

Report on the examination of the painting
Rayonistic Sausage and Mackerel (1912)
by Mikhail Larionov

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Report editors: Jilleen Nadolny, Petra Mandt
location, date of the report: Museum Ludwig, Cologne, May 2018

1. Identification of the artwork

object type:	painting
genre:	canvas painting
title(s):	<i>Rayonistic Sausage and Mackerel</i> (<i>Saucisson et maquereaux rayonnistes,</i> <i>Rayonistische Wurst und Makrelen</i>)
artist:	Larionov, Mikhail (1881-1964) variations in spelling: Larionoff, Michel Larionov, Michail Fedorovic Larionow, Michail
signed:	n. a.
date of object:	1912 (as given in the museums files)
inventory number:	ML 01307
owner:	Museum Ludwig, Cologne Donation of Peter and Irene Ludwig (Ludwig Collection)
location:	Museum Ludwig, Cologne
material/ technique: description in museum files and catalogues:	Oil on canvas
description after technical study:	Presumably oil on canvas
size of object without frame in cm (height x width x depth):	46,0 x 61,0 x 2,0 cm

2. Technical investigation

Methods of examination

The technical investigation of the painting *Rayonistic Sausage and Mackerel* was carried out in February 2017 by Verena Franken. The painting was examined visually and with a stereomicroscope¹ in different light sources (incident light, raking light, transmitted light, reflective light). In addition, results of investigation under ultraviolet light (UV) are considered in the following text.

2.1 Canvas support

As no selvage is preserved warp and weft directions cannot be determined unambiguously. The canvas is a tabby weave with one thread in both directions. It is quite open, of a coarse and irregular nature showing much variation of the threads in both directions (see Figs. 1 and 2). There is a z-twist. Thicker and slubby threads are present on the reverse in both vertical and horizontal directions and they are also visible slightly on the front side. Frequently several brownish wooden bast fibres are present in the canvas support in horizontal and vertical direction of the weave (see Figs. 3 and 4). Thus, it is suggested that the canvas is not of high quality.

On the reverse in the lower part of the canvas there is the handwritten inscription ‘Larionoff’. It is written with a hard greyish drawing material of mat appearance - maybe with charcoal – and has accumulated especially on the heights of the weave points (see Fig. 9). In addition, on top of the canvas there is a handwritten inscription which contains the name of artist as well as title, date and size of the painting. The name of the artist - written in capital letters - (‘M. LARIONOV’) and the painting’s size (‘46,5 x 61’) are written on the verso (top area) with marker pen in dark red colour. In contrast, the French title (*Saucisson et maquereaux rayonnistes*), the date of object (‘1912’) and the title repeated in Cyrillic (*Lučistaja kolbasa I skumbrija*) are written in black (see Fig. 10). In addition, there are three small areas where fibres of paper – likely to be the remains of labels, now lost - are stuck to the canvas (see Fig. 8).²

¹ Firm: Wild Heerbrugg, type: 308795, magnification: x 10-40.

² Within these areas there is no damage visible on the front side of the painting.

2.2 Stretching

The current stretcher on which the painting is mounted is not original. There are several small holes in the canvas at the tacking margins with associated traces of red corrosion (see Figs. 11 and 12). Often these holes do not correspond to the current fastening points and there are no corresponding holes present in the current stretcher. It is supposed that these holes correspond to the original stretching. The original stretching was made with round-headed tacks or nails³. They were fastened in the tacking margins but in contrary to the current stretching they were not mounted in primed and painted areas. They were mounted further away from the turnover edge in areas of bare canvas. The bare and non-primed areas of the fabric in parts extent up to the paintings reverse. The current position of the turnover edge corresponds with its original position and it remained consistent. As the cutting edges look original and the canvas is frayed the size of the painting probably was not reduced.

The canvas has been re-affixed onto a new stretcher; the original tacking holes are preserved but most of them were not re-used (see Figs. 11 and 12). Thirty eight tacks of different size (diameter of tack heads: 4-6 mm) were inserted at irregular intervals of 0,5 - 9,0 cm spacing. These are driven into the tacking margins in both primed and painted areas (the brittle ground and paint layers lie under the tacks) without changing the position of the original turnover edge. Additionally eight non-original staples were used to secure the canvas on the reverse of the painting.

2.3 Stretcher

The original stretcher/ strainer is not preserved. On the reverse of the fabric the white priming is coming through the canvas especially in the areas where the bars of the original stretcher were located (see Figs. 7, 9 and 10). It is supposed that the width of the outer stretcher bars was thicker (approx. 6,5 cm) than those of the current stretcher (approx. 5,0 cm). This is suggested by the marking on the verso created by the penetration of the ground layer through the open weave of the canvas in the areas formerly covered by the stretcher bars (see Figs. 9 and 10). The ground has not penetrated through the canvas in other areas.

The current stretcher is not authentic; it measures 46,0 x 61,0 x 2,0 cm. It is an adjustable stretcher with ten expansion keys (all keys are present) and a vertical centre-bar. It appears to be composed of softwood (possibly spruce wood or fir wood). The construction of the corner joints is a mortise and tension joint and the bars are not mitred at the corners. The high degree of finish and regularity with marks left by a circular saw suggests that the stretcher is machine-made.

On the reverse of the current stretcher there are several paper adhesive labels which are related to former exhibitions of the painting, which refer to a former owner or to a shipping company. Furthermore, some handwritten inscriptions and one stamp are present. All inscriptions and labels are later additions. The earliest label refers to the painting's inclusion

³ At the right tacking margin (considered from the reverse) these fastening points were mounted in regular intervals of 7,0 -7,5 cm. At the other tacking margins the original intervals cannot be determined unambiguously.

in the exhibition *Michel Larionov* at the Musée de Lyon, 1967 (see label no. 1). The text of this label is written on a paper without significant fluorescence under UV illumination indicating that the paper does not contain optical brighteners. Additionally, there are two labels from the exhibition *Michel Larionov* organised by the Acquavella Galleries in New York in 1969 (compare labels no. 2 and 3). The text of these both labels is printed on a paper with less fluorescence. Other labels from additional exhibitions are dated 1972, 1973 and 1976 (compare labels no. 4, 5 and 6). The paper of these labels as well as of others (label of former owner 'Gallery Gmurzynska' as well as the recent labels with handwritten numbers/ letters) fluoresces strongly; likely these papers contain optical brighteners.

In the following section the texts of all labels, stamps and inscriptions, numbered consecutively, are listed⁴:

1. M. Larionov N° 44
LYON, Palais St. Pierre
Saucisson[s et] Maquereaux [a few letters hardly readable]
7 mars – 15 mai 1967
16, rue J. Callot, Paris 6^e

Notes: adhesive label with handwritten text, localisation: upper stretcher bar (centre area), label refers to the painting's inclusion in the exhibition 'Michel Larionov' (Lyon, 1967)

2. ACQUAVELLA GALLERIES, Inc.
18 EAST 79TH STREET. NEW YORK 10021
Exhibition Michel Larionov
April 22-May 24, 1969
Catalogue # 38

Notes: adhesive label with printed text, localisation: upper stretcher bar (left area), label refers to the painting's inclusion in the exhibition 'Michel Larionov' (New York, 1969)

3. ACQUAVELLA GALLERIES, Inc.
18 EAST 79TH STREET. NEW YORK 10021
123 Saucissons et Maquereaux
by. M. LARIONOV
Oil 24 1/8 x 18 1/8"

Notes: adhesive label with printed text, localisation: upper stretcher bar (left area), label refers to the painting's inclusion in the exhibition 'Michel Larionov' (New York, 1969)

⁴ All localisations related to labels, stamps and inscriptions are considered from the reverse.

4. JUIN 1972
MAISON DE LA CULTURE
Quai Pierre de Coubertin
NEVERS [illegible]

Notes: ink stamp, localisation: left stretcher bar, label refers to the painting's inclusion in the exhibition 'Rétrospective Larionov' (Nevers, 1972)

5. MUSÉE TOULOUSE-LAUTREC, ALBI
EXP. M. LARIONOV ET SON TEMPS
M. LARIONOV
CAT N° 26 SAUCISSONS ET MAQUEREAUX

Notes: adhesive label with printed text, localisation: left stretcher bar, label refers to the painting's inclusion in the exhibition 'Michel Larionov et son temps' (Albi, 1973)

6. MUSÉE DES BEAUX-ARTS D'IXELLES
RUE JEAN VAN VOLSEM, 71 BRUXELLES 5
Auteur LARIONOV
Titre Saucissons et maquereaux rayonnistes
N° 45
Collection EVERST – LAUSANNE
Exposition LARIONOV – GONTCHAROVA 29/4 au 5/5/76

Notes: adhesive label with printed and handwritten text, localisation: right stretcher bar, label refers to the painting's inclusion in the exhibition 'Rétrospective Larionov, Gontcharova' (Brussels, 1976). This label gives important information related to the artwork's former owner: It indicates that the painting was owned by 'EVEREST – LAUSANNE' before it was acquired by the Gallery Gmurzynska.

7. LEMOINE PERIGNON & Cie
EXPRESS TRANSPORT S.A.
33, RUE DE CHABROL, PARIS 10^E
TRANSPORT DE TABLEAUX ET STATUES
Numero ... Daulte [illegible] enleve chez De la Rancheraye
Auteur Larionov
Titre Saucissons et Maquereaux rayonnistes
Reference E[...]/3628 (illegible script)

Notes: adhesive label with printed and handwritten text, localisation: vertical centre-bar, no information on dating available, label is related to shipping of the painting by the French shipping company Lemoine Perignon et Cie

8. [illegible]

Notes: fragments of an adhesive label with green paper support, localisation: left stretcher bar, possibly might be an label by the French shipping company De La Rancheraye et Cie which is available of another painting (see examination report on the painting *Portrait of a Man*)

9. galerie gmurzynska

obenmarspforten 21 5000 köln 1 tel. 236621/22

Michail Larionov

„Würstchen und Makrelen“

Öl auf Leinwand

46 x 61 cm

1912

Notes: adhesive label with printed text from the former owner (Gallery Gmurzynska), dated to 1979 or earlier, localisation: left stretcher bar, paper fluoresces strongly (contains optical brighteners)

10. 123

Notes: adhesive label with handwritten non-original inscription, written with marker pen, localisation: vertical centre-bar, paper fluoresces strongly (contains optical brighteners), no information on dating available

11. LARIONOW

2

Notes: adhesive label with handwritten non-original inscription, written with blue pen, paper fluoresces strongly (contains optical brighteners), localisation: lower stretcher bar, no information on dating available

12. 46 x 61

Notes: handwritten non-original inscription (size of the painting), written with black marker pen, localisation: upper stretcher bar, no information on dating available

13. '123

Notes: handwritten non-original inscription, written with green marker pen, localisation: upper stretcher bar, no information on dating available

14. 19986

Notes: handwritten non-original inscription, written with black marker pen, localisation: lower stretcher bar, no information on dating available

2.4 Sizing and ground layer

No sizing of the canvas was detected with optical microscopic investigation. It is supposed that there is no sizing because the ground layer in parts has penetrated through the canvas on the reverse (see Figs. 5 and 6) and several canvas fibres are not integrated into the weave structure (no smooth texture of the weave) on the front side (see Figures 15 and 16).

The slightly water and alcohol-soluble⁵ white ground was applied as a relative thin but opaque single layer on the entire surface up to the turnover edge and then with an overlap of approx. 1 cm onto the tacking margins (see Fig. 12). As the ground has a varying thickness and it was not applied up to the cutting edge of the canvas there is no evidence for the presence of an industrially prepared canvas. Occasionally slight impressions of brush strokes may be seen in the surface. The thickness of the hand-prepared ground layer varies; at the edges the layer is thinner than in the centre of the painting. The structure of the canvas remains visible. Some heights of threads are hardly covered with the white ground (see Fig. 16). There are many areas at the edges and between passages of paint layers where the paint does not fully cover the ground layer (see Figs. 13 and 14). Viewed under ultraviolet light the ground fluoresces strongly and it exhibits fluorescence of a yellowish tone, which is consistent where the ground is exposed on the recto, verso and tacking margins. The fluorescence of a yellowish tone might indicate that the ground contains zinc white (see analysis by AA&R). Even with the naked eye you notice that the ground layer has a rough and porous structure as well as a mat surface. Viewed at a magnification of x40 the ground layer contains a component of coarse-grained particles (pigments or filling material). It has an open porous structure with voids and there might be several depressions left by air bubbles (Figs. 6, 15 and 16).

2.5 Underdrawing

Evidence for the presence of underdrawing was not visible neither with macroscopic nor microscopic investigation. It is likely that the artist worked directly, without underdrawing. Further information according to the use of an underdrawing work might be given with hyperspectral imaging.

2.6 Paint layer

Larionov applied paints of different tones quickly with brush⁶ up to the turnover edge; the paint extends up to 1 cm beyond the turnover edge onto the tacking margins (see Figs. 2, 11 and 12). There are many areas with voids where the ground layer is even visible with the naked eye on the front side within rather thickly applied passages (see Figs. 13, 14 and 17). These areas of different size are not losses, but rather places where the brush stroke of the paint layer has not covered the ground.

⁵Water and alcohol-solubility of the ground layer was tested in at the edges and at the tacking margins (magnification of x 40).

⁶ Several brush hairs are embedded in the paint layer from colour application by the artist.

The water-insoluble and in parts slightly alcohol soluble paint layer⁷ has a relatively mat surface. Surface structure, application of paint and non-water-sensitivity might indicate the artist's use of oil paint as paint material.

Larionov applied lines and shapes in different directions - especially diagonal lines - as compositional elements. He did not use painted outlines for this composition, as may be seen in some other of his works (for example *Rayonnismn, Red and Blue*). Generally he utilised chromatic colours. In addition to a range of blue tones, yellow, orange, green, brown, white and black paints were used. Particularly small areas of dark red crimson tone are visible (see Fig. 21), but the use of this colour is limited. It is obvious that the different shades of blue were mixed by the artist on the palette or applied wet-in-wet on the surface of the painting. It is obvious that Larionov mixed paint with white colour – the extent varies, especially light colours with high load of white paint, for example a light blue tone was probably mixed by Larionov (see Fig. 20).

The paint was applied by Larionov in varying thickness as opaque layers (see Fig. 17) and several areas show impasto and slight relief-like character (see Fig. 27). There are a few areas with opaque and relative smooth layers where the structure of the canvas with its coarse and irregular nature is visible recto (see Figs. 18 and 19). Occasionally there are tiny depressions or voids in the paint layer where the canvas is not fully covered with paint (see Fig. 17).

Mostly paint was applied in wet-in-wet or wet-on-wet technique (see Figs. 20, 21 and 22) but there are also a few area where paint was applied in wet-on-dry technique (see Figs. 23, 28 and 29). A few small lumps respectively paint fragments are visible in the paint layer (see Figure 19). The paint material possibly in parts has already dried before it was applied on the ground layer. Additionally, different tones often were taken up with the brush and blend when applied on the painting's surface (see Fig. 21).

Many areas show obvious brushwork (see Figs. 24 and 25). Often paint was applied with 'harder' brush strokes creating a rough and mat surface and indicating that the paints contain a relative low content of binding medium. Brush strokes were applied in different directions; especially as diagonal lines but they are also criss-cross (see Figs. 14, 20, 26 and 29). In addition, a dark red crimson and a black tone were applied with a slightly stippled texture on a slightly dried white paint layer (see Fig. 21).

As Larionov applied paint layers and passages rather quickly and tones were applied layered upon one another no systematic sequences of paint application were detected. However, often a black tone was painted as last step which overlaps other paint layers (see Figs. 20 and 29). A few areas were highlighted in white tone, too (see Figs. 27 and 28). The recto of the painting is not signed on the front side by the artist. No major revisions or changes are visible in the composition in normal conditions or under magnification.

⁷ Solubility tests were carried out in a yellow, blue, green and black area. Only the yellow paint seems to be slightly water-soluble.

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. No evidence for a former removal of varnish was detected (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 authentic.

3. Photographic documentation

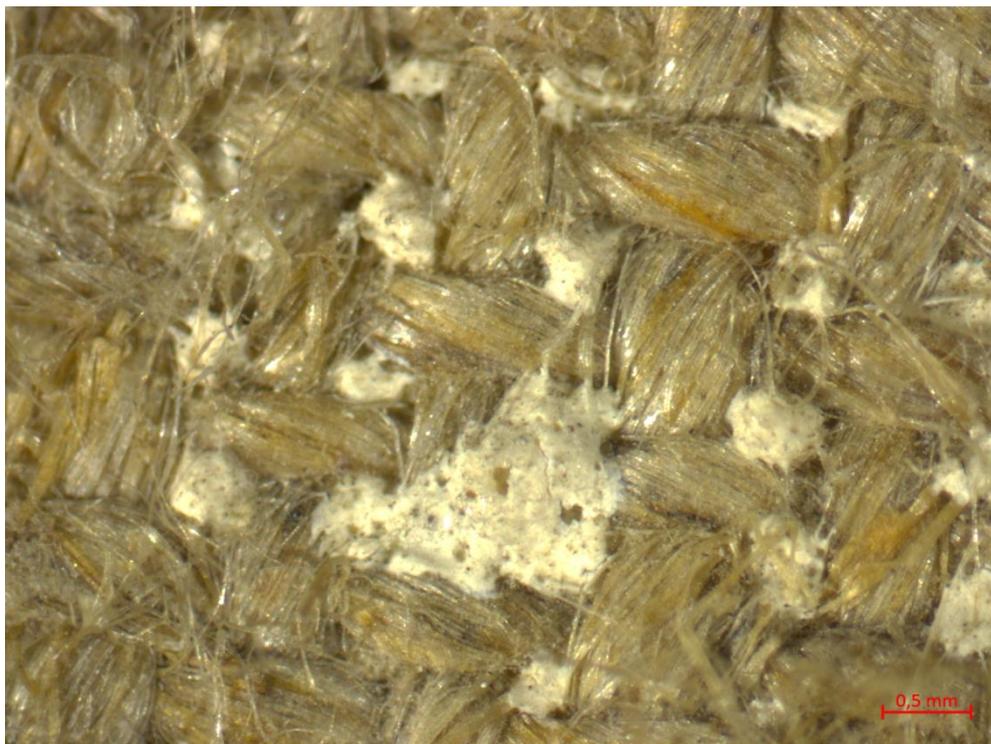
Technical aspects



Figures 1 and 2: *Rayonistic Sausage and Mackerel*, details macro, reverse (Fig. top) and lower tacking margin (Fig. bottom), incident light. The canvas is quite open, of a coarse and irregular nature showing much variation of the threads in both directions.



Figures 3 and 4: *Rayonistic Sausage and Mackerel*, microscopic photographs, x 20, reverse, incident light. Frequently several brownish wooden fibres are present in the weave in horizontal and vertical direction.



Figures 5 and 6: *Rayonistic Sausage and Mackerel*, microscopic photographs, x 10 (Fig. top) and x 20 (Fig. bottom), reverse, incident light. The white ground layer came through the canvas on the reverse. It has accumulated in the depths of the weave. It has an open porous structure with voids. There might be several depressions left by air bubbles.



Figure 7: *Rayonistic Sausage and Mackerel*, detail macro, reverse, incident light. On the reverse of the fabric the white priming is coming through the canvas especially in the areas where the bars of the original stretcher were located. The width of the original out bars was not as narrow as the current ones.



Figure 8: *Rayonistic Sausage and Mackerel*, detail macro, reverse, incident light. There is a small area where fibres of paper – likely to be the remains of a label - are stuck to the canvas.



Figure 9: *Rayonistic Sausage and Mackerel*, detail macro, reverse, incident light. On the reverse in the lower part of the canvas there is the handwritten inscription 'Larionoff'. The priming is coming through the canvas especially in the areas where the bars of the original stretcher were located.

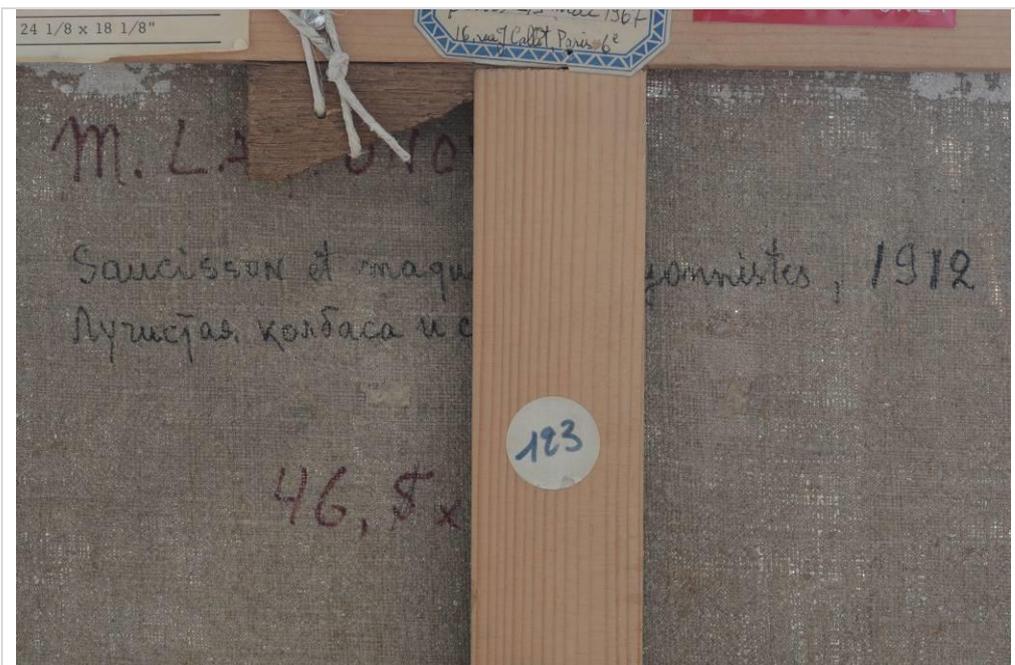
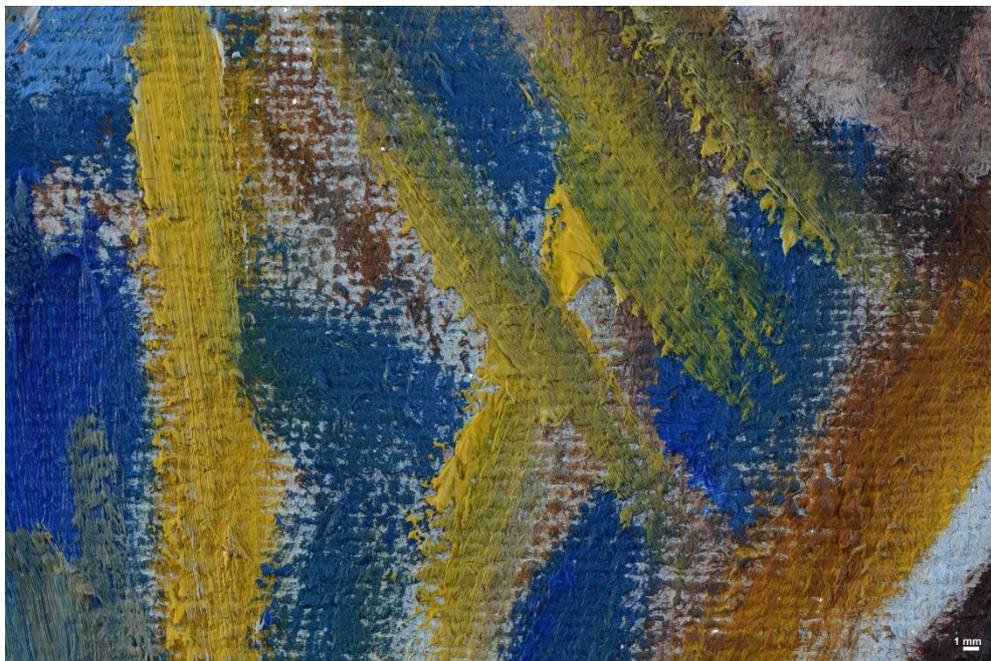


Figure 10: *Rayonistic Sausage and Mackerel*, detail macro, reverse, incident light. On top of the canvas there is a handwritten inscription which contains the name of artist as well as title, date and size of the painting. The title is written in French (Saucisson et maquereaux rayonnistes) and repeated in Cyrillic (Lučistaja kolbasa I skumbrija).



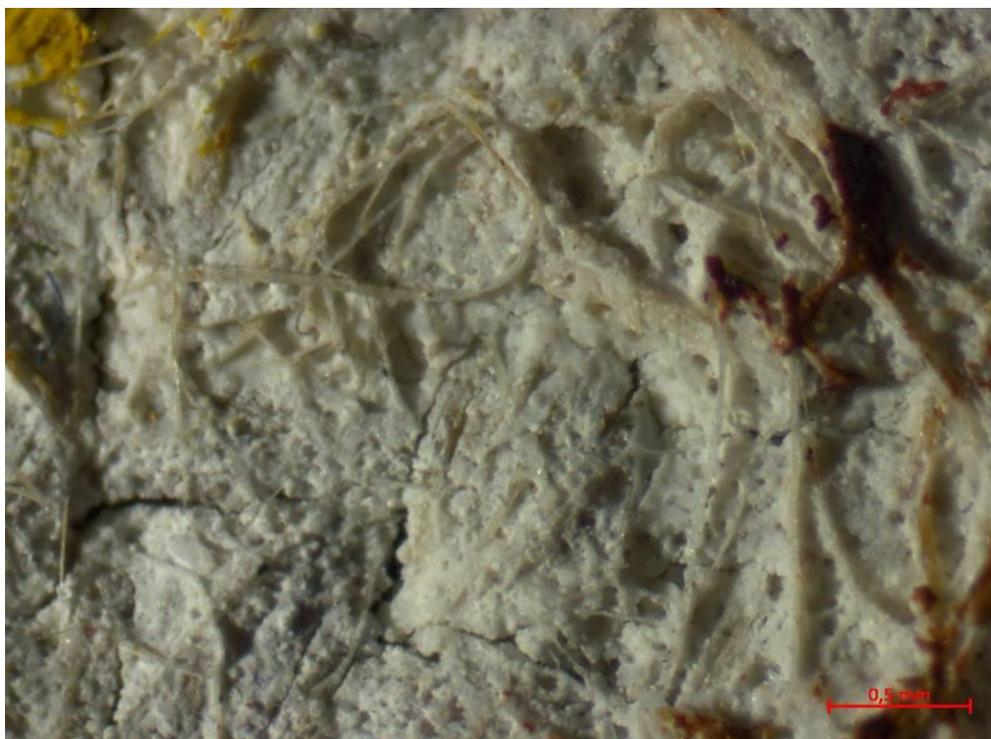
Figures 11 and 12: *Rayonistic Sausage and Mackerel*, details macro, right (Fig. 11) and upper (Fig. 12) tacking margin (considered from the front), incident light. There are small holes in the canvas at the tacking margins with associated traces of red corrosion. The white ground extends a few millimetres on the upper tacking margin.

localisation of Figures 13 and 14



Figures 13 and 14: *Rayonistic Sausage and Mackerel*, details macro, lower edge, right area, incident light (Fig. top), left part, centre area, raking light (Fig. bottom). At the lower edge the white ground is clearly visible (see Fig. 13). There are several areas between passages of paint layers where the paint does not fully cover the white ground (see Fig. 14).

localisation of Figures 15 and 16



Figures 15 and 16: *Rayonistic Sausage and Mackerel*, microscopic photographs, x 20, lower edge, left area near corner (Fig. top) and x 32 (Fig. bottom), left lower part, raking light. The ground has an open porous structure with voids and there might be depressions left by air bubbles. Some heights of threads are hardly covered with the white ground.

localisation of Figure 17

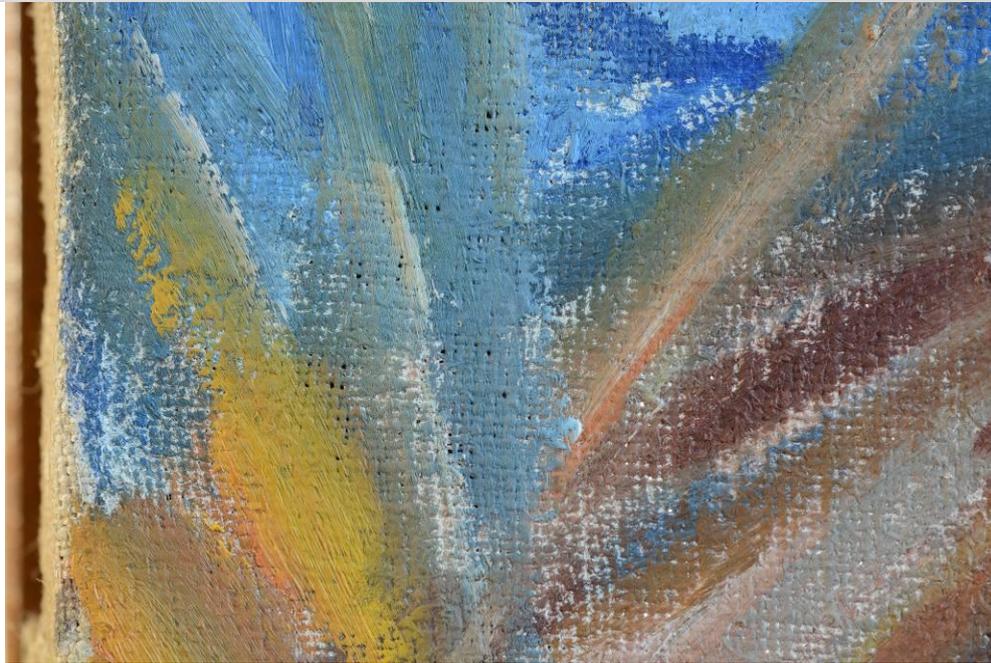


Figure 17: *Rayonistic Sausage and Mackerelsrel*, detail macro, left edge, centre area, raking light. Occasionally there are tiny depressions or voids in the paint layers where the canvas is not fully covered with paint.

localisation of Figure 18

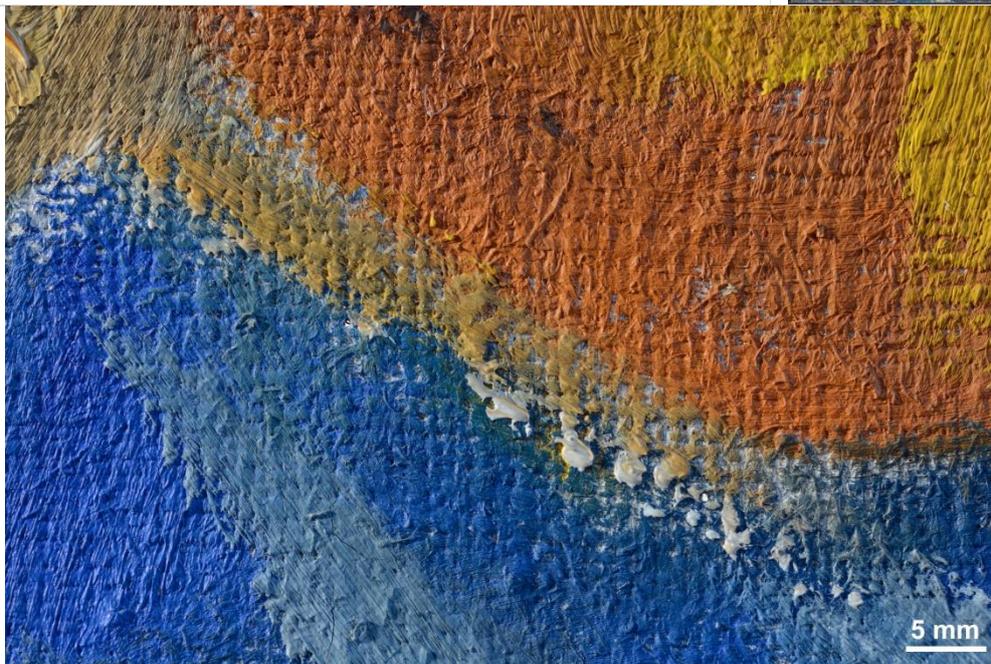


Figure 18: *Rayonistic Sausage and Mackerel*, detail macro, left lower part, raking light. In areas with a thin and opaque paint layer the structure of the canvas is still visible.

localisation of Figure 19

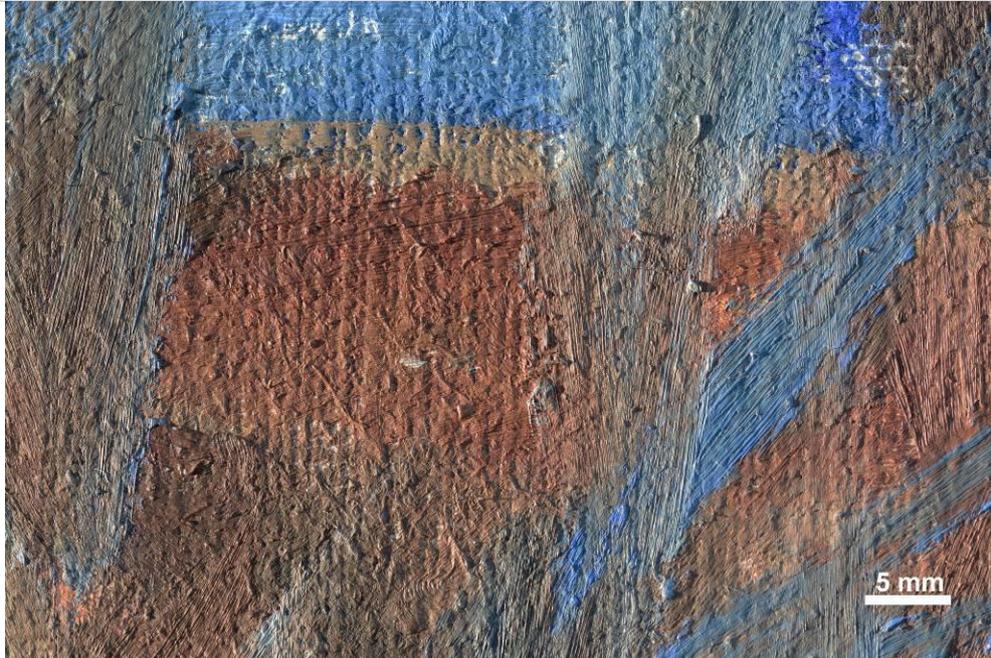


Figure 19: *Rayonistic Sausage and Mackerel*, detail macro, upper part (centre area), raking light. A few small lumps respectively paint fragments are visible in the paint layer.

localisation of Figure 19

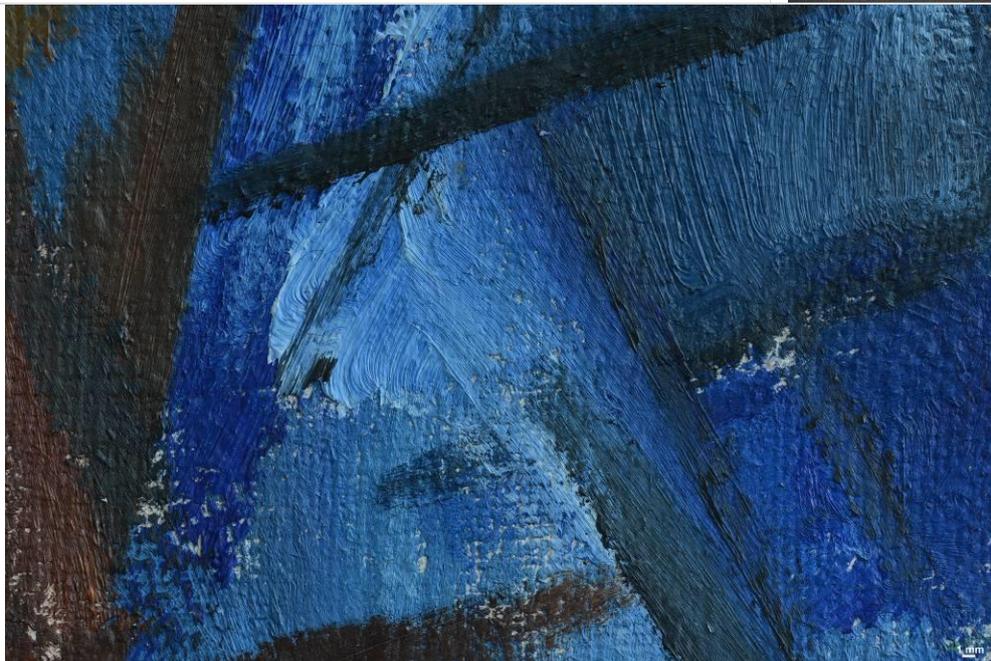


Figure 20: *Rayonistic Sausage and Mackerel*, detail macro, right upper edge, incident light. The light blue tone was probably mixed by the artist not homogenously. The lines in black tone were painted as last step when the underlying layers were no longer wet.

localisation of Figure 21



Figure 21: *Rayonistic Sausage and Mackerel*, detail macro, right lower part, incident light. The dark red crimson and the black tone were applied with a slightly stippled texture wet-in-wet on the slightly dried white paint layer.

localisation of Figure 22

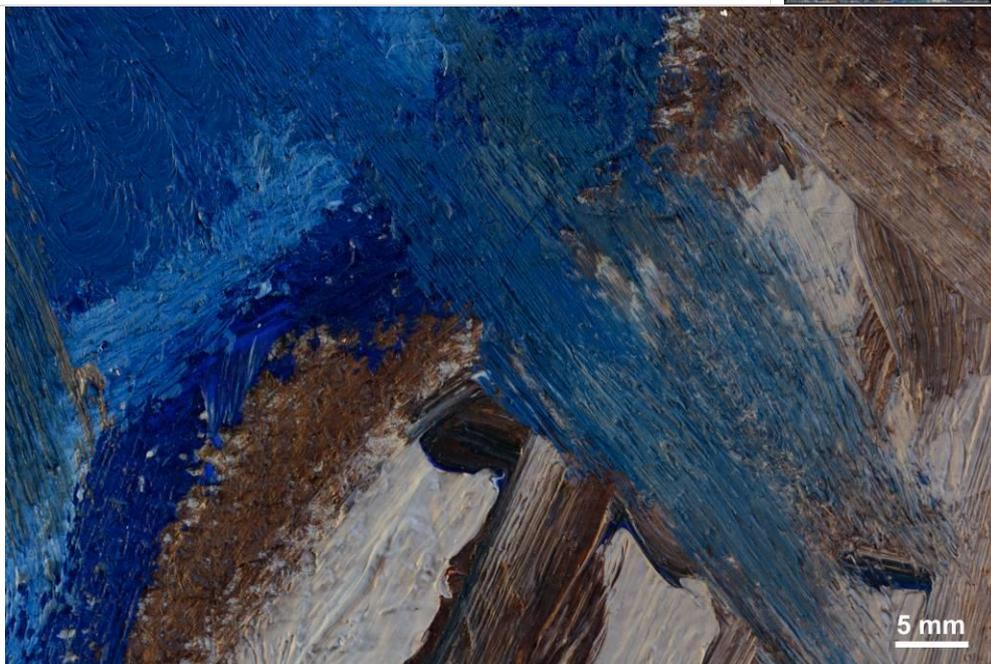


Figure 22: *Rayonistic Sausage and Mackerel*, detail macro, left upper part, incident light. Brushy lines in blue tones were applied wet-on-wet on the underlying paint layers.

localisation of Figure 23



Figure 23: *Rayonistic Sausage and Mackerel*, microscopic photograph, x 6.3, left lower part, incident light. Yellow-orange tones were applied on the already dried blue paint layer.

localisation of Figure 24

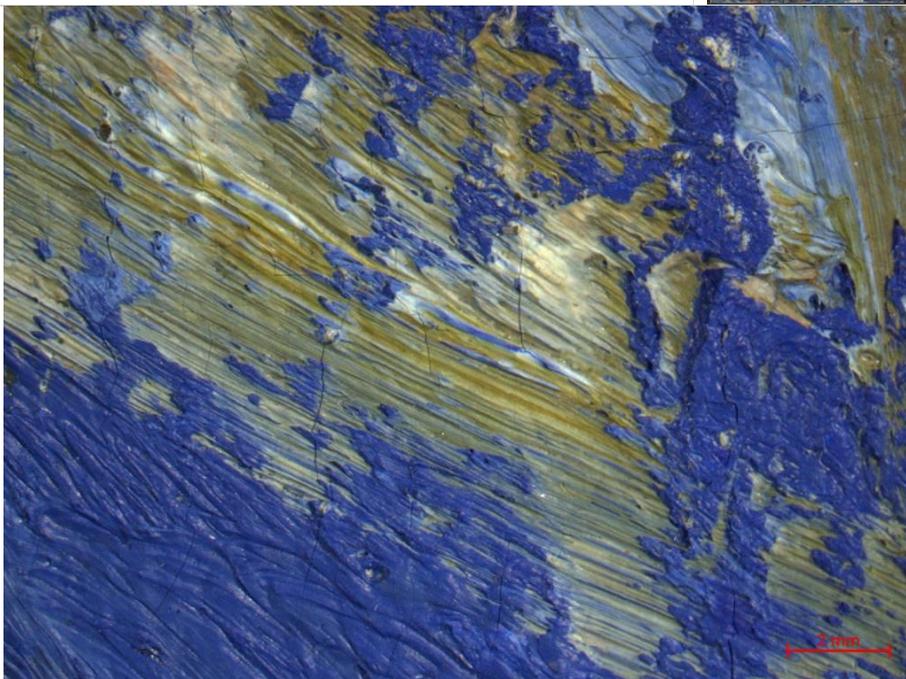


Figure 24: *Rayonistic Sausage and Mackerel*, microscopic photograph, x 6.3, left upper edge, incident light. The different tones on top do not fully cover the underlying blue paint layer.

localisation of Figure 25



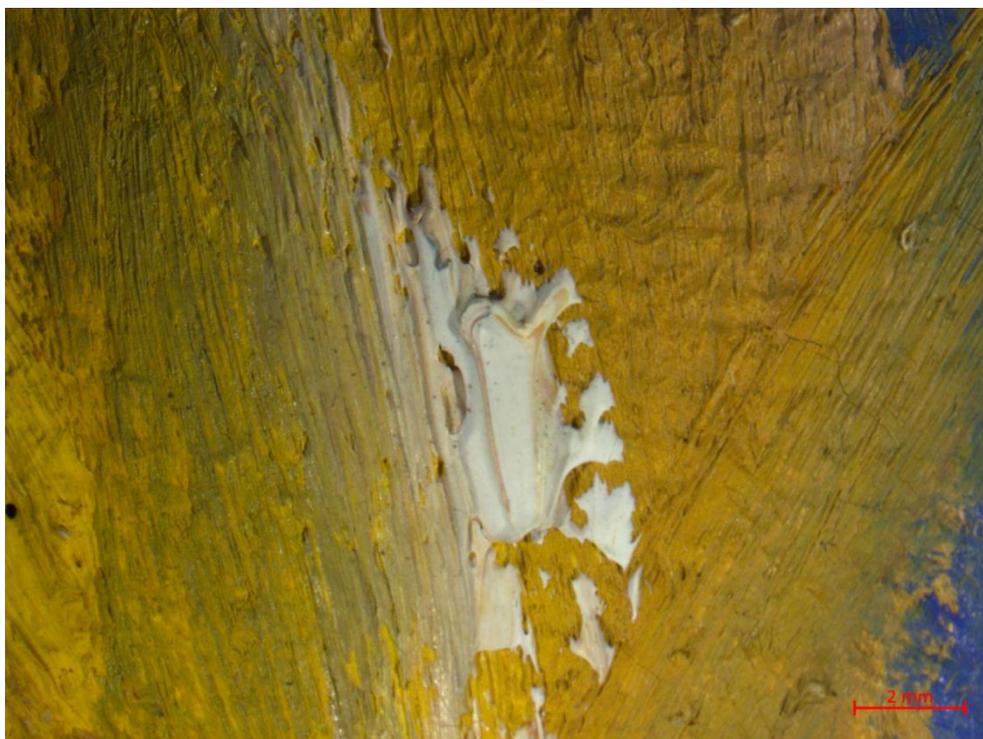
Figure 25: *Rayonistic Sausage and Mackerel*, detail macro, right mid-area, incident light. Obvious brushwork is noticed for the ochre paint layer.

localisation of Figure 26



Figure 26: *Rayonistic Sausage and Mackerel*, detail macro, left upper edge, incident light. Different colours were applied layered upon one another with slight brushwork.

localisation of Figures 27 and 28



Figures 27 and 28: *Rayonistic Sausage and Mackerel*, detail macro, upper part (centre area), incident light (Fig. top) and microscopic photograph, x 6.3, left lower part, incident light. A few small areas are highlighted in white tone.

localisation of Figure 29



Figure 29: *Rayonistic Sausage and Mackerel*, detail macro, right upper edge, raking light. The black tone was applied on other paint layers as last step.