

# Raubkunst: Linking artworks, artists and owners

JDCRP

JEWISH DIGITAL CULTURAL RECOVERY PROJECT

From 1933 to 1945, the Nazis, their allies, and collaborators conducted a sweeping campaign of cultural plunder. They robbed European Jews of their cultural assets in an attempt to eradicate Jewish identity, history, and culture. The abundant documentation that exists is scattered in archives around the world, only partially digitized, and seldom searchable at the document level. **Digital and cross-searchable access** to these archives would help Holocaust victims trace the fate of family possessions, while allowing provenance researchers, archivists, historians, and educators to locate stolen items and write a more complete history of this vast crime.

Detailed statistics on the scope of this looting during World War II that are lacking can be gathered by analyzing the documentation compiled by Allied Forces after the war, who recovered some of the property and brought the objects to various so-called Collecting Points in Germany, where the cultural plunder was documented on **registry cards and inventory lists**. Much of this information was scanned by the U.S. National Archives and the Bundesarchiv after collection by the Monuments Men unit of the U.S. Army. Most of the documentation collected by **Allies Forces** after the war is not in searchable form at the document level, except for some limited search functions of the 65,573 property cards from the Munich Central Collecting Point (MCCP). These cards are part of an online database originally hosted by the [German Historical Museum Berlin](#) and are in the process of being transferred to the Kunstverwaltung des Bundes ([KVDB – Provenienzdatenbank.Bund](#)). Of particular interest for researchers are, for instance, the 6,673 cards from the smaller Wiesbaden Collecting Point, which include Jewish ceremonial objects as well as art. Making these cards **searchable** could significantly improve search efforts in provenance research and help former owners trace their looted objects. As these cards hold detailed information not only about the cultural objects themselves but also about their owners and provenance prior to and after the looting, as well as the circumstances of their loss, they are an essential starting point for researchers.

## Technical Work

The project aims to design a **data linking and matching web-application** for the Jewish Digital Cultural Recovery Project (JDCRP). The application's users are experts from the JDCRP who want to use their knowledge of the source data to add value to the dataset. The application must function as a back-end to a front-end, providing the enriched and linked data via an endpoint.

CLASSIFICATION Painting	PROPERTY CARD-ART SUBJECT Rest on the flight	NO. WIS 6/2
AUTHOR Kocher, Albert		PRESUMED OWNER Städt. Museum Berlin
MEASUREMENTS 0.7 by 0.20 m	MATERIAL Oil on panel	INV. NO. 638 B
WEIGHT	ARRIVAL CONDITION Fair - unaltered	CAT. NO.
DEPOSIT POSSESSOR		
DEPOSIT NO. 1000000	DESCRIPTION Ein kleines, quadratisches Gemälde mit dem Titel „Ruhe auf der Flucht“. Das Gemälde zeigt eine Frau, die auf dem Boden liegt und eine kleine Figur in den Armen hält. Die Szene ist in einem dunklen, schattigen Raum dargestellt. Die Farben sind gedämpft und die Komposition ist einfach.	PHOTO
IDENTIFYING MARKS		FOR OFFICE USE SERIAL NO. OTHER PHOTOS NEG. NO. 101E 239
BIBLIOGRAPHY		MOVEMENTS In Wiesbaden, 1945 In Frankfurt, 1945

HISTORY AND OWNERSHIP: Deposited in Wiesbaden (MCCP) or Wiesbaden in March 1945 Received in Frankfurt April-May 1945 Received GCP from Frankfurt.	
CONDITION AND REPAIR RECORD: 4 old, long vertical cracks that have been restored.	
LOCATION Washington	COPIES OF CARD FORWARDED: 18
	ARRIVAL DATE Aug-Sept 45
	EXIT DATE c.0 Nov 45

Before the start of the project, a dataset will be created based on the property cards from Wiesbaden Central Collecting Point. Using OCR, the contents of the property cards will be made **machine-readable** as either structured data, such as JSON, or as a dedicated structured metadata format, such as Dublin Core. This will be done using modern OCR tools, such as Google Document AI or other proprietary packages to ensure accurate results.

Once the system is able to **ingest data and link to vocabularies and datasets**, a front-end system must be able to query the system via the endpoint. Such queries might focus on different entities, such as people, artworks, or events.

- Design requirements
  - An authorized user must be able to semi-automatically upload/ingest datasets in various formats and link them to vocabularies/thesauri and add other enrichments and automatic translations. The initial dataset includes the mentioned property cards.
  - These links and connections shall be stored as RDF triples in a knowledge graph, graph database, or triple-store installation.
  - The resulting artwork metadata must be exposed via an endpoint.
  - Users should be able to make changes to the model, which are then reflected at the endpoint.
- Technology
  - The work should result in a pipeline for metadata that users can securely access in order to configure the system and add vocabularies (e.g., Linked Art Data Model) or enrichments to data fields, such as adding language tags.
  - To facilitate the platform, an installation of a knowledge graph, graph database, or triple-store is required. Additionally, a basic relational database is likely to be needed.
  - The resulting implementation should include unit and integration tests, and adhere to a language-specific style guide such as [PEP](#).
  - The students will contribute to a joint open-source codebase using a modern version control system, such as GIT or Mercurial.
  - The application should be deployable on a Linux-based server architecture.
- Visualization
  - Based on the configuration of the linked data, it shall be visualized appropriately (graph-structure and art-content) in the frontend.
- Possible envisioned tech stacks are:
  - Java/Kotlin, Hibernate, Guice, Mockito, MongoDB, rdf4j-storage, Ansible, Maven, Tomcat, Ubuntu Server
  - Python, PipEnv, Flask, Mockito, MongoDB, RDFLib, NGINX, Ubuntu Server

## Project Partners

The Jewish Digital Cultural Recovery Project (<https://jdcrcp.org/>) Foundation was established in 2019 as an international coordination hub for archival information on Jewish-owned cultural objects looted during the Nazi era. JDCRP's goal is the creation of a cross-searchable digital platform for archival documentation, research, and educational material on the widespread plunder by the Nazis and their allies of Jewish-owned artworks and objects of cultural heritage. This platform will provide a comprehensive record of the theft of Jewish cultural property across Europe between 1933 and 1945.

For the project, the JDCRP will connect with a number of relevant regional archives, such as the Brandenburgisches Landeshauptarchiv. Ideally, each student will be responsible for a dataset and the respective data format coming from the archives.