



Conservation Update

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Editorial board:

Dmitrieva, Maria
Kostadinovska, Maja (layout)
Reid, Zoë

Webpage:

Wenger, Emanuel

Facebook and Twitter account:

Ruiz Segura, Pascual

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Burgundian author and scribe Jean Miélot, from his Miracles de Notre Dame, 15th century (free for commercial purposes and re-publication).

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1. RECENT ACTIVITIES

New name of the periodical and new editorial board

Conservation Update is the new name for the periodical of the European Research Centre for Book and Paper Conservation – Restoration.

*At the meeting in Krems (Austria) in 2018, Penelope Banou (Greece) suggested renaming the periodical and Chiara Senfett from Italy recommended the title "**Conservation Update**".*

It will continue to publish recent activities connected with projects of the Centre, articles which will be subject to double-blind peer review, and upcoming events of the Centre as well conservation events worldwide. It will be published twice per year, in April and November and has a new ISSN number.

The periodical has a new core editorial team from the community of national representatives Zoë Reid (Ireland), Maria Dmitrieva (Russia) and Maja Kostadinovska (North Macedonia).

Zoë Reid

Senior Conservator
National Archives of Ireland
Bishop Street, Dublin 8, D08 DF85
Phone: +353 (0)1 407 2356
Mobile: + 353 (0)85 871 9744
E-mail: zoereid@nationalarchives.ie
Web-site: www.nationalarchives.ie



Zoë Reid has a Postgraduate Diploma in Museum Studies and has been working in the National Archives of Ireland since 2002. Over the past 17 years, she has been involved in implementing a wide range of conservation and preservation projects. She presented lectures on her work and training events on various aspects of paper conservation, collection care for archives and disaster planning and salvage. She has been involved in Irish conservation organisations since the late 1990 and has held positions on various committees. She was on the first Board of Directors of the Institute of Conservators-Restorers in Ireland (ICRI) (2013 -2016). Since 2012 she has been an Honorary Teaching Fellow at the University of Dundee, teaching two modules: *Preservation Information* and *Disaster Management for Information Professionals*, on the distance learning Archives and Records Management postgraduate program. In 2015 she was selected to be Ireland's representative as a council member to ICCROM for 4 years until 2019. Last year, 2018 she was appointed on behalf of the National Archives as their representative to the Irish National Committee of Blue Shield.

Education

- 1998 – 2001 - Postgraduate Diploma in Museum Studies by distance learning, University of Leicester, United Kingdom.
- 1989 – 1991 - BA Hons History of Drawing and Printmaking, Camberwell College of Arts, London, United Kingdom.

Relevant Professional Experience

- 2002 – present: National Archives of Ireland, Bishop Street, Dublin 8, Ireland.
- 1999 – 2002 National Gallery of Ireland, Dublin 2, Ireland.
- 1991 – 1999 The Paper Conservation Studio, Dublin 2, Ireland.

Additional certification:

- 2000 – Institute of Conservation of Historic and Artistic Works in Ireland (ICHAWI)

Twitter Profile: <https://twitter.com/NAIConservator>

Maria Dmitrieva

Head of Biological Survey Department
RGANTD (The Russian State Archive of Scientific Documents)
Profsoyusnaya str. 82, 117393, Moscow, Russian Federation
Mobile: +791 6 176 5642, +972 58 406 9117
E-mail: bioest.maria@gmail.com
Web-site: <http://rgantd.ru/laboratoriya-mikrofilmirovaniya-i-restavratsii/struktura-laboratorii/uchastok-biologicheskogo-kontrolya.shtml>



Maria Dmitrieva, PhD in Technical Sciences with emphasis in protection of works of art from microbial infection. Since 1992, she worked in museums, archives, and cultural institutions in Russia and abroad (Egypt, Lithuania, Armenia, Azerbaijan, China). With extensive experience in the field of paper conservation, she worked as a conservation specialist for twelve years at The State Museum-Estate «Arkhangelskoe» (gravures, drawings, maps XVIII – XIX centuries). She also works as a Research Assistant for microbial infections of works of art with methods of preservation avoiding chemical treatment. Her personal research has focused on the development of the express testing of living cells of microorganisms, assessing the effects of biodeterioration and testing the physicochemical properties of the restoration materials. All these and other topics were published and presented at the scientific journals, International Conferences and are included in the Teaching Course for students of the Moscow State Stroganov Academy of Design and Applied Arts and Surikov Moscow State Academy Art Institute.

Education

2017 – PhD in Technical Sciences – *Protection against biodeterioration of fibrous materials: fabrics and paper*, Kosygin’s Russian State University (Design. Technology. Art.), Moscow, Russia.
1984 – MS in Biology with emphasis in Mycology, Lomonosov’s Moscow State University, Moscow, Russia.

Relevant Professional Experience

2010 – present: *Head of Department for Biological Surveillance*. Russian State Archive for Scientific Documentation, Moscow, Russia.
2013 – present: *Senior Specialist (2nd job)*. Microbiology Department, State Research Institute for Restoration, Moscow, Russia.
2003 – 2015 *Conservation Specialist (paper, drawings, maps XVIII – XIX centuries)*. The State Museum-Estate «Arkhangelskoe», Moscow, Russia.
1996 – 2010 *Head of Microbiology Department*. State Research Institute for Restoration, Moscow, Russia.

Additional certification:

2010 – Moscow State University "Nanotechnology", course certificate
1999 – Restoration of graphical arts and leather book binding, diploma

LinkedIn Profile: <https://www.linkedin.com/in/maria-dmitrieva-192ba837/>

Maja Kostadinovska

Conservator
National and University Library “St. Clement of Ohrid” – Skopje
Blvd. Goce Delchev 6, 1000 Skopje, Republic of North Macedonia
Phone: +389 23 115 177
Mobile: +389 78 272 218
E-mail: m.kostadinovska.nubsk@gmail.com; m.kostadinovska.nubsk@outlook.com
Web-site: www.nubsk.edu.mk



Maja Kostadinovska, Dipl. -Ing., has a Core Bachelor of Science Degree in Chemistry with a professional orientation in Analytical Biochemistry received in 2007 at the Institute of Chemistry, Faculty of Natural Sciences and Mathematics, Ss Cyril and Methodius University in Skopje. She currently works as a Conservator on chemical analyses related to conservation research and

conservation methods on paper, leather and parchment in the Conservation and Restoration Laboratory at the National Library in Skopje, and works mainly on national conservation projects for both public and private institutions/holders of cultural heritage. She has research interests in the investigation of ancient artifacts and other works of art made of paper, but also in the analysis of inks and pigments on Rare Books and Manuscripts. On these and other topics of Natural Sciences and Humanities, she disseminates scientific knowledge by a number of presentations and publications, and participated in a couple of conferences as a member of the Scientific Committees.

Education

2007 – BS in Chemistry with emphasis in Analytical Biochemistry. Institute for Chemistry, Faculty of Natural Sciences and Mathematics, Ss Cyril and Methodius University – Skopje, Skopje, FYR Macedonia.

Relevant Professional Experience

2012 – present: *Conservator*. Laboratory for Conservation and Restoration, National and University Library “St. Clement of Ohrid” – Skopje, Skopje, North Macedonia.

ORCID iD: <https://orcid.org/0000-0003-1344-5415>

Research Gate Profile: https://www.researchgate.net/profile/Maja_Kostadinovska

Open access of the periodical

Again, *Conservation Update* will be free publicly accessible periodical with help of the webmaster Emanuel Wenger from Austria. Each issue will be available in open access format and can be downloaded from the ERC website on the following link: <http://www.restauratorenohnegrenzen.eu/erc/Publications/>

Emanuel Wenger

Senior Researcher (retired) at the Institute for Medieval Research (IMAFO)
Austrian Academy of Sciences
Hollandstrasse 11+13, Vienna, Austria
Mobile: +43 664 73638064
E-mail: emanuel.wenger@oeaw.ac.at
Web-site: <https://www.oeaw.ac.at/imafo/forschung/schrift-buchwesen/>



Emanuel Wenger studied mathematics at the University Vienna and computer science at the Vienna University of Technology. Since 1978, he is employed at the Austrian Academy of Sciences. His last position at the Academy was the position of a senior researcher at the Institute for Medieval Studies, [Division Palaeography and Codicology](#). He is responsible for the various database projects of the division, such as [hebraica.at](#) (Hebrew fragments in Austria), [manuscripta.at](#) (medieval manuscripts in Austria) and [wzm.at](#) (watermarks of the Middle Ages). Since 2019, he is retired but continues to work on the database projects in the Academy. The main research fields of Emanuel Wenger are computer graphics, scientific visualization, paper history, watermarks, and watermark databases. Emanuel Wenger is council member of the IPH (International Association of Paper Historians) and its current webmaster.

Relevant Professional Experience

Emanuel Wenger was coordinator of two international EC projects on watermarks:

2001 – 2004 A Distributed Database and Processing System for Watermarks (funded by the EC Program INTAS),

2006 – 2009 *Bernstein – The memory of paper* (funded by the EC Program cContentplus).

Since 2009 he continues the development of the Bernstein project which gives currently access to 40 watermark databases with more than 250,000 watermarks in ten languages.

GND id: <http://d-nb.info/gnd/1027291333>

Research Gate Profile:

<https://www.oeaw.ac.at/imafo/forschung/schrift-buchwesen/mitarbeiterinnen/emanuel-wenger/>

Find us on Facebook and Twitter

We would like to thank Monika Dzik, a former ERASMUS Student of ERC (Poland) for maintaining the alumni page via Facebook for several years by now, it has been a great way of exchanging information.

Pascual Ruiz Segura (United Kingdom) installed a new Facebook and a new Twitter account.

These have been linked to the official webpage of the ERC, which is hosted on the webpage of **Danube University in Krems**. We are deeply thankful to the Dean of the University for this support.

Pascual will keep the social media “up-to-date”.

Follow these links:



<https://www.facebook.com/ERCBP>



<https://twitter.com/ERCBP>

Pascual Ruiz Segura

Book and Paper Conservator
National Records of Scotland
Thomas Thomson House
99 Bankhead Crossway North, EH11 4DX Edinburgh, Scotland, UK
Phone: + 44 (0)131 270 3308
E-mail: pascual.ruizsegura@nrscotland.gov.uk
Web-site: www.nrscotland.gov.uk



Pascual Ruiz Segura, M.A. Cons., holds a University Degree in Fine Arts and a Master's Degree in Conservation of Cultural Heritage from the Polytechnic University of Valencia, specializing in the field of Paper Conservation. He has developed his training through internships in institutions as the Institut Valencià de Conservació i Restauració in Spain, the National Library of Ireland in Dublin, and the National Archives of Estonia, in Tallinn and Tartu and The Rakow Research Library from the Corning Museum of Glass in New York, USA. He has also taught and held several contract and research positions at museums and universities in Spain and Estonia, as the Polytechnic University of Valencia and Kumu (Art Museum of Estonia). Nowadays, he works as a Book and Paper Conservator as part of the Conservation team of the National Records of Scotland, in Edinburgh, Scotland.

We have a list with all conferences online

One of the new functions of our webpage is to offer a list of upcoming **Events**.

The aim is to provide an up-to-date timetable of calls for papers and conference announcements worldwide allowing organisers of conferences to check dates and see on one webpage what is happening elsewhere.

Viewers can check both 'Our Own events' where they will find all Krems Events listed in detail and 'Others events' where they will see what is going on in a table organised month-by-month.

It is hoped that by providing this service conferences being scheduled at the same time would be avoided. We believe this is a real service for the community!

Follow this link: <http://www.restauratorenohnegrenzen.eu/erc/Events/>

National representatives Ines Correia (Portugal) and Penelope Banou (Greece) are thanked for all their work to date and for working on this task.

They have started also collecting webpages of relevant organisations, such as ICOM CC, IADA, etc., which are listed on our webpage as “relevant links”.

Follow this link: <http://www.restauratorenegrenzen.eu/erc/Links/>

Ines Correia

Senior Book-Conservator
PhD in Art History and Conservation
Portugal
Mobile: +351 966104340
E-mail: ines.icplanetgmail.com



Ines Correia, Senior Book Conservator, has a PhD (2014) on the subject of Manuscript Archaeology. Since 1996, she works with conservation management services for the safety and conservation of permanent collections in storage or exhibition. In the years between 1997 and 2017, she was part of conservation staff at the [National Archive of Torre do Tombo](#) (ANTT) in Portugal. She has experience in national and international conservation projects for both public and private institutions. Since 2010, belongs to IEM ([Instituto de Estudos Medievais, FCSH, Univesidade Nova de Lisboa](#)) and cooperates within interdisciplinary teams in scientific projects to increase medieval manuscripts knowledge and related conservation activity. Since 2017, she is Curator of the project “BookObject – Anatomy and Architecture”, which is displaying and exploring book materiality from different artistic and creative areas such as painture, sculpture and graphic design.

Education

2014 – PhD in Art History and Conservation (2014), at Faculty of Humanities, University of Lisbon, Lisbon, Portugal. Subject: *An Archeological study of the illuminated codices from the Portuguese monastery of Lorvão*. Scholarship from FCT, (SFRH/BD/44192/2008).

2002/2003 – Postgraduate Specialization Degree in the "Chemistry Applied to Cultural Heritage", Faculty of Sciences, University of Lisbon, Lisbon, Portugal.

2002 – MA Equivalence Degree in Conservation and Restoration from the Faculty of Science and Technology - New University of Lisbon, Lisbon, Portugal.

1996 – BA Degree in Conservation and Restoration of the School of Conservation (ESCR) with pre-specialization in conservation and restoration of Graphic Documents / Old Book.

Project Site: <https://livroobjecto.wordpress.com>

ORCID iD: <https://orcid.org/0000-0002-2774-8954>

ACADEMIA EDU: <https://lisboa.academia.edu/InesCorreia>

Penelope Banou

Paper Conservator
Conservation Department, General State Archives of Greece - Central Services
Dafnis 61, 15452 Psychiko, Athens, Greece
Phone: +302109716841
Mobile: +306977218522
E-mail: pbanou@yahoo.gr, pbanou@gak.gr
Web-site: www.gak.gr



Penelope Banou graduated from the Department of Conservation of Antiquities and Works of Art, TEI, Athens (1996) and specialized in conservation of works of art on paper after her postgraduate studies, Master of Arts in Conservation of Fine Art at the Northumbria University in UK (1998). Her professional activities include participation in preservation and conservation projects, while she has been involved in education and research programs with several publications for the last 15 years. Her interest has mainly focused on the effect of oil binders on the paper support of books, archival material and works of art, but she has also engaged with the research on the evaluation of the condition of copy book and copy letters and the documentation and treatment of special categories of

archival material on parchment. She belongs to the permanent staff of the Conservation Department of General State Archives of Greece in Athens from 2008.

Education

1998 – MA Conservation of Fine Art with distinction, specialised in paper conservation, Department of Conservation of fine art, Faculty of Arts & Social Science, University of Northumbria at Newcastle, United Kingdom.

1996 – BA Conservation of antiquities and fine art, Group B (works of art and archives), Department of Conservation of antiquities and fine art, School of Graphic arts and Design, Technological Educational Institution of Athens, Greece.

Relevant Professional Experience

2008 – present: *Paper conservator*. Conservation Department of the General State Archives of Greece (central services – Athens).

2001 – 2014 *Lecturer*. Department of Conservation of antiquities and fine art, School of Graphic arts and Design, Technological Educational Institution (T.E.I.) of Athens, Greece, teaching the courses “Conservation of book and archival material”, “Conservation works of art on paper” and “Conservation of photographic material”.

1998 – 2008 *Freelance conservator* for archival material, books and works of art on paper working with museums, private and public collections. Indicative examples, conservation contracts with the Library of the Greek Parliament, the archive of the Hellenic Olympic Committee, Koventrarios Library, Dimokritio University in Thrace, etc.

LinkedIn Profile: <https://www.linkedin.com/in/pinelopi-banou-a681b412/>

Research Gate Profile: https://www.researchgate.net/profile/Penelope_Banou2

We have a list of all European periodicals online

Another big help is that Elissaveta Moussakova and Roumiana Decheva (both from Bulgaria) will take over the development of **MuLiBiNe**.

This is a multi lingual bibliography search engine based on a list of periodicals on conservation of written heritage and graphic art, which was brought together by our joint effort about one year ago. Emanuel Wenger is recently designing the data base for the search engine. Soon users will be able to enter key words in any language and get articles in conservation of written and graphic heritage in any language as a result of the search.

The list is available already under the link:

<http://www.restauratorenohnegrenzen.eu/erc/MuLiBiNe>

The search engine will be online soon.

Elissaveta Moussakova

Professor

Institute of Art Studies – Bulgarian Academy of Sciences

21 Krakra Street, Sofia 1504

Mobile: +3592 897 80 93 54

E-mail: emoussakova@gmail.com



Elissaveta Moussakova, PhD in Art History; researches in the field of illumination of South Slavonic and Byzantine manuscripts. She has worked in the Manuscript Department of St Cyril and St Methodius National Library, Sofia, between 1996 and 2017. She teaches BA courses on Byzantine art and Bulgarian illuminated manuscripts in the National Academy of Arts and a MA course on the visual culture in mediaeval Bulgaria at St Kliment Ohridski University in Sofia. A former member of the editorial boards of *Izkustvo*/Art in Bulgaria and *Biblioteka* periodicals; member of the Editorial Board

of Scripta & e-Scripta: the Journal of Interdisciplinary Mediaeval Studies. Ex-member of the Manuscripts Expert Group (CERL) and present Secretary of the Bulgarian Memory of the World National Committee. She is the author of one book (2015) and over 120 publications, and co-author of several catalogues of Slavonic manuscripts.

Education

1989 – PhD in Art History – Semantic Changes in Certain Motifs in the Art of the First Bulgarian

Kingdom (Institute of Art Studies)

1982 – MA in Art History (Nikolay Pavlovich Higher Institute of Arts, now National Academy of Arts)

Professional Experience

2017 – present: *Professor*, Institute of Art Studies, Bulgarian Academy of Sciences

2015 – 2017 *Archivist*, Manuscript Department of St Cyril and St Methodius National Library, Sofia

1998 – 2015 *Chief Archivist*, Senior Research Fellow (since 2012 equal to Assistant Professor), Manuscript Department of St Cyril and St Methodius National Library

1996 – 1997 *Archivist*, Research Fellow, Manuscript Department of St Cyril and St Methodius National Library

1988 – 1996 *Research Fellow*, Institute of Art Studies

Additional certification:

1998 – Management Issues in Archival Preservation, Summer University course – CEU, Budapest, certificate

Rumyana Decheva

Conservator

Centre for Slavo-Byzantine Studies “Prof. Ivan Dujčev” at St Kliment Ohridski Sofia University

18, Prof. Ivan Dujčev St., Sofia, Bulgaria

Phone: +359 2 8563066

Mobile: +359 887822437

E-mail: roumi_decheva@yahoo.com



Rumyana Decheva, PhD in Sociology, Anthropology and Culture Sciences, has a Master Degree in Conservation-restoration received in 1991 at the National Academy of Art in Sofia. She currently works as a Conservator on rare books, paper and parchment documents at the Centre for Slavo-Byzantine Studies. She is interested in structure and decoration of medieval codices. She has participated in many projects, some of them organized by *Vestigia* Manuscript Research Centre at the Graz University, Austria and Ligatus Research Centre, the University of the Arts London. She has publications in Bulgaria and abroad. Vice-president of the Association of Conservator-Restorers in Bulgaria.

Education

2013 – PhD, St Kliment Ohridski Sofia University

1991 – Master in Conservation, National Academy of Art, Sofia

Relevant Professional Experience

2004 – present: Conservator at the Centre for Slavo-Byzantine Studies “Prof. Ivan Dujčev” to St Kliment Ohridski Sofia University

1991 – 1999 Conservator at the Diplomatic Archive, Ministry of Foreign Affairs, Sofia

We have new representatives and new co-operations

The board of the European Research Centre for Book and Paper Conservation-Restoration counts now 12 members and one executive member (Patricia Engel), which are dedicated to formulate the Centre's mission and vision through concrete aims, but the Board also provide management services to the Centre and ensure its economic well-being. These board members have been serving since 2010 and ERC would like to thank them for their dedication and support.

Beside the Board, there is a community of national representatives, who maintain communication with the respective counties. Currently, the Centre has 26 representatives from 26 countries.

There are also about 200 members of the Centre, both individuals and institutions.

Last year new representatives who joined the community are:
Maja Kostadinovska (North Macedonia)

New co-operations have been established with project partners in research projects. One of them is Prof. Dr. Prohaska in Montan University in Leoben.

ERC are delighted to announce the support of our newest sponsor Stora Enso (Austria) as a new sponsor.

Follow this link: <https://www.storaenso.com/en/products/paper>

Report Summer Internship (ERASMUS+)*

Alicia Allué Valcarce

This report explains the sort of tasks and projects which I participated in during my ERASMUS+ internship (2 July - 31 August 2018) at the European Research Centre for Book and Paper Conservation-Restoration, Centre for Cultural Property Protection, Department for Building and Environment, located at the Danube University Krems (Austria). Under the supervision of Patricia Engel.

I was involved in several projects and activities during my internship

- Research work: Latex sponge for cleaning iron gall ink texts
- Preparation of international conference: El'Manuscript – September 2018
- Assistance in the MuLiBiNe
- Assistance in the EU Project: ProteCHT2safe
<https://www.interreg-central.eu/Content.Node/ProteCHT2save.html>
- Preparations for the ASEA Uninet Project AFFANDI IV <https://asea-uninet.org/portfolio-item/affandi-museum-indonesia/>

I would like to highlight the valuable general knowledge that I have acquired regarding how to run a research centre, as well as the specific learning in the project management field, by getting an overview of the great variety of projects that the European Research Centre is carrying out, and by briefly participating in some of the tasks that must be done to move forward all of them.

I have also been able to see how to start an EU project, settling the basis by making a time frame, determining the work-packages that must be done, organizing and relating them, establishing milestones or recognizing the different parties that must take action in the project.

To conclude this report, I would consider that during my stay I have obtained a worthwhile knowledge in how to assess projects, especially in the Conservation-Restoration and Cultural Heritage field, that will certainly be of great help in my professional future.



Peter Weber (ZEISS Area Sales Manager), Patricia Engel (Head ERC) and Alicia Allué Valcarce (ERASMUS+ Student) during the presentation of the microscope

*Editor's note: This is an edited summary of the formal report submitted after the ERASMUS+ internship.

Research

Beasts to Craft: BioCodicology as a new approach to the study of parchment manuscripts (B2C)(2018-2023)

ERC Advanced Grant Project Lead Prof. Dr. Matthew Collins University York



Beasts to Craft (www.ercb2c.org) is a University of Copenhagen/University of Cambridge project that has been awarded funding from the European Research Council to investigate connections between parchment writings and livestock production through the ages. European Research Centre for Book and Paper Conservation-Restoration Head Patricia Engel is on the advisory board to the project.

Developed initially at BioArCh, University of York, the team use a non-invasive technique using protein analysis from the collagen of the skin as part of a wider investigation into the animal husbandry and craft associated with parchment production.

The collection of eraser fragments during the cleaning process of skins provides the samples that are treated and analysed. Protein samples provide enough evidence to be able to discriminate the species of animal used to make the parchment and the quality of the skins, with the potential of additional genetic (DNA) analysis to determine the sex and possible breed of the animal.

The aims of the project are to

- furnish manuscript scholars with some of the information available to the scribe at time of production
- inform and shape attitudes to parchment conservation
- provide high-resolution biological data on animal management, movement and health
- explore methods to link datasets and promote data reuse.

The project is led by Prof. Matthew Collins (University of Copenhagen/Cambridge) with a large interdisciplinary team including scientists, (Dr. Sarah Fiddyment and Dr. Matthew Teasdale, University of York/Cambridge) conservators, (Jiří Vnouček, Royal Library Copenhagen and Élodie Lévêque, University of Copenhagen/Trinity College Dublin) archaeozoologists, (Anneliese Binois, University of Copenhagen/Paris) and book, manuscript and historians.

The ERC funding ensures that the project team can continue to explore parchment production, manuscript materiality and conservation. They will be running workshops and preparing materials for comparative analyses. By involving a larger community they hope that B2C will lay the foundations for a new approach to the study of parchment manuscripts –biocodicology– which draws evidence from the overlooked first stages in production, the raising of livestock and the preparation of the skins.

For more information check out the project team's website:

<https://sites.google.com/palaeome.org/ercb2c/home/about-b2c?authuser=0>

Twitter account: <https://twitter.com/ercb2c>

<https://www.theatlantic.com/science/archive/2019/02/dna-books-artifacts/582814/>

For more information about the Beasts to Craft project and other projects that ERC are involved with check out the Research page on our website:

<http://www.restauratorenohnegrenzen.eu/erc/Research/>

2. ARTICLES

Svetlana A. DOBRUSINA, Natalia I. PODGORNAYA, Natalia S. VOLGUSHKINA, Veronika M. TSITOVICH

Federal Centre for Document Conservation, National Library of Russia, SPb., Russia

Preservation Evaluation of the Collection of Western European Engraved Atlases of the 16th-18th Centuries. The Electronic Passport of the Atlas's Condition

Abstract

The collection of Western European engraved atlases in the National Library of Russia is unique, both in the range of cartographers, publishers, authors, and the number of units. It gathers over 400 volumes of masterpieces of world cartography from the 16th – 18th Century. The superior artistic, historic and scientific value of the collection makes the preservation of the collection a matter of extreme importance. A recent preservation evaluation of the collection of West European engraved atlases took place in 2016. The creation of a database of preservation showed that the previously performed conservation treatments had ensured their long-term preservation and the good condition of documents. The information gathered in the database also allowed the library conservators to predict the condition of an individual volume, as well as the collection as a whole. This, in turn has allowed library staff to organize scientific and exhibition activities with minimal risk of document deterioration.

Keywords: preservation, conservation, engraved atlases, copper pigment.

Introduction

The collection of printed books and atlases held in the National Library of Russia (NLR) is among the country's richest ones, numbering over 170 000 bibliographic units. The collection of West European engraved atlases of the 16th-18th centuries is of worldwide importance, both in size and richness. It contains over 400 volumes.

The period during the 16th-18th century was the time of cartographic rise and flourishing, triggered by the great geographic discoveries providing material for new maps and opening extraordinary vistas for the geographic outlook of mankind. Map-making was also largely affected by the major event in the 15th century culture, the invention of the printing press, followed by the practice of map engraving and printing. To meet the demands of commerce and navigation, atlases were published, systematic sets of maps and multi-purpose repositories of accumulated knowledge were created¹.

The earliest dated edition in the Cartography Department, NLR is a set of maps made by Ptolemy to supplement his "Geography" published in 1508. On the whole, the work exhibits pre-Columbian ideas in geography, but it also contains one of the first maps showing the recently discovered America, the "Universal Map of the Known World according to Recent Discoveries" by I. Ruysch (Rome, 1508).

An end to the mixture of old and new geography, typical for the 16th century science, was put by the works of Abraham Ortelius (1572-1598) the Flemish cartographer and geographer. Recognized as the creator of the first modern atlas, the *Theatrum Orbis Terrarum*, the NLR's collection contains 30 different units of his atlases. There are also 25 units of one of the founders of science-based cartography, Gerhard Mercator (1512-1594), including the rare preliminary life-edition of 1585, published 10 years before the better-known basic volume.

The Library also holds the 1593 atlas by Cornelius de Yode (1568-1600), the publication of this atlas was never repeated. It has a copy of one of the first printed marine atlases by Lucas Wagenar (1533-1606), its

¹ Van den Heuwel (2003), pp. 85-99; Schilder (2003), pp. 17-30

importance in navigation cartography can only be compared to that of Ortelius in general geography. There are several editions of the atlases of world city plans by Georg Braun (1541-1622) and Frans Hogenberg (1535-1590). The collection includes many volumes of works by the predecessors and followers of Ortelius and Mercator, the atlases by Dutch cartographers Willem Janszoon Blaeu (1571-1638) and Johannes Janssonius (1588-1664) and the Flemish engraver and cartographer Jodocus Hondius (1563-1612), amongst others. The collection also contains assembled atlases, with maps made by some of the best engravers of the time².

The maps of the 16th-18th centuries were generally copper-plate engravings and often hand-illuminated. Traditionally, there was rich ornamentation in the prevailing artistic styles, which made them like works of art, and their makers to genuine artists. Thus, for example, A. Ortelius was a member of the famous guild of Saint-Lucas, an association of painters and engravers³.

At the end of 1980s a preservation assessment of 343 volumes of both black-and-white and illuminated Western European Engraved Atlases, was carried out⁴.

In the course of examination typical deteriorations for paper-supported documents were found. Amongst the hand-coloured atlas collection the most significant damage was paper disintegration due to the effects of copper pigments⁵.

The results of this examination permitted conservators in the 1980s to devise three categories of condition:

- Preservation grade 1/ Little or no degradation or damage.
70-100 %: the paper has changed color due to natural aging and effects of copper pigment but retains its strength.
- Preservation grade 2/ Some degradation or damage.
50-70 %: the paper is brown and brittle and effects of copper pigment.

² Kildushevskaya (1996), pp. 25-29; Kildushevskaya (1997), pp. 274-279

³ Kildushevskaya (1997), pp. 274-279

⁴ Dobrusina (2003), pp. 100-104

⁵ Banik et al (1982a), pp. 71-93; Banik (1982b), pp. 438-448





Fig. 1 The copper pigment on the front part of the sheet

- Preservation grade 3/ Considerable degradation or damage
Under 50 %: loss of paper, the remaining paper is brittle, crumbling when touched and effects of copper pigment.

About 80 % of the atlases were given a preservation grade 1. They were cleaned using brushes and erasers. Storage in containers of acid-free cardboard were made for every volume by the staff of NLR.

The remaining 20 % belonged to categories 2 and 3. This could then be broken down further to 17 % required conservation, and 3% required a combination with strengthening and stabilizing, then housing in phase storage in containers of acid-free cardboard⁶.

⁶ Dobrusina/Kildushevskaya (1996), pp. 135-143

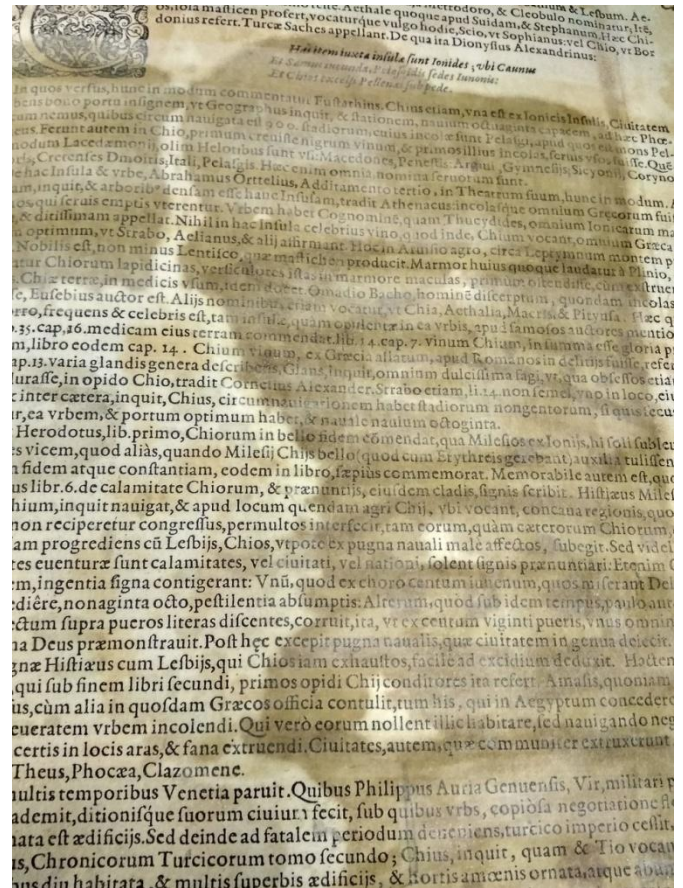


Fig. 2 Dark brown contours on the reverse side of the sheet

Copper pigment

Verdigris, the copper pigment that was most commonly used in Europe, mainly in the Netherlands, Germany and Italy from the 16th to the 18th centuries, was based on neutral copper acetate⁷. Its main advantage is the clear green color. Copper acetate was also used with lead or tin additives, to give other tints to the color. Copper acetate is considered to be the most reactive and the least stable pigment⁸.

The generally recognized phenomenon of copper pigment lies in the fact that the paper exhibits a strong brown coloring on its verso side where there is copper pigment on the recto side. Frequently the dye itself turns brown, the underlying paper getting unusually brittle, which results in fragmentary paper

⁷ Lukjanov (1955), p. 530; Shroeter (1958), pp. 11-14

⁸ Banik et al (1982a), pp. 71-93; Pisareva (1998), pp. 100

deterioration. Moreover, where the dye retains its color, dark brown contours appear on the reverse side, corresponding to the copper pigment dye segments (Fig. 1, Fig. 2).



Fig. 3 The sheets of the document are laid with a restoration paper with a high pH value

There have been various hypotheses to explain the chemical nature of the dye's turning brown and paper's deterioration due to effects of copper pigment⁹. In Shroeter's opinion¹⁰ the cellulose degradation cannot be explained by a reaction to an acetic mechanism on its own, nor can be regarded as an exclusively oxidation process, as the presence of copper causes cellulose degradation can be found in both on acidic and alkaline media.

A preservation technique for documents with copper pigment is the documents are interleaved with sheets of a thin paper with a high pH value (8.0-8.5). This creates a barrier that slows down the migration of the

paint components (Fig. 3). This technique is acceptable and effective when the paper of the document retains mechanical strength.

When there is significant damage to the copper pigment, this measure is ineffective; there is a threat of complete destruction and loss of the document.

The problem of conservation of copper pigment degraded works of art discussed and published 1974 by Kuhn¹¹ and in 1975 by C. Federici and M. Hey¹².

Specialists of the Federal Centre for Document Conservation (FCDC) at the National Library of Russia developed a technology to stabilize the atlases which were deteriorating due to the effects of the copper pigment. Conservation treatment included consolidation of the dye, the use of a non-chloride bleach solution, washing, sizing solutions of cellulose ethers, prepared on the basis of solutions of calcium and magnesium bicarbonates and lining with a thin Japanese paper (9 g/m², cotton fibres).

The treatment for each volume was individual, taking into account the risk of damage, as well as historic relevance such as the time and place of creation of the atlas. Selective microstructural analysis of atlas paper indicated cotton cellulose in all cases¹³.

Creation of database

In 2016 the collection of Western European engraved atlases was examined with the purpose to check the current condition of the collection. Using an MS ACCESS software package an 'Electronic passport' of each Atlas was created. The term 'Electronic passport' means a detailed digital record about the artifact.

In total 404 documents (364 volumes, 40 sheets) were examined, and a database recording the condition of the collection was generated.

The examination considered the deterioration of the information carrier (paper), the material of information recording, the binding. Special attention was paid to the condition of the fourteen volumes that were conserved almost thirty years ago.

⁹ Banik (1982a), pp. 71-93

¹⁰ Shroeter (1958), pp. 11-14

¹¹ Kuhn (1974)

¹² Federici/Hey (1975), p. 19

¹³ Blank et al (1984), pp. 127-138

Code	Inventore number	Copies	
Author	Year of edition	<input type="checkbox"/> Microfilm	<input type="checkbox"/> Digital
Language	The place of edition	Volume	
Name	Format		
	Number of pages		
	Number of maps		
Print	Information carrier deteriorations		
<input type="checkbox"/> Black and white	Mechanical		Biological
<input type="checkbox"/> Color	Breakes at the edge		Mold plague
<input type="checkbox"/> Illuminated by hand	Breakes atthe center		Pigmentation
Information carrier material	Deformation		Destruction
<input type="checkbox"/> Paper	Creases		Losses
Technique of Map making	Losses		
<input type="checkbox"/> engraving on metal	Physiko-chemical deteriorations		
Conservation	Pollution	Color change	Deterioration
<input type="checkbox"/> restoration	General	Browning	Under actuaion:
<input type="checkbox"/> phase storage	Finger marks	One side	green dye
Special features	Glue marks	General	iron gall inks
<input type="checkbox"/> stamp		Under the action of prin. ink	print ink
<input type="checkbox"/> stamp		Under the action of gr. dye	numbs
<input type="checkbox"/> marks		Pigmentation	
<input type="checkbox"/> exlibris		Foxing	
<input type="checkbox"/> filigree			
<input type="checkbox"/> more			
#Имя?	Binding deteriorations		
Information recording material	Material of cover:	Material of coverage:	Accessories:
<input type="checkbox"/> printing ink	<input type="checkbox"/> wood	<input type="checkbox"/> Leather	<input type="checkbox"/> Buckles
<input type="checkbox"/> color ink	<input type="checkbox"/> cardboard	<input type="checkbox"/> Parchment	<input type="checkbox"/> Ties
<input type="checkbox"/> graphit pencil	<input type="checkbox"/> more	<input type="checkbox"/> More	<input type="checkbox"/> More
<input checked="" type="checkbox"/> iron-gall inks			
<input checked="" type="checkbox"/> more			
Information recording material deterioration	Volume deterioration	Coverage deterioration	Edge
Brownings	Deformation	Contaminaion	<input checked="" type="checkbox"/> Natural
Fading	Damage of capital	Wear	<input type="checkbox"/> Golden
Moving on the reverse side	Loss of capital	Losses	<input type="checkbox"/> More
	Violation of sewing	Cracks along spine	
	Deposition of unit	Losses of spine	
	Deposition of sheets	Biological	
	More		
			Stamping:
			<input type="checkbox"/> Natural
			<input type="checkbox"/> Golden
			<input type="checkbox"/> Blind
			<input type="checkbox"/> tamp
			<input type="checkbox"/> More
			Cover deterioration

Fig. 4 The part of the electronic passport “Atlas”

The 'Electronic passport' of an atlas contained the bibliographic information which was captured in 39 text fields: inventory number, author, year of publication, language, place of publication, name, format, number of pages and maps. There were also text fields for additional information.

The electronic passport of document preservation consists of text, logical and numeric fields (Fig. 4).



Fig. 5 Phase storage of the collection in the Cartographic Department

The 50 logical fields reflect information about the availability of copies, special characteristics of the document (the presence of stamps, letters, bookplates, filigrees of paper), information recording materials, binding, the presence of accessories, the form of embossing, trim, map's manufacturing techniques, the implementation of the previous recommendations for conservation.

The preservation characteristics of the document for certain types of deterioration, expressed in points, are shown in the 71 numeric fields. Mechanical, physical-chemical, biological deteriorations of the document carrier material (paper) are described.

Mechanical deteriorations include breaks at the edge and in the center of the sheet, deformation, creases, and losses.

Physical-chemical deteriorations are divided into pollution (general, finger marks, glue marks), color change (browning, one-sided and/or general under the action of printing ink and/or copper pigment, pigmentation that occurred in the process of paper production, foxing). Deterioration and destruction of paper under the influence of copper pigment, iron-gall ink, the presence of dust are noted separately.

The biological deteriorations of the paper include mould plaque, pigmentation and destruction as a result of microorganisms' activity.

The characteristics of various types of deterioration, expressed in points:

- 0 - no damage,
- 1 - minor deterioration, less than 20 % of the document volume is damaged,
- 2 - medium deterioration, 20-50 % is damaged,
- 3 - high deterioration, more than 50 % are damaged.

The following recording information materials are noted: printing ink (black, color), color paint used for coloring maps, materials of notes (graphite pencil, iron-gall ink, etc). The deteriorations of recording material are the following: browning, fading, moving to the reverse side of the sheet and/or the adjacent sheet, the halos around the letters, spreading, migration to the sheet reverse, neighboring sheet.

In the description of binding specifies the following are indicated: a material of covers (wood, cardboard, etc.), covering material (leather, parchment, textile, etc.), presence of accessories (metal buckles, ties), embossing (blind, gold, etc.), book edge (natural, golden, painted, embossed, etc.).

Volume deterioration (deformation, damage and/or loss of headband, violation of the sewing, the deposition unit, paper sheets), deterioration offset (contamination, wear, loss, cracks along spine) and, deterioration of cover and covering of binding (deformation, cracks and losses, biological) are fixed as well.

The restoration treatments performed earlier is noted and recommendations concerning preventive measures in the future are given.

The preservation degree of the information carrier material (paper), information recording materials and the binding determined on the basis of different deteriorations evaluation works out at percentage terms, and then total preservation degree of each document is calculated, also at percentage terms.

Once completed, it was possible to search the database for volumes by bibliographic information, author, and degree of preservation or by a combination of any of these. The preservation evaluation of the collection shown in the database has allowed library conservators to determine the order of conservation work, the possibility of exhibition of individual volumes and the frequency of their provision to readers.

The database management system allows users to perform sequential viewing and editing of the entered data, entering new data, search for the entered information using filters, sorting in the logical "Yes" and "No" mode, analysis and searching for the entered data on the assessment of various types of damage using filters.

All deteriorations, systematized by the types, allow library conservators to estimate potential damage to each volume, the collection as a whole and to allocate certain risk groups.

Among the mechanical deteriorations, deformation and creases to sheets, breaks at the edges and in the center of the sheet, areas losses dominated. Most of the mechanical deteriorations are estimated at point 1 of the deterioration scale and can be described as insignificant.

The deterioration by the copper pigment is the main risk factor for the examined documents. The results of the evaluation allow library conservators to state that the color change by its influence has taken place in 190 volumes, with substantial destruction in seventeen volumes. A significant part of the deterioration is estimated at point 1 and may be considered insignificant and does not pose a danger to the documents.

Pigmentation and losses are typical biological deterioration. Most of the documents have however, no biological deterioration.

Deterioration of information recording materials can be arranged as follows: browning, the printing ink and the copper pigment migration to the reverse of the sheet, printing ink migration to the next sheet, the copper pigment migration to the neighboring sheet, flow coating, haloing around the letters. Deterioration by the copper pigment, causing deterioration to the paper at a certain stage of its destruction, is not predominating.

The most common deterioration of the book block is deformation, the damage and loss of headband, damage to the book sewing structure, the loss of the unit, sections and single sheets. The scuffs, cracks along the spine dominate as deteriorations of the cover. There are losses of a covering and a spine. Biological damage is insignificant, mainly insect damage. A significant part of the documents in the past had accessories in the form of metal buckles and ties, which fastened the cover of the binding. The loss of buckles and ties, given the large format of the documents, is likely to cause deformation of the book block and sewing violations.

Particular attention was paid to the preservation of the conserved volumes because of the intervention in the structure of the object during the process of conservation. The condition of the documents after the conservation is good, there are no visible changes in the paper, the paint layer, and the binding, total preservation of the documents is estimated at 85-90 %. According to the preservation degree they can be attributed to the first category, additional conservation measures are not required.

The methods of conservation that were used in the treatment of Western European engraved atlases destroyed by the action of the copper pigment is still widely used in NLR during the conservation process of different documents with copper pigment in other collections.

The collection of Western European engraved atlases, however, has a significant number of documents with traces of earlier restoration (pre 1980s). Some hard places, bonding with duplicate paper, are marked in a few cases.

Conclusion

The condition of the documents after the conservation carried out in the 1980s is good, there are no visible changes in the paper, the paint layer, the binding. Conserved documents can be attributed to the preservation degree I. It is recommended to monitor the preservation of maps with copper pigment every 5 years.

Almost all documents of the collection in 1980s were placed in custom made-to-measure boxes made of acid-free cardboard (Fig. 5). The current condition of these boxes is, after 30 years still good. Recent testing showed that the pH value of the cardboard is pH 7.1. As a preventive measure, it is recommended that shelves and boxes are dusted regularly.

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Authors CVs and contacts:

Svetlana A. Dobrusina - graduated in non-organic substances technology from the Moscow D. I. Mendeleev Chemical Engineering Institute (Diplom-Chemist), holds a Ph. D. at the Forestry Academy (St.-Petersburg) and a Ph. D. habil. of the Technical University (St.-Petersburg). She is currently director of the Federal Centre for Document Conservation at the National Library of Russia. Author and co-author of more than 300 publications, 3 monographs, few Patents of Russian Federation.

Federal Centre for Document Conservation, National Library of Russia, 18, Sadovaya st., St.-Petersburg, 191069 Russia, svetdobru@gmail.com

Natalya I. Podgornaya - graduated in technology of conservation at the Technological Institute of Refrigerating Industry (St.-Petersburg), graduated course “Cultural Heritage in Danger” in the Central European University. Main Specialist of the Federal Centre for Document Conservation, National Library of Russia. Author and co-author of more than 60 publications, co-author 2 Patents of Russian Federation.

Federal Centre for Document Conservation, National Library of Russia, 18, Sadovaya st., St.-Petersburg, 191069 Russia, conservation@nlr.ru

Natalia S. Volgushkina - graduated State Technological University, Top Specialist of the Federal Centre for Document Conservation, National Library of Russia. Author and co-author of 18 publications.

Federal Center for Document Conservation, National Library of Russia, 18, Sadovaya st., St.-Petersburg, 191069 Russia, conservation@nlr.ru

Veronika M. Tsitovich - graduated Forestry Academy (St.-Petersburg), Top Specialist of the Federal Centre for Document Conservation, National Library of Russia. Author and co-author of 11 publications.

Federal Centre for Document Conservation, National Library of Russia, 18, Sadovaya st., St.-Petersburg, 191069 Russia, conservation@nlr.ru

3. UPCOMING EVENTS

Our events

Throughout the whole year ERC for Book and Paper Conservation-Restoration organises different activities (conferences and courses), where conservators, archivists, students etc. from member countries and abroad get the chance to discuss matters of the field of paper conservation, complement their professional fields or study with new qualities, upgrade their knowledge or take their first steps into an international career, increase their international experience, set up contacts, improve their English level and enjoy the visit.

You can find more information about these events below:

Ligatus summer school 2019 in Krems

16-20 and 23-27 September

Ligatus undertakes work in the history of bookbinding, book conservation, archiving and the application of digital technology to the exploration of these fields. Ligatus's main research projects currently include the conservation of the books in the library of St. Catherine's Monastery on Mount Sinai and the development of the Language of Bindings (LoB) thesaurus of bookbinding terms.

The 2019 Ligatus Summer School will take place in **Krems**, Austria, in collaboration with the Danube University Krems and visits to the monasteries of Göttweig, Zwettl and Kremsmünster.

Week 1 (16-20 September), European Bookbinding 1450-1830

Tutor: Professor N. Pickwood

This course will follow European bookbinding from the end of the Middle Ages to the beginning of the Industrial Revolution, using the bindings themselves to illustrate the aims and intentions of the binding trade. A large part of the course will be devoted to the identification of both broad and detailed distinctions within the larger groups of plain commercial bindings and the possibilities of identifying the work of different countries, cities, even workshops without reference to finishing tools. The identification and significance of the different materials used in bookbinding will be examined, as well as the classification of bookbindings by structural type, and how these types developed through the three centuries covered by the course. The development of binding decoration will be touched on, but will not form a major part of the discussion.

The course consists of ten 90-minute sessions with Powerpoint presentations (over 800 images will be shown). Actual examples of bindings will be examined in the afternoons during visits to collections.

Week 2 (23-27 September): Identifying and Recording Bookbinding Structures of the Eastern Mediterranean

Tutors: Dr Athanasios Velios and Dr Georgios Boudalis

This course is divided into two interconnected sessions.

In the first section, Dr Georgios Boudalis, will focus on the major structural and decorative features of the different bookbinding traditions that have developed in the eastern Mediterranean – including the

Coptic, Syriac, Armenian, Georgian and Islamic – with special focus on the Byzantine and post-Byzantine bookbindings. The aim is to follow the evolution of these closely related bookbindings and establish their similarities and differences during lectures, slide-shows and demonstrations of real bookbindings from local collections. This part of the course will consist of six 90-minute presentations from Monday to Wednesday.

The second part of the course will be taught by Dr Athanasios Velios and will deal with the methodologies and techniques that can be used to record bookbindings. This session will focus on:

- a) Linked Data, the semantic web and the CIDOC Conceptual Reference Model (CRM);
- b) Standardised vocabularies for book descriptions (Language of Bindings and SKOS);
- c) The development of database schemas for book descriptions;
- d) Mapping bookbinding description databases to CIDOC-CRM and publishing Linked Data; and
- e) Photographic records and workflows for large collection surveys.

A part of these sessions will be devoted to the actual recording of specific bindings. This session will consist of a combination of presentations and hands-on workshops.

Course Fees

Course fees are €350 per person per week.

Please note that course fees cover tuition only. Participants are responsible for arranging their own travel, accommodation, meals etc. during the School. However, the Danube University is able to offer accommodation at a **special price** for the School participants. Please contact campuskrems@kolping.at for more information.

Apply online on this link: <https://www.ligatus.org.uk/summerschool/node/add/application>

Ink Corrosion Conference

24th – 25th October 2019

We attempt to keep this list as up to date as possible. Past events are included in order to give enthusiastic students and idea of what may be available in future years:

- “New Approaches to Book and Paper Conservation-Restoration”, 9 – 11 May 2011, Horn
- “From Microorganism to Megaorganism”, St. Pölten, 28 April – 1 May 2014, Krems
- “Convention on the Need for Continuing Education in Preservation of Documentary Heritage”, 19 July 2015, Krems
- “El'Manuscript 2018: Textual Heritage and Information Technologies”. 14 – 18 September 2018, Vienna and Krems

And now, Ink Corrosion Conference in October 2019, Krems. See below for more information.

Donau-Universität Krems

Universität für Weiterbildung

www.donau-uni.ac.at



Dr habil Mag. Patricia Engel
European Research Centre for Book and Paper Conservation-Restoration
Zentrum für Kulturgüterschutz, Department für Bauen und Umwelt
Fakultät für Bildung, Kunst und Architektur
Dr.-Karl-Dorrek-Straße 30
A-3500 Krems
Tel. +43 (0)2732 893 2661
Fax +43 (0)2732 893 4650
E-Mail: patricia.engel@donau-uni.ac.at

Conference board: *Georgios Boudalis
Patricia Engel
Istvan Kecskemeti
Elissaveta Moussakova
Flavia Pinzari
Joseph Schiro
Maria Carme Sistach
Jedert Vodopivec*

Venue: European Research Centre for Book and Paper Conservation-Restoration, University for Continuing Education Krems, Dr. Karl Dorrekstr. 30, 3500 Krems, Austria

Ink Corrosion Conference (ICC) – Program

Day 1:

24th October 2019

8:00 – 10:00
Registration

9:00 – 10:00
Welcome by the Dean of the faculty



1st Session

10:00 – 12:00

Cases of ink corrosion treatment in the course of a concrete practical conservation

Maria Carme Sistach, Eva Marín, Héctor Bagán, José Francisco García (Spain)

Simultaneous deacidification and lamination: Innovative conservation treatment for extremely Iron Gall Ink corroded manuscripts

Alejandra Odor (Mexico)

Chemical and mechanical stabilization treatments for ink corroded manuscripts: experience and results in two Mexican national collections

Maja Kostadinovska, Zorica Jakovleska Spirovska, Marijana Kavcič (North Macedonia)

Ink corrosion or not? - Cases from the national library's oriental collection

Patricia Engel (Austria)

Three case studies on unsolved conservation problems concerning ink corrosion

Julie Biggs, Lynn Brostoff, Cynthia Connelly Ryan, Andrew Davis, Claire Dekle, Cyntia Karnes, Yasmeen Khan, and Susan Peckham (USA)

Investigation of Phytate Treatments for Water-Sensitive Iron Gall Inks

12:00 – 13:00

Lunch

2nd Session

13:00 – 18:00

Scientific papers about ink corrosion

José Fernando García, Maria Carme Sistach, Eva Marín, Héctor Bagán (Spain)

Combined antioxidant treatments for Iron Gall Ink corroded manuscripts

Greta Keraite (Lithuania)

Investigation of the effect of interleaves with potassium bromide on ageing stability of paper with iron gall ink

Federica Cappa, Manfred Schreiner (Austria)

Studies of Parchment Degradation in Medieval Manuscripts: Influence of environmental changes and writing materials

Shorena Tavadze, Revaz Kldiashvili, Izolda Jikidze (Georgia)

Morphological and elemental analysis of ink

Jedert Vodopivec Tomazic, Žiga Šmit, Helena Fajfar (Slovenia)

Iron Gall degradation studied by PIXE in the hand-coloured rare printed book

Myriam Dearteni, Elena Basso, Federica Pozzi (USA)

The Nican Mopohua and the Mexican Codex in the New World: History, Analysis, and Conservation

Day 2:

25th October 2019

3rd Session

9:00 – 12:00

Extraordinary topics which have to do with ink corrosion



Agathi Anthonou Kaminari, Penelope Banou, Aggeliki Stassinou, Athina Alexopoulou (Greece)
Letterpress Copying books: the need for a condition assessment protocol

NN

Iron gall inks as dyes for textiles

NN

Funding for research on ink corrosion

12:00 – 13:00

Lunch

13:00 – 18:00

Exhibition and welcome party for the course participants of the ink course

Krems courses

25 – 27 October 2019

Inks - production, use and conservation of inks

The two day course will include the preparation of various inks: a soot ink, two iron gall inks (one European, one Oriental), a mixed ink and some other ink-like writing substances such as bister, etc. The inks will be prepared following the instructions of old texts, which either have been translated or are read in the original version (for example, old German). The risk of misinterpretation will be highlighted. The inks will be prepared of substances which will be collected by the participants or prepared during the course; in any case they will be natural substances rather than bought at a shop.

Then the various inks will be applied by course participants on different carrier materials such as papyrus, parchment and paper with different surface treatment by different writing devices like reed pen and pen. This helps them understand how the different inks penetrate the various materials or how they stand on the surface and why.

The target is to understand inks as substances in terms of their dependence on natural components, their adhesion to carriers and their aging.

Finally, decay mechanisms and the ways of dealing with them in the course of conservation will be discussed.

Students will get a bibliography on inks in advance.

Course language: English

Lecturer: Patricia Engel

Place: University for Continuous Education, Krems





Course fee: 200.00 Euros

To book a place on this course please email: patricia.engel@donau-uni.ac.at

Further information available: <http://www.restauratorenohnegrenzen.eu/erc/Courses/>

Other's events

2019

Time /Place	Conference	Organizer	Links
7 th - 10 th Bruges, Belgium	Technart 2019 	The University of Antwerp (AXES group) and Musea Brugge (Municipal Museums of Bruges)	Information – click here
14 th - 17 th Lisbon, Portugal	Archiving 2019: Digitization, Preservation and Access ARCHIVING2019 Digitization Preservation, and Access Lisbon, Portugal 14-17 May, 2019	Society for Imaging Science and Technology	Information – click here
<i>May</i> 21 st - 23 rd Stockholm, Sweden	4th International conference on Integrated Pest Management (IPM) 	Swedish National Heritage Board in collaboration with National museum, Swedish Museum of Natural History and Swedish National Archives	Information – click here
28 th May - 1 st June Halifax, Nova Scotia, Canada	45th Annual CAC Conference and Workshops 	Canadian Association for conservation of cultural property (CAAC – ACCR)	Information – click here
<i>June</i> 6 th - 7 th Paris, France	11th Interim Meeting of the ICOM- CC - Leather and Related Materials Working Group 	International Committee of Museums – Committee for Conservation (ICOM – CC)	Information – click here

	6 th - 8 th Ljubljana, Slovenia	Works of Art on Parchment and Paper	University of Ljubljana, Faculty of Arts and the Archives of the Republic of Slovenia	Information – click here
	12 th - 14 th Belfast, North Ireland, Great Britain	ICON 4th International Triennial Conference – New Perspectives: Contemporary Conservation Thinking and Practice	The Institute of Conservation (ICON)	Information – click here
				
July	1 st - 4 th University of Leeds, UK	26th International Medieval Congress	Institute for Medieval Studies	Information – click here
August	24 th - 30 th Athens, Greece	World Library and Information Congress, 85th IFLA General Conference and Assembly	International Federation of Library Associations and Institutions (IFLA)	Information – click here
				
September	1 st -7 th Kyoto, Japan	ICOM General Conference, KYOTO 2019, Museums as Cultural Hubs: the Future of Tradition	International Committee of Museums (ICOM)	Information – click here
				
	23 th - 27 th Warsaw, Poland	XIVth IADA International Congress	International Association of Book and Paper Conservators (IADA)	Information – click here
				
October	16 th - 18 th Cork, Ireland	5th International Conference on Watermarks in Digital Collections	Bernstein: Memory of paper, OAW	Information – click here

2020

	Time /Place	Conference	Organizer	Links
September	14 th - 18 th Beijing, China,	ICOM-CC 19th Triennial Conference Theme: Transcending Boundaries: Integrated Approaches to Conservation	International Committee of Museums – Committee for Conservation (ICOM-CC)	Information – click here

4. CALL FOR PAPERS FOR THE NOVEMBER ISSUE

Contributions are welcome on current research articles relevant to book and paper conservation – restoration.

Articles should be sent to the editors:

Zoë Reid zoereid@nationalarchives.ie

Maria Dmitrieva biorest.maria@gmail.com

Articles should be submitted in English and will be peer-reviewed.

Full guidelines for authors can be found here:

http://www.restauratorenohnegrenzen.eu/erc/Publications/documents/guidelines_for_authors.pdf

We also welcome genuine contributions on aspects of the history of conservation of manuscripts, books, graphic art.

We believe we can learn from the past:

- What conservation practices were good methods and are not employed any more, but should be engaged/involved again;
- What methods have been shown to be not a good practice, but are still applied and should be stopped for good reasons.
- How can we deal with impact of old conservation methods without knowing the old conservation material in detail?

Deadline for articles for the November issue 5 July 2019.

IMPRESSUM

European Research Centre for Book and Paper Conservation-Restoration

Address: Rosenhügelweg 24, 3550 Langenlois, Austria

Tel.: +43(0) 650 58 71 877

E-Mail: patricia.engel@donau-uni.ac.at

Web page: www.donau-uni.ac.at/paper-conservation

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