

Filling in the gaps on the map of Medieval and Early Modern European alabaster distribution by interdisciplinary approach

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Alabaster deposits are well distributed around Europe. Its main deposits, with first documented uses in the 12th-13th century, are in England (East Midlands), Spain (Aragon, Catalonia), Italy (Aosta, Tuscany, Sicily), France (Jura, Lorraine, Provence, Dauphiné), Germany (Harz, Franconia, Hesse), and Ukraine (the Dniester region). Nevertheless, there are many regions of the continent, which do not dispose of local material, causing a necessity of import. While some quarries, e.g. those of the Midlands, have established themselves as leading centres of exportation of the material since the late Middle Ages, others seem to have more regional or local range.

Despite of the recent wave of interdisciplinary and international alabaster research, the map of alabaster deposits and routes connecting them to artistic centres is still incomplete. This is also true for our understanding of the logistics and economics of alabaster spreading, which is very selective. Consequently, in many cases the motivations of commissioners to import a particular sort of alabaster for their artistic undertakings remain unclear. The singularly well studied cases (e.g. the application of alabaster in the mausoleum commissioned by Margaret of Austria in Brou) demonstrate that looking through the lens of material provenance can provide invaluable clues for the interpretation of an artwork.

The ongoing DFG-ANR-funded research project Materi-A-Net (<https://materi-a-net.uni-koeln.de>), building upon a decade of earlier research of the participating institutions, aims at filling in the gaps on the map of alabaster distribution in the pre-modern times through combination of the methods of art history, history, geochemistry and digital data analysis. Its focus lies on the exchange of the material between Germany and France, embedded in the pan-European network of artistic, economic and political connections.

A central role in the project is played by the integration of extensive metadata gathered through geochemical analysis, art historical assessment and the study of historical sources into a database making it possible to evaluate the manifold relationships between artworks, actors, quarries, and materials.

We will outline this interdisciplinary approach and demonstrate it in more detail for the case studies of the alabaster from Lorraine, Franconia and Ukraine. Next to the presentation of new

archival findings and results of isotopic fingerprinting, an attempt to fill through data modelling and visualisation will be demonstrated for discussion.

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CVs (max 500 signs)

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Wolfram Kloppmann (PhD in isotope hydrogeochemistry, University of Paris XI; habilitation HDR, University of Orléans) is project manager and scientific expert at the French National Geological Survey, BRGM. Most of his research involves the use of environmental isotopes on groundwater and gases, water-rock interactions, water pollutants, paleohydrology. A particular research focus is currently on traceability of geomaterials in cultural heritage and of critical raw materials. Coordinator of the French part of the Materi-A-Net project.

Arthur Acker obtained his MA in history at the Sorbonne Université. Currently he is a research associate in the Materi-A-Net project at the University of Cologne. His PhD project (co-tutelle of University of Cologne, BRGM and EHESS) focusses on the alabaster deposits in Lorraine as an actor in the cultural transfer between German and French courts in the Early Modern Era.

Tobias Mercer completed training as an IT specialist and subsequently studied Comparative Religious Sciences & Ancient American Studies/Ethnology (B.A.) at the Rheinische Friedrich-Wilhelms-Universität Bonn. Since 2016, he has been involved in various digital humanities projects including the collection coordination at the University of Bonn, where he was responsible for the support and development of the collection databases. Currently he is a research associate at CCEH as a member of research team pf Materi-A-Net.

Uliana Naumeko, PhD of Science in Earth Sciences at Institute of Geological Sciences of the National Academy of Sciences of Ukraine, Kyiv, where she is since 2014 Senior Researcher in the Department of Mineral Geology. Her research focuses on mineral resources, notably on the Ukrainian amber-succinite deposits, archaeological findings and historical amber trade routes. Funded by the French ANR PAUSE-Ukraine programme, she leads, within the Materi-A-Net project the research on Ukrainian alabaster and its use.

Jonathan Blumtritt studied Modern History, Economic and Social History as well as Computer Science at the Friedrich Schiller University in Jena and the Rheinische Friedrich Wilhelms University in Bonn. From 2011 forward he has been part of various Digital Humanities projects at the Cologne Center for eHumanities (CCEH). Since October 2019, he is part of the management team at the CCEH. His interests include research data management, large digital infrastructure projects, and information systems in the humanities.

Lise Leroux Graduate of the Institut National Agronomique Paris-Grignon. Since 2001 research engineer, geologist and conservation scientist at the Stone department of Laboratoire de Recherche des Monuments Historiques (UAR 3224 - LRMH - CRC, MNHN, CNRS, MCC). Her focus lies on the identification of stones used in buildings and sculpture, involving knowledge on historical quarries and the circulation of materials. She participates in national and international research programs, in particular on the origin of gypsum alabaster used for medieval and Renaissance sculpture.

Sophie Jugie trained at the École Nationale des Chartes, the École du Louvre and the Institut National du Patrimoine. Director of the Department of Sculptures of the Musée du Louvre since 2014, in charge of the collection of French and Northern European sculpture, 15th-16th centuries. She works on French and Burgundian 15th-century sculpture, and is leading for the Louvre Museum a research program on 14th-16th century alabaster in France,. She organized with the M Museum in Leuven a colloquium and an exhibition in 2022 on the latest research on this material in Europe.