

The Cluster of Excellence  
**Understanding Written Artefacts**  
cordially invites you to the

## Digital Lunch Seminar Series

Monday, 18 December 2023, 12:00 pm – 1:00 pm CET  
Monday, 15 January 2024, 12:00 pm – 1:00 pm CET  
Monday, 22 January 2024, 12:00 pm – 1:00 pm CET  
Monday, 29 January 2024, 12:00 pm – 1:00 pm CET

Online Event

Convenor: Markus Fischer

Registration:

<https://www.csmc.uni-hamburg.de/register/seminar14>

Written artefacts are material objects that bear writing in the broadest sense – from notation systems for language, music and other performative arts, to pictures, diagrams, maps or simply scribbles. Since the turn of the millennium, the study of written artefacts, such as manuscripts or inscriptions, has taken a quantum leap in terms of theory, methodology and the diversity of research materials. Traditionally, the study of written artefacts in the humanities has focused mostly on textual contents. In contrast, newer approaches take a holistic perspective and begin with the material object as such, thus integrating material analyses. This allows for novel insights into the history of writing cultures from the production of the first manuscripts and inscriptions approximately 5,500 years ago to handwriting in the digital age, as well as for elaborating cross-cultural, cross-regional and cross-epochal patterns through combining the expertise of various disciplines. On the one hand, the close cooperation between the natural sciences, computer science and the humanities allows us to reconstruct the cultural techniques involved in the production and use of written artefacts; on the other hand, this cooperation enables us to obtain information about the appropriate handling of such artefacts, which represent valuable cultural assets.

The Digital Lunch Seminar Series covers a broad spectrum of topics in the research of written artefacts. At CSMC and the Cluster of Excellence ‘Understanding Written Artefacts’, this research brings together over 40 disciplines from the humanities, natural sciences and computer science. The seminars are presented by pairs of researchers, each with their own methods and research questions about the objects they are dealing with. The seminars provide in-depth scientific knowledge on the respective topics and address all researchers within and outside the respective field of expertise.

After a short introduction to the topic by the chairperson, there will be two lectures of 20 minutes each. At the end of each session there will be time for discussion, questions and answers. If you are unable to attend one of the events, it is possible to obtain a video of the lecture from the respective speakers.

## Abstracts and Contributors

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**Monday, 18 December 2023, 12:00 pm – 1:00 pm**

### **Wood Profiling: Examinations of Wood in the Context of Artefact Analyses**

Marina Creydt and Jörg Fromm

Chair: Malgorzata Grzelec

The first half of the presentation provides a brief overview on wood. No other plant-based substance has had such a strong influence on the history of mankind as wood. With today's ever growing economic and environmental problems, wood as a raw material takes on increasing significance as the most important renewable source of energy and as construction material. Its chemical and anatomical structure and the resulting excellent properties allow wood to be processed into the most widely differing products; from logs to veneers and furniture and from wood chippings to pulp, paper and wood-based panels. Products such as viscose fibres and cellulose nitrate laquer can be obtained from cellulose derived from wood.

In the subsequent part of the lecture, procedures for the chemical analysis of wood are presented. The focus is on determining the geographical origin of wood using mass spectrometric analyses and evaluating the data by means of chemometric methods.

**Marina Creydt** heads the mass spectrometric working group of the Hamburg School of Food Science at the University of Hamburg. Her main areas of work are: development of mass spectrometric strategies for food authentication (food profiling) and authentication of artefacts (artefact profiling) with metabolomics and proteomics approaches.

**Jörg Fromm** is head of the Department of General Wood Biology at Universität Hamburg and Principal Investigator at the Cluster of Excellence Understanding Written Artefacts. His main research interests are tree and wood biology, especially in connection with the influence of climate change on tree growth and wood formation. Furthermore, he is also very much interested in the properties and characteristics of palm-leaf manuscripts.

**Monday, 15 January 2024, 12:00 pm – 1:00 pm**

## **Deterioration of Artefacts – Reasons and Prevention**

Doreen Schröter and Agnes Weiß

Chair: Lucas Voges

The first half of the presentation introduces microorganisms, their natural habitats and nutritional needs as well as their metabolisms. This knowledge forms the basis for identifying of how microorganisms may get in contact with diverse materials and which (detrimental) impacts they may have on them. As certain environmental factors may facilitate or hinder microbial growth and metabolism, knowing your enemy is key to preserving written artefacts.

In the second half of the presentation gives an overview of storage conditions of written artefacts. Based on experience from diverse preservation projects in archives and libraries in different regions of the world, we look at environmental conditions, measures to control and adjust them and common harms and damages found in manuscript collections. Using the example of a widely unexplored case of damage, we pose questions to microbiology, the answers to which can help us to get to the bottom of the phenomenon and take appropriate measures to preserve the infested material.

**Agnes Weiß** is professor for Food Microbiology at the Hamburg School of Food Science, Universität Hamburg. Her main research interests are the interactions between microorganisms and food commodities and the impact of food commodities on the microbial metabolism. This also includes novel preservation technologies, clean-label products and sustainable fermentation strategies.

**Doreen Schröter** is coordinator of the Cultural Heritage unit of the Centre for the Study of Manuscript Cultures (CSMC), Universität Hamburg. She works at the intersection of research on written artefacts, their significance as cultural heritage and ethical questions. One of her main tasks is to facilitate projects aiming at the preservation of written artefacts and professional training in the field of collections care and management.

**Monday, 22 January 2024, 12:00 pm – 1:00 pm**

**An Interdisciplinary Analysis of the Greek Manuscripts Vat. Reg. 116 + Ambr. D54**

José Maksimczuk and Olivier Bonnerot

Chair: Sowmeya Sathiyamani

Aristotle's collection of treatises on logic, commonly known as the *Organon*, has been passed down to us in around one hundred fifty Greek manuscripts datable from the ninth to the fifteenth century. Several *Organon* manuscripts preserve the collection in its entirety. Others transmit only a part of it. When this occurs, it can be the case that the scribes deliberately copied a specific portion of the collection. On another occasions, codices that today transmit only a part of the *Organon*, display marks of physical damage, unmistakably indicating that their incomplete content is the consequence of material losses. Most of the detached folios and quires that came down to us from broken manuscripts of the *Organon* were never recovered and could be lost forever. Occasionally, however, they survive as *disiecta membra* in one or several unrelated volumes. Our paper probes two composite *Organon* manuscripts, Vat. Reg. 116 and Ambr. D54 and gather evidence that they are from the same production context. The proposed study will be undertaken from an interdisciplinary perspective, including disciplines of the humanities and the natural sciences (Manuscript Studies, Palaeography, Philology, Textual Criticism, History, and Ink Analysis). The combination of UV-vis-NIR reflectography and X-ray fluorescence (XRF) spectroscopy has become the standard way to characterise and differentiate inks in the last two decades. Its application to the study of inks from Vat. Reg. 116 and Ambr. D54 exemplifies well how such analysis complements the observations made by scholars, and the need for close collaboration between the different disciplines to fully understand the history of a manuscript.

**Olivier Bonnerot** studied Chemistry at the École Nationale Supérieure de Chimie de Paris (MSc in Analytical Chemistry, and MEng. In Chemistry). He then did a PhD in Mediterranean Archaeology at the University of Cyprus before joining the Bundesanstalt für Materialforschung und -prüfung to analyse inks as part of the collaboration between the BAM and the CSMC. Since June 2022 he is the PI of project RFK02 "From Carbon to Iron: Evolution of Greek inks from Hellenistic times to Late Antiquity" at the Cluster. He is also the spokesperson of RFK.

**José Maksimczuk** studied Classics and Literature at the Catholic University of Buenos Aires. Between 2014-2018, he did a PhD in Greek Studies at the Catholic University of Leuven (Belgium). He joined the Cluster as a Research associate to the project RFD07 (Polygenetic manuscripts of Aristotle). Since October 2022, he is the PI of project RFD07 together with Ch. Brockmann, renamed as ‘Multilayered manuscripts in the transmission of Aristotle’s *Organon*’. J. Maksimczuk is also the spokesperson of RFG. Currently, he is the deputy editor-in-chief of the CSMC journal *Manuscript Studies*.

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**Monday, 29 January 2024, 12:00 pm – 1:00 pm**

### **Multimodal Modelling of Cultural Artefacts in Digital Spaces**

Frank Steinicke and Julia Nantke

Chair: Laura Gallardo Dominguez

In our talk, we will introduce the Cross-Disciplinary Lab (CDL) MuMokA which links humanities with computer science. The project will contribute to the sustainable and reflected digital transformation of the humanities by developing generic concepts for multimodal modeling and representation of born digital historical cultural artefacts in digital, immersive spaces. As a starting point and exemplary application for this, we will use the work fragment Ortslinien left behind by the contemporary author Walter Kempowski. The multimodality, the conceptual incompleteness, and the fragmentary character of the work will provide entry points to address fundamental questions of how to deal with cultural artefacts that are passed down in outdated digital data formats as well as the digital modeling of cultural artefacts in general, about their development, representation, and research in the interdisciplinary dialogue between the humanities and computer science. In our CDL MuMokA, we will work on solutions for the associated scientific, technical, legal and ethical challenges.

**Frank Steinicke** is a professor of Human-Computer Interaction at the Department of Informatics at the Universität Hamburg. Before his current position, he was a professor of Computer Science in Media at the Department of Computer Science at the University of

Würzburg and chair of the Immersive Media Group from 2011 to 2014. He studied Mathematics with a Minor in Computer Science at the University of Münster, from which he received his PhD and Venia Legendi in Computer Science. His research interests are focused on understanding the human perceptual, cognitive, and motor abilities and limitations to improve interactions and experiences in computer-mediated realities. He received the IEEE VGTC Virtual Reality Technical Achievement Award in 2023 for his scientific contributions and was inducted into the prestigious IEEE VR Academy.

**Julia Nantke** is an assistant professor for Modern Literature with a focus on Digital Humanities at the Department of Language, Literature, Media 1 at Hamburg University. Before her current position she worked as a postdoc researcher at the research training group document, text, editing at the University of Wuppertal. She studied Modern Literature, Modern History, Communications and Scholarly Editing at Freie Universität Berlin and received her PhD at the University of Wuppertal in 2016. Her research interests are Computational Literary Studies, Digital Humanities, (digital) scholarly editing, mediality and materiality of literature.