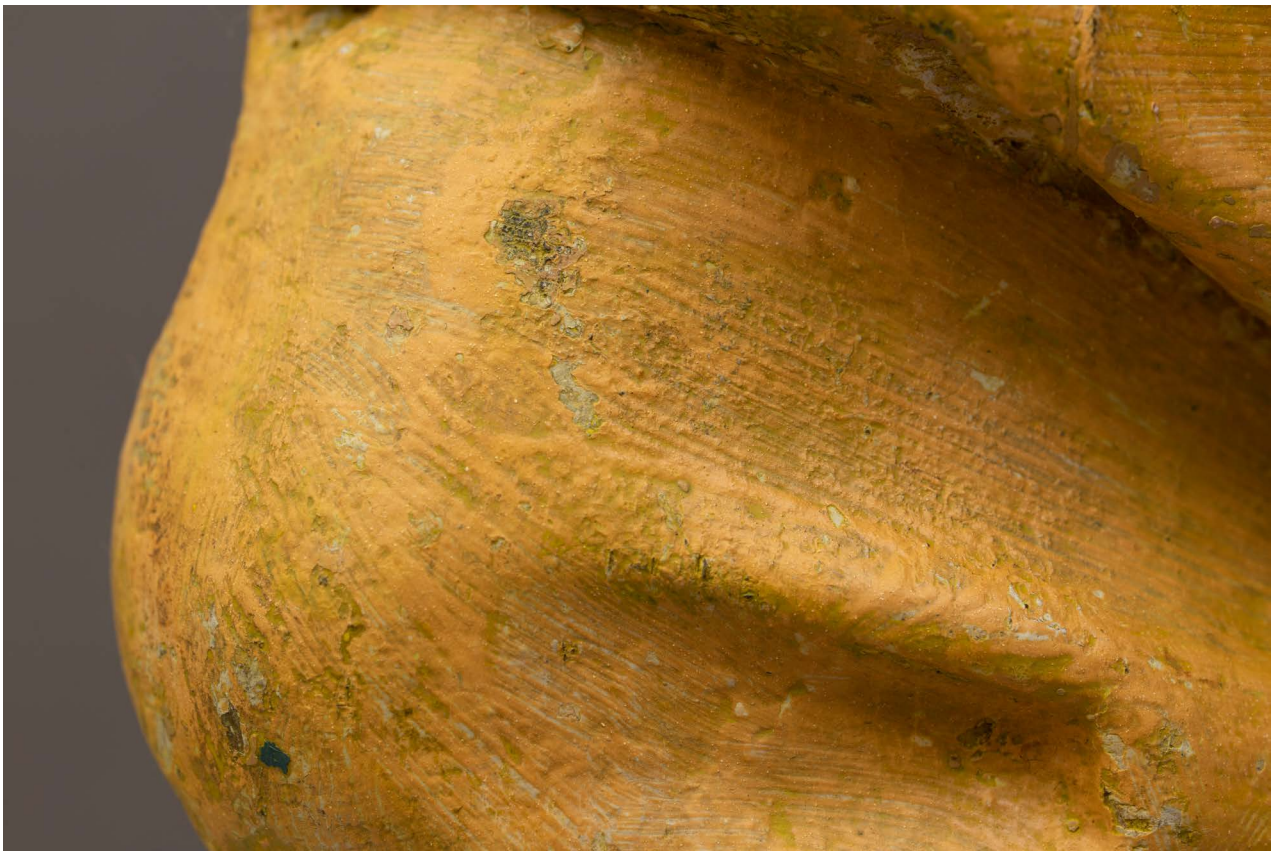
condition after removal of the second youngest polychromy layer
day light photography, detail



condition after removal of the second youngest polychromy layer
day light photography, detail



condition after removal of the second youngest polychromy layer
day light photography, detail





condition after removal of the second youngest polychromy layer
day light photography, details





condition after removal of the second youngest polychromy layer
day light photography, details





extended probes on the fourth youngest polychromy layer
day light pohotography, details





extended probes on the fourth youngest polychromy layer
day light pohotography, details



extended probes on the fourth youngest polychromy layer
day light pohotography, details



condition during removal of the third youngest polychromy layer in the incarnate
day light photography



condition after removal of the third youngest polychromy layer
day light photography



condition after removal of the third youngest polychromy layer
UV luminiscence photography



condition after removal of the third youngest polychromy layer
day light photography



condition after removal of the third youngest polychromy layer
UV luminiscence photography



condition after removal of the third youngest polychromy layer
day light photography



condition after removal of the third youngest polychromy layer
UV luminiscence photography



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, details

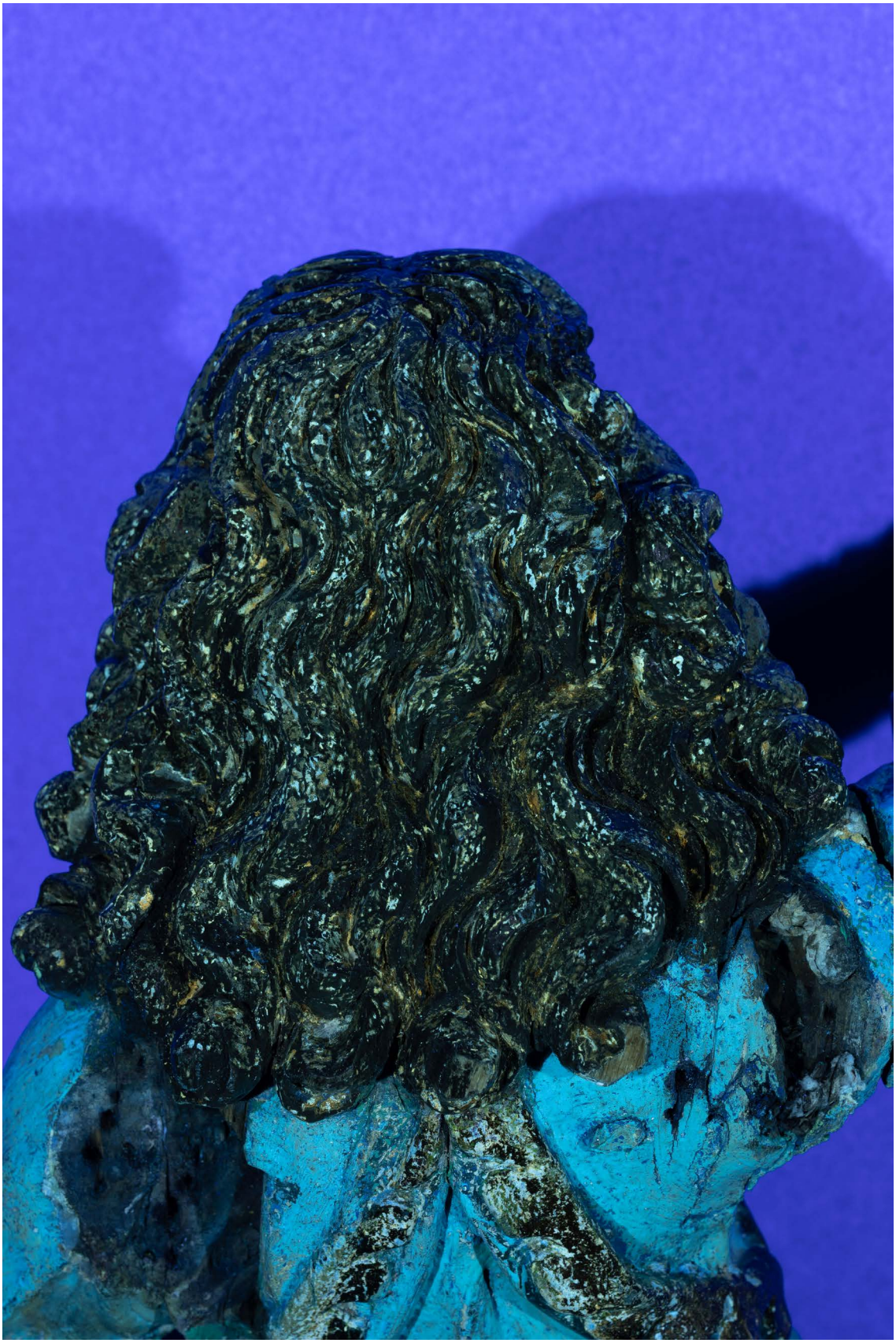




condition after removal of the third youngest polychromy layer
day light photography, details



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail





condition after removal of the third youngest polychromy layer
day light photography, details





condition after removal of the third youngest polychromy layer
day light photography, details





condition after removal of the third youngest polychromy layer
day light photography, details





condition after removal of the third youngest polychromy layer
day light photography, details



condition after removal of the third youngest polychromy layer
day light photography



condition after removal of the third youngest polychromy layer
UV luminiscence photography, detail



condition after removal of the third youngest polychromy layer
day light photography, detail





condition after removal of the third youngest polychromy layer
day light photography, details





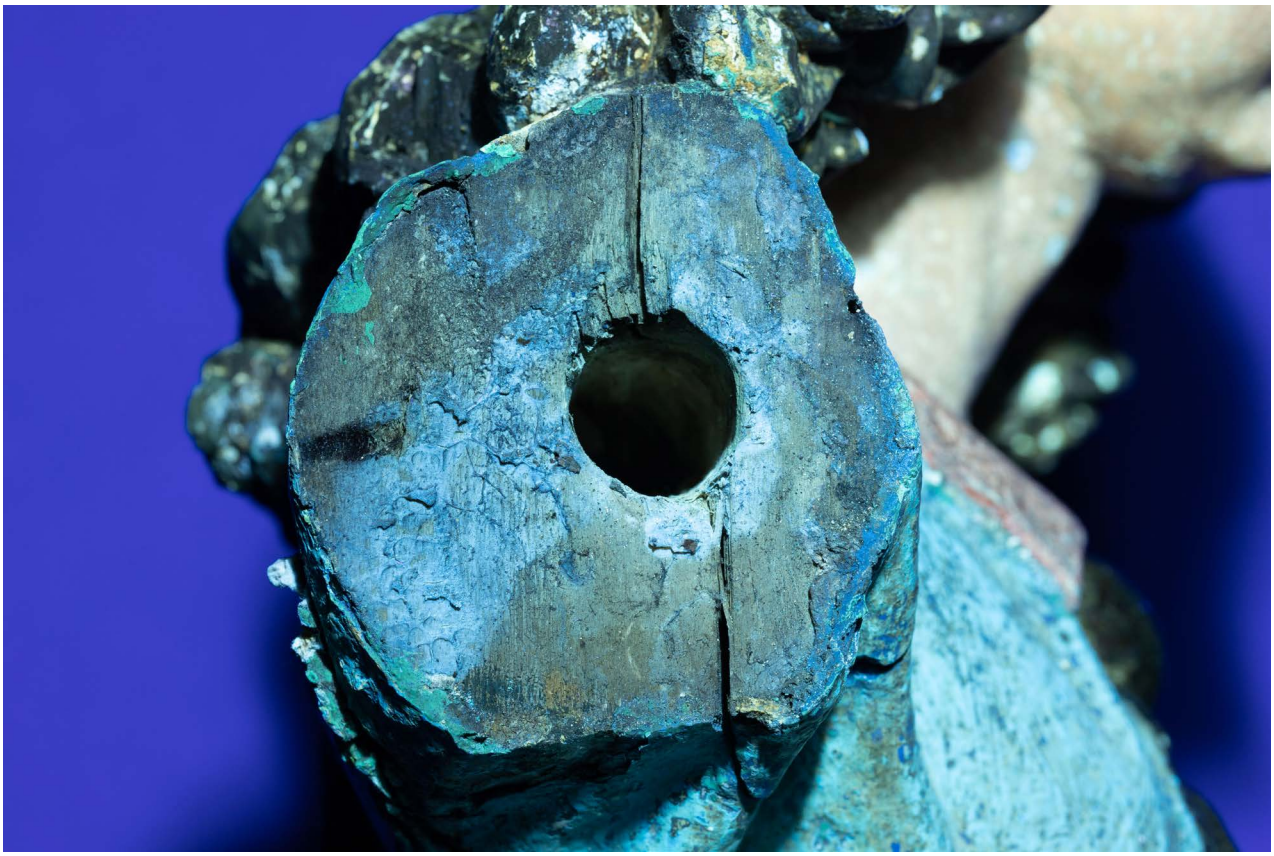
condition after removal of the third youngest polychromy layer
day light and UV luminiscence photography, detail





condition after removal of the third youngest polychromy layer
day light photography, details





condition after removal of insuitably attached right arm
day light and UV luminiscence photographs





condition after removal of insuitably attached right arm
day light and UV luminiscence photographs





progress of removal of degraded adhesive in the joint of rigth arm to the body of the sculpure
day light photographs





progress of removal of degraded adhesive in the joint of rigth arm to the body of the sculpure
day light photographs





progress of fixing unattached parts of the sculpture
day light photographs





progress of fixing unattached parts of the sculpture and application of the adhesive
day light photographs





progress of fixing of the right arm to the body of the sculpture
day light photographs





progress of fixing of the right arm to the body of the sculpture
day light photographs





progress of fixing of the right arm to the body of the sculpture, inserting of the particles of linden wood
day light photographs





progress of fixing of the right arm to the body of the sculpture, inserting of the gesso filler
day light photographs



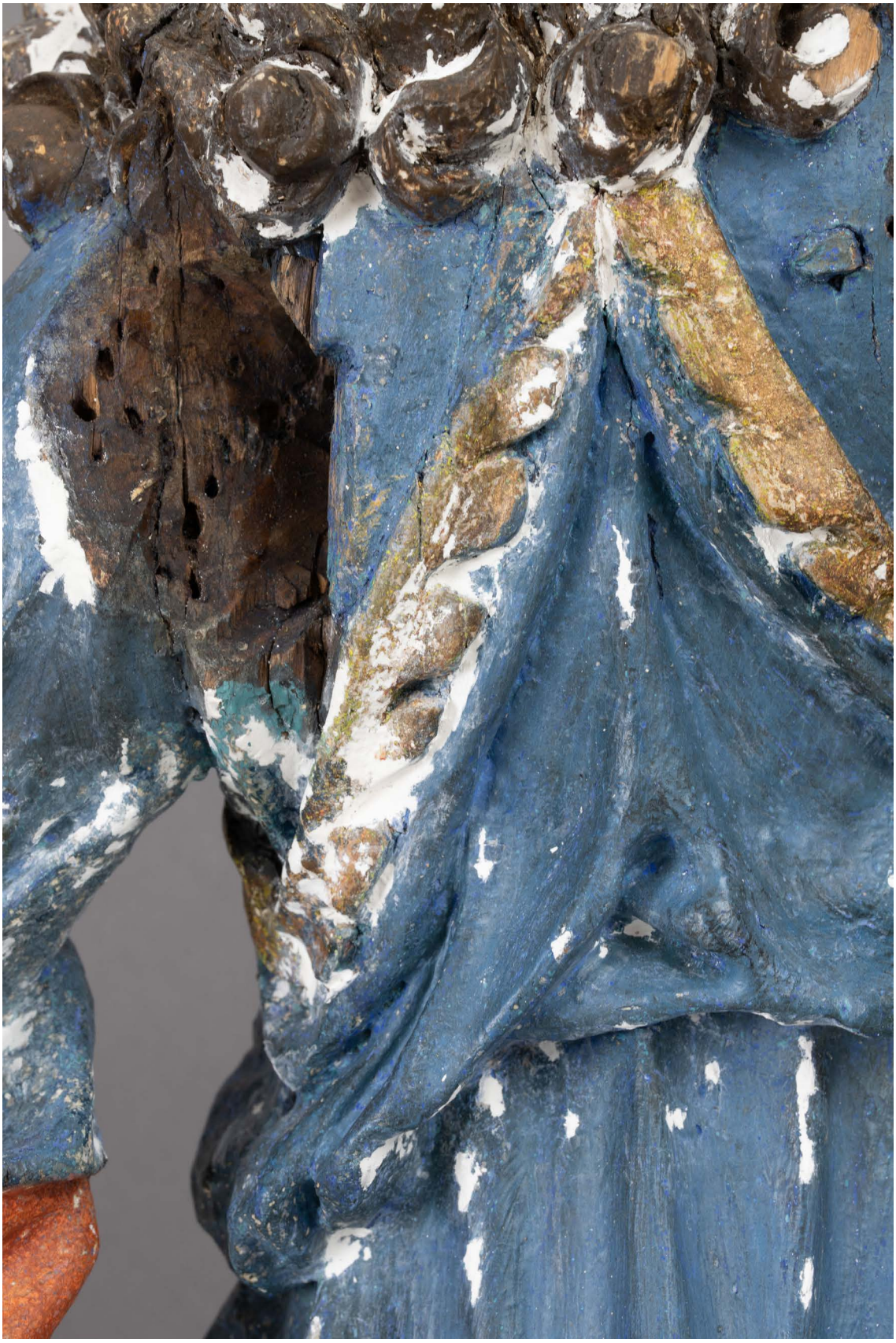
condition after filling of defects
day light photography



condition after filling of defects
day light photography



condition after filling of defects
day light photography



condition after filling of defects
day light photography, detail



condition after filling of defects
day light photography, detail



condition after filling of defects
day light photography, detail

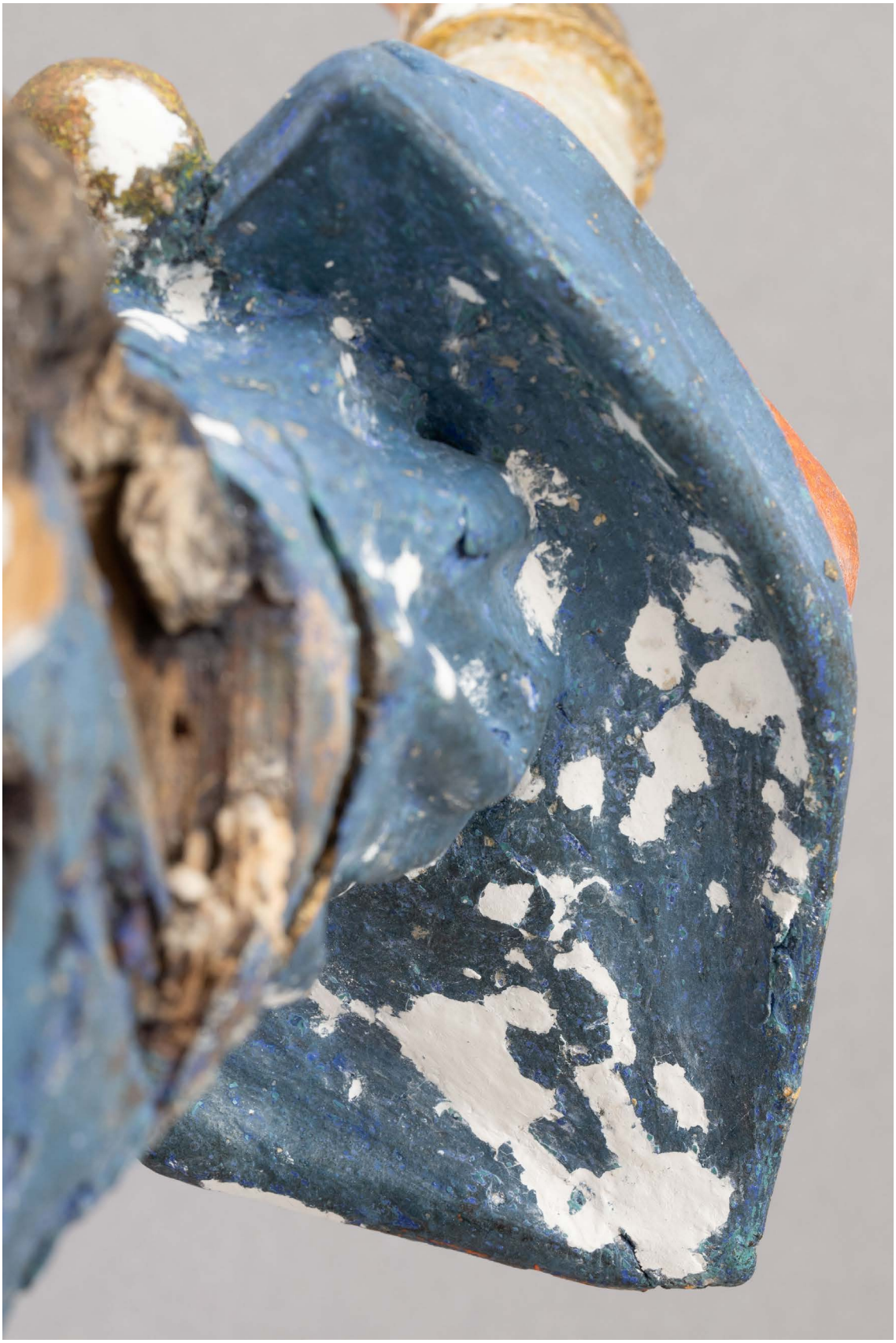


condition after filling of defects
day light photography, detail

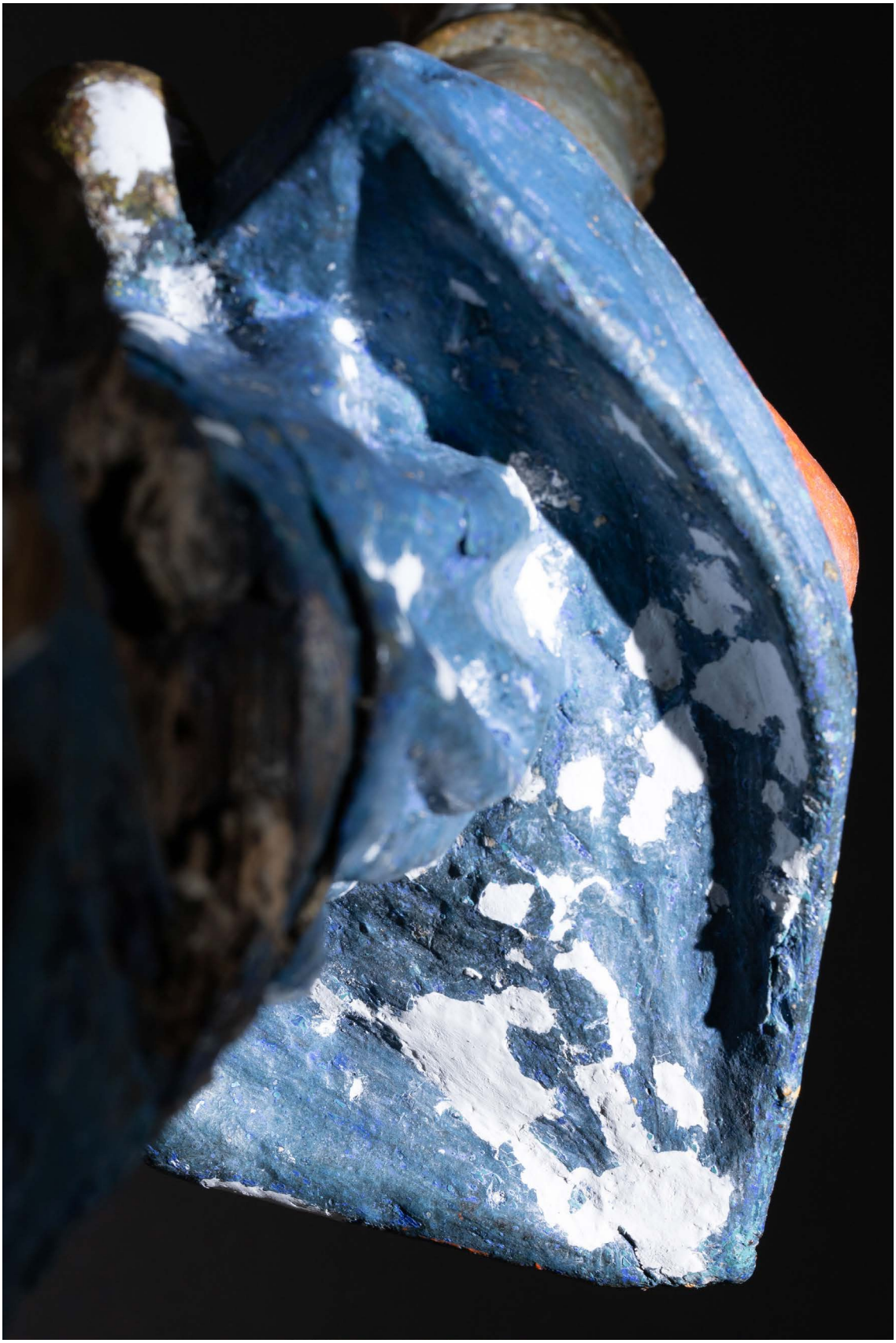




condition after filling of defects
day light photography, details



condition after filling of defects
day light photography, detail



condition after filling of defects
raking light photography, detail



condition after retouching
day light photography



condition after retouching
UV luminescence photography



condition after retouching
day light photography



condition after retouching
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
day light photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography

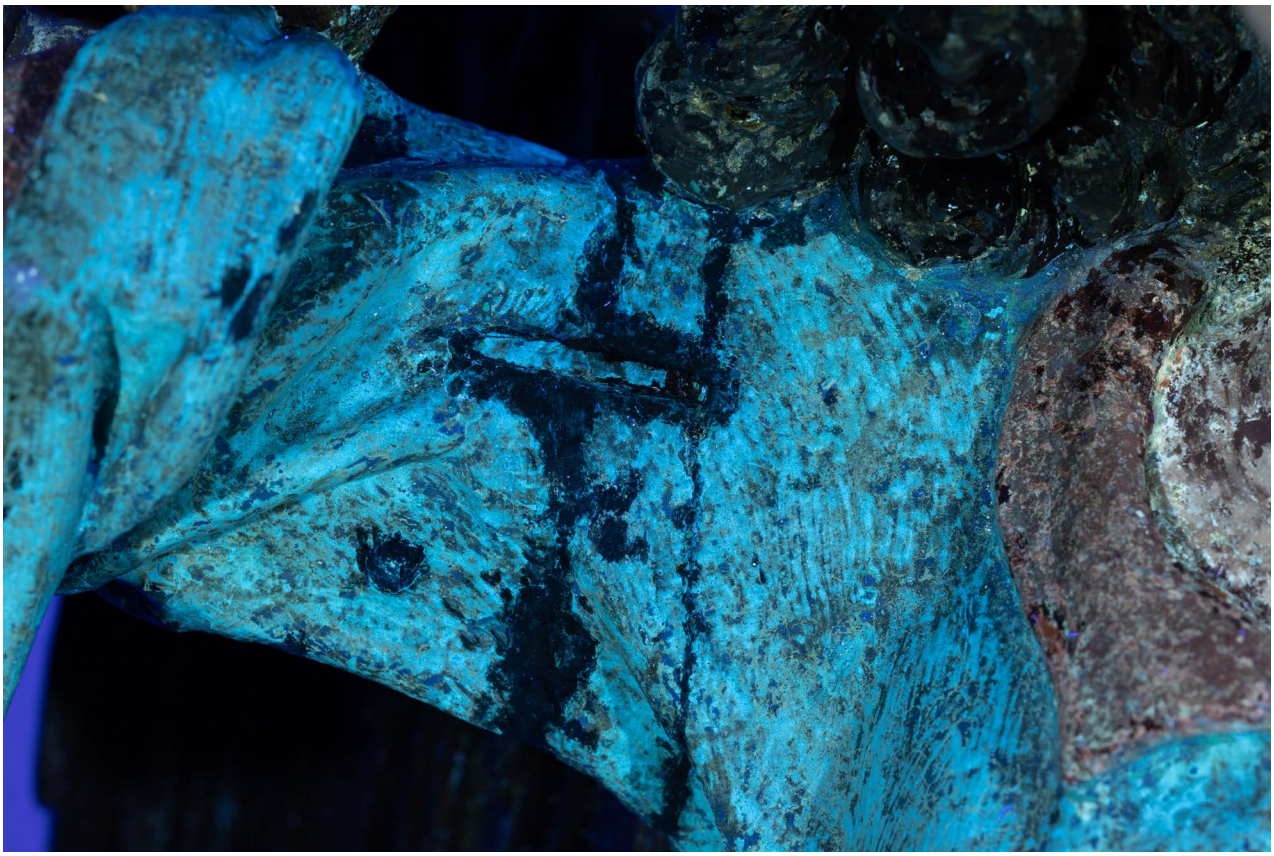


condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography





condition after retouching, detail
day light and UV luminescence photographs





condition after retouching, detail
day light and UV luminescence photographs



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography



condition after retouching, detail
day light photography



condition after retouching, detail
UV luminescence photography





condition after retouching, detail
day light and UV luminescence photographs





condition after retouching, detail
day light and UV luminescence photographs



condition after attachment of the missing fragments of the wooden carving, detail
day light photography



condition after attachment of the missing fragments of the wooden carving, detail
day light photography



condition after attachment of the missing fragments of the wooden carving, detail
day light photography



condition after attachment of the missing fragments of the wooden carving, detail
day light photography





condition after attachment of the missing fragments of the wooden carving, detail
day light photography



condition after attachment of the missing fragments of the wooden carving, detail
day light photography

WINGS



condition after removal of the non-original wings
probes on the older polychromy layer



condition after removal of the non-original wings
probes on the older polychromy layer



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



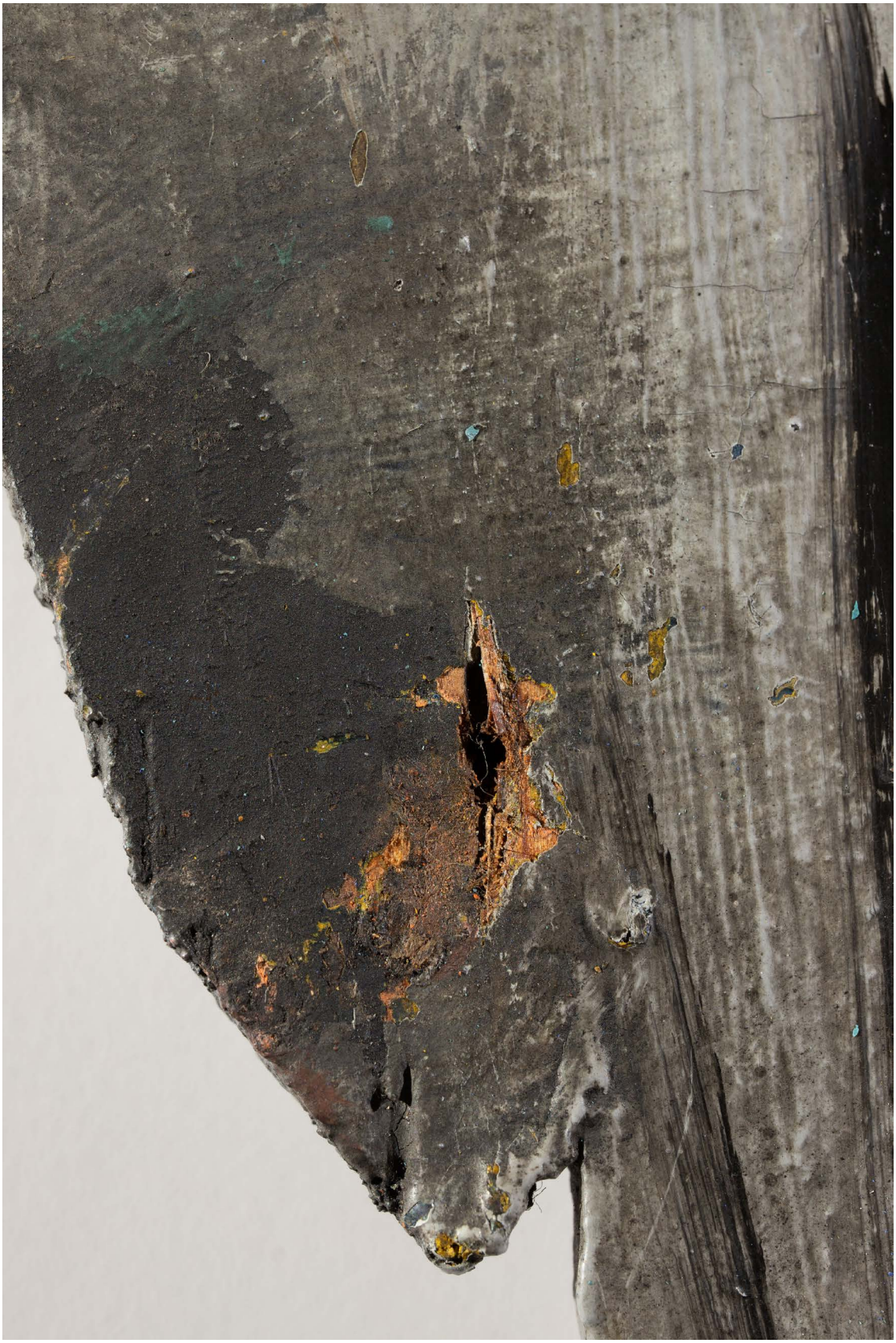
condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of the non-original wings



condition after removal of dirt and dust deposits from the left wing, front side
day light photography



condition after removal of dirt and dust deposits from the left wing, front side
UV luminiscence photography



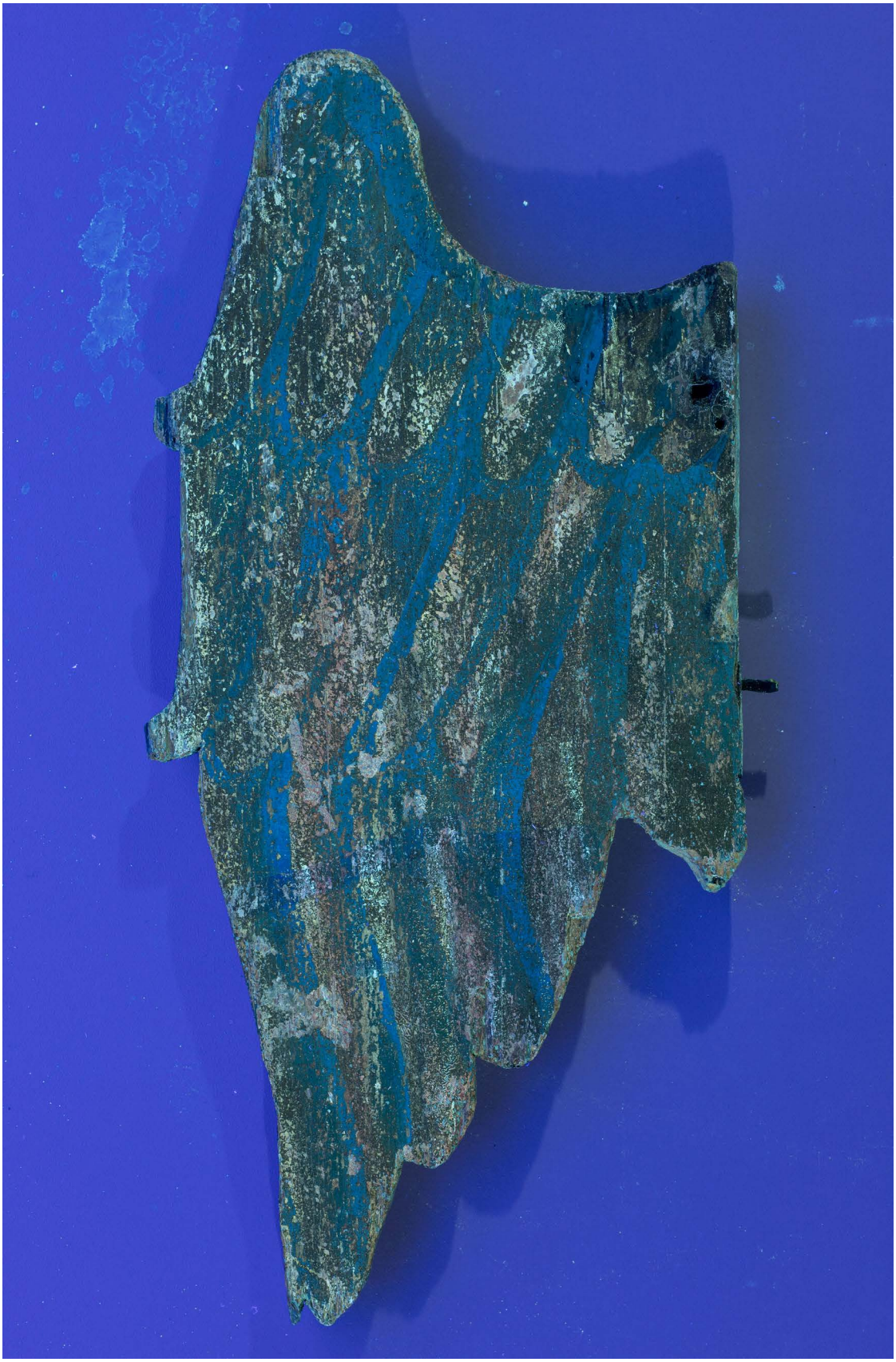
condition after removal of dirt and dust deposits from the left wing, back side
day light photography



condition after removal of dirt and dust deposits from the left wing, back side
UV luminiscence photography



condition after removal of the youngest polychromy layer from the left wing, front side
day light photography



condition after removal of the youngest polychromy layer from the left wing, front side
UV luminiscence photography



condition after removal of the youngest polychromy layer from the left wing, back side
day light photography



condition after removal of the youngest polychromy layer from the left wing, back side
UV luminiscence photography







condition after removal of the youngest polychromy layer from the left wing
day light photography







condition after removal of the youngest polychromy layer from the left wing
day light photography



reconstruction of wings based on the original wings on paired sculpture
day light photography, comparison of original and reconstructed wings





reconstruction of wings based on the original wings on paired sculpture
day light photography, details after curving





reconstruction of wings based on the original wings on paired sculpture
day light photographs, right wing after curving





reconstruction of wings based on the original wings on paired sculpture
day light photographs, left wing after curving





reconstruction of wings based on the original wings on paired sculpture
day light photographs, right wing after application of gesso layer





reconstruction of wings based on the original wings on paired sculpture
day light photographs, left wing after application of gesso layer







