From Munich to Zagreb: Research and conservation of the painting
*The Satyr and the Peasant* by Miroslav Kraljević

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1. Introduction

Last year, an unusually large package arrived at Department for Conservation and Restoration in Zagreb. A century-old painting, all wrapped up in plain bubble-wrap and yellow tape, was carefully brought up the stairs and through numerous doors, to be placed at last on a pair of easels in room No. 4 – the only room at the Department large enough to accommodate an object of such grand proportions. The name of the painting’s author, Miroslav Kraljević, is well known to every Croatian art lover, so the fact that a piece of his work was to be conserved at our Department caused a great interest, both among students and among professors.

The painting’s current legal owner is the Academy of Fine Arts in Zagreb, which acquired the painting in the early 1920s for educational purposes of young art students. Since then, the painting was kept in inappropriate conditions, hung in a smoky Conference Room, where dust and cigarette smoke deposited on the painting’s exposed surface, unhampered by anything or anyone. Fortunately, the owner decided that *The Satyr and the Peasant* deserves a better treatment and allowed necessary conservation treatments to be carried out as part of my diploma work. It was decided, on account of painting’s size, that a team of skilful 3rd-year students will assist with the work, under constant supervision of Assoc. Professor Tamara Ukrainčik.

Prior to starting of any significant conservation treatment, it was crucial to investigate all aspects of the painting. Its history was meticulously researched in order to learn and understand intentions and motives that stood behind Kraljević’s work. The materials he used were thoroughly examined with an aid of instrumental analyses, so that appropriate conservation treatments could be chosen and applied.

This short article will provide you with a glimpse of the work that has be done, as well as an insight into work that yet awaits us.

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2. The Satyr and the Peasant

The painting depicts a homely scene, set in the house of a Peasant’s family (Picture 1). The Peasant, dressed in bright red shirt and barefooted, sits at the table, cooling his food by blowing on it. On the opposite side, the Satyr is standing up from his chair, pointing demonstratively at the Peasant’s action. The two characters form the basis of the work, around which other figures are arranged to form an intimate atmosphere. Between the Peasant and the Satyr, a grandmother sits in a wicker stool, holding a child in her lap, while Peasant’s wife places a basket of fruit on the table, staring directly at the viewer. Little boy stands aside, eating a piece of bread behind the Peasant’s back. Domestic animals are also incorporated into the scene and depicted with great precision.²

Picture 1. Miroslav Kraljević, The Satyr and the Peasant, oil on canvas, dimensions: 196 x 199,9 cm, property of Academy of Fine Arts in Zagreb (Mario Braun, 17th February 2015)

² Aside from a domestic cat and a still unidentified breed of rooster, a breed of Holstein-Friesian cattle – a black and white cow - makes its appearance. Greater Swiss Mountain dog, which was depicted beneath the table, was identified. This particular breed was popular among farmers, tradesmen and butchers, and was often referred to as “the poor man’s horse”, as it was used for drafting.
The prevailing palette consists out of earthen tones, which create general uniformity and harmony, while areas coloured with stark red and pristine white add necessary contrast and liveliness. The volumes are created using chiaroscuro, with dark background serving as backdrop from which life-sized figures emerge into the light.

To an uninformed observer, Kraljević’s painting may appear as a work of an Old Master, despite being only a century old. The reason for the paintings’ baffling Baroque appearance lies not in Kraljević’s manner of painting, but in the fact that this particular piece is, in fact, a copy of a 17th century painting. The original was painted by Jacob Jordaens, a famous Antwerp painter and contemporary of Peter Paul Rubens and Anthony van Dyck. His painting, created around 1620, was inspired by one of the Aesop’s fables, entitled The Satyr and the Peasant (what a surprise!). Aesop’s stories gained much fame in northern Europe after being publicised in 15673 and 16174, and served as an inspiration for numerous artworks, chiefly of didactic nature. The latter edition, titled Royal Hunting Grounds of Animals (Vorstelijke Warande der dieren), more likely served as a literary source for Jordaens (Picture 2).

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3 Warachtige fabulen der dieren was written and translated by Edewared de Dene and published by Pieter de Clerck in Brugges. The fables were accompanied by 108 illustrations, engraved by Marcus Gheeraert Jr.

4 Vorstelijke Warande der dieren: was written and translated by Joost van den Vondel and published by Dirck Pietersz in Antwerp. The series of engravings by Marcus Gheeraert Jr. was reused for this edition.
The story, published under number LXVII (no. 67), was written in verse and described an encounter between the Peasant and the Satyr in the woods. Noticing that the "half-goat-half-man" is freezing, the Peasant kindly invited him into his home.\(^5\) The Satyr accepted the invitation and agreed to join his new acquaintance at his meal. At the table, the Peasant started to cool hot food with his breath. Seeing this, the Satyr remembered that the Peasant used the same breath to warm his fingers while they were freezing in the woods. Shocked with the fact that the Peasant blows both hot and cold air with the same breath,\(^6\) he flees the scene, deeming the Peasant to be a powerful and duplicitous sorcerer. The story ends with an ambiguous advice, which recommends wise men to be kind and loving towards the one who "holds fire in one hand and water in other" in order to avoid his "evil sorcery".\(^7\)

Jordaens must have been quite intrigued with the fable's didactic message (or with opportunity to depict peasant subjects in mythological context?), as he continued to revisit the theme during his lifetime, completing at least dozen paintings on the same topic. The version that Kraljević has copied is currently on permanent display at Old Pinakotheke in Munich, in Gallery VI.\(^8\)

3. From Munich to Zagreb: A painting’s odyssey

At the beginning of 20\(^{th}\) century, the copying practice still played a vital role in education of young art students. Although copying lessons were no longer held at Academy of Fine Arts in Munich by the time Kraljević enrolled at Prof. Habermann’s drawing class, the urge to copy, imitate and emulate Old Masters still existed among artists.

Kraljević wanted to create an copy with identical dimensions as that of original, but despite his best intentions, a discrepancy between original’s and copy’s dimensions exists. The original measures 174cm (5ft 8½in) in height and 203,5cm (6ft 8in) in width, while Kraljević’s copy measures 196cm (6ft 5in) in height and 199,9cm (6ft 6in) in width (when measured without decorative frame). The inconsistency in dimensions can be explained by fact that Kraljević blindly followed dimensions of original that were stated in Old Pinakothek’s catalogue, without realizing that painting’s dimensions had changed in the meantime.\(^9\) It is known that

\(^5\) In the original tale, told by Aesop, the Satyr takes the Peasant into his cave and throws him out after the incident. The fact that Jordaens sets his scene in the Peasant's home rather than in the Satyr's cave, goes in favour of the presumption that he used Vondel's translation as his literary source. Vondel's translation clearly stated that the incident took place at the peasant's house.

\(^6\) This story is the first documented mentioning of the phrase "to blow hot and cold". Today this phrase depicts a person who is changeable or uncertain, someone who vacillates easily, while in Jordaens' time it reffered to two-facednes and hypocrisy.

\(^7\) VAN DEN VONDEL, Joost; Vorstelijke warande der Dieren waar in de Zeden-rike Philosophie, poëtisch, morel, en historieel, vermakelijk en treffelijk wordt voorgesteld, published by Dirck Pietersz, Amsterdam, 1682, page unmarked

\(^8\) http://www.pinakothek.de/en/jacob-jordaens (website visited on 10th April 2015)

\(^9\) Painting’s dimensions were stated as: 1,94m in height and 2m in width (source: UNKNOWN AUTHOR, Katalog der Gemälde-Sammlung der Kgl. Älteren Pinakothek in München, Verlagsanstalt F. Bruckmann, Munich, 1904, page 179)
original's dimensions changed drastically during its past and painting's top and bottom were trimmed down at more than one instance.\textsuperscript{10} The difference in paintings appearance can easily be spotted when Valentine Green’s engraving of the painting from 1796 is compared with photography of painting’s current state (Picture 3).

![Picture 3. Comparison of Valentine Green’s engraving from 1796 (left) with Jacob Jordaen’s painting (right). Both painting’s top and bottom were drastically cut down.](image)

There are no existing records of copyist activities dating from 1910, but it is generally considered that Kraljević executed his copy in early 1910\textsuperscript{11} – definitely before April, when his first letter to his future art dealer, Antun Ulrich was written. In it Kraljević informs Ulrich that he just “finished a good copy after Jordaen’s painting \textit{Sylen at Peasant’s} in original size 2m4cm – 194 [sic]”\textsuperscript{12} He did not offer his copy to Munich art dealers and he intended to sell the painting in Ulrich newly opened gallery, believing that Croatian public will highly appreciate such exquisite copy.

Ulrich misunderstood Kraljević’s request and thought that young artist had an entire collection of copies to exhibit. In his next letter, Kraljević corrected him, saying he only had “one good copy he would like to present to public and, if possible, under good conditions – but very good – to sell”. In the same letter he said he “most certainly will send [the copy] at Ulrich’s address where he will have it framed when it arrives.”\textsuperscript{13}

\textsuperscript{10} UNKNOWN AUTHOR; \textit{Katalog der Gemälde-Sammlung der Kgl. Älteren Pinakothek in München}, Verlagsanstalt F. Bruckmann, Munich, 1904, page 179
\textsuperscript{11} HORVAT PINTARIĆ, Vera; \textit{Miroslav Kraljević}, Globus, Zagreb, 1985, page 287
\textsuperscript{12} Miroslav Kraljević’s letter to Antun Ulrich, written on 18th April 1910, Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-388/X
\textsuperscript{13} Miroslav Kraljević’s letter to Antun Ulrich, written on 28th April 1910, Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-405/X
Kraljević's took down his copy from the stretcher and rolled it, possibly on an improvised drum. It was sent to Antun Ulrich via forwarder Michael Heimerl, whose office was on spitting distance from Old Pinakothek and Kraljević’s atelier. In telegraph sent from Požega on 23rd May 1910 Kraljević requested “one frame for the painting”. Ulrich apparently did not frame the painting after receiving the telegraph, as details about the frame were further discussed in the following letter, which was written after Kraljević’s “longer trip” abroad. By that time, the painting already arrived in Ulrich’s gallery, and art dealer further discusses costs necessary for painting’s mounting and framing - according to his estimation “it will amount to 60krunas”.

In following letter Kraljević requested price of the painting to be set at 600-700 krunas and transcribes from to word the Jordaens’ biography and painting’s description from Old Pinakothek’s catalogue. He also requested from Ulrich to “refresh” the painting “with Mussini’s Malmittel No. III (mit grüner Etikette)” as the painting was on several places “eingeschlagen” (ger. damaged).

The painting, despite its quality and artistic value, was not sold for long time and Kraljević had to fight to keep painting’s price at 400, 500 krunas. It is still not known when the painting was sold and for what price, but we do know it eventually became property of government’s Committee for Education and Religion.

In 1921 Academy of Fine Arts requested from Committee for Education and Religion to grant them Kraljević’s painting for their collection of Old Master’s copies. Thus, the Academy became the owner of Kraljević’s painting, and it was listed into Academy’s collection with inventory number 191. Whether the painting ever fulfilled its educational role is not known, but it is known that it at last ended up in Conference Room at Academy.

4. Let materials talk!

Detailed examination of the painting allowed us to understand Kraljević’s creative process and his painting technique. We have been able to determinate the materials Kraljević used in the creation of this painting by employing visual observation, and analytical and instrumental analyses. The obtained results about materials and their

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14 The name and adress of forwarder was mentioned in Miroslav Kraljević's letter to Antun Ulrich, where it was stated that Heimler's office was situated at Schellingstrasse 36 (Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-404/X)
15 Miroslav Kraljević’s telegraph to Antun Ulrich, Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-408/X
16 Miroslav Kraljević’s letter to Antun Ulrich, written on 4th July 1910, Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-404/X
17 Miroslav Kraljević’s letter to Antun Ulrich, not dated, Croatian Academy of Sciences and Arts, Archives of Fine Arts, inventory number: K-402/X
18 Academy of Fine Arts acquired Old Master’s copies by Croatian artist, such as Josip Račić, Ljubo Babić, Ivan Benković. The copies were meant to be used as educational means for young art students who, by copying and imitating these paintings, would improve their skills and painting technique. (source: Request for Kraljević’s painting, 5th September 1921, Archive of Academy of Fine Arts in Zagreb)
properties, and derived conclusions were taken into consideration while opting for most adequate conservation treatment.

4.1. Decorative frame

The frame measures 201.5cm (6ft 7in) in height and 207cm (6ft 9½in) in width. It is approximately 6cm (2.3in) thick and is carved from a yet unidentified type of softwood. The frame was primed with greyish priming, most likely chalk-based, and then gilded with an imitation gold leafs. A translucent layer of yellow-coloured varnish was applied atop of imitation gold leafs, presumably to add warmth and create an illusion of real gold.

Two inscriptions were written on gilded surface of frame – “Jordans XVII vijek” and “satir” (Picture 4). The back of the decorative frame bears no inscriptions, markings, brands or labels which could help us identify the frame-maker or offer us additional historical information about the frame or the painting itself. There are, however, remains of one label of round shape on the left side of the frame (when observed from viewer's standpoint). The label is too damaged too interpret its meaning, but it can be assumed it was an inventory label from the art dealer or previous owners.

As the label was pasted on both the frame and the stretcher, it can be presumed that they belong to the same chronological period and that they are, most likely, the same frame and stretcher that Kraljević ordered from Ulrich in his letters from Munich.

*Picture 4. Inscriptions “Jordans XVII vijek” (translation: Jordans 17th century) and “satir” (translation: satyr) are visible on the decorative frame (Mirna Međeral, 10th February 2015)*
4.1.1. State of decorative frame

The decorative frame was in generally good state. Its structure and stability were sound, and the wood was not infested by insects or infected by microorganisms. The frame suffered, as well as the painting itself, from a layer of dust and dirt that deposited on the gilded surface over the years. Taking in consideration the fact that the painting was kept in a room where smoking was allowed and widely practiced, it can be presumed that the greater part of superficial dirt actually consists out of tobacco smoke residue – the so-called "thirdhand smoke".

The afflicted mechanical damage presented a far greater problem. Because of mishandling and inadequate care, the faux gilded surface suffered many grazes and cracks, while all four corners were heavily notched. Corners and more prominent parts of frame were more prone to damage and ground losses; in greater lacunas and delaminations even the underlying wooden structure could be seen.

More conspicuous damages were ineptly repaired by wax-based fillings, which were "retouched" with golden colours. The golden retouches have a greenish undertone and are easily discerned from imitation gold leafs.

4.2. Stretcher

The canvas is mounted on a wooden stretcher whose dimensions, naturally, equal that of the painting. The thickness of planks is 2cm (0,7in), while its width varies from 7,3cm (2,8in) up to 7,8cm (3in). The type of wood was not analyzed, but it is presumably the same softwood from which the decorative frame was made of. While framing the painting, eleven 5cm (1,9in) long carpenter nails were hammered evenly through the stretcher and into the decorative frame in order to keep the painting in its place.

Aside from remains of the previously mentioned round label, there is also a plaque glued on the horizontal crossbar. It was placed by current owner and it is inscribed with basic information about the painting. An additional label was affixed after the painting arrived at Department of Conservation and Restoration, with inventory number assigned by a conservator.

4.2.1. The state of the stretcher

The stretcher is in very good state and no greater problems save that superficial dust and dirt were noticed.
4.3. Canvas

The canvas is linen and plain weaved, with approximately 16 horizontal threads (weft) and 17 vertical threads (warp) per square centimetre (Picture 5). Although the canvas is densely woven, the thinness of threads used makes its texture rather fine and delicate. The canvas appears to be of slightly brownish colour, but its natural colour value cannot be asserted with precision, since a layer of dirt and dust covers entire back of the painting.

Marijana Pavunc, MEng of textile technology from the Faculty of Textile Technology, was kind enough to analyze samples of vertical and horizontal threads and make their cross-sections.

We can infer that the canvas was bought already primed, as the priming is applied in a very thin and uniform layer to the very rim of the canvas. The priming is greyish in colour due to dirt deposits, but it consists out of lead white pigment. Its presence was detected and confirmed by X-ray fluorescence analysis, which was conducted by Vladan Desnica PhD from the Department of Conservation and Restoration. The presence of lead white corresponds with general late 19th and early 20th century practice when larger quantities of canvas were industrially primed with thin layer of lead white (or lead white mixed with zinc oxide) and linseed oil.

*Picture 5. Close-up photo of canvas structure and its darkened surface (Mirna Međeral, 10th February 2015)*
4.3.1. The state of the canvas

The canvas is generally in very good state. It is almost intact; aside from one minor loss in the canvas and an equally small loss of ground, the canvas in perfectly preserved.

Judging by the number and various sizes of nails holes on canvas edges, it can be presumed that the painting was at least three times mounted and remounted. The first mounting, of course, took place in the Old Pinakothek during Kraljević’s copying session. The second mounting was performed by Antun Ulrich, after receiving the rolled painting from Munich. When and by whom the third mounting was carried out is yet unknown.

The last mounting was poorly executed so the front of the painting is not perfectly aligned with the edges of stretcher. Because of this, a strip of barren, unpainted canvas is visible on the right side of the painting, behind the Satyr’s back. The canvas is not very taut and upper right corner is slightly warped. The back of the painting does not suffer from dark thirdhand smoke as front of the painting does, but a layer of dust and dirt still obscures the genuine colour of canvas.

4.3. Paint layer

Miroslav Kraljević painted *alla prima* and most of his works were created in a couple of sessions. This painting, on the other hand, took 2 and a half, 3 months to complete and was still not thoroughly dry when it was rolled and packed to be sent to Ulrich. The painting was not as thickly painted as Kraljević’s other works; at some instances his paint layer is very thin and almost transparent. The reason for this probably lies in Kraljević’s intention to imitate Jordaens’ painting technique, although a possibility that the striving young artist decided to use his expensive colours sparingly in order to reduce costs cannot be completely discarded. The paint layer was more thinly applied when greater surfaces had to be painted, such as dark background or the Peasant’s red shirt, although almost glaze-like paint was also noted in contained shadows of characters, where transparent layers of brown were used. Paint was more thickly applied when Kraljević worked with brighter colours, such as ochre and white, and while depicting the complexion of figures. *Impasto* was used to create additional texture, particularly in areas depicting human hair and animal fur.

Using X-ray fluorescence we have been able to detect pigments used in the creation of this painting (Picture 6). Vladan Desica PhD analysed obtained spectres and concluded that analyzed pigments chiefly correspond to colour palette on other Kraljević’s works. For white, Kraljević used exclusively white lead pigment, which also served as main component for mixture of colours used to depict the figure’s complexion. Other pigments in this mixture were yellow ochre and vermilion. Vermillion with addition of ferrous oxide was used for reds in the painting, while cobalt blue was the only blue pigment detected. Chrome oxide green was used to
depict green leaves and grapes in fruit basket. For browns, Kraljević used earthen pigments, such as brown ochres and umbers. The presence of some organic pigments, such as bone black and alizarin,\textsuperscript{19} will be confirmed with the fibre optics reflectance spectroscopy analysis.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{Vladen Desnica PhD conducting x-ray fluorescence analysis of pigments (Mirna Mederal, 18\textsuperscript{th} December 2014)}
\end{figure}

Analysis of the binding medium was carried out at the Faculty of Natural Sciences, Mathematics and Education (University of Split), by Ivica Ljubenkov PhD. Fourier-transform infrared spectroscopy was used and the presence of triglycerides was detected. Additional analyses will be made to confirm the presence of linseed oil, heat-bodied linseed oil or other slow-drying painting medium based on oils. Although Kraljević usually used a slow-drying medium to prevent his colours from drying,\textsuperscript{20} considering the circumstances in which the painting was created, it is more probable that Kraljević opted for ordinary linseed oil.

\section*{4.3.1. State of paint layer}

The paint layer is in excellent state and no major problems were noticed, aside from darkened retouches on the Peasant’s red shirt and two badly yellowed fillings on areas depicting children’s white clothing and table cover. Small craquelures, characteristic for Kraljević’s painting style, appeared on areas where black and dark

\begin{footnotesize}
\textsuperscript{19} An 1986’ research of Kraljević’s painting technology confirmed presence of alizarin in Kraljević’s reds. It can be expected that alizarin is present in Peasant’s shirt, as it is slightly “cooler” in undertone than other reds in the painting, in which vermillion and ferrous oxide were detected. (source: GROUP OF AUTHORS, \textit{Tajnovite slike Josipa Račića i Miroslava Kraljevića}, catalogue of exhibition: \textit{Secret paintings of Josip Račić and Miroslav Kraljević}, held 6th March – 6th April 1986, Modern Gallery, Zagreb, 1986, page 62)

\end{footnotesize}
brown colours were used. Their formation is a consequence of mixing colours with too much oil and their expeditious and reckless application on previous layers of paint that have not thoroughly dried.

4.4. Varnish

The varnish was one of the most intriguing and mysterious segments of painting and its components still evade our attempts to identify them with precision. Kraljević’s letter to Ulrich, in which he ordered the painting “to be refreshed” with Mussini’s Malmittel No.3 from Schminke, was a starting-point of our investigation. After contacting the Schminke’s laboratory and Dr Wolfgang Müller, it was learned that all specifications of the 1910s version of Malmittel No. 3 were lost during World War I. Still, he said that the old technical information indicates that a mixture of mastic resin, copal and amber and copaiba balsam was used for this medium.21

The thin-layer chromatography was conducted in order to determine the content of varnish and whether it fits the description given by Dr Müller. Five samples of varnish were sampled from the cleaned surface of the painting, using cotton swabs and ethanol as a solvent. After successful sampling, that inflicted no damage to the paint layer, cotton swabs were left on plastic foil until solvent completely evaporated. Afterwards, samples were stored in a clean plastic bag and sent to the Faculty of Natural Sciences, Mathematics and Education (University of Split), to be analysed. This analysis was also carried out by dr. sc. Ivica Ljubenkov PhD, who kindly provided an explanation for the obtained results.

It was evident that the varnish consisted out of a mixture of different materials and mastic was definitely one of them. As samples of amber and copaiba balsam could not be obtained, Dr Ljubenkov was unable to compare them with our samples. It must be noted that IR spectrum of the varnish also indicated a complex mixture, and only deduction that could be made for certain was that copal was not present.22

4.4.1. The state of varnish

The varnish was covered with a uniform layer of dust, dirt and tobacco smoke deposit, which gave the whole painting a rather dimmed appearance. Fly faeces were also detected, and they were more notable and frequently found in the middle part of the painting, where colours are brighter.

But, placing the painting in Conference Room did not cause only these aesthetically unpleasing changes. Grazes and scratch marks in the bottom part of the

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21 Private correspondence with Dr Wolfgang Müller; Schminke Laboratory, H.Schmincke & Co. GmbH & Co.
22 Private correspondence with Ivica Ljubenkov PhD, Faculty of Natural Sciences, Mathematics and Education, University of Split
painting indicate that chairs were repeatedly leaned against the painting, causing mechanical damage to the varnish layer.

5. Conservation treatments conducted on *The Satyr and the Peasant*

Before starting the conservation treatments, the painting was removed from its decorative frame. Carpenter nails were removed with a cat’s paw nail puller. As the pulling required a greater amount of stress to be applied both on the nails and the softwood stretcher, a bubble-wrap was placed beneath the cat’s paw in order to reduce the damage. Nevertheless, the inevitable splintering did occur, but will be repaired with filling and mild sanding.

5.1. Conservation of the decorative frame

The decorative frame was in somewhat less agreeable state than the painting itself. While the painting suffered only from filth and minor injuries, decorative frame displayed all the side effects of the passing of time and irresponsible maintenance. Although its wooden structure was stable, the adherence of the following ground layer was not as splendid as it could be and required a good deal of work.

5.1.1. Consolidation

Unstable parts, whose adhesion to the wooden structure was weakened, were consolidated using a mixture of medium for consolidation *Plextol D498* and distilled water in ratio 4:1. Before injecting diluted *Plextol D498*, 70% ethanol was applied on areas that were to be treated in order to reduce surface tension and enable better penetration of the consolidant. Once the surface tension was reduced and *Plextol D489* injected using thin syringes, the remains of the consolidant were swiftly removed from the surface. Slight pressure was applied wherever necessary in order to improve adhesion of the ground to the wooden structure.

5.1.2. Cleaning of frame’s surface

Cleaning probes were made with five different cleaning agents, whose main characteristics were mildness, practicability and easy handling. Nine probes were carried out (Picture 7), in the following order:
1) saliva
2) mixture of *Shellsol A* and distilled water (50:50)

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2a) mixture of Shellsol A and distilled water (50:50) + additional cleaning with saliva
3) **Pemulen** water gel (pH6)
3a) **Pemulen** water gel (pH6) + additional cleaning with saliva
4) **Pemulen** water gel (pH8)
4a) **Pemulen** water gel (pH8) + additional cleaning with saliva
5) **Pemulen** emulsion of water gel (pH6) and 5% **BA**
5a) **Pemulen** emulsion of water gel (pH6) and 5% **BA** + additional cleaning with saliva

The last option proved to be the best in terms of the final cleaning effect and rapidity of cleaning and it will be used for cleaning of the entire decorative frame.

### 5.1.3. Removal of old fillings

Old wax-based fillings were carefully removed with a scalpel. The surrounding priming and wooden stretcher were degreased with benzine, which also proved to be an excellent solvent for removal of golden paint applied over the wax fillings. This treatment did not affect imitation gold leafs in any way.

### 5.1.4. What is yet to be done?

Further consolidation of the weakened ground layer is necessary. Once the consolidation treatment is finished, the losses in ground layer will be reconstructed with a filling of appropriate colour. Reconstructed areas will be “gilded” with imitation gold leafs in order to achieve visually uniformed appearance of the whole frame.
5.2. Conservation of the painting

Since Kraljević’s painting possesses both artistic and historical importance, it was our intention to preserve it not only as an artwork, but as a historical document as well. The interventions were kept at minimum and the paintings previous life was respected and not negated with unnecessary conservation treatments.

5.2.1. Cleaning of painting’s surface

Conservation treatments on the painting began even before the decisive results of thin-layer spectroscopy and FTIR were known. It was decided that probes of surface dirt removal will be carried out on less noticeable parts of the painting. Cleaning probes (Picture 8) were conducted with the following cleaning agents:

1) saliva
2) Venetian soap and distilled water (1:8)
3) Vulpex soap and distilled water (1:4)
4) Pemulen water gel (pH6)

All cleaning agents proved to be excellent in removing surface dirt, so the choice of ultimate cleaning agent was based on the principle of lesser invasion. After shorter discussion with Prof. Tamara Ukrainčič, genuine human saliva was chosen in the end, as it has been used as a cleaning agent for surface dirt removal for centuries, without major unwanted effects on treated objects. A team of 3rd-year students put their salivary glands to good use and, using nothing but cotton swabs and their own saliva, removed the surface dirt from painting’s varnish (Picture 9).
The most difficult and nerve-shattering part of an otherwise carefree cleaning expedition, was the removal of dirt from Kraljević’s signature. The signature was not protected as the rest of the painting by the layer of varnish, as it was written atop of it. Removal of dirt was, therefore, limited only to the area surrounding the signature, while the signature itself was not cleaned, in order to avoid erasing it.

5.2.2. Varnish removal probes

Once the surface dirt was removed, an unexpectedly shiny and seemingly transparent varnish was revealed. Although it seemed that its quality was unaffected by time and improper environmental conditions, it was decided that few probes of varnish removal will be conducted in order to determine whether its presence had any impact on the painting’s appearance. Cotton swabs with ethanol were used to remove varnish from area of little boy’s neck. Probe only confirmed what was assumed in the first place – that the varnish yellowed only slightly and that its presence on the painting does not affect its appearance.

5.2.3. What is yet to be done?

The painting is now almost finished. Removal of surface dirt drastically affected appearance of the painting (Picture 9). Yet, there is still jobs to be done. The minor loss in the canvas will be fixed by bridging the broken threads and gluing them with thermosetting glue. If necessary, additional threads, taken from the edge of the canvas, will be used to fill in the gap between the original threads.
Old fillings will not be removed but another layer of new filling will be applied on top of them, levelling them with the thick paint layers. Fillings and older, darkened retouches will be retouched using water colours.

![Picture 9. Comparison of painting’s appearance before (left) and after (right) the removal of surface dirt (Both photos were taken by Mario Braun, on 17th February and 17th April 2015)](image)

As the existence of Mussini’s *Malmittel No. 3* could not be completely ruled out, it was decided not to opt for the removal of varnish. The existing varnish maintained its good properties despite its age and remained elastic, shiny and almost completely transparent. Still, another layer of varnish will be applied, in order to protect the old one and preserve its properties as long as possible.

The problem of imprecise mounting of the painting will also be tackled. The most likely course of action shall involve expansion of the stretcher by hammering the wedges deeper into its corners, thus making canvas more taut. This is less invasive than a removal of canvas from the stretcher, canvas relining and remounting; yet it is expected to yield about the same results. Once the painting is
From Munich to Zagreb: Research and conservation of the painting *The Satyr and the Peasant* by Miroslav Kraljević

framed, the decorative frame will hide the visible strip of blank canvas and this error will not be so conspicuous.

6. Conclusion

The work on the painting is approaching its end, and in a matter of a month *The Satyr and the Peasant* will be back in its shiny frame. What will happen next? Will the painting be placed back in that horrid Conference Room, for people to lean their chairs against it? Or will it be placed in Academy’s depot – faraway from public’s eye and lost somewhere among other clustered works? This is the question on which the legal owner of the painting will have to answer in near future.

But, although the painting’s future prospects are still uncertain, its past cannot be more clearer. A month long research and countless hours spent in archives and libraries helped us to create a detailed image of painting’s past, while numerous conducted analyses aided and guided us in our attempt to provide a royal treatment for this rather special painting. Not many works of art have opportunity to be so thoroughly investigated before being mercilessly assailed with solvent gels and scalpels. It’s a pity, since knowledge and understanding of painting’s every aspect makes practical part of work much easier for the conservator, and enables him (or her) to make informed and ethically correct decisions.

In this particular case, the research occupied a lot of our time, but gained information was crucial for our decision to leave old varnish and not to remove it. If we did not discover that Kraljević insisted on *Malmittel No. 3*, and that Ulrich (most likely) obeyed his wishes, we could have opted for removal of varnish, thus erasing a great and important part of painting’s past.

Not to mention that now we have a far better understanding of Kraljević’s painting technique and materials he used, as well as knowledge of how those materials have aged and how they respond to certain conservation treatments.

Remember: our job is not just to fix it, it is our duty to understand the object’s past and respect it.

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