

Report on the examination of the painting

***Rusalka (1908)* by Natalia Goncharova**

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Location and date of the report: Museum Ludwig, Cologne, April 2018

1. Identification of the artwork

object type:	painting
genre:	canvas painting
title(s):	<i>Rusalka</i> <i>Water nymph/ Mermaid</i> <i>(Wassernymph, Sitzender Akt am Ufer)</i>
artist:	Goncharova, Natalia (1881-1962) variations in spelling: Gontscharowa, Natalia Gontscharowa, Natalija Ssergejewna Gontcharova, Nathalie Goncarova, Natalija Sergeevna
signed:	n. a.
date of object:	1908 (as given in the museum files)
inventory number:	ML 01304
owner:	Museum Ludwig, Cologne Donation of Peter and Irene Ludwig (Ludwig Collection)
location:	Museum Ludwig, Cologne
material/ technique: description in catalogue / museum files:	Oil on canvas
description after technical study:	Possibly oil on canvas
size of object without frame (height x width x depth):	105,0 x 75,0 x 2,0 cm

2. Technical investigation

Methods of examination:

The investigation of the painting *Rusalka* was carried out in March 2017 by Verena Franken. It contained the examination of the artwork with the naked eye as well as with a stereomicroscope¹ in different light sources (incident light, raking light, reflective light). In addition, results of investigation under ultraviolet light (UV) are considered in the following text.

2.1 Canvas support

Former lining makes it difficult to give a precise description of the original canvas support. Investigation of the original canvas can only be done on the front side. As no selvege is preserved warp and weft directions cannot be determined unambiguously. The type of textile weave is a tabby weave. Occasionally thicker threads are present on the front side especially in vertical direction (see Fig. 1). In addition, several bundles of fibres stand proud of the surface and are not integrated to the structure. There is possibly a z-twist in vertical and horizontal direction. Due to lining no old signatures or inscriptions are visible on the reverse of the lining canvas. Former signatures, inscriptions or labels might be covered by the lining canvas.

2.2 Stretching

It is obvious that the current stretching is not original. The painting is re-affixed on a new stretcher. The tacking margins were cut away at the current turnover edge. Therefore the position of the original turnover edge cannot be determined and no original fastening points are preserved (see Fig. 2). There is a crease in the original canvas support which runs at the centre of the entire painting in horizontal direction indicating that the painting possibly has been removed from its strainer/ stretcher and was stored in folded position for a longer while. There is a report available which describes that artworks by Goncharova and Larionov were deposited rolled up or packed (Chauvelin 2010).²

¹ Type: 308795, firm: Wild Heerbrugg, magnification: x 10-40.

² Chauvelin, J. ‘Témoignages/ Encounters’, *InCoRM Journal*, vol. 1 Nos. 2-3 (2010) pp. 6-11, esp. p. 8.

After the end of the Second World War works by Goncharova and Larionov had been returned to the artists’ studio located in Paris. These artworks ‘were added to the works stored in the studio, rue Visconti, either rolled up or packed in wooden boxes’ (Chauvelin 2010: 8). It is also known that after Goncharova and Larionov’s deaths, Alexandra Tomilina-Larionova (Michal Larionov’s widow) did not have the means to pay the rent for the artist’s studio were lots of artworks were stored. Chauvelin describes the messy situation in the artists’ studio and mentions that paintings were stored flat or were rolled up (Chauvelin 2010: 8, 9).

‘Having no money, she [Alexandra Tomilina-Larionova] did not have the means to pay the rent for the artists’ studio in the rue Visconti, situated but a few doors from the apartment on the rue Jacques Callot where Goncharova and Larionov had lived since the 1920s. [...] Emptying the studio took two days. [...] Their [Larionov’s and Goncharova’s] works were piled and stacked, totally cluttering this studio – which, in fact, was quite large – with dozens of portfolios full of hundreds (if not thousands) of drawings, watercolours, gouaches, sketches. Oils on cardboard or canvases were lying either flat or were rolled up. [...] The warehousemen started taking the packets and boxes down and loading them into the trucks rather carelessly. [...] Two days later everything had been taken away and deposited randomly in the storage rooms at the two Paris warehouses, for which Tomilina was never able to pay. All these works disappeared from sight for the next thirty years. [...] A small number of works selected by Tomilina (only those by Micha) were taken from the studio to the third floor of the apartment on the rue Jacques Callot, which was already full to bursting.’ (Chauvelin 2010: 8). All

The lining canvas is mounted to the stretcher bars at the tacking margins. Totally 78 non-original round-headed tacks were used in fastening intervals of approx. 4,5-11,0- cm, but mostly regular fastening intervals of 4,5x cm spacing.

2.3 Stretcher

The original strainer or stretcher is not preserved. There is no evidence for its type (stretcher or strainer) and size (no stretcher marks are discernible). It was changed possibly when lining treatment was done and the painting was re-affixed on its current adjustable stretcher with cross-bar and twelve keys (all keys are present). The new stretcher measures 105,0 x 75,0 x 2,0 cm and all stretcher bars have a width of approx. 5,8 cm. It appears to be composed of softwood (possibly spruce or fir). The stretcher bars are not mitred at the corners and are possibly fastened by mortise-and-tenon joints. The high degree of finish and regularity with marks left by a circular saw from manufacture process suggest that the stretcher is machine-made. The current stretcher does not look like a stretcher manufactured at the beginning of the 20th century. Evaluated relating to the stretcher's new appearance and good condition without traces of use it is obvious that it is not authentic. Additionally, neither old labels nor old inscriptions are present on the stretcher's reverse.

2.4 Sizing and ground layer

Sizing cannot be determined unambiguously because there are no representing areas without ground layer at the front and verso the original canvas is covered by the lining canvas. However, it is supposed that there is no sizing because lots of canvas fibres stand proud of the surface, are not integrated into the weave structure and there is no smooth texture of the weave (see Figs. 5 and 6).

The white ground was applied as a very thin single layer and possibly as fluid paint on the entire painting's surface (Figs. 3, 4). The canvas structure remains visible as a result of the thin ground. This thin layer does not fill all the pores, often the tops of the threads are not covered by the ground (see Figs. 5 and 6). Within painted areas and at passages between different motifs there are several absences of oil colour (see Figs. 7 and 8). Stereo-microscopic inspection reveals that white particles are not clearly visible at a magnification of x 40 indicating that the white pigment(s)/ filler(s) seem to be fine-grained. No significant water and alcohol sensitivity was detected in the ground.³

artworks and documents which were not invented and were stored in the studio with disorder had to be packed by Alexandra Tomilina-Larionova in order to empty the artists' studio (Chauvelin 2010: 8, 9).

³ Water and alcohol solubility was tested at the lower edge of the painting in two areas where the white ground is discernible (magnification of x 40).

2.5 Underdrawing

At a magnification of x 40 an grey-to-black material is visible on the ground layer in several areas (see Figs. 9 and 10). It can be noticed in several passages between motifs respectively between a motif and the painting's background. Especially at the outlines of the female nude respectively at passages between background and it is clearly visible. There are several areas where this material is not only lying between ground and paint layer but it also has accumulated at edges of impastos and sometimes lies on the paint layer, too (see Figs. 11, 23).

2.6 Paint layer

Paint was applied on the entire painting's surface with brushes⁴ of different sizes. As the size of the canvas support was reduced it is not possible to detect if the paint layer was applied up to the cutting edge. The body of the nude was painted in pale, light colours as white, blueish, greenish and yellow tones. The background with shrubs, water lilies, fishes and a crayfish was done predominantly in green, ochre, brown and blue paints of different shades. Particularly several tones possibly were mixed by the artist on the palette. It is obvious that the artist mixed paint with white colour.

Within painted areas and at passages between different motifs there are several absences of oil colour where the white ground layer and the canvas are not fully covered by paint layers. The thickness of the paint layer varies between opaque, smooth but thin layers with little body to a few areas with slight impasto (see Fig. 12). Mostly paints were applied as opaque but relatively thin layers. Thus, the canvas structure often is still visible (especially in the background area, see Fig. 13). In some areas of the painting *Rusalka* paints were applied thicker with brushwork (especially for the nude's body, see Fig. 14). Occasionally slight impastos can be noticed to highlight some small parts.

Within the face area different tones were applied in varying thickness. On thin layers other tones, especially white, light yellow and light blue tones, were applied (slightly) overlapping as thicker layers with brush strokes in different directions.

Often the brushwork is oriented to the shape of the motif (for example leaves, crayfish, hands, see Fig. 7). Predominately there is the use of a small amount of binding agent; a mat surface and a hard approach with the brush (see Figs. 7 and 8).

Paint application was mostly done in wet-on-dry technique (see Figs 17 and 18). Often colours seem to have been mixed on the palette. But in a few areas the artist also painted in wet-on-wet and possibly also in wet-in-wet technique (for example two oval-shaped motives at the right lower edge). Paint fragments are occasionally visible within the paint film.

The lower section of the background was worked primarily in olive-green and ochre tones. These paints were applied relatively quickly in wet on a (slightly) dried surface or in wet-on-wet technique. Paints of different tones were taken up by the brush and in parts blend when the brush was applied to the canvas (see Figs. 18, 19 and 20). Optical microscopic investigation reveals that plant fibre material often is embedded in the paint layer (see Figs. 21 and 22).

⁴ Several brush hairs of paint brushes are embedded in the paint layer.

Goncharova used sketchy painted strokes of different tones to outline the form of some areas or motifs, for example outlines for nose or eyes, for two oval-shaped motifs or for the fishes (see Figs. 15 and 16). A few areas were highlighted in white tone (see Fig. 17). Outlining often seems to be painted as last step. For one shape located at the lower background area the outlining was painted in blue tone as last step after the space was filled out with white and greyish paints (see Fig. 15).

Generally just for a few motifs (fishes and crayfish, the nude's eyes) systematic sequences of paint application were noticed. Especially within and between the background area and the nude's body there are no systematic sequences of paint application.

However, the following sequences of paint application and the following painting technique for several areas were detected:

a) Area of the face:

First the area of the face was filled out by using wet-on-wet and wet-on-dry technique. Different light and pale colours were used as individual layers which do overlap in certain extent and mostly do not merge into each other. Afterwards the artist painted details and highlights as outlining (around the head, under the eyes, of the upper lip⁵ and chin).

Sequences of paint application for eyes: As first step the space of the pupils was filled out with dark green paint. On this layer the oval outlines were painted. As last step the half area of the right pupil was highlighted using different colours applied wet-in-wet technique.

b) Two oval-shaped motifs (lower background, right lower edge):

Generally the background area (olive-green and ochre paint) was painted first. Mostly the black outlines were painted afterwards without blending⁶. However, it cannot be determined clearly if the filling of the two shapes or the black outlines were painted first.

c) Two fishes (upper left part)

Generally as first step the area of the fishes was filled out using wet-on-wet and wet-on-dry technique. Different tones were used as individual layers which often do overlap in certain extent. But there are also a few passages where the ground is not covered by the paint. Afterwards details and highlights as fins, dorsum, outlining of the gill and eyes were painted in wet-on-dry or wet-on-wet. For the area of the eyes different tones (especially yellow paint) often were applied on the underlying and already dried layer. The tones of the pupil were used without blending. However, it is not possible to detect whether the fishes or the background area were painted first.

⁵ The pink-red paint of the upper lip was applied at last step except from a small dab of bright blue paint which lies over the pink-red paint of the upper lip.

⁶ There is only one exception: at bottom of one oval shape one area where the ochre paint lies over the black outline.

d) Crayfish (lower right corner):

First the area of the crayfish was filled out with different tones using wet-on-wet and wet-on-dry technique. As last step the left eye, a black outlining in the area of the chin, highlights with white and blue paint were done by the artist. However, it is not possible to detect whether the crayfish or the background area was painted first.

At front side the painting is not signed by the artist. No major revisions or changes are visible in the composition in normal conditions or under magnification.

2.7 Varnish

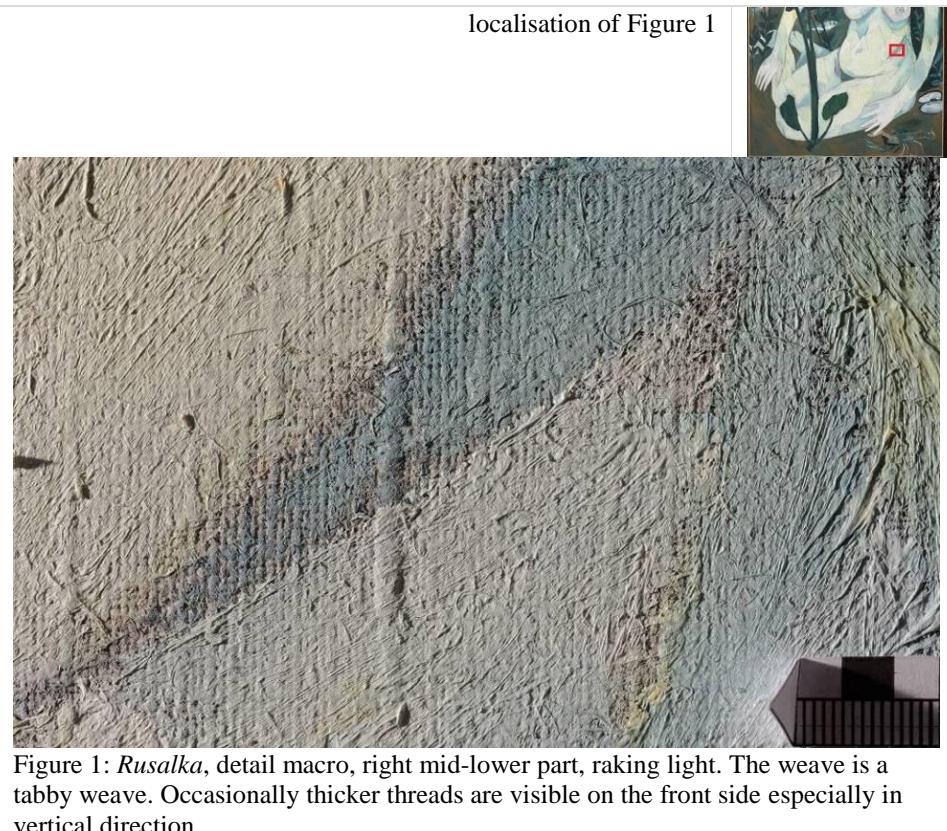
The paint layer was not varnished by the artist. Neither the macroscopic and microscopic investigation nor the examination under ultraviolet light gave an evidence for the presence of a varnish layer. There is no evidence for a former removal of varnish (no residues of varnish in depths of the paint layer, no structural change of the paint layer caused by swelling and no overcleaning of the paint layer).

2.8 Frame

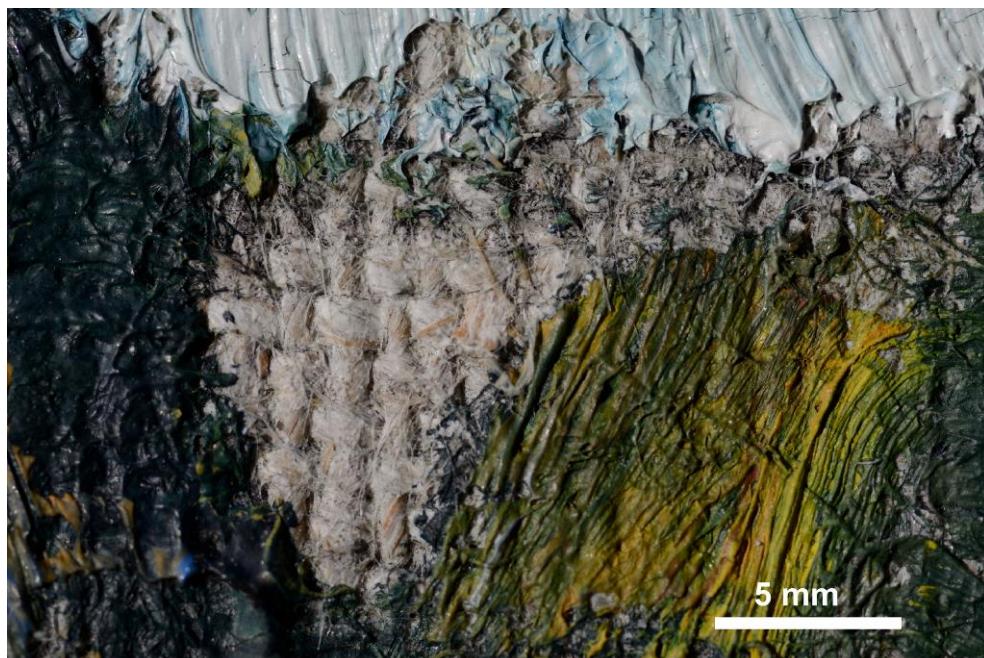
The existent frame is not date of origin. The painting was reframed in 2012.

3. Photographic documentation

Technical aspects



localisation of Figures 3 and 4



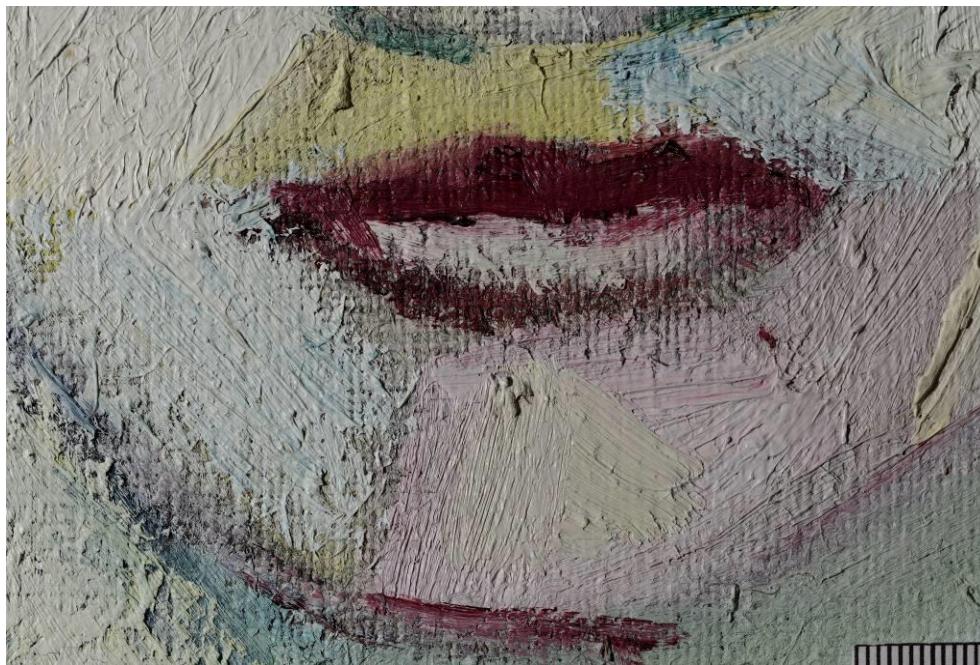
Figures 3 and 4: *Rusalka*, details macro, lower right edge (Fig. top) and left lower part (Fig. bottom), incident light. The white ground layer which is hardly visible with the naked eye was applied as a very thin layer which does not fill all the pores.

localisation of
Figures 5 and 6



Figures 5 and 6: *Rusalka*, detail macro, left hand, bottom right, raking light (see Fig. 5) and microscopic photograph, x 10, left ear, incident light (see Fig. 6). The tops of the threads often are not covered by the ground. Bundles of fibres stand proud of the surface and are not integrated into the structure.

localisation of
Figures 7 and 8



Figures 7 and 8: *Rusalka*, details macro, left hand, bottom right, raking light (see Fig. 7), part of the nude's face, incident light (see Fig. 8). Within painted areas and especially at passages between different layers there are several absences of oil colour.



Figures 9 and 10: *Rusalka*, detail macro, right hand, raking light (see Fig. 9) and microscopic photograph, x 20, left hand, incident light (see Fig. 10). The artist used an grey-to-black material for the underdrawing.

localisation of Figure 11



Figure 11: *Rusalka*, microscopic photograph, x 20, right hand, incident light. The underdrawing material has also accumulated at edges of impastos and sometimes lies on the paint layer.

localisation of Figure 12

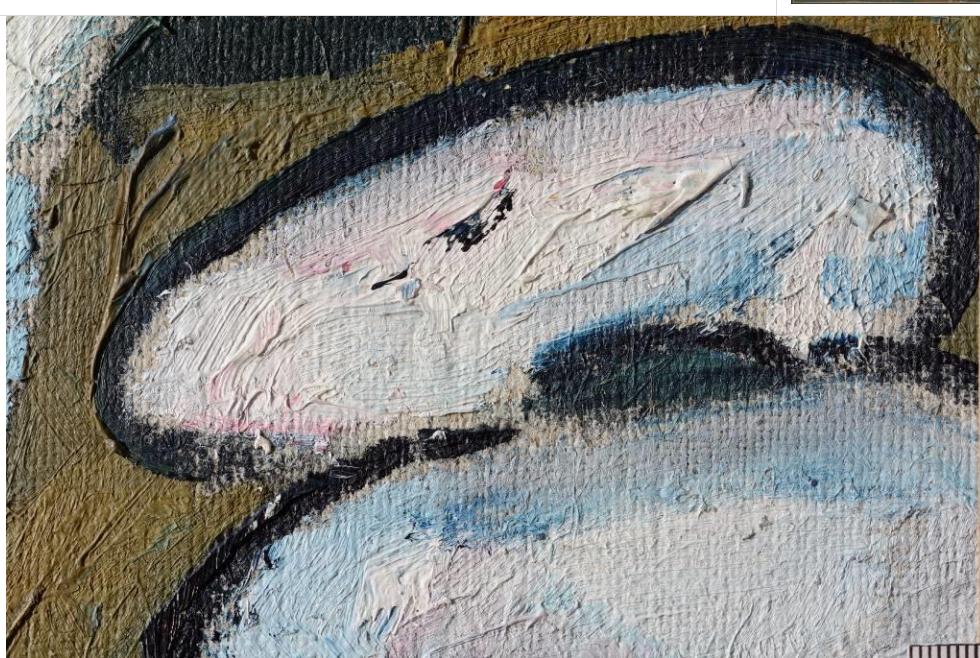


Figure 12: *Rusalka*, detail macro, right lower corner, incident light. The thickness of the paint layer varies between a smooth, thin layer and areas with slight impasto.

localisation of Figure 13



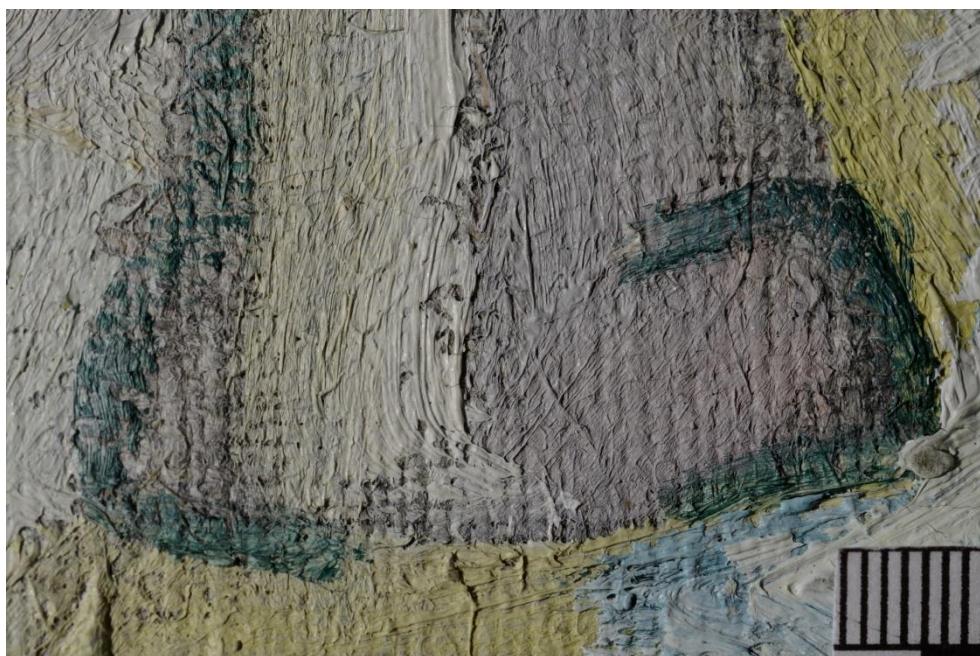
Figure 13: *Rusalka*, detail macro, left lower corner, raking light. The green paint was applied as thin and smooth layer. Thus, the structure of the canvas is still visible.

localisation of Figure 14



Figure 14: *Rusalka*, detail macro, part of the nude's body, incident light. Paint was applied as thicker layer with brushwork and slight impasto.

localisation of
Figures 15 and 16



Figures 15 and 16: *Rusalka*, details macro, shape at the lower edge of the painting, raking light (see Fig. 15) and the nude's nose, incident light (see Fig. 16). The artist used outlining in different tones.

localisation of Figure 17



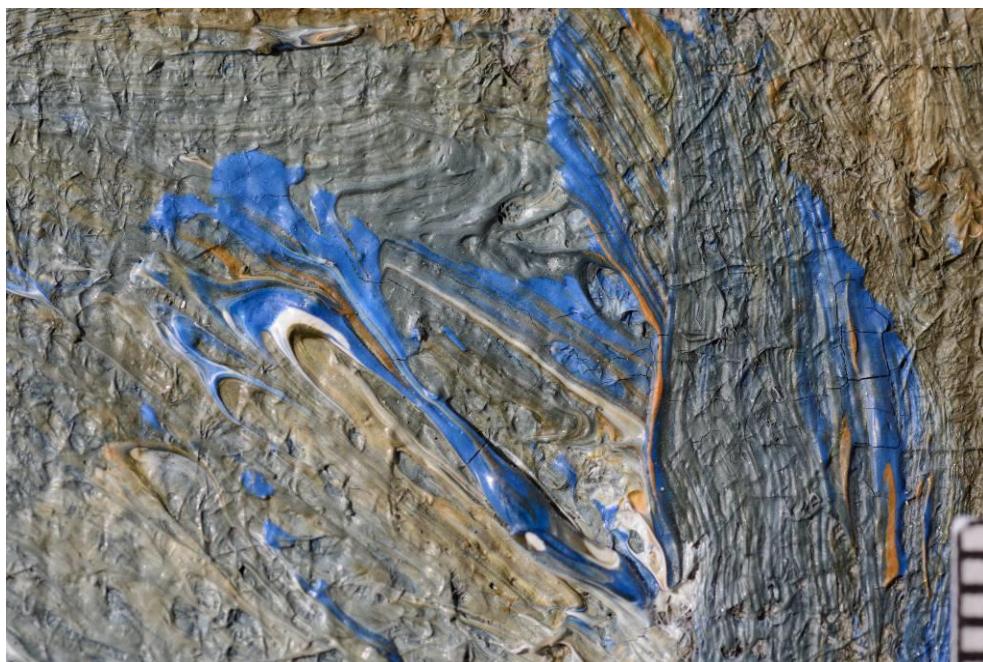
Figure 17: *Rusalka*, detail macro, left upper background of the painting, incident light.
This area was highlighted in white tone in wet-on-dry technique.

localisation of Figure 18



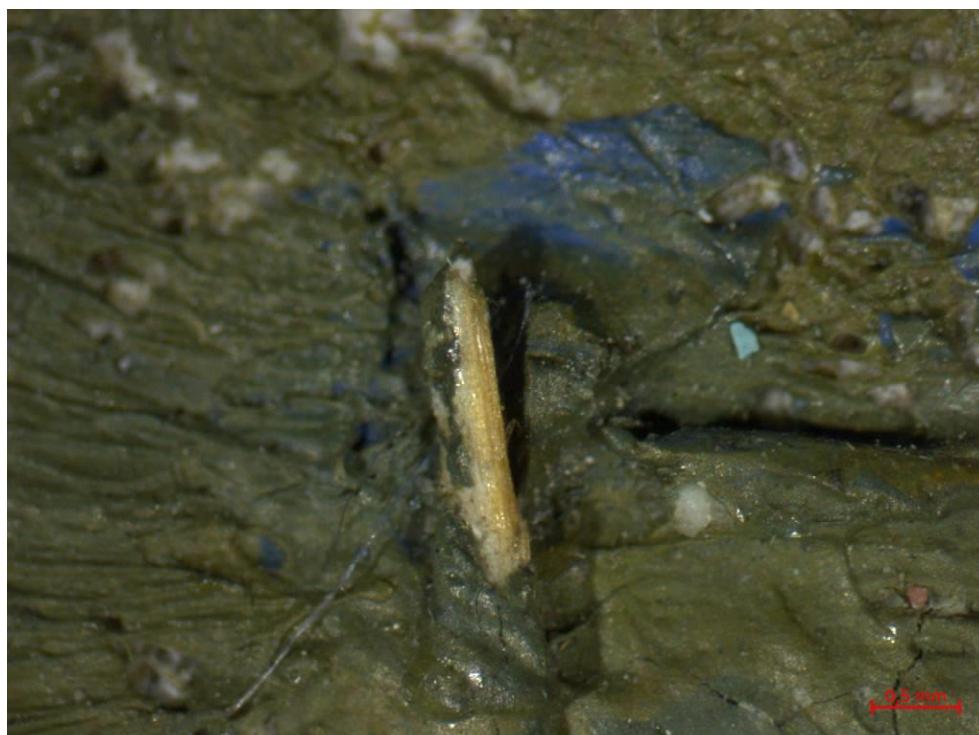
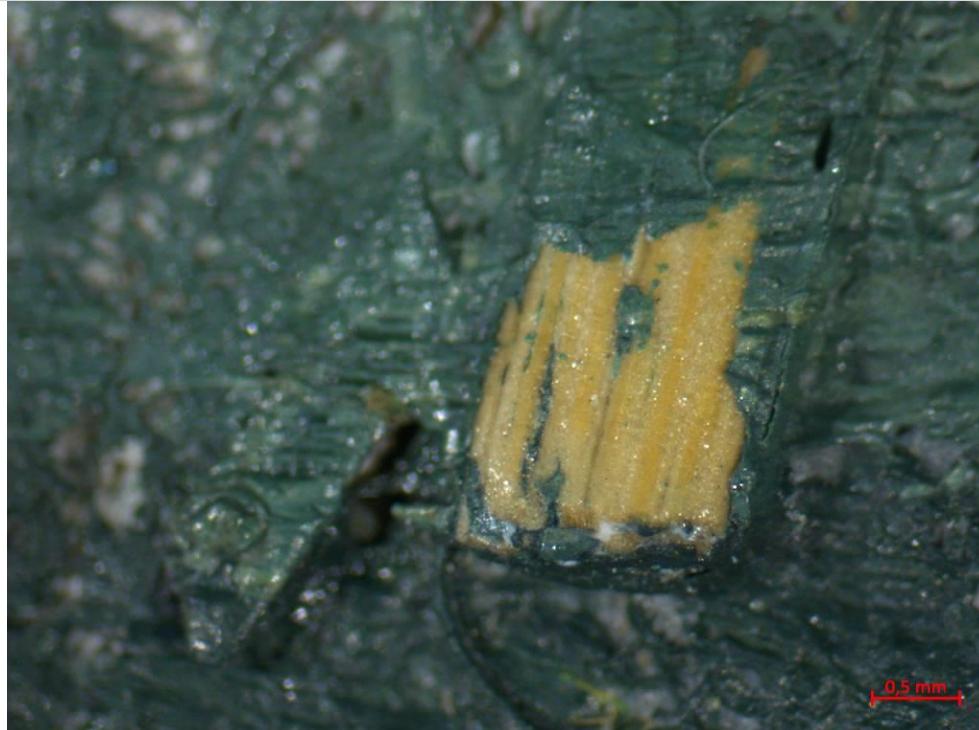
Figure 18: *Rusalka*, detail macro, the nude's right eye, incident light. Paints were applied in
wet-on-wet and wet-on-dry technique.

localisation of
Figures 19 and 20

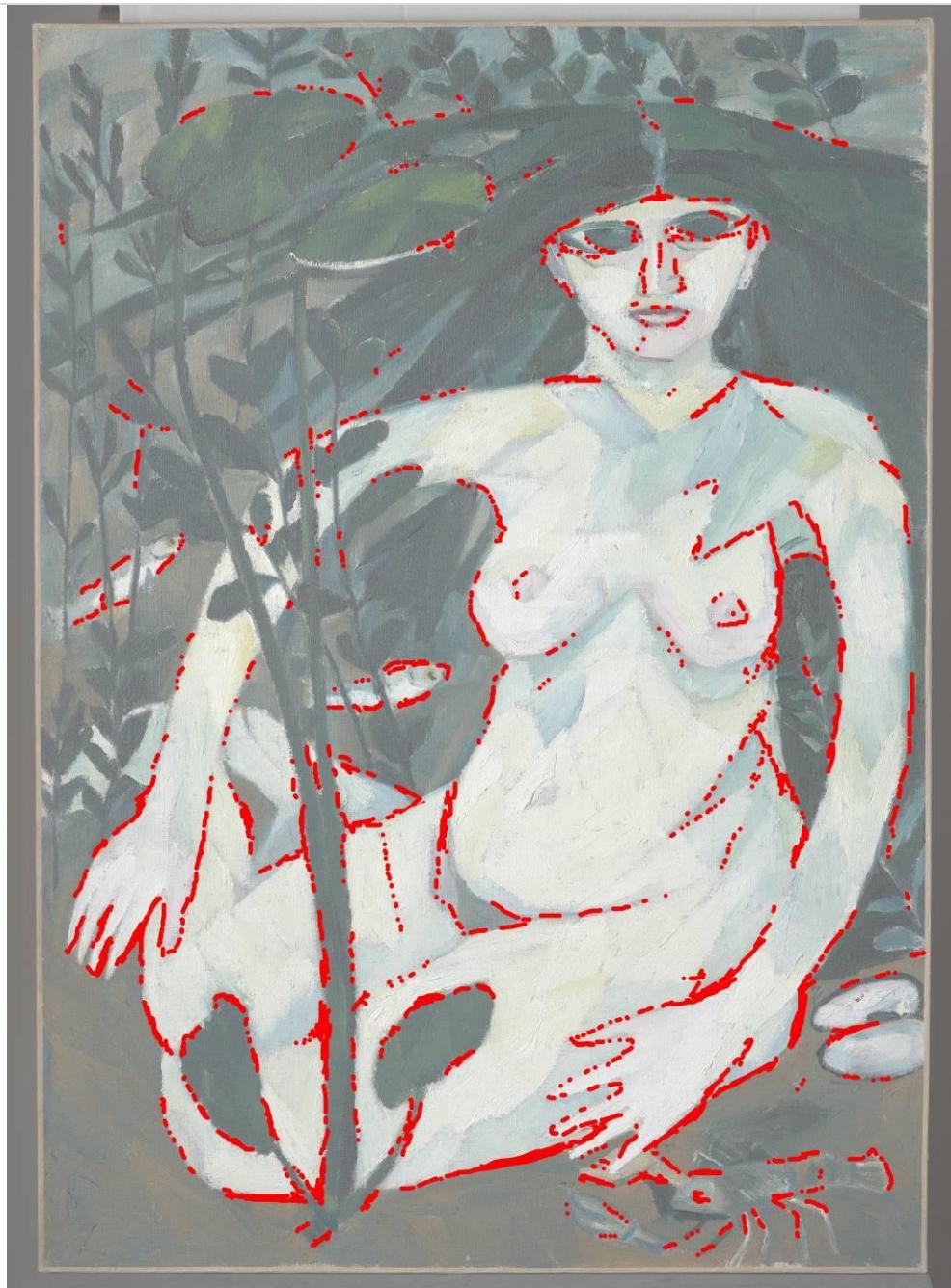


Figures 19 and 20: *Rusalka*, details macro, upper left background, incident light (see Fig. 19) and lower right background, incident light (see Fig. 20). Paints of different tones were taken up by the brush and blend when the brush was applied to the canvas.

localisation of
Figures 21 and 22



Figures 21 and 22: *Rusalka*, microscopic photographs, x 20, upper left and lower background, incident light. Small plant husk fragments are embedded in the paint layer. They are especially visible in the green paint layer.



■ dark abrasive material which probably is an underdrawing

note: this material in parts is not only visible on the ground but also on the paint layer

Figure 23: *Rusalka*, localisation of areas where an grey-to-black material is visible which probably is an underdrawing work.