

**4th International Student Conference of Conservation and Restoration of Works of Art
6th - 8th of November 2019 Cracow, Poland**

LIST AND PROFILES OF PARTICIPANTS

PANEL I | Conservation and Restoration of Paintings I



AGNIESZKA BECZYCZKO
Warsaw, Poland

Academy of Fine Arts in Warsaw, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings and Wooden Polychrome Sculpture (master degree); Supervisor: Prof. Joanna Chernichowska Ph.D.

The Analysis of Iconography, Technique and Technology of Double-sided Painted, Orthodox Church Banners of the Late 19th Century on an Example of Double-sided Painted, Orthodox Church Banner from Horbow

The subject of the presentation is the analysis of iconography, technique and technology of double – sided painted, Orthodox church banners of the late 19th century on an example of the double-sided painted, Orthodox church banner from Horbow, the obverse Icon of Our Lady of Kazan, reverse Icon of the Baptism of Jesus in Jordan, from the collection of the Museum of Southern Podlasie in Biala Podlaska. The historical and iconographical research indicates object as a typical work of Russian Sacred Art at the turn of 20th century. The author found numerous examples of analogous banners from the same period of time. Similarities allowed to take into account possibility of functioning the templates used in workshops that produce religious equipment in the Russian Empire.

The chemical examinations of samples from the Orthodox church banner from Horbow have shown the oil binder used in painting layer and ground layer. Using the oil painting technique for producing the religious banners provided desired flexibility of objects. Moreover, the chemical examinations indicated popular pigments and new materials used in banners of the late 19th century. Furthermore, visual analysis help determine the painting processes and noticed that at least two artists painted the banner from Horbow.

Author explains the phenomenon of painted banners as the leading technology used to create this type of objects in Russia presenting the original connections with icon painting. At the same time oil technique has gained in popularity due to the relatively short time of produce, which was important for the expanding Romanov Empire.



MARGAUX RUON
Paris, France

Ecole de Condé, Painting Restoration Department
National Culture Heritage Conservation (master degree)
Supervisors: Prof. Claude Pepe (UPMC); PhD Thomas Brichart (Glincs S.A.S.)

Using Nanoparticles to Tag the retouching of matte and unvarnished paintings

Following conservation-restoration deontology guidelines by tagging restoration operations have been challenging during my studies and my research about thangka painting restoration. Thangka are Tibetan sacred paintings made of cotton canvas, animal glue and natural pigments. Their alterations and restoration issues are deeply linked to their water-sensitive binder, porous structure, matte and unvarnished aspect. The idea was to find a way to perform a seamless retouching and still be able to identify the retouched areas. To do so, I decided to take inspiration from imaging technic, such as ultraviolet radiation, used for easel painting examination to reveal hidden information in the paint layer. A lot of research are trying and succeeding in taking advantage of nanomaterials to support restoration. I decided to incorporate fluorescent nanoparticules in the retouching materials, with a specific fluorescence depending on the wavelength of the light they are exposed to, in order to highlight the restorer's interventions. I chose and tested several fluorescent materials for months. The research was done in a French laboratory and the fluorescence of the samples containing the various tested materials were measured with a spectrofluorometer. Those results reveal that only the rare-earth elements were stable enough and able to provide an intense fluorescence under ultraviolet light. In the end, Terbium had the most efficient signal under UV light for the lowest concentration. This project has been developed for thangka painting restoration but can be applied to a wider scope of artefacts as long as they present the same characteristics.



JUSTYNA KĘDZIÓRA
Cracow, Poland

Rijksmuseum Amsterdam, The Netherlands
Paintings Conservation Studio
Supervisors: Gwen Tauber, Nienke Woltman

Jan Matejko Academy of Fine Arts in Krakow
Conservation and Restoration of Paintings (master programme)
Supervisor: Aleksandra Hola, PhD

Multi-step cleaning approach and technical study of a 17th c. Dutch genre painting by Nicolaes Maes

'Young women at a cradle' is an example of an early painting by Nicolaes Maes, painted soon after studying with Rembrandt. The wax-resin lined painting was covered with a thick layer of darkened varnish and washes of retouchings. In order to remove these obscuring layers, Evolon CR® tissue loaded with organic solvents was used, followed by aqueous gels. The latter were based on 'resin soaps' suspended in Xanthan gum or on polyvinyl alcohol-borax gels. Alongside the treatment, a technical study of the painting was conducted revealing heretofore unidentified elements: a signature and a painted frame along the top of the painting. The research included the use of techniques such as ultraviolet induced fluorescence photography (UVIFP), infrared reflectography (IRR), X-ray radiography (XRR), automatic thread count method (ATC), scanning X-ray fluorescence spectroscopy (MA-XRF), energy dispersive X-ray spectroscopy (SEM-EDS), gas chromatography with mass spectrometry (GC-MS), fibre optic reflectance spectroscopy (FORS) and imaging infrared spectroscopy (imaging FTIR-ATR). The project was carried out during my internship in the Rijksmuseum Amsterdam.



CARTER LYON
Glasgow, Scotland

University of Glasgow
History of Art (PhD programme)
Supervisors: Dr Mark Richter, Dr Hilary Macartney

Portrait of a Scholar-Artist: Technical evidence of 'theory in practice' in Vicente Carducho's Self Portrait (c. 1633-38)

Vicente Carducho (c.1576- 1638) developed both a style and an understanding of painting that indelibly marked the artistic output of the Spanish Golden Age. His treatise *Diálogos de la Pintura* (1633) was the earliest Spanish-language artist treatise to present a practicable doctrine of painting and commentary on the status of the art of painting in early modern Spain. From a technical art history perspective, this account of artists' materials and methods remains a valuable source for studying art theory and artistic practice of the era. *Diálogos* is a key reference in material analyses of the paintings Carducho produced for the Church and the Spanish court but, until now, no such study has been made of the work that is arguably most intimately related to *Diálogos*, Carducho's Self Portrait (c. 1633-38). This paper will discuss the findings of the recent technical examination of Self Portrait in light of the symbolism included in the painting and the themes expressed in *Diálogos*. In doing so, it will evaluate the extent to which the scholar-artist's practical execution of this work reflects his theoretical principles. The implications of the relationship between 'theory' and 'practice' in these works will also be considered relative to Carducho's involvement in Spanish painters' struggle to gain recognition as noble professionals in the early seventeenth century.



MARTINA BAJEUX KMONÍČKOVÁ
Prague, Czech Republic

University of Chemistry and Technology, Faculty of Chemical Technology of Monument
Technology of Conservation (PhD programme)
Supervisor: doc. Dr. Ing. Michal Ďurovič

Analytical characteristics of reseda luteola lake pigments depending on the method of precipitation

Reseda Luteola is a species of plant growing mainly in temperate and subtropical climate in Europe, India or China. Like other of the Reseda genus, Reseda Luteola in its parts, like leaves or flowers, contains luteolin – a yellow colorant on flavonoid basis. Called weld, it was the most important source of yellow organic colorant for textile dyeing as well as artistic use in form of a lake till 18th century.

The method of preparation of a lake pigment influence final properties of the lake and its correct identification at an artwork can help its interpretation, for example: datation. This paper concerns the properties of lakes pigments prepared by different methods of precipitations of Reseda. Pigment lakes were prepared by sources found in literature. Potassium carbonate, calcium carbonate and potassium aluminium sulphate were used like agents. Other experimental pigment lakes were prepared for example by extraction of weld without previous boiling or usage of double quantity of raw material. Chemical and physical properties of lakes were analysed. The character of the colour change was observed, UV-VIS curves were recorded, microscopic preparations were made to observed particles and fluorescence of prepared lakes. Electron microscopy was employed. The possibilities of Raman spectroscopy (microspectroscopy and with dual laser) were discussed.



MONIKA TOPOLSKA
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings (master programme)
Supervisor: dr Marcin Błaszczuk

Conservation of the prison cell no.3 of the former Gestapo station in Zakopane

Located on Chałubińskiego 7 Street in Zakopane, a modernist villa "Palace" was designed in 1930 as a luxury hotel by a pair of architects Prot Komornicki and Marian Moraczewski. It functioned there until 1940 when it was taken over by the Nazi authorities and adapted to the Gestapo station. There was a prison in the basement and intergration rooms on the ground floor. It is estimated that there were around 2000 people tortured in "Palace", nearly 400 of them were murdered. The station was liquidated in January 1945. Cell No. 3 was one of the six rooms in which prisoners were kept. On the walls of the cell, many of them carved or wrote their own names, dates of theirs companions death or words of prayer. Over the next decades hotel "Palace" served various functions including sanatorium, then a nursery and a school. There were significant transformations of the building. The largest part of prisoners inscriptions probably survived in cell no. 3. Because of bad state of preservation, serious disintegration of plasters, salt presence a number of conservation procedures were required due to the danger of losing such valuable monument as former prisoners inscriptions. In this presentation authors will detail the inventory and conservation process and also the problem of documenting and designing the future museum exhibition.



KATHRIN BOMMES & TANJA PINKALE

Cologne, Germany

University of Applied Sciences, Cologne Institute for Conservation Sciences (CICS)
Conservation Sciences - Wall paintings and cultural assets of Stone (master & bachelor programme); Supervisor: Prof. Dr. Peter Kozub

Villagers' appreciation of St. Walburga leads to sophisticated conservation measures for polychrome terracotta figure

Conservation treatments for famous works of art are rarely denied. But how to handle an object which is not nationally important, but rather of high local value to the community?

The polychrome statue of St Walburga was installed in the façade of St. Walburgis parish church around 1910. Since then, the figure has been restored several times, going along with the loss of iconographical recognizability and aesthetics. Investigations indicate a low fired and porous terracotta coated by a ten-layer paint built-up. This combination leads to a vicious cycle: through damage within the paint, water penetrates under intact colour sections. Their blocking properties are causing further damage by frost and vapor pressure.

Nonetheless, despite a limited material quality and artistic value, the preservation of this identity-creating figure is of enormous importance because of the local appreciation by the inhabitants. Therefore, injections, partially applied reconstructions, protections and coatings were executed, followed by fixation of paint flakes. These measures ensure the application of a restrained retouching, aiming at an undisrupted surface appearance while accepting weathering phenomena.

For a lasting preservation the original figure will be housed inside. To maintain its outdoor function as church patron, a replacement is necessary. By using handheld 3D-scanners by Artec® the intact form of the figure is reconstructed. The reproduction is going to be painted with the iconographically correct colouration, before being installed at Walburga's former location. As a further outcome, the use of 3D-mapping is now going to become a routine tool at our University.



KATARZYNA FEĆ-SFORA

Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Sculpture (master programme)

Supervisor: Marek Wawrzkiwicz

The outcomes of physical and chemical experiments conducted on Roman Tarkowski's sculptures in terms of their impact on conservation work

In 2017 in Park Krakowski there were 10 sculptures by Roman Tarkowski. The artist was working in Poland, mainly in Krakow in the 1960s. All sculptures by Roman Tarkowski from the Park have been made with the use of technology of reinforced concrete. It was an artist's experiment back in the day. He was looking for capabilities and limitations of a concrete and was trying to obtain a colour in the material throughout various experiments. Sculptures were patinated with different substances, inlayed with a glass or even with bullet shells.

All of his doings became interesting to such extent that in order to find an original author's technique and technology, the decision to investigate all of the sculptures from the Park was made. The tests were made using SEM-EDS microscope and XRF method. Also microscopic examinations were made in a VIS and UV light and chemical analysis of pigments was carried out with the use of microscopic and microchemical methods. Investigations revealed percentage content of components and elements included in patinas and design of sculptures' surfaces.

One of the sculptures undergoing conservation was patinated with copper sulfate. There was found no information about this technique in terms of conservation. Results of these investigations present huge difficulty in creating the programme for conservation works. Another issue is conservation resources available at the market. Most of them react with patinas which excludes the possibility of using them. Another problem is coordination of the reinforcement and conservative materials for the work. Their chemical content has to be verified to check their reaction with patinated surfaces. The subject is a new issue. It demands a full recognition, many trials, investigations, experiments and comparisons. However, it is also a great opportunity to discover new conservatory methods thanks to which conservation of patinated sculptures from reinforced concrete would be possible. It is especially precious as such monuments are extremely rare.



OLA BILAL

Budapest, Hungary

Pázmány Péter Catholic University, Faculty of Humanities and Social Sciences
Doctoral School of History (PhD programme)

Supervisors: Balázs Major PhD, Nikolett Rozgonyi - Boissinot PhD

Stone deteriorations at the Damascus Citadel

Damascus Citadel is considered as a unique structure which was built in the 11th century and developed with its recent plan in 12th and then in the 13th century. It is formed the north-western corner of the old city wall. Therefore, the citadel is situated in an area the climate of which is dry where the relative humidity is around 50%-60% and characterized as a polluted area since the citadel is located in the heart of the capital Damascus. Stone deterioration is a critical issue affecting our monuments and historical buildings, hence it should be studied carefully taking into account all factors that promote this process. The most essential factor to begin within any investigation concerning stone decay is meteorological data which can explain lots of cases that can be found e.g. in this investigation the meteorological data reveal that there is at most one thaw-

freezing cycle per winter day and that is enough to deteriorate the stones. The primary field investigation in this study fulfils by various stone decay cases like peeling, cracks, discoloration, exfoliation, salt crust, black crust, fragmentation, perforation, counter scaling and powdering.

In order to complete this investigation, the Rilem Tube is being used now to evaluate the absorption efficiency of the stones in each different case of stone deterioration and compare the results with new stones coming from the same quarry of the citadel stone. As well as, the deterioration maps are being done in order to determine the dominant cases of stone decay in the citadel.



PAULINA KRUPA
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Sculpture (PhD programme)
Supervisor: Prof. Ireneusz Płuska

Stone and plaster works of 19 th century art on the example of the sculptural workshop of the Stehlik family – techniques, technology and conservation issues with particular attention to the altars from the Franciscan basilica in Cracow

The XIX century abounded with a lot of sculpture works. Eagerly used materials were stone and plaster – plaster models and carved stone objects. Stehlik's were sculptors, stonemasons, even monument and works of art conservators. Except they represent stonework activity, they were talented artists – graduates of the Cracow's School of Fine Arts. They also helped save a lot of monuments after a great fire in Krakow in 1850 – fire destroyed many works of art. In speech will be submitted about selected works of art, especially the main altar of Franciscan Basilica, which they carved and which polychrome was designed by Stanisław Wyspiański. Main altar and side altars conservation research will be presented, techniques and technologies will be characterized and also conservation problems, especially conservation problems, among others impact of street vibrations on the state of preservation of works of art. The conservation issues of altars deserve attention. They contain both – stone parts as well as plaster additions. Also the conservation and restoration activities of the Stehlik's in the spaces of the Franciscan monastery and basilica will be presented. They made inventory drawings, drew and cast from plaster before the surviving fireworks break up. I think that issues raised deserve attention and communication to a wider group of recipients.

PANEL III | Modern conservation and restoration issues



MAJA ROGOWSKA
Toruń, Poland

Nicolaus Copernicus University, Faculty of Fine Arts
Modern and Contemporary Art Conservation (master programme)
Supervisor: Sławomir Kamiński PhD

Cleaning water-sensitive paint surfaces – putting research into practice

As water-sensitivity became recently a huge issue in modern art conservation it is frequently a challenge to clean this type of objects, as most common and effective methods of cleaning artifacts include the use of water-based solutions. In my research I try to explore the reasons for water-vulnerability of different well-bonded modern oil and acrylic dry paint films (of both samples and original artworks) where in both cases paints formulations are major factors determining paint layers features. Water-sensitivity phenomena can be caused by various additives, used to modify a pure binder, in reaction with other components or the atmosphere. What is more important I examine the possible methods for cleaning this kind of artworks in terms of effectiveness and safety. I focus on evaluating and comparing: dry cleaning methods, various types of gels (with a special attention to rigid and nano-gels) and microemulsions. To control and assess the usefulness of examined methods different research methods were applied, including micro-photography, XRF, FTIR, FTIR-ATR and SEM-EDX.

My aim is to draw awareness to the water-sensitivity of modern paints phenomena in order to contribute to predictive knowledge and promote possible ways of treating them. Basing on my own experience with artworks and self-made samples I want to present practical use of novel methods and discuss their advantages and limitations with particular emphasis on the most effective ones.



SONIA MILEWSKA
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings (master degree)
Supervisor: prof. Grażyna Korpala

Restoration or Reactivation? About Restaurant of Senster – the Iconic Work of Media Art

Senster, an interactive cybernetic sculpture made by Edward Ihnatowicz, was considered as one of the lost pioneering works of media art. Found and preserved is the subject of project Re:Senster, carried out at AGH University of Science and Technology and Academy of Fine Arts in Kraków, curator: Anna Olszewska. The main goals of the project are conservation of Senster's skeleton and restoration its function. Senster was created to order the Philips company at the end of the 1960s by Edward Ihnatowicz, Polish artist working in London. The sculpture is a 5-meter long steel zooid that reacts to sound and motion in its surroundings. During restoration process the skeleton was conserved, hydraulic system was revitalized and control program has been reconstructed. Re:Senster project was associated with a transdisciplinary team consisting of artists, historians, conservators, engineers and developers. The paper presents the project process, theoretical issues, the importance of oral history and reflections on the cooperation between specialists in the fields of art and science.



ANNA ANDRZEJEWSKA
Toruń, Poland

Nicolaus Copernicus University, Faculty of Fine Arts
Modern and Contemporary Art Conservation (PhD programme)
Supervisors: Prof. Dariusz Markowski, Joanna Kujawa, Ph.D. (Faculty of Chemistry, NCU),
Yvonne Shashoua, Ph.D. (Senior Research Scientist, National Museum of Denmark)

Identification and degradation of polyurethane foam with paint layer based on the example of *The Green Composition* by Zdzisław Głowacki

The identification of contemporary art materials and the study of their degradation pathways is crucial to define the best conservation strategies. Investigating a multi-material object requires thorough research into the chemical composition of each element.

The Green Composition – assemblage by Zdzisław Głowacki, from 1967, is one of the earliest Polish works of art that contain elements made of synthetic materials. In a presented study case, the most important was first to identify synthetic foam, different polyurethane foams degraded in various ways. For the identification and comparative study of the materials used in *The Green Composition*, the following tests were performed: microscopy examination implementing UV-VIS light, Scanning Electron Microscope (SEM) equipped with SE and EDX detectors (analyses for imaging surface and cross-section), XRF and FTIR-ATR spectroscopy. Furthermore, thermal decomposition with simultaneous analysis of chemical composition was done by employing TGA-IR method. The results will be compared and presented with the comment on possibilities and limitations of analytical methods introduced in the case under discussion.

The second part of the presentation discusses the phenomena of polyurethane foam degradation. It comprises an explanation of systems of degradation – the matter is analysed from the perspective of how both internal and external factors contribute to the process. This part also contains a brief chemical characterisation and properties of polyurethane foams. Eventually, I give practical advice how to prolong the life-span of such a brittle material.



ANA LÚCIA PINTO
Lisbon, Portugal

University of Lisbon, Faculty of Fine Arts
Fine Arts - Sculpture (PhD programme)
Supervisor: Prof. Sandra Tapadas

Out of sight and out of site: a case study on sculpture displacement

Our historical and socio-cultural reality reflects itself on how we perceive works of art. Any change in this context can dramatically influence our perception of an artwork and impact its value and conservation status. On this account, we present a case-study on public statuary from the 20th century [sculptor Euclides Vaz (1916 - 1991)] in which significant context alterations lead to the sculptures' physical and interpretive changes. We consider three statues arranged to fit three niches adorning the façade of a public building - Cine-Teatro Monumental (1951-1984) - located in an emblematic square in Lisbon. The statues were removed from their site once the building was set to be demolished, and were later placed on a public garden where they now stand on ground level. The analysis highlights possible relations between "sculpture" and "place" and the effects of displacing the statues from their original context and architectural frame. Interfering in this particular composition naturally defies the aesthetic sustainability of these figures as "stand alone" statuary, considering the absence of a posterior view. Thus, these statues, modelled in accordance with the formal characteristics of the building itself, presented frontally and from above (consequently observed from below), now stand in an open site that does not fulfil the requirements of their original composition. In conclusion, our study argues the formative characteristics of statuary in their different spatial and temporal contexts, accessing and discussing the aesthetic and creative (re)usage of the compositional elements themselves.



DANIELA MOLINARI
Newcastle, United Kingdom

Sustainability in Conservation, International Group, Student Ambassador Program
Master's degree in Conservation of Easel Paintings at Northumbria University
in Newcastle upon Tyne, United Kingdom

Sustainability in Conservation: Student Ambassador Program

Sustainability in Conservation (SiC) is an international non-profit organisation aimed at promoting sustainable practices and researching alternatives in conservation and related fields. SiC provides resources, programs and information to facilitate the incorporation of sustainability in daily conservation practices.

SiC's Student Ambassador Program (SAP) aims to encourage students to consider sustainability from the very beginning of their careers in conservation and challenge themselves and their peers to create a more sustainable working environment. Each year, the ambassadors receive a digital handbook that focusses on a selected topic, including a series of guidelines and challenges to follow throughout the year. Last year, the topic was energy. This academic year, 2019-2020, will focus on Materials and Waste. Many products used in daily conservation practices are not reusable or recyclable, and some of our most dependable materials are derived from the petroleum industry. One of the greatest challenges in moving toward more sustainable treatments is the lack of alternative materials for conservation. More research is needed to identify more sustainable options, while also reducing waste in the workplace. Master's students are in a unique position to positively contribute to making a huge change in the conservation and cultural heritage sector. Thesis topics focusing on sustainable solutions can streamline the incorporation of sustainable treatments. SiC's student platform offers thesis topics ideas for students to choose from to encourage this research.

The SAP is open to all students at any training program around the world. Successes are shared on SiC's network in an effort to inspire further engagement and sustainable practice.



LAURA KHAINDRAVA
Litomyšl, Czech Republic

University of Pardubice, Faculty of Conservation and Restoration of Works of Art
Restoration and Conservation of Artworks on Paper and Related Materials: Textile (master programme); Supervisor: Master of Arts Luboš Machačko, consultant: Barbora Bartyzalová

Conservation-restoration of Chinese scrolls: Problems of deterioration of Asian scrolls

Hanging scrolls are one of the most widespread forms of Asian art, which differ from European in many aspects, such as format, perspective, materials and restoration methods. They may appear deceptively simple in construction but in reality they are complex objects that require an understanding of their composition and inherent weaknesses to provide a proper care and handle.

The presentation deals with the description of damage to East Asian hanging scrolls in general and conservation-restoration of two Chinese scrolls. There is not much information about the age or the exact place of origin of the scrolls. It is only known that they were brought to the Czech Republic from China in a second part of 20th century and they belong to a private collection. Though we don't have the exact information about the scrolls, on base of consultations with specialists we presume that scrolls may take their origin from the period of 17th century.

Asian scrolls have their inherent problems, which are typical for them and usually occur in the same spots. They can be easily damaged due to the organic materials present in their matter and due to the way of the mounting. Mechanical deterioration caused by the wrong handling is also critical. Therefore, they require regular maintenance and proper care.



PAULINA STASZKIEWICZ
Warsaw, Poland

Academy of Fine Arts in Warsaw, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings and Wooden Polychrome Sculpture (master programme); Supervisors: Anna Dorota Potocka, Ph.D.; Katarzyna Górecka, Ph.D.

At the Well - where art conservation meets investigation

The case study focuses on the series of 4 paintings in collection of the Zamoyski Museum in Kozłówka, Poland, being: The Meeting of Eliezer and Rebecca at the Well, its pendant Capriccio with Figures; Capriccio with Shepherd and its pendant The Finding of Moses. They were linked with 17th and 18th century and attributed to Italian artists, such as Giovanni Paolo Panini. This paper concentrates on reexamining both their attributions and provenances.

Firstly, to track the origin of the paintings, analytical methods were used, including infrared (IR) and ultraviolet (UV) photography, Fourier-transform infrared spectroscopy (FTIR) and microchemical analysis of canvas fibre, ground, binder, and pigments. Secondly, the paintings were examined for stylistic features and compared to works attributed to Rome-based artists, with emphasis on: Giovanni Ghisolfi, Alberto Carlieri and Giovanni Paolo Panini. Finally, remaining historic documents and secondary marks added throughout paintings history were investigated, including labels, the monogram 'F.M.' and the red seal with double-headed eagle located at the back of the stretchers of The Meeting of Eliezer and Rebecca at the Well, which was precisely analyzed.

In summary, various approaches of investigating paintings past, including analytical methods, attribution and provenance research, survey on historic documents and the red seal, all realised under conservator's eye, led to new attribution proposal, postponed the dating to at least 1st half or mid 18th century and shed a light on constituting the Zamoyski collection. Following, it is proposed that the set of paintings from the Zamoyski Museum should be linked with Roman workshop, circle or follower of Alberto Carlieri. It is emphasised that a painting does no longer hold only esthetical value. The history it has been part of becomes added value, enriching and converting it into an important source of information about the past.



LI BO
Paris, France

University Paris I Panthéon-Sorbonne
Culture Propriety's Conservation-Restoration (master programme)
Supervisor: Senior Lecturer Claude Laroq

Discussion of the potential use of the traditional Chinese papers in the flattening corrective facing treatments of oil painting restoration

This paper discusses the utility of the traditional Chinese paper — especially bast paper, bamboo paper and Xuan-paper—in oil painting restoration, particularly in the facing treatment purposing to flatten the canvas. The author approaches it from two sides: the properties required by the intervention envisaged, the physicochemical analysis of papers in a scientific laboratory. Several papers show their talent through the research, they are then tested on mock-ups to further confirm their practicability and investigate their effectiveness.



UTA HANUSEK & KATARZYNA KUDYBA
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration
of Works of Art, *Conservation and Restoration of Paintings (master programme)*
Supervisor: dr Dorota Białek Kostecka

Rescuing the Beautiful Dog: Contemporary mural painting detachment and transfer to a new support. The case study of Marcin Maciejowski's murals from cult music club in Kraków

The Beautiful Dog, a cult music club and art venue in Kraków, housed five murals by Marcin Maciejowski, a prominent Polish contemporary artist. At the beginning of 2019 it turned out that the club has to leave the rented space, endangering the existence of murals, inherently linked with the club's legend. To save the artworks, the owners and conservators decided to detach and transfer murals to a new support. The contemporary technology and materials present in the artworks constituted the main difficulty in the process. The historic transfer methods had to be modified to encompass commercial plasters, so-called latex house paints and plasterboards. Also the cultural, historic and social context of the contemporary art was extremely important. The problem will be discussed on the basis of two murals created with latex house paints on the wall. Several tests were carried out to choose the method of detachment. Water-based liquid cod glue turned out to be the best facing binder, while popular synthetic resins failed. After cleaning and local consolidation, the facing was applied and the paintings were detached by strappo method. The reverse was reinforced with backing based on a binder for latex paints, the polystyrene intervention layer was applied and the facing was removed. The project, conducted by fourth year students of the Faculty of Conservation and Restoration of Works of Art in Kraków under the tutelage of the Wall Painting Transfer Studio lecturers, enabled to address several difficult issues of contemporary mural conservation.



EWA SZARŁATA
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings (master programme)
Supervisor: dr Paweł Boliński

Peel-off Methods in Cleaning of Wall Paintings

The subject of the presentation is my research in the field of cleaning of wall paintings, conducted as MFA thesis. The aim of this research was to evaluate and compare two peel-off methods of cleaning of wall paintings based on the same agent – chelator EDTA: Arte Mundit cleaning system and warm agar application. To define their safety and possible range of use, two kinds of trials were performed: on mock-ups and historical monuments. Mock-ups were prepared in selected historical techniques: buon fresco, fresco secco, casein, tempera, glue and oil painting; two pigments were chosen based on its vulnerability to EDTA: Naples yellow and cobalt cerulean. Tests on model paintings were performed in three series: before and after application of the tested formulas and after artificial ageing - to define the impact of the agents to paint layers during the lapse of time. Following techniques were used: photography and microphotography in analytical lights, infrared spectroscopy (FTIR), hyperspectral imaging (VNIR and SWIR) and scanning electron microscopy (SEM). To enhance the laboratory trials, in situ tests were performed. Several historical wall paintings in various techniques were chosen, with complicated structures and in different states of preservation. The research was prepared in a collaboration with Laboratory of Analysis and Non-Destructive Investigation of Heritage Objects, the National Museum in Krakow.

PANEL V | Conservation of craft, archaeological objects and other



GIOVANNI ROTONDI
Florence, Italy

Opificio delle Pietre Dure, Goldsmith's art conservation department
Conservation and Restoration of Ceramics, glass, metals and alloys (master programme)
Supervisors: Dr. Sandra Rossi, Mrs. Cinzia Ortolani, Mr. Paolo Belluzzo

An alternative approach to differentiated loss integration: a 15th cent. chalice as a case-study

Loss integration in restoration has been an active topic in the past decades. Over time, the field of restoration has evolved; at Opificio it has followed the doctrine developed in the late 20th century that established the necessity of recognizable, material-compatible and easily removable fills in order to fully respect the object. This is an ongoing research as each artefact is different and needs its own treatment.

This chalice had been previously restored with a very invasive treatment: gaps had been filled with abundant solder that covered part of the original surface, and -to ease the soldering- large areas had also been scraped, removing the gilding. There was also a serious problem of cyclic copper corrosion -caused by an aggressive acidic chemical cleaning- analyzed by the Opificio scientific laboratory, which threatens to damage an extended area of the chalice.

Dealing with a previously restored object is extremely difficult, especially in a situation such as this one. It is therefore important to draw the limits of the intervention and carefully find the better solution: in this case, a material and chromatic integration has been realized, in order to balance the preservation of the materials and the final appearance.

Carrying out such a complex project has been an important experience in my academic career and could be an interesting case study to review an Opificio approach to this kind of problems and, at the same time, useful -to get some insights- for similar cases.



IRA FABRIO
Dubrovnik, Croatia

University of Dubrovnik, Art and Restoration Department; *Conservation-Restoration; specialisations: Wood, Paper, Textile, Metal, Ceramics (master programme)*
Supervisors: Associate Professor Lucia Emanuele, Teaching Assistant Marta Kotlar

The Difference between Conservation-Restoration Approach to Archaeological and Historical Metal Objects

Conservation-restoration theory and practice encounter two types of metal objects: archaeological and historical. This paper focuses on similarities and differences between two approaches towards them. In order to gain a better understanding of those approaches, this paper will present the stages of conservation and restoration treatments conducted during March, April and May 2019 at the workshop for conservation-restoration of metal at the University of Dubrovnik, under the mentorship of Marta Kotlar, MA, Teaching Assistant and Jelena Tomasović Grbić, MA, Expert Associate.

The objects represent both types of metal. Some of them belong to Sisak Municipal Museum and others are part of a private collection of Nuns Ancelle Paola di Rosa. The aim is to show differences and similarities during documenting the initial state, writing treatment proposals, cleaning objects (with emphasis on the use of mechanical or chemical cleaning), stabilizing and protecting objects.



LOLA MURILLO GONZÁLEZ
Madrid, Spain

School of Conservation and Restoration of Cultural Heritage,
Conservation and Restoration of Cultural Heritage, Archaeological Specialisation (bachelor programme); Supervisor: Prof. Carmen Dávila Buitrón

Preventive conservation in the Hadrianopolis collection of archaeological objects

Throughout the course of the ages, the study and monitoring of the environment has been proved essential to the preservation of every kind of work of art. Our goal as conservators should prioritize the identification of the risks associated to a lack of environment control and design efficient strategies to counteract them from the very moment of the excavation of the object to its storage.

The aim of this paper is to highlight the relevance of the conservator to the archaeological process, from the excavation of an artefact to its interpretation. At Hadrianopolis, a roman city site in the region of Epirus (now in modern-day Albania, south of Gjirokastra), conservation can contribute to the years of archaeological excavation and study which has revealed many objects including copper alloy and iron material, ceramic vessels, human and animal bones carved with decoration...

This paper will expound the Erasmus+ project that the Eqrem Çabej University of Gjirokastra and the School of Conservation and Restoration of Cultural Heritage of Madrid have put together: a preventive and interventive conservation plan developed shaping the Hadrianopolis collection of archaeological objects needs and following the international codes of conducts whilst considering the priorities of the archaeologist, the realities of the facilities and the available resources.



MARIE RENAUDIN
Paris, France

Ecole de Condé Patrimoine Paris
Conservation – Restoration for Cultural Heritage - Paper speciality (master programme)
Supervisors: Prof. Jacques Faerber, University of Strasbourg, IPCMS; in collaboration with:
TECHNI Projets society

Do metal-gall inks possess electrical properties which can be applied in conservation-restoration? Development of a new method for the text recognition.

In 2016, we have been entrusted to study and restore the oldest obituary which still remains in Alsace (France). Property of the ancient administrative capital of Strasbourg and spiritual possession of Basel (Switzerland), this manuscript initiated in 1250 and made of parchment, suffered from several alterations. From the beginning, its particularities had concerned the metal-gall inks used for the text redaction. After a conference 1 held in November 2017 in Chartres (France), the idea of our study came out. Scientists at the French Center for the Research in Conservation (CRC) used the spectral imagery to bring back the lisibility of the texts which have been erased over time or by accidental damages.

Through the different techniques which had been used, one of them was based on the following statement : as some semi-conductive particles induced by the sulfates contained in the inks remained on the surface of the manuscripts' pages, it was possible to find traces of the metal-gall inks previously used and which were not visible anymore. Based on this observation, one idea crossed our mind : what if those inks could be detected thanks to their electrical properties ? If that was the case, a single measuring instrument would be efficient to allow the detection of the non-visible ink. More importantly, for the first time this one would be accessible to every laboratory even with low budget, and without the need of using techniques asking particular knowledge as the one used nowadays and dedicated to the biggest budgets.



KATARINA E. KASPARI
London, United Kingdom

University College London, Institute of Archaeology
Conservation for Archaeology and Museums (master programme)
Supervisors: Dr. James Hales and Dr. Dean Sully

Reconstruction of the Keratinous Scutes of a Taxidermy Eastern Hermann's Tortoise (*Testudo hermanni boettgeri*) in Japanese Tissue Paper

This paper describes the treatment of a taxidermy eastern Hermann's tortoise (*Testudo hermanni boettgeri*) from the collections of the Grant Museum of Zoology at UCL (University College London). This tortoise had been extensively damaged, with loss of over 85% of its keratinous scutes on both the upper and lower shell. Treatment focused on fabricating replacement scutes using dyed Japanese tissue paper to recreate a realistic looking shell so that the tortoise could be put on display. Whilst similar treatments to this have been carried out at different institutions, no accounts of a repair as extensive as this have yet been documented in the literature. This paper will discuss the aims of treatment, as well as a review of different methods of reconstruction. It will conclude with a discussion of the technique that was ultimately used: layers of dyed Japanese tissue paper, adhered to the underlying shell using a reversible adhesive, and coated in an acrylic glaze to evoke the appearance of a natural tortoise shell.

POSTER SESSION I



ANASTASIA AKOPOVA & ALEKSANDRA IVANETS
Moscow, Russian Federation

Stroganov Moscow State Academy of Art and Industry, Department of Restoration of Monumental and Decorative Art
Restoration of monumental and decorative art (specialist programme, 4th year); Supervisors: Alexandra Grebenschikova, Varvara Sergienya

Conservation and restoration of Russian icon of xviii-xix century as a part of study course of The Department Of restoration of monumental and decorative art in Moscow State Academy of art and industry

The poster we are presenting shall represent the types of damage often suffered by Russian icon, its paint, gesso (ground) and foundation as well as the process of conservation and restoration of Russian icons of XVIII-XIX century, including processes of working with wide range of icon materials used in XVIII-XIX century and fixing and preventing the deformation of wooden foundations.

The cases used on the poster will be taken from the restoration practice of Moscow academy of art and industry. Shortened historical overview and description of restoration processes will be included on the poster.



JILL BARON
Ontario, Canada

Fleming College; Haliburton School of Art + Design
Cultural Heritage Conservation and Management (Graduate Certificate)
Supervisors: Lecturer - Miriam Harris, Lecturer - Margaret Haupt, Course Coordinator - Gayle McIntyre

Just Gellan Around

In heritage conservation, there is a movement towards sustainability, including the use of less harmful solvents where possible. Recent focus on sustainable practices within North America has propelled the use of gellan gum to the forefront. Gellan gum is a water-soluble, straight chain polysaccharide gum, originally employed for use in the culinary arts. Within conservation, gellan gum is used to humidify and clean a wide variety of material. However, it does have its limitations.

Gellan gum is made by dissolving the powder into water and consequently water-sensitive media is vulnerable to migration when in contact with the gel during treatment. The purpose of this research is to explore the use of gellan gum in the cleaning of water sensitive media, with a particular focus to its application for works on paper. Several fixatives were employed, to see if any could prevent the removal of the water sensitive media from the papers surface, during subsequent exposure to gellan gum.



VIKTORIA BOBYLEVA
Moscow, Russia

Stroganov Moscow State Academy of Arts and Industry
Restoration of monumental and decorative paintings (master degree)
Supervisor: Prof. Maria S. Churakova

Restoration of the canvas “Izmaylovsky Leib-guardians in the battle of Borodino on August the 26-th 1812” painted by Alexander von Kotzebue, from the collection of the State Borodino War and History Museum and Reserve

The artwork painted by Alexander von Kotzebue, the son of dramatist, August von Kotzebue, was offered for restoration to the State Research Institute for Restoration in Moscow by the State Borodino War and History Museum and Reserve. By its turn the State Borodino War and History Museum and Reserve hold it from the collection of the State Hermitage Museum. It is to notice this canvas decorated after its birth the work-room of the Emperor Nicolai I in Winter Palace by St-Petersburg.

There are some records of the previous restorations listed in the museum register-card. These restoration interferences caused the main problems for the canvas, as following: darken colour modifications, overlapping and miscolouring the author’s painting; the ground coating of the former restoration was inserted above the colour layer that distorted the surrounding surface of the painting.

In the course of restoration I have changed the stretcher as it was in a miserable condition. There were the surface researches at UV rays and with optical Microscope, then I have thinned the old restoration ground to the level of the original paint layer. Thus, I have corrected the faults of the old restorations. All the previous records overlapping the author’s paints have been removed, made thinner or divided by the new colour modifications. According to the decision of the Restoration Counsel, the new reconstruction took place as well as the previous restoration reconstruction was adjusted. Both the broad restoration and research work ended with the expected results. The artwork acquired an exhibitional form and is ready to be exhibited in a museum.



**ANITA BRESSAN,
SIMONE DI VIRGILIO,
CATERINA DONATI,
ROBERTA MANGIOLA
& GIOVANNI ROTONDI**
Florence, Italy

Opificio delle Pietre Dure, Bronze and antique weapons department
Restoration of metals, ceramics, glass, wax and organic materials (master programme)
Supervisors: Prof. Stefania Agnoletti, Maria Baruffetti, Merj Nesi

An Italian team for a conservation work in Goa (India). Three weeks for a special maintenance of four bronze reliefs

In March 2019 an in-site special conservation work took us to India, to the monument of St. Francis Xavier within the Bom Jesus Church of Goa. The artwork is made of marble, stone but also metal parts: the silver ark of the remains and four bronze reliefs. This extraordinary masterpiece was realized in Florence in the seventeenth century, thanks to the relationship between the Indian prince and Cosimo III Medici. Giovan Battista Foggini, one of the best sculptors of the Medici staff, created the models and cast the bronze panels representing four Saint’s life scenes.

Our team (5 students, 3 teachers) had some big logistic difficulties, because of the short time available (18 days) to remove dusts, alteration layers and old coatings. Moreover, we had to consider the exposition of the panels to particular climate parameters, like monsoons. This kind of problems led us to deal with the idea of cleaning a work of art in a perspective of maintenance of the art in a living site, not in a ‘museum’.

Before the restoration, we carefully documented the masterpiece (enhancement). On the surfaces we remove altered waxes and varnishes: we used steam cleaner, water and three organic solvents (sustainability). Mechanical tools helped us, especially inside the cavities and the hidden small parts of the figures: scalpels, polycarbonate tips, hedgehog needles. At the end we applied microcrystalline wax (reversibility and possibility retreatment), and asked the locals of the church to report us about the site condition twice a year (monitoring).



AUŠRA ČIULADIENĖ
Vilnius, Lithuania

Vilnius University, Institute of Chemistry, Faculty of Chemistry and Geosciences
Chemistry (PhD programme)
Supervisor: Prof. Habil. Dr. Aivaras Kareiva

Painting the Page – the Red Paint Analysis an Illuminated and Rubricated Manuscript

Care of the books produced by civilization past and present is a responsibility to us. To preserve cultural materials with the best possible knowledge we need to know well the techniques and materials used in their creation. Illuminated and rubricated manuscript are some of the most beautiful testimonies of our past.

Of the many analytical techniques that can be employed for colourant identification, those that do not require the taking of samples should be used first. But, non-invasive analytical techniques have not fully satisfied features and can not be used as a self-consistent analytical tool. The optimal strategy to recognize colourants used in the manuscript should, therefore, provide for a multi-technique approach.

In this work, the historical red pigments were investigated. Six different pigments (cinnabar, red lead, realgar, red ochre, hematite, and red bole) and three binding media (gum Arabic, fish glue, parchment glue) were bought from Kremer Pigmente as a standard and analyzed using FTIR, SEM-EDX, XRD and TG/DTG/DSC analysis techniques. The obtained analysis data were used for the characterization of different artificial compositions of red dyes.

The obtained analytical results were compared with ones obtained by investigating the dye sample from XVI century manuscript. The developed methodology allows better and quicker identification of materials used for the decoration of manuscripts. Moreover, the obtained results could be used for the identification of the manufacturing processes or dating.



MACIEJ GAWINSKI
Wrocław, Poland

Eugeniusz Geppert Academy of Fine Arts in Wrocław
Conservation and Restoration of Ceramic and Glass objects (master programme)
Supervisor: Jose Luis Merino PhD

Technological and ethical challenges during the conservation of the monochrome sculpture “switch” by Rachel Whiteread

Rachel Whiteread is a contemporary artist whose works are mainly large-scale sculptures made of plaster. Technologically she mixes the plaster with some other components which are unknown for a conservator that has the task to deal with such work. This is the case of the “Switch” sculpture that we had the honour to conserve/restore. This sculpture's main conservation problem was the material loss on the edges as a result of an unfortunate drop. Trying to find a solution to the problem we found ourselves with some ethical and technological difficulties.

We knew that filling the gaps, we should achieve the same colour, texture and smoothness of the surface and the same shape of the edge of the sculpture but we didn't know if it is ethically accepted to use non-conventional methods and materials. After some investigations, we found that while conserving contemporary art it is approved to use stable but no matter what kind of materials because the most important thing is to toggle the concept of the work, “the work has to look as the artist made it”. Technologically, we didn't know the exact materials and kind of the plaster Whiteread used in his work. But after many tests and after contacting the artist, we found the ideal plaster and component proportions to achieve the same texture, smoothness and colour of the surface.



MARHARYTA KHREBTENKO
Kiev, Ukraine

National Academy of Fine Arts and Architecture, Department of Theory and History of Art
Fine Arts, Decorative Arts, Conservation (PhD programme)
Supervisor: Associate Professor Tetyana Tymchenko PhD

Ukrainian Icon-painting in Left-bank Hetmanate in the second half of the 17th century – first half of 18th century. Technical and technological aspect

The 17th and 18th centuries were the period witnessed changes in the artistic, stylistic and technique solution in icon-painting in Ukraine. Active international contacts contributed to merging of Western European painting technique with local traditions resulted in a distinctive style of Cossack Baroque. The purpose is to uncover the special structure of icons and ways of using artistic materials in Kyiv and Left-bank Ukraine's icon-painting in the second half of the 17th century – first half of 18th century. We studied the icons of this period from Ukrainian museums: the National Art Museum of Ukraine, the Chernihiv Regional Art Museum, the Pereyaslav National Historical Ethnographic Reserve, the Yaroshenko Art Museum in Poltava, and icons from the iconostasis of the Saint Transfiguration Church in the Velyki Sorochyntsi village (Poltava region). The surface of the paintings was researched with the use of optical devices (a portable USB-microscope), photographs of fragments were made with diffused, side, ultraviolet and infrared light. Information was added from published data and archived sources. It was revealed that Ukrainian painters created the images both on chalk gesso and with the use of imprimatura and coloured primer. Painters could combine several kinds of gilding. The icon-painting of the Left-bank Hetmanate amazes with variety of methods of creating picturesque images and ornamentation of the surface. The research extends our knowledge about Ukraine's Baroque painting and the process of its creation. It is necessary to keep in mind the obtained results in order to choose the correct methods of the conservation of such works of art.



KAROL LIS
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings (master programme)
Supervisors: prof. Tamara Ukrainčik and ass. Professor Barbara Horvat Kavazović (Academy of Fine Arts in Zagreb, Croatia)

Removal of the final varnish and the stability of underlying retouch

The aim of the project is to check the compatibility of retouching medium with the intermediate and final varnish, and to examine how the removal of final varnish affects the retouching. A primed linen canvas was covered with a uniform coat of ochre tempera. The canvas was divided into columns. Every column represents one of five different varnishes selected. One section was divided into five columns - the first is the pure color; the second with only one layer of intermediate varnish; in the third the final varnish was applied over the layer of intermediate varnish. In the fourth and fifth columns retouching was applied using ultramarine color in *tratteggio* method. In the upper part of these columns the retouching was applied on the intermediate varnish. In the lower half of the last two columns retouching was executed directly on the color of the support, without intermediate varnish. At the end, the last two columns were varnished with a glossy final varnish. The final varnish was then completely removed in the fifth column.

In all cases the second layer of varnish gave the surface a high shine and completely covered the surface of the paint layer. The best results for retouching stability were achieved with the use of watercolors. Similarly, the use of Paraloid B72 and Gambin Conservation Colors (GCC) was resistant to varnish removal. The Canada balsam paint has been removed in every case. Maimeri Restaura paints were preserved only in areas where there was no intermediate varnish, like in the case of mastic and Laropal A81.



MARINA MARTÍNEZ WEINBAUM
Madrid, Spain

Escuela Superior de Conservación y Restauración de Bienes Culturales de Madrid
Studies of Conservation and Restoration of Cultural Heritage (bachelor programme)
Supervisor: Prof. Ángel Gea

Archaeological glass: a physicochemical approach

Historically, the archaeological glass is a material not easy to conserve due to its inherent fragility and the absence of materials that allow to join or consolidate translucent or transparent materials. Another factor is its difficulty in restoring without it being damaged. This fact has resulted in the archaeological glass being less studied compared to other inorganic materials like pottery or stone. For this reason, there is no specific intervention criteria despite its physicochemical and deteriorative traits of its own. This presentation aims to analyse a practical case, the study of an archaeological glass from a medieval site (Albalat, Cáceres, Spain). It is intended to show the basic principles of degradation of the material as well as the main intervention methods to guarantee the stability of the archaeological glass from a physicochemical point of view. To achieve this, a compendium between the results obtained from the bibliography and the analysis carried out during the restoration process will be performed.

POSTER SESSION II



CYRIL MAUCOURANT
Sheffield, United Kingdom

Sheffield Hallam University, Faculty of Science Technology and Arts
Stone Conservation (PhD programme)
Supervisors: Dr. Vincenzo Starinieri, Dr. Nick Farmilo, Mme Tracey Sweek

Nanolime: A Proposal for an innovative treatment to consolidate limestone museum objects

The poster aims at introducing my research project, which focuses on the consolidation of deteriorated British Museum limestone objects (currently in storage) using an innovative nanolime-based conservation treatment designed for museum applications. The research is innovative in that the introduction of nanolimes in a controlled environment like a museum is something new. It is also challenging as the efficiency and reliability of the new treatment needs to be ensured. The project has three main objectives:

1. To develop an innovative nanolimes-based conservation treatment tailored for museum applications.
2. To propose a Conservation Treatment Procedure to be used as practical guidance by stone conservators.
3. To assess the reliability and sustainability of the new treatment in different environmental contexts

The poster provides a general introduction about my research project and nanolimes. It focuses on specific aspects of the followed research methodology, and reports on preliminary results about weathering experiments, characterisation of objects properties, and synthesis of nanolimes. A presentation of materials and resources used for conducting the laboratory tests is also included. To conclude, a statement of future work provides information regarding the experiments to be carried out during the 2nd and 3rd years of the PhD.



IZABELA MICHALIK
Cracow, Poland

Jan Matejko Academy of Fine Arts, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings (PhD programme)
Supervisor: Prof. Jadwiga Wyszynska

Oil paintings on cardboard – quick look on the technique and conservation treatments

Oil paintings on cardboard supports are in the grey zone between paper and paintings conservation. My interests in this field started during carrying out my master thesis related to conservation of paintings by Olga Boznańska. The specificity of the technology which is oil on cardboard led to further research for searching a suitable methods of conservation. Brief description of the specificity of the technique, its history a description of the research and methods applied on one of the paintings by Olga Boznańska, will be presented.



DORA MIHALJEVIĆ & VASILIJ Todorović
Dubrovnik, Croatia

University of Dubrovnik
Conservation-Restoration; specialisations: Wood, Paper, Textile, Metal, Ceramics (master programme); Supervisor: doc. dr. art. Kristina Kojan Goluža

Ethics of retouching in conservation-restoration of ceramics

The historical object is a unique piece with uninterrupted continuity, achieved by conservation-restoration procedures concluding with the retouch. Throughout history, those practices have been changed. Retouching principles include: minimality of retouch, its distinctivity, visual compatibility and reversibility. The examples of different approaches of the retouch will be shown on the objects from the Sokol tower. The collection gathers different styles of ceramics that changed during the period from 14th to 17th century. The originals are pieces of very small dimensions. The aim of this presentation is to show which are the most acceptable types of retouches for the shown examples. Retouch, as one of the final interventions on the object, is very important for the overall image of the object. It must be based on the feeling of ethics but also on the subject matter itself. However, the retouch (as well as the conservation-restoration profession) often depends on the individual intuition of a man, it can be said that retouching is a subjective process that is difficult to standardize. Apart from factors that affect personal views, there are also external influences that affect the final look of the retouching. One of them is the influence of the light under which the object is viewed - the phenomenon of metamerism.



MOSTAFA AHMED

Cairo, Egypt

Fayoum University, Faculty of Archaeology

Antiquities conservation, specialisation: non-organic material (master degree)

Supervisors: Prof., Dr. Nagwa Sayed Ebd El Rahim, Dr. Hamada Sadek Ramadan

Manufacturing techniques of wine and gars as a guide for conservation of King Tutankhamen's Amphora

It is very important for conservators to be fully aware of the manufacturing techniques, which were used in ancient Egypt before starting in applying any conservation operation on the object (relationship between industry techniques and conservation). Or the artifact will be exposed to remove some important archaeological evidences or we might accidentally change its nature which could cause losing the historical and functional value of the object. Investigations and Analyses were made like stereo microscope – scanning electron microscope – portable x- ray fluorescence Fourier transform- infrared spectroscopy – x-ray powder diffraction to identify materials used in manufacturing of the Tutankhamen's wine amphora. This study helped directly in determining the most suitable ways of restoration and conservation and discover a new compounds of king tut wine.



TONG PAK HENG

Taiwan

National Yunlin University of Science and Technology, Department of Cultural Heritage Conservation (*master programme*)

Supervisor: Asst Prof. Huang-Shen Lin

Basic materials and common problems of Eastern Gouache

Eastern Gouache is a Taiwan local characteristic art medium, It has inherited the Nihonga tradition from the Japanese Colonial Period and the rename of "Eastern Gouache" was started in 1977 by Lin Chih-Chu. The purpose of this research is to deepen our understanding of the Eastern Gouache materials and cause of deterioration. Taiwan lies on the Tropic of Cancer, and its general climate is marine tropical, it's making hard to preserve cultural relics and easy to cause damage problems, These damages can be physical, chemical, or biological. To explore the local characteristics and national culture from the artworks of this art medium. These lead us to believe that the local custom or peculiarity between Eastern Gouache and the similar art mediums. This article mainly outlines the history of development, the use of materials and the cause of deterioration, and provide relevant personnel for reference purposes.



DARIA PETLINA

Kiev

National Academy of Fine Arts and Architecture

Applicant of the Monument and Museum Studies Centre of the National Academy of Sciences of Ukraine and Ukrainian Society of Protection of Monuments of History and Culture

Supervisor: Ph.D., Associate Professor, Timchenko Tatiana

Inventory books of the state research and restoration workshops as an additional source of restoration support

From the beginning of the creation of the State Research and Restoration Workshops, the sequence of the entrance of the works in the workshop was recorded in the inventory books. They recorded the serial number of the entrance of the exhibits, their museum catalogue data: inventory numbers, sizes, data about the author, time of creation, technique.

Inventory books were being recorded in the workshops at the same time as the protocols of restoration meetings. They recorded the time of convening meetings, which considered all issues regarding therestoration of exhibits. Over time, the protocols were replaced by another form of support – « restoration passport ».

Since most of the documents that show the work of the State Research and Restoration Workshops of the pre-war period, due to the interruption of work during the fascist occupation of Kiev were destroyed, the inventory books have become an invaluable source of information that fills up these lacunae.

Thanks to the information that is recorded in the inventory books, it is possible to analyze the ways of the impact of the world restoration practice on the practical work of the State Research and Restoration Workshops and after the reopening of the workshops since 1944. It is also possible to compare the evolution of change in the methodology of the restoration process in connection with the development of the restoration in Ukraine.



BLAKE SHARP
Stanford, The United States of America

Iris & B. Gerald Cantor Center for Visual Arts at Stanford University
Computer Science and Art History (bachelor programme)
Supervisors: Susan Roberts-Manganelli, Dr. Christina Hodge,

X-Ray Fluorescence Analysis of Nineteenth and Twentieth Century Kwakwaka'wakw Totem Poles

I worked in the Art + Science Lab at Cantor Arts Center and was trained to use X-Ray Fluorescence spectroscopy to determine the qualitative elemental composition of paintings, prints, and objects. Working with the library archivists and physicists on campus, I analyzed dozens of surfaces from fossilized fish skeletons to contemporary maps of Comstock Lode in Nevada. One project was investigating the composition of paint on totem poles from the Kwakwaka'wakw tribe, a group of people from the Pacific Northwest region of the United States. These totem poles were model sized and most likely created solely for commercial purposes. The question we were looking to answer was whether the paint was a commercial product or a more traditional pigment. The traditional Kwakwaka'wakw color scheme includes blacks, reds, blue/greens, and whites. The blacks The poles were being put on display in the archaeology center, and the curators wanted to find any more information they could on the pole before putting it into a display case. We eventually determined after analyzing six pigments on the first pole and five on the second that both poles were painted with commercial pigments. This finding would serve as a tool to educate gallery visitors in the understanding of the globalization of the art market and as a tool to aide conservators with future storing and cleaning choices.



NÓRA SOMODI
BOGLÁRKA SZENTIRMAI
HAJNALKA SZŰCS
ALEXANDRA TAMÁSI
Budapest, Hungary

Hungarian University of Fine Arts, Department of Conservation
Conservation and Restoration of Paintings (master programme)
Supervisors: Dr. habil. István Bóna DLA, Brigitta Mária Kürtösi DLA

Conservation and restoration of detached renaissance wall paintings

The Italian renaissance wall paintings showing the Coat-of-Arms of Pope Alexander VI were detached and transferred to reinforced gypsum support. An extensive analysis was carried out in order to establish the state of preservation of the artworks and to identify the materials and painting techniques used. Non-destructive analyses were made with the use of different bands of electromagnetic radiation: VIS, UV fluorescence, infrared reflectography and X-ray radiography was employed. The non-destructive diagnostic methods were complemented with microscopic analysis of cross sections, micro-chemical tests and instrumental analyses (SEM-EDS).

Fold lines and creases became visible in raking photography which clearly indicated that the detachment was made by *strappo* technique, thus the remainder of the original plaster layer was extremely thin. The fragility of the painting layer led us to - despite the owners' request - not to remove the gypsum support, to prevent further damage. Beside the usual pigments of fresco technique such as ochres we identified pigments applied *a secco* including azurite, cinnabar, carbon black and lead white.

Since their detachment the paintings have been restored and over-painted in some areas more times. Various damages occurred, but the gypsum support appeared to be solid and stable. After consolidation we cleaned the paintings, filled the gaps, replaced the old plaster repairs. Retouching was made with aquarelle.

Beside presenting the main steps of the conservation process the poster is focusing on the preliminary analysis of the original layers of the wall paintings.



BOGLÁRKA SZENTIRMAI
Budapest, Hungary

Hungarian University of Fine Arts, Department of Conservation
Conservation and Restoration of Paintings (master programme)
Supervisor: Andás Heitler DLA

Detection of wall paintings covered with whitewash using thermography

Infrared thermography is a non-destructive diagnostic method which has recently been widely used for the investigation of cultural heritage. Analyzing the heat diffusion process within the sample provides information about the surface and the structure below the surface. Active infrared thermography has found its place between the analysis made with different bands of electromagnetic radiation and has been successfully applied to the investigation of wall paintings, mainly for the localization of delaminations.

The thesis deals with a specific application of active thermography: presents experiments aimed to visualize wall paintings covered with whitewash and tests the on-site applicability of the method.

For the experiments samples were prepared using historical wall painting techniques, pigments and binder. Different number of lime layers were then applied on the surface. After stimulating by infrared radiation the cooling process of the samples were recorded using three type of thermal cameras. Due to the different stratification of the samples a non-uniform pattern presented on the surface. Following appropriate image processing contrast images are shown. The three cameras represent a wide range in term of specifications and price. All of them are commercial products and operating in the far infrared spectra.

In order to evaluate the effectiveness of the method to visualize hidden wall painting, short wave infrared reflectography was tested on the same samples using a common CCD camera with different filters. Finally, cross sections were prepared and examined with microscopy to register the thickness of the covering lime layer.



ANETA TKACZYK
Warsaw, Poland

Academy of Fine Arts in Warsaw, Faculty of Conservation and Restoration of Works of Art
Conservation and Restoration of Paintings and Wooden Polychrome Sculpture (master programme); Supervisor: Prof. Monika Jazińska Ph.D.

Teas charts – theory and application

For monument conservators, solubility is an important issue and understanding of this process, experience and knowledge of the properties of solvents can greatly facilitate the removal of various layers, including: surface soils, overpaintings, old varnish or residues of undesirable substances.

The aim of this poster is to describe the structure and operation of Teas triangular solubility graphs, which are one of the methods that allow a more efficient selection of the right solvent. Teas charts are a way of categorizing solvents which allows to easily predict the behavior of solvents and solvent mixtures in relation to given polymers. Its relatively easy and fast in use.

Persual of this method, understanding it and using it in everyday practice will streamline the process of cleansing works of art.



EVELINE VANDEPUTTE
Antwerp, Belgium

University of Antwerp, Faculty of Design Sciences, Conservation-Restoration Department
Conservation-Restoration of Paintings (bachelor programme)
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Conservation and restoration of The Lamentation by a follower of Quinten Metsijs: a case study about material-technical analysis and treatment

In medieval times, Antwerp was an important harbour for artworks and art materials. Due to the high demand for devotional paintings, a lot of copies were made of works by the Flemish masters. In the chapel at the main campus of the University of Antwerp, a triptych is located that is said to be by a follower of Quinten Metsijs. It depicts the lamentation of Christ. The object suffered extensive damage and underwent previous restoration campaigns. There were three main focal points in the research. The first goal was to determine when the painting was made. The second question focused on the previous restorations present on the object. Lastly experimental investigation was done to establish the conservation treatment. The research was carried out mainly on the outer wings of the triptych.

Techniques presented include observational analysis, comparative art historical analysis, microscopical sampling of the paint layer build-up and microchemical testing for the determination of when the object was made. XRF-analysis in conjunction with pigment chronology was primarily used to investigate the overpaint. Lastly, extensive testing of materials was carried out to establish an ethical method for treatment. The material-technical investigation leads to believe the painting dates back to the late 16 th or the 17 th century. No conclusions could be drawn for the dating of the previous restoration campaigns, due to the sole use of historical pigments. Further research and treatment will be conducted on the inner wings of the painting in the following academic year.

