

# Research Data and Research Software at the German Center for Art History Paris

Guidelines

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The German Center for Art History Paris (DFK Paris) is an independent art historical research institute. Situated in the international art metropolis of Paris, it primarily considers itself a forum and venue for international art historical exchange.

Together with its partner institutions spread throughout the world, the DFK Paris is part of the Max Weber Foundation—Foundation of German Humanities Institutes Abroad (DGIA), a public law foundation under the authority of the German federal government.

At the fore of the DFK Paris's work is research. The other pillars of its work—research funding, scholarly communication, Digital Humanities, and its library—are all directly connected to research. Research is conducted in part by scholars who hold permanent positions and scholars involved in third-party projects working at the center. It is also carried out, however, by guest scholars as well as by young scholars, whose research at the DFK Paris is funded either by a grant from the center or by a third party.

Since 2014, the use of digital methods in art historical research as well as the research and development of specialized software to meet the needs of digital art history has been advanced at the DFK Paris with the creation of a separate service unit. Beginning in 2017, data from DFK Paris research projects and software development products have been introduced and made accessible on a designated page on the center's website. Parallel to this, a publicly available repository containing data and software from the DFK Paris has been created on Github. The DFK Paris is committed to the transparent and sustainable handling of research data and software developments in accordance with the FAIR data principles. With the guidelines presented here, the DFK Paris has consolidated these activities and created a navigational tool for the further development of its offerings to researchers at the center.

## Scope

The DFK Paris considers research data to be all digital data that is collected, used, processed, and analyzed for the purpose of a research project. Accordingly, research data is considered not only as the data that is published in direct connection with the



presentation of the results in the form of a publication but also as preparatory material collections, measurement data, and intermediate results. All this data can help elucidate the research process and, moreover, can serve as the basis for further research. As artworks are lost and destroyed over time, digital documentation and digital reproductions are often the only remaining testaments to the originals. By research software, the DFK Paris refers to software that carries out specific tasks related to the collection, recording, management, analysis, and presentation of data in the research process; this can include software packages, individual libraries, and plugins.

#### Research Data

Within the field of art historical research, the entirety of research data must be subdivided into digital representations of cultural artifacts, on the one hand, and processual data, on the other.

Digital representations of cultural artifacts are to be understood as all digitized objects of art historic research. These are often two-dimensional image data of artworks but can also be documentary photographs, elevation drawings, and digitized archival material. The handling of digitized cultural artifacts and archival material poses particular legal and ethical demands. Each time image data is used, saved, and made available for public use, any rights of use and copyrights must first be reviewed and personal data must be deleted. If necessary, questions regarding the provenience of the digitized objects as well as their digital reproduction must also be resolved.

Processual data is to be understood as the final and intermediate results of scholarly processing. This includes, among other things, databases, diagrams, annotations, data modelling, and digital reconstructions; for many of these, best practices have been developed in other domains and could be applied here. The task of developing common standards and approaches, however, will to some extent also be taken on in the coming years.

#### **Research Software**

Research software is an elementary component of the research practice. Along with generic software such as programs for word processing, the creation of bibliographies, and for image editing, special programs for data collection, management, and analysis are being introduced more and more in art historical research. On a case-by-case basis, they each require a specific modelling of the examination and consequently have a deep impact on the research. In order for the research to be reproducible, it is necessary for the research software to be documented to the same extent as the research data and made publicly available. Therefore, in addition to the development of exclusively open-source software, the documentation and observance of standards and conventions of research software engineering must be taken into account. In this context, the long-term availability of the program code is a challenge that has yet to be overcome in the sciences as a whole.



## **FAIR Data Principles**

The FAIR data principles describe requirements and measures designed to make research data and research software findable, accessible, interoperable, and reusable. Accordingly, requirements for metadata, data formats, authority data, documentation, licenses, and repositories are all recorded equally.

The FAIR data principles are followed in Germany and in the host country of the DFK Paris on a national level by the leading research infrastructures and bodies for self-organization of research. At the same time, the principles are compatible with the advancement of open sciences and open access as implemented by the German Research Foundation (DFG), with its guidelines in Germany, and the Agence Nationale de la Research (ANR) in France. Further, they also are in line with the commitment anchored in the Max Weber Foundation's policy on open access. On the international level, the FAIR data principles are advocated by the European Union and accordingly are used as selection criteria for their own funding lines.

# Implementation at the DFK Paris

#### **Research Data**

The DFK Paris supports scholars conducting their research at the DFK Paris as employees, with the support of a grant, during a guest research visit, or in cooperation with the DFK Paris in the publication of their research data in accordance with the FAIR data principles. To this end, the DFK Paris offers the following means of support:

- guidance in the development and updating of a data management plan;
- guidance and support in the content-related description of the research data with metadata and the enrichment of data and metadata with authority data and relevant thesauri;
- guidance and support in the licensing of the data (this does not include obtaining rights of use or copyright permission)
- accessibility of research data via the DFK Paris website insofar as they originated in the described context and were published in accordance with the FAIR data principles
- findability of the published research data in the common library catalogs of the German independent art historical research institute kubikat (this offering is currently in development);
- in collaboration with the specialized information service for art arthistoricum.net, the ability to publish publication-related data into the research data repository of the arthistoricum.net;
- guidance in finding further thematically relevant repositories in Germany and the host country.



#### **Research Software**

The DFK Paris supports scholars who have developed software at the DFK Paris as employees, with the support of a grant, during a guest research visit, or in collaboration with the DFK Paris in the publication of the software and improving its visibility. For this purpose, the DFK Paris offers the following means of support:

- guidance in finding thematically relevant software repositories in Germany and the host country;
- guidance and support in the content-related description of the software with metadata and in licensing (this does not include obtaining rights of use or copyright permission);
- accessibility of research software via the DFK Paris website insofar as it originated in the described context and was published in accordance with the FAIR data principles.