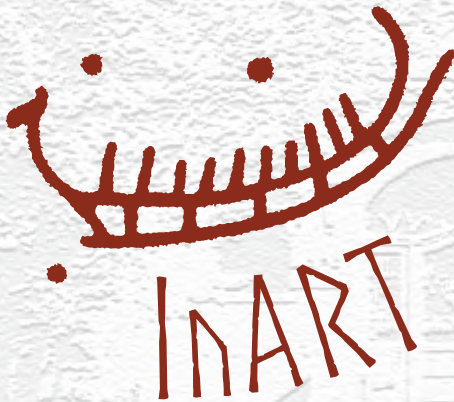


Oral
program



6th International Conference on Innovation
in Art Research and Technology
4-7 June 2024 – Oslo, Norway



Oral program

Tuesday June 4

09:00–10:00

Registration

10:00–10:20

Opening

Aud Tønnesen, Ingrid Louise Flatval, Lavinia de Ferri

10:20–11:00

Keynote Lecture 1 – Dante Abate

Advanced and Intelligent Aerial and Space-Born Techniques to Safeguard Archaeological Sites Against Natural and Man-Made Threats

11:00–11:30

Coffee break and Poster session 1

Oral session 1 – Applications of Artificial Intelligence, 3D documentation and Virtual Reality

Chair: Dante Abate

11:30–11:50

Tracing forgeries of paintings with attribution markers and artificial intelligence

Barbara Łydźba-Kopczyńska, Janusz Szwabiński, Magdalena Iwanicka & Piotr Targowski

11:50–12:10

Fusing 3D imaging modalities for the internal and external investigation of multi-material museum objects

Francien Bossema, Paul J.C. van Laar, Kimberly Meechan, Daniel O'Flynn, Joanne Dyer, Tristan van Leeuwen, Suzan Meijer, Erma Hermens & Joost Batenburg

12:10–12:30

A study of enamels: conservation and history of global transfer of technology

Rebecca Mitchell, Haida Liang, Sotiria Kogou, Luke Butler, C. S. Cheung, Patrick S Atkinson, Florence Liggins, Lucia Burgio, Valentina Risdonne, Capucine Korenberg, Andrew Meek

12:30–13:30

Lunch

Oral session 2 – Applications of Computed Tomography technology

Chair: Susan Braovac

13:30–13:50

Unlocking van Goyen's panels: a comprehensive study integrating dendrochronology, x-ray CT, and database comparison for technical art historical paintings insights

Alexandra Lauw, Sara Valadas, Maria Mayer, Antonio Candeias & Vanessa Antunes

13:50–13:10

Offering bearer statuettes from the Minhotep's Tomb: technical comparison between three Ancient Egyptian funerary wooden sculptures

Nicole Manfreda, Paola Buscaglia, Paolo Del Vesco, Francesca Tensella, Luisa Vigorelli, Laura Guidorzi, Alessandro Re, Tommaso Poli, Chiara Ricci, Tiziana Cavaleri, Matilde Borla & Alessandro Lo Giudice

14:10–14.30

A scan of worms

Sofie Dierickx, Siska Genbrugge, Marieke van Es & Jan Van den Bulcke

14:30–15:00

Coffee break & Poster session 1

Oral session 3 – Data management

Chair: Espen Uleberg

15:00–15:20

Addressing Contemporary Challenges in Art and Cultural Institutions: Exploring the Role of Blockchain Technology in the Preservation of Digital Cultural Heritage of Asia

Phillip Pon, Joyce Li, Puay Peng Ho, Harald Kraemer, Soon-Hwa Oh, Kiu-wai Chu

15:20–15:40

M3R – a Multimodal Representation for Storage and Open-Access Dissemination of Data of Historical Manuscripts

Simon Brenner, Hans Clausen, Gerlinde Schneider, Ivana Dobcheva, Wilfried Vetter, Manfred Schreiner, Heinz Miklas & Robert Sablatnig

15:40–16:00

From the excavations to the lab: Cutting-edge Strategies in Archiving archaeometric research at the Austrian Archaeological Institute/OeAW

Vasiliki Anevlavi, Karl Burkhart, Pamela Fragnoli, Sabine Ladstätter, W. Prochaska., Helmut Schwaiger & Micheline Welte.

16:00–16:20

HERle – digital preventive conservation platform

T. Berger, S. Bujok, M. Strojecki, M. Soboń, S. Antropov, R. Kozłowski, E. Hagan, D. Thickett & Łucasz Bratasz

17:30

Welcome cocktail at the Historical Museum

Wednesday, June 5

Oral session 4 – Case studies

Chair: Peter Vandenabeele

09:00–09:20

A Multi-Analytical Investigation on Darkening of Blue Pigments in Munch's Paintings

*Jin Strand Ferrer, **Beatrice Giorgia Boracchi**, Francesca Caterina Izzo, Irena Kralj Cigic, Ljiljana Puskar, Terje Syversen & Irina Crina Anca Sandu*

09:20–09:40

A multi-competence and multi-analytical approach to contrast fakes in art

***Armida Sodo**, Giuliana Calcani, Antonella Privitera & Marta Sardara*

09:40–10:00

Feathered objects: a Multi Analytical Study

***Madeline Meier**, Hortense de La Codre & Maria Kokkori*

10:00–10:20

MeV SIMS – an accelerator-based technique providing new insights into the characterization of β -naphthol and triarylcation colorants from the INTK Materials Collection

***Dubravka Jembrih-Simbürger**, Teodora Raicu, Matea Krmpotić, Zdravko Siketić, Katja Sterflinger & Iva Bogdanović Radović*

10:20–10:40

Exploring monitoring and mould cleaning options for paintings and painted surfaces: A case study of Andebu Church (ca. 1100), Norway

***Lena Porsmo Stoveland**, Johan Mattsson, Anne Apalnes Ørnhøi, Bjørg Agasøster & Mari Sand Austigard*

10:40–11:00

A dissemination experiment centered on the scientific analysis of a cat mummy

***Ronan Gagne**, Théophane Nicolas, Jérémy Lacoche, Fabrice Guichard, Odile Hays & Valérie Gouranton*

11:00–11:30

Coffee break and Poster session 1

Oral session 5 – Neutron and Synchrotron light-based techniques

Chair: Hartmut Kutzke

11:30–11:50

Advances in Neutron Resonance Transmission Imaging for inhomogeneous material characterization in Heritage Science

***Giulia Marcucci**, Antonella Scherillo & Daniela Di Martino*

11:50–12:10

Neutron imaging of capillary water uptake in waste-based geopolymers for cultural heritage conservation

Maria Cristina Caggiani, *Filomena Salvemini, Claudio Finocchiaro, Maura Fugazzotto, Roberta Occhipinti, Silvia Portale, Sabrina Zafarana, Germana Barone & Paolo Mazzoleni*

12:10–12:30

Deciphering the chemistry and nanostructure of artists' paints with mixed protein-oil binders

Rafaella Georgiou, *Alexandre Dazzi, Jeremie Mathurin, Giulia Caroti, Silvia Pizzimenti, Celia Duce, Mathieu Thoury, Patrick Dietemann, Bergmann Uwe & Ilaria Bonaduice*

12:30–13:30

Lunch

Oral session 6 – New approaches for the study of textiles

Chair: Hana Lukesova

13:30–13:50

New insights on flax fiber durability through the study of ancient Egyptian textiles

Camille Goudenhooff, *Alessia Melelli, Loren Morgillo, Sylvie Durand, Johnny Beaugrand, Raymond Wightman, Anita Quilès, Roberta Cortopassi, Darshil U. Shah, Frédéric Jamme & Alain Bourmaud*

13:50–13:10

Study of the degradation of ancient Egyptian fabrics through synchrotron radiation and cutting-edge techniques

*Alessia Melelli, Camille Goudenhooff, Sylvie Durand, Roberta Cortopassi, Johnny Beaugrand, Anita Quilès, **Alain Bourmaud**, Mario Scheel & Frédéric Jamme*

14:10–14.30

Metallic Thread Lace: Unveiling Manufacturing Techniques via Scientific Analysis of Historic Textiles

*Karolina Skóra, **Aldona Kopyciak**, Agnieszka Kwiatkowska, Julio M. del Hoyo-Meléndez*

14:30-17:00

Guided Tours (approximate duration)

Thursday, June 6

09:00–09:40

Keynote Lecture 2 – Michał Lukomski

Sustainable Management of Collection Environments

Oral session 7 – Preventive conservation

Chair: Łucasz Bratasz

09:40–10:00

How the impact of natural ventilation and air pressure affects climate control in Historic Museum Buildings

Roland Lindenbeck, Ida Bryn & Linn Solheim

10:00–10:20

Analyzing Vibration Levels in Museum Collections

Eva Hartlieb, Pascal Ziegler & Peter Eberhard

10:20–10:40

Mapping visitor and music related vibrations in Estonian National Museum

Kristiina Piirisild & Mari Allik

10:40–11:00

Satellite images and risk management strategies for Cultural Heritage in natural and semi natural environment

Mónica Moreno, Rafael Barea, Rocío Ortiz, Luis Castro, Daniel Cagigas2, Pilar Ortiz,

11:00–11:30

Coffee break and Poster session 2

Oral session 8 – New approaches for conservation

Chair: Tine Frøysaker

11:30–11:50

Initial Exploration of Surface Attached Gels for Swelling Acrylic Coatings

Grace Hanrahan, Bronwyn Ormsby & Charis Theodorakopoulos

11:50–12:10

Development of an innovative method to stabilize the chemical reconversion of darkened lead white in wall paintings

Patrizia Moretti, Giulia Russo, Francesca Piqué, Cristina Fragoso Corti, Letizia Monico & Mauro Matteini

12:10–12:30

Solving Microbiological Infestation on Arctic Cultural Heritage

Hana Lukesova, Camilla Celine Nordby

12:30–13:30

Lunch

Oral session 9 – Archival and written documents

Chair: Ludovic Bellot-Gurlet

13:30–13:50

Archaeometric philology for the study of deteriorated and overlapping layers of ink: the colour-code writing system and afterlife of an early Qur'anic fragment

Giuseppe Marotta, Alba Fedeli & Claudia Colini

13:50–13:10

Alf Bjercke's factory. Comparing ready-made paint and colour swatches with archived recipes from the first half of the 20th century

Elena Platania, Barbro Wedvik & Calin Steindal

14:10–14.30

Tracing the author of an iconic Greek Enlightenment book by investigating its printing ink components with Infrared spectroscopy and X-ray fluorescence

Stamatis C. Boyatzis, Theodore Ganetsos, Panagiotis Paspaliaris & Vasileios Papadakis

14:30–15:00

Coffee break & poster session 2

Oral session 10 – New methods for diagnostics

Chair: Danilo Bersani

15:00–15:20

The contribution of multiphoton microscopy to our knowledge of parchments

Laurianne Robinet, Giulia Galante, Sylvie Heu-Thao, Marie-Claire-Schanne Klein & Gaël Latour

15:20–15:40

From rock to artefacts: investigating the provenance of lapis lazuli in antiquity with μ -PIXE and μ -IBIL

Marta Magalini, Laura Guidorzi, Alessandro Re & Alessandro Lo Giudice

15:40–16:00

Analysis of organic residuals found within ceramic vessels using aptamers and immunofluorescence microscopy

Janez Kosel, Lea Legan & Polona Ropret

16:00–16:20

Proteogenomic Insights from a Waterlogged Medieval Pelt from Tønsberg, Norway

Enrico Greco, Calin Steindal, Pia Edqvist, Sabina Licen, Pierluigi Barbieri, Anastasia Serena Gaetano, Stefano Fornasaro, Sabrina Semeraro, Alessandro Miani, Prisco Piscitelli, Alberto Pallavicini, Fiorella Florian, Licia Elvira Prestagiacomo, Caterina Gabriele & Marco Gaspari

17:30 (meeting time)

Social dinner at Frognerseteren

Friday, June 7

09:00–09:40

Keynote Lecture 3 – Anna Vila

Building Bridges: Integrating Conservation and Conservation Science

Oral session 11 – New approaches to cleaning: 1st part

Chair: Angeliki Zisi

09:40–10:00

Assessment of greener solutions for the cleaning of historical metal heritage

Arianna Passaretti, Luana Cuvillier, Giorgia Sciutto, Emilio Cano, Blanca Ramírez Barat, Stephan von Reuss & Edith Joseph

10:00–10:20

A Comparative Study of Confined Aqueous Cleaning Systems for Water-Sensitive Painted Wood

Jessica Chasen, Elizabeth Homberger & Laura Maccarelli

10:20–10:40

Developing environmentally sustainable solutions for cleaning Edvard Munch's monumental Aula paintings: a materials science-driven multi-analytical methodology

Martina Romani, Mercedes Ortega, Francesco Caruso, Olivia Gómez-Laserna, Iratxe Zarandona, Jan Dariusz Cutajar, Tine Frøysaker, Erlantz Lizundia & Maite Maguregui

10:40–11:00

Nonwoven electrospun mats and green solvents: progress in their development as new artwork restoration systems

Francesca Ramacciotti, Giorgia Sciutto, Arianna Menichetti, Burcu Keser, Maria Letizia Focarete, Rocco Mazzeo, Marco Montalti, Chiara Gualandi & Silvia Prati

11:00–11:30

Coffee break and poster session 2

Oral session 12 – New approaches to cleaning: 2nd part

Chair: Calin Constantin Steindal

11:30–11:50

Investigation of non-contact cleaning typical unstable sensitive cultural heritage materials from fire-born soot using atomic oxygen generated with the radiofrequency cold plasma at atmospheric pressure

Tomas Markevičius, Nan Yang, Anton Nikiforov, Rino Morent, Iaria Bonaduce, Nina Olsson, Kirill Shumikhin, Klaas Jan van der Berg, Catarina Pires, Marta Cremonesi, Geert Van der Snickt, Gianluca Pastorelli, Louise Cone, Sofie Wikkelsø Jensen, Ana Sobota, Michail Poupouzas, Francisco Mederos Henry, Michaela Florescu, Alison Norton, Josephine Bobeck, Yijia Song

11:50–12:10

Study of the behaviour of pigments of different nature under laser irradiation: comparison between nanosecond and femtosecond domains

Laura Andrés-Herguedas, José Santiago Pozo-Antonio, Teresa Rivas Brea, Daniel Jiménez-Desmond & Alberto Ramil

12:10–12:30

Unveiling Radiance: An Analytical Exploration of Laser Cleaning Efficacy Evaluation in Contemporary Mural Restoration

Yezi Zhang, Francesca Zenucchini, Chiara Ricci & Dominique Scalapone

12:30–13:30

Lunch

Oral session 13 – New materials for conservation

Chair: Antonio Candeias

13:30–13:50

Learning from Romans: when Vitruvian recipes became the inspiration for new technologies

Neva M. E. Stucchi, Giulia Franceschin, Cristina De Nardi, Andrea Vavasori & Arianna Traviglia

13:50–13:10

The UNESCO site of Cefalù Cathedral (Sicily) as a pilot site for the application and study of innovative conservation interventions

Antonella Bertino, Maria Cristina Caggiani, Maua Fugazzotto, Silvia Portale, S. Starinieri, Paolo Mazzoleni & Germana Barone

14:10–14.30

Exploring Eco-Friendly Antimicrobial Solutions for Cultural Heritage Stone Conservation

Andrea Campostrini, Agustí Sala-Luis, Maria del Pilar Bosch-Roig, Elena Ghedini, Michela Signoretto & Federica Menegazzo

14:30–15:00

Coffee break & Poster session 2

Oral session 14 – Applications of Spectral Imaging Techniques

Chair: Sony George

15:00–15:20

Application of hyperspectral imaging to evaluate cleaning methods for corroded glass

Tiziana Lombardo, Ulrike Rothenhaeusler, Deepshikha Sharma, Sony George & Katharina Schmidt-Ott

15:20–15:40

Silver/dyes decoupling and colour restoration of autochromes using multispectral imaging

Irina-Mihaela Ciortan, Isabel Yoko Arteaga Kiyomoto, Giorgio Trumpy, Jon Yngve Hardeberg, Catlin Langford, Lucia Burgio & Saptarshi Neil Sinha

15:40–16:00

A combined study using MSI (Multi Spectral Imaging), HSI (Hyper Spectral Imaging) and chemical analysis to study pigments in ancient art

Paola Fermo, *Chiara Andrea Lombardi, Vittoria Guglielmi, Andrea Bergomi, Mattia Borelli, Gianluca Carabelli, Valentina Verzoni, Mario Colella, Valeria Comite*

16:00–16:10

Closing remarks

Poster session 1 (4-5 June)

| Number | Authors | Title |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <i>O. Dudygina, C.C. Steindal</i> | Challenging assumptions about the Sløkkefri drinking horn; a multidisciplinary exploration. |
| 2 | <i>R. Punis, M. Veronese, M. Meneghetti, A. Zoleo</i> | Copper soaps formation in verdigris-linseed oil painting mixtures: a multi-spectroscopic characterization |
| 3 | <i>V. Pintus, S. Garrappa, T. Raicu, I. Fazlic, M. Cotte, A.J. Baragana, D. Hradil, F. Szabo, K. Sterflinger</i> | A Comprehensive Study on Cadmium Soaps in Oil Painting Mock-ups |
| 4 | <i>K. Klemiška</i> | Synthetic binder identification without sampling? Results of preliminary studies with microscopic and spectroscopic methods |
| 5 | <i>J.E. Cavalcante, R.M.S.P. Borges, I.V.N.S. Franzi, A.G. Paula, R.A.F. Gomes, D.F. Oliveira, R.T. Lopes</i> | APPLICATION OF NON-DESTRUCTIVE TECHNIQUES TO EVALUATE THE IMAGE OF OUR LADY OF GOOD HEALTH |
| 6 | <i>A. Delle Foglie, A.C. Felici</i> | A multi-analytical study on two International Gothic paintings. |
| 7 | <i>M. Franchi, A. Ciccola, A. Nucara, A. Cedola</i> | Application of FTIR spectroscopy technique for studying Seals of the Santi Quattro Coronati Complex (Rome, Italy)" |
| 8 | <i>E. Serrat, J. Becerra, A. Vila</i> | Non-invasive techniques applied to the study of pigments used by Joan Miró in his paintings on canvas |
| 9 | <i>E. Derzelle, D. Strivay, H. Stassart, F. Vandepitte, C. Defeyt</i> | Discovery of a composition on the reverse of Train du Soir (1957) by Paul Delvaux. |
| 10 | <i>V. Risdonne, L. Ledwina, L. Burgio</i> | The V&A portrait of Marie Antoinette by François-Hubert Drouais uncovered: materials and conservation |
| 11 | <i>E. Vermeersch, A. Rousaki, S. Lycke, S. Valadas, G.V. Nascimento, R. Oliveira, J. Mendes, J. Caetano, A. Candeias, P. Vandenabeele</i> | Unraveling the mysteries of the 15th century masterpiece Saint Vincent Panels: A characterization with Raman Spectroscopy (in situ and micro) |
| 12 | <i>M. Wachowiak, K. Santiago</i> | Paints from palettes – crucial starting point for the paintings research – the case of Jerzy Duda- Gracz (1941-2004) |
| 13 | <i>A. Vila, F.C. Izzo, M. Herrero-Cortell, M. Picollo, L. Fuster-López</i> | Understanding physical-chemical degradation processes in Antonio Saura's oil paintings on canvas |
| 14 | <i>N. Worawannotai, P. Tongying, S. Chan-Eam, N. Tepsuparungsikul, P. Limpachayaporn, S. Imkhiaw, T. Limpathompipop</i> | What do we learn from a mock painting: a case on X-ray fluorescence mapping and technical photography? |
| 15 | <i>S. Kunikata, Y. Tsuchiya, K. Fukunaga</i> | Visualization of Partial Delamination of Wax-Resin Linings by Using Active Infrared Thermography and THz Time-Domain Imaging |
| 16 | <i>A.F. Abrantes, A.F. Machado, S. Valadas, E. Murta, A. Candeias, R. Oliveira</i> | Re/discovering the guiding layers from the 15th century Funchal Cathedral: combined in-situ analysis by EDXRF with laboratory research |
| 17 | <i>I. M. Cortea, L. Ghervase, L. Angheluță, L. Ratoiu, A. Pătrașcu, M. Dinu</i> | Detection, identification, and mapping of organic binders used in ancient wall paintings by combined non- and micro-invasive mobile spectroscopic techniques |
| 18 | <i>L.C. Ratoiu, I.M. Cortea, L. Ghervase, L.M. Angheluță</i> | Layers of the past. Non-destructive investigations of the old wall paintings from Râmnicu-Valcea Episcopal Church, Romania |

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| 19 | <i>N. Thalghuter, S. Mindermann, E. M. Angelin, T. Danzl, C. Sessa</i> | Multi-modal non-destructive investigation of the wall paintings of the Magdalen Chapel of St. Emmeram, Regensburg. A methodology to address the material complexity of a palimpsest |
| 20 | <i>D. Bersani, L. Fornasini, S. Simeți, G. Rossetti, L. Bergamonti, S. Germinario, M. Potenza, A. Casoli</i> | A secret mural painting back to light into the crypt of the Cathedral of Parma (Italy): discoveries and mysteries hidden behind a wall |
| 21 | <i>G. Simonelli, P. Mezzadri, G. Sidoti, L. Ruggiero, A. Calia, G. Quarta, F. Aramini</i> | New Perspectives for the inhibition of salt damages in mural paintings located in hypogea context: the case of Saint Augustine in the rupestrian church of San Pietro Barisano. |
| 22 | <i>C. Tartaglia, A. Botteon, A. Sansonetti</i> | Insights into Leonardo da Vinci's <i>Monochrome</i> mural in the Sforza Castle of Milan. A non-invasive approach through model samples |
| 23 | <i>M. Guan, J. Chang, Y. Chen, X. Li, Y. Wang, X. Kang, X. Hu, L. Qu, Z. Zhao</i> | In situ analysis method for discoloration of pigments and dyes in organic cultural relics based on microfading spectrometry |
| 24 | <i>I. Bijker, I.C.A. Sandu, K. J. van den Berg, F. Vanmeert, K. Janssens, G. Van der Snickt</i> | Unveiling the chemical signatures of 19th-C and 20th-C lead white: HR-XRPD, MA-XRPD and SEM-EDS analysis of commercial paints |
| 25 | <i>I. Turkova, M. Kotrlý</i> | TECHNIQUES OF ANALYSIS OF ART PIGMENTS |
| 26 | <i>L. Nodari, R. Costantini, P. Tomasin, L. Pensabene Buemi</i> | Gouache or not gouache? Inside the "opaque" definition of body colour paintings. |
| 27 | <i>M. Havlová, V. Antušková, Radka Šefců</i> | High-performance liquid chromatography in an identification of colorants used in color layers of the paintings |
| 28 | <i>T. Raicu, M. Krmptić, Z. Siketić, I. Bogdanović Radović, K. Sterflinger, D. Jembrih-Simbürger</i> | Revealing the Synthetic Organic Colorants found in the Artists' Materials of The Renowned Austrian Caricaturist Erich Sokol (1933-2003) by MeV SIMS |
| 29 | <i>V. Pintus, C. Cozzani, S. Miklin-Kniefacz, F. Caruso, C. Jordan, K. Sterflinger</i> | Blended Thitsiol/Urushiol Asian lacquers: an in-depth multi-analytical study |
| 30 | <i>I. Bilbao Zubiri, E. Desplanques, H. Huysseune, E. Henrion, I. Bellot-Gurlet, A. Percot</i> | Identifying the dyes from Hauts de la Chapelle necropolis (13th century, France): a reflection on the challenges of transposing a characterisation methodology from model to archaeological textiles |
| 31 | <i>L. Nodari, P. Tomasin, S. Legnaioli</i> | Discovering the ancient artisan heritage of the Moroccan carpet |
| 32 | <i>D. Tamburini, J. Dyer, C. Cartwright, A. Simpson, Y.P. Luk, J. Liu, F. Zhao</i> | Reconstructing archaeological textiles from Dunhuang (China, 8th-10th century CE) – a focus on scientific analysis |
| 33 | <i>D. Tamburini, L. Durand</i> | Early synthetic dyes: building molecular databases using historic sources of reference materials |
| 34 | <i>G. Roxas, P. Garside, A. Quye</i> | Microfade Testing of Aniline Blue on Silk: An Investigation of Its Long-term Light-fading Characteristics |
| 35 | <i>L. Flo, H. Kutzke, D. van der Meulen, P. Nabais</i> | The Poor Persons Purple. Investigations into a lichen Orcein dye from Norwegian domestic lichen. |
| 36 | <i>P. Banou, S. Boyatzis, K. Choulis, A. Karabotsos, C. Theodorakopoulos, A. Alexopoulou</i> | Oil media on paper: investigating the morphological and chemical changes of linseed oil-impregnated paper mock-ups upon ageing. |
| 37 | <i>A.A. Freeman, G. Albertson</i> | Insights into Fluorescent Paint Conservation: A Methodical Research Plan at LACMA (Los Angeles County Museum of Art) |

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| 38 | A. Bourmaud , C. Goudenhooff, C. Alday Mamani, S. Durand, A. Melelli, T. Weitkamp, R. Cortopassi, F. Jamme, J. Beaugrand, A. Quilès, D. Beresford-Jones, D.U. Shah | Bast from the Past: a crossed approach between ancient Egyptian and Andean civilization fibre processing |
| 39 | M. Vermeulen , S.P. Johns, G. de Polo, M. Rocha, M.J. Collins, L. Angelova, M. Roffet | Assessing the Effect of Minimally Invasive Lipid Extraction on Parchment Integrity by Artificial Ageing and Integrated Analytical Techniques |
| 40 | G. Latour, M. Schmeltz, L. Robinet , S. Heu-Thao, G. Galante, M. C. Schanne-Klein | Non-invasive quantitative assessment of collagen degradation in parchments by polarization-resolved SHG microscopy |
| 41 | Z. Haghighi , M. Mackie, A.A. Ørnhøj, A. Ramsøe, T.M. Olstad, S. Armitage, C.S. Henshilwood, E. Cappellini | An insight to take away: palaeoproteomics reveals the original binder and modern contaminations in distemper paints from Uvdal Stave Church, Norway |
| 42 | M. Tzorakaki , V. Kokla, A. Batrinou | Mapping of deteriorations and biological factors using optical microscopy, multispectral techniques, SEM/EDS analysis and biological assessment on Greek photographic documents of the period 1938-1948. |
| 43 | J. Gold , F. Caruso, M. Romani, N.L.W. Streeton, M. Maguregui | Lippmann interferential colour photography and the value of replicas for the understanding of the historic technology and its conservation |
| 44 | P. Urbanová , K. Kučíková, S. Klemková | Monitoring degradation and assessing the condition of plastics using spectroscopic methods |
| 45 | S. Klemková , K. Vizárová, I. Lukačovič Vajová | Lifetime prediction of cultural heritage objects made of plasticized poly (vinyl chloride) |
| 46 | A. Piccolo , P. Tomasin, L. Nodari, V. Pintus, A. Zoleo | The degradation processes of celluloid under indoor conditions: preliminary results of a multi-analytical investigation |
| 47 | J. Palmeirão, M. Nunes, A. Manhita, L. Piorro, M. Coutinho, E. Vieira, T. Ferreira | Study and conservation of a forgotten heritage. The case study of Saint Vincent Martyr simulacrum |
| 48 | T. Ferreira , J.C. Palmeirão, P. Monteiro, M. Nunes, F. Olival, A. Manhita, L. Piorro, A. Curto, E. Vieira | The study of two impressive simulacra housed by Santa Casa da Misericórdia de Almada, Portugal |
| 49 | M. Traoré, F. Paolino, J.J. Lucejko | Diving into the Ancient Secrets: Unraveling the Chemistry of Waterlogged Neolithic Wood Ecofacts |
| 50 | M. Dinu , L. Gher vase, I.M. Cortea, C.G. Alexandrescu | Multi-analytical approach for characterisation of Roman age stone monuments |
| 51 | M.Y. Spironello, M.C. Caggiani, M. Fugazzotto , G. Barone, P. Mazzoleni, M.C. Di Natale | Historical and precious ecclesiastical artefacts in Sicily from the 12th to the 19th century: non-invasive gemmological analyses |
| 52 | A. Coccato, M.C. Caggiani , G. Barone, F. Di Benedetto, P. Mazzoleni, M. Rigo, J. Prag | Marble inscriptions from ancient Sicily: multi-analytical approach for provenance studies |
| 53 | S. Martiniello, S. Raneri, S. Legnaioli , G. Lorenzetti, C. Sciuto, I. Bertelli, E. Rebechini, F. Nardella | Making magic happen: composite gems from antiquity to medieval age. The art of counterfeiting. |
| 54 | L. Gher vase , V. Atanassova, A. Pirovska | Influence of the intrinsic variability of Raman data on the outcome of PCA classification of ancient ceramics |
| 55 | L. Saviane , L. Fornasini, L. Mantovani, R. Villicich, D. Bersani | Archaeometric study of ceramic findings from the site of the Roman villa in Fiumana (Italy) |
| 56 | W.P. Polańska | An analysis of clay samples from Liåker, Lunner municipality, Norway |

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| 57 | V. Guglielmi, A. Santiglia, C.A. Lombardi, V. Comite, A. Bergomi, M. Borelli, A. L. Tassi, A. Pedrotti, S. Grimaldi, P. Fermo | Prehistoric Cultural Changes in the Use of Fire from Foraging to the Earliest Farming Societies: An Interdisciplinary Archaeological and Multi-Analytical Study of Hearths at Riparo Mochi (Ventimiglia). |
| 58 | M. Dinu, L. Ghervase, A. Ratiu | Multi-analytical approach for similitude analysis of metal Roman age findings |
| 59 | L. Legan, K. Retko, N. Nemeček, P. Ropret | Non-invasive characterisation of tobacco pipes from the National Museum of Slovenia by vibrational spectroscopy |

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| 60 | P. Ortiz, A. Gómez-Morón, J.A. Palma, A. Gil, L. Toro, R. Ortiz | XRF and Raman spectroscopy applied to gemstones study of an image of the 17th century. |
| 61 | W.L. Ng, H. Hu | Design & Study of Cost-Effective Conservation of Watercolor Paper Art |
| 62 | E. Guzikiewiczová, K. Vizárová, S. Malečková, M. Králik | The link between water and paper structure to enhance the efficiency of preservation processes |
| 63 | D. Jiménez-Desmond, J.S. Pozo-Antonia, A. Arizzi | Searching for a suitable chromatic reintegration technique for outdoor exposed wall paintings |
| 64 | Q. Wu, H. Zhou, K. Gubanov, A. Passaretti, J. Gonzalez Frutos, C. Degrigny, L. Bertrand, M. Stols-Witlox, L. Brambilla, E. Joseph | Development of silver test system with bio-based green aging methods and assessment with multi-analytical techniques |
| 65 | M.R. Caruso, M. Romani, G. Cavallaro, O. Gómez-Laserna, M. Maguregui, G. Lazzara | New sustainable treatment based on chitosan and halloysite nanotubes for the conservation of waterlogged archaeological wood. |
| 66 | J.M.K. Wakefield, C. Jones, H. Lukesova, S.E. Harding, H. Kutzke | Archaeological woollen textiles in a fragile state: the potential of polysaccharide based consolidants |
| 67 | S. Croci, P. Buscaglia, A. Lo Giudice, P. Croveri, F. Di Iorio, F. Carosio, S. Grassini | Study and development of an innovative consolidating material: the use of Paraloid B72 and Regalrez 1126 in combination with Laponite nanoparticles |
| 68 | S. Murgia, M.C. Aragoni, P. Melani, E. Podda, A. Pintus, G. Carcangiu, D. Gimeno Torrente, M. Arca | Innovative Phosphonate Consolidant: Pushing the Boundaries of Carbonate Stone Artifact Preservation |
| 69 | A. Camprotrini, S. Manente, E. Ghedini, A. Di Michele, M. Signoretto, F. Menegazzo | Preserving Venice's Heritage: An Innovative Safeguarding Approach Against Biodeterioration |
| 70 | S. Portale, M.G. Felter, A. Zisi, C.C. Steindal, L. de Ferri, G. Barone, P. Mazzoleni | Feasibility study on the application of stone processing wastes for the conservation of archaeological ceramics: the Alkali Activation technology |
| 71 | M. Fugazzotto, G. Barone, P. Mazzoleni | Geopolymer waste in a cradle to cradle process: new resources for a green conservation of cultural heritage |
| 72 | O. Gómez Laserna, I. Zarandona, M. Romani, F. Caruso, A. Nualart, A. Pitarch Martí, E. Lizundia, M. Maguregui | Reusable aerogels based on functionalized cellulose nanocrystals for desalination of mural paintings |
| 73 | I. Zarandona, O. Gómez-Laserna, M. Romani, J.D. Cutajar, T. Frøysaker, E. Lizundia, M. Maguregui | Cellulose nanofiber-based hydrogels as a sustainable alternative for soiling removal on canvas paintings |

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| 74 | E. Platania , H. Blix, C. Spaarschuh, F. Caruso, M. Maguregui | Exploring the action of fatty acids as green solvents for the removal of hydrophobic paint-layers |
| 75 | S. Prati, G. Di Cara , F. Ramacciotti, B. Keser, G. Sciotto, L. Focarete, R. Mazzeo, F. Rosi, M. Paolantoni | Green solvents and green strategies for the cleaning of street art: from molecular to macroscale investigations |
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| 77 | E. Gillet , V. Gauthier, S. Le Conte, C. Fritz, S. Serfaty, C. Andraud | Perception and objectivation of cleaning of paintings |
| 78 | A. Alexopoulou, E. Kiskira, P. Banou , K. Choulis, C. Theodorakopoulos | Varnish removal on works of art on paper, a controversial matter. Recent reflections on the materials and methodology used for the treatment of the varnish layer. |
| 79 | T. Markevičius , A. Nikiforov, A. Sobota, M. Poupouzas, R. Morent, N. Yang, N. Olsson, Y. Song, K.J. van der Berg, G. van der Snickt, E. Trioška, S. Šakirzanovas, M. Viliūnas, I. Bonaduce, F. Mederos Henry, G. Pastorelli, D. Schrijvers, K. Luu | New atomic oxygen technology for non-contact cleaning of cultural heritage materials from carbon-based contaminants: approached to generation pathway, characterization of effluent, and potential for greener cleaning methodology |
| 80 | N. Yang , M. Cremonesi, T. Markevičius, K. Leus, A. Nikiforov, F. Mederos-Henry, N. Ortega Saez, G. Van der Snickt | Cleaning soot-contaminated silk textiles using plasma generated atomic oxygen, a new technological approach |
| 81 | V. Ljubic Tobisch , A. Artaker, W. Kautek | Nature self-printing: multidisciplinary study bridging history of technology, experimental reconstruction, and artistic research |
| 82 | C. Papsiti, T. Ganetsos , M. Katsantoni, C. Drosos, E. Symeonaki | Long-term Microclimate Monitoring using a Wireless Sensor System for the Conservation of Cultural Heritage Sites: The case of a Byzantine Hermitage in Thessaly, Greece |
| 83 | J. Seifert , A. Lingle, T. Corton, A. Gyucha, P. Duffy, D. Riebe, W. Ridge, W. Parkinson | Pedological Rectification Offering Better Environmental Systems (PROBES): A Novel Method to Mitigating Deterioration of Earthen Archaeology |
| 84 | A. Gil, A. Gómez-Morón, G. Contreras , R. Ortiz, P. Ortiz | Rescuing documents and books from earthquake, fires and floods. The drills in the Archive and librarian of Antequera (Malaga, Spain). |
| 85 | I. Chulia, I. Catalán, G. Contreras , J. Maqueda, V. Bañuls, P. Ortiz, R. Ortiz | Analysis of fire effects on cultural heritage |
| 86 | I.M. Cortea | Towards a FAIR data management in heritage science research: updates and progress on the INFRA-ART Spectral Library |
| 87 | W. Vetter , S. Brenner, M. Schreiner | Hyperlyse – an open source intuitive user interface for viewing and analyzing hyperspectral images |
| 88 | R.J. Oliveira , S. Valadas, B. Caldeira, A. Candeias, F. Abrantes, A. Machado, E. Murta | Evaluation of historical buildings using laser scanning - a case study of Funchal Cathedral in Madeira (Portugal) |
| 89 | K. Brahos, A. Kantaros, T. Ganetsos | 3D printing and 3D scanning: Preservation and protection of our cultural heritage |

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| 90 | M. Kresović , D. Gigilashvili, J.Y. Hardeberg, T. Theoharis | Virtual Reconstruction of Historical Textiles Using Graph Neural Networks |
| 91 | R. Zain Fadillah, D. Gigilashvili , M. Havgar, M. Vedeler, J.Y. Hardeberg | Automatic Thread Counting for Archaeological Textiles |
| 92 | H. de La Codre , M. Meier, H.Chopp, G. Verri, M. Kokkori | Synergistic use of nondestructive analysis and deep learning for the study of Coptic textiles |
| 93 | G. Li , Y. Lei | Computational simulation clarifies the coloration mechanism of ancient copper red glaze |
| 94 | M. Kotrlý , J. Boháčová, I. Turkova, J. Uher | Robotic and non-destructive analysis of 3D objects - new possibilities |
| 95 | A. Clay | From Dream Machines to Scream Machines: An Exploration of Art, Perception, and Multisensory Experiences |
| 96 | Y. Liu , H. Hameeuw, M.N. Grison, B. Vandermeulen, A. Campagnolo, L. Watteeuw | Performance assessment of portable light dome systems for surface characterization in heritage objects |
| 97 | L. Gouteux, A.V. Padaki, C. ten Hove, D. van Lankvelt, H. Pellemans, H. Belt, L. Maxfield, M. van t Westeinde, A. Derksen, A. Martins , H. Diependaal, O. van Maanen, G. Harteveld | Condition Assessment Scanner (CAS): a fast, high precision scanner to assess and monitor the topography of paintings |
| 98 | F. Cappa , C. Salvatore, I.M. Caniolo, D. Jembrih-Simbuerger, K. Sterflinger, M. Pignitter, A. Zoleo, C. Hofmann | Testing the approach applied for theoretical research of inks and parchment interaction. |
| 99 | M. Alberico, B. Cipolletta, M. Rossi, G. Tortino, A. Carpentieri, L. Birolo, A. Vergara | The Vanvitelli's ink recipe |
| 100 | S. Caterino , I. Caniolo, M. Pignitter, A. Zoleo, K. Sterflinger, F. Cappa | A systematic and multi-analytical approach in the in-depth characterization of Iron-gall inks |
| 101 | S. Sathiyamani , O. Bonnerot, C. Colini | Material Analysis of Papyri from the chancellery of Qurra b. Sharik |
| 102 | M. Alberico , B. Cipolletta, M. Rossi, G. Tortino, A. Carpentieri, A. Pollio, L. Birolo, A. Vergara | Investigating degradation processes of documents written in the XVIII century |
| 103 | K. Retko , L. Legan, T. Knaflič, M. Huš, P. Ropret | Spectroscopic analysis of mixtures of iron gall inks and logwood |
| 104 | J. Cavalcante, R. Borges, I. Franzi, A. de Paula, R. Santos, O. Araújo, A. Machado, R. Leitão, M. Anjos, R. Freitas, R. Lopes, D. Oliveira | MicroXRF and MicroCT data fusion for the analysis of cultural heritage objects |
| 105 | A. Grzechnik , M. Wachowiak | Computed Tomography 3D imaging as a non-invasive bookbinding evaluation tool for the restoration of the prayer book of Mary Stuart, Queen of Scots. |

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| 106 | <i>R. With</i> | Under the surface: Condition assessment of archaeological metal objects by μ CT scanning |
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Funded by
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